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Date: April 8, 2022

To: Statewide Training and Education Advisory Committee
State Board of Fire Services

From: Chris Fowler, Deputy State Fire Marshal III, Supervisor, CAL FIRE

SUBJECT/AGENDA ACTION ITEM:

S-223 Fireline Emergency Medical Technician/Paramedic (2021) curriculum

Recommended Actions:

Seeking approval of the new S-223 Fireline Emergency Medical Technician/Paramedic curriculum as an FSTEP Course

Background Information:

The position of Fireline EMT and Fireline Paramedic have become integral parts of the health and safety on wildfires in California and throughout the country. Initially, these positions were very informal and had no clear position description or equipment requirements. Often, these positions were filled with personnel who may or may not have wildfire qualifications. This created a large variety in quality and availability of these critical resources. The FIREScope Task Force delegated to the EMS Specialist Group (now the EMS Sub-committee) the task of developing the ICS 702 position manual for these positions. As an outgrowth of that the EMS Specialist Group embarked on the creation of the S-223 Fireline Emergency Medical Technician/Paramedic course curriculum in 2015.

The creation of the new curriculum utilized the best practices from actively engaged fireline EMTs, Paramedics, Medical Unit Leaders, and Division/Group Supervisors. It also relied heavily on the curricula developed by many independent instructors of a variety of local courses covering these positions. The EMS Specialist Group has consulted and coordinated with the CalOES CICC committee to obtain their approval of the curriculum and instructor requirements.

Analysis/Summary of Issue:

Following the adoption by all levels of FIRESCOPE and the CICCIS committee, this curriculum was distributed widely throughout the California fire service. It was included in the 2018 CICCIS Qualification Guide as mandatory training for the positions. Once this became the de facto standard for California agencies supplying this critical resource, questions of instructor eligibility and certification standard began to circulate. Adoption by CICCIS resulted in the application of the instructor qualification guide developed by NWCG, as that was common to all CICCIS endorsed courses at that time. This requires the instructor of a given course to be qualified at the next (higher) level of CICCIS certification, which for this course is a Medical Unit Leader. This has created a narrow applicant pool for the number of positions needing to be filled due to demand and attrition as well as little consistency in application of the instructor eligibility criteria.

Adoption of the curriculum into the SFT system demonstrates that this course meets the Curriculum Development Guidelines. It also identifies instructor requirements, increases the number of potential instructors, and adds a defined process of registration and delivery (through Acadis) to this course. The supplemental course curriculum materials such as case studies and field exercises which will be housed on a publicly accessible website, possibly by the Cal Chief's Training Officers.

Potential Agency Impacts

Potential agency impacts could result in increased instructor availability due to the addition of available instructors who are qualified in the Fireline EMT or Paramedic positions but not qualified as a Medical Unit Leader. This will help to alleviate the small number of available instructors as more potential students pursue this course.



S-223 Fireline Emergency Medical Technician/Paramedic (2021) Implementation Plan

Issued: April 2022

OVERVIEW

This document is intended to provide information for all State Fire Training (SFT) stakeholders on the new S-223 Fireline Emergency Medical Technician/Paramedic (2021) curriculum. The creation of the new curriculum utilized the best practices from actively engaged fireline EMTs, Paramedics, Medical Unit Leaders, and Division/Group Supervisors. This course provides the skills and knowledge needed to perform in the role of Fireline Emergency Medical Technician /Paramedic (EMTF/EMPF). Key learning concepts include position overview, equipment and supplies, assignments, communications, Incident Action Plans and ICS forms, GPS and land navigation, fireline safety, medical emergencies, and lessons learned specific to the wildland arena. Stakeholders are encouraged to study this information carefully and seek clarification from SFT if questions arise.

IMPLEMENTATION

Candidates entering the SFT system should enroll in the new S-223 Fireline Emergency Medical Technician/Paramedic (2021) courses and comply with the new course requirements.

New Curriculum	Hours
S-223 Fireline Emergency Medical Technician/Paramedic (2021)	16 Hours

New Curriculum..... Available May 1, 2021

INSTRUCTOR REQUIREMENTS

Instructor Registration.....Available May 1, 2021

Instructors for the S-223 Fireline Emergency Medical Technician/Paramedic courses must meet the SFT requirements for Registered Instructor. Instructors must apply to SFT with the appropriate education and practical experience relating to the specific course content.

Current S-223 Instructors (Historical Recognition).....until December 31, 2021

The Historical Recognition is for persons who have been instructing the FIRESCOPE S-223 course prior to SFT adopting the course.

- Meet the minimum requirements to be an SFT Registered Instructor **and**
- Provide a letter signed by their Fire Chief or authorized designee that verifies that the applicant has instructed the FIRESCOPE S-223 Fire Line Medic course; **and**
- A qualified* Medical Unit Leader (MEDL) **or** a qualified* Fireline Emergency Medical Technician/Paramedic with a minimum of three years' experience

* Qualified by CAL FIRE, CICCIS, or NWCG by issuance of Certification and Qualification Cards (Red Cards), or other department approved documentation. Provide a letter signed by their Fire Chief or authorized designee that verifies qualification in the above positions.

New Registered Instructors.....Beginning January 1,2023

Meet the minimum requirements to be an SFT Registered Instructor **and be**

- Successfully complete the FSTEP S-223 Fireline Emergency Medical Technician/Paramedic (2021) course; **and**
- A qualified* Medical Unit Leader (MEDL) **or** a qualified* Fireline Emergency Medical Technician/Paramedic with a minimum of three years' experience

* Qualified by CAL FIRE, CICCIS, or NWCG by issuance of Certification and Qualification Cards (Red Cards), or other department approved documentation. Provide a letter signed by their Fire Chief or authorized designee that verifies qualification in the above positions.

POTENTIAL AGENCY IMPACTS

Fire agencies desiring to use the S-223 Fireline Emergency Medical Technician/Paramedic curriculum as a requirement for their recruitment/promotion activities need to review the S-223 Fireline Emergency Medical Technician/Paramedic curriculum requirements to be sure that all agency training needs are being met. After review, fire agencies should update their job specifications and recruitment documentation to reflect these new course requirements.

Accredited Regional Training Programs (ARTP), Accredited Local Academies (ALA), community colleges, and all other local delivery venues need to review the curriculum and seek approval from their curriculum committee / program sponsor, as appropriate. ARTPs should review the new S-223 Fireline Emergency Medical Technician/Paramedic curriculum and discuss potential impacts with their advisory committees.



Fireline Emergency Medical Technician/Paramedic (2021)

Course Plan

Course Details

Description: This course provides the skills and knowledge needed to perform in the role of Fireline EMT/Paramedic (EMTF/EMPF). Key learning concepts include position overview, equipment and supplies, assignments, communications, Incident Action Plans and ICS forms, GPS and land navigation, fireline safety, medical emergencies, and lessons learned specific to the wildland arena.

Designed For: Emergency medical technicians or paramedics seeking qualification to work on a fireline

Prerequisites: Prerequisites must be completed prior to enrollment in this course.

- Qualified CICC Firefighter Type 1 (FFT1) or OSFM Firefighter II **and**
- Current California EMT certification or paramedic license **and**
- Current Local EMS agency certification and/or accreditation **and**
- Intermediate Fire Behavior S-290 (classroom only)

Standard: Complete all activities and formative tests.

