The National Wildfire Coordinating Group (NWCG) provides national leadership to enable interoperable wildland fire operations among federal, state, tribal, territorial, and local partners. NWCG operations standards are interagency by design; they are developed with the intent of universal adoption by the member agencies. However, the decision to adopt and utilize them is made independently by the individual member agencies and communicated through their respective directives systems.
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Introduction

The October 2018 Field Manager’s Course Guide (FMCG), PMS 901-1 supersedes previous versions of the Guide as well as the information set forth within the course instructor guides. Updates to the FMCG will be incorporated as NWCG training course materials are revised, and the courses will reflect the information in this Guide as well. Appendix A (https://www.nwcg.gov/publications/901-1) is an Errata Sheet listing each modification to inform field users of the specific changes and the effective date.

NWCG Training Program Position on Course Presentation and Materials

All course instructors and coordinators are encouraged to use the most current versions of NWCG courses (the year the course was certified is listed on each course page). Old versions may only be taught for six months after a new version is available for order.

NWCG does not approve of course delivery varying greatly from the recommended course hours. Instructors and students are cautioned that in order to be recognized as an NWCG certified course, certain guidelines must be followed:

- Lead Instructors are encouraged to enhance course materials to reflect the conditions, resources, and policies of the local unit and area as long as the objectives of the course and each unit are not compromised.
- Exercises can be modified to reflect local fuel types, resources, and conditions where the student will be likely to fill incident assignments. The objectives and intent of the exercises must remain intact.
- Test questions may be added that reflect any local information that may have been added to the course. However, test questions in the certified course materials should not be deleted to ensure the accurate testing of course and unit objectives.
- Test grades, to determine successful completion of the course, shall be based only on the questions in the certified course materials.

If lead instructors feel that any course materials are inaccurate, that information should be submitted either via the online feedback form (https://www.nwcg.gov/course-evaluation-feedback) or an email to NWCG Training at BLM_FA_NWCG_Training@blm.gov. Materials submitted will be evaluated and, where and when appropriate, incorporated into courses.

Course Length for NWCG Courses

The recommended hours listed in the FMCG are developed by subject matter experts (SMEs) based on their estimation of the time required to present all material needed to adequately meet course objectives. The hours listed may vary slightly due to factors such as number of students, types and complexity of course activities, and the addition of local materials.

Course hours for all NWCG courses can be found in this Guide. If the hours are a minimum versus recommended they will be stated as such. Recommended course hours and the NWCG Training Program Position on Course Presentation and Materials above will be adhered to by the course instructors.

- Unit times represent the allotted time to teach the unit and complete the exercises, simulations, and tests.
- Recommended course hours are given to help the students and the course coordinator plan travel, room reservations, and facilities usage. This represents the time estimated to present the NWCG-
-provided materials, including time for breaks, lunch periods, and set up for field exercises or simulations, etc.

• If the course is criteria-based, e.g., L-380, and has been developed using NWCG course criteria, minimum course hour requirements have been established and must be adhered to by the course developer and course instructors.

Course Prerequisites

The intent of course prerequisites is to ensure a common standard of knowledge and experience is held by all students. Course Prerequisites are listed for each course within the FMCG. It is recognized that exceptions to the course prerequisites may be necessary to meet specific agency requirements. It is the responsibility of the nominee's supervisor to request and document the exception for consideration on the nomination form prior to submittal. These exceptions will be managed on a case-by-case basis.

Establishing a Course as a Prerequisite for Another Course

To establish a course as a required prerequisite for another course, the proposed prerequisite course must be in direct support of an NWCG incident management qualification and be identified in the NIMS: Wildland Fire Qualification System Guide, PMS 310-1, as a required course. Exceptions will be made on a case-by-case basis by the NWCG Operations and Training Committee (https://www.nwcg.gov/committees/operations-and-training-committee/roster).

Establishing Required Training for Technical Specialist Positions

NWCG does not establish required training for technical specialist (THSP) positions; required training for THSP positions is an agency-specific determination. However, if all federal wildland fire agencies support the addition of a specific course as required training for a THSP position, the required training will be entered under the NWCG SetID in IQCS.

NWCG Course Equivalency Guidelines

An equivalent course is determined by agency-identified evaluators (at the national/state level) to be equal to a NWCG-approved course. Awarding course equivalency is an agency-specific responsibility. Only agencies have the authority to certify that their employees meet NWCG training requirements when alternative course offerings are used. Individual agencies will set guidelines for equivalency determination and may grant credit for courses they deem equivalent.

Courses being reviewed for equivalency must have:

• A reason the alternative course was used or developed;
• Benefits gained by awarding course equivalency include:
  o cost savings
  o broadened target audience
  o enhanced learning experience for students

The agency seeking course equivalency should conduct a detailed analysis and document their findings according to agency policy.

When conducting this analysis, the following guidelines apply:

• All learning and performance objectives of NWCG course are met or exceeded in the equivalent course;
• The same minimum instructor qualifications required for the NWCG course apply to the equivalent course;
• Course prerequisites have not been altered;
• The equivalent course does not conflict or contradict established NWCG guidelines or standards; and
• The equivalent course is not numbered using the NWCG course numbering system.

A new analysis must be completed when the equivalent NWCG course is revised to ensure course equivalency continues.

**FEMA National Incident Management System (NIMS) Training**

NWCG recognizes the following FEMA NIMS courses:

- ICS-100 (IS100), Introduction to ICS
- ICS-200 (IS200.b), Basic ICS
- ICS-300 (G/E/L300), Intermediate ICS
- ICS-400 (G/E/L400), Advanced ICS
- IS-700, NIMS: An Introduction
- IS-800, NFR: An Introduction
- E/L950, Incident Commander (NWCG requires S-300 prior to attending this course)
- E/L952, Public Information Officer (NWCG requires S-203 prior to attending this course)
- E/L956, Liaison Officer
- E/L964, Situation Unit Leader
- E/L965, Resources Unit Leader
- E/L967, Logistics Section Chief
- E/L970, Supply Unit Leader
- E/L973, Finance/Administration Section Chief
- E/L975, Finance/Administration Unit Leaders

Additional information on the use of the FEMA NIMS Training Program can be found at [https://www.nwcg.gov/fema-nims-training](https://www.nwcg.gov/fema-nims-training).

**Course Level Descriptions**

The NWCG Training Development Program will assign each course an appropriate letter and number code relative to the subject area and the complexity/organizational level of instruction. Assignments are based on the formula listed below, the analysis of the project development team, the target group, the recommendations from the project leader, and input from other NWCG entities that may be involved.

The first digit of a course number designates the complexity level at which the course is designed to be presented and also indicates the organizational level at which the course should be given.

- 100 – 200 – Entry-Level: Local Level Skills Development
- 300 – 400 – Mid-Level: Regional, State or Geographic Area Level Management Skills
- 500 – 600 – Advanced: National Level Management Skills

Current exceptions to the established course numbering protocol include the following courses:

- RT-373, Unmanned Aircraft Systems (UAS) Incident Operations Refresher
- S-341, GIS Specialist for Incident Management
- S-373, Unmanned Aircraft Systems (UAS) Incident Operations
- S-495, Geospatial Fire Analysis, Interpretation, and Application
- M-581, Fire Program Management
NWCG Instructor Certification

A qualified instructor means the instructor meets the position currency requirements as described in the NIMS: Wildland Fire Qualification System Guide, PMS 310-1. Instructors are not required to meet Work Capacity Test (WCT) and RT-130, Annual Fireline Safety Refresher, requirements to be considered qualified. Certification of instructor qualifications is the responsibility of the employing agency. See table on page 5 and refer to courses within this Guide for specific instructor requirements.

The NWCG has established the following general instructor requirements and levels:

- **300 – 600 Level**
  - Lead instructors oversee presentation of the entire course and assure course objectives are met in accordance with the criteria of the current FMCG and/or Course Introduction. The lead instructor must meet the certification criteria listed in the table below. They should have sufficient experience in presenting all units of the course to be capable of last-minute substitution for unit instructors. It is recognized that exceptions may occur where courses are of such a technical nature that no one person may be technically competent to instruct all units.
  - Unit instructors are responsible for successful presentations of one or more units and should be experienced in the lesson content they are presenting.
  - Adjunct instructors may be utilized to provide limited instruction in specialized knowledge and skills at the discretion of the lead Instructor. They must be experienced, proficient, and knowledgeable of current issues in their field of expertise.

**Instructor Criteria for 100 – 200 Level Courses**

All 100 and 200 level instructors must meet one of the following criteria:

- Qualified and current (minus the WCT and RT-130) in any required positions identified as an instructor prerequisite for the course description in the NWCG FMCG, OR
- Written approval by course coordinator to instruct a specific unit or technical portions of a unit or units.

100 level instructors: No additional instructor training requirements beyond those set forth in the FMCG for each particular course.

200 level instructors: Lead instructors are required to meet both Unit Instructor – Teaching Skills and Lead instructor – Teaching Skills portion of Instructor Criteria for 300 – 600 Level NWCG Courses. See attached table.

Unit instructors should have 32 hours of acceptable formal instructional training (e.g., state fire training certificate, college teacher’s credential, college education courses, or M-410, Facilitative Instructor).
### Instructor Criteria for 300 – 600 Level NWCG Courses

Certification is based on ability to meet one standard in each column.

<table>
<thead>
<tr>
<th>Instructor Level</th>
<th>Teaching Skill</th>
<th>Course Content Knowledge</th>
<th>Practical Application</th>
<th>Ethics Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adjunct Instructor</strong></td>
<td>None</td>
<td>Known or demonstrated expertise on one or more subjects associated with the course</td>
<td>Subject matter expert on course related materials</td>
<td>As required by agency</td>
</tr>
<tr>
<td>(per FMCG)</td>
<td></td>
<td></td>
<td>OR Demonstrated course related technical expertise</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OR Published subject related article or paper in previous 5 years</td>
<td></td>
</tr>
<tr>
<td><strong>Unit Instructor</strong></td>
<td>Accepted formal instructional training (e.g., state fire training certificate,</td>
<td>Successful completion or audit of course being taught</td>
<td>Qualified and current (minus WCT and RT-130) as required in the course page FMCG</td>
<td>As required by agency</td>
</tr>
<tr>
<td></td>
<td>college teacher’s credential, college education courses, or M-410, Facilitative</td>
<td>OR Successfully assisted in instructing the course</td>
<td>OR Qualified and current (<em>minus WCT and Refresher</em>) one level above that identified in the course outline of FMCG</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instructor)</td>
<td>OR 40 hours of successful fire service instruction</td>
<td>OR Successfully completed Train-the-Trainer course (if applicable) and successfully taught the course in the past 5 years as determined by the Course Coordinator</td>
<td>OR Qualified as a Type 1 or 2 Command or General Staff position in the same functional area as the course being presented</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OR Meets the NIMS Training Program instructor criteria for specific course (supplemented by the NIMS ICS All-Hazards Position Specific Training Program: Administrative Guidelines)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>NOTE:</strong> Written approval of an NWCG member regional or state fire director can be substituted for currency requirement above.</td>
<td></td>
</tr>
<tr>
<td><strong>Lead Instructor</strong></td>
<td>Same as Unit Instructor AND 40 additional hours (80 total hours) of successful fire service instruction</td>
<td>Same as Unit Instructor</td>
<td>Same as Unit Instructor</td>
<td>As required by agency</td>
</tr>
</tbody>
</table>

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Decertification of Instructors
Instructor certification is a privilege, not a right. Whenever a questionable situation arises, the case will be reviewed by the appropriate course or training center coordinator (Reviewing Official). If it is determined that the individual instructor has performed poorly during one or more courses, the Reviewing Official can recommend to the Certifying Official who certified the individual as an instructor that their certification be withdrawn for a specific course, group of courses, or all courses. If the individual is a contractor, performance below those standards identified in a contract may be cause for nonpayment or voiding the contract and the Contracting Officer shall be consulted and be involved in the final disposition. Decertification shall remain in place until the problem has been remedied. Decertification should include removal from active instructor list(s) in IQCS.

Recertification of Instructors
The Certifying Official shall determine, in consultation with the Reviewing Official, the requirements to regain certification. Recertification is the responsibility of the Certifying Official or body managing the instructor’s certification.

Exceptions for Lead Instructor Qualifications
Exceptions to the lead instructor qualifications may be granted by the host agency(s) on a case-by-case basis. Instructors not currently qualified in the position(s) called for in the instructor criteria, but who hold a higher qualification in the same functional area, and have been certified in the position in the past, may be granted lead instructor status.

NWCG L-curriculum course instructors for L-380 and above are subject to the requirements and certification process identified on the NWCG L-curriculum courses webpage. Approved lead instructors are identified at https://www.nwcg.gov/committees/leadership-subcommittee/resources.

Testing Standards
The standard for passing an NWCG course is a score of at least 70 percent. The instructor guides will identify the evaluation criteria for each course. Some courses may use course components (pre-course tests, unit tests, class participation, or final exams) to aggregate the passing score. The passing score is based on the final exam unless otherwise stated.

Use of NWCG Certificates
Students successfully completing an NWCG course sponsored by an NWCG member agency will receive an NWCG certificate (list of member agencies at https://www.nwcg.gov).

Educational institutions, contractor associations, and non-member agencies may issue the NWCG course certificate if the lead instructor is an authorized representative of an NWCG member agency OR they have a formal agreement established with an NWCG member agency.

Training Record Retention
Records retention requirements differ by agency. Refer to agency policy on records retention for specific guidance. Individuals should retain copies of personal training records for their own documentation.

Course Components Chart Definitions
- Pre-selection assessment – An assessment that must be passed before admittance into the course.
• Pre-course work – Work that is accomplished before beginning the course.
• Online training – Required course materials that are delivered online.
• Instructor-led training (ILT) – Required course materials that are delivered by an instructor.
• Blended learning – Learning events that combine online and instructor led training.

Job Aids

Job Aids assist an individual in performing specific tasks associated with a position. They may be used by an individual in a trainee position, who has met all of the prerequisites, but has not completed the position taskbook for that position. After the individual has become qualified, the book can be used as an aid or refresher in doing the job.

The performance based-system stipulates that an individual must complete a position taskbook prior to becoming qualified for that position. Refer to the *NIMS: Wildland Fire Qualification System Guide*, PMS 310-1, for the established standards for each position.

The following NWCG job aids are available at https://www.nwcg.gov/publications/job-aids:

• J-158, Radio Operator (2002)
• J-236, Staging Area Manager (2013)
• J-252, Ordering Manager (2003)
• J-253, Receiving and Distribution Manager (2003)
• J-254, Base/Camp Manager (2004)
• J-257, Incident Communications Center Manager (2003)
• J-342, Documentation Unit Leader (2008)
Courses

D-110, Expanded Dispatch Recorder

2007 16 hours

Course Description
This course provides students with the skills to perform as an Expanded Dispatch Recorder (EDRC). Topics include the structure of the expanded dispatch organization, description of resource ordering and status process, and the importance of the EDRC having effective communication skills and working relationships. The final is a 4-hour, scenario-based exercise where students will complete resource order forms based on timed inputs and supplemental handouts. A Reference Guide at the end of Unit 3 contains reference documents for students to use during the course and when on assignment. The course gives a very general overview of Resource Ordering and Status System (ROSS) — it does not teach students how to use ROSS.

Objectives
• Describe the purpose and structure of expanded dispatch.
• Describe the role and responsibilities of the Expanded Dispatch Recorder.
• Demonstrate how to mobilize and demobilize incident resources using established dispatch ordering channels and resource order forms.
• Describe how to communicate effectively and foster positive interpersonal working relationships.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  16
Total Hours  16

Target Group
Individuals who have no previous training or experience in the dispatch function and who will be called on as needed to assist in the expanded dispatch organization.

Minimum Instructor Qualifications
Lead instructor must be a qualified Expanded Dispatch Support Dispatcher (EDSD).
Unit instructors must be qualified as Expanded Dispatch Recorder (EDRC).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Local
D-310, Expanded Dispatch Support Dispatcher

2016 38-42 hours

Course Description
This course is designed to prepare students to accomplish the duties and responsibilities of an Expanded Dispatch Support Dispatcher (EDSD). Through hands-on exercises that utilize the Resource Ordering and Status System (ROSS), students will organize, plan, and implement a dispatch area to meet the needs of the incident(s); follow established policies and procedures using resource orders and supplemental forms, to mobilize, reassign, and demobilize resources; and demonstrate the ability to respond to changing priorities and situations.

Objectives
• Plan, organize, and implement a functional area to meet the needs of the incident.
• Demonstrate the ability to interact with other functional areas in an incident support organization.
• Follow set established policies and procedures, utilize resource orders and supplemental forms to mobilize, reassign, and demobilize resources.
• Demonstrate the ability to respond to changing priorities and situations within a functional area.

Course Components and Hours to Complete
Pre-selection assessment  5-6
Pre-course work  1-2
Online training  N/A
Instructor-led training  32-34
Total Hours  38-42

Target Group
Personnel desiring to be qualified as Expanded Dispatch Support Dispatcher (EDSD).

Minimum Instructor Qualifications
Lead instructor must be a qualified Initial Attack Dispatcher (IADP) or Expanded Dispatch Supervisory Dispatcher (EDSP).

Unit instructors must be qualified as Expanded Dispatch Support Dispatcher (EDSD).

See Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as an Expanded Dispatch Recorder (EDRC).

Satisfactory completion of pre-course work and pre-selection assessment.

Course Level
Regional, state or area
D-311, Initial Attack Dispatcher

2005  32 hours

Course Description
This course is designed to provide a consistent knowledge and skill base for the Initial Attack Dispatcher (IADP). The concepts taught in this course will help an IADP perform at an acceptable level on a national basis without regard to geographic boundaries. The course is a mix of lecture/discussion, group exercises, and simulation. Students will have the opportunity to practice new skills in the exercise and simulation portions of the class.

Objectives
- Dispatch multiple resources to an incident using standard procedures.
- Identify the common roles of an IADP in the initial attack dispatch environment.
- Practice multitasking and prioritizing actions in a realistic situation.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

Target Group
Initial Attack Dispatchers desiring to be available for national mobilization (across geographic area boundaries).

Minimum Instructor Qualifications
The lead instructor must be either an assistant center manager with initial attack experience or an Expanded Dispatch Supervisory Dispatcher (EDSP) with initial attack experience.

Unit instructors must be qualified as Initial Attack Dispatcher (IADP).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Successful completion of Basic Firefighter (S-130) and Introduction to Wildland Fire Behavior (S-190).

Qualified as Expanded Dispatch Recorder (EDRC).

Course Level
Regional, state, or area
Course Description
This course is designed to provide a consistent knowledge and skill base for the Aircraft Dispatcher (ACDP). The concepts taught in this course will help an ACDP perform at an acceptable level on a national basis without regard to geographic boundaries. This course is a mix of lecture, discussion, group exercises, and simulation. Students will have the opportunity to practice new skills in the exercise and simulation portions of the class.

Objectives
The objective of D-312 is to provide students with the knowledge and skills needed to become effective ACDP trainees. In achieving this objective, students can expect to be able to:

- Identify the common roles of the Aircraft Dispatcher in the aviation environment.
- Dispatch aviation resources using standard procedures.
- Describe the safety procedures that relate to aircraft dispatching.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work 2-4
Online training N/A
Instructor-led training 32-36
Total Hours 34-40

Target Group
Aircraft Dispatchers desiring to be available for national mobilization.

Minimum Instructor Qualifications
The lead instructor must be either an assistant center manager with initial attack experience or an Expanded Dispatch Supervisory Dispatcher (EDSP) with aircraft experience.

Unit instructors must be qualified as Aircraft Dispatcher (ACDP).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Expanded Dispatch Recorder (EDRC).

Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
D-510, Expanded Dispatch Supervisory Dispatcher
NAFRI (currently offered every other year on the even years) 72 hours

Course Description
This course is designed to train individuals in the function and responsibilities of a Supervisory Dispatcher within an Incident Support Organization. Students selected for this course must be capable of performing as an Expanded Dispatch Support Dispatcher in all functional areas of an expanded dispatch organization. The course will provide trainees with a working knowledge of the necessary management skills and operational procedures for successful performance as a Supervisory Dispatcher. The course is intended to be an interactive experience, requiring students to interact with the materials, the faculty, and fellow students. The course consists of a 40-hour pre-course test, discussions, exercises and final exam. It is designed to take 32 hours to present. Class size is limited to 40 students. For current course information, refer to the NAFRI website at https://www.nafri.gov.

Objectives
Given an incident situation, a briefing from the appropriate agency management entity, and incident objectives, students will be able to:

- Develop and manage an effective organization to meet present and future needs of an incident.
- Utilize available information to establish expanded dispatch priorities in consultation with the appropriate agency management entity.

Course Components and Hours to Complete
Pre-selection assessment  40
Pre-course work N/A
Online training N/A
Instructor-led training  32
Total Hours  72

Target Group
Individuals who will be called upon to establish and supervise an expanded dispatch organization and who have met prerequisite training and experience at the Expanded Dispatch Support Dispatcher (EDSD) level.

Minimum Instructor Qualifications
Nationally recognized subject matter experts serve as instructors in this course.

Course Prerequisites
Qualified as Expanded Dispatch Support Dispatcher (EDSD). Recommend experience in all functional areas (overhead, crews, equipment, aircraft and supply).

Successfully complete a pre-course pass/fail assessment that takes approximately 40 hours to complete.

Success in D-510 will depend on the student’s ability in leadership and organizational knowledge as contained in the L-380, Fireline Leadership; ICS-300, Intermediate ICS; D-310, Expanded Dispatch Support Dispatcher; and agency-specific supervision courses. D-312, Aircraft Dispatcher, is highly recommended.

Course Level
National
FI-110, Wildland Fire Observations and Origin Scene Protection for First Responders

2005 6 hours

Course Description
The primary emphasis of this course is to teach sound wildland fire observations and origin scene protection practices that enable first responders to a wildland fire scene to perform proper origin scene protection procedures. The course is presented by short lectures, electronic presentations, exercises, and class discussion.

Objectives
• List various causes of wildland fires and their cause indicators.
• Perform the basic procedures and techniques needed to provide witness/observer information to fire investigators.
• Identify and protect wildland fire origin areas.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  6
Total Hours  6

Target Group
Recommended training for all first responders, including single resource boss, law enforcement officers, prevention technicians, and field resource personnel.

