



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL**

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ATTACHMENT 6

Date: August 25, 2016

To: **State Board of Fire Services**

From: Dennis Mathisen, Division Chief
Kevin Conant, Fire Service Training Specialist III

SUBJECT/AGENDA ACTION ITEM:

Approval of Incident Management of the Fire Fighter Emergency Curriculum

Recommended Actions:

Discussion/Action

Approval of the new Fire Services Training and Education Program (FSTEP) Incident Management of Special Operations curriculum materials

Background Information:

Command and Control of the RIC Deployment was first introduced as a FSTEP course in 2011. The class was 8 hours in length, and all instructors advised that there was insufficient time for simulation and activities. Additionally, since the development of this course, FIRESCOPE ICS 500 and ICS 910 have been further developed, as well as the creation of a new NFPA standard, NFPA 1407, Standard for Training Fire Service Rapid Intervention Crews (2015) and two other related NFPA standards were updated in 2014. Stakeholders requested that SFT update the Command and Control of the RIC Deployment FSTEP course to include the information identified above, utilizing the new streamlined SFT curriculum development model in the creation of this new course: ***Incident Management of the Fire Fighter Emergency***.

Cadre Leadership

Kevin Conant, Battalion Chief (ret), Laura Garwood Meehan, Cadre Editor, Sacramento State University.

Development Cadre Members

Steve Cavallero, Battalion Chief (ret.), Redwood City Fire Department, Andy Mejia, Fire Captain (ret.), Encinitas Fire Department, William Melendez, Fire Academy Coordinator, El Camino College, Jake Pelk, Fire Captain, Central County Fire Department, Jeff Seaton, Fire & EMS Director, South Bay Regional Public Safety Training Consortium, Jon Woody, Battalion Chief, Cal Fire, Lone Academy.

Several of the cadre members are State Fire Training Registered Instructors and most were members of the original curriculum cadre for Command and Control of the RIC Deployment. The development of the material required one multi-day session. The Cadre developed a Course Plan utilizing NFPA 1407 Standard for Training Fire Service Rapid Intervention Crews (2015), NFPA 1521 Standard for Fire Department Safety Officer Professional Qualifications (2015), and NFPA 1561 Standard on Emergency Services Incident Management System and Command Safety (2014).

The breakdown of the **18.5 hours** FSTEP course is as follows:

Incident Management of the Fire Fighter Emergency	
Didactic	9:00 Hours:Minutes
Activities	8:30 Hours:Minutes
Testing	1:00 Hours:Minutes

Analysis/Summary of Issue:

1. The course has increased in hours from 8:00 to 18:30, with significant additional time dedicated to activities and simulations.
2. This course replaces the Command and Control of the RIC Deployment (2011) FSTEP course and is in alignment with:
 - a. State Fire Training Fire Fighter Survival (2010), and the RIC Operations (2011) FSTEP courses and;
 - b. IAFF Fire Ground Survival Training Program.
3. This updated and re-branded course addresses all of the incident management components of the new NFPA 1407 Standard for Training Fire Service Rapid Intervention Crews (2015):
 - a. Risk assessment and risk management;
 - b. Activation and management of rapid intervention operations;
 - c. Communications procedures of the department that are specific to rapid intervention functions;
 - d. Personnel accountability and resource management;
 - e. Criteria for the deployment of RICs and resources to the emergency scene;
 - f. Integration of the firefighter rescue operations into the incident command system (ICS) used by the fire department or training organization;
 - g. Implementation of an incident accountability system that meets the requirements of NFPA 1561: Standard on Emergency Services Incident Management System;
 - h. The potential impact of RIC operations on the safety and welfare of rescuers and others as well as on other activities at the incident scene; and
 - i. The clear distinction between “rescue” and “recovery” modes of operation at an incident.