Hours (Total): 16 hours
(11.25 lecture / 4.75 application/assessment)

Maximum Class Size: 40

Instructor Level: Registered Primary Instructor

Instructor/Student Ratio: 1:40 (Lecture)
1:20 (for Topic 11-2)

Restrictions: See Equipment, Facilities, and Personnel requirements

SFT Designation: FSTEP

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Required Resources

Instructor Resources

To teach this course, instructors need a current edition of the following:

- California Incident Command Certification System (CICCS) *Qualification Guide* (current edition)
- ICS-420-1 *Field Operations Guide* (FOG)
- ICS-702 *Fireline Medic Position Manual*
- PMS 461 *Incident Response Pocket Guide* (IRPG), National Wildfire Coordinating Group

Recommended:

- *Work Capacity Tests for Wildland Firefighters* (US Forest Service)

Online Instructor Resources

Instructor resources are available online at <http://www.firescope.caloes.ca.gov>:

- S-223: Fireline Emergency Medical Technician/Paramedic course PowerPoint presentation
- Fireline EMT/Fireline Paramedic Position Manual
- Case studies for Topic 11-1

Student Resources

To participate in this course, students need:

- ICS 420-1 *Field Operations Guide* (FOG)
- ICS-702 *Fireline Medic Position Manual*
- PMS 461 *Incident Response Pocket Guide* (IRPG), National Wildfire Coordinating Group
- Any additional materials chosen by the instructor

Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

Classroom Facilities

- Standard classroom equipped for 40 students
- Projector with appropriate laptop connections
- Wi-Fi/Internet access

Topic 11-2 (Optional)

- Close-toed shoes, long pants, and gloves (all participants)
- Outdoor terrain with conditions similar to a wildfire setting

Time Table

Segment	Lecture	Application	Unit Total
Unit 1: Introduction			
Topic 1-1: Orientation and Administration	0.25	0.0	
Topic 1-2: Introductions	0.25	0.5	
Topic 1-3: Course Overview	0.25	0.0	
Topic 1-4: EMTF/EMPF Qualifications	0.5	0.0	
Unit 1 Totals	1.25	0.5	1.75
Unit 2: Position Overview			
Topic 2-1: EMTF/EMPF Roles and Relationships	0.5	0.0	
Topic 2-2: EMTF/EMPF Responsibilities	0.5	0.0	
Unit 2 Totals	1.0	0.0	1.0
Unit 3: Equipment and Supplies			
Topic 3-1: Medical Supplies	0.5	0.0	
Topic 3-2: Personal Safety Equipment	0.5	0.0	
Topic 3-3: Personal Equipment Line Packs	0.5	1.0	
Unit 3 Totals	1.5	1.0	2.5
Unit 4: Assignments			
Topic 4-1: Preparing for an Assignment	0.25	0.0	
Topic 4-2: Receiving an Assignment	0.25	0.25	
Topic 4-3: Traveling to an Incident	0.25	0.5	
Topic 4-4: Reporting to an Incident	0.25	0.0	
Topic 4-5: Participating in an Operational Briefing	0.25	0.0	
Topic 4-6: Obtaining a Fireline Assignment	0.25	0.0	
Topic 4-7: Responding to Medical Emergencies on the Fireline	0.5	0.0	
Topic 4-8: Performing Medical Unit Assignments	0.25	0.0	
Topic 4-9: Completing After Shift Activities	0.25	0.5	
Unit 4 Totals	2.5	1.25	3.75
Unit 5: Communications			
Topic 5-1: Communications	0.5	0.25	
Unit 5 Totals	0.5	0.25	0.75
Unit 6: Incident Action Plans and ICS Forms			
Topic 6-1: Incident Action Plans	0.25	0.25	
Topic 6-2: Additional ICS and Miscellaneous Forms	0.25	0.25	
Unit 6 Totals	0.5	0.5	1.0
Unit 7: GPS and Land Navigation			
Topic 7-1: Topographic Maps	0.25	0.0	
Topic 7-2: Coordinate Systems and Datums	0.25	0.0	
Topic 7-3: Global Positioning Systems	0.25	0.0	
Unit 7 Totals	0.75	0.0	0.75

Segment	Lecture	Application	Unit Total
Unit 8: Fireline Safety			
Topic 8-1: Risk Management	0.25	0.0	
Topic 8-2: Fireline Hazards	0.25	0.0	
Topic 8-3: Personal Safety	0.25	0.0	
Topic 8-4: Helicopter Safety	0.25	0.0	
Unit 8 Totals	1.0	0.0	1.0
Unit 9: Medical Emergencies			
Topic 9-1: Common Incident Injuries and Illnesses	0.25	0.25	
Topic 9-2: Exertional Heat Injuries	0.25	0.0	
Topic 9-3: Exertional Rhabdomyolysis	0.25	0.0	
Unit 9 Totals	0.75	0.25	1.0
Unit 10: Lessons Learned			
Topic 10-1: Misconceptions	0.25	0.0	
Topic 10-2: Recommendations	0.25	0.0	
Unit 10 Totals	0.5	0.0	0.5
Unit 11: Case Studies			
Topic 11-1: Case Studies	1.0	0.0	
Topic 11-2: Field Exercise (Optional)	0.0	1.0	
Unit 11 Totals	1.0	1.0	2.0
Summative Assessment			
Determined by AHJ or educational institution	TBD	TBD	TBD
Skills Practice (Lab / Sets and Reps)			
Determined by AHJ or educational institution	TBD	TBD	TBD
Course Totals	11.25	4.75	16.00

Time Table Key

1. The Time Table documents the amount of time required to deliver the content included in the course plan.
2. Time is documented using the quarter system: 15 min. = .25 / 30 min. = .50 / 45 min. = .75 / 60 min. = 1.0.
3. The Course Totals do not reflect time for lunch (1 hour) or breaks (10 minutes per each 50 minutes of instruction or assessment). It is the instructor's responsibility to add this time based on the course delivery schedule.

4. Application (activities, skills exercises, and formative testing) time will vary depending on the number of students enrolled. The Application time documented is based on the maximum class size identified in the Course Details section.
5. Summative Assessments are determined and scheduled by the authority having jurisdiction. These are not the written or psychomotor State Fire Training certification exams. These are in-class assessments to evaluate student progress and calculate course grades.

Unit 1: Introduction

Topic 1-1: Orientation and Administration

Terminal Learning Objective

At the end of this topic a student, given requirements, will be able to identify facility and classroom requirements.

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

Discussion Questions

1. Determined by instructor

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 1-2: Introductions

Terminal Learning Objective

At the end of this topic a student, given instructor and student introductions, will be able to describe how the instructor's experience impacts course expectations and be familiar with course's student demographics.

Enabling Learning Objectives

1. Describe how the instructor's experience impacts course expectations
2. Identify the students in the class

Discussion Questions

1. Determined by instructor

Application

1. Given an icebreaker activity, have students get to know each other and/or provide introductions to the group.

Instructor Notes

1. Use this topic to introduce yourself, have students make introductions, and build rapport.

Topic 1-3: Course Overview

Terminal Learning Objective

At the end of this topic a student, given a course syllabus, will be able to identify course objectives and expectations.

Enabling Learning Objectives

1. Identify the EMTF/EMPF position within the *Field Operations Guide* (FOG)
 - EMTF/EMPF is a 16-hour course designed to meet the training needs as outlined in ICS-420-1
2. Review course syllabus
 - Course objectives
 - Course schedule
 - Course requirements
 - Student evaluation process
 - Assignments
 - Activities and skills exercises
 - Required student resources
 - Participation requirements
 - Sign the roster each day
 - Attend all 16 hours of instruction
 - Participate in all activities
 - Pass the summative exam with a minimum score of 80%
 - Complete a course evaluation
3. Identify instructor expectations during instruction
 - Course designed to be interactive
 - Class participation encouraged
 - The course contains activities designed to facilitate group and class discussion

Discussion Questions

1. Determined by instructor

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 1-4: EMTF/EMPF Qualifications

Terminal Learning Objective

At the end of this topic a student, given CICCIS and home agency requirements, will be able to identify how to qualify as an EMTF/EMPF.

