

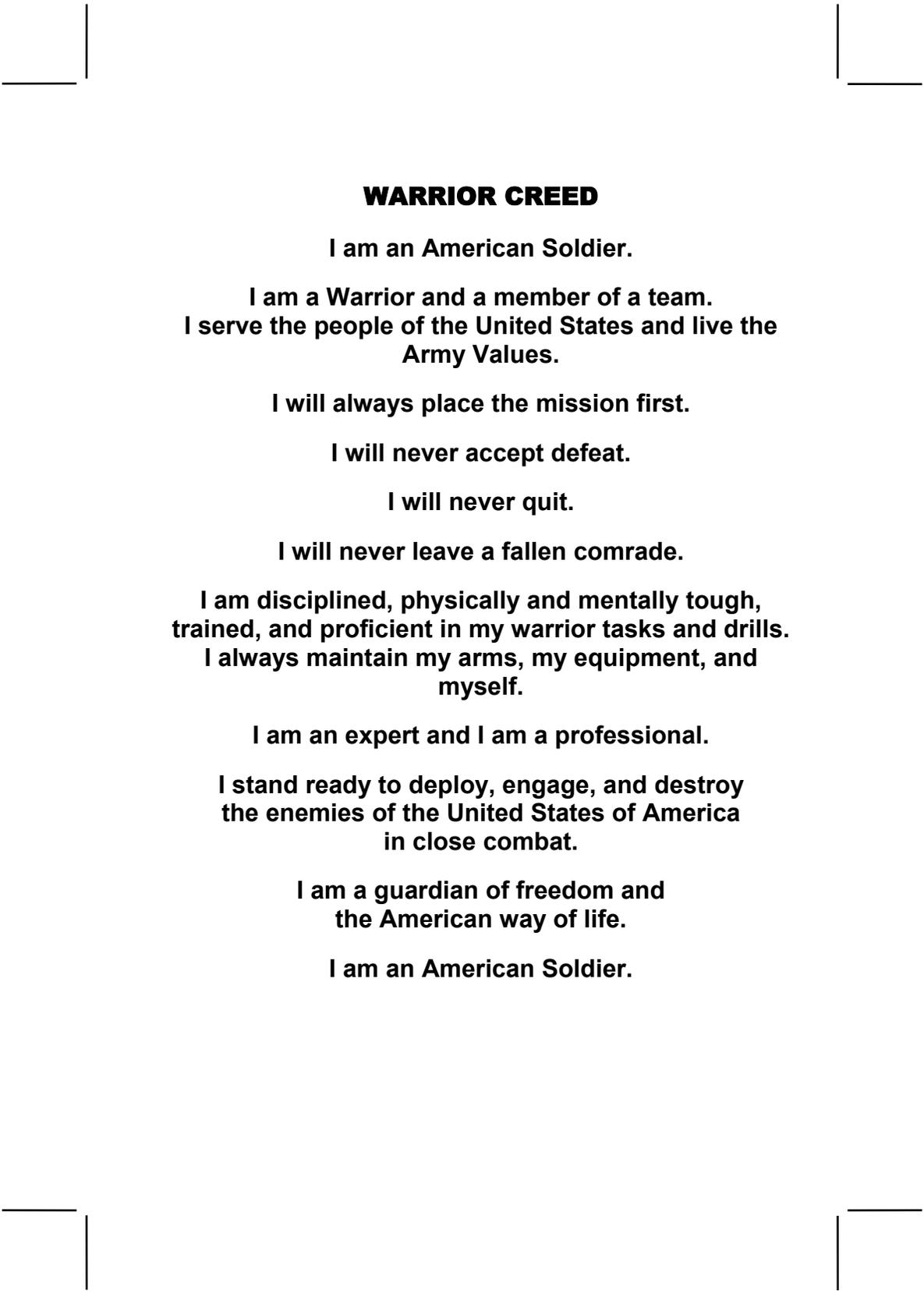
STP 21-1-SMCT

HEADQUARTERS
DEPARTMENT OF THE ARMY

**Soldier's Manual of
Common Tasks
Skill Level 1**

OCTOBER 2005

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WARRIOR CREED

I am an American Soldier.

**I am a Warrior and a member of a team.
I serve the people of the United States and live the
Army Values.**

I will always place the mission first.

I will never accept defeat.

I will never quit.

I will never leave a fallen comrade.

**I am disciplined, physically and mentally tough,
trained, and proficient in my warrior tasks and drills.
I always maintain my arms, my equipment, and
myself.**

I am an expert and I am a professional.

**I stand ready to deploy, engage, and destroy
the enemies of the United States of America
in close combat.**

**I am a guardian of freedom and
the American way of life.**

I am an American Soldier.

***STP 21-1-SMCT**

Soldier Training Publication
No. 21-1-SMCT

Headquarters
Department of the Army
Washington, DC, 11 October 2005

**SOLDIER'S MANUAL OF
COMMON TASKS**

Skill Level 1

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*This manual supersedes STP 21-1-SMCT, 31 August 2003.

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PREFACE

This manual is one of a series of Soldier training publications that support individual training. Commanders, trainers, and Soldiers will use this manual and STP 21-24-SMCT to plan, conduct, sustain, and evaluate individual training of common tasks in units.

This manual contains a common task training plan for skill levels (SL) 1 through 4 and task summaries for SL 1 critical common tasks that support unit wartime missions. This manual is the only authorized source for these common tasks. Task summaries in this manual supersede any common tasks appearing in MOS-specific Soldier's manuals.

Training support information, such as reference materials, is also included. Trainers and first-line supervisors should ensure SL 1 Soldiers have access to this publication in their work areas, unit learning centers, and unit libraries.

This manual 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 of this publication is the Commander, United States Army Training and Doctrine Command (TRADOC), with the Commander, United States Army Training Support Center (ATSC) designated as the principle publishing, printing and distribution agency. Proponents for the specific tasks are the Army schools and agencies as identified by the school code, listed at appendix A. This code consists of the first three digits of the task identification number.

Record any comments or questions regarding the task summaries contained in this manual on a DA Form 2028 (*Recommended Changes to Publications and Blank Forms*) and send it to the respective task proponent with information copies forwarded to—

- Commander, U.S. Army Training and Doctrine Command, ATTN: ATTG-I, Fort Monroe, VA 23651-5000.
- Commander, U.S. Army Training Support Center, ATTN: ATIC-ITSC-CM, Fort Eustis, VA 23604-5166.

Chapter 1

Introduction to the SMCT System

1-1. GENERAL

Training prepares Soldiers, leaders, and units to fight and win in combat—the Army's basic mission. As explained in the Army's capstone training document, FM 7-0, units do not have the time and resources to achieve and sustain proficiency on every possible training task. Commanders must identify the unit's critical wartime tasks. These tasks make up the unit mission essential task list (METL). Commanders use this list to develop their unit training plan. Noncommissioned officer (NCO) trainers then plan the individual training that Soldiers in the unit need to accomplish the METL. The Soldier training publications (STP), also known as Soldier's manuals (SMs), provide the critical individual tasks for each military occupational specialty (MOS) that support the full spectrum of unit missions. The NCO trainer uses the tasks in the Soldier's manuals to train the Soldiers and measure their proficiency on unit critical tasks. The manuals provide task performance and evaluation criteria and are the basis for individual training and evaluation in the unit and for task-based evaluation during resident training.

1-2. PURPOSE

This manual contains the common tasks that are essential to the Army's ability to win on the modern battlefield. In war, regardless of job or individual MOS, each Soldier risks exposure to hostile actions. This manual contains the common tasks that Soldiers must be able to perform to fight, survive, and win in combat.

The SMCT provides the commander, NCO trainer or first-line supervisor, and individual Soldiers with the information necessary to support integration and sustainment training in their units. This information allows trainers to plan, prepare, train, evaluate, and monitor individual training of common tasks. The commander uses the appropriate mission training plan (MTP), MOS specific STPs, and this manual, as the foundation for an effective unit training plan.

1-3. COMMANDER'S RESPONSIBILITIES

The commander at each level develops a unit METL in consultation with the command sergeant major and subordinate commanders.

Using the training planning process described in FM 7-0, the commander develops the METL then determines the level of training needed to attain and maintain proficiency. After determining the necessary training, the commander develops a strategy to accomplish the required training. The commander also gives the trainers the guidance they need to carry out the strategy. Each commander must design a unit training plan that prepares the unit for the full spectrum of operations. Soldiers must develop and sustain proficiency in the critical tasks for their MOS and skill level. The commander's unit training program should provide individual training for all Soldiers assigned to the unit and routinely evaluate Soldier proficiency. The leader's assessment and the common task test (CTT) are two tools that give the trainer and commander feedback on the status of training for individuals and for the unit. This feedback should also be integrated with collective training such as the MTP and crew drills. The common task training plan (chapter 2) provides information on where the common tasks are first trained to standard and how often the tasks should be trained to maintain proficiency.

Based on the commander's guidance, individual training in the unit is the responsibility of the NCO trainers. The commander must give the NCO trainer the priorities, resources, and direction needed to carry out training. The commander must also assess the training results of the MTP and other training events, and adjust the training plan accordingly. To develop a training program, we recommend the following seven-step approach:

- Step 1.** Set the objectives for training.
- Step 2.** Plan the resources (personnel, time, funds, facilities, devices, training aids).
- Step 3.** Train the trainers.
- Step 4.** Provide the resources.
- Step 5.** Manage risks, environmental and safety considerations.
- Step 6.** Conduct the training.
- Step 7.** Evaluate the results.

1-4. TRAINER'S RESPONSIBILITIES

Trainers use the following steps to plan and evaluate training.

- a. *Identify individual training requirements.* The NCO determines which tasks Soldiers need to train based on the commander's

training strategy. The unit training plan, METL, MTP, and the common task training plan (chapter 2) help the trainer define individual training needed.

b. *Plan the training.* Plan individual training based on the unit training plan. Be prepared to take advantage of opportunities to conduct individual training (“hip pocket” training).

c. *Gather the training references and materials.* The task summaries list references that can assist the trainer in preparing for the training of that task. Check the Reimer Digital Library to see if any new resources have been added.

d. *Manage risks, environmental and safety concerns.* Assess the risks involved in training a specific task under the conditions current at the time you are scheduled to train and implement controls, if necessary, to lessen the risk level. Ensure that training preparation takes into account those cautions, warnings, and dangers associated with each task, as well as environmental and safety concerns.

e. *Train each Soldier.* Show the Soldier how to do the task to standard and explain step-by-step how to do the task. Give each Soldier a chance to practice the task step-by-step.

f. *Emphasize training in mission-oriented protective posture (MOPP) Level 4 clothing.* Soldiers have difficulty performing even very simple tasks in a nuclear/chemical environment. The combat effectiveness of the Soldier and the unit can degrade quickly when trying to perform in MOPP 4. Practice is the best way to improve performance. The trainer is responsible for training and evaluating Soldiers in MOPP 4 so they are able to perform critical tasks to standards within a nuclear/chemical environment.

g. *Check each Soldier.* Evaluate how well each Soldier performs the tasks in this manual. Conduct these evaluations during individual training sessions or while evaluating individual proficiency during the conduct of unit collective tasks. This manual provides a training and evaluation guide for each task to enhance the trainer's ability to conduct year-round, hands-on evaluations of tasks critical to the unit mission. Use the information in the common task training plan as a guide to determine how often to train the Soldier on each task to maintain proficiency.

h. *Record the results.* Use the leader book referred to in FM 7-10 to record task performance. This gives the leader total flexibility on the method of recording training. The trainer may use DA Form 5164-R (*Hands-on Evaluation*) and DA Form 5165-R (*Field Expedient Squad Book*) as part of the leader book. These forms are optional and locally reproducible. More information on the use of these forms is provided in Appendix B of this manual.

i. *Retrain and evaluate.* Work with each Soldier until the individual performs the task to standard. Well-planned, integrated training increases the professional competence of each Soldier and contributes to the development of an efficient unit. The NCO or first-line supervisor is a vital link in the conduct of training.

1-5. SOLDIER'S RESPONSIBILITIES

Each Soldier must be able to perform the individual tasks that the first-line supervisor has identified based on the unit METL. The Soldier must perform the task to the standard listed in the SMCT. If a Soldier has a question about how to do a task, or which tasks in this manual he or she must perform, it is the Soldier's responsibility to go to 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. Additionally, each Soldier should—

a. Know the training progression for both the common critical tasks and their MOS specific critical tasks for their skill level. Lists of the critical tasks can be found in chapter 2 (for common tasks) and the STP for their specific MOS (MOS specific tasks).

b. Check the Reimer Digital Library for new training materials to support self-development, either to maintain previously trained tasks or to learn new tasks.

1-6. TASK SUMMARIES

Task summaries document the performance requirements of a critical common task. They provide the Soldier and the trainer with the information necessary to evaluate critical tasks. The format for the task summaries is—

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

b. *Task number.* A 10-digit number that identifies each task. The first three digits of the number represent the proponent code for that task. (A list of the proponent codes is given in appendix A.) Include

the entire 10-digit task number, along with the task title, in any correspondence relating to the task.

c. *Conditions.* The task conditions identify all the equipment, tools, materials, references, job aids, and supporting personnel that the Soldier needs to perform the task. This section identifies environmental conditions (such as visibility, temperature, or wind) that may alter task performance. This section also identifies any specific cues or events (such as a chemical attack or identification of an unexploded ordnance hazard) that trigger task performance.

d. *Standard.* A task standard specifies the requirements for task performance by indicating how well, completely, or accurately a product must be produced, a process must be performed, or both. Standards are described in terms of accuracy, tolerances, completeness, format, clarity, number of errors, quantity, sequence, or speed of performance.

e. *Training and evaluation guide.* This section has two parts. The first part, Performance Steps, lists the individual steps that the Soldier must complete to perform the task. The second part is the performance evaluation guide. This provides guidance on how to evaluate a Soldier's performance of the task. It is composed of three subsections. The evaluation preparation subsection identifies special setup procedures and, if required, instructions for evaluating the task performance. Sometimes the conditions and standard must be modified so the task can be evaluated in a situation that does not exactly duplicate actual field performance. This subsection may also include instructions that the evaluator should give to the Soldier before the performance test. The performance measures subsection identifies the criteria for acceptable task performance. The Soldier is rated (GO/NO GO) on how well he or she performs specific actions or produces specific products. As indicated in the evaluation guidance subsection, the Soldier must score a GO on all or specified performance measures to receive a GO on the task.

f. *References.* This section identifies references that provide more detailed and thorough explanations of task performance requirements than that given in the task summary description. This section identifies resources the Soldier can use to improve or maintain performance. Additionally, task summaries can include safety statements, environmental considerations, and notes. Safety statements (danger, warning, caution) alert users to the possibility of

immediate death, personal injury, or damage to equipment. Notes provide additional information to support task performance.

