SOLDIER'S MANUAL
and
TRAINER'S GUIDE
for
FIREFIGHTER
MOS 21M
SKILL LEVEL 2, 3, and 4

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Soldier's Manual and Trainer's Guide for Firefighter, MOS 21M, Skill Levels 2, 3, and 4

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PREFACE

This Soldier training publication (STP) contains standardized training objectives (in the form of task summaries) to train and evaluate Soldiers on critical tasks that support unit missions during wartime. Trainers and leaders should actively plan for Soldiers holding this military occupational specialty (MOS) to have access to this publication.

This publication applies to the Active Army, the Army National Guard (ARNG)/Army National Guard of the United States (ARNGUS), and the U.S. Army Reserve (USAR).

The proponent for this publication is U.S. Army Training and Doctrine Command (TRADOC). Send comments and recommendations on Department of the Army (DA) Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commandant, U.S. Army Engineer School, ATTN: ATSE-DT, Individual Training Division, 320 MANSCEN Loop, Fort Leonard Wood, MO 65473-8929. Comments should be keyed to a specific page, paragraph, and line of text in which the change is recommended. Provide reasons for each comment to ensure understanding and complete evaluation.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1

Introduction

1-1. General. This manual identifies the individual MOS training requirements for Soldiers. It is designed to be used by commanders, trainers, and Soldiers to plan, conduct, and evaluate individual training in units. This manual is the primary reference for supporting self-development, evaluating MOS proficiency, and training Soldiers. Commanders employ two primary methods to evaluate Soldier proficiency:

- **Commander's evaluation.** Commander's evaluations are local tests or assessments of Soldier performance of MOS-specific and common tasks critical to the unit mission. They may be conducted year-round.

- **Common task test (CTT).** CTTs are hands-on tests used to evaluate proficiency on common tasks. Alternate written tests are provided if equipment is not available for hands-on testing.

1-2. Integration of Individual and Collective Tasks. This manual should be used with STP 21-1-SMCT, STP 21-24-SMCT, Field Manual (FM) 7-0, and any related Army Training and Evaluation Program (ARTEP) mission training plans (MTPs) and drills to establish effective training plans and programs that integrate individual and collective tasks.

1-3. Task Summaries. Task summaries contain information necessary to conduct training and evaluate Soldier proficiency on tasks critical to the MOS. A separate task summary is provided for each critical task. These task summaries are, in effect, standardized training objectives, which ensure that Soldiers do not have to relearn a task on reassignment to a new unit. The format for the task summaries included in this manual is as follows:

- **Task title.** The task title identifies the action to be performed.

- **Task number.** The 10-digit number identifies each task or skill. Include this task number, along with the task title, in any correspondence relating to the task.

- **Conditions.** The task conditions identify all the equipment, tools, references, job aids, and supporting personnel that the Soldier needs to perform the task in wartime. This section identifies any environmental conditions that could alter task performance, such as visibility, temperature, and wind. This section also identifies any specific cues or events (a chemical attack or identification of a threat vehicle) that trigger task performance.

- **Standards.** The task standards describe how well and to what level a task must be performed under wartime conditions. Standards are typically described in terms of accuracy, completeness, and speed.

- **Training and evaluation.** This section may contain a training information outline, an evaluation preparation subsection, and/or an evaluation guide. The training information outline includes detailed training information. The evaluation preparation subsection indicates the necessary modifications to the task performance in order to train and evaluate a task that cannot be trained to the wartime standard under wartime conditions. The evaluation preparation may also include special training and evaluation preparation instructions to accommodate these modifications and any instruction that should be given to the Soldier before evaluation. The evaluation guide identifies the specific actions, known as performance measures, that the Soldier must do to successfully complete the task. These actions are listed in a pass/fail format for easy evaluation. Each evaluation guide contains a feedback statement that indicates the requirements for receiving a GO on the evaluation.

- **References.** This section identifies references that provide more detailed and thorough explanations of task performance requirements than that given in the task summary description.

1-4. Safety. Additionally, some task summaries include safety statements and notes. Safety statements (danger, warning, and caution) alert users to the possibility of immediate death, personal injury, or damage to equipment. Notes provide an explanation or hint relative to the performance measures.

1-5. Soldier's Responsibilities. Each Soldier is responsible for performing individual tasks that the first-line supervisor identifies based on the unit mission-essential task list (METL). The Soldier must perform the task to the standards listed in the Soldier's manual (SM). If a Soldier has a question about how to do a task or which tasks in this manual he must perform, it is the Soldier's responsibility to ask the first-line supervisor for clarification. The first-line supervisor knows how to perform each task or can direct the Soldier to the appropriate training materials.

1-6. Noncommissioned Officer Self-Development and the Soldier's Manual. Self-development is one of the key components of the leader development program. It is a planned, progressive, and sequential program followed by leaders to enhance and sustain their military competency. It consists of individual study, research, professional reading, practice, and self-assessment. Under the self-development concept, the noncommissioned officer (NCO), as an Army professional, has the responsibility to remain current in all phases of the MOS. The SM is the primary source for the NCO to use in maintaining MOS proficiency.

1-7. Air Force Career Development Courses. The Air Force Institute for Advanced Distributed Learning (AFIADL), Maxwell AFB-Gunter Annex, Alabama is an important resource for the MOS 21M firefighter.

1-8. Army Correspondence Course Program. Another important resource for NCO self-development is the Army Correspondence Course Program (ACCP). See DA Pamphlet 350-59 for information on enrolling in this program and for a list of courses, or write to: Army Institute for Professional Development, U.S. Army Training Support Center, ATTN: ATIC-IPS, Newport News, Virginia 23628-0001.

1-9. Unit Learning Centers. Unit learning centers are valuable resources for planning self-development programs. They can help access enlisted career maps, training support products, and extension training materials.

1-10. Training Support.

a. This manual includes the following appendixes and information that provide additional training support information:

- **Appendix A.** Metric Conversion Chart. This appendix provides an English-to-metric measurement conversion chart.

- **Glossary.** The glossary is a comprehensive list of acronyms, abbreviations, definitions, and letter symbols.

- **References.** This section contains two lists of references, required and related, that support the training of all tasks in this SM. Required references are listed in the conditions statement and are required for the Soldier to do the task. Related references are materials that provide more detailed information and a more thorough explanation of task performance.

b. The NCO trainer can use DA Form 5164-R (Hands-on Evaluation) to set up the leader book. The use of this form may help preclude writing the Soldier tasks associated with the unit METL and can become a part of the leader book. The use of this form is optional, but highly encouraged. This evaluation allows you to maintain and track the Soldier's proficiency at the performance level. This form can be

obtained electronically and may be reproduced locally on 8 1/2- by 11-inch paper. Follow these instructions when completing this form:

- Enter the title and number of the task to be evaluated at the top of the form.
- Enter in column a the number of each performance step from the evaluation guide.
- Enter in column b each performance step from the evaluation guide that corresponds to the number in column a. Abbreviate the information, if necessary.
- Locally reproduce the partially completed form if more than one Soldier will be evaluated on the specific task or the same Soldier will be evaluated more than once.
- Enter the date, the evaluator's name, and the Soldier's name and unit before starting the evaluation.
- Enter a check in column c or column d for each performance step evaluated, as appropriate.
- Check the status block GO or NO-GO.

NOTE TO THE TRAINING MANAGER: The training status of groups (such as teams, squads, or platoons) can be maintained in key critical MOSs at any level by entering the level (such as 1st platoon, 2d platoon, or 3d platoon) in the column headings. Simply have the trainers report the percentage of their Soldiers who have (GO blocks) and have not (NO-GO blocks) demonstrated proficiency on each task, and record this information for each level.

1-11. Enlisted Personnel Management System. The Enlisted Personnel Management System (EPMS) (Army Regulation [AR] 614-200) is the Army's overall system to improve the professionalism of the enlisted force. It integrates policies relating to training, evaluation, classification, and promotion into an overall system. It provides the Soldier with a means to look to the future and see a realistic, clear, and viable career progression path from private to sergeant major (SGM). However, the EPMS is useless if the Soldier does not understand and use it. Part of the trainer's job is to ensure that the Soldier understands and uses the EPMS. As an aid, figure 1-1, page 1-4 provides the trainer with a career management field (CMF) for the Soldier. Along with information contained in AR 614-200, the Soldier can use the career map to develop goals early in his career and plan accordingly.

NCOES	PLDC	BNCOC	ANCOC	USASMA
Civilian schools	High school, GED diploma	College*		
		1 year	2 years	3 years
		A goal: Troop assignments often preclude off-duty education.		
Other schools	Drill sergeant school Recruiting school Battle staff course 1SG course			
Encouraged assignments	Retention, recruiter Drill sergeant Writer/developer Instructor Operations/NCO Senior writer/developer Fire inspector AC/RC advisor CMF 21 staff assignments			

Key leadership assignments	Firefighter driver/ operator	Lead firefighter	Station chief	Chief	First sergeant	Command sergeant major
Ranks	Private, private first class	Sergeant	Staff sergeant	Sergeant first class	First sergeant/ master sergeant	Sergeant major/ command sergeant major
Years of service	1-4	3-8	6-14	10-18	16-22	20+

Figure 1-1. CMF map

1-12. Skill Progression Chart. Similar or related education, training, and experience are grouped into CMFs. The career progression path for MOS 21M, CMF 21, firefighter, is shown in table 1-1.

Table 1-1. Career progression sequence for firefighting (CMF 21)

E9	21Z Command sergeant major
SL 5 E8 and E9	21X First sergeant
SL 4 (E7)	21M40 Fire chief Detachment sergeant Platoon sergeant First sergeant
SL 3 (E6)	21M30 Station chief Fire inspector Platoon sergeant
SL 2 (E5)	21M20 Lead firefighter
SL 1 (E1 through E4)	21M10 Firefighter Fire truck driver/operator
	Trainee

CHAPTER 2

Trainer's Guide

2-1. **General**. The trainer's guide (TG) identifies the essential components of a unit training plan for individual training. Units have different training needs and requirements based on differences in environment, location, equipment, dispersion, and similar factors. Therefore, the TG should be used as a guide for conducting unit training and not a rigid standard. It provides information necessary for planning training requirements for the military occupational specialty (MOS). The TG—

- Identifies subject areas in which Soldiers must be trained.
- Identifies the individual tasks for each subject area.
- Specifies where Soldiers are initially trained on each task.
- Recommends how often to train each task to sustain proficiency.

2-2. MOS 21M24 Critical Tasks. This list identifies, by general subject areas, the critical tasks to be trained in an MOS and the type of training required (resident, integration, or sustainment).

- Task number column. This column lists the task numbers for all tasks included in the subject area.
- Title column. This column lists the task title for each task in the subject area.
- Training location column. This column identifies the training location where the task is first trained to STP standards. If the task is first trained to standard in the unit, the word "Unit" will be in this column. If the task is first trained to standard in the resident course, it will be identified by brevity code (AIT, BNCOC, ANCOC). Figure 2-1 contains a list of training locations and their corresponding brevity codes.

ASI/SD	Additional Skill Identifier/Special Duty
AIT	Advanced Individual Training
UNIT	Trained in the Unit

Figure 2-1. Training locations

- **Sustainment training frequency column.** This column indicates the recommended frequency at which the tasks should be trained to ensure that the Soldiers maintain task proficiency. Figure 2-2 identifies the frequency codes used in this column.

BA	Biannually
AN	Annually
SA	Semiannually
QT	Quarterly
MO	Monthly
BW	Biweekly
WK	Weekly

Figure 2-2. Sustainment training frequency codes

- **Sustainment training skill level column.** This column lists the skill levels of the MOS for which Soldiers must receive sustainment training to ensure that they maintain proficiency to SM standards.
- **Subject area codes.** Tasks are grouped into numbered areas and are broken down by subject area/skill level. See figure 2-3.

	Skill Level 2
1	Perform Maintenance
2	Perform Common Firefighting Tasks
3	Perform Structural Firefighting
4	Perform Wildland Firefighting
5	Perform Vehicle Firefighting
6	Perform Hazmat Firefighting
7	Perform Aircraft Firefighting
8	Perform Rescue Air Mobility Squadron Mission
	Skill Level 3
1	Perform Maintenance
2	Perform Common Firefighting Tasks
3	Perform Structural Firefighting
4	Perform Wildland Firefighting
5	Perform Vehicle Firefighting
6	Perform Hazmat Firefighting
7	Perform Aircraft Firefighting
8	Perform Rescue Air Mobility Squadron Mission
	Skill Level 4
2	Perform Common Firefighting Tasks
3	Perform Structural Firefighting
4	Perform Wildland Firefighting
5	Perform Vehicle Firefighting
6	Perform Hazmat Firefighting
7	Perform Aircraft Firefighting
8	Perform Rescue Air Mobility Squadron Mission

Figure 2-3. Subject area codes

2-3. Critical Tasks List. The critical tasks list is shown in table 2-1.

Table 2-1. Critical tasks list

Task Number	Title	Training location	Sust Tng Freq	Sust Tng SL
Skill Level 2				
Subject Area 1. Perform Maintenance				
052-249-2101	Test a Fire Hose	AIT	QT	2-4
Subject Area 2. Perform Common Firefighting Tasks				
052-249-2112	Direct Tanker Shuttle Operations	UNIT	QT	2-4
052-249-2113	Manage a Personnel Accountability System	UNIT	QT	2-4
Subject Area 3. Perform Structural Firefighting				
052-249-2108	Respond to a Structural Fire	UNIT	QT	2-4
052-249-2120	Determine the Construction Classification of a Structure	UNIT	QT	2-4
052-249-2121	Determine the Stability of a Damaged Structure	UNIT	QT	2-4
Subject Area 4. Perform Wildland Firefighting				
052-249-2114	Respond to a Wildland Fire	UNIT	QT	2-4

Table 2-1. Critical tasks list (continued)

Task Number (continued)	Title (continued)	Training Location (continued)	Sust Tng Freq (continued)	Sust Tng SL (continued)
Subject Area 5. Perform Vehicle Firefighting				
052-249-2122	Respond to a Ground Vehicle Emergency	UNIT	QT	2-4
Subject Area 6. Perform Hazmat Firefighting				
052-249-2123	Respond to a Hazmat Incident	UNIT	QT	2-4
052-249-2118	Respond to an Ordnance Incident	UNIT	QT	2-4
Subject Area 7. Perform Aircraft Firefighting				
052-249-2124	Respond to an Aircraft Rescue Incident	UNIT	QT	2-4
052-249-2115	Respond to an Aircraft Emergency	UNIT	QT	2-4
052-249-2117	Direct Stand-By Operations	UNIT	QT	2-4
Subject Area 8. Perform a Rescue Air Mobility Squad Mission				
052-249-2125	Develop a Load Plan for Rescue Air Mobility Squadron Missions	UNIT	QT	2-4
Skill Level 3				
Subject Area 1. Perform Maintenance				
052-249-3101	Maintain Records and Reports	BNCOC	QT	3-4
Subject Area 2. Perform Common Firefighting Tasks				
052-249-3115	Determine Fire Cause	BNCOC	QT	3-4
052-249-3117	Review Plans for Life Safety Code Compliance	BNCOC	QT	3-4
Subject Area 3. Perform Structural Firefighting				
052-249-3102	Conduct a Fire Inspection	BNCOC	QT	3-4
052-249-3103	Prepare a Building Prefire Plan	BNCOC	QT	3-4
052-249-3104	Supervise a Structural Firefighting Operation	BNCOC	QT	3-4
Subject Area 4. Perform Wildland Firefighting				
052-249-3111	Supervise a Wildland Firefighting Operation	BNCOC	QT	3-4
Subject Area 5. Perform Vehicle Firefighting				
052-249-3119	Supervise a Firefighting Crew on a Ground Vehicle Emergency	BNCOC	QT	3-4
Subject Area 6. Perform Hazmat Firefighting				
052-249-3120	Supervise a Firefighting Crew on an Ordinance Incident	BNCOC	QT	3-4
052-249-3107	Perform a Size-Up of a Hazmat Incident	BNCOC	QT	3-4
Subject Area 7. Perform Aircraft Firefighting				
052-249-3105	Supervise an Aircraft Firefighting Operation	BNCOC	QT	3-4
Subject Area 8. Perform a Rescue Air Mobility Squadron Mission				
052-249-3121	Supervise a Rescue Air Mobility Squadron Team Mission	UNIT	QT	3-4

Table 2-1. Critical tasks list (continued)

Task Number (continued)	Title (continued)	Training Location (continued)	Sust Tng Freq (continued)	Sust Tng SL (continued)
Skill Level 4				
Subject Area 2. Perform Common Firefighting Tasks				
052-249-4120	Establish a Water Supply	ANCOC	QT	4
052-249-4121	Conduct a Preliminary Fire Ground Investigation	ANCOC	QT	4
052-249-4122	Develop a Fire Protection Standing Operating Procedure	ANCOC	QT	4
052-249-4118	Develop a Fire Department Budget	ANCOC	QT	4
052-249-4119	Develop a Long-Range Plan	ANCOC	QT	4
Subject Area 3. Perform Structural Firefighting				
052-249-4112	Perform Incident Command of a Structural Fire Scene	ANCOC	QT	4
Subject Area 4. Perform Wildland Firefighting				
052-249-4114	Perform Incident Command of a Wildland Firefighting Scene	ANCOC	QT	4
Subject Area 5. Perform Vehicle Firefighting				
052-249-4123	Perform Incident Command of a Ground Vehicle Emergency	ANCOC	QT	4
Subject Area 6. Perform Hazardous Materials Firefighting				
052-249-4116	Perform Incident Command of a Hazmat Incident	ANCOC	QT	4
Subject Area 7. Perform Aircraft Firefighting				
052-249-4113	Perform Incident Command of an Aircraft Crash Site	ANCOC	QT	4
Subject Area 8. Perform Rescue Air Mobility Squadron Mission				
052-249-4124	Manage a Rescue Air Mobility Squadron Team Operation	UNIT	QT	4

CHAPTER 3

MOS/Skill Level Tasks

Skill Level 2

Subject Area 1: Perform Maintenance

Test a Fire Hose
052-249-2101

Conditions: You are given a fully equipped and operational firefighting apparatus, a firefighting crew, personal protective equipment (PPE), a water supply, a fire hose record, DA Form 2404 (Equipment Inspection and Maintenance Worksheet), DA Form 5988-E [Equipment Inspection Maintenance Worksheet (EGA)], NFPA 1001, the local standing operating procedure (SOP), applicable lubrication orders (LOs) and technical manuals (TMs), tags, and an area in which to test a fire hose.

Standards: Test a hard- or soft-suction fire hose according to NFPA 1001.

Performance Steps
NOTES:

1. The pumping apparatus gauges should be certified as accurate within 1 year before testing.

2. Service tests are performed after a hose has been repaired or a vehicle runs over it.

3. A 1/16- to 1/8-inch uniform movement of the coupling is acceptable on a newly coupled hose. This slippage is normal during initial testing, but should not occur during subsequent tests.

4. The maximum length of tested hose is 300 feet.

5. Almost closing the discharge gate will sustain the pump pressure and keep the hose from whipping back and forth.

6. If a hose line ruptures during the test, remove it from the laid-out hose. The hose line must be bled off, repressurized, and timed again for 5 minutes. This happens until the laid-out hose completes the full 5-minute pressurization test.

WARNING

Firefighters should move away from the hose during testing. The hose could rupture and cause immediate and personal injury.

1. Perform a service test on a hard- or soft-suction fire hose.
   a. Inspect the hose before testing. Look for—
      (1) Bubbles or bumps on the hose jacket exterior.
      (2) Splits or separations in the hose jacket.
      (3) Separations between the hose jacket and the coupling.
      (4) Separation of the exterior hose jacket from the interior hose lining.
   b. Ensure that the hose is attached to the firefighting apparatus.
   c. Ensure that a nozzle is attached to the hose line.
   d. Ensure that the nozzleman is positioned at the nozzle.

Performance Steps

e. Ensure that the pump operator engages the pump and charges the line to 50 pounds per square inch.
f. Ensure that the nozzleman bleeds off the air in the line by opening the nozzle and flowing water through the hose for at least 5 minutes.
g. Direct the nozzle closure after 5 minutes.
h. Direct the pump operator to gradually increase the pump pressure to 100 pounds per square inch.
i. Direct the pump operator to close the discharge gate to a position that is almost closed.
j. Time hose testing for 5 minutes once the pump operator is finished with his duties.
k. Direct the pump operator to shut down the pump after 5 minutes.
l. Direct the nozzleman to relieve the pressure and the water from the line.
m. Inspect the hose after the test. Look for—
    (1) Bubbles or bumps on the hose jacket exterior.
    (2) Splits or separations in the hose jacket.
    (3) Separations between the hose jacket and the coupling.
    (4) Separation of the exterior hose jacket from the interior hose lining.
n. Mark hose sections as serviceable and unserviceable.
    (1) Document individual hose section failures on DA Form 5988-E.
        (a) Remove the hose from service.
        (b) Turn the hose section into supply for reissue.
    (2) Document serviceable hose sections on a locally produced form.
o. Continue testing until all of the hose has been tested.

2. Perform a service test on a single-jacketed, cotton-covered, or rubber-lined fire hose.
    a. Repeat steps 1a through 1g.
    b. Direct the pump operator to gradually increase the pump pressure to 150 pounds per square inch.
    c. Repeat steps 1i through 1o.

3. Perform a service test on a multijacketed, rubber-covered, cotton- or polyester-covered, or rubber-lined fire hose.
    a. Repeat steps 1a through 1g.
    b. Direct the pump operator to gradually increase the pump pressure to 250 pounds per square inch.
    c. Repeat steps 1i through 1o.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to test a fire hose.

Performance Measures	**GO**	**NO-GO**
1. Performed a service test on a hard- or soft-suction fire hose.	____	____
2. Performed a service test on a single-jacketed, cotton-covered, or rubber-lined fire hose.	____	____
3. Performed a service test on a rubber-covered, multijacketed, cotton- or polyester-covered, or rubber-lined fire hose.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required

DA FORM 2404
DA FORM 5988-E
LO 5-4210-220-12
NFPA 1001
TM 5-4210-220-12
TM 5-4210-249-13&P-1
TM 9-2320-328-13&P-1

Related

AR 420-1
DA PAM 750-8
FM 5-415
IFSTA MANUAL

Subject Area 2: Perform Common Firefighting Tasks

Direct Tanker Shuttle Operations

052-249-2112

Conditions: You are given a fully equipped and operational firefighting apparatus, a firefighting crew, personal protective equipment (PPE), DA Form 2404 (Equipment Inspection and Maintenance Worksheet), DA Form 2408-14 (Uncorrected Fault Record), applicable lubrication orders (LOs) and technical manuals (TMs), and a map.