Incident Management of the Fire Fighter Emergency

Course Plan

Course Details

- Description:** This command level awareness course provides the student with the incident management terminology and methodology that is employed during a fire fighter emergency. Classroom simulations based upon case studies allow students to participate in simulated incident command positions during a fire fighter emergency.
- Designed For:** Incident Commanders
- Authority:** NFPA 1407, Standard for Training Fire Service Rapid Intervention Crews (2015)
NFPA 1521, Standard for Fire Department Safety Officer Professional Qualifications (2015)
NFPA 1561, Standard on Emergency Services Incident Management System and Command Safety (2014)
- Prerequisites:** Basic Incident Command System I-200
Fire Command 1A, **or** Command 1A, **or** Company Officer 2D: All-Risk Command Operations
- Corequisites:** None
- Standard:** Attend all classes, complete all activities and the summative test with a minimum score of 80%.
- Hours:** Lecture: 9:00
Activities: 8:30
Testing: 1:00
- Hours (Total):** 18:30

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Maximum Class Size: 25

Instructor Level: Primary

Instructor/Student Ratio: 1:25

Restrictions: None

SFT Designation: FSTEP



Incident Management of the Fire Fighter Emergency

Required Resources

Instructor Resources

To teach this course, instructors need:

- Nedder, Joe. *Fire Service Rapid Intervention Crews: Principles and Practice*, 2015. Jones & Bartlett Learning. ISBN: 978-1-4496-0976-4
- Nedder, Joe. *Fire Service Rapid Intervention Crews: Principles and Practice. Instructor's Toolkit CD*. Jones & Bartlett Learning. ISBN 978-1-284-03478-3 (optional)

Online Instructor Resources

The following instructor resources are available online at <http://osfm.fire.ca.gov/training/instructorresources.php>:

- Incident Management of the Fire Fighter Emergency Course Plan
- Incident Command System Publication: Structure Fire Operations, ICS-500, 10-14-2015: <http://www.firescope.org/ics-op-guides-job-aids/ics%20500.pdf>
- Firefighter Incident Safety and Accountability Guidelines, ICS 910 <http://www.firescope.org/ics-guides-and-terms/ICS%20900.pdf>
- App/ePub: 2012 FIRESCOPE Field Operations Guide, ICS 420-1 <http://www.firescope.org/fog-order-info-mobile.php>

Student Resources

To participate in this course, students need:

- Nedder, Joe. *Fire Service Rapid Intervention Crews: Principles and Practice*, 2015. Jones & Bartlett Learning. ISBN: 978-1-4496-0976-4
- Incident Command System Publication: Structure Fire Operations, ICS-500, 10-14-2015: <http://www.firescope.org/ics-op-guides-job-aids/ics%20500.pdf>
- Firefighter Incident Safety and Accountability Guidelines, ICS 910 <http://www.firescope.org/ics-guides-and-terms/ICS%20900.pdf>
- App/ePub: 2012 FIRESCOPE Field Operations Guide, ICS 420-1 <http://www.firescope.org/fog-order-info-mobile.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
- Internet access (optional)
- Conference writing pads
- Dry Erase Markers
- Portable radios (minimum of six)

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- Tactical worksheets
- Case studies

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. To be determined by the instructor

Activities

1. To be determined by the instructor

Unit 2: Managing the Fire Fighter Emergency

Topic 2-1: Identifying the Eight Functions of Command

Terminal Learning Objective

At the end of this topic, a student, given a simulated incident or case study, will be able to identify the eight functions of command.

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Enabling Learning Objectives

1. Identify the components of the process of establishing command
2. Identify the process for improving situational awareness and conducting risk assessment
3. Identify the method for establishing an effective communications plan
4. Describe the development and implementation of an IAP
5. Describe the development of an effective incident organization
6. Identify the process for initiating accountability and the use of command worksheets
7. Describe the process for reviewing, evaluating, and revising the IAP
8. Describe the process of continuing, transferring, and terminating command

Discussion Questions

1. What are some traits of an effective incident commander?
2. What are the warning signs of an incident commander losing control?