1-7. EVALUATING TASK PERFORMANCE

Trainers need to keep the following points in mind when preparing to evaluate their Soldiers—

- a. Review the performance measures to become familiar with the criteria on which the Soldier will be scored.
- b. Ensure all necessary equipment and clothing needed for proper performance of the job are on hand at the training site, including safety equipment.
- c. Prepare the test site according to the conditions section of the task summary. Some tasks contain special evaluation preparation instructions. These instructions tell the trainer what modifications must be made to the job conditions to evaluate the task. Reset the site to its original condition after evaluating each Soldier to ensure that the conditions are the same for each Soldier.
- d. Advise each Soldier of any special guidance that appears in the Evaluation Preparation section of the task summary before evaluating.
- e. Score each Soldier based on the information in the Performance Measures and Evaluation Guidance sections.
- f. Record the date and task performance score (GO or NO GO) in the leader book.

1-8. TRAINING TIPS FOR TRAINERS

- a. Prepare yourself:
 - (1) Get training guidance from your chain of command on when to train, which Soldiers to train, the availability of resources, and the training site.
 - (2) Get task conditions and standards from the task summary in this manual.
 - (3) Ensure that you can do the task. Review the task summary and the references in the reference section. Practice doing the task or, if necessary, have someone train you on the task.

b. Prepare the resources:

- (1) Obtain the required resources, as identified in the conditions statement for each task and/or modified in the training and evaluation guide.
- (2) Gather the equipment and ensure that it is operational.
- (3) Prepare a training outline consisting of informal notes on what you want to cover during your training session.
- (4) Practice your training presentation.
- (5) Coordinate for the use of training aids and devices.
- (6) Prepare the training site using the conditions statement as modified in the training and evaluation guide.

c. Prepare the Soldiers:

- (1) Tell the Soldier what task to do and how well it must be done. Refer to the task standard and the performance measures for the task, as appropriate.
- (2) Caution Soldiers about safety, environment, and security considerations.
- (3) Provide necessary training on basic skills that Soldiers must have before they can be trained on the task.
- (4) Test each Soldier to determine who needs training in what areas by having the Soldier perform the task.

d. Train Soldiers who fail the initial test:

- (1) Demonstrate how to do the task or the specific performance steps to those Soldiers who could not perform to standard. Have the Soldiers study the appropriate training materials.
- (2) Have the Soldiers practice the task until they can perform it to standard.
- (3) After remedial training, retest each soldier who did not initially pass the performance test.
- (4) Provide feedback to those Soldiers who fail to perform to the SMCT standards, and have them continue to practice until they can perform to the SMCT standards.
- (5) Record the results in the leader book.

1-9. TRAINING SUPPORT

This manual includes the following additional training support information.

- a. Appendix A lists the task proponents and agency codes (first three digits of the task number) with addresses for submitting comments concerning specific tasks in this manual.
- b. Appendix B explains the use of various SMCT training and evaluation forms and, in the online version of this manual, provides links to the forms.
- c. Appendix C provides additional training support related to the two land navigation tasks in subject area 5 (Navigate).
- d. Glossary lists abbreviations and acronyms and their definitions.
- e. References lists all reference materials cited in the task summaries by type, identification number, and title.

Note: Combine training on the individual tasks in this manual with the collective tasks in the MTP. Ensure that the necessary safety equipment and clothing needed for proper performance of the job are on hand at the training site.

Chapter 2
Training Guide

2-1. COMMON TASK TRAINING PLAN

The Common Task Training Plan provides information to help the trainer plan, prepare, train, evaluate, and monitor individual training in units. It lists, by general subject area and skill level, the critical common tasks Soldiers must perform, the initial training location, and a suggested frequency of training. The training location column uses brevity codes to indicate where the task is first taught to standards. If the task is taught in the unit the word "UNIT" appears in this column. "SD" indicates tasks trained via self-development media. If it is taught in the training base, the brevity code (BCT, OSUT, AIT) of the resident course appears. Brevity codes and resident courses are listed below.

Brevity Codes	
ANCOC	Advanced NCO Course
BNCOC	Basic NCO Course
PLDC	Primary Leadership Development Course
BCT	Basic Combat Training
OSUT	One-Station Unit Training
AIT	Advanced Individual Training
UNIT	Trained in/by the Unit
SD	Self-Development Training

The sustainment training column lists how often (frequency) Soldiers should train on the task to ensure they maintain their proficiency. This information is not a requirement, but rather a guide the commander can use to develop a comprehensive unit training plan. The commander, with the unit trainers, is in the best position to determine on which tasks and how often Soldiers need training to maintain unit readiness.

Frequency Codes	
AN	Annually
SA	Semiannually
QT	Quarterly

Common Task Training Plan			
<i>Task Number</i>	<i>Title</i>	<i>Training Location</i>	<i>Sustainment Training Frequency</i>
Skill Level 1			
Subject Area 1. Individual Conduct and Laws of War			
224-176-1425	Interact With News Media	BCT/ OSUT	AN
331-202-1049	Comply With the Requirements of the Code of Conduct	BCT/ OSUT	AN
Subject Area 2. First Aid			
081-831-1001	Evaluate a Casualty (Tactical Combat Casualty Care)	BCT/ OSUT	AN
081-831-1003	Perform First Aid to Clear an Object Stuck in the Throat of a Conscious Casualty	BCT/ OSUT	AN
081-831-1005	Perform First Aid to Prevent or Control Shock	BCT/ OSUT	AN
081-831-1007	Perform First Aid for Burns	BCT/ OSUT	AN
081-831-1008	Perform First Aid for Heat Injuries	BCT/ OSUT	AN

Common Task Training Plan			
<i>Task Number</i>	<i>Title</i>	<i>Training Location</i>	<i>Sustainment Training Frequency</i>
081-831-1023	Perform First Aid to Restore Breathing and/or Pulse	BCT/ OSUT	AN
081-831-1025	Perform First Aid for an Open Abdominal Wound	BCT/ OSUT	AN
081-831-1026	Perform First Aid for an Open Chest Wound	BCT/ OSUT	AN
081-831-1032	Perform First Aid for a Bleeding and/or Severed Extremity	BCT/ OSUT	AN
081-831-1033	Perform First Aid for an Open Head Wound	BCT/ OSUT	AN
081-831-1034	Perform First Aid for a Suspected Fracture	BCT/ OSUT	AN
081-831-1044	Perform First Aid for Nerve Agent Injury	BCT/ OSUT	AN
081-831-1045	Perform First Aid for Cold Injuries	BCT/ OSUT	AN
081-831-1046	Transport a Casualty	BCT/ OSUT	AN
081-831-1053	Practice Individual Preventive Medicine Countermeasures	BCT/ OSUT	AN

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 3. Nuclear, Biological, and Chemical (NBC)			
031-503-1013	Decontaminate Yourself and Individual Equipment Using Chemical Decontaminating Kits	BCT/ OSUT	AN
031-503-1015	Protect Yourself From Chemical, Biological, Radiological, or Nuclear (CBRN) Injury/Contamination With Mission-Oriented Protective Posture (MOPP) Gear	BCT/ OSUT	AN
031-503-1017	Respond to Depleted Uranium (DU)	BCT/ OSUT	AN
031-503-1018	React to Nuclear Hazard/Attack	BCT/ OSUT	AN
031-503-1019	React to Chemical or Biological Hazard/Attack	BCT/ OSUT	AN
031-503-1035	Protect Yourself From Chemical/Biological (CB) Contamination Using Your Assigned Protective Mask	BCT/ OSUT	AN
031-503-1036	Maintain Your Assigned Protective Mask	BCT/ OSUT	AN
031-503-1037	Detect Chemical Agents Using M8 or M9 Detector Paper	BCT/ OSUT	AN

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
031-503-1040	Protect Yourself From NBC Injury/Contamination using Chemical Protective Ensemble	BCT/ OSUT	SA
031-503-1042	Protect yourself From NBC Injury/Contamination when Changing JLIST	BCT/ OSUT	SA
Subject Area 4. Survive (Combat Techniques)			
052-192-1042	Perform Self-Extraction From a Mined Area	AIT	QT
052-192-1269	Detect Explosive Hazard Indicators by Visual Means	OSUT	AN
071-326-0502	Move Under Direct Fire	BCT/ OSUT	SA
071-326-0503	Move Over, Through, or Around Obstacles (Except Minefields)	BCT/ OSUT	SA
071-326-0510	React to Indirect Fire While Dismounted	BCT/ OSUT	SA
071-326-0511	React to Flares	BCT/ OSUT	SA
071-326-0513	Select Temporary Fighting Positions	BCT/ OSUT	SA
071-326-3002	React to Indirect Fire While Mounted	UNIT	AN

Common Task Training Plan			
<i>Task Number</i>	<i>Title</i>	<i>Training Location</i>	<i>Sustainment Training Frequency</i>
071-326-5703	Construct Individual Fighting Positions	BCT/ OSUT	SA
071-331-0815	Practice Noise, Light, and Litter Discipline	BCT/ OSUT	SA
071-331-1004	Perform Duty as a Guard	BCT/ OSUT	AN
071-410-0002	React to Direct Fire While Mounted	UNIT	AN
071-710-0006	Plan Use of Night Vision Devices	UNIT	SA
093-401-5040	React to Unexploded Ordnance Hazards	UNIT	SA
093-401-5050	React to a Possible Improvised Explosive Device	BCT	SA
171-137-0001	Search Vehicles in a Tactical Environment	UNIT	SA
191-376-5140	Search a Vehicle for Explosives or Prohibited Items	UNIT	SA
191-376-5141	Search a Commercial Cargo Vehicle for Explosives or Prohibited Items	UNIT	SA
191-376-5151	Control Access to a Military Installation	UNIT	SA
551-721-1359	Operate a Vehicle in a Convoy	UNIT	SA

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 5. Navigate			
071-329-1006	Navigate From One Point on the Ground to Another Point While Dismounted	BCT/ OSUT	SA
071-329-1030	Navigate From One Point on the Ground to Another Point While Mounted	UNIT	SA
Subject Area 6. Communicate			
113-600-2001	Communicate Via a Tactical Telephone	BCT/ OSUT	AN
113-637-2001	Communicate Via a Tactical Radio in a Secure Net	BCT/ OSUT	AN
Subject Area 7. See			
071-331-0804	Perform Surveillance Without the Aid of Electronic Devices	UNIT	SA
071-730-0014	Identify Combat Vehicles	UNIT	SA
Subject Area 8. Hand Grenades and Land Mines			
071-325-4401	Perform Safety Checks on Hand Grenades	BCT/ OSUT	SA
071-325-4407	Employ Hand Grenades	BCT/ OSUT	SA
071-325-4425	Employ an M18A1 Claymore Mine	BCT/ OSUT	QT

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 9. M16-Series Rifle			
071-008-0007	Engage Targets With an M16-Series Rifle Using an AN/PAS-13 Series Thermal Weapon Sight	BCT/ OSUT	AN
071-311-2025	Maintain an M16-Series Rifle	BCT/ OSUT	SA
071-311-2027	Load an M16-Series Rifle	BCT/ OSUT	SA
071-311-2028	Unload an M16-Series Rifle	BCT/ OSUT	SA
071-315-2308	Engage Targets With an M16-Series Rifle Using a Night Vision Sight AN/PVS-4	BCT/ OSUT	QT
Subject Area 10. M240B Machine Gun			
071-000-0005	Prepare a Range Card for a Machine Gun	UNIT	SA
071-025-0001	Maintain an M240B Machine Gun	AIT	QT
071-025-0003	Load an M240B Machine Gun	AIT	QT
071-025-0004	Unload an M240B Machine Gun	AIT	QT
071-025-0007	Engage Targets With an M240B Machine Gun	AIT	QT

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 11. M249 Machine Gun			
071-010-0006	Engage Targets With an M249 Machine Gun	BCT/ OSUT	AN
071-312-4025	Maintain an M249 Machine Gun	BCT/ OSUT	QT
071-312-4027	Load an M249 Machine Gun	BCT/ OSUT	AN
071-312-4028	Unload an M249 Machine Gun	BCT/ OSUT	AN
Subject Area 12. M60 Machine Gun			
071-312-3025	Maintain an M60 Machine Gun	UNIT	SA
071-312-3027	Load an M60 Machine Gun	UNIT	SA
071-312-3028	Unload an M60 Machine Gun	UNIT	SA
071-312-3031	Engage Targets With an M60 Machine Gun	UNIT	SA
Subject Area 13. MK 19 Machine Gun			
071-030-0001	Maintain an MK 19 Machine Gun	UNIT	AN
071-030-0004	Engage Targets With an MK 19 Machine Gun	UNIT	AN
071-030-0005	Load an MK 19 Machine Gun	UNIT	AN

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
071-030-0006	Unload an MK 19 Machine Gun	UNIT	AN
071-030-0007	Perform a Function Check on an MK 19 Machine Gun	UNIT	AN
Subject Area 14. Caliber .50 M2 Machine Gun			
071-022-0001	Maintain a Caliber .50 M2 Machine Gun	UNIT	QT
071-022-0003	Load a Caliber .50 M2 Machine Gun	UNIT	QT
071-022-0004	Unload a Caliber .50 M2 Machine Gun	UNIT	QT
071-313-3454	Engage Targets With a Caliber .50 M2 Machine Gun	UNIT	QT
Subject Area 15. M136 Launcher			
071-054-0001	Prepare an M136 Launcher for Firing	BCT/ OSUT	AN
071-054-0002	Restore an M136 Launcher to Carrying Configuration	BCT/ OSUT	AN
Subject Area 16. M203 Grenade Launcher			
071-311-2125	Maintain an M203 Grenade Launcher	BCT/ OSUT	QT
071-311-2127	Load an M203 Grenade Launcher	BCT/ OSUT	QT