Minimum Instructor Qualifications
Cadre must have experience in wildland fire investigation.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Local
FI-210, Wildland Fire Origin and Cause Determination

2016 38 hours

Course Description
The primary purpose of this course is to provide a consistent knowledge and skill base for the Wildland Fire Investigator (INVF). The concepts taught in this course will help an INVF perform at an acceptable level on a national basis without regard to geographic boundaries. The course is presented by lectures, electronic presentations, field exercises, and class discussion.

Objectives
• Perform the common roles and responsibilities of an INVF involved in an initial investigation environment.
• Practice wildland fire investigation methods, evidence collection and documentation processes in a realistic environment.
• Identify the laws, regulations and related court procedures associated with administrative, civil and criminal litigation processes.
• Describe the fundamentals of investigation.
• Know the elements of professional code of ethics.

Course Components and Hours to Complete
Pre-selection assessment 1
Pre-course work 1
Online training N/A
Instructor-led training 36
Total Hours 38

Target Group
Recommended training for experienced fire personnel and law enforcement officers with wildland fire investigation responsibilities.

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Wildland Fire Investigator (INVF) and should have actual hands-on experience to teach participants the duties of this position without regard for the type of incident.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Recommend students have law enforcement or firefighter experience. An interactive, self-paced pre-course work will familiarize students with the background information necessary to successfully complete the course.

Satisfactory completion of pre-selection assessment.
Satisfactory completion of pre-course work.

Course Level
Local
FI-310, Wildland Fire Investigation: Case Development

2011 51 hours

Course Description
This course provides an introduction into the law enforcement case development of major wildland arson, including serial arson. Students are instructed in strategies and tactics to combat serial wildland arson and work in groups to develop a case plan and presentation based on an actual wildland arson case. Course includes extensive pre-course work reading, exercises, and a test.

Due to the sensitive nature of the materials in this course, the course is maintained by the Wildland Fire Investigation Subcommittee. See Roster for contact information at https://www.nwcg.gov/committees/wildland-fire-investigation-subcommittee.

Objectives
- Demonstrate a comprehensive knowledge of administrative and management functions related to the investigation of complex wildland fire cases.
- Given a case file, the student will use his or her knowledge of advanced investigation methodology to analyze the data and properly identify any strengths and weaknesses associated with the case; determine necessary follow-up actions; and make assignments based on the analysis.
- Review existing case file information and develop an investigative strategy that includes proper staffing and organizational structure; a written investigation plan; and an Incident Action Plan.
- Identify and apply specific investigative strategies and administrative functions associated with the management of a complex serial arson investigation team or task force.
- Prepare, collect, organize and disseminate all relevant investigative data.

Course Components and Hours to Complete
- Pre-selection assessment  2
- Pre-course work  13
- Online training  N/A
- Instructor-led training  36
- Total Hours  51

Target Group
Personnel desiring to be qualified as wildland fire investigation team members (INTM).

Minimum Instructor Qualifications
The lead and instructors must be qualified as wildland fire investigator (INVF) and have successfully completed FI-310, Wildland Fire Investigation: Case Development.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as wildland fire investigator (INVF).

Satisfactory completion of pre-selection assessment.

Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
G-131, Wildland Training (FFT1) for Structural Firefighters

9 hours

Course Description
This course is designed to provide wildland firefighting skills (Firefighter Type 1) to structural firefighters who meet NFPA 1001 for Structural Firefighter 2 or equivalency. It is not available as a pre-packaged course. Instructors are required to assemble the Materials Required for Course Presentation below and teach according to the Course Outline. In order to receive credit for passing the course, students are required to pass the final exam contained in the S-131 course materials.

Objectives
• Accurately use navigation tools and maps to identify location.
• Describe the size up elements in a fire situation.
• Identify position responsibilities and demonstrate the ability to apply principles of Operational Leadership found in the Incident Response Pocket Guide (IRPG), PMS 461.
• Demonstrate the ability to apply tactical decision-making procedures.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work       N/A
Online training       N/A
Instructor-led training 9
Total Hours           9

Target Group
Personnel who meet NFPA 1001 for Structural Firefighter Type 2, and are qualified as wildland Firefighter Type 2 (FFT2), desiring to be qualified as wildland Firefighter Type 1 (FFT1).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified Single Resource Boss.
Unit instructors must be qualified as Firefighter Type 1 (FFT1).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Structural firefighters who meet NFPA 1001 for Structural Firefighter Type 2 and are qualified as wildland Firefighter Type 2 (FFT2).

Course Level
Local

Materials Required for Course Presentation
• Basic Land Navigation, PMS 475, is available online at https://www.nwecg.gov/publications/475
• S-131, Firefighter Type 1 (NFES #2792)
<table>
<thead>
<tr>
<th>Unit</th>
<th>Title</th>
<th>Learning Objective</th>
<th>NWCG Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Course Introduction</td>
<td>1. Introduce course coordinator, instructors and students. &lt;br&gt; 2. Discuss course logistics. &lt;br&gt; 3. Provide a course overview. &lt;br&gt; 4. Discuss course expectations. &lt;br&gt; 5. Identify course reference materials. &lt;br&gt; 6. Discuss position responsibilities. &lt;br&gt;Note: In addition to presenting the information in the Course Introduction, instructors should explain where the G-131 course fits in the Gap course curriculum and the NWCG credentialing system.</td>
<td>S-131 Unit 0 &lt;br&gt;(.5 hours) &lt;br&gt;Oct 2016 version</td>
</tr>
<tr>
<td>1</td>
<td>Navigation Tools and Maps</td>
<td>1. Accurately use navigation tools and maps to identify location.</td>
<td>Basic Land Navigation (PMS 475) – self-study &lt;br&gt;(1 hr) &lt;br&gt;<a href="https://www.nwcg.gov/publications/475">https://www.nwcg.gov/publications/475</a></td>
</tr>
<tr>
<td>2</td>
<td>Position Responsibilities and Fireline References</td>
<td>1. Identify position responsibilities of Firefighter Type 1 (FFT1). &lt;br&gt;2. Demonstrate the ability to locate and apply standard wildland fire operating procedures found in the Incident Response Pocket Guide (IRPG) and other identified fireline references.</td>
<td>S-131 Unit 1 &lt;br&gt;(1 hr) &lt;br&gt;Oct 2016 version</td>
</tr>
<tr>
<td>3</td>
<td>Size up Considerations</td>
<td>1. Describe the size up elements in a fire situation. &lt;br&gt;2. Identify the four fuel groups and describe expected fire behavior in each. &lt;br&gt;3. Determine the tactics to be used after sizeup occurs.</td>
<td>S-231 Unit 3 &lt;br&gt;(1.5 hours) &lt;br&gt;May 2004 version</td>
</tr>
<tr>
<td>4</td>
<td>Decision-Making</td>
<td>1. Demonstrate the ability to apply the Risk Management Process in a changing environment. &lt;br&gt;2. Demonstrate the ability to assess resource capabilities. &lt;br&gt;3. Demonstrate the ability to develop tactical and logistical plans. &lt;br&gt;4. Demonstrate the ability to engage tactically through sand table exercises, locally based sand table exercises (STEX), do a staff ride, or do a paper based exercise of choice.</td>
<td>S-131 Unit 5 &lt;br&gt;(4 hours) &lt;br&gt;October 2016 version</td>
</tr>
</tbody>
</table>

Final Exam | S-131 Final Exam
G-231, Wildland Training (ENGB) for Structural Firefighters

42 hours

Course Description
This course is designed to provide wildland firefighting skills Engine Boss, Single Resource, to structural firefighter drivers, operators, engineers, or company officers who meet NFPA 1021 for Fire Officer 1 or equivalency. **It is not available as a pre-packaged course.** Instructors are required to assemble the Materials Required for Course Presentation below and teach according to the Course Outline. In order to receive credit for passing the course, students are required to pass the final exams contained in the S-230 course materials and the S-290 course materials (or S-290 online).

Objectives
At the completion of this course, structural fire officers will:

- Describe the characteristics of fuel, weather, and topography that influence wildland fire behavior.
- Describe the effect that fuels, weather, and topography have on wildland fire behavior, fireline tactics, and safety.
- Describe the causes of extreme fire behavior (long-range spotting, crowning, and fire whirls) that develop relative to fuels, weather, and/or topography.
- Describe Crew Boss responsibilities prior to and during mobilization, on the incident, and during demobilization.
- Identify the hazards and risks on various incidents and describe how to mitigate them.
- Describe tactics that are appropriate to wildland fire situations and procedures and implement them through the chain of command.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>42</td>
</tr>
</tbody>
</table>

Target Group
Structural firefighter drivers, operators, engineers or company officers who meet NFPA 1021 for Fire Officer 1, desiring to be qualified as Engine Boss, Single Resource (ENGB).

Minimum Instructor Qualifications
Lead and unit instructors must be a qualified Strike Team Leader Engine (STEN) or Task Force Leader (TFLD).

Unit instructors must be qualified as Engine Boss, Single Resource (ENGB).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Structural firefighter drivers, operators, engineers or company officers who meet NFPA 1021 for Fire Officer 1, are qualified as wildland Firefighter Type 1 (FFT1), and who have taken G-131.
Course Level
Local

Materials Required for Course Presentation
- S-230, Crew Boss (Single Resource) CD (NFES #002812)
- S-290, Intermediate Wildland Fire Behavior CD (NFES # 002892)
- Option: have students complete the online S-290 course accessible at https://onlinetraining.nwcg.gov/

*If completing S-290 online, total hours will be shortened to approximately 27 hours.

Course Outline
See below.
<table>
<thead>
<tr>
<th>Unit</th>
<th>Title</th>
<th>Learning Objective</th>
<th>NWCG Source</th>
</tr>
</thead>
</table>
| 1    | S-290 Intermediate Wildland Fire Behavior | At the completion of this course structural fire officers will:  
1. Describe the characteristics of fuel, weather, and topography that influence wildland fire behavior.  
2. Describe the effect that fuels, weather, and topography have on wildland fire behavior, fireline tactics, and safety.  
3. Describe the causes of extreme fire behavior (long-range spotting, crowning, and fire whirls) that develop relative to fuels, weather, and/or topography.  
*Note: In addition to presenting the information in the Course Introduction, instructors should explain where the G-231 course fits in the Gap course curriculum and the NWCG credentialing system.* | S-290 Units 1-12 (32 hours) Nov 2007 version |
| 2    | Mobilization | 1. Identify the readiness and special equipment items that are required for the Crew Boss.  
2. List eight pieces of information to request from dispatch prior to departure.  
3. Identify five key elements of information needed to complete a Passenger/Cargo manifest.  
4. Explain the importance of evaluating crew readiness and establishing crew organization.  
5. Provide examples of appropriate travel procedures and conduct. | S-230 Unit 2 (1 hr) Nov 2004 version |
3 Fireline Operations:  

Entrapment Avoidance  

1. Describe the role LCES has in the risk management process.
2. Describe a protocol for negotiating a perceived unsafe assignment.
3. Given a set of fireline conditions, identify valid trigger point(s).
4. Define levels of engagement.
5. Describe a procedure for recognizing escape routes and safety zones when engaging a fire.
6. Given a set fireline condition, estimate minimum safety zone size using the Missoula Fire Lab model.
7. Identify human factors that contribute to fireline decision errors.
8. Given a fire scenario, determine the appropriate level of engagement as conditions change.
<table>
<thead>
<tr>
<th></th>
<th>Fireline Operations: Safety and Tactics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Demonstrate the proper use of LCES in the fire environment in relation to the Crew Boss role.</td>
<td>S-230 Unit 4C</td>
</tr>
<tr>
<td>2.</td>
<td>Organize, plan, and describe the actions that are required when a crew is deployed for fireline suppression activities.</td>
<td>(4 hours)</td>
</tr>
<tr>
<td>4.</td>
<td>Describe safety precautions that should be addressed by the Crew Boss in downhill and indirect fireline construction.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Describe applicable methods to employ in fireline construction that will facilitate rehabilitation.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>List the items to check when inspecting a completed fireline.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>List crew procedures used in staging areas.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Describe Crew Boss responsibilities for accidents, injuries, and near misses.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Identify supply needs and explain the process for re-supplying a crew while on the fireline.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Demob</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Describe procedures for re-supply of fire-expended items.</td>
<td>S-230 Unit 6</td>
</tr>
<tr>
<td>2.</td>
<td>List the steps necessary for the demobilization of a crew from an incident.</td>
<td>(1 hr)</td>
</tr>
<tr>
<td>3.</td>
<td>List the key responsibilities of a Crew Boss prior to disassembly of crew at the initial mobilization point.</td>
<td>Nov 2004 version</td>
</tr>
</tbody>
</table>

Final Exam | S-230 & S-290 |
Final Exams |   |
G-330, Wildland Training (STEN) for Structural Firefighters

11.5 hours

Course Description
This course is designed to provide wildland firefighting skills (Strike Team Leader Engine) to experienced lieutenants, captains, or chief officers who meet NFPA 1021 for Fire Officer 2 or equivalent. **It is not available as a pre-packaged course.** Instructors are required to assemble the Materials Required for Course Presentation below and teach according to the Course Outline. In order to receive credit for passing the course, students are required to pass the final exams contained on the S-215 and S-330 CDs.

Objectives
At the completion of this course structural fire officers will:

- Demonstrate the ability to apply the Risk Management Process found in the *Incident Response Pocket Guide* (IRPG) to various incidents.
- Demonstrate the ability to apply appropriate tactics with assigned resources organized into strike teams or task forces.
- Describe how to safely and effectively operate in a wildland urban interface incident when performing structure triage using strategy and tactics unique to the wildland urban interface environment.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>11.5</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>11.5</td>
</tr>
</tbody>
</table>

Target Group
Structural firefighter lieutenants, captains, and chief officers, who meet NFPA 1021 for Fire Officer 2, desiring to be qualified as wildland Strike Team Leader, Engine (STEN).

Minimum Instructor Qualifications
Lead and unit instructors must be a qualified Division/Group Supervisor (DIVS).

Unit instructors must be qualified as Strike Team Leader, Engine (STEN) or Task Force Leader (TFLD).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Structural firefighter lieutenants, captains, and chief officers, who meet NFPA 1021 for Fire Officer 2, are qualified as wildland Engine Boss (ENGB), and who have taken G-131 and G-231.

Course Level
Local
Materials Required for Course Presentation

- S-215, Fire Operations in the Wildland Urban Interface CD (NFES #2441)
- S-330, Task Force/Strike Team Leader CD (NFES #2185)
<table>
<thead>
<tr>
<th>Course Outline</th>
<th>Unit</th>
<th>Title</th>
<th>Learning Objective</th>
<th>NWCG Source</th>
</tr>
</thead>
</table>
| 0              | Course Introduction |  | 1. Introduce course coordinator, instructors and students.  
2. Discuss course logistics.  
3. Provide a course overview.  
4. Discuss course expectations.  
5. Identify course reference materials.  
6. Discuss position responsibilities.  
7. Explain where the course fits in the Gap course curriculum and the NWCG credentialing system. | S-330 Unit 0 (.5 hours) Sept 2014 version |
| 1              | Tactical Engagement | Upon completion of this unit, students will be able to: | S-330 Unit 3 (7 hours) Sept 2014 version |
|                |                  | 1. Demonstrate the ability to receive and provide an operational briefing. | |
|                |                  | 2. Demonstrate the ability to manage assigned resources utilizing the *Incident Response Pocket Guide* Risk Management Process in the exercises. | |
|                |                  | 3. List the factors required to establish and maintain communications with adjoining forces, your supervisor, and assigned resources. | |
|                |                  | 4. Demonstrate the use of field reference guides during tactical decision-making exercises. | |
|                |                  | 5. Demonstrate the ability to modify the tactical plan. | |
|                |                  | 6. Demonstrate the ability to lead an after action review (AAR). | |
|                |                  | 7. List the responsibilities to complete at the end of engagement. | |
| 2              | Structure Triage | 1. List the four structure triage categories and the four items in the decision process. | S-131 Unit 1 (1 hr) Oct 2016 version |
|                |                  | 2. List five factors upon which to base structure triage decisions, and give three examples of each. | |
|                |                  | 3. List conditions that may indicate that a structure cannot be saved. | |
| 3              | Tactical Operations and Resource Use in the Interface | 1. Identify tactics employed in confronting a fire at a structure. | S-215 Unit 8 (1 hr) June 2013 version |
|                |                  | 2. List tactical uses of different resources at an interface incident. | |
|                |                  | 3. Given a firing operation in the interface, list methods used to protect structures. | |

Final Exams

S-215 & S-330

Final Exams
ICS-100, Introduction to ICS

On October 1, 2014, the NWCG version (I-100) of this course was removed from the NWCG Products Management System. In lieu of the NWCG course, NWCG recognizes the FEMA training course available through the Emergency Management Institute. Additional information on accessing FEMA courses and the FEMA NIMS Training Program can be found at [https://www.nwcg.gov/fema-nims-training](https://www.nwcg.gov/fema-nims-training).

**ICS-100 NWCG Minimum Instructor Qualifications**

There is no national instructor database for the ICS courses as there is for the all-hazards position specific courses. For classroom delivery, instructors must have successfully completed ICS-200 and must have incident experience.

See Instructor Certification at the beginning of this Guide.
ICS-200, Basic ICS: ICS for Single Resources and Initial Action Incidents

On October 1, 2014, the NWCG version (I-200) of this course was removed from the NWCG Products Management System. In lieu of the NWCG course, NWCG recognizes the FEMA training course available through the Emergency Management Institute. Additional information on accessing FEMA courses and the FEMA NIMS Training Program can be found at https://www.nwcg.gov/fema-nims-training.

ICS-200 NWCG Minimum Instructor Qualifications
There is no national instructor database for the ICS courses as there is for the all-hazards position specific courses. For classroom delivery, instructors must have successfully completed ICS-300, must have specialized knowledge and experience appropriate for the audience, and must be qualified at the Initial Attack Incident Commander (ICT4), Single Resource Boss, or unit leader level.

Unit instructors must have successfully completed ICS-200.

See Instructor Certification at the beginning of this Guide.
ICS-300, Intermediate ICS: ICS for Supervisors and Expanding Incidents

On October 1, 2014, the NWCG version (I-300) of this course was removed from the NWCG Products Management System. In lieu of the NWCG course, NWCG recognizes the FEMA training course available through the Emergency Management Institute. Additional information on accessing FEMA courses and the FEMA NIMS Training Program can be found at https://www.nwcg.gov/fema-nims-training.

ICS-300 NWCG Minimum Instructor Qualifications
There is no national instructor database for the ICS courses as there is for the all-hazards position specific courses. Lead instructor must have successfully completed ICS-400.

Unit instructors must have successfully completed ICS-300.

All instructors must have served as an Incident Commander (Type 3 or above) or in a Command and General Staff position on an incident that required a written Incident Action Plan OR must have specialized knowledge and experience appropriate for the audience.

See Instructor Certification at the beginning of this Guide.
ICS-400, Advanced ICS: ICS for Supervisors and Expanding Incidents

On October 1, 2014, the NWCG version (I-400) of this course was removed from the NWCG Products Management System. In lieu of the NWCG course, NWCG recognizes the FEMA training course available through the Emergency Management Institute. Additional information on accessing FEMA courses and the FEMA NIMS Training Program can be found at https://www.nwcg.gov/fema-nims-training.

ICS-400 NWCG Minimum Instructor Qualifications
There is no national instructor database for the ICS courses as there is for the all-hazards position specific courses. All instructors must have successfully completed ICS-400, and must have served as an Incident Commander (Type 3 or above) or in a Command and General Staff position on an incident that required a written Incident Action Plan.

See Instructor Certification at the beginning of this Guide.
L-180, Human Factors in the Wildland Fire Service

2008 4 hours

Course Description
This training course is designed for unit-level supervisors to use when delivering orientation training to new crewmembers. The stand-alone training package is available in the NWCG Products Management System. An adapted version is included as Unit 4 in the 2003 edition of S-130, Firefighter Training. Presentation of the course involves a few short lecture segments, but the primary content is delivered by video and supported with small group exercises. Topics include situational awareness, basic communication responsibilities, attitude and stress barriers, decision-making process, and teamwork principles.

Objective
• Students will demonstrate an understanding of their responsibilities to address human performance issues so they can integrate more effectively into crews/teams operating in high-risk, dynamic work environments.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work N/A
Online training N/A
Instructor-led training 4
Total Hours 4

Target Group
Entry-level incident personnel.

Minimum Instructor Qualifications
Lead instructor must be qualified as any Single Resource Boss.

Unit instructors must have a supervisory qualification in any ICS function.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Local
**L-180, Human Factors in the Wildland Fire Service (Online)**

2014  4 hours

**Course Description**
The L-180, Human Factors in the Wildland Fire Service, online course exposes students to human performance concepts as part of basic wildland firefighter training. The course is specifically designed for entry-level operational personnel; however, this course also applies to all wildland fire service personnel, including non-operational personnel.

At the end of the online course, students will be able to practice decision-making skills in an interactive simulation as a member of a fire crew, and students will apply their Human Factors knowledge to a variety of scenarios. Throughout the simulation, students will answer questions and make decisions regarding situation awareness and hazard identification, decision-making, and team cohesion. Responses are tracked, and then reported at the end of the activity.

**Objectives**
- Introduce human performance factors in high-risk work environments and add this knowledge to student’s skill set.
- Provide opportunities to explore human performance concepts and the related vocabulary.
- Reinforce professional responsibility to address human performance issues while on the job.

**Course Components and Hours to Complete**

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>4</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

**Target Group**
Entry-level incident personnel.

**Minimum Instructor Qualifications**
None

**Course Prerequisites**
None

**Course Level**
Local

**Course Access and Additional Course Information**
Can be found at [https://www.nwcg.gov](https://www.nwcg.gov) under Training.
L-280, Followership to Leadership

2008 20 hours

Course Description
This training course is designed as a self-assessment opportunity for individuals preparing to step into a leadership role. The course combines one day of classroom instruction followed by a second day in the field with students working through a series of problem solving events in small teams (Field Leadership Assessment Course). Topics include leadership values and principles, transition challenges for new leaders, situational leadership, team cohesion factors, ethical decision-making, and after action review techniques. Some course delivery may be arduous in nature.

Objectives
• Students will demonstrate an understanding of fundamental leadership principles.
• Students will assess their individual traits and motivation for entering into a leadership role.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work 4
Online training N/A
Instructor-led training 16
Total Hours 20

Target Group
Personnel desiring to be qualified as a Single Resource Boss.