Standards: Direct tanker shuttle operations.

Performance Steps

1. Identify available water sources while en route to an emergency.
    a. Locate fire hydrants.
    b. Locate additional available firefighting apparatuses.
    c. Locate pools, ponds, and lakes for drafting.

NOTE: Before starting a drafting operation, ensure that the water source is adequate to support the operation.

2. Determine the fire load.
    a. Identify the type of object that is burning, including—
        (1) Structure.
        (2) Aircraft.
        (3) Grass, brush, or trees.
        (4) Automobile.
        (5) Hazmat.
    b. Determine the type of material involved, including—
        (1) Wood.
        (2) Fuel.
        (3) Ammunition.
    c. Identify the time of day and any factors involved, including—
        (1) Weekday (local traffic and pedestrians).
        (2) Weekend.
        (3) Day.
        (4) Night.

3. Coordinate the vehicle staging area.

NOTE: The staging area does not have to be right at the emergency scene.

    a. Determine the staging area location. Consider the—
        (1) Size of available sites.
        (2) Ease of entering and exiting the site.
    b. Rotate one vehicle into the scene as another vehicle departs.
    c. Rotate the vehicles into the staging area as they arrive to avoid vehicle overflow on the scene.
    d. Monitor radio calls (continuously) for potential problems at the water source.

NOTES:

1. Retest fire hoses that have been driven over before placing them back into service.

2. If the emergency becomes very time-consuming, consider using crew or driver rotations or replacements.

Evaluation Preparation: Setup: Provide the Soldier with a simulated tanker shuttle operation and the items listed in the conditions.

Brief Soldier: Tell the Soldier to direct the tanker shuttle operations.

Performance Measures	GO	NO-GO
1. Identified available water sources en route to an emergency.	____	____
2. Determined the fire load.	____	____
3. Coordinated the vehicle staging area.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
DA FORM 2404	AR 420-1
DA FORM 2408-14	FM 5-415
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Manage a Personnel Accountability System

052-249-2113

Conditions: You are given a fire ground, a fully equipped and operational firefighting apparatus, a firefighting crew, personal protective equipment (PPE), and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Manage a personnel accountability system.

Performance Steps

1. Implement a personnel accountability tag system.
    a. Collect crewmember tags on entry to the fire ground perimeter.
    b. Take the tags to the appropriate person or designated location, including the—
        (1) Command post.
        (2) Company officer.
        (3) Safety officer.
        (4) Firefighting apparatus tool compartment.
    c. Attach the crew tags to the control or personnel identification board.
    d. Collect the tags when leaving the fire ground perimeter, and return them to the crew.

2. Implement a self-contained breathing apparatus (SCBA) tag system.

NOTE: Having individually assigned SCBA equipment ensures that the user is familiar with the equipment and has a properly fitted facepiece.

    a. Collect the tags from the crewmembers.
    b. Annotate the SCBA equipment air pressure on each member's tag.
    c. Take the tags to the appropriate person or designated location, including the—
        (1) Command post.
        (2) Company officer.
        (3) Safety officer.
        (4) Firefighting apparatus tool compartment.
    d. Attach the crewmember tags to the control or personnel identification board.
    e. Collect the tags when leaving the fire ground perimeter, and return them to the crew.

NOTES:

1. Firefighters who are leaving the hazardous area take back their individual tags so that the control officer knows who is safely outside of hazardous area and who is within it.

2. Relief crews are sent into the hazardous area before the low-pressure warning.

3. The purpose of the personnel accountability system is to ensure that only authorized and properly equipped personnel enter the hazardous area. As long as personnel remain inside the controlled zone, their location and status are known.

Evaluation Preparation: Setup: Provide the Soldier with a personnel accountability system and the items listed in the conditions.

Brief Soldier: Tell the Soldier to manage a personnel accountability system.

Performance Measures	**GO**	**NO-GO**
1. Implemented a personnel accountability tag system.	____	____
2. Implemented a SCBA tag system.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 3: Perform Structural Firefighting

Respond to a Structural Fire
052-249-2108

Conditions: You are given a structural fire, a fully equipped and operational firefighting apparatus, a firefighting crew, personal protective equipment (PPE), a self-contained breathing apparatus (SCBA), a map, applicable lubrication orders (LOs) and technical manuals (TMs), a facility response card, and the local standing operating procedure (SOP).

Standards: Respond to a structural fire.

Performance Steps
NOTE: Conducting fire prevention inspections and creating or updating prefire plans gives you and your crew the chance to become familiar with structure layout and special hazards presented.

DANGER

A crew training drill (facility walk-through) should be conducted for facilities that have high-life or explosive hazards or store hazmat. Failure to comply may result in death or permanent injury.

NOTE: The crew dons PPE and mounts the firefighting apparatus at this time.

1. Collect general information about the fire before responding to it.
   a. Locate the fire.
   b. Obtain information on how the alarm was received (telephone, automated fire system).

2. Start the situation size-up while en route to the incident.
   a. Consider the time of day.

NOTE: Knowing the time a fire started helps you to determine the life and property hazard possibilities, extent of rescue efforts, and traffic conditions.

   b. Consider the facility type.

NOTE: Structures present unique problems (billets and public-assembly buildings indicate the potential for rescuing people, hospitals and child care centers indicate the potential for rescuing numerous small children or incapacitated personnel, and flammable-material and hazmat storage facilities indicate the need for extra precaution).

   c. Consider the alarm reception method.

NOTE: You should know how the alarm was transmitted to the alarm room operator. If the alarm was transmitted by an automatic alarm device, the building may have a fire protection sprinkler system that initiated the alarm. This type of information often provides you with insight as to what you can expect at the fire scene.

   d. Consider the rescue type.

NOTE: If you are responding to a hospital or a billet, there may be extensive rescue requirements and numerous interior exposures (life) to protect. If responding to a storage facility, rescue efforts may be minimal or unnecessary.

3. Review the facility response card.
   a. Consider the structure construction type and age to determine structural integrity.

NOTES:

1. Steel and concrete structures can withstand fire exposure longer than wood structures.

Performance Steps

2. Older structures do not have the same fire protection safety measures as newer structures.

b. Consider the number of stories.

NOTE: Firefighting operations in multistory structures are significantly more difficult than in single-story structures.

c. Consider hazard exposure.

NOTE: Wind factor and prefire plan information aid in determining if exterior exposures are in danger.

d. Consider building occupancy.
   (1) List special hazards (associated with the current occupants) on the prefire plan.
   (2) Alert the crew to the special hazards.

e. Consider hydrant location, and list the fire hydrant (closest to the structure) with the available gallons-per-minute flow rate on the prefire plan.

f. Note the type of utilities (electrical, gas) and the cutoff location for each. Shut off the building utilities, if necessary, upon arrival at the fire scene.

g. Conduct firefighting operations that supplement and support the fire protection system if the facility is equipped with a fire protection system.

h. List special materials, explosive materials, hazmat storage areas, and special firefighting precautions on the facility response card.

4. Radio the alarm room operator for additional fire information.

5. Complete the situation size-up after visual contact is made with the structure.
   a. Determine the general size of the fire site.
   b. Determine the site accessibility. Include the—
      (1) Wind direction.
      (2) Local roads.
      (3) Fallen debris around the site.
      (4) Aboveground power lines.
      (5) Exposures that may become involved.
      (6) Individuals injured or gathered at the site.

6. Radio situation size-up information to the alarm room operator.

7. Direct the laying of a supply line.
   a. Determine the best fire hydrant location.
   b. Direct the driver/operator to conduct a forward hose lay.

8. Request support from additional agencies as needed.
   a. Request support from additional firefighting teams.
   b. Request medical support (field medics, medical evacuation [MEDEVAC]).
   c. Request military police support for site security or crowd control.

9. Direct the positioning of firefighting apparatuses.
   a. Consider the upwind position of the firefighting apparatuses.
   b. Consider the attack line length.
   c. Consider the supply line length.
   d. Consider the positions of additional firefighting apparatuses.

10. Advance the crew to the structure to begin fire suppression.
    a. Direct the driver/operator to begin pump operations.
    b. Manage the exterior fire suppression as needed.
    c. Order the advancement of the hose lines.
    d. Direct ladder employment.
    e. Direct vertical and/or horizontal ventilation.
    f. Order the use of forcible entry.
    g. Ensure that the evidence is protected and preserved if the fire is suspicious in nature.

Performance Steps

DANGER

If the fire is suspicious, exercise extreme caution while combating it. You may encounter booby traps, explosive devices, holes cut in floors, and so forth that can hinder or prevent fire extinguishment. Place crew safety first and foremost. Failure to comply may result in death or permanent injury.

h. Direct a primary search for victims.
i. Direct the operation of the nozzle.
j. Direct rescue carries.
k. Manage triage area setup.
l. Direct a victim rescue from a high-rise structure.
m. React to various fire behaviors.
n. Order a secondary search for victims.

11. Radio the alarm room operator when the fire is under control and overhaul operations began.

12. Direct overhaul operations to begin after fire extinguishment.
    a. Direct the cooling of hot spots.
    b. Direct the search for fire extensions. Include the—
        (1) Walls.
        (2) Ceilings, including the areas between the suspended ceilings.
        (3) Crawl spaces.
        (4) Attic or roof spaces.

13. Direct the crew to begin salvage operations.
    a. Cover interior items with tarps.
    b. Construct catch basins and chutes.
    c. Move interior items to the outside of the structure.

14. Direct site preservation when personnel are removed and overhaul operations are complete.

NOTE: Site preservation is maintained when arson is suspected. Post a firefighter or military policeman at the scene so that the chain of custody is not broken.

15. Radio the alarm room operator when overhaul operations are complete and recovery operations began.

16. Direct the crew to begin recovery operations.
    a. Supervise apparatus preventive-maintenance checks and services (PMCS).
    b. Inspect SCBAs and PPE, and supervise the crew when they inspect individual SCBAs and PPE.
    c. Supervise the loading and cleaning of firefighting apparatuses and equipment.

NOTE: SCBAs are serviced at the fire station when they are returned.

    d. Maintain accountability for firefighting apparatuses and equipment.

17. Radio the alarm room operator when vehicles and crew are back in service.

NOTE: The firefighting apparatuses are refueled and cleaned, as necessary, after arrival at the fire station.

18. Document the fire according to the local SOP.

NOTE: This information is added to the NFIRS 5.0 database.

Performance Steps

19. Review the alarm room operator's logbook for accuracy.
    a. Ensure that the time the fire alarm was received is recorded.
    b. Ensure that the travel time to the fire is recorded.
    c. Ensure that the fire arrival time is recorded.
    d. Ensure that the size-up time and additional support requested is recorded.
    e. Ensure that the time the fire was under control and overhaul operations began is recorded.
    f. Ensure that recovery operation start time is recorded.
    g. Ensure that the time the vehicles and crew were called back in service is recorded.

Evaluation Preparation: Setup: Provide the Soldier with a simulated structural fire and the items listed in the conditions.

Brief Soldier: Tell the Solider to respond to a structural fire.

Performance Measures	**GO**	**NO-GO**
1. Collected general information about the incident before responding to it.	____	____
2. Started the situation size-up while en route to the incident.	____	____
3. Reviewed the facility response card.	____	____
4. Radioed the alarm room operator for additional fire information.	____	____
5. Completed the situation size-up after visual contact was made with the structure.	____	____
6. Radioed the situation size-up information to the alarm room operator.	____	____
7. Directed the laying of a supply line.	____	____
8. Requested support from additional agencies as needed.	____	____
9. Directed the positioning of firefighting apparatuses.	____	____
10. Advanced the crew to the structure to begin fire suppression.	____	____
11. Radioed the alarm room operator when the fire was under control and overhaul operations began.	____	____
12. Directed overhaul operations to begin after fire extinguishment.	____	____
13. Directed the crew to begin salvage operations.	____	____
14. Directed site preservation when personnel were removed and overhaul operations were complete.	____	____
15. Radioed the alarm room operator when overhaul operations were complete and recovery operations began.	____	____
16. Directed the crew to begin recovery operations.	____	____
17. Radioed the alarm room operator when vehicles and crew were back in service.	____	____
18. Documented the incident according to the local SOP.	____	____
19. Reviewed the alarm room operator's logbook for accuracy.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required

LO 5-4210-220-12
LO 9-2320-279-12
TM 5-4210-220-12
TM 5-4210-249-13&P-1
TM 9-2320-328-13&P-1

Related

AR 420-1
FM 5-415
IFSTA MANUAL

Determine the Construction Classification of a Structure

052-249-2120

Conditions: You are given a structure made from different types of construction materials and containing fire-resistive coverings and access to FM 5-415.

Standards: Determine the construction classification of a structure.

Performance Steps

1. Classify the structure according to materials and fire-resistive coverings.
    a. Identify noncombustible construction types, including—
        (1) Fire-resistive.

NOTE: Fire-resistive construction usually consists of walls made of masonry, reinforced concrete, or other noncombustible materials. Framing usually consists of reinforced concrete or structural steel that is protected with fire-resistive materials that have a required thickness to withstand a definite period of fire.

            (a) Identify that the structural members (roof, walls, beams, trusses, columns, piers) are made of noncombustible materials.
            (b) Determine if the members are constructed of high-quality materials and protected so that they resist the most severe internal fire without collapsing.
        (2) Protected noncombustible.
            (a) Ensure that the roof, floor, walls, partitions, and columns are constructed of noncombustible materials.
            (b) Ensure that the noncombustible materials have less fire protection than fire-resistive materials.
        (3) Unprotected noncombustible.

NOTE: The length of time that the members can be expected to resist the fire should be less than 1 hour.

            (a) Ensure that the structure members are made of noncombustible materials.
            (b) Ensure that the noncombustible materials have no extra fire protection.
    b. Identify combustible construction types, including—
        (1) Heavy timber.
            (a) Ensure that the bearing walls and the bearing and nonbearing portions of the exterior walls are constructed of masonry or reinforced concrete.
            (b) Determine if the columns, beams, and girders are constructed of solid or laminated heavy timbers.
            (c) Ensure that the heavy-timber members are 8 inches or greater in diameter for columns.
            (d) Ensure that the beams and girders are thicker than 6 inches thick or deeper than 10 inches.
        (2) Ordinary.
            (a) Ensure that the exterior walls are made of masonry or reinforced concrete.
            (b) Ensure that the structural members (to include the roof, floor, partitions, and columns) are made entirely or partly of wood or other combustible materials of smaller dimensions than required for heavy-timber construction.
        (3) Wood frame.

NOTE: Wood frame construction is often involved in conflagration hazards.

            (a) Ensure that the roof, floor, walls, and partitions are made entirely of wood or other combustible material.
            (b) Ensure that the interior and exterior structural members and wall coverings are exposed directly to the heat and flames of the fire.

2. Inspect the structure and determine the construction type.
    a. Identify heavy-timber types.

Performance Steps

(1) Ensure that the bearing walls and bearing and nonbearing portions of the exterior walls are constructed of masonry or reinforced concrete.
(2) Determine if the columns, beams, and girders are constructed of solid or laminated heavy timbers.
(3) Ensure that the heavy-timber members are 8 inches or greater in any dimension for the columns.
(4) Determine if the beams and girders are thicker than 6 inches or deeper than 10 inches.

b. Identify ordinary types.

NOTE: The structure can be designated as protected ordinary combustible if the roof, floor, supports, stairways, and enclosed floor opening partitions have a 1-hour fire resistance.

(1) Ensure that the exterior walls are made of masonry or reinforced concrete.
(2) Determine if the structural members include a roof, floor, partitions, and columns that are entirely or partly made of wood or other combustible materials of a smaller dimension than what is required for heavy-timber construction.

c. Identify wood-frame types.

NOTE: A wood frame construction is often involved in conflagration hazards.

(1) Ensure that the roof, floor, walls, and partitions are made entirely of wood or other combustible material.
(2) Determine if the interior and exterior structural members and wall coverings are exposed directly to the heat and flames of the fire.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to determine the construction classification of a structure.

Performance Measures	**GO**	**NO-GO**
1. Classified the structure according to materials and fire-resistive coverings.	____	____
2. Inspected the structure and determined the construction type.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	**Related**
FM 5-415	AR 420-1
	IFSTA MANUAL

Determine the Stability of a Damaged Structure
052-249-2121

Conditions: You are given a structure damaged by fire.

Standards: Determine the stability of a structure damaged by fire.

Performance Steps

DANGER

The collapse potential of the structure must be determined. Failure to do so may result in death or permanent injury.

1. Identify the factors that contribute to structure weakening.

NOTE: Many fire factors can contribute to the weakening of a structure, which results in the ultimate collapse of the structure. During firefighting operations, you must assess structure stability and constantly reevaluate the situation.

a. Determine the fire intensity, and consider key structural members (rafters, joists, columns, walls) that have been exposed to high temperatures and could weaken and ultimately collapse.
b. Determine the fire exposure duration, and consider that the longer a structure is exposed to fire, the sooner it will weaken and collapse.
c. Determine the fire magnitude, and consider that if the fire is contained to a room inside the structure, the structure stability may be affected.

NOTE: If the entire structure was exposed to fire, then structure stability could be seriously affected.

d. Determine the structure construction type.

NOTE: Determine if the structure consists of fire-resistive construction materials or if the key structural members are unprotected and exposed directly to the fire.

e. Determine the structure age, and consider that an older structure does not have the same safety features (fire-resistive materials, fire walls, fire stops) as a newer structure.
f. Determine the combustible contents, and consider that structural components that support the weight of the contents during normal conditions may not be able to withstand the weight when seriously weakened by fire.

NOTE: The type and quantity of combustible materials stored or used in the structure can directly contribute to the structural integrity if the contents are involved in the fire.

g. Consider the amount of the water used to put the fire out.

NOTE: Determine if the amount of water used can put additional stress on structure members. The weight of the water is determined by multiplying the weight of the water (1 gallon of water weighs 8.34 pounds) by the number of gallons discharged into the structure.

h. Determine the structure damage from forcible entry, ventilation, or access to the fire; and inspect the areas of the structure that were cut for forcible entry, ventilation, or access to the fire to ascertain the extent that the cuts may have on the structural stability of the immediate area.
i. Determine the materials involved, and identify the materials in the fire or near the main fire area that readily absorb water.

NOTE: These members could weigh as much as three times their normal weight.

NOTE: Water-soaked materials can significantly contribute to the load stress placed on structural members.

Performance Steps

DANGER

Be very careful when inspecting cut areas. Your weight on the area surrounding the cuts could be enough to cause the structure to collapse. Failure to comply may cause death or permanent injury.

2. Identify the signs that indicate structure weakening and collapse potential.
   a. Identify cracks in load-bearing concrete walls.
   b. Determine if a structure is leaning to one side.
   c. Identify a sagging roof, ceiling, or floor.
   d. Listen for structure noises.
   e. Feel for floor movement when weight is applied.
   f. Identify interior walls with large cracks, severe char, or burn marks from the fire.
   g. Identify wall and floor separation.
   h. Identify the separation of stairs from the top sill.

DANGER

Do not let anyone enter a structure believed to be unstable. Section off the area, and let the fire burn rather than jeopardize the lives of the firefighting crew. Failure to comply may cause death or permanent injury.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to determine the stability of a damaged structure.

Performance Measures	**GO**	**NO-GO**
1. Identified the factors that contributed to structure weakening.	____	____
2. Identified the signs that indicated structure weakening and collapse potential.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required

Related
AR 420-1
FM 5-415
IFSTA MANUAL

Subject Area 4: Perform Wildland Firefighting

Respond to a Wildland Fire

052-249-2114

Conditions: You are given a wildland fire, a fully equipped and operational firefighting apparatus, a firefighting crew, a self-contained breathing apparatus, personal protective equipment (PPE), a map, the local standing operating procedure (SOP), access to the National Fire Incident Reporting System (NFIRS) 5.0 database, and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Respond to a wildland fire.

Performance Steps

1. Collect general information before responding to the fire.

NOTE: The crew dons PPE and mounts the firefighting apparatus at this time.

   a. Locate the fire.
   b. Determine the wind direction and speed.
   c. Locate structures and population in the area.

2. Radio the alarm room operator for additional information while en route to the incident.
   a. Ask about roads in the path of the fire.
   b. Request known water sources.
   c. Request local weather forecast updates.

NOTE: The weather plays a large role in the tactics used to combat a wildland fire. Constant weather updates must be obtained to be successful.

3. Conduct an initial situation size-up when visual contact is made with the fire.
   a. Determine the general size of the fire.

NOTE: A generalized size of the fire is the crew chief's best determination. While the fire is free burning, determining its overall size is impossible. The fires approximate size should be called in as acres or standardized in the local SOP.

   b. Determine site accessibility.
      (1) Identify local terrain features.
      (2) Determine the wind direction.
      (3) Determine the density of the fuel being consumed.
      (4) Determine the structures involved or in the path of the fire.
      (5) Identify injured personnel onsite.
   c. Determine the overall crew safety.

4. Radio initial situation size-up information to the alarm room operator.

5. Request support from additional agencies if needed.
   a. Request support from additional firefighting teams.
   b. Request medical support (field medics, medical evacuation).
   c. Request military police support for site security or crowd control.

6. Direct the driver/operator into position for the initial attack.

Performance Steps

DANGER

Fighting wildland fires is very dangerous, many firefighters have lost their lives or have been seriously injured while combating these fires. Thoroughly think out the situation and remember that the safety of personnel always comes first. Failure to comply may result in death or permanent injury.

DANGER

Do not place your apparatuses or crew into a situation where the fire can overtake them. Have an emergency evacuation plan before committing to the firefight. A sudden wind shift and no evacuation plan could kill or severely injure personnel and destroy your firefighting apparatuses. Failure to comply may result in death or permanent injury.

7. Direct the positioning of firefighting apparatuses.
    a. Consider the wind direction.
    b. Place the apparatuses within the effective turret range.

NOTE: You should have an evacuation route if the wind turns the fire back toward you.

8. Direct the driver/operator to discharge the turrets.

NOTES:

1. The crew chief makes a mental note of how long the turrets have operated to ensure that he has an adequate supply of water to combat the fire on the ground with hose lines.

2. The crew chief and crew uses SCBAs as soon as they dismount the stopped firefighting apparatuses. The crew chief will determine if conditions warrant not using the SCBAs during some portions of combating and overhauling the fire.

9. Advance the crew to the fire, and direct fire suppression.
    a. Combat the fire head.

DANGER

This is the most dangerous part of the fire. Only combat the fire head if you are sure you can knock down, control, and extinguish the fire. If the fire exceeds your capability to control and extinguish, immediately withdraw and request additional support. Failure to comply may result in death or permanent injury.

