



Incident Management of Major Fires

Course Plan

Course Details

- Description:** This course provides knowledge, skills, and abilities for those who are responsible for command and control of dynamic and complex fireground emergencies.
- Designed For:** Incident commanders
- Authority:** NFPA 1021 Standard for Fire Officer Professional Qualifications (2014)
NFPA 1500 Standard on Fire Department Occupational Safety and Health Program (2013)
NFPA 1521 Standard for Fire Department Safety Officer (2015)
NFPA 1561 Standard on Emergency Services Incident Management System and Command Safety (2014)
FIRESCOPE Incident Command System Publication: Field Operations Guide, ICS-420-1, (latest edition)
FIRESCOPE Incident Command System Publication: Structure Fire Operations, ICS-500, (2015)
FIRESCOPE Incident Command System Publication: Firefighter Incident Safety and Accountability Guidelines, ICS 910, (2013)
National Wildfire Coordinating Group, Incident Response Pocket Guide
Cal/OSHA Title 8 Regulations
- Prerequisites:** Intermediate Incident Command System I-300
- Standard:** Attend all classes and participate in all activities.
- Hours:** Lecture: 16:00
Activities: 24:00
- Hours (Total):** 40:00
- Maximum Class Size:** 30
- Instructor Level:** This course requires one (1) Primary Instructor and sufficient skills evaluators to meet the skills ratio

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Instructor/Student Ratio: Lecture: 1:30 Scenarios/Skills: 1:10

Restrictions: None

SFT Designation: FSTEP

Required Resources

Instructor Resources

To teach this course, instructors may choose to use:

- *Evidence-Based Practices for Strategic and Tactical Firefighting*, Jones and Bartlett, 2016, ISBN: 978-1-284-08410-8
- *Structural Firefighting: Strategy and Tactics*, Jones and Bartlett, 2008, ISBN: 978-0-7637-5168-5
- *Structural Firefighting: Strategy and Tactics, Second Edition Instructor's Toolkit* (CD-ROM), Jones and Bartlett, ISBN: 978-0-7637-5604-8
- *Fire Command, Second Edition*, by Alan V. Brunacini, Across the Streets Production, 2002, ISBN: 0-87765-500-6

Online Instructor Resources

The following instructor resources are available online at:

<http://osfm.fire.ca.gov/training/SFTCurriculum>

- Incident Management of Major Fires Course Plan:
<http://osfm.fire.ca.gov/training/pdf/IMMF/IMMF-CoursePlan.pdf>
- National Institute of Fire Technology UL:
<http://newscience.ul.com/articles/innovating-fire-attack-tactics>
- Modern Fire Behavior.com:
<http://www.firecompanies.com/modernfirebehavior/governors%20island%20online%20course/story.html>
- Incident Command System Publication: Structure Fire Operations, ICS-500, (2015):
http://www.firescope.org/ics-op-guides-job-aids/firefight_struct/ics_500.pdf
- Firefighter Incident Safety and Accountability Guidelines, ICS 910, (2013)
<http://www.firescope.org/ics-guides-and-terms/ICS%20900.pdf>
- App/ePub: 2012 FIRESCOPE Field Operations Guide, ICS 420-1, or latest version
<http://firescope.org/fog-order-info.php>

Student Resources

To participate in this course, students need (if assigned by instructors):

- *Evidence-Based Practices for Strategic and Tactical Firefighting*, Jones and Bartlett, 2016, ISBN: 978-1-284-08410-8
- *Structural Firefighting: Strategy and Tactics*, Jones and Bartlett, 2008, ISBN: 978-0-7637-5168-5

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- *Fire Command, Second Edition*, by Alan V. Brunacini, Across the Streets Production, 2002, ISBN: 0-87765-500-6
- Incident Command System Publication: Structure Fire Operations, ICS-500, (2015): http://www.firescope.org/ics-op-guides-job-aids/firefight_struct/ics_500.pdf
- Firefighter Incident Safety and Accountability Guidelines, ICS 910, (2013) <http://www.firescope.org/ics-guides-and-terms/ICS%20900.pdf>
- App/ePub: 2012 FIREScope Field Operations Guide, ICS 420-1, or latest version <http://firescope.org/fog-order-info.php>