Minimum Instructor Qualifications
Lead instructor must be qualified as any Single Resource Boss.
Unit instructors must have a supervisory qualification in any ICS function (operations or support).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Experience on incident assignments in operations or support functions.
Successful completion of L-180, Human Factors in the Wildland Fire Service.
Satisfactory completion of pre-course work.

Course Level
Local
Course Description
This is a leadership development training recommendation for unit supervisors. The training should be designed to provide at least 50% of the delivery time as exercises and simulations. Some approved course packages may be arduous in nature. Low student-to-instructor ratios are necessary for successful exercise/simulation-based training delivery. A dedicated cadre of at least three instructors is recommended for a class size of 20-25 students.

THIS IS NOT A COURSE PACKAGE AVAILABLE IN THE NWCG PRODUCTS MANAGEMENT SYSTEM.

The NWCG Leadership Subcommittee has oversight and maintenance responsibility for the L-380 criteria and evaluation process. However, the delivery process used to meet this training recommendation will need to be determined by the hosting agency. Specific course information can be found at the Wildland Fire Leadership website at https://www.fireleadership.gov/courses/courses.html.

Selected course material should address these topics:
- Application of leadership styles
- Communicating vision and intent
- Team building
- Detecting operational error
- Managing stress

Objective
- The intent of this training recommendation is to provide unit supervisors with the tools to build and maintain effective and cohesive crews/teams.

Course Components and Hours to Complete
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
<tr>
<td>Pre-course work</td>
<td>8</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>32</td>
</tr>
<tr>
<td>Total Hours</td>
<td>40</td>
</tr>
</tbody>
</table>

Target Group
Personnel desiring to be qualified as Strike Team Leader or unit leader.

Minimum Instructor Qualifications
All lead instructors must be certified by the NWCG Leadership Subcommittee. The combined cadre must have career backgrounds and expertise in principle-centered leadership, emergency incident operations, human factors, and decision-making. All instructors must be able to execute field simulations, role-playing, and classroom exercises.

Course Prerequisites
Incident personnel with supervisory responsibilities.
Successful completion of L-180, Human Factors in the Wildland Fire Service.
Satisfactory completion of pre-course work.
Course Level
Regional, state, or area
L-381, Incident Leadership

2005  40 hours

Course Description
This is a leadership development training recommendation for incident response personnel who will function in fireline command roles. The training should be designed to provide at least 50% of the delivery time as exercises and simulations. Low student-to-instructor ratios are necessary for successful exercise/simulation-based training delivery. A dedicated cadre of at least three instructors is recommended for a class size of 18-25 students.

THIS IS NOT A COURSE PACKAGE AVAILABLE IN THE NWCG PRODUCTS MANAGEMENT SYSTEM.

The NWCG Leadership Subcommittee has oversight and maintenance responsibility for the L-381 criteria and evaluation process. However, the delivery process used to meet this training recommendation will need to be determined by the hosting agency. Specific course information can be found at the Wildland Fire Leadership website at https://www.fireleadership.gov/courses/courses.html.

Selected course materials should address these topic areas:
- Command presence/climate
- Leader’s intent
- Command and control
- Rapid team building
- Communication techniques
- Detecting and mitigating error
- Operational tempo awareness

Objective
- The intent of this training recommendation is to provide future leaders of divisions, groups, and Type 3 incidents with the leadership tools to effectively exert command and control over a quickly assembled team in a time constrained and rapidly changing incident environment.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
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<td>Pre-course work</td>
<td>8</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>40</strong></td>
</tr>
</tbody>
</table>

Target Group
Personnel desiring to be qualified as Division/Group Supervisor (DIVS) or Incident Commander Type 3 (ICT3).

Minimum Instructor Qualifications
All lead instructors must be certified by the NWCG Leadership Subcommittee. The combined cadre must have career backgrounds and expertise in principle-centered leadership, emergency incident operations, human factors, and decision-making.

All instructors must be able to execute field simulations, role-playing, and classroom exercises.
Course Prerequisites
Qualified as any Strike Team Leader, Task Force Leader (TFLD), Incident Commander Type 4 (ICT4), any support unit leader, or Supervisory Dispatcher.
Successful completion of L-180, Human Factors in the Wildland Fire Service.
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
L-480, Organizational Leadership in the Wildland Fire Service

2010  40 hours

Course Description
This is a leadership development recommendation that will provide mid and upper-level organizational leaders and future Incident Management Team leaders (Command and General Staff) with the leadership tools to provide strategic direction and influence others to achieve team goals.

THIS IS NOT A COURSE PACKAGE AVAILABLE FROM THE NWCG PRODUCTS SYSTEM.

The NWCG Leadership Subcommittee has oversight and maintenance responsibility for the L-480 criteria and evaluation process. However, the delivery process used to meet this training recommendation will need to be determined by the hosting agency. Specific course information can be found at the Wildland Fire Leadership website at https://www.fireleadership.gov/courses/courses.html.

Selected course materials should address these topics:
- Communication skills
- Command presence
- Situational awareness, vision and change
- Leadership skills within a team environment
- Recognition and reward
- Mentorship, coaching and delegation

Objective
- The intent of this training recommendation is to develop personal leadership skills and command presence to increase effectiveness in the workplace and during incident management operations.

Course Components and Hours to Complete
- Pre-selection assessment: N/A
- Pre-course work: 8
- Online training: N/A
- Instructor-led training: 32
- Total Hours: 40

Target Group
Personnel desiring to be qualified as Type 2 Command and General Staff, and mid to upper-level organizational leaders.

Minimum Instructor Qualifications
See L-480 Instructor and Coach Qualifications at the Wildland Fire Leadership website.

Course Prerequisites
Successful completion of L-380, Fireline Leadership, OR
Successful completion of L-381, Incident Leadership, OR
Successful completion of L-180, Human Factors in the Wildland Fire Service; plus completion of 40 hours in any supervision or leadership training course(s), AND
Satisfactory completion of pre-course work.
Course Level
Regional, state, or area
L-481, Advanced Leadership for Command and General Staff

2015 40 hours

Course Description
This is a leadership development recommendation that focuses on leadership within the context of large/complex incident management, to include team collective tasks and functions accomplished by large Incident Management Teams (IMTs). Individual tasks include functioning as a productive member of a staff organization, being a positive contributor to staff decision-making, maintaining a common operating picture, demonstrating staff member ethos, and projecting operational culture and leader’s intent.

THIS IS NOT A COURSE PACKAGE AVAILABLE FROM THE NWCG PRODUCTS MANAGEMENT SYSTEM.

The NWCG Leadership Subcommittee has maintenance responsibility for the L-481 course package and evaluation process. However, the delivery process used to meet this training recommendation will need to be determined by the hosting agency. Specific course information can be found at the Wildland Fire Leadership website at https://www.fireleadership.gov/courses/courses.html.

Selected course materials should address these topics:
- Establishing a staff value system, team culture, and command presence.
- Developing and maintaining a team-level common operating picture.
- Developing and communicating leader’s intent through a critical thinking process.
- Propagating intent at all levels of the incident organization.
- Effectively operate in the ICS system and utilize ICS products and doctrine.
- Promoting integration of functional areas and a high-level of teamwork into strategic planning.

Objective
- The intent of this training is to produce Command and General Staff members who can fulfill the responsibilities of an effective staff officer or section chief within an IMT, contribute effectively to an IMT’s decision-making process, and perform as an effective organizational leader in their own functional area and as a member of the IMT.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work 8
Online training N/A
Instructor-led training 32
Total Hours 40

Target Group
Personnel desiring to be qualified in a command or general staff position on an Incident Management Team.

Minimum Instructor Qualifications
See the L-481 Instructor and Cadre Qualifications at the Wildland Fire Leadership website at https://www.fireleadership.gov/courses/courses.html.
Course Prerequisites
L-480, Organizational Leadership in the Wildland Fire Service, OR
L-380, Fireline Leadership, OR
L-381, Incident Leadership, OR
L-180, Human Factors in the Wildland Fire Service, plus completion of 40 hours in any supervision or leadership training course(s)

Completion of pre-course work assignment.

Course Level
Regional, state, or area
**Course Description**
This is a continuing education opportunity available to senior fire management leaders. The intent is to foster exchange of knowledge and experience in the art of leading during high-risk and complex incidents.

THIS IS NOT A COURSE PACKAGE AVAILABLE FROM THE NWCG PRODUCTS MANAGEMENT SYSTEM. Specific course information can be found at the Wildland Fire Leadership website [https://www.fireleadership.gov/courses/courses.html](https://www.fireleadership.gov/courses/courses.html).

NAFRI is the coordinator for the L-580 events. Specific delivery information can be obtained from the NAFRI L-580 Course Coordinator at [https://www.nafri.gov/](https://www.nafri.gov/).

Selected course materials should address these topics:

- Focus on leadership actions, decision-making, and critical thinking at the strategic level;
- Include structured facilitation of interactive group discussions and/or activities; and
- Involve pre- and/or post-study activities related to the specific event.

**Objective**

- L-580 provides senior level leaders with a variety of L-580 Steering Committee-approved continuing education opportunities that complement other Incident Management Organization training.

**Course Components and Hours to Complete**

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours to Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
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<tr>
<td>Pre-course work</td>
<td>Varies</td>
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<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>Varies</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>Varies</strong></td>
</tr>
</tbody>
</table>

**Target Group**
Senior level leaders and decision makers, including, but not restricted to, Agency Administrators and Incident Management Organizations (Type 1, Type 2, Area Command, and NIMO).

**Minimum Instructor Qualifications**
This course is managed by the L-580 National Steering Committee.

**Course Prerequisites**
Previous attendance at other L-courses is highly recommended.

Satisfactory completion of pre-course work.

**Course Level**
National
M-410, Facilitative Instructor

2013 36 hours

Course Description
This training course is designed to help students become effective facilitative instructors. The purpose of this course is to improve training delivery and quality by presenting instructional methods with an emphasis on student-oriented adult training techniques. This course is designed for students to meet NWCG instructor qualifications.

Objective
- Demonstrate effective facilitative instructor skills while giving three classroom presentations.

Course Components and Hours to Complete
- Pre-selection assessment: N/A
- Pre-course work: 1
- Online training: N/A
- Instructor-led training: 35
- Total Hours: 36

Target Group
Personnel who will be instructing NWCG courses.

Minimum Instructor Qualifications
Lead instructor must have taught or observed all units of this specific course and have the knowledge to assume a substitution role as a Unit Instructor.

Unit instructors must be experienced in the lesson content they are presenting and must have been previous students in this or an equivalent course.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
M-580, Fire in Ecosystem Management

NAFRI 40 hours

Course Description
Through lectures, case studies, a field trip, and interaction between students and faculty, the course will:

• Explore the role of fire and fire management in ecosystem management.
• Examine historical, social, political, legal, economic, and environment factors critical to fire management.
• Provide the students with concepts, technologies and methods to actively engage in ecosystem management across the landscape.

For additional course information, refer to NAFRI website at https://www.nafri.gov.

Objectives
• Convey the significant role of fire management across a diversity of ecosystems.
• Demonstrate the complexity and benefits of integrating fire and landscape management with social, political, legal, economic and environmental factors.
• Provide students with strategies, concepts, reference resources, and models to facilitate ecosystem management decisions.
• Reinforce fundamental ecological concepts as they relate to fire on the landscape.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work N/A
Online training N/A
Instructor-led training 40
Total Hours 40

Target Group
• Resource managers, wildland fire planning personnel and line officers who want to enhance their knowledge and understanding of fire management and fire ecology.
• Natural and cultural resource management specialists, endangered species biologists, compliance specialists (NEPA, SHPO), land, fire and fuels management planners. Individuals involved with planning, implementation, and monitoring of fire and ecosystem management programs.
• Public affairs, information officers, education and other specialists or individuals who need to communicate to diverse audience about fire management and ecological principles and practices.
• Agency administrators, (i.e., line officers) senior managers, staff officers, tribal leaders, and other key partners. (i.e., community leaders, local government, state officials, non-government partners, etc.)
• Fire Management Officers and Assistant Fire Management Officers.

Minimum Instructor Qualifications
This course is managed by a National Steering Committee. Nationally recognized subject matter experts and practitioners serve as instructors in this course.

Course Prerequisites
None
Course Level
National
M-581, Fire Program Management, an Overview

2017 32-36 hours

Course Description
This course is designed to meet the needs of current and future unit-level Agency Administrators and Fire Program Managers. It is intended to aid in the application of fire management principles in sound decision-making, business management, human resource management, administrative functions, use of state-of-the-art tools and methods in fire management programs, and recognition of the necessity for personal accountability required in overseeing a fire program management.

Objectives
- Identify the principles, policies and procedures to effectively and safely lead, plan, and implement a Fire Management Program.
- Identify the program management, reporting, and personal accountability responsibilities of the Agency Administrator and Unit Fire Program Manager.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work N/A
Online training N/A
Instructor-led training 32 – 36
Total Hours 32 – 36

Target Group
This course is intended for current or future Agency Administrators and future Unit Fire Program Managers who have direct responsibility to plan, organize, budget, manage, and evaluate fire management programs (i.e., district rangers, park superintendents, project leaders or refuge managers, district or field office managers, fire operations supervisors, new or acting line officers, battalion chiefs, assistant fire management officers, crew superintendents, helicopter crew supervisors, Unit Aviation Managers, lead dispatchers, dispatch center managers, fuels specialists, or state and local agency fire program leaders).

Course Prerequisites
ICS–100, Introduction to Incident Command System (ICS)
IS-700, National Incident Management System (NIMS), an Introduction

Minimum Instructor Qualifications
Nationally recognized subject matter experts and practitioners serve as instructors in this course.

Course schedules and instructors are determined by geographic area training coordinators.

See NWCG Instructor Certification at the beginning of this Guide.

Course Level
National, regional, state, or area
M-582, Fire Program Management, Leading Complex Fire Programs

2017 50 – 60 hours

Course Description
This course was developed using an experiential and collaborative approach to learning. It is designed to be highly-engaging in dialogue, exercises, interactive scenarios, and simulations. The course is a comprehensive look at the Agency Administrator’s leadership role in highly complex issues within fire management programs. Topics include Federal Wildland Fire Management Policy, Fuels and Prescribed Fire Policy, risk management and decision-making, critical relationships, development of adaptive and resilient programs, and hosting complex incidents. The complex fire situation is highlighted with the intent to provide a comprehensive understanding of the processes necessary to effectively manage the situation. Included are the Agency Administrator’s briefing, developing and conveying clear intent and objectives, creating a healthy command climate and relationships within their teams and among partners and stakeholders, and other critical items.

Objectives
• Identify the Agency Administrator’s responsibilities to provide leadership in fire and fuels management.
• Gain a common understanding of all the fire management agencies national policy, Agency Administrator responsibility and accountability, and authority for all fire management actions.
• Understand the importance of fire as an essential ecological process and the role of fire management programs in achieving desired future conditions.
• Gain a common understanding of risk informed decision-making and safety philosophy in the context of wildland fire program management.

Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  18–24
Instructor-led training  32–36
Total Hours  50–60

Target Group
This course is intended for line officers with a journey level of experience overseeing a wildland fire program: Forest Service Forest Supervisor/Deputy Forest Supervisor levels, National Park Service and Bureau of Indian Affairs Superintendent/Deputy Superintendent levels, Bureau of Land Management Field Manager/District Manager levels, Fish & Wildlife Service Refuge Management Project Leader level, and state and local Agency Administrators.

Course Prerequisites
M-581, Fire Program Management, an Overview, OR LFML, Local Fire Management Leadership

Minimum Instructor Qualifications
Nationally recognized subject matter experts and practitioners serve as instructors in this course.

See NWCG Instructor Certification at the beginning of this Guide.
Additional Course Information
Course schedules and instructors are determined by M-582, Agency Administrator Advanced Wildland Fire Steering Committee.

Course Level
National
Course Description
This course was developed as part of a multi-course national curriculum covering wildfire prevention and is designed to enhance basic skill and knowledge of personnel assigned responsibilities for wildfire prevention. The course was significantly revised and updated in 2007 but it was not recertified.

Objectives
To develop the skills and knowledge necessary to perform the field applications of the basic fundamentals of wildland fire prevention.

- Wildland Fire Prevention Administration
- Wildland Fire Prevention Education
- Wildland Fire Prevention Engineering
- Wildland Fire Prevention Enforcement
- Summary and Testing

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  32
Total Hours  32

Target Group
Designed to provide a basic introduction of fire prevention principles and activities for fire prevention specialists, fire managers, public information officers, and others who have wildland fire prevention, education, or mitigation responsibilities.

Minimum Instructor Qualifications
Instructors must have a wide range of wildfire prevention experience to facilitate group and class interaction and discussion.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Local
P-301, Fire Prevention Education 2

Course Description
This course is designed for fire prevention and education program leaders and fire program managers with wildland fire prevention, education and mitigation responsibilities. The course promotes a collaborative planning process in developing and effective and efficient fire prevention and education program at the local, state, tribal, regional or national program level. Topics include: assessment, planning, the collaborative process, communication, and monitoring accomplishments. This course is an intermediate course in the wildland fire prevention training curriculum.

Course Goal
Students will acquire knowledge and skills to collaboratively develop fire prevention and education plans with stakeholders at the local, state, tribal, regional, or national level.

Objective
- The student will acquire knowledge and skills necessary to plan a long term fire prevention and education program with the objective of reducing the risks, hazards, and losses to people, communities, and resources from wildland fire.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  32
Total Hours  32

Target Group
Fire prevention and education program leaders and fire program managers with wildland fire prevention, education and mitigation responsibilities.

Minimum Instructor Qualifications
Instructors must be fully competent in wildland fire prevention planning procedures and have a wide range of wildfire prevention experience.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
It is recommended students take P-101, Fire Prevention Education 1, prior to attending P-301.

Course Level
Local
P-310, Fire Prevention Education Team Member

2006  32 hours

Course Description
This intermediate level course was developed as part of a multi-course national curriculum covering wildland fire prevention and is designed to enhance the skills and knowledge needed for personnel to participate on a National Fire Prevention and Education Team (NFPET).

Objectives
To develop the skills and knowledge necessary to perform, in the field, as a member of a NFPET.

- Organization
- Mobilization
- Components of a NFPET assignment
- Bringing “it” all together
- Make “it” happen

Course Components and Hours to Complete

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<tr>
<th>Component</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
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<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
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<tr>
<td>Instructor-led training</td>
<td>32</td>
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<tr>
<td>Total Hours</td>
<td>32</td>
</tr>
</tbody>
</table>

Target Group
Designed to provide intermediate level fire prevention principles and activities and provide references for personnel wanting to serve as a member of a NFPET. It is also useful for fire prevention specialists, fire managers, public information officers, and others who have wildland fire prevention, education, or mitigation responsibilities or who may host a NFPET.

Minimum Instructor Qualifications
All instructors must have a wide range of wildfire prevention experience.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Regional, state, or area
P-410, Fire Prevention Education Team Leader

2008 32 hours

Course Description
This mid-level course was developed as part of a multi-course national curriculum covering wildland fire prevention and is designed to enhance the skills and knowledge needed for personnel to lead a National Fire Prevention and Education Team (NFPET).

Objectives
To develop the skills and knowledge necessary to perform as the field leader of a NFPET.

- Team Organization
- Developing National Fire Prevention and Education Teams
- NFPET Qualifications and Certifications
- Program Management
- NFPET Activities
- NFPET Closeout

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  32
Total Hours  32

Target Group
Designed to provide mid-level fire prevention principles and activities and provide references for personnel wanting to serve as a leader of a NFPET. It is also useful for fire prevention specialists, who serve as team members (PETM) and desire to become team leader trainees, eventually becoming qualified as a team leader (PETL).

Minimum Instructor Qualifications
Lead and Unit instructors must be qualified as Fire Prevention Education Team Leader (PETL).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Prevention Education Team Member (PETM).

Course Level
Regional, state, or area
RT-130, Annual Fireline Safety Refresher Training

Annual Length determined by agency policy

Course Description
Annual Fireline Safety Refresher Training should be designed to provide up-to-date fireline safety information to employees holding Incident Command System (ICS) qualifications requiring this training per the NIMS: Wildland Fire Qualification System Guide, PMS 310-1. Individual sessions of Annual Fireline Safety Refresher Training should contain content pertinent to the registered students.

There are four core components to the Annual Refresher Training

- **Entrapment Avoidance** – Use training and reference materials to study the risk management process as identified in the Incident Response Pocket Guide (IRPG) as appropriate to participants, e.g., LCES, Standard Firefighting Orders, Watch Out Situations, Wildfire Decision Support System direction, Fire Management Plan priorities.

- **Current Issues** – Review and discuss current topics that could be based on the new modules or areas of concern identified by your agency or geographic area. Review forecasts and assessments for the upcoming fire season and discuss implications for firefighter safety.

- **Fire Shelter** – Review and discuss last resort survival including escape and shelter deployment site selection. Conduct “hands-on” fire shelter inspections. Practice shelter deployments in applicable crew/module configurations. Wearing fireline personal protective equipment during fire shelter practice can enhance the learning experience for students.

- **Other Hazards and Safety Issues** – Choose additional hazard and safety subjects, which may include SAFENET, current safety alerts, site/unit specific safety issues and hazards.

Course Components and Hours to Complete

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<thead>
<tr>
<th>Component</th>
<th>Hours to Complete</th>
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<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>Varies</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>Varies</strong></td>
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</tbody>
</table>

Recommended Resources

- Wildland Fire Safety Training Annual Refresher [https://www.nifc.gov/wfstar](https://www.nifc.gov/wfstar)
- Experiential Training [https://www.fireleadership.gov](https://www.fireleadership.gov)
- Wildland Fire Lessons Learned Center [http://www.wildfirelessons.net/home](http://www.wildfirelessons.net/home)

Target Group
Personnel holding Incident Command System (ICS) qualifications that require Annual Fireline Safety Refresher Training per the NIMS: Wildland Fire Qualification System Guide, PMS 310-1.
Minimum Instructor Qualifications

- Lead instructor must be a qualified Single Resource Boss.
- Unit instructors must be qualified as Firefighter Type 1 (FFT1).
- Adjunct instructors may be utilized to provide limited instruction in specialized knowledge and skills at the discretion of the lead instructor. They must be experienced, proficient and knowledgeable of current issues in their field of expertise.
- Instructors must have the knowledge and skills to utilize current educational technology, as it relates to the WFSTAR website. Examples would be streaming and downloading interactive videos as well as the use of apps and mobile devices.