Performance Steps

b. Combat the fire fingers.

NOTE: Controlling the formation of fire fingers is one way of controlling the head of the fire. The formation of fire fingers without control may form additional fire heads.

c. Combat the fire flanks.
d. Combat the fire tail.
e. Combat the hot spots in the fire area.

10. Radio the alarm room operator when the fire is under control and overhaul operations began.

11. Direct overhaul operations to begin after fire extinguishment.
    a. Direct the cooling of hot spots.
    b. Direct the cutting and overturning of roots, stumps, and other debris to expose additional hot spots.

12. Direct site preservation once personnel are removed and the overhaul is complete.

NOTE: Site preservation is maintained when arson is the suspected cause. Post a firefighter or military policeman at the scene so the chain of custody is not broken when arson is suspected.

13. Radio the alarm room operator when overhaul operations are complete and recovery operations began.

14. Direct the crew to begin recovery operations.
    a. Supervise apparatus preventive-maintenance checks and services (PMCS).
    b. Inspect SCBAs and PPE, and supervise the crew while they inspect individual SCBAs and PPE.
    c. Supervise the loading and cleaning of firefighting apparatuses.

NOTE: The SCBAs are serviced at the fire station when they are returned.

    d. Maintain accountability for firefighting apparatuses and equipment.

15. Radio the alarm room operator when the vehicles and crew are back in service.

NOTE: The firefighting apparatuses are refueled and cleaned, as necessary, after returning to the fire station.

16. Document the incident according to the local SOP.

NOTE: This information is added to the NFIRS 5.0 database.

17. Review the alarm room operator's logbook for accuracy.
    a. Ensure that the time the incident alarm was received is recorded.
    b. Ensure that the time en route to the fire is recorded.
    c. Ensure that incident arrival time is recorded.
    d. Ensure that size-up time and additional support requested is recorded.
    e. Ensure that the time the incident was under control and overhaul operations began is recorded.
    f. Ensure that recovery operations start time is recorded.
    g. Ensure that the time vehicles and crew were called back in service is recorded.

Evaluation Preparation: Setup: Provide the Soldier with a simulated wildland fire and the items listed in the conditions.

Brief Soldier: Tell the Soldier to respond to a wildland fire.

Performance Measures	**GO**	**NO-GO**
1. Collected general information before responding to the fire.	____	____
2. Radioed the alarm room operator for additional information while en route to the fire.	____	____
3. Conducted an initial situation size-up when visual contact was made with the fire.	____	____

Performance Measures	GO	NO-GO
4. Radioed initial situation size-up information to the alarm room operator.	____	____
5. Requested support from additional agencies if needed.	____	____
6. Directed the driver/operator into position for the initial attack.	____	____
7. Directed the positioning of the firefighting apparatuses.	____	____
8. Directed the driver/operator to discharge the turrets.	____	____
9. Advanced the crew to the fire to direct the fire suppression.	____	____
10. Radioed the alarm room operator when the fire was under control and overhaul began.	____	____
11. Directed overhaul operations to begin after fire extinguishment.	____	____
12. Directed site preservation once personnel were removed and overhaul was complete.	____	____
13. Radioed the alarm room operator when overhaul operations were complete and that recovery began.	____	____
14. Directed the crew to begin recovery operations.	____	____
15. Radioed the alarm room operator when vehicles and crew were back in service.	____	____
16. Documented the incident according to the local SOP.	____	____
17. Reviewed the alarm room operator's logbook for accuracy.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 5: Perform Vehicle Firefighting

Respond to a Ground Vehicle Emergency

052-249-2122

Conditions: You are given a ground vehicle emergency, a fully equipped and operational firefighting apparatus, a firefighting crew, a self-contained breathing apparatus (SCBA), personal protective equipment (PPE), access to a National Fire Incident Reporting System (NFIRS) 5.0 database, a map, the local standing operating procedure (SOP), and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Respond to a ground vehicle emergency.

Performance Steps

1. Collect general information before responding to the emergency.

NOTE: The crew dons PPE and mounts the firefighting apparatus at this time.

   a. Determine the location.
   b. Determine the number of vehicles involved.
   c. Determine the number of personnel involved.
   d. Determine the type of vehicles involved.

2. Radio the alarm room operator for additional information while en route to the emergency.
   a. Ask if the vehicles are transporting hazmat.
   b. Ask if additional hazards (electrical power lines, natural gas, other fuel sources) are involved.

3. Conduct an initial situation size-up when visual contact is made with the vehicles.
   a. Determine the general size of the emergency site.
   b. Determine site accessibility, include—
      (1) Local terrain (water runoff systems, streams, rivers).
      (2) Wind direction.
      (3) Vehicle debris.
      (4) Individuals ejected from the vehicles.
      (5) Exposures that may become involved.
      (6) Injured individuals or individuals gathered at the incident.
   c. Ensure overall crew safety.

4. Radio the initial situation size-up information to the alarm room operator.

5. Request support from additional support agencies if needed.
   a. Request additional firefighting teams.
   b. Request medical support (field medics, medical evacuation [MEDEVAC]).
   c. Request military police support for site security or crowd control.

6. Direct the positioning of the firefighting apparatuses.

DANGER

As you approach the vehicles, look for flames and hazards. Position the firefighting apparatuses away from possible risks (fire, smoke). Position the firefighting apparatuses 75 to 100 feet upwind from the scene, if possible. Failure to comply may cause immediate death, permanent injury, or equipment damage.

Performance Steps

a. Consider the wind direction.
b. Position the apparatuses within the effective range of the turrets.
c. Observe the fire location in relation to the vehicles.

7. Direct the driver/operator to discharge the turrets.

NOTE: The crew dons SCBAs as soon as they dismount the stopped firefighting apparatus.

8. Advance the crew to the fire, and direct the fire suppression.
   a. Direct the driver/operator to begin pump operations.
   b. Order hose line advancement.
   c. Direct air bag use and cribbing.
   d. Order the use of forcible entry into the vehicles.
   e. Direct personnel rescue operations, and order rescue-carry use.
   f. Direct evidence protection and preservation if arson is suspected.
   g. Manage triage area setup.
   h. Identify and react to various fire behaviors.

9. Radio the alarm room operator to inform him that the fire is under control and that overhaul operations began.

10. Direct overhaul operations after fire extinguishment.
    a. Direct the cooling of hot spots.
    b. Direct the containment of leaking fluids (engine oil, transmission fluid, fuel, brake fluid) that were not consumed during the fire.

11. Direct site preservation once personnel are removed and overhaul operations are complete.

NOTE: Site preservation is maintained when arson is the suspected cause. When arson is suspected, post a firefighter or military policeman at the scene so that the chain of custody is not broken.

12. Radio the alarm room operator when overhaul operations are complete and recovery operations began.

13. Direct the crew to begin recovery operations.
    a. Supervise firefighting apparatus preventive-maintenance checks and services (PMCS).
    b. Inspect individual SCBA and PPE, and supervise the crew while they inspect SCBAs and PPE.
    c. Supervise the loading and cleaning of firefighting apparatuses and equipment.

NOTE: SCBAs are serviced at the fire station when they are returned.

    d. Maintain accountability for firefighting apparatuses and equipment.

14. Radio the alarm room operator when vehicles and crew are back in service.

NOTE: The firefighting apparatuses are refueled and cleaned, as necessary, after arrival at the fire station.

15. Document the incident according to the local SOP.

NOTE: This information is added into the NFIRS 5.0 database.

16. Review the alarm room operator's logbook for accuracy.
    a. Ensure that the receipt time of the incident alarm is recorded.
    b. Ensure that the time en route to the incident is recorded.
    c. Ensure that the incident arrival time is recorded.
    d. Ensure that size-up time and additional support requested is recorded.
    e. Ensure that the start time for incident control and overhaul operations are recorded.
    f. Ensure that the time recovery operations started is recorded.
    g. Ensure that the time the vehicles and the crew were called back in service is recorded.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to respond to a ground vehicle emergency.

Performance Measures	GO	NO-GO
1. Collected general information before responding to the emergency.	____	____
2. Radioed the alarm room operator for additional information while en route to the emergency.	____	____
3. Conducted an initial situation size-up when visual contact was made with the vehicles.	____	____
4. Radioed initial situation size-up information to the alarm room operator.	____	____
5. Requested support from additional support agencies as needed.	____	____
6. Directed the positioning of the firefighting apparatuses.	____	____
7. Directed the driver/operator to discharge the turrets.	____	____
8. Advanced the crew to the fire and direct the fire suppression.	____	____
9. Radioed the alarm room operator when that the fire was under control and overhaul operations began.	____	____
10. Directed the overhaul operations after fire extinguishment.	____	____
11. Directed site preservation once personnel were removed and the overhaul operations were complete.	____	____
12. Radioed the alarm room operator when that overhaul operations were complete and recovery operations began.	____	____
13. Directed the crew to begin recovery operations.	____	____
14. Radioed the alarm room operator when vehicles and crew were back in service.	____	____
15. Documented the incident according to the local SOP.	____	____
16. Reviewed the alarm room operator's logbook for accuracy.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 6: Perform Hazmat Firefighting

Respond to a Hazmat Incident

052-249-2123

Conditions: You are given a hazmat incident, a fully equipped and operational firefighting apparatus, a firefighting crew, a facility response card, a self-contained breathing apparatus (SCBA), personal protective equipment (PPE), ERG 2008, access to FM 5-415, a map, and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Respond to a hazmat incident.

Performance Steps

NOTE: Conducting fire prevention inspections and creating or updating prefire plans gives you and your crew the chance to become familiar with the facility layout and special hazards in the facility.

DANGER

A crew training drill (facility walk-through) should be conducted for facilities that have high-life or explosive hazards or store hazmat. Failure to comply may result in death or permanent injury.

NOTE: The crew dons PPE before mounting the firefighting apparatus.

1. Collect general information while en route to the hazmat incident.
   a. Determine the nature of the incident.
   b. Determine the hazmat type involved.
   c. Determine the best direction for approaching the scene from upwind, upgrade, and upstream.
   d. Determine who on-scene may have information on the incident.
   e. Collect information on known conditions and other information that can be provided while en route to the incident.

2. Contact the hazmat teams for technical assistance or response, as appropriate, when the incident goes beyond firefighting team training and equipment capabilities.

NOTE: The facility response card should list hazards associated with the current situation if the incident is at a building in your area of operation.

3. Approach the incident.
   a. Approach the incident scene from upwind, upgrade, upstream, or at a right angle to the wind direction and/or gradient.
   b. Consider escape routes.
   c. Position vehicles/firefighting apparatuses so that they face away from the incident scene and are located at a safe distance.

4. Establish command, and give scene size-up information.
   a. Establish a unified command if multiple agencies/jurisdictions are involved.
   b. Ensure a qualified on-scene commander is en route to the scene.
   c. Evaluate (continuously) the need for hazmat team technical assistance or response.

5. Establish a safe zone, and control access.
   a. Determine the hazard area; and establish the hot zone, warm zone, and cold zone boundaries.

Performance Steps

b. Identity a safe distance for initial incident isolation to begin based on initial observations.
c. Establish a command post in the cold zone.
d. Identify and establish the staging area location in the cold zone.
e. Communicate the zone information to the fire alarm communication center and incoming units.
f. Request police assistance as needed.

6. Identify hazmat by placards/labels, container markings, or driver/operator information (shipping papers).

NOTE: If the hazmat is known, isolate it according to the Emergency Response Guidebook (ERG) 2008.

7. Conduct a risk/benefit analysis.

NOTE: If the incident commander determines that defensive operations can stabilize/contain the incident and if they can be performed in full PPE with SCBAs, the incident commander may decide to conduct defensive operations.

8. Perform defensive operations.

NOTE: Defensive operations are conducted according to defensive operational guidelines.

a. Attempt to stop/slow/control the leak using defensive techniques.
b. Use an appropriate containment procedure to prevent the material from flowing and increasing the exposed surface area.

9. Perform field decontamination procedures as directed by the incident commander and/or hazmat response team.

NOTE: Contaminated patients must be decontaminated or packaged for transport in a way that prevents contamination of transport units and hospitals.

10. Conduct termination debriefing procedures.
    a. Inform responders of exactly what hazmat was involved and the accompanying signs and symptoms of exposure.
    b. Provide information for personal exposure records.
    c. Identify equipment damage and unsafe conditions that require immediate attention or isolation for further evaluation.
    d. Conduct a postincident analysis and critique.

Evaluation Preparation: Setup: Provide the Soldier with a hazmat incident and the items listed in the conditions.

Brief Soldier: Tell the Soldier to respond to a hazmat incident.

Performance Measures	**GO**	**NO-GO**
1. Collected general information while en route to the hazmat incident.	____	____
2. Contacted the hazmat teams for technical assistance or response, as appropriate, when the incident went beyond firefighting team training and equipment capabilities.	____	____
3. Approached the incident.	____	____
4. Established command and gave scene size-up information.	____	____
5. Established a safe zone and controlled access.	____	____
6. Identified hazmat by placards/labels, container markings, or driver/operator information (shipping papers).	____	____
7. Conducted a risk/benefit analysis.	____	____

Performance Measures	GO	NO-GO
8. Performed defensive operations.	____	____
9. Performed field decontamination procedures as directed by the incident commander and/or hazmat response team.	____	____
10. Conducted termination debriefing procedures.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Respond to an Ordnance Incident

052-249-2118

Conditions: You are given an ordnance incident, a fully equipped and operational firefighting apparatus, a firefighting crew, a facility response card, a self-contained breathing apparatus (SCBA), personal protective equipment (PPE), access to FM 5-415 and the National Fire Incident Reporting System (NFIRS) 5.0 database, a map, the local standing operating procedure (SOP), and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Respond to an ordnance incident.

Performance Steps

NOTE: Conducting fire prevention inspections and creating prefire plans or updating existing prefire plans gives you and your crew the chance to become familiar with facility layout and special hazards in the facility.

DANGER

A crew training drill (facility walk-through) should be conducted for facilities that have high-life or explosive hazards or store hazmat. Failure to comply may result in death or permanent injury.

NOTE: The crew dons PPE before mounting the firefighting apparatus.

1. Collect general information before responding to the incident.

NOTE: The crew dons PPE and mounts the firefighting apparatus at this time.

   a. Determine the nature of the incident.
   b. Locate the incident
   c. Determine the personnel involved.
   d. Determine the ordnance type.
   e. Observe local weather conditions.

2. Start the initial size-up while en route to the incident.

NOTES:

1. The facility response card should list the hazards associated with the current situation.

2. Ordnance facilities present unique problems (structure type, amount of ammunition, length of time the facility has been burning). These factors should be taken into consideration during the initial size-up.

   a. Develop a tentative plan of attack, and consider the ordnance involved.
   b. Consider the rescue type.
   c. Consider the facility types, including—
      (1) Concrete bunker covered in dirt.
      (2) Metal domed structure.
      (3) Arms room within a structure.
   d. Consider the alarm reception methods, including—
      (1) Automated fire system.
      (2) Telephonically reported.

3. Radio the alarm room operator for additional information while en route to the incident.

4. Complete the initial situation size-up when visual contact is made with the incident.

Performance Steps

NOTES:

1. Burning materials in Divisions 1 and 2 can detonate, causing a moderate to severe fragmentation hazard (see FM 5-415). Firefighters and equipment should be positioned 1,000 feet out for every 50,000 pounds of materials stored. Only personnel and equipment used to combat the structure or facility should be in the danger area. All other personnel and equipment should be in a protected safe area.

2. Burning materials in Division 3 produce intense radiant heat and require large quantities of water for extinguishment (see FM 5-415). When the fire is minor or the explosive itself is not involved, the firefighting effort should be limited to protecting exterior exposures.

3. Burning materials in Division 4 usually burns out without detonation; however, detonation is always a possibility (see FM 5-415). When the fire is minor or ammunition and explosives are not involved, the firefighting effort should be limited to protecting exterior exposures.

a. Identify the following symbols on the structure to verify the product within the structure:
   (1) Symbol 1.

NOTE: Symbol 1 denotes the necessity to don proper PPE and a gas mask or SCBA. Fires involving materials under this symbol can be effectively controlled and extinguished.

   (2) Symbol 2.

NOTE: Symbol 2 denotes the necessity for firefighting personnel to wear a gas mask or SCBA before entering the area to combat the fire.

   (3) Symbol 3.

NOTE: Symbol 3 denotes materials stored that cannot be extinguished with water. If other suitable extinguishing agents are not available, firefighting is limited to protecting exterior exposures.

b. Determine the general size of the incident site.
c. Determine the site accessibility. Consider—
   (1) Wind direction.
   (2) Exposures.
   (3) Injured or missing personnel.

5. Radio initial size-up information to the alarm room operator.

6. Request support from additional agencies as needed.
   a. Request support from additional firefighting teams.
   b. Request medical support (field medics, medical evacuation [MEDEVAC]).
   c. Request military police support for site security or crowd control.

7. Direct the laying of a supply line.

NOTE: If fire hydrants are not available, skip the rest of this step and go to step 8.

   a. Determine the best fire hydrant location.
   b. Direct the driver/operator to conduct a forward lay.

Performance Steps

8. Direct the driver/operator into position for the initial attack.

DANGER

As you approach the incident, look for flames and hazards. The firefighting apparatuses should be positioned away from possible risks (fire, smoke). The situation dictates if you can attack the fire. Failure to comply may result in death, permanent injury, or equipment damage.

   a. Position the driver/operator upwind if possible.
   b. Consider the positions of additional firefighting apparatuses.

9. Direct the positioning of the firefighting apparatuses.
   a. Consider the upwind position of the apparatus.
   b. Consider the attack line length.
   c. Consider the supply line length.
   d. Consider the positions of additional firefighting apparatuses.

10. Direct the driver/operator to discharge the turrets.
   a. Direct the driver/operator to apply water or foam, depending on the product inside the structure.
   b. Direct the driver/operator to maintain the entry path.

11. Advance the crew to the incident, and direct fire suppression.
   a. Direct the driver/operator to begin pump operations.
   b. Direct exterior fire suppression as needed.
   c. Direct the use of forcible entry.
   d. Direct ventilation operations.
   e. Direct the protection and preservation of the evidence if the fire is suspicious in nature.

DANGER

If the fire is suspicious, exercise extreme caution while combating it. You may encounter booby traps, explosive devices, blocked doorways, and so forth that can hinder and prevent fire extinguishment. Place crew safety first and foremost. Failure to comply may result in death or permanent injury.

   f. Direct a primary search if there are any unaccounted personnel.
   g. Direct triage area setup.
   h. Direct the performance of rescue carries.
   i. React to various fire behaviors.

Performance Steps

DANGER

When you reach the fire point of origin, the involvement of the weapons and ammunition must be evaluated. If the magnitude or intensity of the fire is considerable, continued firefighting efforts may be too risky. All fire personnel should be withdrawn immediately and the area evacuated. Failure to comply may result in death or permanent injury.

j. Direct a secondary search for personnel.

12. Radio the alarm room operator when the incident is under control and that the overhaul operations began.

13. Direct overhaul operations to begin after fire extinguishment.
    a. Direct the cooling of hot spots.
    b. Direct the search for fire extension. Include the—
        (1) Walls.
        (2) Ceiling or areas between suspended ceilings.
        (3) Crawl spaces.
        (4) Attics or roof spaces.

14. Direct site preservation once personnel are removed and overhaul operations are complete.

NOTE: Site preservation is maintained when arson is the suspected cause. When arson is suspected, post a firefighter or military policeman at the scene so that the chain of custody is not broken.

15. Radio the alarm room operator when incident response is complete and recovery operations began.

16. Direct the crew to begin recovery operations.
    a. Supervise apparatus preventive-maintenance checks and service (PMCS).
    b. Inspect SCBAs and PPE.
    c. Supervise the crew while they inspect their individual SCBAs and PPE.
    d. Supervise the loading and cleaning of firefighting apparatuses and equipment.
    e. Maintain accountability for firefighting apparatuses and equipment.

NOTE: The SCBAs are serviced upon arrival at the fire station.

17. Radio the alarm room operator when vehicles and crew are back in service.

NOTE: The fire apparatuses are refueled and cleaned upon arrival at the fire station.

18. Document the incident according to the SOP.

NOTE: This information is added to the NFIRS 5.0 database.

19. Review the alarm room operator's logbook for accuracy.
    a. Ensure that the time the incident alarm was received was recorded.
    b. Ensure that the time en route to the incident was recorded.
    c. Ensure that the incident arrival time was recorded.
    d. Ensure that the time of the size-up and additional support requested was recorded.
    e. Ensure that the time the incident was under control and overhaul operations began was recorded.
    f. Ensure that the time recovery operations began was recorded.

Performance Steps

g. Ensure that the time the firefighting apparatuses and crew were called back in service was recorded.

Evaluation Preparation: Setup: Provide the Soldier with a simulated ordnance incident site and the items listed in the conditions.

Brief Soldier: Tell the Soldier to respond to an ordnance incident.

Performance Measures	**GO**	**NO-GO**
1. Collected general information before responding to the incident.	____	____
2. Started the initial size-up while en route to the incident.	____	____
3. Radioed the alarm room operator for additional information while en route to the incident.	____	____
4. Completed the initial situation size-up when visual contact was made with the incident.	____	____
5. Radioed the initial size-up information to the alarm room operator.	____	____
6. Requested support from additional agencies as needed.	____	____
7. Directed the laying of a supply line.	____	____
8. Directed the driver/operator into position for the initial attack.	____	____
9. Directed the positioning of the firefighting apparatuses.	____	____
10. Directed the driver/operator to discharge the turrets.	____	____
11. Advanced the crew to the incident and directed fire suppression.	____	____
12. Radioed the alarm room operator when the incident was under control and that overhaul operations began.	____	____
13. Directed overhaul operations to begin after fire extinguishment.	____	____
14. Directed site preservation once personnel were removed and overhaul operations were complete.	____	____
15. Radioed the alarm room operator when incident response was complete and recovery operations began.	____	____
16. Directed the crew to begin recovery operations.	____	____
17. Radioed the alarm room operator when vehicles and crew were back in service.	____	____
18. Documented the incident according to the local SOP.	____	____
19. Reviewed the alarm room operator's logbook for accuracy.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 7: Perform Aircraft Firefighting

Respond to an Aircraft Rescue Incident

052-249-2124

Conditions: You are given an aircraft incident, a fully equipped and operational firefighting apparatus, a firefighting crew, a self-contained breathing apparatus (SCBA), personal protective equipment (PPE), access to FM 5-415 and the National Fire Incident Reporting System (NFIRS) 5.0 database, the local standing operating procedure (SOP), applicable lubrication orders (LOs) and technical manuals (TMs), and a map.