Enabling Learning Objectives

1. Identify Cal OES California Incident Command Certification System (CICCIS) qualification requirements
 - Complete required training
 - Introduction to ICS (I-100)
 - Basic ICS (I-200)
 - NIMS an Introduction (IS-700)
 - Fireline EMT (S-223)
 - Intermediate Fire Behavior (S-290)
 - Must be National Wildland Coordinating Group (NWCG) or State Fire Training (SFT)
 - Must be a classroom course (not online)
 - Complete required experience
 - Certified emergency medical technician (EMT) or licensed paramedic
 - Qualified as an NWCG Firefighter Type 1 (FFT1) or SFT Fire Fighter 2
 - Demonstrate physical fitness at arduous level per home agency standard
 - Obtain certification from operational area CICCIS peer review committee
2. Identify required continuing education
 - Wildland Fire Safety Training Annual Refresher (WFSTAR) (RT-130)
 - Annual requirement to maintain qualification
3. Identify home agency EMTF/EMPF qualification requirements
 - May be more extensive than CICCIS
4. Identify recommended training to expand knowledge and skills
 - Crew Boss (Single Resource) (S-230)
 - Basic Air Operations (S-270)
 - Fireline Leadership (L-380)
 - Navigation Course (PMS 475)

Discussion Questions

1. What is the process to obtain EMTF/EMPF qualifications and certification through CICCIS?
2. What are your home agency's requirements?
3. Why should an EMTF/EMPF take the additional courses suggested by FIRESCOPE?

Application

1. Determined by instructor

Instructor Notes

1. Use Qualifications for Emergency Medical Technician, Fireline EMTF/EMPF from the *CICCIS Qualification Guide* for ELO 1 content.

Unit 2: Position Overview

Topic 2-1: EMTF/EMPF Roles and Relationships

Terminal Learning Objective

At the end of this topic a student, given EMTF/EMPF roles and relationships, will be able to describe the role of an EMTF/EMPF assigned to an incident, how that role fits into the Incident Command System (ICS), and how it is impacted by the incident environment and other regulatory entities.

Enabling Learning Objectives

1. Describe role of an EMTF/EMPF assigned to an incident
 - Assist incident-assigned personnel with first aid, self-care, and health management (blisters, eyewash, wound care, etc.)
 - Detect and monitor and detect minor illnesses or injuries that require referral to definitive care
 - Treat major injuries and prepare for evacuation
2. Identify factors to consider when working at an incident
 - Remote sites expand challenges to EMTF/EMPF roles
 - Medical treatment can be provided at the Incident Base or on the fireline
 - Be aware of all medical regulations and laws which may impact care
 - Treatment protocols
 - Medication storage
 - Documentation
 - Work within scope of practice while assigned to an incident
3. Describe the EMTF/EMPF's position within the ICS
 - Works within Logistics Section
 - Under the direction of Medical Unit Leader (MEDL)
 - Supervised on the fireline by Division Group Supervisor (DIVS)
 - Should be paired with another EMTF/EMPF while on the fireline
4. Describe the EMTF/EMPF's working relationship with
 - Strike team leader/task force leader
 - Safety officer
5. Describe relationship between the EMTF/EMPF and the local emergency medical services agency (LEMSA)
 - LEMSAs requirements vary by region and impact EMTF/EMPF operations
 - Operate under protocols of home LEMSAs

Discussion Questions

1. What are some challenges associated with providing EMS care on the fireline?
2. Who directs an EMTF/EMPF's medical decisions on an incident?
3. How does the EMTF/EMPF work for both the MEDL and the DIVS?
4. Why should an EMTF/EMPF be paired while assigned on the fireline?

Application

1. Determined by instructor

Instructor Notes

1. Reference ICS-702 *Fireline Medic Position Manual*.

Topic 2-2: EMTF/EMPF Responsibilities

Terminal Learning Objective

At the end of this topic a student, given an EMTF/EMPF position overview, will be able to describe the general responsibilities of an EMTF/EMPF assigned to an incident.

Enabling Learning Objectives

1. Identify and assemble equipment
 - Medical care equipment
 - Personal equipment
2. Understand and operate within an Incident Action Plan (IAP)
3. Utilize incident communication procedures and equipment
4. Participate in all required briefings
 - Operational briefings
 - MEDL briefings
5. Perform medical care for common incident injuries
6. Demonstrate basic land navigation and map reading skills
7. Complete all required documentation
 - Incident related
 - Patient care related

Discussion Questions

1. What are the responsibilities of an EMTF/EMPF beyond providing medical care?

Application

1. Determined by instructor

Instructor Notes

1. None

Unit 3: Equipment and Supplies

Topic 3-1: Medical Supplies

Terminal Learning Objective

At the end of this topic a student, given FIREScope, local emergency medical services agency (LEMSA), and home agency inventory lists, policies, and procedures, will know how to assemble basic life support (BLS) and advanced life support (ALS) inventory packs in accordance with FIREScope, LEMSA, and home agency guidelines and restock additional medical supplies at an incident in accordance with home agency policies and procedures.

Enabling Learning Objectives

1. Identify contents of medical supply packs to be assembled for deployment
 - ICS-702 Appendix A: EMTF/EMPF Basic Life Support Pack Inventory
 - ICE 702 Appendix B: EMTF/EMPF Advanced Life Support Pack Inventory
 - Additional supplies and equipment based on LEMSA and home agency protocol requirements
2. Describe how to obtain additional medical supplies while on assignment
 - From Medical Unit
 - Share medical supplies and equipment with EMTF/EMPF
 - From Supply Unit
 - “10-Man” Pack
3. Describe how to coordinate packs shared by EMTF/EMPF partners from different LEMSAs
4. Describe EMTF/EMPF restocking procedures at an incident
 - Completed in accordance with home agency/LEMSA policies and procedures
 - Incident “S” numbers used as tracking mechanism for items not available at incident

Discussion Questions

1. What factors should an EMTF/EMPF consider when adding additional supplies and equipment to a pack?
2. Where can an EMTF/EMPF restock their supplies at an incident?

Application

1. Determined by instructor

Instructor Notes

1. ELO 1: Appendix A and B are available in the ICS-702 *Fireline Medic Position Manual*.

Topic 3-2: Personal Safety Equipment

Terminal Learning Objective

At the end of this topic a student, given home agency policies and procedures, will be able to identify all personal protective equipment (PPE) and personal safety equipment an EMTF/EMPF is required to bring to an incident in accordance with home agency policies and procedures.

Enabling Learning Objectives

1. Describe PPE requirements for an EMTF/EMPF operating at an incident
 - Determined by home agency policies and standards
 - Basic equipment
 - Helmet
 - Shroud
 - Eye protection
 - Wildland jacket
 - Wildland pants
 - Wildland boots
 - Gloves
 - Web gear/line pack
 - Headlamp
 - Fire shelter
 - Portable radio

Discussion Questions

1. What PPE components should an EMTF/EMPF bring to an incident?
2. Does your agency have any additional required items?

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 3-3: Personal Equipment Line Packs

Terminal Learning Objective

At the end of this topic a student, given FIRESCOPE guidelines, will know how to assemble personal equipment inventory packs in accordance with FIRESCOPE guidelines.

Enabling Learning Objectives

1. Identify personal equipment inventory items to assemble for deployment
 - ICS-702 Appendix C: EMTF/EMPF Personal Pack Inventory
2. Describe considerations for packing personal items when assignment includes hiking, spiking, coyote tactics, day, or night operations, etc.
 - Prepare to deploy with limited access to restock or purchase personal items
 - Reconfigure inventory upon arrival based on assignment
 - Warmth and lighting equipment for night shifts
 - Driving vs. hiking at the incident

Discussion Questions

1. How do the following factors impact personal packing lists?
 - Day vs. night operations
 - Animals (wild or domestic) near the incident
 - Incident terrain
 - Weather forecast

Application

1. Given incident scenarios, have students work in groups to identify the supplies they would include in their personal packs and share their lists with the class.

Instructor Notes

1. Recommend introducing the Application activity before the lecture component. Use the student lists as a springboard to introduce the ICS-702 Appendix C list. This gives students an opportunity to see how easy it is to forget or overlook something and reinforces the value of checklists.
2. ELO 1: Appendix C is available in the ICS-702 Fireline Medic Position Manual.

Unit 4: Assignments

Topic 4-1: Preparing for an Assignment

Terminal Learning Objective

At the end of this topic a student, given recommendations, will know how to prepare for an assignment in accordance with FIREScope, LEMSA, and home agency requirements.

Enabling Learning Objectives

1. Identify activities an EMTF/EMPF undertakes between assignments
 - Maintain correct contact and qualification information in Resource Ordering and Status System (ROSS)
 - Maintain currency as an EMTF/EMPF
 - Prepare for arduous activity

Discussion Questions

1. What is the process in place at your agency for updating ROSS information?
2. What tools does your agency use to measure fitness level?