Course Prerequisites
None

Course Level
Local
RT-273, Single Engine Airtanker Manager Workshop

**Course Description**
The Single Engine Airtanker Manager (SEMG) workshop is designed to provide the attendee with current policy revisions, technical updates, changes in reference materials and operational procedures, and an overall review of safety and security issues associated with the single engine airtanker program.

**Objectives**
- Review the duties and responsibilities of the SEMG.
- Use risk management techniques to perform tasks safely.
- Update and maintain SEAT management skills.
- Understand changes to aviation policy and how they apply to SEAT management.
- Review changes in the retardant contract, approved products list, and updates with the quality assurance program.

**Course Components and Hours to Complete**

<table>
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<tr>
<th>Component</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>12-16</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12-16</strong></td>
</tr>
</tbody>
</table>

**Target Group**
Qualified and trainee SEMG.

**Minimum Instructor Qualifications**
Lead and unit instructors must be current or previously qualified as Single Engine Airtanker Manager (SEMG).

See NWCG Instructor Certification at the beginning of this Guide.

**Course Prerequisites**
Qualified or trainee as Single Engine Airtanker Manager (SEMG).

**Course Level**
Local

**Core elements of a Refresher will include the following:**

**National Season Review**
This section generally covers year end statistical information like total flight hours, gallons delivered, contracts awarded, CWN/Exclusive Use stats, highlights of what worked well during the season, and areas needing improvement.

**New Year Outlook**
This section generally covers any new technical updates, new contract numbers, new long and short-term program changes.

**AMD Contracting Updates**
This section lists the tentative changes that will be made to both the CWN and Exclusive Use contracts.
NWCG Standards for Single Engine Airtanker Operations Updates
The section covers the revisions in policy for the new *NWCG Standards for Single Engine Airtanker Operations*, PMS 506.

Reference Material Updates
This section covers any new updates, changes, additions to any of the reference materials designed for the SEAT program like *NWCG Standards for Single Engine Airtanker Operations*, PMS 506, BLM National SEAT website, SEMG Workshop Refresher training.

Safety Review
This section covers a summary of SAFECOMS that were filed pertaining to SEAT operations, any Safety Alert or Bulletins issued for the SEAT program, and highlights of any safety concerns or issues that surfaced within the season.

Security Review
This section covers any new developments with security and airspace issues that were identified within the season.

Retardant Review
This section covers any information about new technology or developments with the retardant industry, reviews the approved products list, and provides updates about the retardant contract and quality assurance program.

Additional Suggested Topics
In addition to the required elements, the following subjects that can be worked into the workshop if applicable:
- Local Updates, Concerns, Issues
- Geographical Updates, Concerns, Issues
- Individual Agencies or Base Reviews

Flexibility should be encouraged within these topics to meet geographic and audience needs. This refresher shall be designed to provide discussion and information sharing based on the identified topics. The agenda should be revisited annually and be dynamic. Presenters should include, but not limited to Interagency, National, Regional, State and Local instructors involving aviation positions such as SEAT Coordinators, Dispatch, Training, and Unit Aviation Managers.
RT-300, Prescribed Fire Burn Boss Refresher

Course Description
This refresher is intended to update qualified and trainee Prescribed Fire Burn Bosses at all complexity levels on current issues and recent developments related to prescribed fire while reinforcing existing skills and knowledge.

Use training and reference materials to review and discuss:

Core Topics
- Prescribed fire risk management, prescribed fire escapes, and hazard mitigations.
- Prescribed fire successes and how to repeat them.
- Innovations in prescribed fire planning and implementation.
- Fire behavior modeling.
- Smoke management requirements, modeling improvements, and techniques.
- National, regional, and local prescribed fire policy updates and issues of importance to prescribed fire practitioners.

Suggested Additional Topics
- Prescribed fire related safe coms and safe nets.
- Changes or updates to agency-specific requirements.
- Regional, state, local air quality issues (non-attainment, regional haze rule, exceptional events, etc.).
- Fire effects monitoring.
- Fire ecology.

Target Group
Qualified and trainee Prescribed Fire Burn Boss Type 1, 2, and 3 (RXB1, RXB2, RXB3)

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work N/A
Online training N/A
Instructor-led training 4
Total Hours 4

Minimum Instructor Qualifications
Lead Instructor Prescribed Fire Burn Boss Type 2 (RXB2)
Unit Instructors Prescribed Fire Burn Boss Type 2 (RXB2), trainee acceptable

Adjunct instructors may be utilized to provide limited instruction in specialized knowledge and skills at the discretion of the lead instructor. They must be experienced, proficient and knowledgeable of current issues in their field of expertise.

Instructors must have the knowledge and skills to utilize current educational technology.
Recommended Resources


Wildland Fire Lessons Learned Center: [https://www.wildfirelessons.net/home](https://www.wildfirelessons.net/home)

Wildland Fire Safety Training Annual Refresher: [https://www.nifc.gov/wfstar](https://www.nifc.gov/wfstar)
RT-340, HRSP Refresher Workshop

Triennial 16 hours

Course Description
Human Resource Specialist (HRSP) Refresher Training should be designed to provide up-to-date HRSP information to employees holding HRSP qualifications per the *NIMS: Wildland Fire Qualification System Guide*, PMS 310-1. The workshop should contain content and skill building pertinent to agency policies and the duties of the position.

Recommended Resources
Human Resources Specialist Information, [https://www.nifc.gov/HRSP/](https://www.nifc.gov/HRSP/)

Course Components and Hours to Complete

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<tr>
<th>Component</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Target Group

Minimum Instructor Qualifications
It is recommended that the coordinator be a geographic area HRSP coordinator and that instructors be fully qualified as Human Resource Specialist (HRSP).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Human Resource Specialist (HRSP).

Course Level
Regional, state, or area
RT-372, Helicopter Manager Workshop

Triennial or as specified by agency 24 hours

Course Description
This refresher course is intended to update participants on essential helicopter management skills and provide the latest information on helicopter operations. Core elements of the refresher course should cover updates to aviation policy, risk management, and performance planning, along with a pertinent accident review. The desired outcome of this course is to update current Helicopter Managers on new information while reinforcing existing skills and knowledge.

Objectives
- Review essential duties and responsibilities of the Helicopter Manager.
- Use risk management techniques to complete assignments safely.
- Update and maintain helicopter management skills.
- Understand changes to aviation policy and how they apply to helicopter management.

Course Components and Hours to Complete

<table>
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<tr>
<th>Component</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
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<tr>
<td>Pre-course work</td>
<td>8</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>24</strong></td>
</tr>
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Target Group
Qualified and trainee Helicopter Manager (HMGB).

Minimum Instructor Qualifications
Lead instructor must be a current or previously qualified as Helicopter Manager (HMGB).

Unit instructors will be selected for their expertise in field, i.e., aircraft payment documents, aviation maintenance, avionics, contracting, risk management.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified or trainee Helicopter Manager (HMGB).
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area

Time
Eight of the 24 hours can consist of pre-work, generated by the course coordinator, involving online aviation training or practical exercises.
Core Elements of a Refresher
- Aviation Policy updates
- Risk Management
- Accident review, lessons learned
- Performance Planning

Optional Topics
- Pay documents
- Dispatch and flight following procedures
- Contracting
- Operations
- Pre-use inspections
- Maintenance
- Communications
- Agency break outs
- Agency briefings
- Project/Logistical/Support Planning
- Hazardous Materials
- Accident Investigation
- Crew Resource Management (CRM)
- Airspace
- Practical exercises testing students’ knowledge of Helicopter Operations (to be developed at the discretion of the course cadre)
- Other topics determined by the course cadre to be pertinent to the audience

Flexibility should be encouraged within these topics to meet geographic and audience needs. This refresher shall be designed to provide discussion and information sharing based on the identified topics. The agenda should be revisited annually and be dynamic. Presenters should include, but not limited to interagency, national, regional, state and local instructors involving aviation positions such as Dispatch, Air Attack, Training, and Unit Aviation Managers.
RT-373, Unmanned Aircraft Systems (UAS) Incident Operations Refresher

Triennial 16 hours

Course Description
The UAS Refresher is available as instructor training. Course content is updated frequently and is available at: https://sites.google.com/firenet.gov/s373/courses. The Refresher will focus on flight exercises utilizing updated and emerging techniques for UAS flight/data collection missions, and final product development. The Refresher is designed to provide the participants with updated information for how qualified personnel will:

- Safely plan and implement UAS missions.
- Collect data required to derive requested incident products.
- Deliver requested data products within required timeframes.
- Manage vendor provided UAS services.

Objectives
Review and refresh techniques to:

- Plan a UAS mission.
- Coordinate with aerial supervision and on-scene aircraft.
- Collect data required to derive requested incident products.
- Deliver requested data products within required timeframes.
- Manage vendor provided UAS services.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work N/A
Online training N/A
Instructor-led training 16
Total Hours 16

Target Group
Qualified Unmanned Aircraft System Pilot (UASP), Unmanned Aircraft System, Manager (UASM), Unmanned Aircraft System, Module Leader (UASL), and Unmanned Aircraft System, Data Specialist (UASD).

Minimum Instructor Qualifications
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Agency remote pilot certification for Unmanned Aircraft System Pilot (UASP), Unmanned Aircraft System, Manager (UASM), and Unmanned Aircraft System, Module Leader (UASL).

GIS expertise and experience for Unmanned Aircraft System, Data Specialist (UASD).
Course Hardware and Software Requirements
- All students: Tablet and PC, GPS data logger such as BadElf GPS Pro+, additional applications: Bad Elf for iOS, Gaia, Avenza
- Unmanned Aircraft System Pilot (UASP): Agency certified UAS, Electro-optical and infrared sensors, additional applications: Solex GCS
- Unmanned Aircraft System, Data Specialist (UASD): ArcMap with FMV and Spatial Analyst

Course Location
Course locations are chosen for areas with favorable weather conditions for UAS flights and a flight area in close proximity to the classroom.

Course Level
National course presented at the geographic level
RT-378, Air Tactical Group Supervisor Refresher

Course Description
The Air Tactical Group Supervisor (ATGS) refresher is designed to provide the participants with the following.

Current and relevant ATGS/Aerial Supervision program information, pertaining to:
- Risk management
- Fire and aviation weather
- Aviation incidents/accidents from the preceding season
- Contract and aircraft fleet updates
- Issues and concerns from national and/or regional user groups (fire management, dispatch, hotshots, Incident Commanders, etc.)
- Crew Resource Management (CRM)

An opportunity to practice ATGS skills, such as:
- Radio programming
- Map reading and navigation
- Crew Resource Management (CRM)
- Mission procedures
- Fire Traffic Area (FTA) management

In addition to the course content above, all ATGS will demonstrate proficiency by completing a moderate complexity mission or flight/STEX exercise as defined/outlined in the Interagency Aerial Supervision Guide (IASG), PMS 505, Appendix C. Performance will be documented on a Mission Evaluation, reviewed with the participant, and forwarded to the Geographic Area Coordination Center (GACC) ATGS Cadre Member. Failure to pass the exercise will require the decertification process to be implemented.

Objectives
- Review duties and responsibilities of the ATGS.
- Review the risk management process to ensure the safety of aviation operations.
- Review changes to aviation policy and how they apply to Aerial Supervision.
- Refresh/practice ATGS skills.
- Demonstrate proficiency by completing a moderate complexity mission or flight/STEX Exercise (STEX).

Course Components and Hours to Complete
| Pre-selection assessment | N/A |
| Pre-course work          | 8   |
| Online training          | N/A |
| Instructor-led training  | 16  |
| **Total Hours**          | 24  |

Target Group
Qualified and trainee Air Tactical Group Supervisors (ATGS).
Minimum Instructor Qualifications
Lead instructor must meet current S-378 instructor qualifications.

Unit instructors will be selected for their expertise in field, i.e., aircraft payment documents, aviation maintenance, avionics, contracting, risk management, aviation safety.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified or trainee Air Tactical Group Supervisor (ATGS).

Course Level
Regional, state, or area

The pre-course work, generated by the course coordinator/lead instructor will consist of online aviation training or practical exercises.

Core elements of a refresher will include the following:

- Risk management/System Safety
- Mission procedures
- CRM
- FTA management
- Evaluated flight simulation/STEX (IASG)
- Fire and aviation weather
- Lessons learned/case studies

Optional Topics:

- Radio programming
- Map reading/navigation
- Fleet updates
- Contract updates
- Payment documents
- Aerial firefighting strategy and tactics
- Electronic flight bags

Flexibility should be encouraged within these topics to meet geographic and audience needs. This refresher shall be designed to provide discussion and information sharing based on the identified topics. The agenda should be revisited annually to ensure current and relevant material is presented. Presenters should include interagency, national, regional, state and local instructors involving aviation positions such as Dispatch, Lead/ASM pilots/crews.
RX-301, Prescribed Fire Implementation

2009

26 hours

Course Description
This course is designed to introduce students to the tools and techniques used to perform in the role of a Prescribed Fire Burn Boss. The course material is based on the tasks found in the position taskbook for Prescribed Fire Burn Boss. It leads the student through the duties and responsibilities associated with the position of the Prescribed Fire Burn Boss including evaluation and implementation of a prescribed fire plan.

Objective
• Provide students with the information needed to successfully review a prescribed fire burn plan for technical accuracy and implement a prescribed burn.

Course Components and Hours to Complete
Pre-selection assessment 2
Pre-course work N/A
Online training N/A
Instructor-led training 24
Total Hours 26

Target Group
Personnel desiring to be qualified as Prescribed Fire Burn Boss Type 2 (RXB2).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Prescribed Fire Burn Boss Type 2 (RXB2).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as a Firing Boss, Single Resource (FIRB) and Incident Commander Type 4 (ICT4).

Introduction to S-390, Fire Behavior Calculations.

Proficient in the use of BehavePlus.

Satisfactory completion of pre-selection assessment.

Students desiring to take both RX-341, Prescribed Fire Plan Preparation, and RX-301, Prescribed Fire Implementation will benefit from taking RX-341 first.

Course Level
Regional, state, or area
RX-310, Introduction to Fire Effects

2017 32-36 hours

**Course Description**
This course is designed to provide students with the knowledge and skills necessary to recognize and communicate the relationships between basic fire regimes and fire effects, the effects of fire treatments on fire effects, and to manipulate fire treatments to achieve desired fire effects.

In an effort to maintain the currency and relevancy of the course materials for RX-310, Introduction to Fire Effects the instructional design has been modified to allow instructors to develop materials based on current information, changing technologies, and the needs of the students.

**Objectives**

- Demonstrate an understanding of fire as an ecological process using the concepts of fire regimes and first order fire effects at multiple scales.
- Identify realistic management solutions in an adaptive management framework.
- Communicate effectively with fire and resource professionals based on a common understanding of first order fire effects.
- Demonstrate an understanding of how fire management related resource issues interact.
- Demonstrate an understanding of how to manipulate treatments to achieve desired first order fire effects.

**Course Components and Hours to Complete**

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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</tr>
<tr>
<td>Pre-course work</td>
<td>2</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>30-34</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>32-36</strong></td>
</tr>
</tbody>
</table>

**Target Group**
Fire and resource specialists involved in fire related decision-making. Interdisciplinary team resource advisors or prescribed fire crew member working toward burn boss, or other prescribed fire positions.

**Minimum Instructor Qualifications**
All instructors should have familiarity working with fire management programs and a thorough understanding of fire effects as it applies to their specialty.

See Instructor Certification at the beginning of this Guide.

**Course Prerequisites**
Working knowledge of fire behavior.
Understanding of basic ecological principles.
Satisfactory completion of pre-course work.

**Course Level**
Regional, state, or area
RX-341, Prescribed Fire Plan Preparation

2009 34 hours

**Course Description**
The purpose of RX-341, Prescribed Fire Plan Preparation, is to provide students with the skills/knowledge to prepare a prescribed fire plan for technical review and approval in accordance with the *Interagency Prescribed Fire Planning and Implementation Procedures Guide*, PMS 484.

**Objectives**
- Describe prescribed fire planning policies and guidelines.
- Identify and describe the processes involved in preparing a prescribed fire plan.
- Develop and defend a prescribed fire plan that safely meets management objectives.

**Course Components and Hours to Complete**

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>2</td>
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<tr>
<td>Pre-course work</td>
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<td>Online training</td>
<td>N/A</td>
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<td>Instructor-led training</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>34</strong></td>
</tr>
</tbody>
</table>

**Target Group**
Personnel involved in or plan to be involved in the preparation of prescribed fire plans.

Other positions that would benefit from this course are Firing Boss, Single Resource (FIRB), Fire Effects Monitor (FEMO), air regulators, fire ecologists, private landowners, other state and private agencies, prescribed fire consultants, and fire planners.

**Minimum Instructor Qualifications**
All instructors must have prescribed fire plan writing and technical review experience.

Lead instructor must be qualified as Prescribed Fire Burn Boss Type 2 (RXB2).

See NWCG Instructor Certification at the beginning of this Guide.

**Course Prerequisites**
Successful completion of S-390, Introduction to Wildland Fire Behavior Calculations.

Proficient in the use of BehavePlus.

Satisfactory completion of pre-selection assessment.

Fire personnel must be qualified as Incident Commander Type 4 (ICT4).

Resource personnel must have knowledge of fire suppression principles and techniques.

**Students desiring to take both RX-341, Prescribed Fire Plan Preparation, and RX-301, Prescribed Fire Implementation, will benefit from taking RX-341 first.**

**Course Level**
Regional, state, or area
Course Description
This course leads students through the ecological and historical role of fire, characteristics of smoke and the health, safety and visibility impacts of smoke. Other topics include public relations, legal requirements, meteorology, fuel consumption, smoke production dispersion modeling, and operational smoke management strategies. This course is designed to be interactive in nature. It contains a panel discussion, several exercises designed to facilitate group and class participation and case studies from a variety of fuel types and political challenges. The pre-course work assignment is designed to familiarize students with the NWCG Smoke Management Guide for Prescribed Fire, PMS 420-2, and air quality regulations that impact prescribed fire programs.

Objectives
The overall objective of this course is to provide land managers with the knowledge to manage smoke and reduce its impacts on public health and welfare. Given existing and potential air quality regulations, political and social sensitivities, students will be able to:
- Predict, manage, and monitor prescribed fire smoke.
- Describe the legal, professional, and ethical reasons for managing smoke.
- Describe the roles of federal, state, and local agencies and organizations involved with and affected by smoke from prescribed fire.

Course Components and Hours to Complete
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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<td>Pre-course work</td>
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<tr>
<td>Online training</td>
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<td>Instructor-led training</td>
<td>32</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>34</strong></td>
</tr>
</tbody>
</table>

Target Group
Prescribed Fire Burn Boss Type 1 (RXB1) and the Long Term Fire Analyst (LTAN).

Other positions that would benefit from RX-410 include Fire Effects Monitor (FEMO), air regulators, fire ecologists, private landowners, other state and private agencies, prescribed fire consultants, fire planners.

Minimum Instructor Qualifications
Instructors must have prescribed and wildland fire experience as it relates to smoke management planning and implementation.

See NWCG Instructor Certification at the beginning of this Guide.

This course is demanding from an instructional perspective. Positive course dynamics depend on the technical knowledge, skill and enthusiasm of the instructor. When hosting this course, it is recommended that a mentoring program be established for new or potential instructors to shadow experienced instructors.

The shadow will have the opportunity to really focus on the specific material and interact one-on-one with the instructor to acquire a full understanding of the subject before teaching it. This effort will help maintain the quality and consistency of the course and benefit new instructors as well. The intent is to build quality instructors and maintain the integrity of the course.
Course Prerequisites
Students should have a background in prescribed fire planning, implementing, monitoring, permitting or smoke/air regulating.
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
RX-510, Advanced Fire Effects

NAFRI 48-52 hours

Course Description
RX-510, Advanced Fire Effects, is a science-based course designed to support the integration of fire effects knowledge into land management programs. The course emphasizes the importance of considering fire effects in the design, implementation and monitoring of planned fire treatments over multiple spatial and temporal scales. In addition, many of the principles covered can be used to integrate fire effects in support of the wildfire decision-making process. This course recognizes that planning and implementing the use of fire in any capacity are independent activities, and provides opportunities for the burn boss and planner to work together.

The course is an intensive session that provides college-level lectures, case studies, discussion groups, and testing procedures throughout the week. Instructors include agency and university scientists, agency resource specialists, and fire practitioners. Students have many opportunities to interact with the faculty.

To successfully complete RX-510, students are required to complete the pre-course work and attend all sessions for the entire week. Students should expect long days. Class size is limited to 84 students.

Objectives
RX-510 will demonstrate the application of science based fire effects knowledge in planning, implementing, evaluating and communicating the use of wildland fire to meet ecologically based land management objectives.

- Translate broad ecological information into goals and objectives for the management of wildland fire to meet resource objectives.
- Incorporate short and long term fire effects information into planning and implementation for the management of wildland fire to meet resource objectives.
- Provide examples and discuss methods for monitoring and evaluating fire effects.
- Apply the adaptive management process to refine a program for the management of wildland fire to meet resource objectives.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work 8-12
Online training N/A
Instructor-led training 40
Total Hours 48-52

Target Group
This course supports the knowledge and skills needed for Prescribed Fire Burn Boss, other Single Resource Bosses, Prescribed Fire Manager, Strategic Operational Planner, and other positions that plan and implement complex decisions at multiple scales in fire management.

RX-510 curriculum is primarily developed for wildfire operations personnel and fire practitioners.
Minimum Instructor Qualifications
This course is managed by a National Steering Committee. Nationally recognized subject matter experts and practitioners serve as instructors in this course.

Course Prerequisites

Successful completion of pre-course reading and development of a brief project for presentation in peer learning groups.

Course Level
National

For additional course information refer to the NAFRI website at https://www.nafri.gov.
S-110, Basic Wildland Fire Orientation

2014 15 min

Course Description
Basic Wildland Fire Suppression Orientation is a video which provides essential information for personnel interested in wildland fire management. It may be used as a companion to S-130, Firefighter Training, and is particularly useful for indoctrination of non-fire management employees to the world of wildland fire. The video provides information on personal preparedness and responsibility, mobilization, incident procedures, proper clothing and equipment, and living conditions in wildland fire camps.