Standards: Respond to an aircraft rescue incident.

Performance Steps

1. Collect general information before responding to the incident.

NOTE: The crew dons PPE and mounts the firefighting apparatus at this time.

   a. Locate the aircraft.
   b. Determine the aircraft type.
   c. Determine the number of personnel on the aircraft.
   d. Determine the nature of the incident.

2. Radio the alarm room operator for additional information while en route to the incident.

NOTE: Additional information on the aircraft can be noted on a prefire plan. This prefire plan does not cover every possible situation, but should have information that can be useful during incident response.

   a. Ask if the aircraft is armed or carrying armed soldiers.
   b. Ask for the last known amount of fuel on the aircraft.
   c. Ask what cargo is on the aircraft.

3. Conduct a situation size-up when visual contact is made with the aircraft.
   a. Determine the general size of the incident site.
   b. Determine site accessibility. Consider—
      (1) Terrain features.
      (2) Wind direction.
      (3) Aircraft debris.
      (4) Ejected crew members or passengers.
      (5) Additional buildings or structures involved.
      (6) Local personnel injured or gathered at the site.
   c. Determine overall crew safety.

4. Radio situation size-up information to the alarm room operator.

5. Request support from additional agencies if needed.
   a. Request support from additional firefighting teams.
   b. Request medical support (field medics, medical evacuation [MEDEVAC]).
   c. Request military police support for site security or crowd control.

6. Direct the driver/operator into position for the initial attack.

DANGER

Beware of the main and tail rotor blades and the aircraft armaments. Failure to comply may result in death or permanent injury.

Performance Steps

7. Direct the positioning of firefighting apparatuses.
   a. Consider the wind direction.
   b. Consider the turrets effective range.
   c. Consider the fire location.

8. Direct the driver/operator to discharge the turrets.

NOTES:

1. The crew chief makes a mental note of how long the turrets have operated to ensure that he has an adequate supply of water to approach the aircraft.

2. The crew dons SCBAs as soon as they dismount the stopped firefighting apparatuses.

9. Direct the nozzleman to maintain the rescue path.

NOTE: The foam has to be reapplied every 20 to 30 minutes. The time may be less due to high ambient temperatures, high winds, excessive foot traffic, or vehicles passing through the foam blanket.

10. Advance the crew to the aircraft, and direct additional fire suppression.

DANGER

Beware of jet engines. Jet engines can ingest the firefighters and overturn vehicles. Failure to comply may result in death or permanent injury.

11. Direct the nozzleman to apply the extinguishing agent to the crew compartment or fuselage for cooling before gaining entry.

12. Direct the use of forcible entry to the aircraft.

13. Direct emergency aircraft shutdown procedures.

DANGER

A reciprocating engine that is not properly shut down can restart if the propeller is still turning. Failure to properly shut down a reciprocating engine can result in immediate death, permanent injury, or equipment damage.

14. Direct rescue operations.

DANGER

Beware of wreckage that has sharp, jagged edges that can tear and cut the rescuers and victims. Failure to comply may result in death or permanent injury.

Performance Steps

15. Direct triage area setup.
16. Radio the alarm room operator when the fire is under control and that overhaul operations have began.
17. Direct overhaul operations to begin after fire extinguishment.
    a. Direct the cooling of hot spots.
    b. Direct the containment of leaking fluids that were not consumed during the fire (transmission fluid, fuel).
18. Direct the crew to begin salvage operations.
    a. Cover the interior items with tarps.
    b. Construct the catch basins and shoots.
    c. Remove the interior items, and place them on the outside of the structure.
19. Direct site preservation once personnel are removed and overhaul operations are complete.

NOTE: Site preservation assists the safety center in determining the cause of the incident.

20. Radio the alarm room operator when the incident is under control and recovery operations began.
21. Direct the crew to begin recovery operations.
    a. Supervise firefighting apparatus preventive-maintenance checks and services (PMCS).
    b. Inspect SCBAs and PPE, and supervise the crew while they inspect individual SCBAs and PPE.
    c. Supervise the loading and cleaning of fire equipment.
    d. Maintain accountability for fire equipment.

NOTE: Some equipment has to be reserviced by the crew at the station (filling the air bottles, cleaning the SCBA masks and tools). An after-PMCS inspection should be performed (topping off the water and foam tanks).

22. Radio the alarm room operator when the vehicles and crew are back in service.
23. Document the incident according to the local SOP.

NOTE: This information is added to the NFIRS 5.0 database.

24. Review the alarm room operator's logbook for accuracy.
    a. Ensure that the time the incident alarm was received is recorded.
    b. Ensure that the time en route to the incident is recorded.
    c. Ensure that incident arrival time is recorded.
    d. Ensure that size-up time and additional support requested is recorded.
    e. Ensure that the time the incident was under control and overhaul operations began is recorded.
    f. Ensure that the time recovery operations started is recorded.
    g. Ensure that the time vehicles and crew were called back in service is recorded.

Evaluation Preparation: Setup: Provide the Soldier with a simulated aircraft incident site and the items listed in the conditions.

Brief Soldier: Tell the Soldier to respond to a aircraft rescue incident.

Performance Measures	**GO**	**NO-GO**
1. Collected general information before responding to the incident.	____	____
2. Radioed the alarm room operator for additional information while en route to the incident.	____	____
3. Conducted a situation size-up when visual contact was made with the aircraft.	____	____

Performance Measures	GO	NO-GO
4. Radioed situation size-up information to the alarm room operator.	____	____
5. Requested support from additional agencies if needed.	____	____
6. Directed the driver/operator into position for the initial attack.	____	____
7. Directed the positioning of firefighting apparatuses.	____	____
8. Directed the driver/operator to discharge the turrets.	____	____
9. Directed the nozzleman to maintain the rescue path.	____	____
10. Advanced the crew to the aircraft and directed additional fire suppression.	____	____
11. Directed the nozzleman to apply the extinguishing agent to the crew compartment or fuselage for cooling before gaining entry.	____	____
12. Directed the use of forcible entry to the aircraft.	____	____
13. Directed emergency aircraft shutdown procedures.	____	____
14. Directed rescue operations.	____	____
15. Directed triage area setup.	____	____
16. Radioed the alarm room operator when the fire was under control and that overhaul operations began.	____	____
17. Directed overhaul operations to begin after fire extinguishment.	____	____
18. Directed the crew to begin salvage operations.	____	____
19. Directed the site preservation once personnel were removed and overhaul operations were complete.	____	____
20. Radioed the alarm room operator when the incident was under control and recovery operations began.	____	____
21. Directed the crew to begin recovery operations.	____	____
22. Radioed the alarm room operator when vehicles and crew were back in service.	____	____
23. Documented the incident according to the local SOP.	____	____
24. Reviewed the alarm room operator's logbook for accuracy.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	DA PAM 750-8
LO 9-2320-279-12	IFSTA MANUAL
TM 5-4210-220-12	NFPA 1001
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Respond to an Aircraft Emergency

052-249-2115

Conditions: You are given an aircraft emergency, a fully equipped and operational firefighting apparatus, a firefighting crew, personal protective equipment (PPE), a self-contained breathing apparatus (SCBA), access to FM 5-415 and the National Fire Incident Reporting System (NFIRS) 5.0 database, the local standing operating procedure (SOP), applicable lubrication orders (LOs) and technical manuals (TMs), and a map.

Standards: Respond to an aircraft emergency.

Performance Steps

1. Collect general information before responding to the incident.

NOTE: The crew dons PPE and mounts the firefighting apparatus at this time.

a. Determine the proposed site and the aircraft landing time.
b. Determine the aircraft type.
c. Determine the emergency or situation type.
d. Determine the number of personnel on the aircraft.
e. Identify the weather conditions.
f. Identify the wind direction.

2. Radio the alarm room operator for additional information while en route to the incident.

NOTES:

1. Additional information on the aircraft can be noted on a prefire plan. FM 5-415 should be used as a source of information during a response.

2. If a fixed-wing aircraft is attempting to land without landing gear, most of the firefighting apparatuses should be positioned at the approach end of the runway or at midfield. If the aircraft is landing without brakes, most of the firefighting apparatuses should be positioned near the midfield or at the far end of the runway.

3. Rotary-wing aircraft can be directed to a specific location on the airfield based on the nature of the emergency.

4. If the aircraft is reporting hydraulic loss, warning-light activations, structural damage, electrical malfunctions, and so forth, the firefighting apparatuses should be positioned along the entire runway since it would be unknown where the aircraft lands when it crashes.

a. Ask if the aircraft is armed or carrying armed troops.
b. Ask for the last known amount of fuel on the aircraft.
c. Ask if the aircraft is carrying cargo and, if so, what type.

3. Conduct a situation size-up when the aircraft is on the ground.

NOTE: If the aircraft crashes, steps 3 through 23 of task 052-249-2124 should be followed.

DANGER

If the aircraft is fixed-wing, wait until it is not rolling before positioning the firefighting apparatuses. The aircraft could severely injure the crew and/or damage the vehicles if it hits the firefighting apparatuses before coming to a complete stop. Failure to comply may result in death or permanent injury.

Performance Steps

DANGER

A rotary-wing aircraft that suffers a hard landing could cause the landing gear to break off and make the aircraft considerably shorter. When approaching this type of emergency, individuals should not walk in an upright position. They should crouch down low. Failure to comply may result in death or permanent injury.

4. Radio situation size-up information to the alarm room operator.
5. Request support from additional agencies if needed.
   a. Request support from additional firefighting teams.
   b. Request medical support (field medics, medical evacuation [MEDEVAC]).
   c. Request military police support for site security or crowd control.
6. Direct the driver/operator into position for the initial attack.

DANGER

Be aware of the main and tail rotor blades along with the aircraft armaments. Failure to comply may result in death or permanent injury.

7. Direct the positioning of the firefighting apparatuses.
   a. Consider the wind direction.
   b. Consider the effective turret range.
   c. Consider the location of the fire and/or fluids coming from the aircraft.
8. Direct the driver/operator to discharge the turrets.

NOTES:

1. If a fire or leaking fluids are not apparent, the turrets do not need to be discharged.

2. The crew chief makes a mental note of how long the turrets have discharged to ensure that he has an adequate supply of water to approach the aircraft.

3. The crew dons self-contained breathing apparatus (SCBA) equipment as soon as they dismount the stopped firefighting apparatuses.

4. Additional information can be found in the IFSTA Manual, NFPA 11, and NFPA 403.
   a. Ensure that hot or smoking brakes are cooled.
   b. Cover fluids coming from the aircraft with a foam blanket.

9. Direct the nozzleman to maintain the rescue path.

NOTE: Foam has to be reapplied every 20 to 30 minutes. This time may be less due to high ambient temperatures, high winds, excessive foot traffic, or vehicles passing through the foam blanket.

Performance Steps

10. Advance the crew to the aircraft, and direct additional fire suppression.

DANGER

Beware of jet engines which can ingest firefighters and overturn vehicles. Failure to comply may result in death or permanent injury.

11. Direct the nozzleman to apply the extinguishing agent to the crew compartment or fuselage for cooling before gaining entry.

NOTE: Cooling the exterior of the aircraft may not be necessary. If the aircraft is not on fire, cooling the compartment or fuselage is not necessary.

12. Direct the use of forcible entry to the aircraft.

NOTE: Remember to try normal entry before performing forcible entry.

13. Direct emergency aircraft shutdown procedures.

DANGER

A reciprocating engine that is not properly shut down can restart if the propeller is still turning. Reciprocating engines must be properly shut down. Failure to comply may result in death or permanent injury.

NOTE: The pilots may have already shut down the aircraft upon arrival at the site or may be in the process of shutting it down.

14. Direct rescue operations.

NOTE: Some individuals may be uninjured and able to walk. These individuals should be directed to the triage area for safety and to be checked by medical personnel.

15. Direct triage area setup.

16. Radio the alarm room operator when the incident is under control.

17. Direct site preservation once personnel are removed from the incident.

NOTE: Site preservation assists the safety center with determining the cause of the incident.

18. Radio the alarm room operator when the incident is under control and recovery operations began.

19. Direct the crew to begin recovery operations.
    a. Supervise firefighting apparatus preventive-maintenance checks and services (PMCS).
    b. Inspect SCBAs and PPE, and supervise the crew while they inspect their individual SCBAs and PPE.
    c. Supervise the loading and cleaning of firefighting apparatuses and equipment.
    d. Maintain accountability for firefighting apparatuses and equipment.

NOTE: Some items are reserviced by the crew back at the station (filling air bottles, cleaning SCBA masks and tools). An after-PMCS inspection is performed (topping off the water and foam tanks.

20. Radio the alarm room operator when vehicles and crew are back in service.

Performance Steps

21. Document the incident according to the local SOP.

NOTE: This information is added to the NFIRS 5.0 database.

22. Review the alarm room operator's logbook for accuracy.
    a. Ensure that the time the incident alarm was received is recorded.
    b. Ensure that the time en route to the incident is recorded.
    c. Ensure that the incident arrival time is recorded.
    d. Ensure that the size-up time and the time additional support requested is recorded.
    e. Ensure that the time the incident was under control is recorded.
    f. Ensure that recovery operations start time is recorded.
    g. Ensure that the time the vehicles and crew were called back in service is recorded.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to respond to an aircraft emergency.

Performance Measures	**GO**	**NO-GO**
1. Collected general information before responding to the incident.	____	____
2. Radioed the alarm room operator for additional information while en route to the incident.	____	____
3. Conducted a situation size-up when the aircraft was on the ground.	____	____
4. Radioed the situation size-up to the alarm room operator.	____	____
5. Requested a response from additional support agencies if needed.	____	____
6. Directed the driver/operator into position for the initial attack.	____	____
7. Directed the positioning of the firefighting apparatuses.	____	____
8. Directed the driver/operator to discharge the turrets.	____	____
9. Directed the nozzleman to maintain the rescue path.	____	____
10. Advanced the crew to the aircraft and directed additional fire suppression.	____	____
11. Directed the nozzleman to apply the extinguishing agent to the crew compartment or fuselage for cooling before gaining entry.	____	____
12. Directed the use of forcible entry to the aircraft.	____	____
13. Directed emergency aircraft shutdown procedures.	____	____
14. Directed rescue operations.	____	____
15. Directed the triage area setup.	____	____
16. Radioed the alarm room operator to when the incident was under control and recovery operations began.	____	____
17. Directed site preservation once personnel were removed from the incident.	____	____
18. Radioed the alarm room operator when the incident was under control and recovery operations began.	____	____
19. Directed the crew to begin recovery operations.	____	____

Performance Measures	GO	NO-GO
20. Radioed the alarm room operator when the vehicles and crew were back in service.	____	____
21. Documented the incident according to the local SOP.	____	____
22. Reviewed the alarm room operator's logbook for accuracy.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	NFPA 11
TM 5-4210-220-12	NFPA 403
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Direct Stand-By Operations

052-249-2117

Conditions: You are given an aircraft incident, a fully equipped and operational firefighting apparatus, a firefighting crew, a self-contained breathing apparatus, personal protective equipment (PPE), access to FM 5-415 and the National Fire Incident Reporting System (NFIRS) 5.0 database, the local standing operating procedure (SOP), applicable lubrication orders (LOs) and technical manuals (TMs), and a map.

Standards: Direct stand-by operations.

Performance Steps

1. Collect general information before starting the operation.
   a. Locate the aircraft.
   b. Determine the aircraft type.
   c. Determine the number of personnel on the aircraft.
   d. Determine the nature of the incident.
      (1) Note the number of landings and whether they were for ambulatory or litter medical evacuation (MEDEVAC) patients.
      (2) Note whether hot refuels were for armed or MEDEVAC aircraft.

2. Radio the alarm room operator for additional information while en route to the incident.
   a. Ask for the last known amount of fuel on the aircraft.
   b. Ask about known cargo on the aircraft.
   c. Ask about special equipment on the aircraft, including—
      (1) A hoist.
      (2) Additional fuel cells.
      (3) Additional electronics and/or computers.
      (4) Test aircraft with special requirements.

3. Request support from additional agencies if needed.
   a. Request additional firefighting teams. Request additional teams if there—
      (1) Are numerous aircraft.
      (2) Are numerous personnel or patients.
      (3) Is a large fixed-wing aircraft.
      (4) Is a large refueling operation.
   b. Request medical support (field medics, MEDEVAC).
   c. Request military police support.

4. Direct the positioning of the firefighting apparatuses.

DANGER

Jet engines can ingest firefighters and overturn the vehicles with jet wash. Beware of the main and tail rotor blades and aircraft armaments. Failure to comply may result in death or permanent injury.

5. Direct the crew to position the handlines and equipment.
   a. Direct the handline pre-positioning.
   b. Direct the equipment pre-positioning.

NOTE: Equipment is selected by the crew chief.

   c. Direct the triage area pre-positioning.

Performance Steps

6. Radio the alarm room operator when the operation begins; and confirm information on the aircraft type, number of personnel or patients, number of aircraft, and operation type.
7. Radio the alarm room operator when the operation is over and recovery operations began.
8. Direct the crew to begin recovery operations.
    a. Supervise firefighting apparatus preventive-maintenance checks and service (PMCS).
    b. Inspect SCBAs and PPE.
    c. Supervise the crew while they inspect their individual SCBAs and PPE.
    d. Supervise the loading and cleaning of firefighting apparatuses and equipment.

NOTE: Some items are reserviced by the crew at the station (filling air bottles, cleaning SCBA masks and tools). An after-PMCS inspection is performed (topping off the water and foam tanks).

    e. Maintain accountability for firefighting apparatuses and equipment.
9. Radio the alarm room operator when vehicles and crew are back in service.
10. Document the operation according to the local SOP.

NOTE: This information is added to the NFIRS 5.0 database.

11. Review the alarm room operator's logbook for accuracy.
    a. Ensure that the time en route to the incident is recorded.
    b. Ensure that the incident arrival time is recorded.
    c. Ensure that the time additional support was requested, if needed, is recorded.
    d. Ensure that the time the operation began is recorded.
    e. Ensure that the time the operation ended and recovery operations began is recorded.
    f. Ensure that the time the vehicles and crew were called back in service is recorded.

Evaluation Preparation: Setup: Provide the Soldier with a simulated stand-by operation and the items listed in the conditions.

Brief Soldier: Tell the Soldier to direct stand-by operations.

Performance Measures	**GO**	**NO-GO**
1. Collected general information before starting the operation.	____	____
2. Radioed the alarm room operator for additional information while en route to the operation.	____	____
3. Requested a response from additional support agencies if needed.	____	____
4. Directed the positioning of the firefighting apparatuses.	____	____
5. Directed the crew to position the handlines and equipment.	____	____
6. Radioed the alarm room operator when the operation began and confirmed information on the aircraft type, number of personnel or patients, number of aircraft, and operation type.	____	____
7. Radioed the alarm room operator when the operation was over and recovery operations began.	____	____
8. Directed crew to begin recovery operations.	____	____
9. Radioed the alarm room operator when vehicles and crew were back in service.	____	____
10. Documented the operation according to the local SOP.	____	____
11. Reviewed the alarm room operator's logbook for accuracy.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 8: Perform Rescue Air Mobility Squadron Mission

Develop a Load Plan for Rescue Air Mobility Squadron Missions
052-249-2125

Conditions: You are given a rescue air mobility squadron (RAMS) mission assignment; known response area parameters; a trained rescue team; complete rescue equipment sets, kits and outfits; personal equipment; individual weapons; aviation support assets; and a local threat brief.

Standards: Develop load plans for equipment sets, personnel, personal equipment, and individual weapons for RAMS missions. Employ load plans when you respond to a tactical emergency scene.

Performance Steps

1. Develop load plans for the RAMS team and equipment.
    a. Evaluate vehicle and aircraft mission parameters for maximum gross load. Determine—
        (1) Vehicle and aircraft types.
        (2) Special tool requirements for the rescue of up-armored vehicles.
        (3) Team member personal equipment requirements based on the size of assigned response areas.
        (4) Aviation asset types that the team will use in an emergency.
        (5) Special handling requirements for individual weapons.
    b. Develop equipment and personnel loading procedures. Base procedures on—
        (1) Transportation.
        (2) The maximum weight.
        (3) Special mission equipment needs and circumstances.
        (4) The rescue mission.
    c. Develop equipment and personnel recovery plans for departing emergency scenes. Based plans on the—
        (1) Tactical environment.
        (2) Return aircraft after-emergency sequence.
        (3) Hastened retreat/fall-back/regroup procedures.
    d. Develop equipment and personnel reset procedures for postmission operations.
2. Develop precombat check (PCC)/precombat inspection (PCI) checklists.
    a. Update load plans.
    b. Include personal equipment.
    c. Include individual weapons.
    d. Include standard team equipment sets.
    e. Include special-needs team equipment sets.
3. Train team members to perform PCCs/PCIs on equipment.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Direct the Soldier to develop a load plan for RAMS missions.

Performance Measures	GO	NO-GO
1. Developed load plans for the RAMS team and equipment.	____	____
2. Developed PCC/PCI checklists.	____	____
3. Trained team members to perform PCCs/PCIs on equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If Soldier fails any measure, show him how to do it correctly.

References

Required	Related
	AR 420-1
	FM 5-415
	IFSTA MANUAL

Skill Level 3

Subject Area 1: Perform Maintenance

Maintain Records and Reports

052-249-3101

Conditions: You are given a completed DA Form 2404 (Equipment Inspection and Maintenance Worksheet), DA Form 2408-14 (Uncorrected Fault Record), DA Form 5376 (Individual Training Evaluation Record), DA Form 5377 (Fire and Emergency Services Training Record), DA Form 5379 (Apparatus Maintenance Checklist), DA Form 5380 (Fire Apparatus Test Record), DA Form 5381 (Building - Fire Risk Management Survey), DA Form 5382 (Hazard/Deficiency Inspection Record), DA Form 5383 (Hot-Work Permit), DA Form 5384 (Water Flow Test), DA Form 5988-E [Equipment Inspection Maintenance Worksheet (EGA)], a fire hose record, and a facility response card; DA Pam 750-8; the local standing operating procedure (SOP); and applicable technical manuals (TMs).

Standards: Maintain fire department records and reports.