Application

1. Determined by instructor

Instructor Notes

1. Reference the “The Pack Test” *Work Capacity Test for Wildland Firefighters: Ensuring Wildland Firefighter Safety* – US Forest Service.

Topic 4-2: Receiving an Assignment

Terminal Learning Objective

At the end of this topic a student, given a Resource Ordering and Status System (ROSS) resource order, will know how to gather incident information and determine their assignment in accordance with home agency policies and procedures.

Enabling Learning Objectives

1. Identify the key components of a ROSS resource order and their significance
 - Order number
 - Request number
 - Incident name
 - Incident location
 - Incident phone number(s)
 - Incident reporting time
 - Incident radio frequency(s)
2. Describe departmental procedures for accessing a ROSS order

Discussion Questions

1. What is the difference between the ROSS order number and the ROSS request number?
2. How does your agency process ROSS orders?

Application

1. Given complete ROSS orders, have students work in groups to identify the assignment information they would use to deploy to an incident and share what they know about the assignment with the class.

Instructor Notes

1. Display a complete ROSS order on the screen and walk students through each component.

Topic 4-3: Traveling to an Incident

Terminal Learning Objective

At the end of this topic a student, given an incident assignment and transportation options, will know how to travel to an incident by determining a travel plan, securing an approved means of transportation, and communicating the travel plan while monitoring the incident's radio frequencies.

Enabling Learning Objectives

1. Identify home agency incident travel policies and procedures
 - Accessing an approved means of transportation
 - Long distance vs. short distance travel
2. Identify types of vehicles used while assigned as an EMTF/EMPF
 - Department vehicle (preferred)
 - 4x4 type
 - Personal vehicle (don't do it)
 - Ground Support unit
 - Rental
3. Describe how to develop a travel plan
 - Utilize maps and the Global Positioning System (GPS)
 - Plan stops and accommodations (if necessary)
4. Describe when and how to communicate travel plans
 - With home agency dispatch center and Operational Area Coordination Center
 - What to communicate
 - When to communicate
 - Which radio frequencies to monitor while traveling
 - CESRS (California Emergency Service Radio System)
 - Incident frequencies

Discussion Questions

1. What are your department's procedures for securing an approved vehicle?

Application

1. Using the same ROSS order from Topic 4-2, have students work in groups to develop a travel plan from their home agency to the incident.

Instructor Notes

1. None

Topic 4-4: Reporting to an Incident

Terminal Learning Objective

At the end of this topic a student, given an assignment, will know how to report to an incident and gather information in accordance with the Incident Command System (ICS).

Enabling Learning Objectives

1. Identify where to check in when arriving at an incident
2. Describe how to report to the MEDL
 - MEDL location
 - Obtain expectations for assignment
3. Identify units and individuals located at Incident Base
 - Supply Unit
 - Finance Unit
 - Medical Unit
 - Communications Unit
 - Training Specialist
 - Cal OES representative
4. Describe how to check in with the Training Specialist as an evaluator or trainee
 - Arrive with Red Card and an initiated Position Task Book (PTB)
 - Confirm expectations as an evaluator or trainee
5. Describe how to check in with the Cal OES representative (local government)
 - Meet with Assistant Chief
 - Check in and begin documentation procedures
6. Identify Incident Base amenities (food, sleeping quarters, parking, etc.)

Discussion Questions

1. Where can an EMTF/EMPF check in when arriving at an incident?
2. Why is it important for an EMTF/EMPF to locate the Cal OES representative?
3. What information should an EMTF/EMPF gather at the Incident Base?

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 4-5: Participating in an Operational Briefing

Terminal Learning Objective

At the end of this topic a student, given an assignment, will know how to participate in an Operational Briefing and gather and communicate information appropriate to their assignment in accordance with the Incident Action Plan (IAP).

Enabling Learning Objectives

1. Identify items presented at an Operational Briefing
 - IAP
 - Division maps
2. Identify items presented at a Division breakout session
 - Meet DIVS, Safety Officer, assigned resources
 - Review Division plan
 - Determine medical experience and equipment carried by crews
 - Exchange information with Line Safety Officer
 - Safety areas of concern
 - Crew or personnel history
 - Identify radio frequencies to monitor while traveling to Division

Discussion Questions

1. What kind of information is provided during an Operational Briefing?
2. What kind of information is provided during the Division breakout session?
3. Why is it important to contact crews and/or personnel assigned within your Division?

Application

1. Determined by instructor

Instructor Notes

1. Bring in an IAP to show what type of information is distributed as part of an Operational Briefing.

Topic 4-6: Obtaining a Fireline Assignment

Terminal Learning Objective

At the end of this topic a student, given an assignment, will know how to obtain a briefing from the Medical Unit Leader (MEDL) and fireline supervisor prior to going on assignment to scout assigned area for possible hazards, landing zones, and evacuation sites; identify personal safety zones, escape routes, and trigger points; meet with crews and personnel to determine medical needs; and prepare for a spike camp assignment.

Enabling Learning Objectives

1. Identify information provided by a MEDL prior to going on assignment
 - Accident reporting procedures
 - Medical forms used
 - Evacuation and care procedures
 - Radio procedures
 - Transportation needs
 - Additional needs
2. Identify key tasks upon arriving on the fireline
 - Drive around and mark Division roads on your map
 - Locate and obtain GPS coordinates for extraction sites
 - Identify possible evacuation areas
3. Describe how to work with crews on the fireline
 - Make contact to determine medical needs
 - Rules when working with inmate crews
 - Be aware of and utilize all resources in Division
 - Understand how to properly refuse risk and use “turn down” procedures
4. Describe roles and tasks while assigned to a spike camp

Discussion Questions

1. What information is needed from the MEDL prior to going on assignment?
2. What are some examples of key tasks when assigned to a fireline?
3. Who is responsible for inmate personnel’s medical care?

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 4-7: Responding to Medical Emergencies on the Fireline

Terminal Learning Objective

At the end of this topic a student, given a medical aid request, will know how to respond to requests for medical aid while working on a fireline in accordance with the Incident Medical Plan.

Enabling Learning Objectives

1. Describe how an EMTF/EMPF receives a request for medical aid on the fireline
 - Requests come from any number of resources on an incident
 - Emergency vs. non-emergency
 - Incident within an Incident (IWI) protocol
 - “8-line”
2. Describe notification requirements for an EMTF/EMPF when providing medical aid on a fireline
 - Notify Division Supervisor
 - Report on situation and needs

Discussion Questions

1. Who can request medical aid while on a fireline?
2. What information should an EMTF/EMPF give to the DIVS during an IWI?

Application

1. Determined by instructor

Instructor Notes

1. Reference the Medical Incident Report section of NWCG's *Incident Response Pocket Guide* (PMS 461).

Topic 4-8: Performing Medical Unit Assignments

Terminal Learning Objective

At the end of this topic a student, given Medical Unit roles and expectations, will know how to carry out assignments in a Medical Unit so that treatment to ill or injured incident staff is provided, approved medications are administered to incident staff as needed, medical supplies are tracked and inventoried, and all required documentation is completed in accordance with National Wildland Coordinating Group (NWCG), applicable emergency medical services (EMS) authorities and the expectations of the Medical Unit Leader (MEDL).

Enabling Learning Objectives

1. Identify Medical Unit purpose
 - Established to treat ill or injured incident personnel
2. Describe EMTF/EMPF duties while assigned to a Medical Unit
 - Provide appropriate medical care to incident personnel
 - Prevent illness through surveillance and early treatment
 - Make available over-the-counter medications
 - Track and maintain supplies and caches
 - Document injury reports and treatments
 - Injury logs
 - Injury summaries
 - Patient care records
3. Identify MEDL expectations of an EMTF/EMPF assigned to a Medical Unit
 - Discuss duties and responsibilities prior to shift
 - Provide treatment based on home agency policies and protocols (Title 22)
 - Resolve problems at the lowest level
 - Maintain records and reports

Discussion Questions

1. Who is responsible for notifying the LEMSA when an EMTF/EMPF arrives at the Medical Unit?
2. How do Medical Unit assignments differ from fireline assignments?
3. What type of duties does an EMTF/EMPF perform while working at a Medical Unit?
4. What types of medication can an EMTF/EMPF distribute?