Objective
• Provide new personnel and non-fire management employees with introductory information about wildland fire management.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  15 minutes
Instructor-led training  N/A
Total Hours  15 minutes

Target Group
Personnel without previous wildland fire position experience.

Minimum Instructor Qualifications
None

Course Prerequisites
None

Course Level
Local

Course Access and Additional Course Information
Can be found at https://www.nwcg.gov/ under Training.
S-130, Firefighter Training

2003  30-35½ hours

Course Description
This course is designed to provide entry-level firefighters skills. Field time is encouraged, and many of
the units are set up so they can be taught in either the classroom or the field. The field exercise for Unit
12 is required. A version of L-180, Human Factors on the Fireline, has been included as part of this
course. Credit should be issued for both S-130 and L-180 upon completion of this course.

Objectives
• Explain what the LCES (Lookouts, Communications, Escape Routes, and Safety Zones) system
  is and how it relates to the Standard Firefighting Orders.
• Construct fireline to required standards using various methods.
• Strengthen, reinforce, and use holding actions on a fireline.
• Extinguish the fire with or without the use of water.
• Complete assigned tasks in a safe and efficient manner.
• Given an assignment in a wildfire environment, describe factors in that environment which could
  impact safety.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  30-35.5
Total Hours  30-35.5

Target Group
Entry-level firefighters.

Minimum Instructor Qualifications
Lead instructor must be a qualified Single Resource Boss.

Unit instructors must be qualified as Firefighters Type 1 (FFT1).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Successful completion of Introduction to S-190, Wildland Fire Behavior.

Course Level
Local

Note: The Clues and DECIDE wallet card, NFES 2148 and Do's and Don'ts of HazMat card, NFES
2149, referenced in the Instructor Guide are no longer available through the NWCG Products
Management System. Please delete this section of the training course.
S-130, Firefighter Training (Blended)

2008 30-32 hours

Course Description
This course was developed using a **blended approach** to learning. The course addresses the foundational skills universal to all wildland firefighters. The material is divided into 12 online modules (1 to 3 hours each) and a mandatory, instructor-led field exercise. Each online module explains the concepts and skills that will be performed and evaluated on the field exercise. Module 12 contains optional knowledge areas (pump operations, map and compass, fire investigation and cultural resources) that are very useful concepts, but not required due to time constraints.

To succeed on the field exercise, students must understand the concepts taught in modules 1 through 11 as documented by module certificates of completion. Both students and instructors can find an overview of the field exercise in module 13. This module informs instructors how to set up the exercise, lists materials needed, and provides evaluation checklists. It also provides students an idea of what to expect and what they will be evaluated on.

There is a challenge review at the end of each module. If you successfully complete the challenge review, you will be able to print a module certificate of completion. **Before you begin the challenge review, you MUST be connected to an active printer!**

Objectives

- Explain what the LCES (Lookouts, Communications, Escape Routes, and Safety Zones) system is and how it relates to the Standard Firefighting Orders.
- Construct fireline to required standards using various methods.
- Strengthen, reinforce, and use holding actions on a fireline.
- Extinguish the fire with or without the use of water.
- Complete assigned tasks in a safe and efficient manner.
- Given an assignment in a wildfire environment, describe factors in that environment which could impact safety.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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</tr>
<tr>
<td>Pre-course work</td>
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</tr>
<tr>
<td>Online training</td>
<td>22</td>
</tr>
<tr>
<td>Field Exercise</td>
<td>8-10</td>
</tr>
<tr>
<td>Total Hours</td>
<td>30-32</td>
</tr>
</tbody>
</table>

Target Group
Entry-level firefighters

Minimum Instructor Qualifications
Module 13, Field Exercise – Lead instructor must be a qualified Single Resource Boss; additional instructors must be qualified as Firefighter Type 1 (FFT1).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Successful completion of Introduction to S-190, Wildland Fire Behavior.
Course Level
Local

Course Access and Additional Course Information
Can be found at https://onlinetraining.nwcg.gov/ under Training.
S-131, Firefighter Type 1

2016 12 hours

Course Description
S-131, Firefighter Type 1, is a 12-hour course designed to meet the training needs of the Firefighter Type 1 (FFT1) and/or Incident Commander Type 5 (ICT5). This course is designed to be interactive in nature. It contains class discussion and several tactical decision games designed to facilitate learning the objectives. Topics include operational leadership, communications, LCES, and tactical decision-making.

Objectives
- Identify position responsibilities and demonstrate the ability to apply principles of Operational Leadership found in the Incident Response Pocket Guide (IRPG), PMS 461.
- Describe how to incorporate and maintain open lines of communication with appropriate personnel.
- Identify Look Up, Down and Around indicators, and demonstrate the ability to apply the components of Lookouts, Communications, Escape Routes, and Safety Zones (LCES) as described in the IRPG.
- Demonstrate the ability to apply tactical decision-making procedures.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work N/A
Online training N/A
Instructor-led training 12
Total Hours 12

Target Group
Personnel desiring to be qualified as Firefighter Type 1 (FFT1) and/or Incident Commander Type 5 (ICT5).

Minimum Instructor Qualifications
Lead instructors must be qualified Single Resource Boss.
Unit instructors must be qualified as Firefighter Type 1 (FFT1).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as a Firefighter Type 2 (FFT2).

Course Level
Local
S-190, Introduction to Wildland Fire Behavior

2006 6-8 hours

Course Description
This course provides instruction in the primary factors affecting the start and spread of wildfire and recognition of potentially hazardous situations. S-190 is typically taught in conjunction with or prior to Basic Firefighter Training, S-130. It is designed to meet the fire behavior training needs of a Firefighter Type 2 (FFT2) on an incident as outlined in the NIMS: Wildland Fire Qualification System Guide, PMS 310-1, and the position taskbook developed for the position.

Objectives
- Identify and discuss the three sides of the fire triangle.
- Identify the environmental factors of fuels, weather and topography that affect the start and spread of wildland fire.
- Describe the contributing factors that indicate the potential for increased fire behavior that may compromise safety.

Course Components and Hours to Complete
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<tr>
<th>Component</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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<td>Pre-course work</td>
<td>N/A</td>
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<tr>
<td>Online training</td>
<td>N/A</td>
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<tr>
<td>Instructor-led training</td>
<td>6-8</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>6-8</strong></td>
</tr>
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</table>

Target Group
Entry-level firefighters.

Minimum Instructor Qualifications
Lead instructor must be a qualified Single Resource Boss.
Unit instructors must be qualified as Firefighter Type 1 (FFT1).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Local
S-190, Introduction to Wildland Fire Behavior (Online)

2008 6-8 hours

Course Description
This course provides instruction in the primary factors affecting the start and spread of wildfire and recognition of potentially hazardous situations. S-190 is typically taught in conjunction with or prior to S-130, Firefighter Training. The material is divided into three online modules (1 to 3 hours each).

Objectives
• Identify and discuss the three sides of the fire triangle.
• Identify the environmental factors of fuels, weather and topography that affect the start and spread of wildland fire.
• Describe the contributing factors that indicate the potential for increased fire behavior that may compromise safety.

There is a challenge review at the end of each module. If you successfully complete the challenge review, you will be able to print a module certificate of completion.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  6-8
Instructor-led training  N/A
Total Hours  6-8

Target Group
Entry-level firefighters.

Minimum Instructor Qualifications
None

Course Prerequisites
None

Course Level
Local

Course Access and Additional Course Information
Can be found at https://onlinetraining.nwcg.gov/ under Training.
S-200, Initial Attack Incident Commander

Course Description
This course is designed to meet the training needs of the Incident Commander Type 4 (ICT4). It is presented in a discussion/exercise format. The six instructional units include: Foundation Skills; Intelligence Gathering and Documentation; Size Up the Incident; Develop a Plan of Action; Post-fire Activities; Evaluating Incident Objectives and Manage the Incident. Evaluation of the student is by unit tests and performance based evaluations.

Objectives
- Demonstrate effective foundation skills (leadership, risk management, and communications) at the ICT4 level.
- Gather and document essential information about the incident.
- Size up the incident, develop plan of action.
- Manage the incident through effective leadership.
- Demonstrate the ability to evaluate plan of action and make adjustments to the plan when necessary.
- Conduct post-fire activities.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
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<tr>
<td>Pre-selection assessment</td>
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<td>Instructor-led training</td>
<td>16</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>19</strong></td>
</tr>
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</table>

Target Group
Personnel desiring to be qualified as Incident Commander Type 4 (ICT4).

Minimum Instructor Qualifications
Lead instructor must be a qualified Incident Commander Type 3 (ICT3) or Prescribed Fire Burn Boss Type 2 (RXB2).

Unit instructors must be qualified as Incident Commanders Type 4 (ICT4).

Cadre must be proficient in the delivery of Tactical Decision Games (TDGS).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as any Single Resource Boss.

Satisfactory completion of pre-course work.

Course Level
Local
S-203, Introduction to Incident Information

2008 33 hours

Course Description
The purpose of this course is to provide students with the skills and knowledge needed to serve as Public Information Officers (PIOF). The course covers establishing and maintaining an incident information operation, communicating with internal and external audiences, working with the news media, handling special situations, and long-term planning and strategy.

Objective
• Students will demonstrate the skills and knowledge of a Public Information Officer (PIOF) by successfully participating in a simulation and passing a written exam.

Course Components and Hours to Complete
- Pre-selection assessment: N/A
- Pre-course work: 3
- Online training: N/A
- Instructor-led training: 30
- Total Hours: 33

Target Group
Personnel desiring to be qualified as Public Information Officer (PIOF).

Minimum Instructor Qualifications
Lead instructor must be a qualified Type 2 Public Information Officer (PIO2).
Unit instructors must be qualified as Public Information Officer (PIOF).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Satisfactory completion of pre-course work.

Course Level
Local
Course Description
This course is designed to provide knowledge and skills to design, set-up, operate, troubleshoot, and shut down portable water delivery systems. The focus is on portable pumps; it does not address water delivery for engines. Topics covered include: portable water delivery systems; equipment; roles and responsibilities; and system design and hydraulics. There is also a field exercise where students will apply what they learned in the classroom.

Objective
• Demonstrate knowledge and skills to design, set up, operate, troubleshoot, and shut down portable water delivery systems.

Course Components and Hours to Complete
Pre-selection assessment   N/A
Pre-course work            N/A
Online training            N/A
Instructor-led training    16-20
Total Hours                16-20

Target Group
Personnel desiring to be qualified as Firefighter Type 1 (FFT1) or Incident Commander Type 5 (ICT5), or those wanting to learn more about portable pumps and water use.

Minimum Instructor Qualifications
Instructors must be knowledgeable in the use and maintenance of portable water pumps. Hydraulics unit requires competency in that subject matter.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Local
**S-212, Wildand Fire Chain Saws**

2012 25-37 hours

**Course Description**
This is an instructor-led course intended to be presented at the local level. The course lessons provide introduction to the function, maintenance and use of internal combustion engine powered chain saws, and their tactical wildland fire application. Field exercises support entry-level training for firefighters with little or no previous experience in operating a chain saw, providing hands-on cutting experience in surroundings similar to fireline situations.

**Objectives**
- Define and apply chain saw safety standards as required by OSHA and agency handbooks, manuals, directives, and owner’s manuals.
- Identify and demonstrate basic chain saw operation, troubleshooting, maintenance, and safety features.
- Demonstrate the tactical application of chain saws in fireline construction and mop up operations.

**Course Components and Hours to Complete**

<table>
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<tr>
<th>Component</th>
<th>Hours to Complete</th>
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<tbody>
<tr>
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<td>Online training</td>
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<td>Instructor-led training</td>
<td>24-36</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>25-37</strong></td>
</tr>
</tbody>
</table>

**Target Group**
Individuals desiring to be qualified as Basic Faller (FAL3), Firefighter Type 1 (FFT1), Incident Commander Type 5 (ICT5), or Felling Boss, Single Resource (FELB).

**Minimum Instructor Qualifications**
Instructor qualifications are agency determined.

See NWCG Instructor Certification at the beginning of this Guide.

**Course Prerequisites**
Qualified as a Firefighter Type 2 (FFT2).
Satisfactory completion of pre-course work.

**Course Level**
Local
S-215, Fire Operations in the Wildland Urban Interface

Course Description
This is an instructor-led course intended to be presented at the local level. Instructional units include firefighter safety in the interface, managing human factors in the interface, pre-incident planning, size up and initial strategy, structure triage, structure protection overview, tactics in the interface, tactical operations and resource use in the interface, action assessment, plan update, and after action review.

Objective
- Operate safely and effectively in a wildland urban interface incident by using situation awareness, performing structure triage, using pre-planning tools, having a basic understanding of fire behavior, and using strategy and tactics unique to the wildland urban interface environment.

Course Components and Hours to Complete
- Pre-selection assessment: N/A
- Pre-course work: N/A
- Online training: N/A
- Instructor-led training: 16-24

Total Hours: 16-24

Target Group
Designed to assist any emergency responders who will be planning for and making operational decisions during an interface incident. This course is for personnel desiring to be qualified as Incident Commander Type 4 (ICT4), Task Force Leader (TFLD), or any Strike Team Leader.

Minimum Instructor Qualifications
Lead instructor must be a qualified Incident Commander Type 3 (ICT3), Task Force Leader (TFLD), or Division Group Supervisor (DIVS).

Unit instructors must be qualified as Incident Commander Type 4 (ICT4) or any Strike Team Leader.

Cadre should include representatives from both structure and wildland fire disciplines.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisite
Qualified as a Firefighter Type 1 (FFT1).

Course Level
Local
S-219, Firing Operations

Course Description
This course was developed using a blended approach to learning. Students are required to complete the online training portion of the course prior to taking the ILT. The course introduces the roles and responsibilities of a Firing Boss, Single Resource (FIRB), and outlines duties of other personnel who may engage firing operations. The course discusses and illustrates common firing devices and techniques. Although comprehensive in nature, the course work is not a substitute for the dynamic fire environment. The course provides students with important information regarding general tasks required to be successful. Any opportunity to show students a real ignition or demonstrate the use of an actual firing device will assist in transferring these new concepts and skills to the job. There is an optional field day outlined in the course, it is the discretion of the delivery unit to include the field day; however, if logistically feasible it is suggested by NWCG that a field day be conducted.

Objectives
- Identify the roles and responsibilities of the FIRB for planning, execution, safety, coordination, and evaluation of an ignition operation on a wildland or prescribed fire.
- Describe the characteristics, applications, safety and availability of the various firing devices a FIRB has at their disposal.
- Given a wildland or prescribed scenario, prepare a firing plan and briefing that contains desired fire behavior, firing techniques, required resources, coordination, safety and risk management factors, and communication to meet specific objectives.

Course Components and Hours to Complete
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
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<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>2</td>
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<tr>
<td>Instructor-led training</td>
<td>16-18</td>
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<tr>
<td>Field day (optional)</td>
<td>4</td>
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<tr>
<td>Total Hours</td>
<td>18-24</td>
</tr>
</tbody>
</table>

Target Group
Personnel desiring to be qualified as Firing Boss, Single Resource (FIRB) and Firefighter Type 1 and 2 personnel looking to gain valuable information to conduct or participate in firing operations.

Minimum Instructor Qualifications
Lead instructor must be a qualified Firing Boss, Single Resource (FIRB).

Unit instructors must be qualified as any Single Resource Boss.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as a Firefighter Type 2 (FFT2).

Course Level
Local
S-230, Crew Boss (Single Resource)

Course Description
This is a classroom course designed to produce student proficiency in the performance of duties associated with the Single Resource Boss position from initial dispatch through demobilization to the home unit. Topics include operational leadership, preparation and mobilization, assignment preparation, risk management, entrapment avoidance, safety and tactics, offline duties, demobilization, and post-incident responsibilities.

Objectives
- Describe Crew Boss responsibilities prior to and during mobilization, on the incident, and during demobilization.
- Identify the hazards and risks on various incidents and describe how to mitigate them.
- Describe tactics which are appropriate to various wildland fire situations and procedures to implement them through the chain of command.

Course Components and Hours to Complete
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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</tr>
<tr>
<td>Pre-course work</td>
<td>2</td>
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<tr>
<td>Online training</td>
<td>N/A</td>
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<tr>
<td>Instructor-led training</td>
<td>24</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>

Target Group
Personnel desiring to be qualified as any Single Resource Boss.

Minimum Instructor Qualifications
Lead instructor must be a qualified Strike Team Leader (STL) or Task Force Leader (TFLD).

Unit instructors must be qualified as any Single Resource Boss.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Firefighter Type 1 (FFT1).

Successful completion of S-290, Intermediate Wildland Fire Behavior.

Satisfactory completion of pre-course work.

Course Level
Local

Course Access and Additional Course Information
Course Description
This course was developed using a blended approach to learning. Students are required to complete the online training portion of the course and pass an online assessment prior to taking the instructor-led training (ILT). The focus of the online training is to teach knowledge and concepts. The ILT will reinforce the content learned online and provide opportunities to apply this knowledge to real-world scenarios and practical exercises. Upon completion of the ILT, students must then take and pass a final assessment in order to receive credit for the course. The final assessment covers content from both the online and ILT portions of the course.

Note: Instructors must order specific course materials for the classroom/instructor-led portion of the blended course. Reference the NFES Catalog Part 2: Publications, PMS 449-2 for ordering information.

Objectives
- Describe Crew Boss responsibilities prior to and during mobilization on the incident, and during demobilization.
- Identify the hazards and risks on various incidents and describe how to mitigate them.
- Describe tactics appropriate to various wildland fire situations and implementation through the chain of command.

Course Components and Hours to Complete
- Pre-selection assessment: N/A
- Pre-course work: N/A
- Online training: 16
- Instructor-led training: 8
- Total Hours: 24

Target Group
Personnel desiring to be qualified as any Single Resource Boss.

Minimum Instructor Qualifications
Lead instructor must be a qualified Strike Team Leader or Task Force Leader (TFLD).
Unit instructors must be qualified as any Single Resource Boss.
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Firefighter Type 1 (FFT1).
Successful completion of S-290, Intermediate Wildland Fire Behavior.

Course Level
Local

Course Access and Additional Course Information
Can be found at https://onlinetraining.nwcg.gov/ under Training.
Course Description
This is a skill course designed to produce student proficiency in the performance of the duties associated with Engine Boss, Single Resource (ENGB). Topics include engine and crew capabilities and limitations, information sources, fire size up considerations, tactics, and wildland urban interface.

Objective
- Perform the tasks of an Engine Boss in making the tactical decisions required to safely manage an engine on an incident.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  12-16
Total Hours  12-16

Target Group
Personnel desiring to be qualified as Engine Boss, Single Resource (ENGB).

Minimum Instructor Qualifications
Lead instructor must be a qualified Strike Team Leader Engine (STEN) or Task Force Leader (TFLD).
Unit instructors must be qualified as Engine Boss, Single Resource (ENGB).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as a Firefighter Type 1 (FFT1).
Successful completion of S-230, Crew Boss (Single Resource), instructor-led or blended delivery.

Course Level
Local

Course Access and Additional Course Information
*The course references the Wildland Fire Tactics Guide, PMS 465, the publication was removed from PMS in March 2006 and is no longer available. If using the Sample Selection Letter in the Course Instructions section, please delete pre-course work requirements for this course.
S-231, Engine Boss (Single Resource) (Blended)

2012 12-16 hours

**Course Description**
This course was developed using a blended approach to learning. Students are required to complete the online training portion of the course and pass an online assessment prior to taking the ILT. The focus of this online training is to teach knowledge and concepts. The ILT will reinforce the content learned online and provide opportunities to apply this knowledge to real-world scenarios and practical exercises. Upon completion of the ILT, students must then take and pass a final assessment in order to receive credit for the course. The final assessment covers content from both the online and ILT portions of the course.

**Objective**
- Perform the tasks of an Engine Boss in making the tactical decisions required to safely manage an engine and personnel on an incident.

**Course Components and Hours to Complete**
- Pre-selection assessment: N/A
- Pre-course work: N/A
- Online training: 6
- Instructor-led training: 6-10
- Total Hours: 12-16

**Target Group**
Personnel desiring to become qualified as Engine Boss, Single Resource (ENGB).

**Minimum Instructor Qualifications**
- Lead instructor must be a qualified Strike Team Leader Engine (STEN) or Task Force Leader (TFLD).
- Unit instructors must be qualified as Engine Boss, Single Resource (ENGB).

See NWCG Instructor Certification at the beginning of this Guide.

**Course Prerequisites**
Successful completion of S-230, Crew Boss (Single Resource), instructor-led or blended delivery.

**Course Level**
Local

**Course Access and Additional Course Information**
Can be found at [https://onlinetraining.nwcg.gov/](https://onlinetraining.nwcg.gov/) under Training.
Course Description
This is a skill course designed to meet the training needs of a Heavy Equipment Boss, Single Resource (HEQB) on an incident as outlined in the NIMS: Wildland Fire Qualification System Guide, PMS 310-1, and the position taskbook developed for the position. Primary considerations are tactical use and safety precautions required to establish and maintain an effective dozer operation. A field exercise is required as part of the course.

Objectives
- Identify the administrative duties and procedures required of a HEQB.
- Identify and demonstrate the heavy equipment inspection process and related duties of the HEQB.
- Demonstrate the actions required of an HEQB to safely and effectively complete an assignment.
- Discuss relevant information and methods for communication and tactics related to heavy equipment.
- Identify the process of preparing for an all-hazard assignment.

Course Components and Hours to Complete
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
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<tr>
<td>Pre-selection assessment</td>
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<tr>
<td>Online training</td>
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<tr>
<td>Instructor-led training</td>
<td>18-22</td>
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<tr>
<td>Total Hours</td>
<td>20-24</td>
</tr>
</tbody>
</table>

Target Group
Personnel desiring to be qualified as Heavy Equipment Boss, Single Resource (HEQB).

Minimum Instructor Qualifications
Lead instructor must be a qualified Strike Team Leader, Heavy Equipment Boss (STEQ) or Task Force Leader (TFLD).

Unit instructors must be qualified Heavy Equipment, Single Resource Boss (HEQB).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Firefighter Type 1 (FFT1).

Satisfactory completion of pre-course work.