Activities

1. To be determined by the instructor.

Instructor Notes

1. This should be a brief review, since the topic has been covered in Fire Command 1A, Command 1A, Company Officer 2D: All-Risk Command Operations, Fire Command 2A, and Incident Management of Major Fires.
2. Instructor should refer to FIRESCOPE *Incident Command System for Fire Department Structure Fire Operations*, ICS-SF, and the SFT Course Plan for *Incident Management of Major Fires*.

Topic 2-2: Identifying Critical Incident Factors

Terminal Learning Objective

At the end of this topic, a student, given a simulated incident or case studies, will be able to identify critical incident factors.

Enabling Learning Objectives

1. Identify the role of the following factors:
 - Fire
 - Building
 - Occupancy type/arrangement
 - Life hazard
 - Exposure, internal and external
 - Resources available
 - Other factors
2. Describe the impact of the following fire behavior topics on the critical incident factors named above:
 - Modern compartmentalized fire behavior theory
 - Hostile fire event warnings, including flashover
 - Fire load (fuel) characteristics
 - Temperature and heat release rate influences on fire growth

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- Impact of ventilation (intake and exhaust) on fire spread, including wind-fed effects on building fires
 - Reading smoke skills: the ability to interpret smoke volume, flow (pressure), density, and color
3. Describe the impact of the following building construction features on the critical incident factors named above:
- Building loads and forces, structural elements, and structural assemblies
 - Building construction types (classic and emerging)
 - Building material strengths and weaknesses and the effects of fire and heat
 - Fire spread potential through different building types
 - Historical building collapse factors from investigative reports
 - Analytical approaches to predicting building collapse at structural fires
 - Building collapse classifications and the associated hazards with each type

Discussion Questions

1. What is your AHJ's risk management policy?

Activities

1. The instructor must create an activity assigning students a case and directing them to determine one building construction feature and one fire behavior topic that was a causal or contributing factor in a fire fighter emergency.

Instructor Notes

1. Enabling learning objectives 2 and 3 came from NFPA 1521, Standard for Fire Department Safety Officer Professional Qualifications (2015), Annex A 5.3.3 and 5.3.4.

Topic 2-3: Identifying the Warning Signs of a Pending RIC Deployment

Terminal Learning Objective

At the end of this topic, a student, given a simulated incident or case studies, will be able to identify the warning signs of a pending RIC deployment.

Enabling Learning Objectives

1. Describe incident indicators that can be used to anticipate the possibility of a RIC activation, such as:
 - Burn time/clock time
 - Zero visibility in the IDLH
 - High levels of heat
 - Reading smoke
 - Operational delays
 - Unidentified or uncontrolled flow path
2. Describe personnel indicators that can be used to anticipate the possibility of a RIC activation, such as:
 - Training
 - Experience
 - Availability
 - Fatigue: work/rest/rehab

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- Air management
- 3. Describe organizational indicators that can be used to anticipate the possibility of a RIC activation, such as:
 - Accountability systems
 - Communication issues
 - Insufficient resources
 - Poor situational awareness (360-RECON)
 - Inappropriate strategy/tactics for conditions

Discussion Questions

1. When does the clock start at a structure fire incident?
2. In your experience (or in case studies), which group of indicators—incident, personnel, or organizational—have most contributed to the need for RIC deployments?
3. During a 360-RECON, how do you communicate issues you have observed to the incident commander and address them?

Activities

1. The instructor should create an activity directing students to perform a 360-RECON.

Instructor Notes

1. The instructor should refer to Annex H of NFPA 1561, Standard on Emergency Services Incident Management System and Command Safety (2015), which contains a sample checklist of critical fireground factors.

Topic 2-4: Ensuring the Duties of the RIC Are Performed

Terminal Learning Objective

At the end of this topic, a student, given an incident where a RIC is established, will be able to ensure the duties of the RIC are being performed.