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 4-9: Completing After Shift Activities

Terminal Learning Objective

At the end of this topic a student, given after shift expectations, will be able to complete necessary after shift activities so that the assignment is debriefed with the Medical Unit Leader (MEDL), inventory packs are restocked from the Medical Unit, and all patient care records and ICS Form 214 are completed in accordance with MEDL requirements.

Enabling Learning Objectives

1. Identify debrief information for the MEDL
 - Report injuries and treatments performed
 - Report needs
 - Communicate with other EMTF/EMPFs
2. Describe how to restock ALS/BLS inventory pack from Medical Unit
 - Follow restocking procedures
 - Pack inventory determined by home agency LEMSA
 - Restock procedures determined by MEDL
3. Identify documentation procedures upon returning to Medical Unit
 - Patient care records
 - ICS Form 214
4. Describe expectations of an “off-shift” EMTF/EMPF
 - Monitor work/rest cycles
 - Clean, repair, and restock equipment
 - Hydrate, eat, rest
 - Locate sleep areas
 - Complete ICS-225 Incident Personnel Performance Rating Form

Discussion Questions

1. What information should an EMTF/EMPF give to the MEDL during a debriefing?
2. How do you manage self-care while working at an incident?

Application

1. Given incident scenarios, have students fill out an ICS Form 214 and review findings with the class.

Instructor Notes

1. None

Unit 5: Communications

Topic 5-1: Communications

Terminal Learning Objective

At the end of this topic a student, given radio equipment, will know how to operate a radio at an incident in accordance with the Incident Communications Plan and manufacturer specifications.

Enabling Learning Objectives

1. Identify how to obtain a radio at an incident
 - Checking out a radio at the incident
 - Cloning a radio at the Communications Unit
2. Describe an Incident Communications Plan
 - Where to find the Communications Plan in an IAP
 - Components of an ICS 205 Incident Communications Plan
 - Correlating the ICS 205 to the ICS 204 Assignment List for the EMTF/EMPF
3. Describe causes and effects of radio interference and signal loss
 - Terrain and environmental factors
 - Mechanical and electrical interference
 - Weather impacts
 - Line of site and out of site transmissions
 - Human repeater
4. Identify system components and use procedures
 - Simplex vs. duplex
 - Use clear text while transmitting
5. Describe common incident radio models
 - Bendix King features

Discussion Questions

1. What is the ICS Form number for an Incident Communications Plan?
2. Why is it important for an EMTF/EMPF to clone their radio?
3. What is a human repeater?
4. What is the difference between simplex and duplex?

Application

1. Given radios, have students practice radio operations.

Instructor Notes

1. For ELO 5, select the radio models most appropriate for your student population.

Unit 6: Incident Action Plans and ICS Forms

Topic 6-1: Incident Action Plans

Terminal Learning Objective

At the end of this topic a student, given an Incident Action Plan (IAP), will know how to interpret and integrate applicable portions of the IAP into incident assignments in accordance with the Incident Commander's objectives.

Enabling Learning Objectives

1. Identify the purpose of an IAP
 - Describes organizational structure of an incident
 - Contains objectives that reflect strategy and control actions for an operational period
 - Provides a common operating picture for all resources assigned to an incident
2. Identify where to find and review an IAP at an incident
3. Identify primary components of an IAP and their relevance to an EMTF/EMPF
 - ICS 202 – Incident Objectives
 - ICS 203 – Organization Assignment List
 - ICS 204 – Division Assignment List
 - Anticipate the needs of the assignment
 - Resources within the assignment
 - Control objectives
 - Special Instructions
 - Communications Summary
 - Adjacent Division resources
 - ICS 205 – Incident Radio Communications Plan
 - ICS 206 – Medical Plan
 - ICS 214 – Unit/Activity Log
 - ICS 215A – Incident Safety Analysis
 - ICS 220 – Air Operations Summary
 - Incident maps
 - Fire weather forecast
 - Safety message

Discussion Questions

1. Where can an EMTF/EMPF get a copy of the IAP?
2. Which ICS form identifies where an EMTF/EMPF will work during an assigned operational period?
3. Why is it important for an EMTF/EMPF to understand the Control Objectives found in the ICS 204?
4. Which ICS form is known as the Medical Plan and who develops it?
5. What is the purpose of the ICS 214 Log?

Application

1. Given IAPs, have students familiarize themselves with the content and answer questions posed by the instructor.

Instructor Notes

1. For ELO 3, teach the forms in the order that they appear in the IAP you use as the example.

Topic 6-2: Additional ICS and Miscellaneous Forms

Terminal Learning Objective

At the end of this topic a student, given ICS and other forms, will be know how to interpret and integrate those forms into “end of incident” activities on an incident assignment in accordance with Incident Management Team (IMT) and Cal OES requirements.

Enabling Learning Objectives

1. Identify additional ICS forms and their relevance to an EMTF/EMPF
 - ICS 221 – Demobilization Check Out Form
 - ICS 225 – Incident Personnel Performance Rating Form
2. Identify other “end of incident” forms and their relevance to an EMTF/EMPF
 - OES Form F-42 – Emergency Activity Report
 - CTR – Crew Time Report

Discussion Questions

1. What is the purpose of the ICS 225 Form?
2. What is the purpose of the OES Form F-42?

Application

1. Given an incident scenario and an OES Form F-42, have students practice completing the form.

Instructor Notes

1. None

Unit 7: GPS and Land Navigation

Topic 7-1: Topographic Maps

Terminal Learning Objective

At the end of this topic a student, given topographic maps, will know how to interpret key information and ICS symbols found on incident topographic maps and apply that information on an incident assignment.

Enabling Learning Objectives

1. Identify contour lines used to show natural features of a topographic map
 - Contour spacing indicates slope
 - Up slope vs. down slope
 - Elevation symbols
2. Identify ICS symbols found on incident topographic maps
 - Open fireline
 - Completed fireline
 - Dozer line
 - Water source
 - Division breaks
 - Spot fire
3. Identify reference information found around the border of a topographic map
 - Upper left corner
 - Upper right corner
 - Lower left corner
 - Lower center
 - Lower right corner

Discussion Questions

1. How do you determine up slope vs. down slope on a topographic map?
2. What is the ICS symbol for open fireline on an incident topographic map?
3. Where would you find the scale on a topographic map?

Application

1. Determined by instructor

Instructor Notes

1. Notes

Topic 7-2: Coordinate Systems and Datums

Terminal Learning Objective

At the end of this topic a student, given common coordinate systems and datums, will know how to recognize the coordinate systems used on topographic maps and which datum is used as the foundation of an incident map.

Enabling Learning Objectives

1. Identify geographic coordinates of latitude and longitude
 - Latitude coordinates = horizontal grid system
 - Longitude coordinates = vertical grid system
2. Describe different coordinate systems/datums
 - Coordinate systems are ways to display a particular location
 - Map datums describe the model used to match the location of features on the ground to coordinates on the map
 - Check with incident Geographic Information System (GIS) to determine which datum is being used
3. Identify common coordinate systems/datums and their use
 - NAD83 – used topographically
 - NAD27 – used topographically
 - WGS84 – used by aircraft
 - Topographic map coordinates: degrees, minutes, seconds
 - Aviation map coordinates: degrees, decimal, minutes

Discussion Questions

1. What is a “datum”?
2. What coordinate/datum system is most commonly used?
3. Why is it important to check with incident GIS to determine which datum is being used?

Application

1. Determined by instructor

Instructor Notes

1. None.

Topic 7-3: Global Positioning Systems

Terminal Learning Objective

At the end of this topic a student, given map coordinates, will know how to use Global Positioning System (GPS) devices, including how and when to apply waypoints and tracklogs, on a fireline assignment in accordance with Incident Management Team (IMT) requirements.