Course Level
Local
S-244, Field Observer

2007  28 hours

Course Description
This course provides students with the skills necessary to perform as a Field Observer (FOBS) and/or a Fire Effects Monitor (FEMO). Topics include roles and responsibilities of the FOBS and FEMO; how to make observations and document those observations; how to produce hand drawn and GPS field maps; and how to navigate using a compass and GPS. The navigation unit has 4½ hours of field exercises and the final field exercise is 8 hours. For pre-course work, students need to read and complete exercises in Basic Land Navigation, PMS 475.

Objective
• Demonstrate skills and knowledge to gather and report information for incident planning.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  8
Online training  N/A
Instructor-led training  20
Total Hours  28

Target Group
Personnel desiring to be qualified as Field Observer (FOBS) and/or Fire Effects Monitor (FEMO).

Minimum Instructor Qualifications
Lead instructor must be a qualified Situation Unit Leader (SITL).
Unit instructors must be qualified as either Field Observer (FOBS) or Fire Effects Monitor (FEMO).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Successful completion of S-290, Intermediate Wildland Fire Behavior.
Successful completion of pre-course work.
Basic understanding of how to use a GPS receiver.
FOBS: Qualified as any Single Resource Boss, OR
FEMO: Qualified as a Firefighter Type 2 (FFT2).

Course Level
Local
S-245, Display Processor

2007 10 hours

Course Description
This course provides students with the skills necessary to perform as a Display Processor (DPRO). Topics include general roles and responsibilities and how to assist the Situation Unit Leader with producing incident maps, inputs for the Incident Status Summary, (ICS-209), and other incident products. The final exam is three hours. For pre-course work, students need to read specific chapters in Basic Land Navigation, PMS 475.

Objective
• Collect and evaluate information to produce maps, ICS-209 inputs, and other incident products within established guidelines and timeframes.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work 2
Online training N/A
Instructor-led training 8
Total Hours 10

Target Group
Personnel desiring to be qualified as Display Processor (DPRO).

Minimum Instructor Qualifications
Lead instructor must be a qualified Situation Unit Leader (SITL).
Unit instructors must be qualified as Display Processor (DPRO).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Satisfactory completion of pre-course work.

Course Level
Local
S-248, Status/Check-In Recorder

2006 16 hours

Course Description
This course is designed to introduce students to the tools and techniques used to perform the duties of a Status/Check-in Recorder (SCKN). The course provides an overview of what a student can expect if dispatched to an incident.

Each student will need access to a computer that has the most current incident automation software. At the time of this publication, I-Suite is the industry standard.

Objectives
The desired outcome of this course is to prepare students to:

• Set up and manage a check-in station.
• Process information using incident automation software and other paper based methods.
• Package the information into useful products.
• Assist with demobilization.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  16
Total Hours  16

Target Group
Personnel desiring to be qualified as Status/Check-in Recorder (SCKN).

Minimum Instructor Qualifications
Lead instructor must be a qualified Resource Unit Leader (RESL).

Unit instructors must be qualified Status/Check-in Recorders (SCKN).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
It is recommended that students have completed ICS-200, Basic ICS and L-180, Human Factors and have basic computer skills in Microsoft Word.

Course Level
Local
S-258, Incident Communications Technician
2002

Course Description
This course is designed to provide the prerequisite knowledge and skills necessary to perform the tasks of an Incident Communications Technician (COMT) in the Incident Command System (ICS). Topics include installation, maintenance, and troubleshooting of National Incident Radio Support Cache (NIRSC) communications equipment on incidents. The course consists of classroom instruction, field exercises, a written exam, and a practical final exam.

Objectives
- Identify and describe the responsibilities of the COMT prior to, during mobilization, and demobilization.
- Identify and explain basic communications theory, the capabilities of NIRSC specialty equipment and assist with installation, and hazards and risks on various incidents and how to mitigate them.
- Recognize, plan for, and demonstrate the ability to provide adequate incident communications coverage.
- Demonstrate proper installation of equipment, the ability to properly program NIRSC incident handheld radios, and the ability to accurately troubleshoot and field repair NIRSC equipment.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work N/A
Online training N/A
Instructor-led training 32
Total Hours 32

Target Group
Personnel desiring to be qualified as Incident Communications Technician (COMT).

Minimum Instructor Qualifications
Lead instructor must be a qualified Communications Unit Leader (COML).

Unit instructors must be qualified as Incident Communications Technician (COMT).

See NWCG Instructor Qualifications at the beginning of this Guide.

Course Prerequisites
It is recommended that students have completed Basic ICS (ICS-200), Basic Fire Suppression Orientation (S-110), and have reviewed the Basic Aviation Safety Guide (NFES 2097).

Course Level
Regional, state, or area
S-260, Interagency Incident Business Management (Online)

2014 16 hours

Course Description
This online course meets the general training needs of all positions for which an understanding of interagency incident business management is required. The *NWCG Standards for Interagency Incident Business Management*, PMS 902 is used as the primary job aid to supplement this course. It provides basic policy and direction for incident business management.

Objectives
Given the Interagency Incident Business Handbook, students will locate and apply the appropriate regulations, established interagency procedures, and necessary forms for each of the following incident management areas:

- Application of conduct and ethics in incident support
- Recruitment, classification, pay provisions and timekeeping/recording, commissary, injury compensation, and travel
- Acquisition
- Managing and tracking government property
- Interagency coordination and cooperation
- Investigating, documenting, and reporting claims
- Containing incident costs
- All-Hazard Incidents

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  16
Instructor-led training  N/A
Total Hours  16

Target Group
All ICS positions and personnel seeking knowledge of incident business management.

Minimum Instructor Qualifications
None

Course Prerequisites
None

Course Level
Local

Course Access and Additional Course Information
Can be found at [https://onlinetraining.nwcg.gov/](https://onlinetraining.nwcg.gov/) under Training.

Refer to the Incident Business Committee website for additional information on S-260 delivery guidance, [https://www.nwcg.gov/committees/incident-business-committee](https://www.nwcg.gov/committees/incident-business-committee).
S-261, Applied Interagency Incident Business Management

2014 16-20 hours

Course Description
This is an instructor-led course designed for entry-level finance positions. The format is a mix of exercises, facilitated group discussions, and lecture supported by PowerPoint presentations. Students work directly from the *NWCG Standards for Interagency Incident Business Management*, PMS 902 for most of the exercises.

S-261, Applied Interagency Incident Business Management, is designed to be taken after completion of S-260, Interagency Incident Business Management.

Objective
At the successful completion of this course, students will describe roles and responsibilities, and demonstrate proficiency in the skills/knowledge required to perform the tasks of the following positions:

- Equipment Time Recorder (EQTR)
- Compensation for Injury Specialist (INJR)
- Claims Specialist (CLMS)
- Personnel Time Recorder (PTRC)

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  16-20
Total Hours  16-20

Target Group
Personnel desiring to be qualified as one or more of the financial positions: Equipment Time Recorder (EQTR), Compensation for Injury Specialist (INJR), Claims Specialist (CLMS), or Personnel Time Recorder (PTRC).

Minimum Instructor Qualifications
Lead instructor must be a qualified Finance/Administration Chief Type 2 (FSC2), an administrative officer, or an assistant with incident business management experience.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Local
Course Description
This course is designed to introduce students to tools and techniques used to perform the duties of the Incident Contract Project Inspector (ICPI). The course provides an overview of what students can expect if dispatched to an incident. It also provides general information on basic contract administration, types of equipment that will be inspected, and an opportunity to inspect equipment if the optional field day is completed.

Objectives
At the successful completion of this course, students will be able to:

• Demonstrate the ability to interpret contract specifications.
• Demonstrate the ability to perform basic contract administration.
• Perform equipment inspections.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work        N/A
Online training        N/A
Instructor-led training 16
Optional field day      4
Total Hours            16-20

Target Group
Personnel desiring to be qualified as Incident Contract Project Inspector (ICPI).

Minimum Instructor Qualifications
Lead instructor must be qualified as a Contracting Officer of Virtual Incident Procurement (VIPR) Incident Blanket Purchase Agreements (IBPAs) or national agreements, Regional Program Lead for Contract Operations; or Regional Equipment Specialist with VIPR COR Authorities.

Unit Instructors should be qualified as an Incident Contract Project Inspector (ICPI).

Utilize an interagency cadre in geographic areas where applicable.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Local
**Course Description**
This course covers aircraft types and capabilities, aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. *Note:* The regulations, procedures, and policies addressed in this course are primarily those governing federal agency and ICS operations. State, county, or other political subdivisions using this course will need to consult their agency having jurisdiction with respect to regulations, procedures and policies. Refer to the Interagency Aviation Training (IAT) Guide for IAT A-course equivalencies: [https://www.iat.gov/](https://www.iat.gov/).

**Objective**
- Upon completion of this course, the student will have obtained the basic understanding of the different functions of Air Operations.

**Course Components and Hours to Complete**

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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</tr>
<tr>
<td>Pre-course work</td>
<td>1</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
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<tr>
<td>Instructor-led training</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

**Target Group**
Personnel desiring to be qualified as Single Engine Airtanker Manager (SEMG), Helicopter Manager, Single Resource (HMGB), Aircraft Dispatcher (ACDP), and other positions that require basic knowledge of aviation operations.

**Minimum Instructor Qualifications**
The lead and unit instructors must be knowledgeable in the use of aviation resources in wildland fire suppression, agency aviation policy, and Federal Aviation Regulations.

See NWCG Instructor Certification at the beginning of this Guide.

**Course Prerequisites**
Satisfactory completion of pre-course work.

**Course Level**
Local
Course Description
This is a combined classroom/field course designed to provide student proficiency in all areas of the tactical and logistical use of helicopters to achieve efficiency and standardization. Topics include aviation safety, aircraft capabilities and limitations, aviation life support equipment, aviation mishap reporting, pre-flight checklist and briefing/debriefing, aviation transportation of hazardous materials, crash survival, helicopter operations, helicopter field exercise. Refer to the Interagency Aviation Training (IAT) Guide for IAT A-course equivalencies: https://www.iat.gov/.

Objective
• Upon completion of this course, the student will be able to demonstrate proficiency in all identified areas of helicopter use to safely achieve efficiency and standardization.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work N/A
Online training N/A
Instructor-led training 24-26
Total Hours 24-26

Target Group
Personnel desiring to be qualified as a Helicopter Crewmember (HECM).

Minimum Instructor Qualifications
Lead instructor must be a qualified Helicopter Manager, Single Resource (HMGB).

Unit instructors must be qualified as Helicopter Crewmember (HECM).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Fire personnel: Qualified as a Firefighter Type 2 (FFT2).

Non-fire personnel: None

Course Level
Local
Course Description
This course was developed using a blended approach to learning. This course is designed to meet the training needs of a Single Engine Airtanker Manager (SEMG) as outlined in the NIMS: Wildland Fire Qualification System Guide, PMS 310-1, and the position taskbook developed for the position.

Students are required to complete five online modules and complete an assessment prior to coming to class. Refer to the Interagency Aviation Training (IAT) Guide for IAT A-course equivalencies: https://www.iat.gov/.

Objectives
• Perform the tasks required of a SEMG to mobilize and transition into an incident aviation environment.
• Prepare for, manage, and oversee all phases of a single engine airtanker operation to support local unit and incident activities.
• Evaluate the capabilities and organizational needs to implement a safe and efficient single engine airtanker operation to meet the requirements of the local unit and/or an Incident Action Plan, or both.

Course Components and Hours to Complete
Pre-selection assessment   N/A
Pre-course work            N/A
Online training            4-6
Instructor-led training    24-30
Total Hours                28-36

Target Group
Personnel desiring to be qualified as a Single Engine Airtanker Manager (SEMG).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Single Engine Airtanker Manager (SEMG).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Successful completion of S-270, Basic Air Operations.

Course Level
Local

Course Access and Additional Course Information
Online component can be found at https://www.nwcg.gov/ under Training.
S-290, Intermediate Wildland Fire Behavior

2007 37 hours

Course Description
S-290 is available via two delivery methods (online and ILT), either of which is sufficient for student completion. This is a classroom-based skills course designed to prepare the prospective fireline supervisor to undertake safe and effective fire management operations. It is the second course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Fire environment differences are discussed as necessary; instructor should stress local conditions.

Objectives
• Identify and describe the characteristics of fuels, weather, and topography that influence wildland fire behavior.
• Describe the interaction of fuels, weather, and topography on wildland fire behavior, fireline tactics, and safety.
• Describe the causes of extreme fire behavior conditions (long-range spotting, crowning, and fire whirls) that develop due to weather, fuels, and/or topography.
• Interpret, communicate, apply, and document wildland fire behavior and weather information.

Course Components and Hours to Complete
Pre-selection assessment  2
Pre-course work  3
Online training  N/A
Instructor-led training  32
Total Hours  37

Target Group
Personnel desiring to be qualified as any Single Resource Boss or Fire Effects Monitor (FEMO).

Minimum Instructor Qualifications
The lead instructor must be a qualified Strike Team Leader (STL), Task Force Leader (TFLD) or Prescribed Fire Burn Boss Type 2 (RXB2). Successful completion of Advanced Fire Behavior Calculations (S-490) is recommended.

Unit instructors must be qualified as any Single Resource Boss.

A Meteorologist is highly recommended to instruct the weather sections of this class.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Successful completion of S-190, Introduction to Wildland Fire Behavior.

Satisfactory completion of pre-selection assessment and pre-course work.

Course Level
Local
S-290, Intermediate Wildland Fire Behavior (Online)

2010

15 hours

Course Description
S-290 is available via two delivery methods (online and ILT), either of which is sufficient for student completion. This is an online course designed to prepare the prospective fireline supervisor to undertake safe and effective fire management operations. It is the second course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Completion time may vary depending on level of student knowledge.

Objectives
- Identify and describe the characteristics of fuels, weather, and topography that influence wildland fire behavior.
- Describe the interaction of fuels, weather, and topography on wildland fire behavior, fireline tactics, and safety.
- Describe the causes of extreme wildland fire behavior (long-range spotting, crowning, and fire whirls) developing due to fuels, weather, and/or topography.
- Interpret, apply, and document wildland fire behavior and weather information.

The course is broken into 13 modules that consist of an Introduction and 12 unit topics.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  15
Instructor-led training  N/A
Total Hours  15

Target Group
Personnel desiring to be qualified as any Single Resource Boss or Fire Effects Monitor (FEMO).

Minimum Instructor Qualifications
None

Course Prerequisites
Successful completion of S-190, Introduction to Wildland Fire Behavior.

Course Level
Local

Course Access and Additional Course Information
Can be found at https://www.nwcg.gov/ under Training.
S-300, Extended Attack Incident Commander

2008 22-24 hours

Course Description
This course is designed to meet the training needs of the Incident Commander Type 3 (ICT3). The focus is on the lessons of leadership and command as they relate to the ICT3 position. It is presented in participative lecture format with multiple tactical decision games for students to practice new knowledge. The seven instructional units cover Foundation Skills, Situational Awareness, Command and Control, Managing the Incident, Transitional Activities, Post-Fire Activities and a Final Simulation. There is also an optional Staff Ride Activity (Unit 8) if instructors choose to include it.

Objectives
• Demonstrate an understanding of the concept of Command as it relates to the ICT3.
• Demonstrate effective foundation skills (leadership, risk management, and communications) at the ICT3 level.
• Develop situational awareness of incident environment.
• Demonstrate effective command and control over a quickly assembled team in a time constrained and rapidly changing incident environment.
• Demonstrate the ability to manage an incident.
• Conduct post-fire activities.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work 6-8
Online training N/A
Instructor-led training 16
Total Hours 22-24

Target Group
Personnel desiring to be qualified as Incident Commander Type 3 (ICT3).

Minimum Instructor Qualifications
Lead and Unit instructors must be qualified Incident Commander Type 3 (ICT3) or Division/Group Supervisor (DIVS).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Incident Commander Type 4 (ICT4) and Task Force Leader (TFLD), OR

Qualified as ICT4 and Strike Team Leader and any two Single Resource Boss positions – one must be Crew (CRWB) or Engine (ENGB).

Satisfactory completion of pre-course work.

Course Level
Regional, state or area
S-330, Task Force/Strike Team Leader

2014 21 to 22.5 hours

Course Description
This course is designed to meet the training requirements outlined in NIMS: Wildland Fire Qualification System Guide, PMS 310-1 and the position taskbooks developed for the positions of Task Force Leader and Strike Team Leader. Most examples and exercises in this package are specific to wildland fire suppression, although some all-hazards exercises are included.

Objectives
• Demonstrate the ability to apply the Risk Management Process found in the Incident Response Pocket Guide (IRPG) to various incidents.
• Identify and describe the responsibilities of a Task Force/Strike Team Leader (TFLD/STL).
• Demonstrate the ability to apply appropriate tactics with assigned resources organized into strike teams or task forces.

Course Components and Hours to Complete
Pre-selection assessment 1
Pre-course work 1
Online training N/A
Instructor-led training 19-20.5
Total Hours 21-22.5

Target Group
Personnel desiring to be qualified as task force leader (TFLD) or any Strike Team Leader.

Minimum Instructor Qualifications
Lead instructor must be a qualified Division/Group Supervisor (DIVS).
Unit instructors must be qualified as Strike Team Leader (STL) or Task Force Leader (TFLD).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as any Single Resource Boss.
Satisfactory completion of pre-selection assessment and pre-course work.

Course Level
Regional, state, or area
S-339, Division/Group Supervisor

2015 22 – 28 hours

Course Description
This course prepares students to perform in the role of Division/Group Supervisor (DIVS). It provides instruction in support of the specific tasks of the Division/Group Supervisor, but will not instruct students in general management/supervision or in the Incident Command System (ICS), both of which the student should learn through prerequisite work. Topics include division or group management, organizational interaction, division operations, all-hazard operations, and tactical decision games (optional). The pre-course work consists of a professional reading assignment that can take from four to eight hours to complete. There is a final examination in this course.

Objective
• At the successful completion of this course, the student will demonstrate an understanding of the duties required of a Division/Group Supervisor in preparation for completing position taskbook elements.

Course Components and Hours to Complete
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
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</thead>
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<tr>
<td>Pre-selection assessment</td>
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</tr>
<tr>
<td>Pre-course work</td>
<td>4-8</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
</tr>
<tr>
<td>Instructor-led training</td>
<td>18-20</td>
</tr>
<tr>
<td>Total Hours</td>
<td>22-28</td>
</tr>
</tbody>
</table>

Target Group
Personnel desiring to be qualified as a Division/Group Supervisor (DIVS).

Minimum Instructor Qualifications
Lead instructor must be a qualified Operations Section Chief Type 2 (OSC2).

Unit instructors must be qualified as Division/Group Supervisor (DIVS) or Incident Commander Type 3 (ICT3).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Task Force Leader (TFLD), OR Qualified as Incident Commander Type 3 (ICT3), OR Qualified as Incident Commander Type 4 (ICT4) and any two Strike Team Leader positions (one must be STCR or STEN).

Satisfactory completion of pre-course work.

See NWCG Instructor Certification at the beginning of this Guide.

Course Level
Regional, state, or area
S-340, Human Resource Specialist

2011 20 hours

Course Description
This course is designed to equip an individual with the technical skills and knowledge needed to fulfill the role of Human Resource Specialist (HRSP) on emergency incidents. The primary purpose of the HRSP is to assist the Incident Management Team in maintaining a harmonious and professional environment by facilitating the resolution of a wide range of human resource issues.

Objectives
- Monitor incident activities for violations of appropriate practices and or activities that could lead to violations.
- Inform incident management that inappropriate practices or activities exist.
- Maintain appropriate visibility.
- Assist incident management by providing information on proper incident behavior.
- Advise incident management/ supervisors on proper actions to take to alleviate inappropriate practices.
- Assist incident management in resolution of inappropriate acts or conditions by facilitating appropriate process.
- Participate in daily Incident Management Team briefings.
- Provide appropriate documentation of contacts made during the incident.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  20
Total Hours  20

Target Group
Personnel desiring to be qualified as a Human Resource Specialist (HRSP).

Minimum Instructor Qualifications
It is recommended the lead instructor be a geographic area Human Resource Specialists (HRSP) coordinator.

Lead and unit instructors must be qualified Human Resource Specialists (HRSP).

See course instructions for adjunct instructor recommendations.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
None

Course Level
Regional, state, or area
Course Description
S-341, GIS Specialist for Incident Management does not teach basic ArcGIS (ArcMap, ArcGIS Pro) functionality or concepts. As a GIS Specialist, students must have expertise using ArcGIS technology and should come to the class already proficient at managing/editing geospatial data (geodatabases), spatial analysis, and map production using ArcGIS software. The online GISS Introductory Class, is used for pre-selection assessment.

The S-341 instructor-led training will allow students to apply instructional materials from the GISS Introductory Class in a simulated fire assignment. This simulated fire assignment will involve working with other students to edit data and create map products in a timed environment. The S-341 course goal is to prepare a GISS Trainee for GISS Trainee assignment(s), with the expectation of full GISS qualification. Candidates from all agencies interested and/or involved in wildland fire and all-hazard incident management are encouraged to apply.

Objective
Upon completing the course, students will have the knowledge and skills to respond to fire and all-hazard incidents and perform the duties of a trainee GIS Specialist (GISS-T), including:

- Edit and manage incident data in the standard Event Geodatabase and National Incident Feature Service, adhering to NWCG standard workflows.
- Understand and apply concepts for the management of geospatial data on mobile devices (iOS, Android) and ArcGIS Online cloud environments.
- Create standard maps within established timeframes.
- Document, share, and archive incident data and products.
- GIS Standard Operating Procedures on Incidents (GSTOP) implementation.
- Assignment preparation and deployment.

Course Components and Hours to Complete
Pre-selection assessment 40-60
Pre-course work 4
Online training N/A
Instructor-led training 28
Total Hours 72-92

Target Group
GIS specialists, GIS technicians, and cartographers with advanced GIS skills working in a Land or Resource Management environment that are interested in utilizing those skills for wildland fire or all-hazard incident management.

Minimum Instructor Qualifications
The Geographic Training Unit (GTU) maintains a national cadre list for lead and unit instructors. Lead and unit instructors must be on the national cadre list to teach. Lead instructors must be selected and/or approved annually by the GTU. Lead and unit instructors must be GISS fully qualified and current and show currency within IQCS/ICS and/or incident qualifications card (red card). Currency is defined as having had a GISS assignment in the last 1-2 years. Instructors must be experienced in managing incident data in the NWCG standard Event Geodatabase and National Incident Feature Service, adhering
to NWCG standard workflows, and implementing GSTOP on incidents. Adjunct instructors with the minimum instructor qualifications may be added to the national cadre list with GTU approval for teaching and cadre development. All instructors must attend an instructor training workshop prior to teaching. Instructors are also required to complete pre-selection online training and pre-course work along with students in preparation for teaching the course.