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
071-311-2128	Unload an M203 Grenade Launcher	BCT/ OSUT	QT
071-311-2129	Correct Malfunctions of an M203 Grenade Launcher	BCT/ OSUT	QT
071-311-2130	Engage Targets With an M203 Grenade Launcher	BCT/ OSUT	QT
Subject Area 17. M4 Carbine			
071-100-0003	Engage Targets With an M4 or M4A1 Carbine	UNIT	AN
071-100-0004	Maintain an M4 or M4A1 Carbine	UNIT	AN
Subject Area 18. 9-mm Pistol			
071-004-0001	Maintain an M9 Pistol	UNIT	AN
071-004-0003	Load an M9 Pistol	UNIT	AN
071-004-0004	Unload an M9 Pistol	UNIT	AN
071-004-0006	Engage Targets With an M9 Pistol	UNIT	AN
Subject Area 19. Crowd Control			
191-376-4121	Use a Riot Baton	BCT/ OSUT	QT
191-376-4122	Position Yourself in Riot Control Formations	BCT/ OSUT	QT

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 20. Casualty Reporting and Handling			
101-515-1997	Inter Isolated Remains (After Receiving Authorization)	BCT/ OSUT	SA
101-515-1998	Evacuate Isolated Remains	BCT/ OSUT	SA
101-515-1999	Recover Isolated Remains	BCT/ OSUT	SA
Subject Area 21. Defense Measures			
052-191-1361	Camouflage Yourself and Your Individual Equipment	BCT/ OSUT	QT
052-191-1362	Camouflage Equipment	UNIT	SA
191-376-4114	Control Entry to and Exit From a Restricted Area	BCT/ OSUT	SA
191-377-4254	Search a Detainee	BCT/ OSUT	SA
191-377-4256	Guard Detainees	BCT/ OSUT	SA
301-371-1000	Report Intelligence Information	BCT/ OSUT	AN
301-371-1050	Implement Operations Security (OPSEC) Measures	UNIT	AN

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Skill Level 2			
Subject Area 1. Individual Conduct and Laws of War			
181-105-2002	Conduct Combat Operations According to the Law of War	UNIT	AN
224-176-2426	Enforce Compliance With Media Ground Rules	UNIT	SA
331-202-1050	Enforce Compliance With the Code of Conduct	UNIT	AN
805C-PAD-2503	Enforce Compliance With the Army's Equal Opportunity and Sexual Harassment Policies	PLDC	QT
Subject Area 2. First Aid			
081-831-0101	Request Medical Evacuation	PLDC	AN
081-831-1054	Evacuate Casualties	PLDC	AN
081-831-9000	Implement Preventive Medicine Measures (PMM)	PLDC	AN

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 3. Nuclear, Biological, and Chemical (NBC)			
031-503-1023	Protect Yourself From Nuclear, Biological, and Chemical (NBC) Injury/Contamination When Changing Mission-Oriented Protective Posture (MOPP)	UNIT	SA
031-503-1001	Identify Chemical Agents Using M256-Series Chemical Agent Detector Kit	UNIT	SA
031-503-1003	Perform Preventive Maintenance Checks and Services (PMCS) on the AN/VDR-2 RADIAC Set	OSUT	QT
031-503-1022	Operate the AN/VDR-2 Radiac Set	OSUT	QT
031-503-1002	Conduct Unmasking Procedures	UNIT	SA
031-503-3004	Supervise the Crossing of a Contaminated Area	UNIT	SA
031-503-1005	Submit a Nuclear, Biological, or Chemical (NBC) 1 Report	UNIT	SA
031-503-1016	Implement Mission-Oriented Protective Posture (MOPP)	UNIT	SA

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
031-503-1010	Supervise the Employment of Nuclear, Biological, and Chemical (NBC) Markers	UNIT	AN
031-503-4002	Supervise Unit Preparation for a Nuclear, Biological, and Chemical (NBC) Attack	UNIT	AN
031-506-1053	Report NBC Information Using NBC 4 Report	UNIT	SA
031-504-2061	Conduct a Mask Fit Test Using the M41 Protection assessment Test System (PATS)	UNIT	QT
Subject Area 4. Survive (Combat Techniques)			
061-283-6003	Adjust Indirect Fire	UNIT	QT
071-326-0608	Use Visual Signaling Techniques	PLDC	SA
071-326-5704	Supervise Construction of a Fighting Position	PLDC	AN
071-326-5705	Establish an Observation Post	PLDC	AN
171-300-0016	Conduct a Presence Patrol	BNCOC	AN

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 5. Navigate			
071-329-1019	Use a Map Overlay	UNIT	QT
Subject Area 20. Casualty Reporting and Handling			
805C-PAD-2060	Report Casualties	UNIT	SA
Subject Area 21. Defense Measures			
071-430-0002	Conduct a Defense by a Squad	PLDC	SA
Subject Area 22. Unit Operations			
071-326-5502	Issue a Fragmentary Order	PLDC	QT
071-326-5503	Issue a Warning Order	PLDC	QT
551-88N-0002	Prepare for Unit Move	UNIT	QT
Subject Area 23. Security and Control			
301-371-1200	Process Captured Materiel	UNIT	AN
Subject Area 25. Equipment Checks			
091-CLT-4029	Supervise Preventive Maintenance Checks and Services (PMCS)	PLDC	QT
101-92Y-0003	Enforce Compliance With Supply Discipline Procedures	PLDC	SA
101-92Y-0004	Enforce Property Accountability Policies	PLDC	SA

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
101-92Y-0005	Enforce Compliance With Property Accountability Policies	PLDC	SA
101-92Y-0006	Inspect Equipment for Accountability, Cleanliness, and Serviceability	UNIT	QT
Subject Area 27. Risk Management			
850-001-2000	Employ Accident Prevention Measures and Risk Management Process	PLDC	QT
Subject Area 28. Administration/Management			
805C-PAD-2044	Recommend Individual for Award	PLDC	QT
805C-PAD-2145	Counsel a Soldier on the Contents of a Noncommissioned Officer Evaluation Report and NCOER Checklist	PLDC	QT
805C-PAD-2146	Prepare the Rater's Portion of a Noncommissioned Officer Evaluation Report (NCOER)	PLDC	AN
805C-PAD-2402	Provide Input on Personnel Actions Affecting Subordinates	PLDC	QT

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
805C-PAD-2407	Recommend Disciplinary Action for a Soldier	PLDC	AN
805C-PAD-2461	Maintain Accountability of Personnel (Status Report)	UNIT	SA
805C-PAD-2472	Prepare a Duty Roster	UNIT	AN
Skill Level 3			
Subject Area 1. Individual Conduct and Laws of War			
805C-PAD-3238	Enforce the Equal Opportunity Program	BNCOC	QT
Subject Area 4. Survive (Combat Techniques)			
052-192-4053	Supervise Minefield Breaching Operations	UNIT	SA
071-410-0012	Conduct Occupation of an Assembly Area	BNCOC	SA
071-420-0021	Conduct a Movement to Contact by a Platoon	BNCOC	SA
071-430-0028	Consolidate a Unit	BNCOC	SA
071-430-0029	Reorganize a Unit	BNCOC	SA
Subject Area 5. Navigate			
071-332-5000	Prepare an Operation Overlay	BNCOC	QT

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 19. Crowd Control			
191-378-4301	Form Squad-Size Riot Control Formations	UNIT	AN
Subject Area 21. Defense Measures			
052-195-3066	Direct Construction of Nonexplosive Obstacles	UNIT	AN
071-410-0019	Control Organic Fires	UNIT	SA
441-091-3000	Supervise the Implementation of Air Defense Measures	UNIT	AN
Subject Area 22. Unit Operations			
071-326-3013	Conduct a Tactical Road March	BNCOC	QT
071-326-5805	Conduct a Route Reconnaissance Mission	UNIT	QT
071-332-5021	Prepare a Situation Map	UNIT	QT
071-720-0015	Conduct an Area Reconnaissance by a Platoon	UNIT	QT
101-92Y-0002	Plan Tactical Resupply Operations	BNCOC	SA
301-371-1150	Identify Intelligence and Electronic Warfare (IEW) Assets	BNCOC	AN
551-88N-0003	Plan Unit Move	UNIT	SA

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Subject Area 23. Security and Control			
191-378-5315	Supervise an Installation Access Control Point	BCT/ OSUT	SA
191-379-4407	Plan Convoy Security Operations	UNIT	QT
301-371-1052	Protect Classified Information and Material	UNIT	AN
805C-PAD-3594	Store Classified Information and Materials	UNIT	AN
Subject Area 24. Enemy Personnel			
191-379-4450	Supervise Handling of Enemy Personnel and Equipment at Squad Level	UNIT	AN
Subject Area 27. Risk Management			
850-001-3001	Control Mission Safety Hazard	UNIT	QT
Subject Area 28. Administration/Management			
805C-PAD-3147	Prepare the Senior Rater's Portion of a Noncommissioned Officer Evaluation Report (NCOER)	UNIT	AN

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
Skill Level 4			
Subject Area 2. First Aid			
081-831-1047	Supervise the Implementation of Preventive Medicine Policies	UNIT	AN
081-831-1055	Ensure Unit Combat Lifesaver Requirements Are Met	UNIT	AN
Subject Area 4. Survive (Combat Techniques)			
071-326-5775	Coordinate With an Adjacent Platoon	ANCOC	QT
101-CLT-0198	Supervise Tactical Feeding Operation	UNIT	QT
Subject Area 19. Crowd Control			
191-379-5400	Form the Platoon into a Riot Control Formation	UNIT	SA
Subject Area 21. Defense Measures			
071-430-0006	Conduct a Defense by a Platoon	ANCOC	QT
Subject Area 22. Unit Operations			
091-CLT-3009	Supervise Maintenance Operations	ANCOC	QT
101-92Y-0001	Supervise Supply Activities	UNIT	QT
151-357-0001	Supervise CSS Functions During Platoon Operations	ANCOC	AN

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
151-357-0002	Coordinate Combat Service Support (CSS) Operations	ANCOC	AN
159-200-2020	Integrate Threat Capabilities into Mission Planning	ANCOC	QT
181-101-4001	Conduct a Search/Seizure	ANCOC	SA
551-721-4326	Perform Duties as Convoy Commander	UNIT	SA
Subject Area 23. Security and Control			
191-379-4408	Plan Security for a Command Post (CP)	UNIT	SA
Subject Area 26. Crime Prevention			
191-379-4425	Implement the Unit's Crime Prevention Program	UNIT	AN
Subject Area 27. Risk Management			
850-001-4001	Integrate Risk Management into Platoon	ANCOC	QT
Subject Area 28. Administration/Management			
805C-PAD-4359	Manage Soldier's Deployment Requirements	UNIT	SA
805C-PAD-4550	Prepare a Standing Operating Procedure (SOP)	ANCOC	SA

Common Task Training Plan			
Task Number	Title	Training Location	Sustainment Training Frequency
805C-PAD-4597	Integrate Newly Assigned Soldiers	UNIT	QT

2-2. SUBJECT AREA CODES

Skill Level 1

- 1 Individual Conduct and Laws of War
- 2 First Aid
- 3 Nuclear, Biological, and Chemical (NBC)
- 4 Survive (Combat Techniques)
- 5 Navigate
- 6 Communicate
- 7 See
- 8 Hand Grenades and Land Mines
- 9 M16-Series Rifle
- 10 M240B Machine Gun
- 11 M249 Machine Gun
- 12 M60 Machine Gun
- 13 MK 19 Machine Gun
- 14 Caliber .50 M2 Machine Gun
- 15 M136 Launcher
- 16 M203 Grenade Launcher
- 17 M4 Carbine
- 18 9mm Pistol
- 19 Crowd Control
- 20 Casualty Reporting and Handling
- 21 Defense Measures

Table 2-1. Subject Areas in the Soldiers Manuals of Common Tasks					
Note. Columns at right indicate subject areas included in each manual, by skill level.					
Subject Area		STP 21-1-SMCT	STP 21-24-SMCT		
		SL 1	SL 2	SL 3	SL 4
1	Individual Conduct and Laws of War	*	*	*	
2	First Aid	*	*		*
3	Nuclear, Biological, and Chemical (NBC)	*	*		
4	Survive (Combat Techniques)	*	*	*	*
5	Navigate	*	*	*	
6	Communicate	*			
7	See	*			
8	Hand Grenades and Land Mines	*			
9	M16-Series Rifle	*			
10	M240B Machine Gun	*			
11	M249 Machine Gun	*			
12	M60 Machine Gun	*			
13	MK 19 Machine Gun	*			
14	Caliber .50 M2 Machine Gun	*			
15	M136 Launcher	*			
16	M203 Grenade Launcher	*			
17	M4 Carbine	*			
18	9-mm Pistol	*			
19	Crowd Control	*		*	*
20	Casualty Reporting and Handling	*	*		
21	Defense Measures	*	*	*	*
22	Unit Operations		*	*	*
23	Security and Control		*	*	*
24	Enemy Personnel			*	
25	Equipment Checks		*		
26	Crime Prevention				*
27	Risk Management		*	*	*
28	Administration/Management		*	*	*

Chapter 3
Skill Level 1 Tasks

SUBJECT AREA 1: INDIVIDUAL CONDUCT AND LAWS OF WAR

224-176-1425
Interact With News Media

Conditions: In a field, military operations in urban terrain (MOUT) or garrison environment interact with news media when no public affairs practitioners are present.

Standards: Identified the principles of interacting with the media.