Performance Steps

1. Identify completed items.
    a. Identify DA Form 2404.
    b. Identify DA Form 2408-14.
    c. Identify DA Form 5376.
    d. Identify DA Form 5377.
    e. Identify DA Form 5379.
    f. Identify DA Form 5380.
    g. Identify DA Form 5381.
    h. Identify DA Form 5382.
    i. Identify DA Form 5383.
    j. Identify DA Form 5384.
    k. Identify DA Form 5988-E.
    l. Identify a fire hose record.
    m. Identify a facility response card.

2. Review completed forms.
    a. Review DA Form 2404.

NOTE: DA Form 2404 is completed daily for every piece of equipment designated by the local SOP and for every firefighting apparatus. Soldiers must use the correct TM for each firefighting apparatus to properly complete this form.

    b. Review DA Form 2408-14.

NOTE: DA Form 2408-14 is used in conjunction with DA Form 2404 (see DA Pam 750-8).

    c. Review DA Form 5376 for the—

NOTE: DA Form 5376 is required for each firefighter assigned to the fire protection section who performs firefighting duties. It lists the firefighting training that each firefighter receives. This form is kept on file in the fire department for as long as the firefighter is assigned to that unit.

        (1) Firefighter's name, rank, and social security number.
        (2) Calendar year.
        (3) Evaluation grade (GO/NO-GO).
        (4) Number of training hours.

    d. Review DA Form 5377.

NOTE: DA form 5377 documents each training session conducted by the fire team. Records are compiled each fiscal year and retained for 1 year after the cutoff date. Required information includes necessary elements that outline what, where, and how training was conducted and who received training.

    e. Review DA Form 5379 for the—

NOTE: This DA Form 5379 documents the daily inspections of the firefighting apparatus, lists deficiencies noted during the inspection, and includes recordings for 1 month.

Performance Steps

(1) Apparatus number.
(2) Month and year.
(3) Action taken for deficiencies.

NOTE: Local requirements or SOPs may require using DA Form 2404 instead of or with DA Form 5379.

f. Review DA Form 5380 for the—

NOTE: DA Form 5380 is used to record pump capability tests on structural pumps received from the manufacturer or depot. Tests are done annually or after pump maintenance. Tests are performed according to the applicable TM for the apparatus.

(1) Recent test location and test date.
(2) Name of the person who conducted the test.
(3) Vehicle registration number, serial number, and other pertinent vehicle data.
(4) Test information.

NOTE: Crash firefighting vehicles designated as primary crash firefighting vehicles are only required to be performance tested.

g. Review DA Form 5381 for the—

NOTE: DA Form 5381 is used as an inspection checklist and for recording documentation during the fire prevention inspection process. This form is completed for each building or facility inspected. For buildings or facilities that are inspected but have no fire hazards, the inspection date is annotated on the reverse side of the form. If fire hazards or deficiencies are noted on the form, the date of the inspection and an assigned suspense date is listed on the reverse side.

(1) Building number, occupancy, and organization of the user.
(2) Frequency of the inspection and any remarks.
(3) Construction type, fire protection systems installed, fire extinguisher location and type.

h. Review DA Form 5382 for the—

NOTE: DA Form 5382 is used to notify the building or facility functional manager of fire hazards or deficiencies noted during inspection. The facility manager is given a copy of this form at the end of the fire prevention inspection when fire hazards or deficiencies are noted. A suspense date that allows enough time to correct the hazard or deficiency is noted on the form before the building or facility manager receives a copy.

(1) Fire hazards or deficiencies and on-the-spot corrections.
(2) Inspection date, name, and facility manager's signature.
(3) Date of the last fire inspection (listed on the reverse side of the form) with suspense dates as applicable.

i. Review DA Form 5383 for the—

NOTE: DA Form 5383 is issued to facilities dealing in open-flame, welding, or other potential fire hazard operations. This form is valid for 1 day only, at a specified location, and is not required for permanent shops engaged in open-flame or welding operations once the fire chief approves the shop.

(1) Date, location, start time, and end time of the inspection.
(2) Permit number and type of operation conducted.
(3) Name of the person responsible for fire watch during the operation.
(4) Completed checklist.
(5) Fire inspector's signature, person performing the fire watch, and time signed.

j. Review DA Form 5384 for the—

NOTE: DA Form 5384 is completed for fire hydrant inspections. This information becomes extremely important during facility responses and resupply operations.

(1) Hydrant location.
(2) Date.
(3) Hydrant number.
(4) Outlet diameter.
(5) Pitot tube results.
(6) Discharged gallons per minute.
(7) Static pressure readings.
(8) Residual pressure readings.

Performance Steps

(9) Computed available gallons per minute.
(10) Water flow graph.
k. Review DA Form 5988-E.

NOTE: DA Form 5988-E is completed daily for every piece of equipment designated by the local SOP and for every firefighting apparatus. To complete this form correctly, the Soldier uses the TM or owner's manual for each specific piece of equipment.

l. Review the fire hose record for the—

NOTE: The fire hose record documents fire hose testing. Once a hose section is received, it is stamped with an identification number and a fire hose record is initiated. This form is placed on file for as long as the hose is in operation and is updated each time the hose is tested.

(1) Manufacturer's name, date manufactured, and guaranteed pressure.
(2) Hose type, size, and length.
(3) Installation name, hose number, and date received.
(4) In-service and out-of-service date and firefighting apparatus number when the hose was issued and turned-in.
(5) Hose test information.

m. Review a facility response card for the—

NOTE: Facility response cards are used as prefire plans. This card contains specific facility information on one side and a single line graphic drawing with proper symbols on the reverse side. This card is reviewed and updated at least every 2 years or as required by the local SOP.

(1) Mission-essential facility.
(2) Facility that is equipped with installed fire protection suppression systems.
(3) Multistory facility.
(4) Hospital.
(5) Public assembly building.
(6) Nursery, child day care center, or school.
(7) Additional facility specified by the fire chief.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to maintain fire department records and reports.

Performance Measures	**GO**	**NO-GO**
1. Identified completed items.	____	____
2. Reviewed completed forms.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	**Related**
DA FORM 2404	AR 420-1
DA FORM 2408-14	FM 5-415
DA FORM 5376	IFSTA MANUAL
DA FORM 5377	NFPA 1001
DA FORM 5379	
DA FORM 5380	
DA FORM 5381	
DA FORM 5382	
DA FORM 5383	
DA FORM 5384	
DA FORM 5988-E	
DA PAM 750-8	

Subject Area 2: Perform Common Firefighting Tasks

Determine Fire Cause

052-249-3115

Conditions: You are given a fire scene, additional fire department personnel, a sketch pad, rope or tape, salvage covers or cardboard boxes, a logbook or pad, a camera (if available), the local standing operating procedure (SOP), and NFPA 1001.

Standards: Determine fire cause.

Performance Steps

1. Investigate a fire.
    a. Locate the area of origin by collecting important information from those who fought the fire and those who reported it.
    b. Secure the fire scene by establishing the perimeter and allowing access only to those personnel responsible for determining the fire cause.

NOTE: Scene security is extremely important in determining a fire cause.

    c. Determine the fire cause, and assign one of the following fire classifications:
        (1) Accidental.
        (2) Natural.
        (3) Incendiary.
        (4) Undetermined.

NOTE: List the cause as "undetermined" only if a reasonable certainty cannot be determined. Follow the SOP when listing the cause as "undetermined" or when calling for an investigator if the specific cause cannot be determined. Do not use the term "suspicious" as a fire classification.

2. Investigate an accidental fire.

NOTE: Some accidental fires are called "friendly fires" by the fire insurance industry.

    a. Investigate smoking-related incidents. Look for—
        (1) Ashtrays.
        (2) Cigarette lighters.
        (3) Other smoking-related items.
    b. Investigate pyrophoric incidents. Look for—
        (1) Steam pipes.
        (2) Flue pipes (fireplaces or wood-burning stoves).
        (3) Fluorescent light ballasts.
    c. Investigate electrical incidents. Look for—
        (1) Lightweight extension cords.
        (2) Overloaded outlets.
        (3) Unattended appliances.

3. Investigate a natural fire.
    a. Investigate lightning incidents. Look for—
        (1) Roof peaks with metal flashing.
        (2) Large metal objects at the top of a structure (air-handling units, tanks, blowers).
        (3) Antennas attached to the structure.
        (4) An electrical service weatherhead.

Performance Steps

b. Investigate natural disasters.

DANGER

Crews and additional fire personnel should consider exposed electrical wiring as live unless it was shut off by the power company. Failure to comply may result in death or permanent injury.

4. Investigate an incendiary incident.
   a. Investigate multiple points of origin.
   b. Investigate timing devices.
   c. Investigate trailers, such as—
      (1) Toilet paper.
      (2) Newspaper.
      (3) Gunpowder.
      (4) Wax paper.
      (5) Excelsior.
      (6) Blasting fuse.
      (7) Oil-soaked string, cord, or rope.
      (8) Cotton, wool, or similar material.
   d. Investigate chemicals.
   e. Investigate matches.
   f. Investigate flammable liquids.
   g. Investigate bottles or other containers.
   h. Investigate rubber items.
   i. Investigate glass.
   j. Investigate butane lighters.
   k. Investigate altered heating equipment.
   l. Investigate electrical appliances.
   m. Investigate tools.
   n. Investigate oily rags.
   o. Investigate burn patterns.
   p. Investigate highway flares.
   q. Investigate financial papers.
   r. Investigate valuable items replaced with cheaper ones.
   s. Investigate missing items.
   t. Investigate signs of forced entry.
   u. Investigate unusual or out-of-place items.
   v. Investigate blocked bridges and access roads.
   w. Investigate address numbers removed.
   x. Investigate gates or doors locked or blocked.
   y. Investigate smoke detectors removed or disabled.
   z. Investigate automatic sprinklers disabled.
   aa. Investigate windows covered or blacked out.

5. Prepare documents according to the local SOP.
   a. Ensure that the documents are complete.
   b. Ensure that the document information is clear.
   c. Ensure that the document information is factual.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to determine the cause of a fire.

Performance Measures	GO	NO-GO
1. Investigated a fire.	____	____
2. Investigated an accidental fire.	____	____
3. Investigated a natural fire.	____	____
4. Investigated an incendiary incident.	____	____
5. Prepared documents according to the local SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the soldier fails any measure, show him how to do it correctly.

References

Required	Related
NFPA 1001	AR 420-1 FM 5-415 IFSTA MANUAL

Review Plans for Life Safety Code Compliance

052-249-3117

Conditions: You are given NFPA 1001, a set of plans, and the local standing operating procedure (SOP). A fire protection engineering policy and criteria for Department of Defense (DOD) components has been established.

Standards: Conduct a thorough review of the plans for life safety code compliance.

Performance Steps

NOTE: A qualified fire protection engineer should be an integrated part of the design team. The fire chief provides consultation and design recommendations regarding firefighting operational requirements. The fire chief is not responsible for the system design. The chief coordinates with the installation directorate of public works (DPW) on design drawings to signify his review of the plans to ensure that firefighting operational recommendations are incorporated.

1. Review construction drawings.
    a. Consider the plan view. Include the—

NOTE: The plan view is a two-dimensional view of the site or building as seen from directly above the area.

        (1) Site plan.

NOTE: The site plan is also called the plot plan. It is usually one of the first sheets of a set of drawings.

        (2) Floor plan.

NOTE: The floor plan provides information for constructing external walls, internal partitioning, doors and windows, ceilings and roof joists or trusses, cabinets, closets, shelving, electrical outlets, and fixtures.

    b. Elevation view.

NOTE: A two-dimensional view of the building as seen from the exterior.

    c. Sectional view. Include the—

NOTE: A vertical view of a building as if it were cut into two parts.

        (1) Horizontal cross section.
        (2) Typical cross section.
        (3) Detailed cross section.
    d. Detailed view.

NOTE: Sometimes it becomes necessary to show a feature in a larger scale because enough information cannot be crowded into the space of the small-scale drawings.

2. Review architectural drawings. Include the—

NOTE: Most inspectors are not responsible for conducting formal plan reviews for code enforcement in their jurisdiction. A fire protection engineer appointed by the fire marshal handles this job. From time to time, inspectors look at the drawings to conduct inspections or provide feedback to members of the public.

    a. Site plans.

NOTES:

1. Site plans provide a view of the proposed construction in relation to existing topographical conditions.

2. Fire inspectors should pay close attention to accessibility, water supply, and general building parameters.

    b. Construction documents.

NOTE: These documents contain the way a building is being constructed and what materials are used.

Performance Steps

c. Mechanical systems.

NOTE: The fire inspector should collect as much information on these systems as possible to aid in evaluating the life safety hazards involved.

d. Electrical drawings.

NOTE: The inspector should pay special attention to exit illumination.

e. Fire protection features. Include the—

(1) Sprinkler systems. Include the—

(a) Extent of coverage.
(b) System type.
(c) System size.
(d) Water supply connections and valves.
(e) Fire department connection.
(f) Sprinkler types, temperature ratings, and locations.
(g) Pipe sizes and lengths.
(h) Number of pipe elbows and tees.
(i) Type and number of pipe hangers.

(2) Special-agent extinguishing systems. Include the—

(a) Definition of the area or equipment to be protected.
(b) Type of system (local application or total flooding).
(c) Type of extinguishing agent developed.
(d) Amount of agent required.
(e) Concentration of extinguishing agent developed.
(f) Storage container size.
(g) Type of expellant gas.
(h) Rate of discharge.
(i) Duration of flow.
(j) Piping layout type (engineered or preengineered).
(k) Location and type of discharge nozzles.
(l) Method of actuation and auxiliary alarms.
(m) Type of presignaling devices.
(n) Area and volume of protected space.

(3) Fire detection and alarm systems. Include the—

(a) Signal initiation.
(b) Signal notification.
(c) System supervision.
(d) Power supply.
(e) Elevator control.
(f) Automatic door closures.
(g) Stair pressurization.
(h) Smoke control.
(i) Damper control.
(j) Initiation of automatic extinguishing equipment.
(k) Fire pumps.
(l) Automatic doors that unlock or close when alarms activate.
(m) Lightning protection.
(n) Battery load calculations.
(o) Manufacturer's specification sheets.
(p) Point-to-point wiring diagrams.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to review plans for life safety code compliance.

Performance Measures	GO	NO-GO
1. Reviewed construction drawings.	____	____
2. Reviewed architectural drawings.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
NFPA 1001	AR 420-1 FM 5-415 IFSTA MANUAL

Subject Area 3: Perform Structural Firefighting

Conduct a Fire Inspection

052-249-3102

Conditions: You are given a facility to inspect, AR 420-1, a facility response card, DA Form 5381 (Building - Fire Risk Management Survey), DA Form 5382 (Hazard/Deficiency Inspection Record), DA Form 5383 (Hot-Work Permit), the appointment of the building fire marshal, the appointment of the area fire marshal, NFPA 1001, the local standing operating procedure (SOP), local fire regulations, building prefire plans, and information from previous inspections.

Standards: Conduct a thorough facilities fire inspection.

Performance Steps

1. Review the fire prevention inspection requirements.
    a. Identify the following inspection frequency factors:
        (1) Construction class.
        (2) Building or area occupancy hazard.
        (3) Known fire load.
        (4) Activity importance.
    b. Identify the following inspection frequencies:
        (1) Weekly.

NOTE: Extra-hazardous occupancy facilities are inspected weekly if the fire load or ongoing activity presents a high risk to life and safety or if the activity has a severe fire potential.

        (2) Monthly, including—
            (a) Aircraft parking aprons.
            (b) Hangers and docks.
            (c) Places of public assembly.
            (d) Engineer and vehicle maintenance shops.
            (e) Warehouses.
            (f) Hospitals.
            (g) Schools.
            (h) Child care centers.
            (i) Commissaries and post exchanges.
            (j) Data processing and computer activities.
        (3) Quarterly, including—
            (a) Billets.
            (b) Administrative facilities.
            (c) Other facilities not specified for weekly or monthly inspections.
        (4) Occupancy change.

NOTE: An occupancy change inspection is a special inspection that is conducted before an occupancy change to determine if the occupancy change increases fire protection requirements or changes the fire load.

2. Prepare for the inspection, and review information from previous inspections.
    a. Review the building prefire plan, and carefully inspect facility special hazards. Ensure that you have DA Form 5381 on hand to note special hazards that are found. Consider—

NOTE: Special hazards are listed on the prefire plan so that firefighting crews will be aware of potentially dangerous situations or conditions when they arrive at or during a fire emergency.

        (1) High life occupancy.
        (2) Chemical or explosive storage.
        (3) Flammable liquid or compressed gas usage or storage.
        (4) Welding or other occupant-required operations.
        (5) Materials used to build the facility.

Performance Steps

b. Review the permits, and check their expiration dates.

NOTE: Permits are usually issued for high-voltage or -wattage devices, welding or open-flame operations, and other special operations. The permits are usually good for 1 year.

c. Review prior deficiencies, and make notes of recurring deficiencies.
d. Identify building fire marshals, and ensure that a building or area fire marshal has been assigned to the facility.

3. Conduct the fire inspection according to local fire regulations and/or the unit SOP.

NOTE: The building or area fire marshal should accompany you on the inspection. If they are not available, select a building occupant to accompany you during the inspection. If you note any fire hazards.

a. Ensure that entry and exit points are free of obstructions, clearly identified, operational, and unlocked during hours of operation.
b. Ensure that smoking areas are clearly identified and equipped with smoke receptacles that are emptied daily.
c. Ensure that fire extinguishers are properly located, charged, and free of obstructions.
d. Ensure that the facility has an adequate supply of trash receptacles to maintain general facility cleanliness.
e. Ensure that flammable materials are stored in approved areas and containers (a wall locker or container express [CONEX]).
   (1) Ensure that containers are clearly identified and kept free of dirty rags and other combustible materials or trash.
   (2) Ensure that containers are not stored in excessive quantities.
f. Ensure that electrical cords do not run under carpets or mats or over metal objects (pipes or conduit), are free of cracks or splices, and are protected (if run in open areas).
g. Ensure that multiple junction devices (extension cords, three-way or four-way sockets) are not used.
h. Ensure that operations and devices that require a fire department-issued permit have the permit on file.
i. Ensure that fire protection devices (pull stations, smoke detectors, sprinkler heads) are free of obstructions, operational, and not disabled.

4. Identify and record deficiencies noted during the inspection on DA Form 5381 according to AR 420-1.

NOTE: If the building fire marshal or occupant makes an on-the-spot correction during the inspection, note the action on DA Form 5382. However, the deficiency should be noted as "corrected on-the-spot" to ensure that the hazard is documented and not recurring the occupant or building fire marshal restore the hazard once you leave.

5. Perform a follow-up inspection after 30 days to ensure that previous deficiencies are corrected.
   a. Document corrected deficiencies on DA Form 5381.
   b. Document uncorrected deficiencies on DA Form 5381.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to conduct a fire inspection.

Performance Measures	**GO**	**NO-GO**
1. Reviewed the fire prevention inspection requirements.	____	____
2. Prepared for the inspection and reviewed information from previous inspections.	____	____
3. Conducted the fire inspection according to local fire regulations and/or the unit SOP.	____	____

Performance Measures	GO	NO-GO
4. Identified and recorded deficiencies noted during the inspection on DA Form 5381 according to AR 420-1.	____	____
5. Performed a follow-up inspection after 30 days to ensure that previous deficiencies were corrected.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
AR 420-1	DA PAM 750-8
DA FORM 5381	FM 5-415
DA FORM 5382	IFSTA MANUAL
DA FORM 5383	
NFPA 1001	

Prepare a Building Prefire Plan

052-249-3103

Conditions: You are given a building, a facility response card, NFPA 1001, the local standing operating procedure (SOP), a ruler, and a 50-foot measuring tape.

Standards: Prepare a thorough building prefire plan.

Performance Steps

1. Record information on the front of the facility response card.
   a. Record the building numbers of several buildings that are identical to the one you are preparing a plan for, and indicate this in the remarks section.
   b. Record the occupancy type (administrative, sleeping quarters, warehouse).
   c. Record the organization responsible for the facility.
   d. Record the construction type (combustible or noncombustible materials).
   e. Record the fireproof protection systems within the facility.
   f. Record the type of heating system used.
   g. Record the type of water storage available for fire suppression.
   h. Record utility shutoff locations (gas, fuel, water, electricity, alarms).
   i. Record hazardous operations and hazmat and explosive storage areas and the location of each.
   j. Record fire hydrant locations.
   k. Record fire department connection locations.
   l. Record additional exposures.
   m. Record additional remarks that would be valuable to the responding firefighters (requests for additional vehicles, hazards not noted elsewhere on the form, hours of operation, maximum occupancy of the facility).

NOTE: NFPA 1001 contains the formulas for calculating maximum building occupancies.

   n. Sign and date the card.

2. Make a single-line drawing of the building, and list information on the back of the facility response card as required by the local SOP.
   a. Annotate hydrant locations and gallons-per-minute flow, and identify fire hydrants close to the building and the flow rates of each.
   b. Draw a complete overhead view of the building.
   c. Annotate building access routes (limiting factors [grade, road width]).
   d. Annotate fire department standpipe or sprinkler connections, and identify the location of fire department connections and the system type.
   e. Annotate utility shutoff locations, and show building utilities and the shutoff locations for each.
   f. Annotate fences around the building or area, and indicate if the building is in an enclosed area.
   g. Annotate where the building occupants should assemble in case of a fire.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to prepare a building prefire plan.

Performance Measures	GO	NO-GO
1. Recorded information on the front of the facility response card.	____	____
2. Made a single-line drawing of the building and listed information on the back of the facility response card as required by the local SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required
NFPA 1001

Related
AR 420-1
FM 5-415
IFSTA MANUAL

Supervise a Structural Firefighting Operation

052-249-3104

Conditions: You are given a burning structure; two or more fully equipped, operational, and manned firefighting apparatuses; personal protective equipment (PPE); a self-contained breathing apparatus (SCBA); two-way radio communications; a facility response card; the local standing operating procedure (SOP); and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Supervise a structural firefighting operation.

Performance Steps

1. Assume command, and conduct a situation size-up.
    a. Review the facility response card.
    b. Determine how the alarm was received (telephonic or automated system).
    c. Consider the time of day.
    d. Consider the wind direction.

2. Direct the positioning of firefighting apparatuses as they arrive on the scene.

NOTE: The correct positioning of firefighting apparatuses is essential to the immediate initiation of the operation. Repositioning a firefighting apparatuses reduces the effectiveness of the effort.

    a. Place the first firefighting apparatus directly at the fire scene, and position it so that firefighters can conduct a reverse lay if necessary.