Enabling Learning Objectives

1. Describe the predeployment actions of a RIC
2. Describe the information-sharing process between the RIC, the ISO, and the IC
3. Describe the process for evaluating the need for additional resources for the RIC
4. Describe the organizational structure for a reinforced RIC response

Discussion Questions

1. In addition to conditions, actions, and needs, what other critical factors should be discussed between the IC, the ISO, and the RIC?
2. What trigger points should launch expansion of the RIC or the provision of more RIC resources?
3. How do you ensure the span of control is maintained when managing RIC resources?
4. What radio designators can you use to identify RIC resources?

Activities

1. To be determined by the instructor.

Instructor Notes

1. None

Topic 2-5: Implementing the Incident Command Procedures to Address the Fire Fighter Emergency

Terminal Learning Objective

At the end of this topic, a student, given a declared MAYDAY emergency, will be able to implement the incident command procedures to address the fire fighter emergency.

Enabling Learning Objectives

1. Identify the circumstances under which a MAYDAY is declared:
 - Fall
 - Air
 - Caught
 - Trapped
 - Separated
 - Medical emergency
2. Describe the initial actions of the incident commander when a MAYDAY has been declared, including the use of a tactical worksheet
 - Gain radio control, including using FIREScope “emergency traffic”
 - Collect the minimum information from the person declaring a fire fighter emergency (e.g., LUNAR, NUCAN, or LIP)
3. Describe the secondary actions of the incident commander after acknowledging the MAYDAY
 - Identify and direct hazard zone resources in order to address the fire fighter emergency
 - Activate the RIC
 - Delegate supervision of the RIC deployment
 - Communicate the survival procedures to the fire fighter experiencing an emergency
 - Activate the AHJ’s communication plan
 - Perform an incident PAR according to the AHJ’s procedures
4. Describe the strategic actions of the incident commander when a MAYDAY has been declared
 - Perform another 360-RECON to update situational awareness
 - Modify the strategic plan to include a high-priority rescue operation
 - Notify the communications center of a fire fighter emergency
 - Request additional resources: overhead, suppression, medical, specialized, and RIC
 - Ensure the establishment of a medical unit
 - Ensure the establishment of a stationary command post

Discussion Questions

1. What is the difference between emergency traffic and MAYDAY?
2. What indicators might be present to initiate a deployment of a RIC, other than a declaration of MAYDAY?
3. What are your options for delegating supervision of the RIC deployment: division, group, or branch?

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4. What are some considerations for additional resource requests?
5. What role do ventilation profile and flow path play in survival procedures?
6. Describe the value of pessimistic evaluation of changing conditions and developing contingencies based on worst-case scenarios.
7. What are the indicators that a rescue has transitioned to a recovery operation?
8. What are your AHJ's operational retreat guidelines?

Activities

1. The instructor must create a scenario-based activity directing students to use a tactical worksheet, acknowledge a MAYDAY emergency radio transmission, activate emergency traffic radio procedures, and gather information from a LUNAR, LIP, or NUCAN radio report.
2. The instructor must create a scenario-based activity directing students to use a tactical worksheet and demonstrate the secondary actions of the incident commander after acknowledging the MAYDAY.
3. The instructor must create a scenario-based activity directing students to use a tactical worksheet and demonstrate the strategic actions of the incident commander when a MAYDAY has been declared.

Instructor Notes

1. The three activities are intended to be building blocks. Ensure all students participate with no errors before moving on to the next activity.
2. The instructor should ask students to bring their AHJs' tactical worksheets as examples.

Topic 2-6: Implementing the RIC Division/Group/Branch's Procedures to Address the Fire Fighter Emergency

Terminal Learning Objective

At the end of this topic, a student, given a declared MAYDAY emergency, will be able to implement the RIC division/group/branch's procedures to address the fire fighter emergency.