Performance Steps

1. Role of the individual when interacting with the media.
 - a. Check identification or press credentials. If identification or press credentials are produced, continue with interview. If no identification or press credentials are produced, refer the individual to your chain of command or public affairs representative.
 - b. Recognize your rights.
 - (1) You don't have to speak to the media.
 - (2) You don't have to answer all the questions.
 - (3) You control the length of the interview.
 - c. Maintain operational security (OPSEC). Do not discuss classified information.
-

Performance Steps

2. Guidelines for speaking with the media.
 - a. Think before you answer.
 - b. Tell the truth. You should not lie or intentionally mislead members of the media.
 - c. Discuss only things that you have direct responsibility for or have personal knowledge about. Speak at your level. You should discuss only matters for which you have direct knowledge.
 - d. Don't answer speculative (what if) or hypothetical questions.
 - e. Avoid jargon, acronyms, slang and technical terms.
 - f. Answer the question with which you are most comfortable when asked multiple questions.
 - g. Keep remarks brief and concise.
 - h. Assume everything you say may be printed or broadcast.
 - i. Use "I" not "we" when stating your opinion.
 - j. If you don't know the answer to a question or cannot discuss it for any reason, say so. Avoid using "no comment."
3. Inform the chain of command of interaction with the media.

Evaluation Preparation:

Setup: Provide Soldier with a realistic scenario of a simulated media interview situation. Use mock press credentials when necessary.

Brief Soldier: Tell the Soldier he/she is about to be interviewed by the media. No public affairs representatives are present. Evaluate Soldier on his/her ability to interact with the media.

Performance Measures	GO	NO GO
1. Checked media representative for identification or credentials.	___	___
2. Stated three recognized rights.	___	___
3. Maintained OPSEC throughout the interview.	___	___
4. Discussed subject areas related to direct responsibility and personal knowledge.	___	___
5. Stated answers while avoiding speculation.	___	___

Performance Measures	GO	NO GO
6. Performed interview without use of jargon, acronyms, slang or technical terms.	___	___
7. Employed concise remarks.	___	___
8. Ensured no "off-the-record" comments were made.	___	___
9. Stated answers, avoiding "no comment" response.	___	___
10. Informed chain of command of interaction with media.	___	___

Evaluation Guidance: Score the Soldier GO if 70 percent or more of the performance measures are passed. Score the Soldier NO GO if less than 70 percent of the measures are passed. If the Soldier scores NO GO on any performance measure, show or tell him/her what was wrong and how to perform the measure correctly.

References

Required

AR 360-1

FM 46-1

Related

331-202-1049

Comply With the Requirements of the Code of Conduct

Conditions: Given a survival, evasion, resistance, or escape (SERE) situation or a captivity environment.

Standards: Act in accordance with the standards represented in Article I through VI of the Code of Conduct.

Performance Steps

1. Article I states "I am an American, fighting in the forces, which guard my country and our way of life. I am prepared to give my life in their defense."

Explanation. The Code applies to all Service members at all times, whether in active combat, in captivity, or in peacetime as a result of hostage situations and terrorist activities. Members of the Armed Forces have a duty to support U.S. interest and oppose U.S. enemies regardless of the circumstances.

2. Article II States "I will never surrender under my own free will. If in command, I will never surrender the members of my command while they still have the means to resist."

Explanation. Members of the Armed Forces may never surrender voluntarily. A Soldier's duty is to avoid capture and return to friendly forces even when isolated, and no longer able to inflict casualties on the enemy or other wise defend themselves. The means to evade is considered exhausted when escape is impossible. The means to resist is considered exhausted when further fighting would lead to the Soldier's death with no significant loss to the enemy.

3. Article III states "If I am captured, I will continue to resist by all means available. I will make every effort to escape and aid others to escape. I will accept neither parole nor special favors from the enemy."

Explanation. Members must understand that a captive situation is to be considered an extension of the battlefield and the enemy has used a variety of tactics to exploit prisoners or war (PWs) in disregard of the Geneva Convention of 1949 Relative to the Treatment of Prisoners of War (GPW). These efforts have included physical and mental harassment, general mistreatment and torture, medical neglect, and political indoctrination. The duty of a member of the Armed Forces to continue resistance to enemy exploitation by all means available is not lessened by the misfortune of capture.

4. Article IV states "If I become a prisoner of war, I will keep faith with my fellow prisoners. I will give no information or take part in any action which might be harmful to my comrades. If I am senior, I will take command. If not, I will obey the lawful orders of those appointed over me and will back them up in every way."

Performance Steps

Explanation. Officers and noncommissioned officers will continue to carry out their responsibilities and to exercise their authority in captivity. Informing on fellow PWs is forbidden. PWs must especially avoid helping the enemy to identify fellow PWs who have information that is of value to the enemy. These PWs may be made to suffer coercive interrogation because of their knowledge.

5. Article V states "When questioned, should I become a prisoner of war, I am required to give name, rank, service number, and date of birth. I will evade answering further questions to the utmost of my ability. I will make no oral or written statements disloyal to my country and its allies or harmful to their cause."

Explanation. When questioned, a PW is required by the Geneva Conventions and the Code of Conduct, E.O. 10631 and is permitted by the Uniform Code of Military Justice (UCMJ), to give name, rank, Service number, and date of birth. Under the Geneva Conventions the enemy has no right to try to force a PW to provide any additional information. However, it is unrealistic to expect a PW to remain confined for years reciting only name, rank, Service number, and date of birth. There are many PW camp situations in which certain types of conversation with the enemy are permitted. For example, a PW is allowed, but not required by the Code of Conduct, the UCMJ, or the Geneva Conventions to fill out a Geneva Conventions "capture card, to write letters home, and to communicate with captors on matters of health and welfare.

6. Article VI states "I will never forget that I am an American, fighting for freedom, responsible for my actions, and dedicated to the principles which made my country free. I will trust in my God and in the United States of America."

Performance Steps

Explanation. A member of the Armed Forces remains responsible for personal actions at all times. Article VI is designed to assist members of the Armed Forces to fulfill their responsibilities and survive captivity with honor. The Code of Conduct, E.O 10631, does not conflict with the UCMJ, and the latter continues to apply to each military member during captivity or other hostile detention. Soldier's, whether detainees or captives, can be assured that the U.S. Government will make every effort to obtain their earliest release. Faith in one's country and its way of life, faith in fellow detainees or captives, and faith in one's self are critical to surviving with honor and resisting exploitation.

Evaluation Preparation: Setup: Develop an exercise scenario based on wartime mission requirements (including geographical areas of deployment). The scenario should reflect enemy doctrine, capabilities, vulnerabilities, political and cultural aspects, and PW management procedures. Develop a control plan, which incorporates the risk assessment and instructions for controlling and evaluating the player unit. Develop and design intelligence information to be coordinated, synchronized, and released to bring the play on the intended path. Test the Soldier individually on his or her ability to apply elements of the Code of Conduct in a SERE situation or a captivity environment during the survival/evasion portion the local MACOM battalion, company, or platoon field training exercise (FTX). Maximum combat realism should be applied to tactical exercises consistent with good safety practices. The use of PW compounds and resistance training laboratories by other than USAJFKSWCS to teach Code of Conduct and SERE training is prohibited in accordance with AR 350-30.

Brief Soldier: Brief the Soldier that the Code of Conduct provides him or her with a set guiding principles, moral obligations, and professional ethics to survive and return home with honor from a SERE environment and is not to be interpreted as a set of inflexible laws. Tell the Soldier he or she is required to comply with the guidelines set forth in the Code of Conduct and as articulated in FM 3-05.71, (C) Resistance and Escape (U), chapters 2 and 13.

Performance Measures	GO	NO GO
1. Complies with Article I of the Code of Conduct.	___	___
2. Complies with Article II of the Code of Conduct	___	___
3. Complies with Article III of the Code of Conduct	___	___
4. Complies with Article IV the Code of Conduct	___	___
5. Complies with Article V of the Code of Conduct	___	___
6. Complies with Article VI of the Code of Conduct	___	___

Evaluation Guidance: Conduct an exercise after-action review to allow training participants to discover for themselves what happened, why it happened, and how it can be done better. Once all key points have been discussed and linked to future training, the evaluator will make the appropriate notes for inclusion into the score. Score the Soldier GO if all steps are passed. Score the Soldier NO GO if any step if failed. If the Soldier fails any step, show what was done wrong and how to do it correctly.

References

Required

AR 350-30
FM 3-05.71

Related

AR 350-1
DODD 1300.7
FM 25-4
GTA 21-03-10

SUBJECT AREA 2: FIRST AID

081-831-1001

Evaluate a Casualty (Tactical Combat Casualty Care)

Conditions: You have a casualty who has signs/symptoms of an injury. Your unit may be under fire.

Standards: Evaluate the casualty following the correct sequence. Identify all life-threatening conditions and other serious wounds.

Performance Steps

Note: Tactical combat casualty care (TCCC) can be divided into three phases. The first is care under fire; the second is tactical field care; the third is combat casualty evacuation care. In the first, you are under hostile fire and are very limited as to the care you can provide. In the second, you and the casualty are relatively safe and no longer under effective hostile fire, and you are free to provide casualty care to the best of your ability. In the third, the care is rendered during casualty evacuation (CASEVAC).

WARNING

If a broken neck or back is suspected, do not move the casualty unless to save his/her life.

1. Perform care under fire.
 - a. Return fire as directed or required before providing medical treatment.
 - b. Determine if the casualty is alive or dead.

Note: In combat, the most likely threat to the casualty's life is from bleeding. Attempts to check for airway and breathing will expose the rescuer to enemy fire. Do not attempt to provide first aid if your own life is in imminent danger.

Note: In a combat situation, if you find a casualty with no signs of life—no pulse, no breathing—do NOT attempt to restore the airway. Do NOT continue first aid measures.

- c. Provide tactical care to the live casualty.

Note: Reducing or eliminating enemy fire may be more important to the casualty's survival than the treatment you can provide.

- (1) Suppress enemy fire.
 - (2) Use cover or concealment (smoke).

(3) Direct the casualty to return fire, move to cover, and administer self-aid (stop bleeding), if possible. If the casualty is unable to move and you are unable to move the casualty to cover and the casualty is still under direct enemy fire, have the casualty "play dead."

Performance Steps

(4) If the casualty is unresponsive, move the casualty, his/her weapon, and mission-essential equipment to cover, as the tactical situation permits.

(5) Keep the casualty from sustaining additional wounds.

(6) Reassure the casualty.

d. Administer life-saving hemorrhage control.

(1) Determine the relative threat of the tactical situation versus the risk of the casualty's bleeding to death.

(2) If the casualty has severe bleeding from a limb or has suffered amputation of a limb, administer life-saving hemorrhage control by applying a tourniquet before moving the casualty. (See task 081-831-1032.)

e. Transport the casualty, his/her weapon, and mission-essential equipment when the tactical situation permits.

f. Recheck bleeding control measures as the tactical situation permits.

2. Perform tactical field care when no longer under direct enemy fire.

Note: Tactical field care is rendered by the individual when no longer under hostile fire. Tactical field care also applies to situations in which an injury has occurred during the mission but there has been no hostile fire. Available medical equipment is limited to that carried into the field by the individual Soldier.

WARNING

If there are any signs of nerve agent poisoning, stop the evaluation, take the necessary NBC protective measures, and begin first aid. (See task 081-831-1044.)

Note: In the following situations communicate the medical situation to the unit leader and ensure that the tactical situation allows for time to perform these steps before initiating any medical procedure.

Note: When evaluating and/or treating a casualty, seek medical aid as soon as possible. Do NOT stop treatment; but, if the situation allows, send another person to find medical aid.

Performance Steps

a. Form a general impression of the casualty as you approach (extent of injuries, chance of survival).

Note: If a casualty is being burned, take steps to remove the casualty from the source of the burns before continuing evaluation and treatment. (See task 081-831-1007.)

b. Check for responsiveness.

(1) Ask in a loud, but calm, voice: "Are you okay?" Gently shake or tap the casualty on the shoulder.

(2) Determine level of consciousness by using AVPU: A = Alert; V = responds to Voice; P = responds to Pain; U = Unresponsive.

Note: To check a casualty's response to pain, rub the breastbone briskly with a knuckle or squeeze the first or second toe over the toenail.

(3) If the casualty is conscious, ask where his/her body feels different than usual, or where it hurts. Go to step 2e. If the casualty is conscious but is choking and cannot talk, stop the evaluation and begin treatment. (See task 081-831-1003.)

(4) If the casualty is unconscious, continue with step 2c.

c. Position the casualty and open the airway. (See task 081-831-1023.)

d. Assess for breathing and chest injuries.

(1) Look, listen, and feel for respiration. (See task 081-831-1023.)

Note: If the casualty is breathing, insert a nasopharyngeal airway (see task 081-831-1023) and place the casualty in the recovery position.

Note: On the battlefield the cost of attempting cardiopulmonary resuscitation (CPR) on casualties with what are inevitably fatal injuries may result in additional lives lost as care is diverted from casualties with less severe injuries. Only in the case of nontraumatic disorders such as hypothermia, near drowning, or electrocution should CPR be considered prior to the CASEVAC phase.

Performance Steps

(2) Expose the chest and check for equal rise and fall and for any wounds. (See task 081-831-1026.)

(a) If the casualty has a penetrating chest wound, and is breathing or making an effort to breathe, stop the evaluation to apply an occlusive dressing.

(b) Monitor for increasing respiratory distress. If this occurs, decompress the chest on the same side as the injury. (See task 081-831-1026.)

(c) Position or transport with the affected side down, if possible.

e. Identify and control bleeding.

(1) Check for bleeding.

(a) Remove minimum of clothing required to expose and treat injuries. Protect casualty from the environment (heat and cold).

(b) Look for blood-soaked clothes.

(c) Look for entry and exit wounds.

(d) Place your hands behind the casualty's neck and pass them upward toward the top of the head. Note whether there is blood or brain tissue on your hands from the casualty's wounds.

(e) Place your hands behind the casualty's shoulders and pass them downward behind the back, the thighs, and the legs. Note whether there is blood on your hands from the casualty's wounds.

(2) If life-threatening bleeding is present, stop the evaluation and control the bleeding. Apply a tourniquet, field dressing, or an emergency trauma dressing, as appropriate. (See tasks 081-831-1025, 081-831-1026, 081-831-1032, and 081-831-1033.) Treat for shock, as appropriate. (See task 081-831-1005.)

Note: If a tourniquet was previously applied, consider converting it to a pressure dressing. (See task 081-831-1032.) By converting the tourniquet to a pressure dressing, it may be possible to save the casualty's limb if the tourniquet has not been in place for 6 hours.

(3) Dress all wounds, including exit wounds.

Performance Steps

f. Check for fractures.