Facilities and Equipment

The following facilities and equipment are required to deliver this course:

Facilities

- Classroom with dry erase boards

Equipment

- Audio Visual equipment for presentations and simulations
- Portable radios (minimum of six)
- Internet access (optional)
- Conference writing pads
- Dry Erase Markers
- Tactical worksheets
- Case studies

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Unit 1: Introduction

Topic 1-1: Orientation and Administration

Terminal Learning Objective

At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

Enabling Learning Objectives

1. Identify facility requirements
 - Restroom locations
 - Food locations
 - Smoking locations
 - Emergency procedures
2. Identify classroom requirements
 - Start and end times
 - Breaks
 - Electronic device policies
 - Special needs and accommodations
 - Other requirements as applicable
3. Review course syllabus
 - Course objectives
 - Calendar of events
 - Course requirements
 - Student evaluation process
 - Assignments
 - Activities
 - Required student resources
 - Class participation requirements

Discussion Questions

1. What is a formative test? What is a summative test?

Activities

1. To be determined by the instructor.

Unit 2: The Eight Standards of Command

Unit 2 Activities

1. The instructor may create an initial activity walking students (divided into command groups) through a simulation, applying the eight standards of command.
2. The instructor should demonstrate the application of the standard at the end of each topic. For example, the instructor could build several different scenarios representing each of the various types of occupancies.

Topic 2-1: Identifying the Components of the Process of Assuming Command

Terminal Learning Objective

At the end of this topic, a student, given a simulated major fire scenario, will be able to identify the components of the process of assuming command of an incident.

Enabling Learning Objectives

1. Use recognition prime decision model
2. Describe the modes of operations
3. Describe the levels of command:
 - Task
 - Tactical
 - Strategic
4. Describe the responsibilities associated with each level of command
5. Identify the components of an initial radio report
6. Identify the components of a strategic command post location

Discussion Questions

1. What is recognition prime decision making?
2. What are the modes of operations?
3. What is the difference between each level of command in terms of their associated responsibilities? What level of accountability is associated with each?

Activities

1. The instructor should create an activity directing groups of students to model assuming command within their agencies.

Instructor Notes

1. Refer to the most recent version of FIREScope. Instructor should stress using the AHJ's specific order of radio report components.
2. For information on the RPD, refer to Gary A. Klein, 1998, *Sources of Power: How People Make Decisions*.

Topic 2-2: Improving Situational Awareness and Identifying the Risk Assessment Process

Terminal Learning Objective

At the end of this topic, a student, given a simulated major fire scenario, will be able to improve situational awareness, identify the risk assessment process.

Enabling Learning Objectives

1. Identify critical factors:
 - Life hazard
 - Building characteristics and stability
 - Fire behavior (flow path) and smoke conditions
 - Environmental factors
 - Ongoing actions

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2. Assess hazards
3. Describe the levels of situational awareness:
 - Perception
 - Comprehension
 - Projection
4. Develop controls and mitigations for hazards
5. Implement controls
6. Supervise and evaluate

Discussion Questions

1. What is your organization's risk-management plan?
2. What is situational awareness and what is its role in command and control operations?
3. What critical factor may allow operations that pose a significant risk to safety personnel?

Activities

1. To be determined by the instructor.

Instructor Notes

1. For more on situational awareness, refer to Dr. Mica Endsley, *The Theoretical Model*.

Topic 2-3: Establishing a Communications Plan

Terminal Learning Objective

At the end of this topic, a student, given a simulated major fire scenario, will be able to establish an effective communications plan.

Enabling Learning Objectives

1. Demonstrate an understanding of emergency traffic
2. Demonstrate an understanding of mayday traffic
3. Identify the components of a CAN report
4. Use clear text
5. Implement and expand the command, tactical, air-to-ground channels

Discussion Questions

1. What is your agency's procedure for using emergency traffic?
2. What communication challenges have your agency encountered?

Activities

1. The instructor should create an activity directing students to bring in their agency's procedures for emergency traffic.
2. The instructor should create an activity involving managing communications.