Enabling Learning Objectives

1. Describe four primary functions of GPS
 - Position and coordinates
 - The distance and direction between two points
 - Travel progress reports
 - Accurate time measurements
2. Identify sources of GPS interference
 - Trees
 - Buildings
 - Power lines
3. Describe how to determine if GPS datum matches map datum
4. Identify basic GPS terminology
 - Waypoints – identify a geographic point
 - Tracklogs – starting point and ending point
5. Identify when to use waypoints
 - Starting/stopping locations
 - Safety Zones
 - Temporary Refuge Areas (TRAs)
 - Crew locations
 - Fireline changes
 - Roads
6. Identify when to use tracklogs
 - Fireline
 - Escape routes
 - Trails
 - Roads

Discussion Questions

1. Why is it important for an EMTF/EMPF to use tracklogs to determine escape routes?
2. What fireline features should be scouted and plotted as waypoints?

Application

1. Determined by instructor

Instructor Notes

1. None

Unit 8: Fireline Safety

Topic 8-1: Risk Management

Terminal Learning Objective

At the end of this topic a student, given an incident assignment, will know how to follow essential risk management guidelines designed to protect an EMTF/EMPF in the wildland fire setting in accordance with national standards.

Enabling Learning Objectives

1. Describe the risk management process
 - Situational awareness
 - Hazard identification
 - Hazard mitigation
 - Decision point
 - Reassess
2. Identify the 10 Standard Fire Orders
 - Fundamental directives that all wildland firefighters should use as the basis for operational decision making
 - Developed by US Forest Service in 1957 to study ways to prevent firefighter injuries and fatalities
 - Identifies 10 common factors that contributed to fatalities
 - Located inside the front cover of FIRESCOPE ICS 420-1 *Field Operations Guide* (FOG)
 - Located on the back cover of NWCG's *Incident Response Pocket Guide* (IRPG)
3. Identify the 18 Watch Out Situations
 - Developed after the 10 Standard Fire Orders
 - More specific to cautionary activities
4. Identify Downhill Indirect Line Construction Guidelines
 - Provides guidelines for constructing downhill or indirect lines in steep terrain or fast burning fuels
 - Located in IRPG
5. Identify Common Denominators of Fire Behavior on Tragedy Fires
 - Developed in 1970s
 - Identifies four common denominators of fire behavior that cause fatalities on wildland fire
 - Located in IRPG
6. Identify the term Temporary Refuge Area (TRA)
 - Temporary area for firefighters to use when egress to a Safety Zone is compromised
 - Not a substitute for a Safety Zone
7. Identify the Fire Danger Pocket Guide
 - Developed locally by the Unit or Forest
 - Describes local fuel and ignition conditions specific to incident location
 - Used when assigned to areas where EMTF/EMPF has limited local knowledge
 - May be available at an incident

8. Identify how to properly refuse risk
 - “Turn down” procedures
 - Located in IRPG

Discussion Questions

1. What is the purpose of the 10 Standard Fire Orders?
2. What is the purpose of the 18 Watch Out Situations?
3. What is the proper way to turn down an assignment?

Application

1. Determined by instructor

Instructor Notes

1. As you teach this topic, have students track with you through their IRPG.

Topic 8-2: Fireline Hazards

Terminal Learning Objective

At the end of this topic a student, given an incident assignment, will know how to identify hazardous fireline situations and understand their relevance to the role of an EMTF/EMPF assigned to the fireline.

Enabling Learning Objectives

1. Identify common fireline hazards and how they affect the role of an EMTF/EMPF while assigned
 - Firing operations
 - Snags and tree falling operations
 - Fireline explosives
 - Aircraft operations
 - Power lines
2. Identify incident-specific hazards
 - Found in IAP Safety Message
 - Unique to incident location, geography, etc.

Discussion Questions

1. What types of fireline hazards impact an EMTF/EMPF on assignment?

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 8-3: Personal Safety

Terminal Learning Objective

At the end of this topic a student, given an incident assignment, will know how to maintain personal safety while assigned to a fireline.

Enabling Learning Objectives

1. Describe how to prevent personal safety issues
 - Prior to assignment
 - Maintain personal fitness
 - Acclimate to hot and arduous conditions
 - On assignment
 - Use full PPE
 - Monitor 2:1 work to rest ratios
 - Seek quality rest environments
 - Stay hydrated (2 to 3 bottle of water to 1 sports drink)
 - Eat to replace spent nutrients and energy
 - Monitor heat stress conditions
2. Describe pre-planning for personal safety upon arriving at the fireline
 - The right to receive a Safety Briefing prior to initiating assignment
 - Maintain situational awareness
 - Establish management action points
 - Establish escape routes
 - Know your location

Discussion Questions

1. Why should an EMTF/EMPF acclimate to the environment prior to beginning a work assignment?
2. What is the proper work to rest ratio?
3. What are the components of a Safety Briefing?

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 8-4: Helicopter Safety

Terminal Learning Objective

At the end of this topic a student, given a Safety Briefing and standard operation procedures, will be able to identify how to safely work in and around a helicopter while on assignment so that the helicopter is correctly approached and loaded and the EMTF/EMPF and all equipment are secured prior to flight.

Enabling Learning Objectives

1. Identify the five steps to a safe flight
 - Pilot/Aircraft Data card available upon request
 - Flight Plan/Following conversation initiated with dispatch center
 - Pilot/crew in PPE (when required)
 - Pilot briefed on mission and flight hazards
 - Crew and passengers briefed prior to take off
2. Identify key components of a helicopter Safety Briefing
 - Fireline PPE required (including ear protection)
 - Weight distribution
 - Fuel and electrical shut off
 - Emergency exits
 - Fire extinguisher
 - No smoking
 - Secure all equipment
3. Describe helicopter seat belt operations
 - Safety harness fastened at all times
 - Only release safety harness when directed
 - Re-buckle belt behind you when exiting
4. Identify personal safety concerns while working around helicopters
 - Always approach or leave a helicopter:
 - From the front or at a 45-degree angle from the front
 - In full view of pilot
 - Watch for overhead hazards, rotors can drop four feet
 - Stoop-walk immediately away from a helicopter
 - Do not approach or leave up slope from a helicopter when rotors are turning
 - Do not go past the rear door towards the tail
 - Wear eye protection when working around a helicopter
 - Carry all tools horizontally

Discussion Questions

1. What is the proper way to approach a helicopter when the rotors are turning?
2. What are the five steps to a safe flight?

Application

1. Determined by instructor

Instructor Notes

1. As you teach this topic, have students track with you through their IRPG.

Unit 9: Medical Emergencies

Topic 9-1: Common Incident Injuries and Illnesses

Terminal Learning Objective

At the end of this topic a student, given injuries and illnesses, will be able to describe treatment considerations for common injuries and illnesses encountered on an incident.

Enabling Learning Objectives

1. Describe traumatic injuries commonly encountered on an incident
 - Soft tissue injuries
 - Sprains, strains, and fractures
 - Burns
 - Eye injuries
2. Describe environmental illnesses commonly encountered on an incident
 - Bites and stings
 - Allergic reactions
 - Gastrointestinal problems
3. Describe treatment considerations while working on the fireline
 - Treatment decision factors
 - Severity of illness/injury
 - Environment (time of day, weather, incident activity)
 - Transportation options
 - Operational procedures
 - Conventional and unconventional treatments

Discussion Questions

1. How does your location on the incident impact treatment of an injury?
2. What risk/benefit factors must be considered when choosing how to transport an ill or injured person?

Application

1. Given incident scenarios with illness and injuries, have students develop treatment and transportation plans for each individual and share their results with the class.

Instructor Notes

1. None

Topic 9-2: Exertional Heat Injuries

Terminal Learning Objective

At the end of this topic a student, given symptoms and strategies, will know how to identify exertional heat injuries and risk factors that can impact a fire fighter working on a wildland incident and the OSHA-defined Heat Stress Control measures that may mitigate them.