NOTE: Firefighters should start operations using water and equipment that is onboard the apparatus.

    b. Direct the second firefighting apparatus to connect a supply line to a water source (a fire hydrant, drop tank) before proceeding to the fire scene, and position this apparatus where it does not block the first firefighting apparatus.
    c. Position additional firefighting apparatuses in relation to the structure, and direct the apparatuses and crew to a position where they are not in danger from the fire, smoke, or structure collapse.
    d. Implement a holding or staging area for apparatuses not immediately needed.

NOTE: Positioning and employing additional firefighting apparatuses at the right place and time could enhance your capability to respond to unforeseen events. Moving and redeploying firefighting apparatuses and firefighting crews wastes time.

3. Determine the priorities for combating the fire, apply factors from the size-up, and determine where the firefighting crews are best employed.
    a. Consider rescue operations.
    b. Consider exposure protection.
    c. Consider ventilation operations.
    d. Consider attack operations.

NOTE: If the firefighting crews are properly used, rescue, ventilation, and attack operations on the fire can occur concurrently, as needed, and the overall firefighting effort is maximized. Fire conditions can change abruptly, from controlled to uncontrolled. Monitoring radio transmissions and calling for fire condition updates enhances your ability to direct or redirect priorities as needed.

Performance Steps

4. Plan an escape or evacuation route for fire personnel.

> **WARNING**
>
> **An escape or evacuation route for firefighting personnel is needed if building collapse is imminent, the water source is exhausted, fire crews are exhausted, or firefighting apparatus malfunction occurs.**

5. Radio the alarm room operator with fire condition updates.
   a. Request additional firefighting apparatuses or defer responding firefighting apparatuses as needed.
   b. Request additional on-scene supervisors as needed.

6. Supervise the firefighting operation.
   a. Coordinate attack operations.
   b. Coordinate work and rest cycles for firefighting crews.
   c. Coordinate vehicle staging.
   d. Coordinate resupply efforts.
   e. Coordinate medical support.
   f. Coordinate military police support.

7. Assign additional firefighting apparatuses to the fire scene, or direct them to a staging area.

NOTE: If a firefighting apparatus is not immediately needed on the emergency, do not position it there. It takes more time to reposition a fire apparatus than it does to send one from the staging area.

8. Supervise overhaul operations.
   a. Coordinate work and rest cycles for firefighting crews.
   b. Determine which fire apparatuses can leave the scene and return to the station.

9. File a report according to the local SOP.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to supervise a structural firefighting operation.

Performance Measures	**GO**	**NO-GO**
1. Assumed command and conducted a situation size-up.	____	____
2. Directed the positioning of firefighting apparatuses as they arrived on the scene.	____	____
3. Determined the priorities for combating the fire, applied factors from the size-up, and determined where the firefighting crews were best employed.	____	____
4. Planned an escape or evacuation route for fire personnel.	____	____
5. Radioed the alarm room operator with fire condition updates.	____	____
6. Supervised the firefighting operation.	____	____
7. Assigned additional firefighting apparatuses to the fire scene or directed them to a staging area.	____	____
8. Supervised overhaul operations.	____	____
9. Filed a report according to the local SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	NFPA 1001
TM 9-2320-328-13&P-1	

Subject Area 4: Perform Wildland Firefighting

Supervise a Wildland Firefighting Operation
052-249-3111

Conditions: You are given a wildland firefighting operation; two or more fully equipped, operational, and manned firefighting apparatuses; personal protective equipment (PPE); a self-contained breathing apparatus (SCBA); two-way radio communications; the local standing operating procedure (SOP); and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Supervise a wildland firefighting operation.

Performance Steps

1. Assume command, and conduct a situation size-up.
    a. Consider the time of day.
    b. Consider the wind direction.
    c. Consider the available water supply.
    d. Consider exposures in the path of the fire.
    e. Consider the number of acres involved.
    f. Consider the projected weather forecast.

2. Determine which method to use to combat the wildland fire.
    a. Use the sectional method.

NOTE: The sectional method is used on slow-moving fires. It consists of placing a unit in a specific section of the fire line. The primary mission of the units assigned to the sections is to stop the spread of fire, extinguish the fire, and perform overhaul duties.

    b. Use the one-lick method.

NOTE: The one-lick method is used on fast-moving fires. The material that will burn is thrown away from the fire line while the soil is thrown onto the burning part of the fire line. Crews must have the fire under control where they are working before advancing on the fire line.

        (1) Place a unit on a point of the fire line and have them work in a specific direction.
        (2) Ensure that each crewmember has a specific job.
        (3) Ensure that the first firefighting crew knocks down the hottest portion of the fire with backpack pumps (when water is available) as they continue along the flank.
        (4) Ensure that the second crew passes behind the first crew with axes and mattocks.
            (a) Ensure that firefighters with axes take one swipe at the obstacle that most impedes the formation of a firebreak.
            (b) Ensure that firefighters with mattocks tear up the ground down to the soil to create a continuous line of exposed soil.
            (c) Ensure that firefighters with shovels scrape or remove surface vegetation.

3. Determine which control method to use to combat the wildland fire.
    a. Use the direct method.

NOTE: The direct method is very effective on moderately hot wildland fires. The crew organization can be sectional or one-lick. To use the direct method, firefighters must be able to closely approach the fire and clear a line through the fuel. They construct a trench about 2 feet from the fire line and at least 2 feet wide.

    b. Use the indirect method.

NOTE: The indirect method entails the use of artificial firebreaks and natural barriers. Firebreaks must be constructed at least twice as high as the height of the fuel. Natural firebreaks may have to be supplemented with man-made firebreaks if the natural barriers are not wide enough.

Performance Steps

DANGER

Backfires can be used to burn back toward the fire from the fire line, depriving the fire of fuel. Backfires are normally used where a network of natural or artificial barriers exist. Backfires should not be used except on the order of a fire chief who has the knowledge of existing conditions. If not done properly, backfires can trap firefighters and equipment. This can cause death or permanent injury and severe equipment damage.

4. Place safety spotters on high terrain, provide them with radio communications, and ensure that they monitor the fire area and warn firefighting crews if spot fires develop behind them or if the fire has changed direction.
5. Determine the priorities for combating the fire.
   a. Consider rescue operations.
   b. Consider exposure protection.
   c. Consider attack operations.
6. Plan an escape or evacuation route for fire personnel.

DANGER

Firefighters must be able to exit an area in case spot fires break out or the fire changes direction. With planned escape routes, firefighting crews will not become trapped. Failure to comply may result in death or permanent injury.

7. Radio the alarm room operator with fire condition updates, and request support as needed.
   a. Request information on changes in fire direction.
   b. Request additional firefighting apparatuses, or defer responding apparatuses.
   c. Request additional on-scene supervisors (additional fire team chief or fire chief).
8. Supervise the operation.
   a. Coordinate the attack.
   b. Request airdrops of water or fire retardant.
   c. Coordinate work and rest cycles for firefighting crews.
   d. Coordinate vehicle staging.
   e. Coordinate resupply efforts.
   f. Coordinate medical support.
   g. Coordinate military police support.
9. Assign additional firefighting apparatuses to the fire scene, or direct them to a staging area.

NOTE: If a firefighting apparatus is not immediately needed on the emergency, do not position it there. It takes more time to reposition a firefighting apparatus than it does to send one from the staging area.

10. Supervise overhaul operations.
    a. Coordinate work and rest cycles for firefighting crews.
    b. Determine which firefighting apparatus can leave the scene and return to the station.

Performance Steps

11. File a report according to the local SOP.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to supervise a wildland firefighting operation.

Performance Measures	GO	NO-GO
1. Assumed command and conducted a situation size-up.	____	____
2. Determined which method to use to combat the wildland fire.	____	____
3. Determined which control method to use to combat the wildland fire.	____	____
4. Placed safety spotters on high terrain, provided them with radio communications, and ensured that they monitored the fire area and warned firefighting crews if spot fires developed behind them or if the fire changed direction.	____	____
5. Determined the priorities for combating the fire.	____	____
6. Planned an escape or evacuation route for fire personnel.	____	____
7. Radioed the alarm room operator with fire condition updates and requested support as needed.	____	____
8. Supervised the operation.	____	____
9. Assigned additional firefighting apparatuses to the fire scene or directed them to a staging area.	____	____
10. Supervised overhaul operations.	____	____
11. Filed a report according to the local SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	NFPA 1001
TM 9-2320-328-13&P-1	

Subject Area 5: Perform Vehicle Firefighting

Supervise a Firefighting Crew on a Ground Vehicle Emergency
052-249-3119

Conditions: You are given a ground vehicle emergency; two or more fully equipped, operational, and manned firefighting apparatuses; personal protective equipment (PPE); a self-contained breathing apparatus (SCBA); two-way radio communications; the local standing operating procedure (SOP); and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Supervise a fire crew on ground vehicle emergency.

Performance Steps

1. Assume command, and conducted a situation size-up.
    a. Consider the number of vehicles involved.
    b. Consider the type of vehicles involved.
    c. Consider the time of day.
    d. Consider the weather conditions.
    e. Consider the exposures involved.
    f. Consider the available water supply.
2. Determine the priorities for combating the fire.
    a. Prioritize rescues.
    b. Prioritize exposure protection.
    c. Prioritize attacks.
3. Plan an escape or evacuation route for firefighting personnel.

DANGER

Do not send in crews without a planned escape route. Crews could become trapped. Failure to comply may result in death or permanent injury.

    a. Plan for vehicle explosions.
    b. Plan for firefighting apparatus malfunctions.
    c. Plan for water source exhaustion.
    d. Plan for fire crew exhaustion.
4. Radio the alarm room operator with fire condition updates.
    a. Request additional fire apparatuses or defer responding apparatuses.
    b. Request additional on-scene supervisors.
5. Supervise the firefighting operation.
    a. Coordinate the attack.
    b. Coordinate work and rest cycles for firefighting crews.

NOTE: Ensure that an accountability system is established to track the time that the firefighting crews are in the fire.

    c. Coordinate vehicle staging.
    d. Coordinate resupply efforts.
    e. Coordinate medical support.
    f. Coordinate military police support.

Performance Steps

6. Assign additional arriving firefighting apparatuses to the fire scene or direct them to a staging area.

NOTE: If a fire apparatus is not immediately needed on the emergency, do not position it there. It takes more time to reposition a fire apparatus than it does to send one from the staging area.

7. Supervise overhaul operations.
   a. Coordinate work and rest cycles for firefighting crews.
   b. Determine which firefighting apparatus can leave the scene and return to the station.
8. File a report according to the local SOP.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to supervise a fire crew on a ground vehicle emergency.

Performance Measures	GO	NO-GO
1. Assumed command and conducted a situation size-up.	____	____
2. Determined the priorities for combating the fire.	____	____
3. Planned an escape or evacuation route for firefighting personnel.	____	____
4. Radioed the alarm room operator with fire condition updates.	____	____
5. Supervised the operation.	____	____
6. Assigned additional arriving firefighting apparatuses to the fire scene or directed them to a staging area.	____	____
7. Supervised overhaul operations.	____	____
8. Filed a report according to the SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	NFPA 1001
TM 9-2320-328-13&P-1	

Subject Area 6: Perform Hazmat Firefighting

Supervise a Firefighting Crew on an Ordnance Incident
052-249-3120

Conditions: You are given an ordnance incident; two or more fully equipped, operational, and manned firefighting apparatuses; access to FM 5-415; personal protective equipment (PPE); an individual self-contained breathing apparatus (SCBA); two-way radio communications; ERG 2008; and applicable lubrication orders (LOs) and technical manuals (TMs).

Standards: Supervise a firefighting crew on an ordnance incident.

Performance Steps

1. Assume command, and conduct a situation size-up.
    a. Consider additional exposures.
    b. Consider the type of ordnance involved, and identify the placards on the building or vehicle using the Emergency Response Guidebook (ERG) 2008.
    c. Consider the amount of ordnance involved.
    d. Consider the location.
    e. Consider the current state of the materials (smoking, free-burning, exploding).
    f. Consider the rescue and recovery of personnel.
    g. Consider the capabilities needed to extinguish or stabilize the fire.
    h. Consider weather and climate conditions.
2. Determine the priorities for combating the incident.
    a. Consider rescue operations.
    b. Consider exposure protection.
    c. Consider attack operations.
    d. Consider containing the fire.
3. Plan an escape or evacuation route for fire personnel.

DANGER

Do not send in crews without a planned escape route. Crews could become trapped. Failure to comply may result in death or permanent injury.

    a. Consider water source exhaustion.
    b. Consider firefighting apparatus malfunctions.
    c. Consider crew exhaustion.
    d. Consider material explosion.
4. Radio the alarm room operator with fire condition updates, and request support as needed.
    a. Request additional firefighting apparatuses or defer responding apparatuses.
    b. Request additional on-scene supervisors.
5. Supervise the firefighting operation.
    a. Coordinate the attack.
    b. Coordinate work and rest cycles for firefighting crews, and establish an accountability system to track the time that the firefighting crews have been in the fire.
    c. Coordinate vehicle staging.
    d. Coordinate resupply efforts.
    e. Coordinate medical support.

Performance Steps

f. Coordinate military police support.

6. Assign additional firefighting apparatuses to the fire scene, or direct them to a staging area.

NOTE: If a firefighting apparatus is not immediately needed on the emergency, do not position it there. It takes more time to reposition a firefighting apparatus than it does to send one from the staging area.

7. Supervise overhaul operations.
   a. Coordinate work and rest cycles for firefighting crews.
   b. Determine which firefighting apparatus can leave the scene and return to the station.
8. File a report according to the local SOP.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to supervise a firefighting crew on an ordnance incident.

Performance Measures	GO	NO-GO
1. Assumed command and conducted a situation size-up.	____	____
2. Determined the priorities for combating the incident.	____	____
3. Planned an escape or evacuation route for fire personnel.	____	____
4. Radioed the alarm room operator with fire condition updates and requested support as needed.	____	____
5. Supervised the firefighting operation.	____	____
6. Assigned additional firefighting apparatuses to the fire scene or directed them to a staging area.	____	____
7. Supervised overhaul operations.	____	____
8. Filed a report according to the local SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	NFPA 1001
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Perform a Size-Up of a Hazmat Incident

052-249-3107

Conditions: You are given a hazmat incident; two or more fully equipped, operational, and manned firefighting apparatuses; access to FM 5-415; personal protective equipment (PPE); a self-contained breathing apparatus (SCBA); a joint, firefighter, integrated response ensemble (J-FIRE); the local standing operating procedure (SOP); applicable lubrication orders (LOs) and technical manuals (TMs); and two-way radio communication.

Standards: Perform a size-up of a hazmat incident.

Performance Steps

1. Apply size-up factors.
    a. Consider additional exposures. Visually locate—
        (1) People (facilities, emergency responders, the public).
        (2) Property.
        (3) Environment.
        (4) Systems disruption (effects on traffic, surrounding facilities, homes).
    b. Consider the of hazmat type involved.
        (1) Determine the container type (bulk, nonbulk, pressurized, nonpressurized, solid, liquid, gas).
        (2) Look at the overall integrity of the container, noting the type and location of leaks.
    c. Consider the amount of materials involved.
    d. Consider the hazmat incident location.
    e. Consider the hazmat state. Determine if the hazmat is—
        (1) On fire.
        (2) Liquid material (flowing or puddling).
        (3) Releasing as a vapor (raising above the incident or following the contour of the terrain).
    f. Consider rescue and recovery operations.
    g. Consider the capability to extinguish the fire or stop hazmat discharge.
    h. Consider the availability of additional PPE.

2. Establish work zones.
    a. Establish the hot zone.

NOTE: The hot zone is the area where the potential for exposure to the materials is most likely. Only properly protected personnel are authorized into this zone.

    b. Establish the warm zone.

NOTE: The warm zone is the area where the decontamination area is located along with the standby crews. Only authorized personnel are authorized into this zone.

    c. Establish the cold zone.

NOTE: The cold zone is the area where planning, communications, and materials identifications are being accomplished. This zone is controlled by the senior fire official and is restricted to all only authorized personnel.

3. Identify firefighting gear, and determine which gear is appropriate for the incident.
    a. Identify protective clothing. Identify—

DANGER

Firefighters must wear PPE when fighting a burning structure that displays a chemical hazard symbol. Failure to wear protective clothing could result in death or permanent injury. (See FM 5-415)

Performance Steps

(1) Standard turnout clothing.

NOTE: Standard issue structural and crash protective clothing can provide full or limited protection for certain hazmat.

(2) Hazmat response suits.

NOTE: Hazmat response suits are specifically designed for use in hazmat incidents. The suits provide the greatest amount of protection when entering a hazmat area.

(3) Impermeable suits.

NOTE: Impermeable suits consist of a pair of coveralls, hood, gloves, fireman boots, and boot covers. Firefighters wear this suit under the normal turnout clothing. Fire personnel must wear this suit when entering a hazmat location that displays chemical hazard symbol 1.

b. Identify a SCBA.

NOTE: The standard SCBA that firefighters use during structural firefighting operations can also be used during certain hazmat incidents. It protects firefighters against certain types of hazmat. However, positive-pressure breathing apparatuses offer better protection over standard breathing apparatuses. When firefighting personnel know the hazmat or see the symbol requiring them to wear a protective breathing apparatus on the structure, they must wear the appropriate protective breathing apparatus. If firefighting personnel do not know the exact hazmat but must start firefighting or rescue operations, they must wear the protective device that offers the greatest protection.

DANGER

When chemical hazard symbol 1 is displayed, firefighting personnel must wear protective masks. SCBAs will not provide enough protection to combat fires involving materials stored under symbol 1. Failure to comply may result in death or permanent injury.

c. Identify a J-FIRE mask.

NOTE: Firefighters can use the J-FIRE mask when combating fires involving certain chemicals or when operating in a chemical environment. They should use the J-FIRE mask when the SCBA cannot offer enough protection.

4. Develop an incident action plan, and select strategic goals and tactical objectives to stabilize and control the incident.
   a. Select strategic goals (rescue and recover operations; public protective actions; spill, leak, and fire control; cleanup).
   b. Select offensive tactics that require responders to control or mitigate the emergency from within or inside an area of high risk (entering a hot zone to isolate a valve in a contaminated atmosphere, using an aggressive fire attack conditions, firefighting foam operations, applying leak control devices on leaking railroad cars).
   c. Select defensive tactics that permit responders to control or mitigate the emergency remotely from an area of high risk (exposure protection, spill control, water steams use to disperse vapor cloud releases.
   d. Select nonintervention tactics that pursue a passive attack posture until the arrival of additional personnel or equipment or allow a fire to completely burn out.

5. Plan an escape or evacuation route for firefighting personnel.
   a. Consider water source exhaustion.
   b. Consider firefighting apparatus malfunction.
   c. Consider crew exhaustion.
   d. Consider material explosion.

6. Radio the alarm room operator with fire condition updates, and request support as needed.
   a. Request additional firefighting apparatuses or defer responding apparatuses.

Performance Steps

b. Request additional on-scene supervisors.

7. Supervise the operation.
   a. Reevaluate the situation continuously.
   b. Ensure that firefighters are wearing the appropriate PPE and breathing apparatuses.
   c. Determine the type and quantity of hazmat involved.

NOTE: If necessary, start the evacuation of personnel downwind of the area until the hazmat is identified and proceed accordingly.

   d. Coordinate the attack or containment.
   e. Ensure that firefighters do not stay in a contaminated area for longer than 20-minutes.
   f. Coordinate work and rest cycles for firefighting crews.
   g. Coordinate vehicle staging.
   h. Coordinate resupply operations.
   i. Coordinate medical support.
   j. Coordinate military police support.

8. Assign additional firefighting apparatuses to the fire scene, or direct them to a staging area.

NOTE: If a firefighting apparatus is not immediately needed on the emergency, do not position it there. It takes more time to reposition a firefighting apparatus than it does to send one from the staging area.

9. Supervise overhaul operations.
   a. Coordinate work and rest cycles for firefighting crews.
   b. Determine which firefighting apparatus can leave the scene and return to the station.
      (1) Ensure that personnel have been decontaminated.
      (2) Ensure that tools have been decontaminated and returned to vehicles.

10. File reports according to the local SOP.
    a. Ensure that operational, regulatory, and medical phases of the incident are documented.
    b. Ensure that equipment and supplies used during the incident are documented.
    c. Ensure that the names and telephone numbers of key personnel (contractors, public officials, members of the media) have been obtained.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to perform a size-up of a hazmat incident.

Performance Measures	**GO**	**NO-GO**
1. Applied size-up factors.	____	____
2. Established work zones.	____	____
3. Identified firefighting gear and determined which gear was appropriate for the incident.	____	____
4. Developed an incident action plan and selected strategic goals and tactical objectives to stabilize and control the incident.	____	____
5. Planned an escape or evacuation route for firefighting personnel.	____	____
6. Radioed the alarm room operator with fire condition updates and requested support as needed.	____	____
7. Supervised the operation.	____	____
8. Assigned additional firefighting apparatuses to the fire scene or directed them to a staging area.	____	____

Performance Measures	GO	NO-GO
9. Supervised overhaul operations.	____	____
10. Filed reports according to the local SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	NFPA 1001
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 7: Perform Aircraft Firefighting

Supervise an Aircraft Firefighting Operation
052-249-3105

Conditions: You are given an aircraft incident; two or more fully equipped, operational, and manned fire apparatuses; access to FM 5-415; personal protective equipment (PPE); a self-contained breathing apparatus (SCBA); the local standing operating procedure (SOP); applicable lubrication orders (LOs) and technical manuals (TMs); and two-way radio communications.

Standards: Supervise an aircraft firefighting operation.

Performance Steps

1. Assume command, and conduct a situation size-up.
    a. Consider the aircraft type.
    b. Consider the type of emergency.
    c. Consider the location of the runway where the aircraft will land.
    d. Consider the number of individuals onboard the aircraft.
    e. Consider the cargo on the aircraft.
    f. Consider the armament on the outside and inside the aircraft.
    g. Consider the amount of fuel on the aircraft.
2. Identify the factors that govern incident approach.
    a. Identify the wind direction.
    b. Identify the terrain (hills, cuts, swamp, or trees).
    c. Identify the aircraft type.
    d. Identify ejected personnel.
    e. Identify special requirements (test activities aircraft, additional batteries for onboard computers).
3. Determine fire-combating priorities.
    a. Prioritize rescue operations.
    b. Prioritize exposures.
    c. Prioritize ventilation operations.
    d. Prioritize attack operations.
4. Plan an escape or evacuation route for firefighting personnel.
    a. Consider water source exhaustion.
    b. Consider crew exhaustion.
    c. Consider firefighting apparatus malfunction.
    d. Consider aircraft explosion (armament).
5. Radio the alarm room operator with fire condition updates, and request support as needed.
    a. Request additional firefighting apparatuses, or defer responding apparatuses.
    b. Request additional on-scene supervisors.
6. Supervise firefighting operations, and reassess the situation after the initial attack is complete and the firefighting apparatus is positioned.
    a. Coordinate vehicle positioning.
    b. Coordinate attack operations.
    c. Coordinate resupply operations.
    d. Coordinate work and rest cycles for firefighting crews.
    e. Coordinate medical support.
    f. Coordinate military police support.