Instructor Notes

1. The instructor should emphasize that groups, division supervisors, branch directors, command, and general staff should be communicating with the incident commander on the command channel.
2. Stress that command post support should be used for communications, accountability, and resource support. Emphasize the importance of enabling the IC to focus on the incident.

Topic 2-4: Developing and Implementing an IAP

Terminal Learning Objective

At the end of this topic, a student, given a simulated major fire scenario, will be able to develop and implement an IAP.

Enabling Learning Objectives

1. Identify incident priorities
 - Life
 - Fire control/incident stabilization
 - Property preservation
 - Environment
2. Identify and communicate strategic objectives
 - RECEO VS
 - Modes of operation
3. Identify and assign tactical objectives
4. Evaluate situation status
5. Maintain and update resource status
6. Establish a communication plan
7. Establish an incident safety plan
 - RIC
 - Rehabilitation
 - Accountability
 - Medical
8. Assign a safety officer to:
 - Identify building construction problems
 - Evaluate conditions for potential hostile fire events
 - Ensure the accountability system is functioning correctly and advise the incident commander
 - Provide strategies to the incident commander for controlling risk

Discussion Questions

1. How do the incident commander's incident priorities and strategic objectives align with the tactical objectives and tasks?
2. What factors into the development of the incident commander's priorities?
3. Provide examples of how the tactical objectives and tasks may change when your incident priorities change from life to incident stabilization and/or property preservation.

Activities

1. To be determined by the instructor.

Instructor Notes

1. The strategic objectives are the "what we are trying to do" of the incident, achieving the desired outcome of the incident through short- and long-term goals.
2. All incident decisions are driven by the current incident priorities.

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3. Incident priorities drive the strategic objectives; strategic objectives drive tactical objectives; tactical objectives drive tasks. This must be reinforced.

Topic 2-5: Developing an Effective Incident Organization

Terminal Learning Objective

At the end of this topic, a student, given a simulated major fire scenario, will be able to develop an effective incident organization to assemble, coordinate, and control tactical resources, allowing for expansion based on complexity of the incident.

Enabling Learning Objectives

1. Manage the task, tactical, and strategic operations
2. Manage resources according to the incident's evolving needs
3. Maintain unity of command, company unity, and span of control
4. Maintain direct supervision over the entire incident

Discussion Questions

1. How does your agency divide or expand the ICS organization on major fires?
2. What circumstances would require expanding or dividing the organizational structure?

Activities

1. The instructor should create an activity giving groups of students information on a sample major fire and directing them to create an organizational chart.

Instructor Notes

1. The instructor should address the challenges in applying command terms (i.e., interior) used as a component of the incident organization during high-frequency fires (i.e., single-family dwellings) to the development of the incident organization during major fires. The students must consider what actions and needs are specific to larger-scale incidents in the areas of command and control and accountability.

The instructor should address the ways in which command terms used during high-frequency fires (i.e., interior) can affect the commander's mindset when approaching command of a major fire. It should be discussed when

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Topic 2-6: Initiating Accountability and Command Worksheets

Terminal Learning Objective

At the end of this topic, a student, given a simulated major fire scenario, will be able to initiate and maintain accountability throughout the event at all levels and initiate a command worksheet.

Enabling Learning Objectives

1. Maintain accountability at all levels:
 - Task (company level)
 - Tactical (division or group level)
 - Strategic (IC or staff level)
2. Identify the components of an accountability and command worksheet
3. Identify the policies and procedures of the AHJ

Discussion Questions

1. What type of accountability system is your agency using?
2. How does your agency maintain accountability beyond using worksheets and equipment?

Activities

1. To be determined by the instructor.

Instructor Notes

1. Stress that command post support should be dedicated to communications, accountability, and resource support. Emphasize the importance of enabling the IC to focus on the incident.

Topic 2-7: Reviewing, Evaluating, and Revising the IAP

Terminal Learning Objective

At the end of this topic, a student, given an IAP, will be able to review, evaluate, and revise the IAP as needed.

Enabling Learning Objectives

1. Reevaluate the critical factors and risk assessment
2. Evaluate the need for contingencies
3. Adjust the IAP as necessary using the planning process
4. Forecast future needs to support the plan

Discussion Questions

1. How do you currently review, evaluate, and revise your IAP? Give examples.
2. What planning process does your agency use?