(1) Check for open fractures by looking for bleeding or bone sticking through the skin.

(2) Check for closed fractures by looking for swelling, discoloration, deformity, or unusual body position.

(3) If a suspected fracture is present, stop the evaluation and apply a splint. (See task 081-831-1034.)

g. Check for burns.

(1) Look carefully for reddened, blistered, or charred skin. Also check for singed clothes.

(2) If burns are found, stop the evaluation and begin treatment. (See task 081-831-1007.)

h. Administer pain medications and antibiotics (the casualty's combat pill pack) to any Soldier wounded in combat.

Note: Each Soldier will be issued a combat pill pack prior to deployment on tactical missions.

i. Transport the casualty to the site where evacuation is anticipated. (See task 081-831-1046.)

3. Monitor an unconscious casualty during casualty evacuation (CASEVAC).

Note: CASEVAC refers to the movement of casualties aboard nonmedical vehicles or aircraft. Combat casualty evacuation care is rendered while the casualty is awaiting pickup or is being transported. A Soldier accompanying an unconscious casualty should monitor the casualty's airway, breathing, and bleeding.

Evaluation Preparation:

Setup: Prepare a "casualty" for the Soldier to evaluate in step 2 by simulating one or more wounds or conditions. Simulate the wounds using a war wounds moulage set, casualty simulation kit, or other available materials. You can coach a "conscious casualty" on how to respond to the Soldier's questions about location of pain or other symptoms of injury. However, you will have to cue the Soldier during evaluation of an "unconscious casualty" as to whether the casualty is

breathing and describe the signs or conditions, as the Soldier is making the checks.

Brief Soldier: To test step 1, tell the Soldier that his/her unit is under fire and ask him/her what he/she should do to provide aid to casualties. For step 2, tell the Soldier that the tactical situation permits full evaluation of the casualty. Tell him/her to do, in order, all necessary steps to evaluate the casualty and identify all wounds and/or conditions. Tell the Soldier to tell you what first aid action (give mouth-to-mouth resuscitation, bandage the wound, and so forth) he/she would take, but that no first aid is to be performed. After he/she has completed the checks (step 2f), ask him/her what else he/she should do. To test step 3, ask him/her what he/she should do while evacuating an unconscious casualty.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Performed care under fire.	_____	_____
a. Suppressed enemy fire to keep the casualty from sustaining additional wounds.		
b. Encouraged responsive casualties to protect themselves and perform self-aid, if able.		
c. Administered life-saving hemorrhage control.		
d. Transported the casualties, weapons, and mission-essential equipment, when the tactical situation permitted.		
2. Performed tactical field care.	_____	_____
a. Checked for responsiveness.		
b. Positioned the casualty and opened the airway.		
c. Assessed for breathing and chest injuries.		
d. Identified and controlled bleeding.		
e. Checked for fractures.		
f. Checked for burns.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
g. Administered pain medications and antibiotics, if appropriate.		
h. Transported the casualty to the site where evacuation is anticipated.		
3. Monitored an unconscious casualty's airway, breathing, and bleeding during casualty evacuation.	_____	_____
4. Performed all necessary steps in sequence.	_____	_____
5. Identified all wounds and/or conditions.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1003

Perform First Aid to Clear an Object Stuck in the Throat of a Conscious Casualty

Conditions: You see a conscious casualty who is having a hard time breathing because something is stuck in his/her throat.

Standards: Clear the object from the casualty's throat. Give abdominal or chest thrusts until the casualty can talk and breathe normally, you are relieved by a qualified person, or the casualty becomes unconscious requiring mouth-to-mouth resuscitation.

Performance Steps

1. Determine if the casualty needs help.
 - a. If the casualty has good air exchange (able to speak or cough forcefully—may be wheezing between coughs), do not interfere except to encourage the casualty.
 - b. If the casualty has poor air exchange (weak coughing with high-pitched noise between coughs and signs of shock), continue with step 2.
 - c. If the casualty has a complete airway obstruction (cannot speak, breathe, or cough at all and may be clutching his/her neck and moving erratically), continue with step 2.

2. Perform abdominal or chest thrusts.

Note: Abdominal thrusts should be used unless the victim is in the advanced stages of pregnancy, is very obese, or has a significant abdominal wound.

Note: Clearing a conscious casualty's airway obstruction can be performed with the casualty either standing or sitting.

- a. Abdominal thrusts.
 - (1) Stand behind the casualty.
 - (2) Wrap your arms around the casualty's waist.
 - (3) Make a fist with one hand.
 - (4) Place the thumb side of the fist against the abdomen slightly above the navel and well below the tip of the breastbone.
 - (5) Grasp the fist with the other hand.
 - (6) Give quick backward and upward thrusts.

Note: Each thrust should be a separate, distinct movement. Thrusts should be continued until the obstruction is expelled or the casualty becomes unconscious.

- b. Chest thrusts.
 - (1) Stand behind the casualty.
 - (2) Wrap your arms under the casualty's armpits and around the chest.
 - (3) Make a fist with one hand.

Performance Steps

(4) Place the thumb side of the fist on the middle of the breastbone.

(5) Grasp the fist with the other hand.

(6) Give backward thrusts.

Note: Each thrust should be performed slowly and distinctly, and with the intent of relieving the obstruction.

3. Continue to give abdominal or chest thrusts, as required. Give abdominal or chest thrusts until the obstruction is clear, you are relieved by a qualified person, or the casualty becomes unconscious.

Note: If the casualty becomes unconscious, lay him/her down, perform a finger sweep, then start mouth-to-mouth resuscitation procedures. (See task 081-831-1023.)

4. If the obstruction is cleared, watch the casualty closely and check for other injuries, if necessary.

Evaluation Preparation:

Setup: You need another Soldier to play the part of the casualty.

Brief Soldier: Describe the symptoms of a casualty with good air exchange, poor air exchange, or a complete airway obstruction. Ask the Soldier what should be done. Score step 1 based on the answer. Tell the Soldier to do all of the first aid steps required to clear an object from the casualty's throat. Tell the Soldier to demonstrate where to stand, how to position his/her hands, and how to position the casualty for the thrusts. The Soldier must tell you how the thrusts should be done. Ensure that the Soldier understands that he/she must not actually do the thrusts. Do not evaluate steps 3 and 4 in the simulated mode.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Determined if the casualty needs help.	___	___
2. Performed abdominal or chest thrusts, as required.	___	___
a. Positioned hands correctly for the thrusts.		
b. Thrusts were properly given.		

Performance Measures	GO	NO GO
3. Continued abdominal or chest thrusts, as required.	_____	_____
4. If the obstruction was cleared, watched the casualty closely and checked for other injuries, if necessary.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1005

Perform First Aid to Prevent or Control Shock

Conditions: You see a casualty who is breathing. There is no uncontrolled bleeding. The casualty has one or more of the symptoms of shock. You will need a field jacket and blanket or poncho.

Standards: Attempt to prevent a casualty from going into shock by correctly positioning the casualty, loosening binding clothes, calming and reassuring, and providing shade from direct sunlight during hot weather, or covering to prevent body heat loss during cold weather. Do not cause further injury to the casualty.

Performance Steps

1. Check the casualty for signs and symptoms of shock.
 - a. Sweaty but cool skin.
 - b. Pale skin.
 - c. Restlessness or nervousness.
 - d. Thirst.
 - e. Severe bleeding.

Performance Steps

- f. Confusion.
 - g. Rapid breathing.
 - h. Blotchy blue skin.
 - i. Nausea and/or vomiting.
2. Position the casualty.
- a. Move the casualty to cover, if cover is available and the situation permits.
 - b. Lay the casualty on his/her back unless a sitting position will allow the casualty to breathe easier.
 - c. Elevate the casualty's feet higher than the heart using a stable object so the feet will not fall.

WARNING

If the casualty has an unsplinted fractured or broken leg, an abdominal wound, or a head wound, do not elevate the casualty's legs.

3. Loosen clothing at the neck, waist, or anywhere it is binding.

WARNING

Do not loosen clothing if in a chemical area.

4. Prevent the casualty from chilling or overheating.
- a. Cover the casualty to avoid loss of body heat and, in cold weather, place cover under as well as over the casualty. Use a blanket or clothing, or improvise a cover.
 - b. Place the casualty under permanent or improvised shelter in hot weather to shade him/her from direct sunlight.

WARNING

Do not give the casualty anything to eat or drink.

Performance Steps

- 5. Calm and reassure the casualty.
 - a. Take charge and show self-confidence.
 - b. Assure the casualty that he/she is being taken care of.

WARNING

If you must leave the casualty, turn his/her head to the side to prevent choking if vomiting occurs.

- 6. Watch the casualty closely for life-threatening conditions and check for other injuries, if necessary. Seek medical aid.

Evaluation Preparation:

Setup: You will need another Soldier to play the part of the casualty. Have the casualty lie down. You can have a canteen of water available and have the casualty say that he/she is thirsty while testing step 3.

Brief Soldier: Tell the Soldier to do all necessary first aid steps to prevent shock. You can vary the test by telling the Soldier whether it is hot or cold or that the casualty has a broken leg or abdominal wound to see if the Soldier knows what to do. Do not evaluate step 5 in the simulated mode.

Performance Measures	GO	NO GO
1. Positioned the casualty correctly.	___	___
2. Loosened tight or binding clothes.	___	___
3. Prevented the casualty from chilling or overheating.	___	___
4. Reassured the casualty.	___	___
5. Watched the casualty closely for life-threatening conditions and checked for other injuries, if necessary. Sought medical aid.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance

measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1007

Perform First Aid for Burns

Conditions: You see a casualty who is suffering from a burn. You will need the casualty's first aid packet (emergency trauma dressing or field dressing) and canteen of water.

Standards: Give first aid for a burn without causing further injury to the casualty. Eliminate the source of the burn, if necessary. Apply a dressing lightly over the burn. The sides of the dressing are sealed and the dressing does not slip.

Performance Steps

1. Eliminate the source of the burn.

a. Thermal burns. Remove casualty from source of burn. If the casualty's clothing is on fire, cover the casualty with a field jacket or any large piece of nonsynthetic material and roll him/her on the ground to put out the flames.

CAUTION

Synthetic materials, such as nylon, may melt and cause further injury.

b. Electrical burns. If the casualty is in contact with an electrical source, turn the electricity off, if the switch is nearby. If the electricity cannot be turned off, drag the casualty away from the source using any nonconductive material (rope, clothing, or dry wood).

Performance Steps

WARNING

Do not touch the casualty or the electrical source with your bare hands. You will be injured too!

WARNING

High voltage electrical burns from an electrical source or lightning may cause temporary unconsciousness, difficulties in breathing, or difficulties with the heart (irregular heartbeat).

c. Chemical burns.

WARNING

Blisters caused by a blister agent are actually burns. Do not try to decontaminate skin where blisters have already formed. If blisters have not formed, decontaminate the skin.

(1) Remove liquid chemicals from the burned casualty by flushing with as much water or other nonflammable fluid as possible.

(2) Remove dry chemicals by carefully brushing them off with a clean, dry cloth. If large amounts of water are available, flush the area. Otherwise, apply no water.

(3) Smother burning white phosphorus with water, a wet cloth, or wet mud. Keep the area covered with the wet material.

d. Laser burns. Move the casualty away from the source while avoiding eye contact with the beam source. If possible, wear appropriate laser eye protection.

Note: After the casualty is removed from the source of the burn, he/she should be monitored continually for the development of conditions that may require the performance of basic lifesaving measures.

Performance Steps

2. Uncover the burn.

WARNING

Do NOT uncover the wound in a chemical environment. Exposure could cause additional harm.

- a. Cut clothing covering the burned area.

WARNING

Do NOT attempt to remove clothing that is stuck to the wound. Additional harm could result.

- b. Gently lift away clothing covering the burned area.

CAUTION

Do not pull clothing over the burns.

- c. If the casualty's hand(s) or wrist(s) have been burned, remove jewelry (rings, watches) and place them in his/her pockets.

3. Apply the casualty's dressing to the burn.

Note: If the burn is caused by white phosphorus, the dressing must be wet.

CAUTIONS

- (1) Do not place the dressing over the face or genital area.
(2) Do not break the blisters.
(3) Do not apply grease or ointments to the burns.

- a. Apply the dressing, white side down, directly over the wound.
- b. Wrap the tails (or the elastic bandage) so that the dressing is covered and both sides are sealed.
- c. For a field dressing, tie the tails into a nonslip knot over the outer edge of the dressing, not over the wound. For an emergency trauma dressing, secure the hooking ends of the closure bar into the elastic bandage.
- d. Check to make sure that the dressing is applied lightly over the burn but firmly enough to prevent slipping.

Performance Steps

Note: Electricity often leaves entry and exit burns. Both burns should be treated.

Note: If the casualty is conscious and not nauseated, give him/her small amounts of water to drink.

4. Watch the casualty closely for life-threatening conditions, check for other injuries, if necessary, and treat for shock. Seek medical aid.

Evaluation Preparation:

Setup: You will need another Soldier to play the part of the casualty. Simulate the burn(s) by marking the casualty's body with a suitable material. Provide materials appropriate for the burn being simulated (piece of rope, blanket, water, dressing, or clean cloth). If a dressing is used, use the same one repeatedly. If an electrical burn is being simulated, have the casualty lie on a piece of wire or rope and have enough materials available to treat two simulated burns.

Brief Soldier: Tell the Soldier what is burning the casualty and have the Soldier take appropriate action. After the Soldier completes step 1, tell the Soldier that the casualty is conscious and has no injuries other than burns. When testing step 2, you can vary the test by telling the Soldier that clothing is stuck to the burn or that a chemical environment exists. Do not evaluate step 4 in the simulated mode.

Performance Measures	GO	NO GO
1. Eliminated the source of the burn.	___	___
2. Uncovered the burn, unless clothing was stuck to the wound or in a chemical environment.	___	___
3. Applied the casualty's dressing.	___	___
a. Dressing/pad was applied directly over the wound.		
b. Edges of dressing/pad were covered.		
c. Bandage was properly secured.		
d. Dressing was applied lightly over the burn but firmly enough to prevent slipping.		