Enabling Learning Objectives

1. Identify inherent job stressors that may cause sudden surges in the sympathetic nervous system
 - Unexpected calls for service
 - Required to carry, lift, and wear heavy protective gear and equipment
 - Prolonged exposure to high temperatures
 - Excessive fluid loss
2. Identify risk factors associated with sudden surges in the sympathetic nervous system
 - Contribute to dehydration and rapid rise in core body temperature
 - May lead to heat stress and insufficient blood flow to the heart (cardiovascular strain)
 - Fire fighters cannot quickly remove themselves from an extreme environment to compensate for heat stress
 - 70% of thermal burden experienced by wildland firefighters is due to metabolic heat production while wearing PPE
 - Losing 1% of body weight could affect performance and hinder body's ability to cool itself
3. Identify signs of heat cramps
 - Sweating
 - Weakness
 - Cramps in large abdominal, arm, and calve muscles
4. Identify signs of heat exhaustion
 - Sweating
 - Headache
 - Dizziness
 - Nausea and vomiting
 - Chills and "goose bumps"
 - Altered mental status (occasionally)
5. Identify signs of exertional heat stroke (EHS)
 - Lack of sweat despite heat (hot, dry skin)
 - Nausea and vomiting
 - Altered mental status
 - Seizures
 - Lack of consciousness
6. Identify how even one episode of heat injury can weaken a fire fighter and make them more vulnerable at the next event
 - Passive cooling does not decrease body core temperature

- Hydration alone does not prevent heat illness
 - Major signs of heat illness can rapidly progress to heat stroke
 - Exertional heat stroke can occur on cool days
7. Describe OSHA defined Heat Stress Control Measures
- Aerobic fitness
 - Acclimate to environment
 - Pre-hydrate
 - Hydrate (six bottles of water per day)
 - Nutrition (on-the-go carb replacements)
 - Adequate work/rest ratios

Discussion Questions

1. What risk factors are caused by a rapid rise in core body temperature?
2. What are some signs of exertional heat injury?

Application

1. Determined by instructor

Instructor Notes

1. None

Topic 9-3: Exertional Rhabdomyolysis

Terminal Learning Objective

At the end of this topic a student, given symptoms, will know how to identify exertional rhabdomyolysis in a fire fighter working on a wildland incident.

Enabling Learning Objectives

1. Describe exertional rhabdomyolysis
 - Typically occurs in response to abrupt, excessive, prolonged, repetitive, or unaccustomed exercise
 - Degeneration of skeletal muscle or muscle necrosis
 - Damage occurs to muscle membranes allowing cellular components to leak out into the blood system
 - Can lead to renal failure, heart arrhythmias, compartmental syndrome, ketoacidosis, and death
2. Identify symptoms of exertional rhabdomyolysis
 - Persistent muscle pain or weakness
 - Muscle swelling
 - Abdominal pain
 - Nausea or vomiting
 - Fever
 - Rapid heart rate
 - Mental confusion
 - Dark urine
 - May be accompanied by symptoms of heat illness

Discussion Questions

1. How do exertional rhabdomyolysis symptoms differ from other heat-related injuries?
2. Why is it important for the EMTF/EMPF to recognize the symptoms of exertional rhabdomyolysis?

Application

1. Determined by instructor

Instructor Notes

1. None

Unit 10: Lessons Learned

Topic 10-1: Misconceptions

Terminal Learning Objective

At the end of this topic a student, given common misconceptions, will be able to identify misconceptions and avoid them when assigned to an incident to increase deployment success.

Enabling Learning Objectives

1. Identify common misconceptions held by first-time EMTF/EMPFs
 - “I’ll get a vehicle at the incident”
 - “I can pick up a supply kit when I get to the incident”
 - “I won’t have to do any hiking”
 - “Night shift is easier”
 - “I will always be out on the line”
 - “I’ll grab a hotel room and get some rest”
 - “If another fire breaks out, I’ll be able to go to that one”
 - “As soon as the fire is contained, I’ll be sent home”

Discussion Questions

1. Determined by instructor

Application

1. Determined by instructor

Instructor Notes

1. Counteract the misconceptions with real-world examples and factual information.

Topic 10-2: Recommendations

Terminal Learning Objective

At the end of this topic a student, given recommendations from experienced EMTF/EMPFs, will be able to apply those lessons to future assignments to increase deployment success.

Enabling Learning Objectives

1. Identify key components of deployment success
 - Prepare for the arduous nature of fireline assignments
 - Hiking uneven terrain
 - Extreme weather conditions
 - Heavy equipment
 - Limited rest/sleep
 - Take care of pre-deployment preparations
 - Family needs
 - Personal needs
 - Financial needs
 - Anticipate MEDL expectations of an EMTF/EMPF
 - Be physically prepared
 - Arrive ready to go
 - Complete given assignments
 - Be prepared to extend an assignment (spike camp/coyote)
 - Pursue additional training and education that enhance EMTF/EMPF preparation for wildland incident settings
 - Brush up on rural/wilderness EMS skills
 - Complete recommended air operations and fireline leadership courses
 - Purchase and study GPS navigation, compass, and map reading equipment
 - Be familiar with radio equipment and frequency use
 - Bring appropriate equipment and supplies to the incident
 - ALS/BLS packs (with two-weeks of supplies)
 - Personal protection and care
 - Know your home agency communication/contact requirements
 - Cell phone
 - Base Camp/OES representative/agency representative

Discussion Questions

1. What is the best advice you have received from another EMTF/EMPF?
2. How can you be better prepared for your next EMTF/EMPF assignment?

Application

1. Determined by instructor

Instructor Notes

1. None

Unit 11: Case Studies

Topic 11-1: Case Studies

Terminal Learning Objective

At the end of this topic a student, given case study data from actual fires, will be able to integrate “lessons learned” to be mentally prepared to handle emergencies on the fireline.

Enabling Learning Objectives

1. Describe the Dutch Creek Incident (Shasta-Trinity National Forest – July 25, 2008)
 - Traumatic fatal injury
 - Seriousness of injury
 - Treatment decisions
 - Transportation decisions
 - Who is in charge
2. Describe the Border #14 Incident (12-CA-MVU-007686 – July 20, 2012)
 - Heat related injuries (heat exhaustion)
 - Awareness of individual limitations
 - Work/rest cycles
 - Hydration during firefighting operations
 - Delaying treatment leading to further medical complications
3. Describe Chihuahua3 Fire (11-CA-MVU-011073 – October 2, 2011)
 - Firefighter collapsed, altered level of consciousness
 - OTC medications (Benadryl)
 - Physical preparedness
 - Adequate nutrition
 - Pre-response hydration
4. Describe Interagency Hotshot Crew (IHC) Heat Related Illness (Angeles National Forest USFS – June 8, 2014)
 - Heat related illness
 - Leg cramps
 - Ice chest submersion (arms)
 - Hyponatremia (imbalance of water to salt)
 - Electrolytes intake with water (monitor adequate replacement)
 - Consider rhabdomyolysis

Discussion Questions

1. Why is it important for an EMTF/EMPF to review previous incidents requiring medical assistance?

Application

1. Determined by instructor

Instructor Notes

1. Case studies can be introduced in any order.

Topic 11-2: Field Exercise (Optional)

Terminal Learning Objective

At the end of this topic a student, given background information and applicable reference material, will be able to evaluate an incident within an incident, so that the scope of the rescue is determined, the number of victims is identified, resource needs are communicated to supervisory personnel, the treatment plan is established and initiated, medical care is coordinated with other resources assisting with extraction, and the rescue is affected quickly and safely.

Enabling Learning Objectives

1. Using an instructor supplied scenario, apply Incident Within an Incident (IWI) procedure on a simulated incident
 - Report the emergency
 - Formulate a treatment and extraction plan
 - Execute the plan (either with available resources or simulate if some are not available)

Discussion Questions

1. Determined by instructor

Application

1. Field exercise with standard ALS or BLS equipment

Instructor Notes.

1. Provide scenarios from personal experience or other sources.

How to Read a Course Plan

A course plan identifies the details, logistics, resources, and training and education content for an individual course. Whenever possible, course content is directly tied to a national or state standard. SFT uses the course plan as the training and education standard for an individual course. Individuals at fire agencies, academies, and community colleges use course plans to obtain their institution's consent to offer course and provide credit for their completion. Instructors use course plans to develop syllabi and lesson plans for course delivery.