See NWCG Instructor Certification at the beginning of this Guide.

Course Materials
The GTU has oversight and maintenance responsibility for this course. The GTU provides course materials to the course coordinator and lead instructor after instructor selections are finalized.

Course Prerequisites
- Advanced skill level with ArcGIS (ArcMap 10.x) and at least an intermediate knowledge of ArcGIS Pro. Students must enter the class with a high degree of proficiency in the use of GIS, spatial data construction, editing, analysis and map production. Training certificates will be required for ArcGIS ArcMap and ArcGIS Pro.
- Completion of the GISS Introductory Class, https://sites.google.com/a/firenet.gov/gisstraining/home/gissintroductoryclass with a score of 70% or better.
- Available for GIS Specialist trainee (GISS-T) assignment within the following year. Availability includes supervisory approval and a personal commitment to support at least one incident.

Course Hardware and Software Requirements
An IT specialist, preferably an ITSS, must be available for the instructor-led classroom training session to assist with student hardware and software issues, and internet connectivity. Students must bring a laptop computer with single-use ArcGIS (ArcMap and ArcGIS Pro) standard or advanced (not basic) license installation. ArcGIS licensing information found here, https://sites.google.com/a/firenet.gov/gisstraining/home/2018gissinfo.

Administrative rights to load software must be allowed in laptop configuration.

Course Location
The GTU and the Geographic Area Training Representatives (GATR) agree upon each course location. Course location is based on various factors including but not limited to varied GA distribution, total cost, qualified instructor availability, and local need for GISS Trainees. Travel expenses for Lead, Unit, and Adjunct instructors from out of the geographic area will be reimbursed from student tuition.

Course Level
Regional, state, or area
S-354, Facilities Unit Leader

2009 24 hours

Course Description
This course prepares students to perform the job of Facilities Unit Leader (FACL) as outlined in the *NIMS: Wildland Fire Qualification System Guide*, PMS 310-1, and the position taskbook developed for the position. The instructional methods of the course include lecture with PowerPoint presentations, classroom exercises, and discussions. The lessons provide an introduction to operational leadership, mobilization, arrival at an incident, risk management, safety and tactics, demobilization, and post-incident responsibilities.

Objective
• At the successful completion of this course, students will describe roles and responsibilities, and demonstrate proficiency in the skills/knowledge required to perform the tasks of a Facilities Unit Leader.

Course Components and Hours to Complete
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
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<tr>
<td>Pre-selection assessment</td>
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<tr>
<td>Pre-course work</td>
<td>N/A</td>
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<tr>
<td>Online training</td>
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<td>Instructor-led training</td>
<td>24</td>
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<td><strong>Total Hours</strong></td>
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</table>

Target Group
Personnel desiring to be qualified as Facilities Unit Leader (FACL).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Facilities Unit Leader (FACL).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Base/Camp Manager (BCMG).

Course Level
Regional, state, or area
S-355, Ground Support Unit Leader

2000 16 hours

**Course Description**
This course is designed to prepare students to perform the duties of managing the transportation plan, maintenance and related services at an incident. Topics include gathering information about the assignment; organizing, staffing, and laying out the unit; field inspection of equipment; operation and coordination of the unit with other units, and demobilization.

**Objectives**
- Arrive at an incident properly equipped, gather information to assess the assignment and begin initial planning activities of a Ground Support Unit Leader (GSUL).
- Plan, staff, and manage the ground support unit to meet the needs of the incident in a safe manner.
- Coordinate with the logistics units and other sections to assist in accomplishing the overall objectives of the incident.
- Demobilize the ground support unit.

**Course Components and Hours to Complete**
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
<td>N/A</td>
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<td>Instructor-led training</td>
<td>16</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Target Group**
Personnel desiring to be qualified as Ground Support Unit Leader (GSUL).

**Minimum Instructor Qualifications**
Lead and unit instructors must be qualified as Ground Support Unit Leader (GSUL).
See NWCG Instructor Certification at the beginning of this Guide.

**Course Prerequisites**
Qualified as Equipment Manager (EQPM).

**Course Level**
Regional, state, or area
S-357, Food Unit Leader

2008  29-34 hours

Course Description
This course is designed to meet the training needs of a Food Unit Leader (FDUL). Topics include information about the assignment, coordination, general information, safe food handling, national contract administration, alternate feeding methods, and demobilization. A significant portion of this course is devoted to examining the administration of the National Mobile Food Services Contract as it applies to the FDUL.

Objectives
• Arrive at incident properly equipped, gather information to assess the assignment, and begin initial planning activities of the Food Unit Leader.
• Staff and organize the food unit to meet the needs of the incident.
• Coordinate with the logistics units and other sections to assist in accomplishing the overall objectives of the food unit.
• Identify safe food handling practices.
• Utilize the National Mobile Food Services Contract to ensure appetizing, well-balanced meals are provided to the government.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  2
Online training  N/A
Instructor-led training  27-32
Total Hours  29-34

Target Group
Personnel desiring to be qualified as Food Unit Leader (FDUL).

Minimum Instructor Qualifications
Lead instructor and unit instructors must be qualified as Food Unit Leader (FDUL).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
S-358, Communications Unit Leader

2008 24 hours

Course Description
This course is designed to provide skills and knowledge needed to perform in the role of Communications Unit Leader (COML). Topics include mobilization, establishing the communications unit, communications system design and ordering, communications system installation and maintenance, communications equipment assignment and accountability, incident communications center, internal and external coordination, demobilization, and current communications issues and technology.

Objectives
• Identify the functions of the communications unit and the duties and responsibilities of the Communications Unit Leader.
• Arrive at the incident properly equipped, gather information to assess the assignment, and begin initial planning activities of a Communications Unit Leader.
• Plan, staff, manage, and demobilize the communications unit in a safe and effective manner to meet the needs of the incident.
• Coordinate with incident sections, appropriate communications, and other agencies and personnel to assist in accomplishing the overall incident objectives.
• Design, order, and ensure the installation and maintenance of all communications systems to support the incident.
• Maintain accountability of assigned communications equipment.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  N/A
Online training  N/A
Instructor-led training  24
Total Hours  24

Target Group
Personnel desiring to be qualified as Communications Unit Leader (COML).

Minimum Instructor Qualifications
Lead instructor must be a qualified Communications Coordinator (COMC).
Unit instructors must be qualified as Communications Unit Leader (COML).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Incident Communications Technician (COMT) and as Incident Communications Center Manager (INCM).

Course Level
Regional, state, or area
S-359, Medical Unit Leader

2000 20 hours

Course Description
This course is designed to provide the skills and knowledge needed to perform in the role of Medical Unit Leader (MEDL). Topics include gathering information, organizing the medical unit, supervising the unit, evaluation, documentation, and demobilization.

Objectives

- Plan, staff, and manage the medical unit.
- Coordinate with other incident entities as necessary.
- Respond to medical emergencies and transport patients.
- Describe how to provide high quality patient care.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
<td>N/A</td>
</tr>
<tr>
<td>Pre-course work</td>
<td>N/A</td>
</tr>
<tr>
<td>Online training</td>
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<tr>
<td>Instructor-led training</td>
<td>20</td>
</tr>
<tr>
<td>Total Hours</td>
<td>20</td>
</tr>
</tbody>
</table>

Target Group
Personnel desiring to be qualified as Medical Unit Leader (MEDL).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Medical Unit Leader (MEDL).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Current certification as Emergency Medical Technician (EMT) or equivalent.

Course Level
Regional, state, or area
S-371, Helibase Manager

2007 36-44 hours

Course Description
This course provides students with the skills necessary to perform as a Helibase Manager through facilitated discussions and group exercises. The final exercise is designed to give students a realistic Helibase Manager experience which prompts the student to communicate, resolve issues, and make decisions in support of an incident.

Objective
- Perform the tasks required of a Helibase Manager to develop, organize, and manage a helibase in given simulations and exercises to support incident activities.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  8-12
Online training  N/A
Instructor-led training  28-32
Total Hours  36-44

Target Group
All personnel desiring to be qualified as Helibase Manager (HEBM).

Minimum Instructor Qualifications
Lead and unit instructors must be a qualified Helibase Manager (HEBM).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Helicopter Manager, Single Resource (HMGB).
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
Course Description
This course prepares students to perform the job of Helicopter Manager (HMGB). Unit lectures supported by slides and graphics are designed to facilitate class discussion and group exercises. The final exercise gives students a realistic Helicopter Manager experience; in addition to answering test questions, the student completes necessary forms required by the position.

Objective
- Perform the tasks required of a Helicopter Manager (HMGB) trainee. Through simulation and exercises, students obtain the skill to competently and safely manage a helicopter to support incident and project helicopter operations.

Course Components and Hours to Complete
- Pre-selection assessment: N/A
- Pre-course work: 7.5
- Online training: N/A
- Instructor-led training: 28-32
- Total Hours: 28-32

Target Group
Personnel desiring to be qualified as Helicopter Manager (HMGB).

Minimum Instructor Qualifications
- Lead instructor must be a qualified Helibase Manager (HEBM).
- Unit instructors must be qualified as Helicopter Managers (HMGB).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Satisfactory performance as Helicopter Crewmember (HECM).

Course Level
Regional, state, or area
S-373, Unmanned Aircraft Systems (UAS) Incident Operations

2018 48–52 hours

Course Description
This course is designed to meet the training needs of the Unmanned Aircraft System Pilot (UASP), Unmanned Aircraft System, Manager (UASM), Unmanned Aircraft System, Module Leader (UASL), and Unmanned Aircraft System, Data Specialist (UASD) to manage the information needs of incidents managed with the Incident Command System (ICS). The course combines lectures, facilitated discussions, individual/group exercises, and simulations. These UAS positions are used to collect, process, and distribute tactical and strategic information to meet the needs of incident operations and planning personnel.

During the course, students will:

- Describe the dispatch and mobilization process and the procedures for incident check-in, time documentation, and demobilization.
- Demonstrate ability to obtain a Special Government Interest Waiver (SGI) and file a NOTAM.
- Demonstrate the ability to select/depict a restricted operations zone (ROZ) or suitable launch and recovery area for fireline operations.
- Determine UAS mission altitudes and maintain separation from participating aircraft.
- Demonstrate the ability to obtain a clearance from aerial supervision and coordinate with on-scene aircraft on designated radio frequencies.
- Demonstrate proficiency in manual and planned flights in the incident environment.
- Develop data management structures in accordance with agency standards.
- Discuss the policies of Civil Rights, publically identifiable information (PII), and data archiving based on agency standards.
- Manage contract UAS operations in accordance with agency policy.
- Demonstrate supervisory techniques for a module comprised of Unmanned Aircraft System Pilot (UASP) and Unmanned Aircraft System, Data Specialists (UASD).

Demonstrate the ability to:

- Download UAS telemetry files with specialized software.
- Download GPX and KML files with tablets / PC.
- Produce estimated acreage and perimeter in real time.
- Build ground control station (GCS) maps (Data Specialist).
- Perform a viewshed analysis (Data Specialist).

- Describe the incident planning cycle and the associated timeframes and product deadlines critical to UAS incident support.
- Collect, package, and deliver requested data products.
- Prepare required contractor documentation including invoices and transportation worksheets.
- Discuss examples of the more complex data analysis and manipulation commonly requested of a UAS position.
Objectives
Upon completing the course, students will have the knowledge and skills to provide UAS flight and data collection services to incident personnel and:

- Work as a team to plan and safely implement UAS missions.
- Collect data required to derive requested incident products.
- Deliver requested data products within required timeframes.
- Manage vendor provided UAS services.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  8-12
Online training  N/A
Instructor-led training  40
Total Hours  48-52

Target Group
Agency qualified remote pilots and GIS specialists. Candidates from all agencies involved in wildland fire and all-hazard incident management are encouraged to apply.

Minimum Instructor Qualifications
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Agency remote pilot certification for Unmanned Aircraft System Pilot (UASP), Unmanned Aircraft System, Manager (UASM), and Unmanned Aircraft System, Module Leader (UASL).

GIS expertise and experience for Unmanned Aircraft System, Data Specialist (UASD).

Course Hardware and Software Requirements
- All students: Tablet and PC, GPS data logger such as BadElf GPS Pro+, additional applications: Bad Elf for iOS, Gaia, Avenza
- Unmanned Aircraft System Pilot (UASP): Agency certified UAS, Electro-optical and infrared sensors, additional applications: Solex GCS
- Unmanned Aircraft System, Data Specialist (UASD): ArcMap with FMV and Spatial Analyst

Course Location
Course locations are chosen for areas with favorable weather conditions for UAS flights and a flight area in close proximity to the classroom.

Course Level
National course presented at the geographic level
Course Description
This course leads students through the duties and responsibilities of the Air Support Group Supervisor (ASGS) and addresses aviation safety, risk management, airspace coordination, dispatch relations and coordination, fixed-wing, helicopter, and military operations. The desired outcome of this course is to prepare students to make the transition from being a Helibase Manager (HEBM) to an ASGS. A pre-course work assignment will familiarize students with the various reference materials used by an ASGS.

Objectives
- Perform the duties and responsibilities of the ASGS.
- Use risk management techniques to perform tasks safely.
- Coordinate airspace and build dispatch relations.
- Define the ASGS role as it relates to fixed-wing, helicopter, and military operations.

Course Components and Hours to Complete
Pre-selection assessment 4
Pre-course work N/A
Online training N/A
Instructor-led training 20
Total Hours 24

Target Group
Personnel desiring to be qualified as Air Support Group Supervisors (ASGS).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Air Support Group Supervisors (ASGS).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Helibase Manager (HEBM).
Satisfactory completion of pre-selection assessment.

Course Level
Regional, state, or area
S-378, Aerial Supervision

2009  40-44 hours

Course Description
This course is designed to meet the training needs of an Air Tactical Group Supervisor (ATGS), Helicopter Coordinator (HLCO), lead plane pilot, and Aerial Supervision Module (ASM) crewmember as outlined in the Interagency Aerial Supervision Guide (IASG), PMS 505. Topics include aerial supervision program introduction, aerial supervision roles and responsibilities, administration, training, certification, currency, policies, incident aircraft, suppressants and retardants, aerial supervision mission procedures, aerial firefighting strategy and tactics, incident aircraft operations, all-hazard incidents, and safety.

Objectives
• Describe procedures for safe and effective air traffic control over an incident.
• Describe efficient procedures for utilization of aircraft to meet incident objectives.
• Describe procedures for effective coordination between aviation and ground forces.

Course Components and Hours to Complete
Pre-selection assessment 1
Pre-course work 3
Online training N/A
Instructor-led training 36-40
Total Hours 40-44

Target Group
Personnel desiring to be qualified as aerial supervisor in Air Tactical Group Supervisor (ATGS), Helicopter Coordinator (HLCO), lead plane, or Aerial Supervision Module (ASM) crewmember.

Minimum Instructor Qualifications
Lead instructor must be a qualified Air Tactical Group Supervisor (ATGS).

Unit instructor cadre should include a lead plane pilot, airtanker pilot, Helicopter Coordinator (HLCO), state/regional aviation safety manager and/or Air Operations Branch Director (AOBD), Operations Section Chief (OSC), and an Incident Commander Type 3 (ICT3).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Students must meet the position prerequisites for their respective target group positions above.

Satisfactory completion of pre-selection assessment and pre-course work.

Course Level
Regional, state, or area
S-390, Introduction to Wildland Fire Behavior Calculations

2006 42-44 hours

Course Description
This course is designed to introduce fire behavior calculations by manual methods, using nomograms and the Fireline Handbook Appendix B: Fire Behavior, PMS 410-2. Students gain an understanding of the determinants of fire behavior through studying inputs (weather, slope, fuels, and fuel moisture). Students also learn how to interpret fire behavior outputs, documentation processes, and fire behavior briefing components.

Objectives
- List the assumptions, limitations, and appropriate uses of fire behavior prediction models.
- Describe how environmental factors and processes affect fire behavior predictions and safety.
- Define and interpret fire behavior prediction model inputs.
- Calculate fire behavior outputs using available fire behavior processors.
- Interpret, communicate, apply, and document wildland fire behavior and weather information.

Course Components and Hours to Complete
Pre-selection assessment  2  
Pre-course work  8-10  
Online training  N/A  
Instructor-led training  32  
Total Hours  42-44

Target Group
Personnel desiring to be qualified as Division/Group Supervisor (DIVS), Prescribed Fire Burn Boss Type 2 (RXB2), or Incident Commander Type 3 (ICT3).

Minimum Instructor Qualifications
Lead instructor must have completed S-490, Advanced Fire Behavior Calculations and be a qualified Division/Group supervisor (DIVS), Incident Commander Type 3 (ICT3), or Prescribed Fire Burn Boss Type 1 (RXB1); recommend the lead instructor be a qualified Fire Behavior Analyst (FBAN).

Unit instructors must be qualified as Strike Team Leader, Task Force Leader (TFLD), or Prescribed Fire Burn Boss Type 2 (RXB2).

A Meteorologist is highly recommended to instruct the weather sections of this course.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as any Single Resource Boss.
Satisfactory completion of pre-selection assessment and pre-course work.

Course Level
Regional, state, or area
S-404, Safety Officer

2013 30 hours

Course Description
This course is designed to meet the training needs of a Safety Officer Type 1 (SOF1), Safety Officer Type 2 (SOF2), and Line Safety Officer (SOFR) on an incident as outlined in the NIMS: Wildland Fire Qualification System Guide, PMS 310-1, and the position taskbook developed for the position.

Objectives
- Arrive at the incident, properly equipped, and gather information to assess the assignment and begin initial planning activities of a Safety Officer.
- Identify, prioritize, and mitigate hazards and risks on the incident.
- Plan, staff, and manage the incident safety action plan to meet the needs of the incident.
- Coordinate and plan with the Command and General Staff to assist in safely accomplishing the overall incident objectives.
- Ensure that the preparation of special reports for the final incident package and incident closeout with Agency Administrator is completed.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  2
Online training  N/A
Instructor-led training  28
Total Hours  30

Target Group
Personnel desiring to be qualified as Safety Officer Type 2 (SOF2), Safety Officer Type 1 (SOF1) and Line Safety Officer (SOFR).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Safety Officer Type 2 (SOF2).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Division/Group Supervisor (DIVS).

Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
S-420, Command and General Staff

Course Description
This course is designed to prepare students to function effectively in the position of a Type 2 Incident Commander, or Command and General Staff. The focus of this course is on the application of previously acquired knowledge and skills. Students will participate in two types of groups (teams and similar position) during exercises. These exercises include a simulation of the mobilization, management, and demobilization phases of a rapidly accelerating Type 2 incident that has potential to become a Type 1 incident.

Objective
• Students will perform the duties and responsibilities of their respective positions as team members on a Type 2 incident.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work          2
Online training         N/A
Instructor-led training  36
Total Hours             38

Target Group
Personnel desiring to be qualified in a command or general staff position on an Incident Management Team.

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Command or General Staff Type 2.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites

L-480, Organizational Leadership in the Wildland Fire Service, OR

L-380, Fireline Leadership, OR

L-381, Incident Leadership, OR

L-180, Human Factors in the Wildland Fire Service, plus completion of 40 hours in any supervision or leadership training course(s)

Completion of pre-course work assignment

Course Level
Regional, state, or area
Course Description
This course is designed to meet the training needs of the Operations Section Chief Type 2 (OSC2). This course is designed to be interactive in nature and contains several exercises designed to facilitate group and classroom discussion.

Objectives
- Explain the four elements of planning critical to the OSC: information gathering, strategy meetings, preparation of the Incident Action Plan (ICS 215), and the OSC role in demobilization.
- Discuss OSC supervision responsibilities that pertain to: operational period briefings, managing the operations section, risk assessment and safety management, and adjusting tactics.
- Describe the OSC role in external and internal coordination.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
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<tr>
<td>Pre-selection assessment</td>
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<td>Online training</td>
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<td>Instructor-led training</td>
<td>24</td>
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<td>Total Hours</td>
<td>24</td>
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</table>

Target Group
Personnel desiring to be qualified as Operations Section Chief Type 2 (OSC2).

Minimum Instructor Qualifications
Lead and Unit Instructor must be qualified as Operations Section Chief Type 2 (OSC2).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Division/Group Supervisor (DIVS).

Course Level
Regional, state, or area
Course Description
This course is designed to meet a portion of the training needs of the Planning Section Chief Type 2 (PSC2). Topics include information gathering, strategies, meetings and briefings, Incident Action Plan (IAP), interactions, forms, documents, supplies, demobilization, and an optional technology section. In the final exercise, students observe a simulated planning meeting and use the information derived to find errors in an IAP. Students must pass the unit tests and the final exercise to successfully complete the course.

Objective
• The student will display the skills, knowledge, and tools necessary to perform the duties and responsibilities of the Planning Section Chief Type 2 (PSC2).

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  1
Online training  N/A
Instructor-led training  20
Total Hours  21

Target Group
Personnel desiring to be qualified as Planning Section Chief Type 2 (PSC2).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Planning Section Chief Type 2 (PSC2).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as any of the following: Resources Unit Leader (RESL), Situation Unit Leader (SITL), Planning Section Chief Type 3 (PSC3), Operations Section Chief Type 2 (OSC2), Safety Officer Type 2 (SOF2), or Logistics Section Chief Type 2 (LSC2).
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
S-443, Infrared Interpreter for Incident Management

Pending Certification 36 hours

Course Description
S-443 is typically offered once a year to provide students with the knowledge and skills required of an infrared interpreter (IRIN) as well as how and where the IRIN fits into the information flow of an incident. The students use infrared imagery from the Phoenix system to interpret and map the heat perimeter and heat concentrations, calculate acreage burned and produce summary products. Understanding of topographic map reading and basic fire behavior are preferred but not required. The course combines lecture, discussion, multiple exercises, and a pass/fail final exam.

Objectives
Upon completion of this course the student will have the knowledge, skills, and resources to support wildland fire incidents as an IRIN trainee. This includes:

- Understand capabilities and limitations of thermal infrared imagery.
- Interpret Phoenix infrared imagery to map heat perimeters and heat concentrations accurately on a topographic base.
- Produce GIS-ready shapefiles, kmz files, maps, and logs utilizing standard IR naming conventions for delivery to the incident.
- Establish and maintain proper communications with the SITL and others on an incident, dispatchers, IR pilots and technicians, and National and/or Regional IR coordinators.