Performance Measures	GO	NO GO
4. Watched the casualty closely for life-threatening conditions, checked for other injuries, if necessary, and treated for shock. Sought medical aid.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1008

Perform First Aid for Heat Injuries

Conditions: You see a casualty who has signs and symptoms of a heat injury. The casualty has a full canteen of cool water.

Standards: Recognize the type of heat injury and give appropriate first aid.

Performance Steps

1. Identify the type of heat injury.
 - a. Heat cramps symptoms.
 - (1) Cramping in the extremities (arms and legs).
 - (2) Abdominal (stomach) cramps.
 - (3) Excessive sweating.

Note: Thirst may or may not occur. Cramping can occur without the Soldier being thirsty.

- b. Heat exhaustion symptoms.
 - (1) Profuse sweating with pale, moist, cool skin.
 - (2) Headache.
 - (3) Weakness.
 - (4) Dizziness.
-

Performance Steps

- (5) Loss of appetite.
 - (6) Cramping.
 - (7) Nausea, with or without vomiting.
 - (8) Urge to defecate.
 - (9) Chills (gooseflesh).
 - (10) Rapid breathing.
 - (11) Tingling of the hands and/or feet.
 - (12) Confusion (not answering easy questions correctly).
- c. Heatstroke symptoms.
- (1) Red (flushed), hot, dry skin.
 - (2) Weakness.
 - (3) Dizziness.
 - (4) Confusion.
 - (5) Headaches.
 - (6) Seizures.
 - (7) Nausea.
 - (8) Stomach pains or cramps.
 - (9) Respiration and pulse may be rapid and weak.
 - (10) Unconsciousness and collapse may occur suddenly.
2. Provide the proper first aid for the heat injury.
- a. Heat cramps.
- (1) Monitor mental status by asking simple questions, such as the date or the president's name.
 - (2) Move the casualty to a cool, shady area or improvise shade if none is available.
 - (3) Loosen the casualty's clothing unless in a chemical environment.
 - (4) Have the casualty slowly drink at least one canteen of cool water.
 - (5) Seek medical aid if the cramps continue.
 - (6) Monitor the casualty for signs and symptoms of heat exhaustion.
-

Performance Steps

b. Heat exhaustion.

- (1) Monitor mental status by asking simple questions.
- (2) Move the casualty to a cool, shady area or improvise shade if none is available.
- (3) Loosen or remove the casualty's clothing and boots, unless in a chemical environment.
- (4) Pour water on the casualty and fan him/her.

Note: Apply iced sheets, if available. (Sheets soaked in cold/icy water, placed directly onto the skin of the casualty, will lower their body temperature rapidly.)

- (5) Have the casualty slowly drink at least one canteen of cool water.
- (6) Elevate the casualty's legs.
- (7) Monitor the casualty until the symptoms are gone or medical aid arrives.

Note: If possible, the casualty should not participate in strenuous activity for the rest of the day.

- (8) Monitor the casualty for signs and symptoms of heat stroke.

c. Heatstroke.

WARNING

Heatstroke is a medical emergency that may result in death if treatment is delayed. Start cooling measures immediately and continue while waiting for transportation and during evacuation.

- (1) Monitor mental status by asking simple questions.
- (2) Move the casualty to a cool, shady area or improvise shade if none is available.
- (3) Loosen or remove the casualty's clothing and boots, unless in a chemical environment.
- (4) Spray or pour water on the casualty and fan him/her. (Apply iced sheets if available.)

Performance Steps

- (5) Massage the casualty's arms and legs.
 - (6) Elevate the casualty's legs.
 - (7) If the casualty is conscious, have him/her slowly drink at least one canteen of cool water.
3. Watch the casualty closely for life-threatening conditions, check for other injuries, and seek medical aid.

Evaluation Preparation:

Setup: None.

Brief Soldier: Describe to the Soldier the signs and/or symptoms of heat cramps, heat exhaustion, or heatstroke, and ask the Soldier what type of heat injury is indicated. Then ask the Soldier what should be done to treat the heat injury described. Do not evaluate step 3 in the simulated mode.

Performance Measures	GO	NO GO
1. Identified the type of heat injury.	_____	_____
2. Provided the proper first aid for the heat injury.	_____	_____
3. Watched the casualty closely for life-threatening conditions, checked for other injuries, and sought medical aid.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1023

Perform First Aid to Restore Breathing and/or Pulse

Conditions: You see an adult casualty who is unconscious and does not appear to be breathing. You are not in a combat situation or

chemical environment. You will need a nasopharyngeal airway (NPA).

Standards: Take appropriate action, in the correct sequence, to restore breathing and, if necessary, the pulse. Continue until the casualty's breathing/pulse returns, a qualified person relieves you, a physician stops you, or you are too tired to continue.

Performance Steps

1. Roll the casualty onto his/her back, if necessary, and place him/her on a hard, flat surface.

WARNING

The casualty should be carefully rolled as a whole, so the body does not twist.

- a. Kneel beside the casualty.
 - b. Raise the near arm and straighten it out above the head.
 - c. Adjust the legs so they are together and straight or nearly straight.
 - d. Place one hand on the back of the casualty's head and neck.
 - e. Grasp the casualty under the arm with the free hand.
 - f. Pull steadily and evenly toward yourself, keeping the head and neck in line with the torso.
 - g. Roll the casualty as a single unit.
 - h. Place the casualty's arms at his/her sides.
2. Open the airway.

Note: If foreign material or vomit is in the mouth, it should be removed as quickly as possible (see step 7).

- a. Head-tilt/chin-lift method.

CAUTION

Do NOT use this method if a spinal or neck injury is suspected.

- (1) Kneel at the level of the casualty's shoulders.
- (2) Place one hand on the casualty's forehead and apply firm, backward pressure with the palm to tilt the head back.

Performance Steps

(3) Place the fingertips of the other hand under the bony part of the lower jaw and lift, bringing the chin forward.

Notes: Do NOT use the thumb to lift. Do NOT completely close the casualty's mouth.

CAUTION

Do NOT press deeply into the soft tissue under the chin with the fingers.

b. Jaw-thrust method.

CAUTION

Use this method if a spinal or neck injury is suspected.

(1) Kneel above the casualty's head (looking toward the casualty's feet).

(2) Rest your elbows on the ground or floor.

(3) Place one hand on each side of the casualty's lower jaw at the angle of the jaw, below the ears.

(4) Stabilize the casualty's head with your forearms.

(5) Use the index fingers to push the angles of the casualty's lower jaw forward.

Note: If the casualty's lips are still closed after the jaw has been moved forward, use your thumbs to retract the lower lip and allow air to enter the casualty's mouth.

CAUTION

Do not tilt or rotate the casualty's head.

3. Check for breathing.

a. While maintaining the open airway position, place an ear over the casualty's mouth and nose, looking toward the chest and stomach.

b. Look for the chest to rise and fall.

c. Listen for air escaping during exhalation.

d. Feel for the flow of air on the side of your face.

e. Count the number of respirations for 15 seconds.

Performance Steps

f. Take appropriate action.

(1) If the casualty is unconscious; if respiratory rate is less than 2 in 15 seconds; and/or if the casualty is making snoring or gurgling sounds, insert an NPA.

CAUTION

Do NOT use the NPA if there is clear fluid (cerebrospinal fluid-CSF) coming from the ears or nose. This may indicate a skull fracture.

(a) Keep the casualty in a face-up position.

(b) Lubricate the tube with water.

(c) Push the tip of the casualty's nose upward gently.

(d) Position the tube so that the bevel (pointed end) of the airway faces toward the septum (the partition inside the nose that separates the nostrils).

Note: Most NPAs are designed to be placed in the right nostril.

(e) Insert the airway into the nostril and advance it until the flange rests against the nostril.

CAUTION

Never force the airway into the casualty's nostril. If resistance is met, pull the tube out and attempt to insert it in the other nostril. If neither nostril will accommodate the airway, place the casualty in the recovery position.

(f) Place the casualty in the recovery position by rolling him/her as a single unit onto his/her side, placing the hand of his/her upper arm under his/her chin, and flexing his/her upper leg.

(g) Watch the casualty closely for life-threatening conditions and check for other injuries, if necessary. Seek medical aid.

(2) If the casualty is not breathing, continue with step 4 if the tactical situation permits.

Note: If the casualty resumes breathing at any time during this procedure, the airway should be kept open and the casualty should be monitored. If the casualty continues to breathe, he/she should be transported to medical aid. Otherwise, the procedure should be continued.

Performance Steps

4. Give breaths to ensure an open airway.

Note: When mouth-to-mouth resuscitation breathing cannot be performed because the casualty has jaw injuries or spasms, the mouth-to-nose method may be more effective.

Note: Perform the mouth-to-nose method by blowing into the nose while holding the lips closed. Let air escape by removing your mouth and, in some cases, separating the casualty's lips.

a. Insert a face shield, if available, into the casualty's mouth, with the short airway portion over the top of the tongue, and flatten the plastic sheet around the mouth.

b. Maintain the airway and gently pinch the nose closed, using the hand on the casualty's forehead.

c. Take a deep breath and place your mouth, in an airtight seal, around the casualty's mouth.

d. Give two full breaths (1 1/2 to 2 seconds each), taking a breath between them, while watching for the chest to rise and fall and listening and/or feeling for air to escape during exhalation.

Note: If chest rises, go to step 8.

Note: If chest does not rise after the first breath, continue with step 5.

5. Reposition the casualty's head slightly farther backward and repeat the breaths.

Note: If chest rises, go to step 8.

Note: If chest does not rise, continue with step 6.

6. Perform abdominal or chest thrusts.

Note: Abdominal thrusts should be used unless the casualty is in the advanced stages of pregnancy, is very obese, or has a significant abdominal wound.

a. Abdominal thrusts.

(1) Kneel astride the casualty's thighs.

(2) Place the heel of one hand against the casualty's abdomen, slightly above the navel but well below the tip of the breastbone, with the fingers pointing toward the casualty's head.

Performance Steps

(3) Place the other hand on top of the first.

(4) Press into the abdomen with a quick forward and upward thrust.

Note: Each thrust should be a separate, distinct movement.

(5) Give several thrusts (up to five).

b. Chest thrusts.

(1) Kneel close to the side of the casualty's body.

(2) Locate the lower edge of the casualty's ribs and run the fingers up along the rib cage to the notch where the ribs meet the breastbone.

(3) Place the middle finger on the notch with the index finger just above it on the lower end of the breastbone.

(4) Place the heel of the other hand on the lower half of the breastbone, next to the two fingers.

(5) Remove the fingers from the notch and place that hand on top of the other hand, extending or interlacing the fingers.

(6) Straighten and lock the elbows with the shoulders directly above the hands.

(7) Without bending the elbows, rocking, or allowing the shoulders to sag, apply enough pressure to depress the breastbone 1 1/2 to 2 inches.

Note: Each thrust should be given slowly, distinctly, and with the intent of relieving the obstruction.

(8) Give several thrusts (up to five).

7. Perform a finger sweep and repeat breaths.

a. Open the mouth by grasping the tongue and lower jaw to lift the jaw open or crossing the fingers and thumb to push the teeth apart.

b. Insert the index finger of the other hand down along the cheek to the base of the tongue.

c. Use a hooking motion from the side of the mouth toward the center to dislodge the object.

Performance Steps

WARNING

Take care NOT to force the object deeper into the airway.

- d. Reopen the airway and repeat the breaths.

Note: If chest rises, go to step 8.

Note: If chest does not rise, repeat steps 6 and 7 until the airway is clear.

- 8. Check for a pulse for 5 to 10 seconds.

Note: Use the first two fingers in the groove in the casualty's throat beside the Adam's apple. Do NOT use the thumb.

- a. If a pulse is found but the casualty is not breathing, continue mouth-to-mouth resuscitation.

- (1) Give breaths at the rate of about 12 breaths per minute.

- (2) Recheck for pulse and breathing for 3 to 5 seconds after every 12 breaths. If the pulse stops, go to step 9.

- (3) Continue until the casualty's breathing returns, a qualified person relieves you, a physician stops you, or you are too tired to continue. If the breathing returns, go to step 10.

- b. If no pulse is found, you must perform cardiopulmonary resuscitation (CPR). Continue with step 9.

- 9. Perform cardiopulmonary resuscitation.

- a. Position your hands for external chest compressions.

- (1) With the middle and index fingers of the hand nearest the casualty's feet, locate the lower margin of the casualty's rib cage on the side near the rescuer.

- (2) Move the fingers up the rib cage to the notch where the ribs meet the breastbone in the center of the lower part of the chest.

- (3) With the middle finger on the notch, place the index finger next to it on the lower end of the breastbone.

Performance Steps

(4) Place the heel of the other hand on the lower half of the breastbone, next to the index finger of the first hand.

(5) Remove the first hand from the notch and place it on top of the hand on the breastbone so that both hands are parallel to each other.

Note: You may either extend or interlace your fingers, but keep the fingers off the casualty's chest.

b. Position your body.

(1) Lock your elbows with the arms straight.

(2) Position your shoulders directly over your hands.

c. Give 15 compressions.

(1) Press straight down to depress the breastbone 1 1/2 to 2 inches.

(2) Come straight up and completely release pressure on the breastbone to allow the chest to return to its normal position. The time allowed for release should equal the time required for compression.

(3) Give 15 compressions in 9 to 11 seconds (at a rate of 100 per minute).

Note: Do NOT remove the heel of your hand from the casualty's chest or reposition your hand between compressions.

d. Give two full breaths.

(1) Open the casualty's airway.

(2) Give two full breaths (1 1/2 to 2 seconds each).

e. Repeat steps 9c through 9d four times.

f. Reassess the casualty.

(1) Check for the return of the pulse for 3 to 5 seconds.

(a) If the pulse is present, continue with step 9f(2).

(b) If the pulse is absent, continue with step 9g.

Performance Steps

- (2) Check breathing for 3 to 5 seconds.
 - (a) If the casualty is breathing, continue with step 10.
 - (b) If the casualty is not breathing, continue mouth-to-mouth resuscitation (step 8a).
 - g. Resume CPR with compressions (step 9c).
 - h. Recheck for pulse every 3 to 5 minutes.
 - i. Continue CPR until the casualty's pulse returns, you are relieved by a qualified person, stopped by a physician, or you are too tired to continue.
10. . Once the casualty is breathing and has a pulse, place in the recovery position until help arrives. Watch the casualty closely for life-threatening conditions, maintain an open airway, and check for other injuries, if necessary.