Performance Steps

7. Assign additional firefighting apparatuses, or direct them to a holding or staging area.

NOTE: If a firefighting apparatus is not immediately needed on the emergency, do not position it there. It takes more time to reposition a firefighting apparatus than it does to send one from the staging area.

8. Supervise overhaul operations.
   a. Coordinate work and rest cycles for firefighting crews.
   b. Determine which firefighting apparatus can leave the scene and return to the station.
9. File a report according to the local SOP.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to supervise an aircraft firefighting operation.

Performance Measures	GO	NO-GO
1. Assumed command and conducted a situation size-up.	____	____
2. Identified the factors that governed incident approach.	____	____
3. Determined fire-combating priorities.	____	____
4. Planned an escape or evacuation route for firefighting personnel.	____	____
5. Radioed the alarm room operator with fire condition updates and requested additional support as needed.	____	____
6. Supervised firefighting operations and reassessed the situation after the initial attack was complete and the firefighting apparatus was positioned.	____	____
7. Assigned additional arriving firefighting apparatuses or directed them to a holding or staging area.	____	____
8. Supervised overhaul operations.	____	____
9. Filed a report according to the local SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	NFPA 1001
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 8: Perform Rescue Air Mobility Squadron Mission

Supervise a Rescue Air Mobility Squadron Team Mission

052-249-3121

Conditions: You are given a rescue equipment set, personal protective equipment (PPE), an individual weapon, field equipment, aviation transportation, an up-armored ground vehicle, a security element, and the local standing operating procedure (SOP).

Standards: Supervise a firefighting crew on a rescue air mobility squadron (RAMS) firefighting incident operation.

Performance Steps

1. Receive the mission, and conduct a mission analysis.
    a. Prepare the RAMS team by conducting precombat checks (PCCs) and precombat inspections (PCIs) before the mission is executed.
    b. Direct crews to use an up-armored vehicle or aeromedical aircraft to respond to an incident.
    c. Update the RAMS team on pertinent information while en route to the incident.
    d. Assume command of the incident when the crew arrives on scene.
    e. Evaluate the scene. Consider the—
        (1) Aircraft or vehicle type.
        (2) Emergency type.
        (3) Incident location.
        (4) Number of personnel.
        (5) Armament or hazmat onboard.
        (6) Amount of fuel involved in the incident.
        (7) Time of day.
    f. Assign personnel to sectors to perform rescue tasks.
    g. Request additional support from other agencies. Include—
        (1) Military police personnel.
        (2) Medics.
        (3) Security elements.
        (4) Mutual aid elements.

2. Secure the emergency scene, and apply safety measures for approach.
    a. Conduct on-scene safety measures that guard against enemy intrusion.
        (1) Perform security sweeps around the incident scene according to the SOP.
        (2) Reevaluate hazards and the potential for enemy intrusion.
    b. Don PPE.
    c. Execute traffic control measures.
    d. Prevent unauthorized personnel from entering the scene.
    e. Identify and mitigate existing and potential hazards.
    f. Determine the wind direction.
    g. Evaluate the terrain.
        (1) Park uphill of the incident scene.
        (2) Consider the boarding and unboarding of aircraft.
    h. Identify vehicle and aircraft types involved in the scene. Be familiar with—
        (1) Rescue procedures according to the SOP.
        (2) Safety measures according to the SOP.
    i. Look for personnel who were ejected from vehicles and aircraft.

3. Determine rescue priorities for the scene.
    a. Implement aircraft and vehicle entry rules of engagement. Include—
        (1) Try before you pry.
        (2) Know tool limitations and capabilities.

Performance Steps

(3) Choose the right tool for the right job.

b. Execute rescue and patient care measures.
   (1) Conduct a primary search.
   (2) Conduct a secondary search.
   (3) Apply victim care and stabilization procedures.
c. Execute exposure protection measures.
   (1) Protect exposures and personnel.
   (2) Use additional personnel and vehicles.
d. Ensure proper ventilation.
   (1) Open normal entry points.
   (2) Make secondary openings when possible.
e. Attack or approach the scene.
   (1) Attack the fire or incident from upwind and uphill.
   (2) Use discriminate patterns and agents that do not cause additional harm or injuries.

4. Establish an incident escape route.

5. Supervise the loading and unloading of victims onto a medical evacuation (MEDEVAC) helicopter or patient transport vehicle.

6. Terminate the incident.
   a. Recover rescue tools and equipment.
   b. Account for equipment.
   c. Board aircraft with the equipment, and depart.

7. Direct RAMS team members to reset the rescue tools and equipment for the next rescue mission.
   a. Perform preventive-maintenance checks and services on the equipment.
   b. Reservice firefighting agents, fuels, and compressed-air devices.
   c. Replenish medical supplies.
   d. Replenish spent ammunition and equipment.
   e. Perform PCCs/PCIs on the equipment, and stage the equipment for the next mission.
   f. Report illnesses and injuries of RAMS team members to the fire chief.

8. Conduct an after-action review(AAR)/lessons-learned debriefing.
   a. Debrief personnel who are involved in the incident.
   b. Document the incident.
   c. Report exposures.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Direct the Soldier to supervise a RAMS team mission.

Performance Measures	**GO**	**NO-GO**
1. Received the mission and conducted a mission analysis.	____	____
2. Secured the emergency scene and applied safety measures for approach.	____	____
3. Determined rescue priorities for the scene.	____	____
4. Established an incident escape route.	____	____
5. Supervised the loading and unloading of victims onto a MEDEVAC helicopter or patient transport vehicle.	____	____
6. Terminated the incident.	____	____
7. Directed RAMS team members to reset the rescue tools and equipment for the next rescue mission.	____	____

Performance Measures	GO	NO-GO
8. Conducted an AAR/lessons-learned debriefing.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
	AR 420-1 FM 5-415 IFSTA MANUAL

Skill Level 4

Subject Area 2: Perform Common Firefighting Tasks

Establish a Water Supply

052-249-4120

Conditions: You are given an area of operations in a theater of operations.

Standards: Coordinate for and establish a fire department water supply system for firefighting teams in an area of operations.

Performance Steps

1. Coordinate with higher engineer support and base safety elements to determine a fire and emergency services (F&ES) water supply for installations.
2. Establish water resources for fire department operations.
   a. Identify ground potable and nonpotable water sources. Locate—
      (1) Water points.
      (2) Water bladders.
   b. Identify rivers and streams.
   c. Identify lakes.
   d. Identify relay and shuttle operations.
   e. Identify overhead fills. Locate—
      (1) Water tankers.
      (2) Tenders.
   f. Identify fire hydrants and positive water sources.
      (1) Locate water point wells.
      (2) Determine potable water productions.
      (3) Identify pressurized water distribution systems.
3. Determine the need for additional water supplies for large, special-needs facilities and for host nation support through preincident planning or an incident action plan.
   a. Establish limited-pressure system support. Identify—
      (1) Hospitals.
      (2) Dining halls.
      (3) Airfield and aircraft agent support resources.
      (4) Ammunition supply points.
      (5) Petroleum, oils, and lubricants storage facilities.
      (6) Other large facilities.
   b. Establish mutual aid/host nation response agreements. Identify—
      (1) Response capabilities and actions.
      (2) Water supplies and support resources.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Direct the Soldier to establish a water supply.

Performance Measures	**GO**	**NO-GO**
1. Coordinated with higher engineer support and base safety elements to determine an F&ES water supply for installations.	____	____
2. Established water resources for fire department operations.	____	____

Performance Measures	GO	NO-GO
3. Determined the need for additional water supplies for large, special-needs facilities and for host nation support through preincident planning or an incident action plan.	____	____

Evaluation Guidance: Score the Soldier a GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
	AR 420-1 FM 5-415 IFSTA MANUAL

Conduct a Preliminary Fire Ground Investigation

052-249-4121

Conditions: You are given a fire scene, a pen or pencil, paper, a ruler, marking tape, a camera, a recording device, and IFSTA Manual.

Standards: Conduct a thorough preliminary fire ground investigation.

Performance Steps

1. Determine the fire cause.

NOTE: The fire cause is what started the fire and is the ignition source of the fire (an overheated electric motor, a smoldering cigarette, a pan of grease left heating on a stove).

2. Determine the fire reason.

NOTE: The fire reason is why the fire started.

3. Determine the fire cause classification.
    a. Identify innocent fires.

NOTE: Innocent fires are not intentionally set. Most fires are innocent fires. These fires can usually be attributed to direct or indirect human action (discarded smoking material, unattended cooking, improperly used electrical outlets).

    b. Identify intentional fires.

NOTE: Intentional fires are arson fires.

    c. Identify unknown causes.

NOTE: In fires with unknown causes, the cause is still unknown after the investigation.

4. Identify fire investigation search procedures.

NOTE: A fire scene investigation produces accurate results when a plan is used during the investigation.

    a. Search systematically.

NOTE: Be thorough, complete, and orderly; and document results.

    b. Observe the scene.

NOTE: Watch firefighters during overhaul operations; they may uncover evidence.

        (1) Watch the fire.
        (2) Watch the spectators.
        (3) Observe the remains.
        (4) Look through the debris.

    c. Take photographs.

NOTE: Photograph each area several times during the investigation. The camera records more details than can be observed. Infrared photography is sensitive to heat and may be beneficial.

    d. Work by process of elimination.
        (1) Make a checklist, and mark off each item.
        (2) Complete an issue before moving to the next, and do not backtrack.
    e. Check and verify information.
    f. Take notes.

NOTE: Write down the details, or use a recording device.

    g. Draw diagrams that show incident locations.
    h. Examine the exterior.
        (1) Look closely at the building exterior.
        (2) Determine where the fire first vented itself by comparing burn, char, smoke, and heat patterns around windows, doors, and roof.
        (3) Examine doors and door butts to determine the door position.

NOTE: A door could have been secured during the early stages of the fire and opened later, depositing smoke and heat stains that could be deceiving.

Performance Steps

(4) Look for exterior points of origin, unusual burn patterns (flammable liquids), tools, flammable liquid containers, footprints, and scuff marks at suspected entry points.

i. Examine the interior. Check the—

(1) Window glass condition.
(2) Wood char depth at or near the point of origin.
(3) Fire penetration of fire-resistive, rated wall coverings.
(4) Electric clocks stopped by fire damage.

NOTE: The time that a clock stops and the time that an alarm is received are only approximations.

5. Determine the fire origin level.

a. Examine and compare the bottoms of tables, shelves, and chairs in the room or area.
b. Examine the ceiling. Check for—

(1) Fire penetration.
(2) Heavy fire exposure.
(3) Smoke patterns and stains.

c. Examine light bulbs.

NOTE: Light bulbs begin to swell at about 900°F when they are exposed to heat for 10 minutes or more. The side of the bulb that was initially exposed to the heat will swell or bulge and may actually point to the fire origin.

d. Examine the walls or the area of origin for V-shaped or inverted V-shaped burn patterns.

NOTE: The wider the angle of a V-shaped burn pattern, the slower the fire burned. A narrow V-shaped burn pattern indicates a hot, fast fire.

e. Examine the fire debris and the floor.

(1) Examine the debris one layer at a time until the floor is reached.
(2) Clean the floor of debris and char dust.

NOTE: When finished, the floor and floor covering should be dry and clean enough to observe and photograph significant burn and char patterns.

(3) Carefully reconstruct the area.

NOTE: As the fire progresses, furniture legs and bases and other items on the floor may help protect the floor.

f. Examine fire-damaged furnishings. Include—

(1) Upholstered furniture.
(2) Television sets and table radios.

NOTE: If the television cabinet is destroyed, chassis is warped, and components are melted with corresponding burn and char patterns on the wall and floor, the appliance could be the fire origin. Carefully examine the debris to determine if the appliance was plugged in. Even if the appliance was not turned on, an electrical charge still flows and the appliance could still catch fire.

(3) Kitchen ranges.

NOTE: Range-cooking fires can be identified by the distinctive V-shaped burn pattern above the burner. These fires usually make rapid progress and cause extensive fire damage to the kitchen area.

6. Identify the burn pattern.

a. Identify surface burns.

NOTE: Most burns occur on the material surface. The supporting springs still have tension, and the supporting frame has minimal damage. This could indicate that accelerated burning occurred and should be considered suspicious.

b. Identify deep-seated burns.

NOTE: If the burns are deep-seated, a three-dimensional cone shape is burned into the furniture padding. This indicates an insulated, slow buildup near the source. There is extensive internal damage to the springs (such as collapse) and frame destruction. The deep-seated burn pattern is indicative of the presence of a smoldering or glowing source of ignition, such as a cigarette.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Direct the Soldier to conduct a thorough preliminary fire ground investigation.

Performance Measures	GO	NO-GO
1. Determined the fire cause.	____	____
2. Determined the fire reason.	____	____
3. Determined the fire cause classification.	____	____
4. Identified fire investigation search procedures.	____	____
5. Determined the fire origin level.	____	____
6. Identified the burn pattern.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
IFSTA MANUAL	AR 420-1 FM 5-415 NFPA 1001

Develop a Fire Protection Standing Operating Procedure

052-249-4122

Conditions: You are given a pen or pencil and paper.

Standards: Develop a comprehensive fire protection standing operating procedure (SOP).

Performance Steps

1. Develop the SOP introduction section.

NOTE: The introduction section describes the need for procedures and lists agencies that share the procedures. It also specifies the capability or resource in which the procedures are established.

a. Determine the capability.
b. Determine the need.
c. Identify established agreements that are in place among emergency responders.
d. Identify SOP users.
e. Determine why the concern is being addressed.

2. Develop the SOP purpose section.

NOTE: The purpose section clarifies the principal objective of the capability or resource that is the subject of the SOP.

3. Develop the SOP scope section.

NOTE: The scope section lists the agencies and jurisdictions that participate in the procedures.

a. Determine which agencies are included in the SOP.
b. Determine what level of authority is included in the SOP.
c. Determine when the SOP will be used.

4. Develop the SOP communications structure section.

NOTE: A graphical depiction of the agencies that are involved in the communications structure can help determine the flow of information and establish a foundation for procedures.

a. Determine channel patching and monitoring.
b. Determine activation, transfer, and discontinuation procedures.
   (1) Identify the rules of use. Determine if—
      (a) Plain language or codes will be used.
      (b) The phonetic alphabet will be used.
   (2) Determine the requirements, procedures, and guidelines for limited activation and full activation.
   (3) Identify the radio channel activation authority. Determine the—
      (a) Procedures for requesting interoperability channel use.
      (b) Conditions for public safety agency use.
   (4) Determine the process for establishing and transferring lead dispatch radio command control. Identify—
      (a) The procedures for requesting agencies to switch their radios to the interoperability channel.
      (b) Who has the authority to order radio command and control.
   (5) Develop a notification process for establishing command and control among participating agencies.
   (6) Determine the procedures for interoperability channel discontinuation. Identify—
      (a) Who makes the decision to discontinue use.
      (b) How participants will be notified.
c. Determine interoperability channel separation procedures.

NOTE: The communications structure section is intended to outline the procedures to follow when there is interference with channel frequency.

Performance Steps

d. Determine communication alternatives.

NOTE: Several alternatives may be identified to ensure that interoperable communications remain available among agencies if the interoperability channel is unavailable.

5. Develop the SOP training requirements section.

NOTE: The training section states the objectives or minimum requirements for the successful completion of SOP training. Objectives accompany each training procedure, and training requirements include an assessment that determines if the training objectives were met.

a. Determine who is responsible for ensuring that personnel are properly trained and familiar with the SOP.
b. Determine the minimum training requirements.

6. Develop the SOP testing requirements section.

NOTE: The testing section describes the procedures for testing equipment requirements and capabilities.

a. Determine standardized testing procedures.
b. Determine different testing phases.
c. Determine the appropriate procedures for testing each phase.
d. Determine when the testing will take place.
e. Determine which agencies will be involved.

7. Develop the SOP responsibility section.

NOTE: The responsibility section states who ensures that SOPs are followed.

a. Determine who is responsible for ensuring that SOPs are followed.
b. Determine who is responsible for being familiar with and complying with the SOP.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Direct the Soldier to develop a comprehensive fire protection SOP.

Performance Measures	**GO**	**NO-GO**
1. Developed the SOP introduction section.	____	____
2. Developed the SOP purpose section.	____	____
3. Developed the SOP scope section.	____	____
4. Developed the SOP communications structure section.	____	____
5. Developed the SOP training requirements section.	____	____
6. Developed the SOP testing requirements section.	____	____
7. Developed the SOP responsibility section.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	**Related**
	AR 420-1
	FM 5-415
	IFSTA MANUAL
	NFPA 1001

Develop a Fire Department Budget

052-249-4118

Conditions: You are given a pen or pencil, paper, and approved funds.

Standards: Develop a complete fire department budget.

Performance Steps

1. Identify budgets.
    a. Identify capital budgets.

NOTE: Capital budgets include major purchases and are expected to last more than 1 year.

    b. Identify operating budgets. Include—

NOTE: Operating budgets are used to pay for recurring, day-to-day operational expenses. The largest item in an operating budget is usually personnel costs (including salaries and benefits).

        (1) Line-item budgets. Include—

NOTE: Line-item budgets are easy to review and are designed to help prevent overspending. They also provide strong central control.

            (a) Personal services (salaries, overtime, vacation, sick leave, pension contributions, insurance, employee benefits).
            (b) Other expenses (goods and services).
        (2) Program budgets (fire suppression, prevention, emergency medical services, fire administration).
        (3) Performance budgets.

NOTE: Performance budgets are based on function or activity; however, each activity is funded based on projected performance.

        (4) Zero-based budgets.

NOTE: Zero-based budgets are scrutinized each year.

2. Identify the budget planning process.

NOTE: Officers usually collaborate with their peers to develop a budget request. Well-drafted proposals are more likely to be supported by the chief and approved by the governing body.

    a. Identify planning measures.

NOTE: During the planning stage, the fire officer is nominally involved. He is limited to preparing fee estimates.

    b. Identify preparation measures. The chief—

NOTE: When the chief is informed of the fiscal conditions and the parameters within which to work, he plans and prepares the department budget.

        (1) Submits last year's budget, which includes inflation adjustments.
        (2) Cuts the budget across the board or by a specified percentage.
        (3) Submits the budget with increases across the board.
    c. Identify internal review measures.

NOTE: The chief explains and justifies each budget request.

    d. Identify external review measures.

NOTE: Public hearings are held to discuss the budget. Citizens can provide input into the decision-making process. Once the budget is approved, it becomes law.

    e. Identify implementation measures.

NOTE: The fire chief explains the proposed budget to department personnel.

3. Identify grants and gifts.

NOTE: Donated funds enable fire departments to supplement general budgets.

    a. Identify private funds.
    b. Identify corporate donations.
    c. Identify subventions.

NOTE: Subventions are state or provincial government funds that are used to meet specific department needs.

Performance Steps

4. Draft the budget.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Direct the Soldier to develop a fire department budget.

Performance Measures	GO	NO-GO
1. Identified budgets.	____	____
2. Identified the budget planning process.	____	____
3. Identified grants and gifts.	____	____
4. Drafted the budget.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required

Related
AR 420-1
FM 5-415
IFSTA MANUAL
NFPA 1001

Develop a Long-Range Plan
052-249-4119

Conditions: You are given a pen or pencil and paper.

Standards: Develop a comprehensive, long-range fire department plan.

Performance Steps

1. Identify the planning concept.
    a. Project the time frame.
    b. Identify expectations.
    c. Consider resources (skills and attitudes).
    d. Determine how often a tangible plan will be drafted (annually or biannually).

2. Create a focus for the plan.

NOTE: This effort is the driving force behind the planning process.

3. Evaluate the department readiness to prepare a plan.

NOTE: Undertaking a plan without the necessary resources, skills, and attitude could result in failure. Long-range planning must be a major management function that begins with the fire chief and ends with the planning team. Without commitment, the planning process could be a pointless venue.

4. Identify categories of force.
    a. Identify external force.

NOTE: External force is generated when an outside organization pressures a department into developing a model plan.

    b. Identify internal force.

NOTE: Internal force originates from inside the department as a recognized need. Fire chiefs benefit from internal driving forces because the department controls the planning process from start to finish.

5. Identify a model.

NOTE: The model should reflect departmental needs and intent.

6. Produce the finished plan.
    a. Create the cover page.
    b. Create the table of contents.
    c. Create the executive summary.
    d. Create the community profile.
    e. Create the department introduction.
    f. Create background information (vision, mission statement, values).
    g. Create department recommendations (goals and objectives).
    h. Create budget information.
    i. Create the evaluation of mutual aid and memorandums of agreement.
    j. Create supplements (maps, charts, graphs).
    k. Create references.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Direct the Soldier to develop a comprehensive, long-range fire department plan.

Performance Measures	GO	NO-GO
1. Identified the planning concept.	____	____
2. Created a focus for the plan.	____	____

Performance Measures	GO	NO-GO
3. Evaluated the department readiness to prepare a plan.	____	____
4. Identified categories of force.	____	____
5. Identified a model.	____	____
6. Produced the finished plan.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required

Related
AR 420-1
FM 5-415
IFSTA MANUAL
NFPA 1001

Subject Area 3: Perform Structural Firefighting

Perform Incident Command of a Structural Fire Scene

052-249-4112

Conditions: You are given a structural fire scene; five fully equipped, operational, and manned firefighting apparatuses; a facility response card; applicable lubrication orders (LOs) and technical manuals (TMs); personal protective equipment (PPE); two-way radio communications; and medical, security, and engineer support.

Standards: Perform as the incident commander of a structural fire scene.

Performance Steps

1. Apply size-up factors, and review information.
    a. Review the facility response card.
    b. Consider the alarm reception method (telephonic or automated system).
    c. Consider the time of day.
    d. Consider the wind direction.

2. Determine the command post location.
    a. Consider accessibility.
    b. Consider distance to structure (if conditions permit).
    c. Consider a central location with a clear view of the structure and firefighting operation.
    d. Consider visibility to arriving units.
    e. Announce the location over the radio net.

3. Establish the command post, and clearly identify the location.
    a. Use engineer tape, a sign, or a similar marking device.
    b. Use an accountability board.
    c. Use a site-access control point.
    d. Use staging areas.
    e. Use an appointed safety officer.
    f. Use sector commands.
    g. Use a rehabilitation site as needed.