Activities

1. To be determined by the instructor.

Instructor Notes

1. A good IAP evaluation tool is assessing its tasks, tactics, strategies, and incident priorities to ensure they are all in alignment. If not, adjustments must take place.

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2. For more information, refer to Colonel John Boyd's Observation, Orientation, Decision, and Action (OODA loop), discussed in Robert Coram's *Boyd: The Fighter Pilot Who Changed the Art of War* (2004).
3. Use the components of the planning P as an example of the informal planning process (tactics meeting).

Topic 2-8: Continuing, Transferring, and Terminating Command

Terminal Learning Objective

At the end of this topic, a student, given a simulated major fire scenario, will be able to continue, transfer, and terminate command.

Enabling Learning Objectives

1. Analyze the critical factors
2. Describe the considerations for:
 - Continuing command
 - Expansion of staff
 - AHJ policies and procedures regarding command duration
 - Effectiveness of current operations
 - Transferring command
 - General situation status
 - IAP
 - Current deployment and assignments of operation companies
 - Specific safety hazards, life and property loss potentials
 - Additional resources to complete the IAP
 - Terminating command
 - Occupant support
 - Cooperating and assisting agencies
 - Cause and determination meeting statutory requirements
 - Ensuring an effective overhaul and salvage
 - After-action review
 - Order the demobilization of resources when appropriate
3. Describe the considerations for and components of unified command:
 - Multijurisdictional or multiagency incident
 - Agencies' values at risk
 - Statutory authority
 - Duration and scope of agencies' involvement
 - One IAP, a single ordering point, and a single operations chief
 - A collective set of incident objectives

Discussion Questions

1. What advantages do you see in unified command?
2. What other agencies could be in unified command on a major fire incident?
3. What agencies would be assisting and cooperating?

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Activities

1. To be determined by the instructor.

Instructor Notes

1. When multiple agencies agree to enter into unified command, each agency does not abdicate its own authority, responsibility, and accountability.

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Time Table

Segment	Lecture Time	Activity Time	Total Unit Time
Unit 1: Introduction			
Topic 1-1: Orientation and Administration			
Lecture	1:30		
Activity 1-1: To be determined by instructor		0:00	
Unit 1 Totals	1:30	0:00	1:30
Unit 2: The Eight Standards of Command			
Topic 2-1: Identifying the Components of the Process of Assuming Command			
Lecture	1:30		
Activity 2-1: The instructor should create an activity directing groups of students to model assuming command within their agencies.		0:30	
Topic 2-2: Improving Situational Awareness and Identifying the Risk Assessment Process			
Lecture	3:00		
Activity 2-2: To be determined by instructor		1:00	
Topic 2-3: Establishing a Communications Plan			
Lecture	1:30		
Activity 2-3a: The instructor should create an activity directing students to bring in their agency's procedures for emergency traffic. Activity 2-3b: The instructor should create an activity involving managing communications.		1:00	
Topic 2-4: Developing and Implementing an IAP			
Lecture	3:00		
Activity 2-4: To be determined by instructor		1:00	
Topic 2-5: Developing an Effective Incident Organization			
Lecture	1:30		

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Segment	Lecture Time	Activity Time	Total Unit Time
Activity 2-5: The instructor should create an activity giving groups of students information on a sample major fire and directing them to create an organizational chart.		1:00	
Topic 2-6: Initiating Accountability and Command Worksheets			
Lecture	1:00		
Activity 2-6: To be determined by instructor		1:00	
Topic 2-7: Reviewing, Evaluating, and Revising the IAP			
Lecture	1:00		
Activity 2-7: To be determined by instructor		1:30	
Topic 2-8: Continuing, Transferring, and Terminating Command			
Lecture	2:00		
Activity 2-8: To be determined by instructor		1:00	
Unit 2 Simulations: To be determined by instructor		16:00	
Unit 2 Totals	14:30	24:00	38:30
Lecture, Activity, and Unit Totals:	16:00	24:00	40:00

Course Totals

Total Lecture Time (LT)	16:00
Total Activity Time (AT)	24:00
Total Course Time	40:00