Enabling Learning Objectives

1. Describe the process for managing the operation
2. Describe the process for developing a plan and contingency plans
3. Describe the process for staging and preparing additional teams
4. Describe the process for anticipating special tools needs
5. Describe the process for providing feedback to the incident commander
6. Describe the process for communicating with the distressed fire fighter
 - It is strongly suggested that this responsibility be fulfilled by an officer with RIC training and knowledge

Discussion Questions

1. What options does the RIC division/group/branch have in assigning additional RICs?
2. What are considerations for continuous RIC operations with multiple teams?
3. What are the different RIC resource needs for various types of incidents?
4. What is the distinction between "rescue" and "recovery" modes of operation?

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Activities

1. The instructor must create a sustained-deployment scenario-based activity directing students to demonstrate the actions of the incident commander and the RIC division/group/branch when a MAYDAY has been declared.

Instructor Notes

1. Consider using the case studies folder on the instructor portal on the State Fire Training website.

Topic 2-7: Describing Postdeployment Considerations

Terminal Learning Objective

At the end of this topic, a student, given a declared MAYDAY emergency, will be able to describe the postdeployment considerations.

Enabling Learning Objectives

1. Identify the need for a qualified person to address the critical incident stress management needs
2. Determine the need for family notification and support
3. Develop a relief schedule for all affected crews
4. Determine the AHJ's protocols for serious accident investigation
5. Identify the process for creation of a communication plan for the release of information

Discussion Questions

1. What information should be included in an initial press release?
2. What is your AHJ's policy for critical incident stress management?

Activities

1. To be determined by the instructor.

Instructor Notes

1. Instructor should emphasize the clear distinction between "rescue" and "recovery" modes of operation at an incident.

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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: [text]		0:00	
Unit 1 Totals	1:30	0:00	1:30
Unit 2: Managing the Fire Fighter Emergency			
Topic 2-1: Identifying the Eight Functions of Command			
Lecture	0:30		
Activity 2-1: Determined by instructor		0:00	
Topic 2-2: Identifying Critical Incident Factors			
Lecture	1:30		
Activity 2-2: Identifying Critical Incident Factors		1:00	
Topic 2-3: Identifying the Warning Signs of a Pending RIC Deployment			
Lecture	1:00		
Activity 2-3: Performing a 360-RECON		0:30	
Topic 2-4: Ensuring the Duties of the RIC Are Performed			
Lecture	1:00		
Activity 2-4: Determined by instructor		0:00	
Topic 2-5: Implementing the Incident Command Procedures to Address the Fire Fighter Emergency			
Lecture	1:30		
Activity 2-5: Implementing the Incident Command Procedures to Address the Fire Fighter Emergency		3:00	
Topic 2-6: Implementing the RIC Division/Group/Branch's Procedures to Address the Fire Fighter Emergency			
Lecture	1:00		
Activity 2-6: Implementing the RIC Division/Group/Branch's Procedures to Address the Fire Fighter Emergency		4:00	

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Segment	Lecture Time	Activity Time	Total Unit Time
Topic 2-7: Describing Postdeployment Considerations			
Lecture	1:00		
Activity 2-7: Determined by instructor		0:00	
Unit 2 Totals	7:30	8:30	16:00
Lecture, Activity, and Unit Totals:	9:00	8:30	17:30

Course Totals

Total Lecture Time (LT)	9:00
Total Activity Time (AT)	8:30
Total Testing Time (TT)	1:00
Total Course Time	18:30

Acknowledgments

State Fire Training gratefully acknowledges the following individuals and organizations for their diligent efforts and contributions that made the development and publication of this document possible.

Cadre Leadership

Kevin Conant

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Fire Service Training Specialist III, Office of the State Fire Marshal

Laura Garwood Meehan

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Fire Captain, Central County Fire Department

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Fire & EMS Director, South Bay Regional Public Safety Training Consortium

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Partners

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