Evaluation Preparation:

Setup: For training and testing, you must use a resuscitation training mannequin (DVC 08-15). Have a bottle of alcohol and swabs or cotton available. Place the mannequin on the floor and alcohol and cotton balls on the table. Clean the mannequin's nose and mouth before each Soldier is evaluated. If a mannequin capable of testing insertion of an NPA is available, use it to test step 3b.

Brief Soldier: Tell the Soldier to do, in order, all necessary steps to restore breathing and pulse. For step 3b, tell the Soldier that the casualty's breathing rate is slow, and have him/her show you (on a mannequin) or tell you what he/she would do to insert an NPA. After step 3, tell the Soldier that the casualty is not breathing. When testing steps 4 and 5, you can vary the test by indicating whether the chest rises or not. If step 7 is tested, tell the Soldier that the airway is open. When testing step 8, tell the Soldier that a pulse is not found. You can stop the evaluation when the Soldier rechecks for the pulse in step 10. Do not evaluate step 12 in the simulated mode.

Note: Reference made to the mouth-to-nose method within the task presents information on an alternate procedure that must be used under some circumstances. This method will not be evaluated.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Positioned the casualty.	___	___
2. Opened the airway using the head-tilt/chin-lift method.	___	___
3. Checked for breathing.	___	___
a. Looked, listened, and felt for signs of respiration.	___	___
b. Inserted an NPA, if necessary.	___	___
4. Gave breaths to ensure an open airway.	___	___
5. Repositioned the casualty's head and repeated breaths, if necessary.	___	___
6. Performed abdominal thrusts or chest thrusts, if necessary.	___	___
7. Performed a finger sweep and repeated breaths, if necessary.	___	___
8. Checked for pulse.	___	___
9. Continued mouth-to-mouth or mouth-to-nose resuscitation or cardiopulmonary resuscitation, as required.	___	___
10. Rechecked for pulse and breathing, as required.	___	___
11. Performed all necessary steps in the correct sequence.	___	___
12. Once the casualty was breathing and had a pulse, placed him/her in the recovery position. Watched the casualty closely for life-threatening conditions, maintained an open airway, and checked for other injuries, if necessary.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance

measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

DVC 08-15

FM 4-25.11

081-831-1025

Perform First Aid for an Open Abdominal Wound

Conditions: You see a casualty who has an open abdominal wound. The casualty is breathing. You will need the casualty's first aid packet (emergency trauma dressing or field dressing) and material for an improvised dressing (clothing or blankets).

Standards: Apply a dressing to the wound following the correct sequence, without causing further injury to the casualty. The dressing is secure and protects the wound without putting pressure on the bowel.

Performance Steps

Note: Always check for both entry and exit wounds. If there are two wounds (entry and exit), treat the wound that appears more serious first (for example, the heavier bleeding, protruding organs, larger wound, and so forth). It may be necessary to improvise dressings for the second wound by using strips of cloth, a T-shirt, or the cleanest material available.

1. Position the casualty by placing the casualty on his/her back with the knees up (flexed).
2. Uncover the wound unless clothing is stuck to the wound or in a chemical environment.

CAUTION

Uncovering the wound in a chemical environment or removing stuck clothing could cause additional harm.

Performance Steps

3. Pick up any organs that are on the ground.

a. Use a clean, dry dressing or the cleanest material available and gently pick up the organs without touching them with your bare hands.

b. Place the organs on top of the casualty's abdomen.

CAUTION

Do NOT probe, clean, or try to remove any foreign object from the abdomen. Do NOT push organs back inside the body.

4. Apply the casualty's dressing.

Note: If the dressing is NOT large enough to cover the entire wound, the inner surface of the plastic wrapper from the dressing may be used to cover the bowel before the dressing is applied. Other improvised dressings can be made from clothing, blankets, or the cleanest material available.

WARNING

If there is an object extending from the wound, do NOT remove it. Place as much of the wrapper over the wound as possible without dislodging or moving the object. Do NOT place the wrapper over the object.

a. Apply the dressing, white side down, directly over the wound.

WARNING

Do NOT apply pressure to the wound or other exposed internal parts.

b. Wrap the tails (or the elastic bandage) around the casualty's body, completely covering the dressing if possible.

c. For a field dressing, loosely tie the tails into a nonslip knot at the casualty's side. For an emergency trauma dressing, secure the hooking ends of the closure bar into the elastic bandage.

d. Check to make sure that the dressing is secured firmly enough to prevent slipping, without applying pressure to the bowel.

Performance Steps

Note: Dressings can be covered with improvised reinforcement materials (cravats, strips of torn cloth) for additional support and protection. The improvised bandages should be tied on the casualty's side—the one opposite to where the dressing is tied.

WARNING

Do NOT give food or water to the casualty. (Moistening the casualty's lips is allowed.)

5. Watch the casualty closely for life-threatening conditions, check for other injuries, if necessary, and treat for shock. Seek medical aid.

Evaluation Preparation:

Setup: Use the same dressing repeatedly. Have another Soldier act as the casualty. Use a moulage or otherwise simulate the abdominal wound. You can have a canteen of water available and have the casualty say that he/she is thirsty while testing step 4.

Brief Soldier: Tell the Soldier to do, in order, all necessary first aid steps to treat the casualty's wound. When testing step 2, you can vary the test by telling the Soldier that clothing is stuck to the wound or that a chemical environment exists. Do not evaluate step 6 in the simulated mode.

Performance Measures	GO	NO GO
1. Positioned the casualty on his/her back with the knees up (flexed).	___	___
2. Uncovered the wound unless clothing was stuck to the wound or in a chemical environment.	___	___
3. Picked up organs without touching them with bare hands and placed them near the wound.	___	___
4. Applied the casualty's dressing.	___	___
a. Dressing/pad was applied directly over the wound.		
b. Edges of dressing/pad were covered.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
c. Bandage was properly secured.		
d. Dressing is secured firmly enough to prevent slipping without applying pressure to the bowel.		
5. Performed steps 1 through 4 in the correct sequence.	_____	_____
6. Watched the casualty closely for life-threatening conditions, checked for other injuries, if necessary, and treated for shock. Sought medical aid.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1026

Perform First Aid for an Open Chest Wound

Conditions: You see a casualty who has an open chest wound. The casualty is breathing. You will need the casualty's first aid packet (emergency trauma dressing or field dressing), large bore (14 gauge, 3-inch long) needle and catheter unit, and material to improvise a dressing (clothing or blankets).

Standards: Apply a dressing to the wound following the correct sequence, without causing further injury to the casualty. The wound is properly sealed and the dressing is firmly secured without interfering with breathing. Perform needle chest decompression, if necessary.

Performance Steps

Note: Always check for both entry and exit wounds. If there are two wounds (entry and exit), treat the wound that appears more serious first (for example, the heavier bleeding, larger wound, and so forth). It may be necessary to improvise dressings for the second wound by using strips of cloth, a T-shirt, or the cleanest material available.

1. Uncover the wound unless clothing is stuck to the wound or in a chemical environment.

CAUTION

Uncovering the wound in a chemical environment or removing stuck clothing could cause additional harm.

WARNING

Do not attempt to clean the wound.

2. Apply airtight material over the wound.
 - a. Use the fully opened outer wrapper of the casualty's dressing or other airtight material.
 - b. Apply the inner surface of the airtight material directly over the wound after the casualty exhales completely.

Note: When applying the airtight material try not to touch the inner surface.

- c. Hold the material in place.
 3. Apply the casualty's dressing.
 - a. Apply the dressing, white side down, directly over the airtight material.
 - b. Have the casualty breathe normally.
 - c. Maintain pressure on the dressing while you wrap the tails (or elastic bandage) around the body back to the starting point.
-

Performance Steps

d. For a field dressing, tie the tails into a nonslip knot over the center of the dressing after the casualty has exhaled completely. For an emergency trauma dressing, pass the tail through the plastic pressure device, reverse the tail while applying pressure, continue to wrap the tail around the body, and secure the plastic fastening clip to the last turn of the wrap.

e. Check to make sure the dressing is secured without interfering with breathing.

Note: When practical, apply direct manual pressure over the dressing for 5 to 10 minutes to help control the bleeding.

4. Position the casualty on the injured side or in a sitting position, whichever makes breathing easier.

WARNING

If the casualty's respiratory condition becomes worse (rapid breathing, shortness of breath, restlessness, pale skin or bluish skin, pain in chest, or loss of consciousness) after placing the dressing, assume that a tension pneumothorax has developed, and perform needle decompression.

5. Perform needle chest decompression, if necessary.

a. Locate the insertion site. Locate the second intercostal space (between the second and third ribs about two finger widths below the collarbone) at the midclavicular line (approximately in line with the nipple) on the same side of the casualty's chest as the penetrating wound.

b. Insert a large bore (14 gauge, 3-inch long) needle and catheter unit.

(1) Firmly insert the needle into the skin over the top of the third rib into the second intercostal space, until the chest cavity has been penetrated, as evidenced by feeling a "pop" as the needle enters the chest cavity. A hiss of escaping air under pressure will usually be heard.

Performance Steps

WARNING

Proper positioning of the needle is essential to avoid puncturing blood vessels and/or nerves. Blood vessels and nerves run along the bottom of each rib.

(2) Withdraw the needle while holding the catheter in place. Secure the catheter to the chest wall with tape.

6. Watch the casualty closely for life-threatening conditions, check for other injuries, if necessary, and treat for shock. Seek medical aid.

Evaluation Preparation:

Setup: Use the same dressing repeatedly. Prepare the dressing outer wrapper or provide a piece of airtight material (plastic, cellophane, foil). Have another Soldier act as the casualty. Use a moulage or otherwise simulate the chest wound. If a mannequin capable of testing needle chest decompression is available, use it to test step 5. Have an 18 gauge needle available.

Brief Soldier: Tell the Soldier to do, in order, all necessary first aid steps to treat the casualty's wound. When testing step 1, you can vary the test by telling the Soldier that clothing is stuck to the wound or that a chemical environment exists. For step 5, tell the Soldier that the casualty's condition is becoming worse, and have him/her show you (on a mannequin) or tell you what he/she would do to decompress the chest. Do not evaluate step 8 in the simulated mode.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Uncovered the wound, unless clothing was stuck to the wound or a chemical environment existed.	_____	_____
2. Applied airtight material over the wound without touching the inner surface.	_____	_____
a. Used the fully opened outer wrapper of the casualty's dressing or other airtight material.		
b. Applied the inner surface of the airtight material directly over the wound, after the casualty exhaled completely.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
c. Held the material in place.		
3. Applied the casualty's dressing.	_____	_____
a. Applied the dressing, white side down, directly over the airtight material.		
b. Had the casualty breathe normally.		
c. Maintained pressure on the dressing while wrapping the tails (or elastic bandage) around the body back to the starting point.		
d. For a field dressing, tied the tails into a nonslip knot over the center of the dressing, after the casualty exhaled completely. For an emergency trauma dressing, passed the tail through the plastic pressure device, reversed the tail while applying pressure, continued to wrap the tail around the body, and secured the plastic fastening clip to the last turn of the wrap.		
e. Checked to make sure the dressing was secured without interfering with breathing.		
4. When practical, applied direct manual pressure over the dressing for 5 to 10 minutes to help control the bleeding.	_____	_____
5. Positioned the casualty on the injured side or in a sitting position, whichever made breathing easier.	_____	_____
6. Performed needle chest decompression, if necessary.	_____	_____
a. Located the correct insertion site.		
b. Inserted the needle until the chest cavity was penetrated.		

Performance Measures	GO	NO GO
c. Withdrew the needle while holding the catheter in place, and secured the catheter to the chest wall with tape.		
7. Performed steps 1 through 6 in the correct sequence.	_____	_____
8. Watched the casualty closely for life-threatening conditions, checked for other injuries, if necessary, and treated for shock. Sought medical aid.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1032

Perform First Aid for a Bleeding and/or Severed Extremity

Conditions: You have a casualty who has a bleeding wound of the arm or leg. The casualty is breathing. You will need the casualty's first aid packet (emergency trauma dressing or field dressing), materials to improvise a pressure dressing (wadding and cravat or strip of cloth), materials to elevate the extremity (blanket, shelter half, poncho, log, or any available material), and combat application tourniquet (C-A-T) or materials to improvise a tourniquet—rigid object (stick, tent peg, or similar object) and a strip of cloth.

Standards: Control bleeding from the wound following the correct sequence. Place a dressing over the wound with the sides of the dressing sealed so it does not slip. Check to ensure the dressings do not have a tourniquet-like effect. Apply a tourniquet to stop profuse bleeding not stopped by the dressings, for severed arms and legs, or to control life-threatening bleeding when under fire.

Performance Steps

Note: If the wound is a partial or complete amputation of the arm or leg, you will need to apply a tourniquet on the injured extremity. Also, if you are under fire and need to control bleeding quickly, apply a tourniquet first. When the tactical situation allows, you can loosen the tourniquet and attempt to control the bleeding with a pressure dressing. Go to step 5.

1. Uncover the wound, unless clothing is stuck to the wound or in a chemical environment.

WARNING

Clothing or anything else stuck to the wound should be left alone to avoid injury. Do NOT attempt to clean the wound.

WARNING

Do NOT remove protective clothing in a chemical environment.
Apply dressings over the protective clothing.

2. Apply the casualty's dressing.

- a. Emergency trauma dressing.

Note: The emergency trauma dressing is a new item that can be used on any bleeding wound. It can be used both as a field dressing and as a pressure dressing.

- (1) Place the pad on the wound, white side down, and wrap the elastic bandage around the limb or body part.
- (2) Insert the elastic bandage into the pressure bar.
- (3) Tighten the elastic bandage.
- (4) Pull back, forcing the pressure bar down onto the pad.
- (5) Wrap the elastic bandage tightly over the pressure bar and wrap it over all edges of the pad.
- (6) Secure the hooking ends of the closure bar into the elastic bandage.