Course Details

The Course Details segment identifies the logistical information required for planning, scheduling, and delivering a course.

Required Resources

The Required Resources segment identifies the resources, equipment, facilities, and personnel required to deliver the course.

Unit

Each Unit represents a collection of aligned topics. Unit 1 is the same for all SFT courses. An instructor is not required to repeat Unit 1 when teaching multiple courses within a single instructional period or academy.

Topics

Each Topic documents a single Terminal Learning Objective and the instructional activities that support it.

Terminal Learning Objective

A Terminal Learning Objective (TLO) states the instructor's expectations of student performance at the end of a specific lesson or unit. Each TLO includes a task (what the student must be able to do), a condition (the setting and supplies needed), and a standard (how well or to whose specifications the task must be performed). TLOs target the performance required when students are evaluated, not what they will do as part of the course.

Enabling Learning Objectives

The Enabling Learning Objectives (ELO) specify a detailed sequence of student activities that make up the instructional content of a lesson plan. ELOs cover the cognitive, affective, and psychomotor skills students must master to complete the TLO.

Discussion Questions

The Discussion Questions are designed to guide students into a topic or to enhance their understanding of a topic. Instructors may add to or adjust the questions to suit their students.

Application

The Application segment documents experiences that enable students to apply lecture content through cognitive and psychomotor activities, skills exercises, and formative testing. Application experiences included in the course plan are required. Instructors may add additional application experiences to suit their student population if time permits.

Instructor Notes

The Instructor Notes segment documents suggestions and resources to enhance an instructor's ability to teach a specific topic.

CTS Guide Reference

The CTS Guide Reference segment documents the standard(s) from the corresponding Certification Training Standard Guide upon which each topic within the course is based. This segment is eliminated if the course is not based on a standard.

Skill Sheet

The Skill Sheet segment documents the skill sheet that tests the content contained within the topic. This segment is eliminated if the course does not have skill sheets.



INTERIM PROCEDURES AH-221, AH-321, CA-219, and S-223 Instructor Requirements

Updated: April 2022

Procedure Changes

- Edition:** May 2020 edition of the State Fire Training Procedures Manual
- Effective Date:** July 1, 2019
- Section Change:** 6.7.11: ICS Instructor
- Justification:** State Fire Training has added several new courses to our course catalog including AH-221: Damage Inspection Specialist (DINS), AH-321: Damage Inspection Manager (DINM), CA-219: Wildland Firefighting – Firing Operations, and S-223 Fireline Emergency Medical Technician/Paramedic. Additionally, S-219 was retired from the SFT course catalog. These changes are directed at meeting the requirements as identified and recommended by the Curriculum Cadre.
- SFT Contact:** [Contact SFT Staff](#) assigned to the specific certification.
- Note:** All new text appears in underline. All deleted text appears in ~~strikeout~~

6.7: INSTRUCTIONAL DISCIPLINES

6.7.11: INCIDENT COMMAND SYSTEM (ICS) INSTRUCTOR

6.7.11.1: Eligible Courses

Table 6.7.11.1: ICS Instructor Eligible Courses

<ul style="list-style-type: none"> Advanced All-Hazards Incident Management (AAIM) <u>AH-221: Damage Inspection Specialist</u> <u>AH-321: Damage Inspection Manager</u> AR-330: Task Force/Strike Team Leader All Risk AR-339: Division/Group Supervisor All Risk AR-430: Operations Section Chief All Risk ICS-200: Basic ICS ICS-300: Intermediate ICS ICS-400: Advanced ICS S-130: Fire Fighter Training S-131: Fire Fighter Type 1 Training S-190: Introduction to Wildland Fire 	<ul style="list-style-type: none"> S-330: Task Force/Strike Team Leader S-336: Tactical Decision Making in Wildland Fire S-339: Division/Group Supervisor S-346: Situation Unit Leader S-349: Resources Unit Leader/Demobilization Unit Leader S-355: Ground Support Unit Leader S-356: Supply Unit Leader S-358: Communications Unit Leader S-359: Medical Unit Leader S-360: Finance/Administration Unit Leader S-390: Introduction to Wildland Fire Behavior Calculations
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INTERIM PROCEDURES

AH-221, AH-321, CA-219, and S-223 Instructor Requirements

<p>Behavior</p> <ul style="list-style-type: none"> • S-200: Initial Attack Incident Commander Type 4 • S-203: Introduction to Incident Information • S-212: Wildland Fire Chain Saws • S-215: Fire Operations in the Wildland/Urban Interface • S-219: Firing Operations <u>CA-219: Wildland Firefighting – Firing Operations</u> • <u>S-223 Fireline Emergency Medical Technician/Paramedic</u> • S-230: Crew Boss - Single Resource • S-231: Engine Boss - Single Resource • S-244: Field Observer • S-245: Display Processor • S-270: Basic Air Operations • S-290: Intermediate Wildland Fire Behavior • S-300: Extended Attack Incident Commander 	<ul style="list-style-type: none"> • S-400: Incident Commander • S-403: Information Officer • S-404: Safety Officer • S-420: Command and General Staff • S-430: Operations Section Chief • S-440: Planning Section Chief • S-445: Incident Training Specialist • S-450: Logistics Section Chief • S-460: Finance/Administration Section Chief • S-490: Advanced Wildland Fire Behavior Calculations • S-491: Intermediate National Fire Danger Rating System • Terrorism Liaison Officer - Basic
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6.7.11.5: Experience

- A. A Registered Primary Instructor for an ICS Instructor course shall be appointed to the rank of suppression officer and meet the professional experience qualifications listed below.
1. Performing in an “acting” capacity does not qualify.

Table 6.7.11.5: ICS Instructor Experience

FSTEP Course	Experience
<ul style="list-style-type: none"> • Advanced All-Hazards Incident Management (AAIM) 	<ul style="list-style-type: none"> • Appointed to the rank of Suppression Officer • A qualified Command or General staff position during Type 1 complex incidents while assigned on an incident management team (IMT)
<ul style="list-style-type: none"> • 100-level and 200-level courses 	<ul style="list-style-type: none"> • Appointed to the rank of Suppression Officer • Performed at the First-line Supervisor level on an incident
<ul style="list-style-type: none"> • 300-level courses 	<ul style="list-style-type: none"> • Appointed to the rank of Suppression Officer



INTERIM PROCEDURES

AH-221, AH-321, CA-219, and S-223

Instructor Requirements

FSTEP Course	Experience
<ul style="list-style-type: none"> 400-level courses 	<ul style="list-style-type: none"> Performed at the Unit Leader level on an incident Appointed to the rank of Suppression Officer Performed at the Section Chief level on an incident
<ul style="list-style-type: none"> CA-219: Wildland Firefighting – Firing Operations 	<ul style="list-style-type: none"> Held a permanent position within a Recognized Fire Agency in California for a minimum of three years, or worked in a volunteer position or paid call firefighter with a Recognized Fire Agency in California for a minimum of five years and; Documentation of specific expertise in wildland live fire training - firing operations and; Qualified as a Prescribed Fire Burn Boss (RXB1/2), Division Supervisor (DIVS), Firing Boss (FIRB); or Strike Team/Task Force Leader
<ul style="list-style-type: none"> <u>S-223 Fireline Emergency Medical Technician/Paramedic</u> 	<ul style="list-style-type: none"> <u>A minimum of five (5) years’ full-time employment within a recognized fire agency in California OR a minimum ten (10) years’ volunteer or paid-call employment within recognized fire agency in California and</u> <u>A qualified Medical Unit Leader (MEDL) OR a qualified Fireline EMT/Paramedic with a minimum of three (3) years’ experience (Qualified by CAL FIRE, CICC, or NWCG)</u>
<ul style="list-style-type: none"> Terrorism Liaison Officer – Basic 	<ul style="list-style-type: none"> Appointed to the rank of Suppression Officer Fire service experience as a Terrorism Liaison Officer