Course Components and Hours to Complete

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
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<tr>
<td>Pre-selection assessment</td>
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<td>Instructor-led training</td>
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<tr>
<td>Total Hours</td>
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</table>

Target Group
Federal, state, and local agency personnel with GIS skills interested in supporting wildland fire incidents. Candidates from all agencies involved in wildland fire management are encouraged to apply.

NOTE: Knowledge and skill in GIS is required for this course. Although some new functionality is presented, the student is expected to be comfortable working with, and creating products in, GIS.

Minimum Instructor Qualifications
The National Infrared Program Manager is responsible for selecting the cadre for the course, and will typically serve as lead instructor. All instructors will be fully qualified IRINs with substantial incident experience as IRINs. This course is not available through the publications management system. For more information contact the National Infrared Program Manager, Tom Mellin (tmellin@fs.fed.us).

Course Prerequisites
- Working knowledge of the current version of ArcGIS. The course is designed for those comfortable working with ArcMap.
- Adept at working within the directory structures in Windows and in use of Windows Explorer file management and folder structures.
Course Level
Regional, state, or area
Course Description
The course is designed to meet the training needs of the Incident Training Specialist (TNSP) on an incident as outlined in the, NIMS: Wildland Fire Qualification System Guide, PMS 310-1, and the position taskbook developed for the position. The instructional methods of the course include lecture with PowerPoint presentations, classroom exercises, and discussions. The lessons include roles and responsibilities, initiating the incident training program, individual training plans, and incident training activities. Reference material is provided to assist students in the classroom and on the job.

Objectives
- Organize and implement an incident training program.
- Analyze and facilitate training assignments to fulfill individual development needs of trainees.
- Document individual trainee assignments and the incident training program.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  3-4
Online training  N/A
Instructor-led training  14-18
Total Hours  17-22

Target Group
Personnel desiring to be qualified as Training Specialist (TNSP).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Training Specialists (TNSP).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
S-470, Air Operations Branch Director

2013  26 hours

Course Description
This course is designed to meet the needs of the Air Operations Branch Director (AOBD) position. Topics include preparedness and mobilization, initial briefings and meetings, transition, preparing and organizing for an aviation operation, implementation of an aviation operation, management and oversight of an aviation operation, and demobilization.

Objective
- Perform the tasks required of an Air Operations Branch Director to mobilize and transition into an incident aviation environment, and be able to prepare for, manage, and oversee an aviation operation.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  2
Online training  N/A
Instructor-led training  24
Total Hours  26

Target Group
Personnel desiring to be qualified Air Operations Branch Director (AOBD). It is recommended students have completed ICS 400, Advanced ICS, and L-480, Organizational Leadership in the Fire Service.

Minimum Instructor Qualifications
Lead and unit instructors must be qualified Air Operations Branch Directors (AOBD).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Qualified as Air Support Group Supervisor (ASGS).
Satisfactory completion of pre-course work.

Course Level
Regional, state, or area
S-481, Incident Business Advisor

2014 21 hours

Course Description
This course is designed to prepare students to become an Incident Business Advisor (INBA) resource for all-hazard incidents. Topics include preparation for an assignment, interactions/activities, and relationship to cost objectives.

Objectives
• Describe the basic framework of the INBA position.
• Understand the relationship between the Agency Administrator and the INBA.
• Identify the individual skills and abilities needed to perform as a successful INBA.

Course Components and Hours to Complete
Pre-selection assessment  N/A
Pre-course work  1
Online training  N/A
Instructor-led training  20
Total Hours  21

Target Group
Personnel desiring to be qualified as Incident Business Advisor (INBA).

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Incident Business Advisor (INBA).
See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Experience working with complex organizations such as Area Command, Multi-Agency Coordinating (MAC) Group, Unified Command, Federal Emergency Management Agency (FEMA), OR
Experience working with Incident Management Teams, interagency cooperators, and additional support organizations during incidents, OR
Satisfactory performance as a unit leader or Section Chief Type 1 or Type 2, OR
Working incident business management knowledge acquired through incident assignments or as a business leader on an agency unit.

Course Level
Regional, state, or area
Course Description
This course was developed using a **blended approach** to learning. Students are required to complete the online training portion of the course before taking the ILT.

S-482 is a course designed to meet the training needs of a Strategic Operational Planner (SOPL) on an incident as outlined in *NIMS: Wildland Fire Qualification System Guide*, PMS 310-1 and the position taskbook developed for the position. The online component provides background (historical and foundational) information on why the SOPL position exists and the critical role the position plays in incident management. It also describes the typical responsibilities and activities a SOPL performs on an incident. In the instructor-led component, students apply the knowledge they gained in the online component (the “knowing”) to actual practice performing the typical activities of a SOPL (the “doing” or the “how-to”).

**Objective**
- Perform basic tasks commonly required of a Strategic Operational Planner (SOPL) and possess the knowledge to successfully accomplish SOPL trainee assignments.

**Course Components and Hours to Complete**

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<tr>
<th>Component</th>
<th>Hours</th>
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**Target Group**
Primary target group is personnel desiring to become qualified as a SOPL. However, this course may also be beneficial to Agency Administrators, Incident Commanders, Fire Management Officers, incident, and unit staff who have direct fire planning and implementation responsibilities.

It is recommended that students have an introductory level of experience using the Wildland Fire Decision Support System (WFDSS) (e.g., navigating, finding situation awareness information, and locating approved Incident Decisions).

**Minimum Instructor Qualifications**
Lead and unit instructors must be a qualified Strategic Operational Planner (SOPL) and have experience in managing wildfires for the full range of protection and resource benefit objectives.

See NWCG Instructor Certification at the beginning of this Guide.

**Course Prerequisites**
None

**Course Level**
Regional, state, or area
S-490, Advanced Fire Behavior Calculations

2010 44-47 hours

Course Description
This is the fourth course in a series designed to develop fire behavior and prediction knowledge and skills. This course prepares students for Advanced Fire Behavior Interpretation, S-590, which addresses the skills for Fire Behavior Analyst and Long Term Fire Analyst positions. It also prepares students desiring to become qualified as a Prescribed Fire Burn Boss Type 1 (RXB1). The course material is presented in an instructor-led approach to learning. Examples and exercises are divided between wildfire and prescribed fire applications. Students learn to project fire perimeter growth based on weather predictions, and knowledge of fuels and topography, using a variety of scenarios.

A course update is available at https://www.nwcg.gov/course-updates-page and additional instructor developed course materials are available by contacting the Fire Environment Curriculum Subcommittee: https://www.nwcg.gov/committees/fire-environment-curriculum-subcommittee.

Objectives
• Collect and evaluate fire behavior prediction model inputs and compute wildland fire behavior using advanced techniques.
• Use fire behavior models to predict fire growth in varied terrain.
• Define likely conditions for extreme fire behavior and potential impacts on safety.
• Interpret, communicate, apply, and document wildland fire behavior and weather information.

Course Components and Hours to Complete
Pre-selection assessment  2-3
Pre-course work 2-4
Online training N/A
Instructor-led training 40
Total Hours 44-47

Target Group
Personnel desiring to be qualified as a Fire Behavior Analyst (FBAN), Long Term Fire Analyst (LTAN), Prescribed Fire Burn Boss Type 1 (RXB1) or other fire personnel (including NWCG–sponsored state, county, municipal or rural) who would benefit from this course.

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Fire Behavior Analyst (FBAN), Long Term Fire Analyst (LTAN), or Prescribed Fire Burn Boss Type 1 (RXB1).

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Successful completion of Introduction to S-390, Wildland Fire Behavior Calculations.
Proficiency using non-automated fire behavior processors:
• Nomograms
• Fireline Handbook, Appendix B: Fire Behavior, PMS 410-2

Proficiency using the latest computerized Fire Modeling System is required.
Course Level
Regional, state, or area
S-491, Intermediate National Fire Danger Rating System

Course Description
The course develops the knowledge and skill to operate, maintain and manage the National Fire Danger Rating System (NFDRS) at the local unit. Course lecture and exercises support practical and technical application of the intellectually complex subject matter. The course requires a computer classroom with Internet access to present.

Objective
- Demonstrate the knowledge and skills necessary to operate, apply, and manage the National Fire Danger Rating System.

Course Components and Hours to Complete
Pre-selection assessment  8
Pre-course work  N/A
Online training  N/A
Instructor-led training  36
Total Hours  44

Target Group
The course lessons and exercises support training for dispatchers and others charged with editing and inputting weather information into WIMS used for NFDRS calculations, fire management staff who apply NFDRS outputs to decision-making, and fire behavior specialists who incorporate NFDRS products into assessments and projections.

Minimum Instructor Qualifications
In order to maintain consistency and oversight of course delivery, course coordinators must consult with the NWCG Fire Environment Curriculum Subcommittee when selecting lead instructors to present the S-491 course. See roster for contact information. At a minimum, the lead instructor has general knowledge of the entire S-491 course material; has previous experience as a lead instructor or unit leader for S-491; has broad experience applying NFDRS outputs; has the ability to relate each unit and lesson to the next and to the entire course; and is competent to teach any lesson in the course. The lead instructor shall be responsible for selecting the remainder of the cadre for the course. The subject matter of this course is highly technical and complex. The lead instructor shall make every effort to select the most qualified individuals to teach individual lessons and lead units, paying special attention to matching the instructor to the content and complexity of those units.

At a minimum, unit and lesson instructors have completed S-491 and preferably attended the advanced NFDRS course. The unit leader must be competent in all the areas of emphasis within the unit, be able to teach any of the lessons or provide answers to detailed questions about the lesson’s content, and provide leadership to coaches.

The lesson instructors should be competent and comfortable in presenting the content of the lesson, answering technical questions on the lesson subject matter, and have expertise with the course software sufficient to coach students through course exercises.

The ratio of instructors and coaches to students must be no fewer than 1:5 to ensure availability of adequate coaching during exercises.
Computer Specialist
It is essential that a computer specialist either be one of the cadre members or be immediately available to the course presentation to resolve any computer, network, or printing problems encountered. Persons selected to fill this capacity must be thoroughly familiar with the hardware (personal computers, network, internet connection, printers, projector) used in presenting the course, with directory structures used, and to a lesser extent the software and its installation.

Course Materials
Course coordinators or lead instructors should contact the Fire Environment Curriculum Subcommittee to obtain most recent course materials. See Roster for contact information at https://www.nwcg.gov/committees/fire-environment-curriculum-subcommittee.

Course Prerequisites
• Demonstrate at least intermediate skills with the current Windows™ operating system.
• Successful completion of S-290, Intermediate Wildland Fire Behavior.
• Possess a valid Weather Information Management System (WIMS) and Wildland Fire Management Information system (WFMI) logon identification.
• Current and comprehensive working knowledge of WIMS (the WIMS course is strongly recommended to attain this prerequisite knowledge).
• Successfully complete the pre-selection assessment with a minimum passing score of 70% or higher.

Course Level
Regional, state, or area
S-495, Geospatial Fire Analysis, Interpretation, and Application

NAFRI 160 hours

Course Description
This course was developed using a blended approach to learning. Students are required to complete the online training portion of the course prior to taking the ILT.

The primary purpose of this course is to provide the knowledge base for developing short, mid, and long term geospatial fire analysis for the Long Term Analyst (LTAN) and Fire Behavior Analyst (FBAN). This course conveys the latest processes and technology to assess weather, climatology, historic fires, fuels, and biophysical attributes to develop deterministic and probabilistic fire growth for various timeframes. Concepts taught will help an LTAN and FBAN perform at an acceptable level on a national basis without regard to geographic boundaries. The course is presented by distance learning, lectures, electronic presentations, and class discussion.

Objectives
- Prepare future LTANs with advanced geospatial fire analysis, interpretation and application skills, preparatory for S-590.
- Introduce future FBANs to geospatial fire analysis, interpretation and application skills preparatory for completing taskbook items related to geospatial analysis.
- Equip technical specialists with geospatial fire analysis, assessment, and interpretation skills.
- Provide continuing education to qualified LTANs, FBANs, and technical specialists by providing the most recent advancements in geospatial fire analyses.

Course Components and Hours to Complete
<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selection assessment</td>
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<tr>
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<tr>
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<tr>
<td>Total Hours</td>
<td>160</td>
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</table>

Target Group
- Personnel desiring to be qualified as Long Term analyst (LTAN) or a Technical Specialist in Geospatial Analysis (GIST) or Fire Behavior Analyst (FBAN) completing position taskbook items relating to spatial fire analysis.
- Qualified LTANs, FBANs, and Technical Specialists seeking training on recent advancements; personnel using fire behavior models to assist in fuels planning, fire planning or ecosystem restoration; line officers faced with fire management decisions; Incident Commanders; and personnel preparing data for analysis.

Minimum Instructor Qualifications
Lead and unit instructors must be qualified as Long Term analyst (LTAN), Fire Behavior Analyst (FBAN), Incident Meteorologist (IMET), Technical Specialist, or someone with expertise in GIS with verified fire experience developing geospatial fire behavior analyses or providing data for such analyses.

Lesson instructors must have applied experience with the materials being presented.

See NWCG Instructor Certification at the beginning of this Guide.
Course Prerequisites
S-490, Advanced Wildland Fire Behavior Calculations
S-491, Intermediate National Fire Danger Rating System

Satisfactory completion of pre-selection assessment.
Students not seeking certification can access the online self-paced lessons without prerequisites.

Course Level
National
S-520, Advanced Incident Management

CIMC, Complex Incident Management Course
NAFRI 60 hours

Course Description
Using classroom lecture and simulated incidents, students will understand the role and function of a Type 1 Incident Management Team, the applicability of management principles to the incident management job, and the special considerations of incident management within geographic areas of the nation.

The Complex Incident Management Course (CIMC) was developed in conjunction with Advanced Incident Management, S-520. The two courses were co-developed around similar course and lesson objectives and content. For additional information on CIMC or S-520, go to the NAFRI website at https://www.nafri.gov.

Early Nomination Rationale: Early nomination has been requested to give those nominated the necessary mentoring and pre-work assignments for the course.

Objective
• Given a simulated complex fire situation, students will effectively perform functional and team responsibilities. Individual performance must meet established criteria for successful completion of the course.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work 20
Online training N/A
Instructor-led training 40
Total Hours 60

Target Group
Any person qualified to fill a national level interagency Type 1 Incident Management Team position as Incident Commander, Planning Section Chief, Operations Section Chief, Logistics Section Chief, Finance Section Chief, Safety Officer, or Public Information Officer, or any person desiring to become certified in one of these positions at the Type 1 complexity level.

Minimum Instructor Qualifications
This course is managed by a National Steering Committee. Nationally recognized subject matter experts and practitioners serve as instructors in this course.

Course Prerequisites
Individuals must be functionally certified and qualified at the Type 2 level for the position they will be filling at the course. Nominations must be submitted with a current fire qualifications record and with a narrative statement giving a brief background of the person nominated. Include a description of the intended use of the skills developed as a result of attending S-520.

Satisfactory completion of pre-course work.

Course Level
National
Course Description
This course was developed using a **blended approach** to learning. Students are required to complete the online training portion of the course prior to taking the ILT.

S-590 is an intensive course designed to provide prospective Fire Behavior Analyst (FBANs) and Long Term Fire Analyst (LTANs) with the groundwork they will need to succeed throughout the training process. The course focuses on the interpretation of fire behavior products and emphasizes the importance of communicating this information effectively. Ensuring the operational relevance of fire behavior information and inclusion of operational concerns into forecasts and briefings is highlighted as a key skill to providing useful input for both tactical and strategic decisions as well as being critical to firefighter safety. The course focuses on the interpretation of fire behavior outputs and models on a variety of time scales ranging from immediate operational concerns to answering longer term strategic questions.

S-590 is a highly interactive class with full participation required from all students. Course material is presented through a combination of online material and exercises. The residence portion of the class addresses key topics interspersed with in depth fire scenarios. During the fire simulations, students will produce products, briefings and documentation under tight time constraints as they would on a fire assignment. Class size is limited to 50 participants. For current course information, refer to the NAFRI website at [https://www.nafri.gov](https://www.nafri.gov).

Objectives
- Describe the FBAN/LTAN responsibilities and interactions with managers, management teams, meteorologists, and others.
- Demonstrate skills in analyzing, interpreting, displaying, and communicating fire behavior information and its implications.
- Demonstrate the ability to effectively communicate orally and in writing appropriate wildland fire behavior predictive information.
- Recognize the importance of and demonstrate the ability to prepare fire behavior documentation.

Course Components and Hours to Complete
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<thead>
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<th>Component</th>
<th>Hours</th>
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<tr>
<td>Pre-selection assessment</td>
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<tr>
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<td>Online training</td>
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<td>Instructor-led training</td>
<td>64</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>80</strong></td>
</tr>
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</table>

Target Group
Personnel desiring to be qualified as Fire Behavior Analyst (FBAN) and/or Long Term Fire Analyst (LTAN) in wildland fire management operations. **Nominees must identify which position(s) they are targeting on their nomination form.**

Minimum Instructor Qualifications
This course is managed by a National Steering Committee. Nationally recognized subject matter experts and practitioners serve as instructors in this course.
Prerequisites
Students seeking qualification as a Fire Behavior Analyst (FBAN):

• S-490, Advanced Wildland Fire Behavior Calculations
• Division/Group Supervisor (DIVS)

Students seeking qualification as a Long Term Fire Analyst (LTAN):

• S-490, Advanced Wildland Fire Behavior Calculations
• S-491, Intermediate National Fire Danger Rating System
• S-495, Geospatial Fire Analysis, Interpretation and Application
• Fire Effects Monitor (FEMO)
• Firing Boss, Single Resource (FIRB)

Pre-Selection Assessment
All nominees will need to successfully complete a pre-selection assessment that requires proficiency in the skills taught in S-490. This is a 4-hour time limited and proctored test. Proficiency in the use of BehavePlus is critical to passing the S-590 pre-selection assessment.

Mentoring Program
An active mentoring program exists for FBAN and LTAN mentees to gain experience prior to attending S-590. S-590 Steering Committee, Geographic Area Coordinating Groups, Training Representatives and Coordination Centers work together in the priority placement of mentees with qualified FBANs and LTANs. Participation is not mandatory but has proven to assist confidence in the classroom. After getting support from your supervisor and unit Training Officer, contact your Geographic Area Training Representative to get more information about the mentoring program. The S-590 Course Coordinator may also assist with concerns or issues regarding the mentoring program.

For this program to be successful, the following actions must occur:

• Geographic Area Coordinating Groups (GACG) must take a nationally consistent and active role in the identification, prioritization and nomination of candidates.
• Current Fire Behavior Analysts (FBAN) and Long Term Fire Analysts (LTAN) take an active role in the mentoring of identified candidates.
• Mentoring opportunities provide candidates with meaningful experiences as Behave technical specialists, Geospatial Analyst (GSAN), and as FBAN and or LTAN trainees.

Computer Requirements
All participants attending S-590 will need to provide their own laptop, portable printer and data cable. Students should be equipped with the hardware (laptop and printer) and software to function as an FBAN and/or LTAN and be self-sufficient at the course as if they were in the field. A detailed listing of hardware and software needs will be included in the course selection letter.
Additional Information
Success in S-590 will depend on the student's communication skills, both written and oral.

Additional skills could be obtained by completing the following:

- M-410, Facilitative Instructor or other public speaking and technical writing courses.
- Participating in the S-590 Mentoring Program.
- Instructing portions of S-490, Advanced Wildland Fire Behavior Calculations course.
- Attending S-495, Geospatial Fire Analysis Interpretation and Application course.
- Review of and practice with the BehavePlus program.

S-590 is a national level training course and as such, participants can expect long days.

Course Level
National
S-620, Area Command

NAFRI 36 hours

Course Description
Using classroom lecture and simulated incident, students will understand principles and concepts of Area Command, and understand the interaction of Area Command and other incident organizations, agencies, and political entities.

Objective
- Given a simulated multi-incident fire situation, students will effectively perform functional and team responsibilities. Individual’s performance must meet established criteria for successful completion of the course.

Course Components and Hours to Complete
Pre-selection assessment N/A
Pre-course work N/A
Online training N/A
Instructor-led training 36
Total Hours 36

Target Group
Personnel in wildland fire agencies that will be available to participate on a national interagency Area Command team as an Area Commander (ACDR), Assistant Area Commander, Logistics (ACLC), Assistant Area Commander, Planning (ACPC), or Area Command Aviation Coordinator (ACAC).

Minimum Instructor Qualifications
This course is managed by a National Steering Committee.

Course Prerequisites
Individuals must be qualified at the Type 1 level and have successfully completed S-520 or CIMC, except for the Area Command Aviation Coordinator who must complete the position taskbook prior to attending. Nominations must be submitted with a narrative statement giving a background of the person nominated. Include a description of the intended use of the skills developed as a result of attendance at S-620. For current course information, refer to the NAFRI website at https://www.nafri.gov.

Course Level
National
X-900, Investigating Power Line Caused Wildfires

2013  6 hours

Course Description
This course will provide a basic knowledge of the specific requirements and protocols necessary to investigate wildfires caused by electric power lines and their related equipment. Detailed sections will provide specialized information and techniques to aid in the investigation of power line related wildfires. The course can be presented by short lectures and electronic presentations or as a self-study course using the DVD.

Objectives
- Describe the basic structure of the electric utility industry and how to safely work around power lines and their related equipment during fire investigations.
- Recognize the different classifications of electrical lines, hardware, and their associated equipment, including exempt and non-exempt models and related clearance requirements.
- Describe construction requirements, industry standards, and maintenance procedures required to prevent wildfire starts from electrical power lines and power line related equipment.
- Understand the conditions when “spoliation of evidence” may occur and how to avoid this situation.
- Recognize the various power line fire causes and evidence associated with these causes.

Course Components and Hours to Complete
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<tr>
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</tr>
<tr>
<td>Instructor-led training</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

Target Group
Qualified Wildland Fire Investigators (INVF).

Minimum Instructor Qualifications
Cadre must have experience in wildland fire investigation.

See NWCG Instructor Certification at the beginning of this Guide.

Course Prerequisites
Successful completion of FI-110, Wildland Fire Observations and Origin Scene Protection for First Responders, and FI-210, Wildland Fire Origin and Cause Determination.

Course Level
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