4. Direct the operation.

NOTE: The senior fire official in charge of the fire must direct the attack and make decisions and give guidance for extinguishing the fire as quickly as possible. As the fire attack progresses, the decisions should be based on previous decisions. However, if necessary, you must be prepared to alter or rescind previous decisions and start over.

    a. Direct the attack.

NOTE: This phase is geared toward accomplishing primary goals (life, safety, fire control, reduction of property damage). The initial attack is usually a holding action to support rescue efforts and gain access until you can size up the situation and develop a plan of action. You must size up and develop a plan quickly so that firefighters do not waste time. Start issuing orders and set short-term goals. The initial attack usually sets the stage for the rest of the firefighting operation.

        (1) Initiate a situation size-up, and base the size-up on available information as you arrive on-scene.
        (2) Determine short-term goals (rescue operations, ventilation operations, exposure protection, gaining access).
        (3) Assign firefighting crews to accomplish the goals.

    b. Direct confinement to prevent the fire from spreading.

NOTE: A fire cannot be extinguished until it is contained.

Performance Steps

(1) Determine the horizontal and vertical extensions of the fire.
(2) Determine if the fire can be confined and extinguished with on-hand resources.
(3) Reevaluate attack operations.

NOTE: If you cannot contain the fire, you will be forced into a defensive posture until additional resources arrive.

c. Evaluate structure sacrifice. Consider sacrificing—
(1) A portion of the structure.
(2) The entire structure.
(3) Several structures.

d. Direct extinguishment.

NOTE: The objective of this phase is to attack and extinguish the main body of the fire. All efforts are geared toward extinguishing the fire.

5. Direct the incident cleanup.
a. Direct salvage and overhaul operations.
b. Direct vehicles to return to stations.
c. Request a fire investigator.

NOTE: A fire Investigator should be called when a fire is suspicious in nature.

d. Enforce site security.
e. Request engineer support. Include—
(1) Heavy equipment.
(2) Utilities (electric, gas, water).

6. Review and file necessary reports.

NOTE: The team chiefs and crash rescue sergeants may be documenting and filing reports on the incident. You should review this documentation and/or assist in the completion of the reports.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to perform as the incident commander of a structural fire scene.

Performance Measures	**GO**	**NO-GO**
1. Applied size-up factors and reviewed information.	____	____
2. Determined the command post location.	____	____
3. Established the command post and clearly identified the location.	____	____
4. Directed the operation.	____	____
5. Directed the incident cleanup.	____	____
6. Reviewed and filed necessary reports.	____	____

Evaluation Guidance: Score to Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	**Related**
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	NFPA 1001
TM 9-2320-328-13&P-1	

Subject Area 4: Perform Wildland Firefighting

Perform Incident Command of a Wildland Firefighting Scene

052-249-4114

Conditions: You are given a wildland firefighting scene; five, fully equipped, operational, and manned fire apparatuses; personal protective equipment (PPE); two-way radio communications; applicable lubrication orders (LOs) and technical manuals (TMs); and medical, security, and engineer support.

Standards: Perform as an incident commander during a wildland fire.

Performance Steps

1. Apply size-up factors, and review information.
    a. Consider the time of day.
    b. Consider the wind direction.
    c. Consider the available water supply.
    d. Consider the exposures in the path of the fire.
    e. Consider the number of acres involved.
    f. Consider the projected weather forecast.

2. Determine a command post location.
    a. Consider accessibility.
    b. Consider a location near a structure if conditions permit.
    c. Consider a central location with a clear view of the fire and firefighting operation.
    d. Consider visibility to the arriving units.

3. Establish the command post, and clearly identify the location.
    a. Use engineer tape, a sign, or a similar marking device.
    b. Use a site-access control point.

4. Direct the operation.

NOTE: The senior fire official in charge of the fire must direct the attack and make the necessary decisions to extinguish the fire as quickly as possible. As the fire attack progresses, the decisions should be based on previous decisions. You must be prepared to alter or rescind previous decisions and start over.

    a. Continue performing situation size-ups.

NOTE: Use information received while arriving on the scene and from the on-scene assessment.

    b. Determine methods of attack (one-lick or sectional).
    c. Determine control methods (direct or indirect).
    d. Assign duties to the fire teams.
    e. Direct vehicles in and out of the site. Direct—
        (1) Firefighting apparatuses.
        (2) Water tenders.
        (3) Aircraft.

5. Direct incident cleanup.
    a. Direct overhaul operations.
    b. Direct vehicles to return to stations.
    c. Notify and request an accident investigation team.

NOTE: A fire investigator should be called when a fire is suspicious in nature.

    d. Enforce site security.

6. Review and file reports.

NOTE: The team chiefs and crash rescue sergeants may document and file reports on the incident. You should review this documentation and/or assist in the completion of the reports.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to perform as an incident commander during a wildland fire.

Performance Measures	GO	NO-GO
1. Applied size-up factors and reviewed information.	____	____
2. Determined a command post location.	____	____
3. Established the command post and clearly identify the location.	____	____
4. Directed the operation.	____	____
5. Directed incident clean up.	____	____
6. Reviewed and filed reports.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	NFPA 1001
TM 9-2320-328-13&P-1	

Subject Area 5: Perform Vehicle Firefighting

Perform Incident Command of a Ground Vehicle Emergency
052-249-4123

Conditions: You are given a ground vehicle emergency; five fully equipped, operational, and manned fire apparatuses; personal protective equipment (PPE); two-way radio communications; applicable lubrication orders (LOs) and technical manuals (TMs); and medical, security, and engineer support.

Standards: Perform as an incident commander of a ground vehicle emergency.

Performance Steps

1. Apply size-up factors, and review information.
    a. Consider the number of vehicles involved.
    b. Consider the type of vehicles involved.
    c. Consider the time of day.
    d. Consider the weather conditions.
    e. Consider the exposures involved.
    f. Consider the available water supply.

2. Determine the command post location.
    a. Consider a location upwind of the incident.
    b. Consider a readily accessible location.
    c. Consider a central location with a clear view of the incident and firefighting operation.
    d. Consider a location that is visible to arriving units.

3. Establish the command post, and clearly identify the location.
    a. Use engineer tape, a sign, or a similar marking device to identify the location.
    b. Use a site access control point.

4. Direct the operation.

NOTE: The senior fire official in charge of the scene must direct the attack and make the necessary decisions to extinguish the fire as quickly as possible. As the fire attack progresses, the decisions should be based on previous decisions. You must be prepared to alter or rescind decisions and start over.

    a. Continue performing situation size-ups.
    b. Determine short-term goals. Include—

NOTE: During an accident, you may have many individual situations that are high priority. Determining which situations are handled first is your ultimate responsibility, and life safety is always job one.

        (1) A scene size-up.
        (2) Exposure protection.
        (3) Vehicle stabilization.
        (4) Access.
        (5) Rescue operations.
        (6) Containment of leaking material (engine or transmission oil, radiator fluid, and gasoline or diesel fuel).
    c. Determine long-term goals (containment and cleanup of fluids and fire extinguishment).
    d. Assign duties to the fire teams.

5. Direct incident cleanup.
    a. Direct overhaul operations.
    b. Direct vehicles returning to stations.
    c. Request a fire investigator.

NOTE: Request a fire investigator when a fire is suspicious in nature.

Performance Steps

d. Enforce scene security.

6. Review and file reports.

NOTE: The team chiefs and crash rescue sergeants may be documenting and filing reports on the incident. You should review this documentation and/or assist in the completion of the reports.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to perform as an incident commander of a ground vehicle emergency.

Performance Measures	GO	NO-GO
1. Applied size-up factors and reviewed information.	____	____
2. Determined the command post location.	____	____
3. Established the command post and clearly identified the location.	____	____
4. Directed the operation.	____	____
5. Directed incident cleanup.	____	____
6. Reviewed and filed reports.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
LO 5-4210-220-12	AR 420-1
LO 9-2320-279-12	FM 5-415
TM 5-4210-220-12	IFSTA MANUAL
TM 5-4210-249-13&P-1	NFPA 1001
TM 9-2320-328-13&P-1	

Subject Area 6: Perform Hazmat Firefighting

Perform Incident Command of a Hazmat Incident

052-249-4116

Conditions: You are given a hazmat incident; five fully equipped, operational, and manned firefighting apparatuses; access to FM 5-415; personal protective equipment (PPE); two-way radio communications; applicable lubrication orders (LOs) and technical manuals (TMs); and medical, security, and engineer support.

Standards: Perform as an incident commander of a hazmat incident.

Performance Steps

1. Apply size-up factors, and review information.
    a. Apply additional exposures. Include—
        (1) People (facilities, emergency responders, the public).
        (2) Property.
        (3) The environment.
        (4) Systems disruption (effects on traffic, surrounding facilities, homes).
    b. Apply the type of hazmat involved.
        (1) Determine the container types (bulk, nonbulk, pressurized, nonpressurized, solid, liquid, gas) involved.
        (2) Look at the overall integrity of the container, and note leak type and location.
    c. Apply the amount of hazmat involved.
    d. Apply the hazmat location.
    e. Apply the hazmat state. Include—
        (1) Burning hazmat.
        (2) Liquid hazmat (flowing or puddling).
        (3) Hazmat this is releasing as a vapor (rising above the incident or following the contour of the terrain).
    f. Apply rescue or recovery operations.
    g. Apply the capability to extinguish the fire or stop hazmat discharge.
    h. Apply appropriate PPE availability.

2. Determine the command post location.
    a. Consider a location upwind from the incident.
    b. Consider a location that is readily accessible.
    c. Consider a location that is near a structure (if conditions permit).
    d. Consider a central location with a clear view of the incident and firefighting operation.
    e. Consider a location that is visible to arriving units.

3. Establish the command post, clearly identify the location.

NOTES:

1. A fire team chief usually mans the main command post.

2. A second command post is established if necessary. Do not place the secondary command post directly opposite the main command post due to wind or hazmat movement. Place the second command post in a safe location that is adjacent to the main command post.
    a. Use engineer tape, a sign, or a similar marking device to identify the location.
    b. Use a site access control point.

4. Direct the operation.

NOTE: The senior fire official in charge directs the attack or hazmat containment. He makes the necessary decisions for the extinguishment or hazmat containment. He is prepared to alter or rescind previous decisions and start over if the situation changes.

Performance Steps

DANGER

Do not attempt to take on an incident if crews do not have the proper hazmat equipment. Failure to comply may result in death or permanent injury.

a. Continue performing situation size-ups with the information received while on-scene and from the on-scene assessment.
b. Determine short-term goals. Include—
   (1) Decontamination area setup.
   (2) Evacuation.
   (3) Rescue operations.
   (4) Materials stabilization.
c. Determine long-term goals (hazmat containment and extinguishment).
d. Assign duties to fire teams.

5. Direct incident cleanup.
   a. Direct overhaul operations.
   b. Direct vehicles to return to stations.
   c. Request a fire investigator.

NOTE: Request a fire investigator when a fire is suspicious in nature.

   d. Enforce site security.

6. Review and file reports.

NOTE: The fire team chiefs and crash rescue sergeants may be documenting and filing reports on the incident. You should review this documentation and/or assist in the completion of the reports.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to perform as an incident commander of a hazmat incident.

Performance Measures	**GO**	**NO-GO**
1. Applied size-up factors and reviewed information.	____	____
2. Determined the command post location.	____	____
3. Established the command post and clearly identify the location.	____	____
4. Directed the operation.	____	____
5. Directed incident cleanup.	____	____
6. Reviewed and filed reports.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	NFPA 1001
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 7: Perform Aircraft Firefighting

Perform Incident Command of an Aircraft Crash Site

052-249-4113

Conditions: You are given an aircraft crash site; five fully equipped, operational, and manned firefighting apparatuses; access to FM 5-415; personal protective equipment (PPE); two-way radio communications; applicable lubrication orders (LOs) and technical manuals (TMs); and medical, security, and engineer support.

Standards: Perform as an incident commander of an aircraft crash site.

Performance Steps

1. Apply size-up factors, and review information.
    a. Consider the aircraft type.
    b. Consider the type of emergency.
    c. Consider the runway where the aircraft will land.
    d. Consider the number of individuals onboard the aircraft.
    e. Consider the cargo on the aircraft.
    f. Consider the armament on or in the aircraft.
    g. Consider the amount of fuel on the aircraft.

2. Determine the command post location.
    a. Consider a readily accessible location.
    b. Consider a location near a structure (if conditions permit).
    c. Consider a central location with a clear view of the aircraft and the firefighting operation.
    d. Consider a location that is visible to arriving units.
    e. Announce the location over the radio net.

3. Establish the command post, and clearly identify the location.
    a. Use engineer tape, a sign, or a similar marking device to identify the location.
    b. Use a site access control point.
    c. Use an accountability board.

4. Direct the operation.

NOTE: The senior fire official in charge must direct the attack and make the necessary decisions to extinguish the fire as quickly as possible or keep the rescue path and fuselage area cool for rescue operations.

    a. Continue performing situation size-ups with information received while on the scene and from the on-scene assessment.
    b. Determine short-term goals (access to the incident, rescue operations, ventilation, exposure protection).
    c. Appoint fire crews to accomplish goals.
    d. Direct vehicles (firefighting apparatuses, water tenders) in and out of the site.

5. Direct incident cleanup.
    a. Direct salvage and overhaul operations.
    b. Locate, identify, secure, and mark debris for the accident investigation team.
    c. Direct vehicles to return to stations.
    d. Request a fire investigator.

NOTE: A fire investigator should be called when a fire is suspicious in nature.

    e. Enforce site security.

Performance Steps

6. Review and file reports.

NOTE: The team chiefs and crash rescue sergeants may be documenting and filing reports on the operation. You should review this documentation and/or assist in the completion of the reports.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the conditions.

Brief Soldier: Tell the Soldier to perform as an incident commander on an aircraft crash site.

Performance Measures	GO	NO-GO
1. Applied size-up factors and reviewed information.	____	____
2. Determined the command post location.	____	____
3. Established the command post and clearly identify the location.	____	____
4. Directed the operation.	____	____
5. Directed incident cleanup.	____	____
6. Reviewed and filed reports.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
FM 5-415	AR 420-1
LO 5-4210-220-12	IFSTA MANUAL
LO 9-2320-279-12	NFPA 1001
TM 5-4210-220-12	
TM 5-4210-249-13&P-1	
TM 9-2320-328-13&P-1	

Subject Area 8: Perform Rescue Air Mobility Squadron Mission

Manage a Rescue Air Mobility Squadron Team Operation
052-249-4124

Conditions: You are given a fully equipped, four-member rescue air mobility squad (RAMS) team equipped with weapons and personal protective equipment (PPE).

Standards: Manage RAMS team operation.

Performance Steps

1. Develop a standing operating procedure (SOP).
   a. Include equipment information.
   b. Include training and certification standard information.
   c. Include mission information.
   d. Include personnel qualifications.
   e. Include response procedures.
   f. Include personnel selection criteria.
   g. Include safety considerations.
2. Maintain RAMS team equipment lists.
   a. Maintain an improvised explosive device (IED) up-armored vehicle mission equipment list.
   b. Maintain an aircraft rescue firefighting (ARFF) mission equipment list.
   c. Maintain a technical rescue mission equipment list.
   d. Update equipment lists using lessons-learned information.
3. Coordinate with medical liaison.
   a. Include mission-critical information.
   b. Include standards.
   c. Include training.
   d. Include equipment.
4. Maintain training standards for missions.
   a. Maintain medical training (basic lifesaver [BLS], combat lifesaver [CLS], emergency medical treatment [EMT]) standards.
   b. Maintain technical rescue training standards.
   c. Maintain weapons training standards.
5. Document postresponse activities.
   a. Document after-action reviews (AARs).
   b. Document lessons learned.
   c. Document posttraumatic stress disorder (PTSD) criteria.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in conditions.

Brief Soldier: Tell the Soldier to manage a RAMS team operation.

Performance Measures	GO	NO-GO
1. Developed an SOP.	____	____
2. Maintained RAMS team equipment lists.	____	____
3. Coordinated with medical liaison.	____	____
4. Maintained training standards for missions.	____	____

Performance Measures	GO	NO-GO
5. Documented postresponse activities.	____	____

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

References

Required	Related
	AR 420-1 FM 5-415 IFSTA MANUAL

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Appendix A

METRIC CONVERSION CHART

This appendix complies with AR 25-30 which states that weights, distances, quantities, and measures contained in Army publications will be expressed in both U.S. standard and metric units. Table A-1 is a metric conversion chart.

Table A-1. Metric conversion chart

U.S. Units	Multiplied By	Equals Metric Units
Length		
Feet	0.30480	Meters
Inches	2.54000	Centimeters
Inches	0.02540	Meters
Inches	25.40010	Millimeters
Miles (statute)	1.60930	Kilometers
Miles (nautical)	1.85320	Kilometers
Yards	0.91400	Meters
Area		
Square inches	6.45160	Square centimeters
Square feet	0.09290	Square meters
Square yards	0.83610	Square meters
Volume		
Cubic inches	16.38720	Cubic centimeters
Cubic feet	0.02830	Cubic meters
Cubic yards	0.76460	Cubic meters
Gallons	3.78540	Liters
Fluid ounces	29.57300	Milliliters
Quarts	0.94600	Liters
Weight		
Ounces	28.34900	Grams
Pounds	453.59000	Grams
Pounds	0.45359	Kilograms
Short tons	0.90700	Metric tons
Long tons	1.01600	Metric tons
Foot-pounds	1.38300	Newton-meters
Pressure		
Pounds per square inch	6.90000	Kilopascals

Table A-1. Metric conversion chart (continued)

Metric Units	Multiplied By	Equals U.S. Units
Length		
Centimeters	0.39370	Inches
Meters per second	2.23700	Miles per hour
Millimeters	0.03937	Inches
Kilometers	0.62137	Miles (statute)
Kilometers	0.53960	Miles (nautical)
Meters	3.28080	Feet
Meters	39.37000	Inches
Meters	1.09360	Yards
Area		
Square centimeters	0.15500	Square inches
Square meters	10.76400	Square feet
Square meters	1.19600	Square yards
Volume		
Cubic centimeters	0.06100	Cubic inches
Cubic meters	35.31440	Cubic feet
Cubic meters	1.30790	Cubic yards
Milliliters	0.03380	Fluid ounces
Liters	1.05700	Quarts
Liters	0.26420	Gallons
Weight		
Grams	0.03527	Ounces
Kilograms	2.20460	Pounds
Metric tons	1.10200	Short tons
Metric tons	0.98400	Long tons
Newton-meters	0.73800	Foot-pounds
Pressure		
Kilopascals	0.14493	pounds per square inch

Glossary

1SG	first sergeant
AAR	after-action review; after-action report
AC	active component; alternating current
ACCP	Army Correspondence Course Program
AFIADL	Air Force Institute for Advanced Distributed Learning
AIT	advanced individual training
AN	annually; Army Navy
ANCOC	Advanced Noncommissioned Officer Course
AR	angle of repose; armor; Army regulation
ARNG	Army National Guard
ARTEP	Army Training and Evaluation Program
ASI	additional skill identifier
ATTN	attention
BA	biannually
BLS	basic lifesaver
BNCOC	Basic Noncommissioned Officer Course
BW	biweekly; biological warfare
CLS	combat lifesaver
CMF	career management field
CONEX	container express
CTT	common task test; common task training
DA	Department of the Army; data adapter; data administrator; direct action; directorate for administration; double agent; aerospace drift
DC	Dental Corps; direct current; dislocated civilian; District of Columbia
DOD	Department of Defense
E1	private 1
E2	private 2

E3	private first class
E4	specialist
E5	sergeant; table value E5
E6	staff sergeant
E7	sergeant first class
E8	master sergeant; first sergeant
E9	sergeant major; command sergeant major
EMT	emergency medical team; emergency medical treatment; emergency medical technician; electrical metallic tubing
EPMS	Enlisted Personnel Management System
ERG	emergency response guidebook
F	Fahrenheit; fail; failed; frequency; full
FM	field manual; flare multiunit; force module; frequency-modulated; frequency modulation
freq	frequency
GED	general education development; gasoline engine driven
GPM	gallon(s) per minute
HEMTT	heavy expanded-mobility tactical truck
HEWATT	heavy expanded mobility tactical truck based water tender
IED	imitative electromagnetic deception; improvised explosive device
IFSTA	International Fire Service Training Association
J-FIRE	joint applications of fire power; joint-firefighter integrated response ensemble
LO	law and order; learning objective; liaison officer; low; lubrication order
MANSCEN	Maneuver Support Center
MEDEVAC	medical evacuation
METL	mission-essential task list
MO	Missouri; monthly; month; medical officer; maintenance and operations
MOS	military occupational specialty; minimum operating strip; minimal operational strip

MTP	mission training plan; military occupational specialty (MOS) training plan; mission tasking packet
NCO	noncommissioned officer
NCOES	Noncommissioned Officer Education System
NFIRS	National Fire Incident Reporting System
NFPA	National Fire Protection Association
No.; no; NO	number; normally open
P	needs practice; pass; passed; barometric pressure; mean radius of curvature
pam	pamphlet
PCC	precombat check
PCI	photo coverage indexes; precombat inspection
PLDC	Primary Leadership Development Course
PMCS	preventive-maintenance checks and services
PPE	protective posture equipment; personal protective equipment
PTSD	posttraumatic stress disorder
QT	quart; quarterly; qualification test
RAMS	rescue air mobility squadron
RC	rapid cure; Reserve Component; regional command
SA	Secretary of the Army; semiannually; situational awareness; security assistance; staging area; security agreement
SCBA	self-contained breathing apparatus
SD	solvent, dry cleaning; self-destruct; special duty; slope distance
SGM	sergeant major
SL	skill level; side lap; switch locator; slow curing (asphalt)
SM	Soldier's manual; service member
SMCT	Soldier's manual of common tasks
SOP	standing operating procedure
STP	Soldier training publication

sust	sustainment
TAMMS	The Army Maintenance Management System
TFFT	tactical fire-fighting truck
TG	trainer's guide
TM	technical manual
tng	training
TO	theater of operations; technical order
TRADOC	United States Army Training and Doctrine Command
U.S.	United States
USAF	United States Air Force
USAR	United States Army Reserve
USASMA	United States Army Sergeants Major Academy
WK	week; weekly

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22 September 2010

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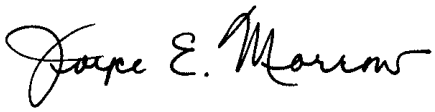

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