Performance Steps

WARNING

Emergency trauma dressings, field dressings, and pressure dressings should NOT have a tourniquet-like effect. The dressing must be loosened if the skin beyond the injury becomes cool, blue, or numb.

b. Field dressing.

(1) Apply the dressing, white side down, directly over the wound.

(2) Wrap each tail, one at a time, in opposite directions around the wound so the dressing is covered and both sides are sealed.

(3) Tie the tails into a nonslip knot over the outer edge of the dressing, NOT over the wound.

(4) Check the dressing to make sure that it is tied firmly enough to prevent slipping without causing a tourniquet-like effect.

3. Apply manual pressure and elevate the arm or leg to reduce bleeding, if necessary.

a. Apply firm manual pressure over the dressing for 5 to 10 minutes, when practical.

b. Elevate the injured part above the level of the heart, unless a fracture is suspected and has not been splinted.

4. If a field dressing was applied and bleeding continues, apply a pressure dressing.

a. Keep the arm or leg elevated.

b. Place a wad of padding directly over the wound.

c. Place an improvised dressing over the wad of padding and wrap it tightly around the limb.

d. Tie the ends in a nonslip knot directly over the wound.

e. Check the dressing to make sure that it does not have a tourniquet-like effect.

Performance Steps

Note: If the bleeding stops, watch the casualty closely, and check for other injuries.

Note: If the bleeding continues despite proper application of a field dressing and a pressure dressing or an emergency trauma dressing; or if the wound is a partial or complete amputation of the arm or leg, you will need to apply a tourniquet on the injured extremity. If only part of a hand or foot has been cut off, the bleeding should be stopped using a pressure dressing.

5. Apply a tourniquet.

a. Combat application tourniquet (C-A-T).

(1) Remove the C-A-T from the pouch.

(2) Slide the wounded extremity through the loop of the self-adhering band.

Note: The C-A-T is packaged in its one-handed configuration.

(3) Position the C-A-T.

(a) Position the C-A-T 2 inches above a bleeding site that is above the knee or elbow.

Caution: Never place a tourniquet directly over a wound, fracture, or joint.

(b) If the wound is below the knee or elbow, initially position the tourniquet band 2 inches above the wound. If a tourniquet applied below the knee or elbow is not successful at stopping the bleeding, apply a second tourniquet 2 inches above the joint (knee or elbow). Do not remove the first tourniquet until the second tourniquet has been applied.

(4) Pull the free running end of the self-adhering band tight and securely fasten it back on itself. Do NOT adhere the band past the windlass clip.

Note: The friction adaptor buckle is not necessary for proper C-A-T application to an arm. It should be used as added protection when using two hands to apply the C-A-T to a leg. To use it, route the self-adhering band through the friction adaptor buckle. This also prevents the strap from loosening during transport.

(5) Twist the windlass rod until the bleeding has stopped.

Performance Steps

(6) Lock the rod in place with the windlass clip.

Note: For added security (and always before moving a casualty) secure the windlass rod with the windlass strap. For small extremities, also secure the self-adhering band under the windlass strap.

(7) For small extremities, continue to wind the self-adhering band around the extremity and over the windlass rod.

(8) Grasp the windlass strap, pull it tight, and adhere it to the opposite hook on the windlass clip.

b. Improvised tourniquet.

(1) Make a tourniquet at least 2 inches wide.

(2) Position the tourniquet.

(a) Place the tourniquet over the smoothed sleeve or trouser leg if possible.

(b) Place the tourniquet around the limb 2 to 4 inches above the wound between the wound and the heart but not on a joint or directly over a wound or a fracture.

(c) If the wound is below the knee or elbow, initially position the tourniquet band 2 inches above the wound. If a tourniquet applied below the knee or elbow is not successful at stopping the bleeding, apply a second tourniquet 2 to 4 inches above the joint (knee or elbow). Do not remove the first tourniquet until the second tourniquet has been applied.

(3) Put on the tourniquet.

(a) Tie a half knot.

(b) Place a stick (or similar object) on top of the half knot.

(c) Tie a full knot over the stick.

(d) Twist the stick until the tourniquet is tight around the limb and bright red bleeding has stopped.

Note: In the case of an amputation, dark oozing blood may continue for a short time.

(4) Secure the tourniquet. The tourniquet can be secured using the ends of the tourniquet band or with another piece of cloth, as long as the stick does not unwind.

Performance Steps

Note: If a limb is completely amputated, the stump should be padded and bandaged (do not cover the tourniquet).

Note: If a tourniquet was applied to quickly control bleeding under fire, once the tactical situation allows, you can loosen the tourniquet if it has been in place for less than 6 hours. Do NOT remove it. Once the tourniquet is loosened, use direct pressure or pressure dressings to control the bleeding. If unable to control bleeding by these methods, retighten the tourniquet until the bleeding stops.

6. If a tourniquet was applied, mark the casualty's forehead with a letter T and the time, using a pen, mud, the casualty's blood, or whatever is available.

7. If applicable and the situation allows, save severed limbs or body parts and transport them with, but out of sight of, the casualty.

Note: The body parts should be wrapped in dry, sterile dressing and placed in a dry, plastic bag and, in turn, placed in a cool container (do not soak in water or saline or allow to freeze). It is possible that your location in the field/combat may not allow for the correct preserving of parts; do what you can.

8. Watch the casualty closely for life-threatening conditions, check for other injuries, if necessary, and treat for shock. Seek medical aid.

Evaluation Preparation:

Setup: Use the same dressing repeatedly. If a field dressing is being used, have materials available for a pressure dressing (wadding and cravat or a strip of cloth). Have one Soldier play the part of the casualty and another apply the dressing(s). Use a moulage or mark a place on the casualty's arm or leg to simulate a wound. For applying a tourniquet, use a mannequin or simulated arm or leg (padded length of 2-inch by 4-inch wood with a glove or boot on one end) with a dressing appropriately placed on the arm or leg. Under no circumstances will a live simulated casualty be used to evaluate the application of a tourniquet. Place the tourniquet materials nearby.

Brief Soldier: Tell the Soldier to do, in order, the first aid steps required to put on a dressing and, if necessary, a pressure dressing on the casualty's wound. When testing step 1, you can vary the test by telling the Soldier that clothing is stuck to the wound or that a

chemical environment exists. After steps 2 and 3, tell the Soldier that the bleeding has not stopped. After step 4, tell the Soldier the bleeding is continuing and ask the Soldier to describe and perform the first aid on the simulated arm or leg provided. After step 5, ask the Soldier what should be done to indicate that a tourniquet has been applied and what should be done with a severed limb, if applicable. Do not evaluate step 9 in the simulated mode.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Uncovered the wound, unless clothing was stuck to the wound or in a chemical environment.	___	___
2. Applied the casualty's dressing.	___	___
a. Dressing/pad was applied directly over the wound.		
b. Edges of dressing/pad were covered.		
c. Bandage was properly secured.		
d. Dressing did not create tourniquet-like effect.		
3. Applied manual pressure and elevated the arm or leg, if necessary.	___	___
4. If a field dressing was applied and bleeding continued, applied a pressure dressing.	___	___
a. Wad of padding was placed directly over the wound.		
b. Cloth was wrapped tightly around the limb.		
c. Nonslip knot was tied directly over the wound.		
d. Dressing did not create tourniquet-like effect.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
5. Applied a tourniquet, if necessary.	___	___
a. Improvised tourniquet, if used, was at least 2 inches wide.		
b. Tourniquet was placed at least 2 inches above the wound between the wound and the heart but not on a joint or directly over a wound or a fracture.		
c. Tourniquet was properly applied and secured.		
6. Performed steps 1 through 5, as necessary, in sequence.	___	___
7. If a tourniquet was applied, marked the casualty's forehead with a letter T and the time.	___	___
8. If applicable and the situation allowed, saved severed limbs or body parts and transported them with the casualty.	___	___
9. Watched the casualty closely for life-threatening conditions, checked for other injuries, if necessary, and treated for shock. Sought medical aid.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1033

Perform First Aid for an Open Head Wound

Conditions: You see a casualty who has an open head wound. The casualty is breathing. You will need the casualty's first aid packet

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(emergency trauma dressing or field dressing) and a canteen of water.

Standards: Apply a dressing to the wound following the correct sequence, without causing further injury to the casualty. The casualty was properly positioned and the dressing was secured without applying unnecessary pressure.

Performance Steps

1. Check the casualty's level of consciousness.
 - a. Question the casualty.
 - (1) "What is your name?"
 - (2) "Where are you?"
 - (3) "What is today's date (day, month, year)?"
 - b. Report incorrect answers, inability to answer, or changes in answers to medical personnel.
2. Position the casualty.

WARNING

Do NOT move the casualty if the casualty exhibits signs and/or symptoms, other than minor bleeding, of a neck, spine, or severe head injury.

- a. The casualty is conscious or has a minor scalp wound.
 - (1) Have the casualty sit up, unless other injuries prohibit sitting up.
 - (2) Raise the head slightly, if the casualty is lying down and is not accumulating fluids in his/her throat.
 - (3) Turn his/her head to the side or position the casualty on his/her side (opposite the wound), if the wound is bleeding into the mouth or throat.
- b. The casualty is unconscious or has a severe head injury.
 - (1) Treat the casualty as having a potential neck or spinal injury. Immobilize and do not move the casualty unless absolutely necessary.

Performance Steps

(2) Turn the casualty, if he/she is choking and/or vomiting or bleeding into the mouth. Position the casualty on his/her side opposite the wound.

WARNING

If it is necessary to turn a casualty with a suspected neck or spinal injury, assistance will be required. Roll the casualty gently onto his/her side, keeping the head, neck, and body aligned while providing support for the head and neck.

3. Expose the wound by removing the casualty's helmet, if necessary.

WARNING

In a nuclear, biological, and chemical (NBC) environment, you must leave the casualty as much protection (such as protective mask, mission-oriented protective posture [MOPP] overgarments) as possible. What items of protective equipment can be removed is dependent upon the casualty's injuries (where on the body and what type), the MOPP level, integrity of protective equipment (such as tears in the garment or mask seal), availability of chemical protective shelters, and the tactical situation.

4. Apply the casualty's dressing to the wound.

WARNINGS

Do NOT attempt to clean the wound or remove a protruding object.
Do NOT attempt to put unnecessary pressure on the wound or attempt to push any brain matter back into the head (skull).
Do NOT apply a pressure dressing.
Do NOT give the casualty any food or drink.

Note: The following procedures are for applying a field dressing. If you are applying an emergency trauma dressing, follow the general procedure for other bleeding wounds, while observing general guidelines and precautions.

Performance Steps

a. Forehead or back of the head.

(1) Apply the dressing, white side down, directly over the wound with the tails extending toward the sides of the head.

(2) Wrap the tails, one at a time, around the head in opposite directions, making sure the tails cover the dressing but not the eyes and ears.

(3) Tie the tails at the side of the head using a nonslip knot.

b. Top of the head.

(1) Apply the dressing, white side down, directly over the wound.

(2) Wrap one tail down under the chin and bring it up in front of the ear over the dressing to a point just above, and in front of, the opposite ear.

WARNING

Ensure the tails remain wide and close to the front of the chin to avoid choking the casualty.

(3) Wrap the other tail down under the chin in the opposite direction and up the side of the head to meet the first tail.

(4) Cross the tails.

(5) Wrap one tail across the forehead above the eyebrows to a point just above and in front of the opposite ear.

(6) Wrap the other tail above the ear, low over the back of the head, and above the opposite ear to meet the other tail.

(7) Tie the tails using a nonslip knot.

c. Side of the head or cheek.

(1) Apply the dressing, white side down, directly over the wound with the tails extending up and down.

(2) Wrap the top tail over the top of the head, down in front of the ear, under the chin, and up over the dressing to a point just above the ear.

(3) Wrap the other tail in the opposite direction to meet the first tail.

Performance Steps

- (4) Cross the tails and complete the procedure as follows:
 - (a) Wrap one tail across the forehead above the eyebrows to a point just above, and in front of, the opposite ear.
 - (b) Wrap the other tail above the ear, low over the back of the head, and above the opposite ear to meet the other tail.
 - (c) Tie the tails using a nonslip knot.
- 5. Watch the casualty for life-threatening conditions, check for other injuries, if necessary, and treat for shock. Seek medical aid.

Evaluation Preparation:

Setup: Use the same dressing repeatedly. Have another Soldier act as the casualty. Use a moulage or otherwise simulate a wound to the forehead, back of the head, side of the head, cheek, or top of the head. Brief the casualty on how to answer the Soldier's questions during step 1. You can have a canteen of water available and have the casualty say that he/she is thirsty to see if the Soldier knows what to do.

Brief Soldier: Tell the Soldier to do, in order, all necessary first aid steps to treat the casualty's wound. Tell the Soldier that it is not in a chemical environment. Do not evaluate step 6 in the simulated mode.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Checked the casualty's level of consciousness.	_____	_____
2. Positioned the casualty correctly for the location of the wound.	_____	_____
3. Exposed the wound.	_____	_____
4. Applied the casualty's dressing.	_____	_____
a. Dressing/pad was applied directly over the wound.		
b. Edges of dressing/pad were covered.		

Performance Measures	GO	NO GO
c. Bandage was properly secured.		
d. Bandage did not cover the eyes or ears or choke the casualty.		
5. Performed steps 1 through 4 in the correct sequence.	_____	_____
6. Watched the casualty closely for life-threatening conditions, checked for other injuries, if necessary, and treated for shock. Sought medical aid.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1034

Perform First Aid for a Suspected Fracture

Conditions: You see a casualty who has an arm or leg that you think is broken. The casualty has no more serious wounds or conditions that have not been treated. You will need splint materials (boards, poles, tree branches), padding materials (clothing, blanket, dressing, leafy vegetation), and tie materials (strips of cloth, belts).

Standards: Splint the suspected broken arm or leg so that the arm or leg did not move and circulation was not impaired.

Performance Steps

1. Prepare the casualty for splinting.
 - a. Reassure the casualty if he/she is conscious and able to understand. Tell the casualty that you will be taking care of him/her.
 - b. Loosen any tight or binding clothing.

Performance Steps

WARNING

Do NOT remove any protective clothing or boots in a chemical environment. Apply the splint over the clothing.

WARNING

Do NOT remove boots from the casualty unless they are needed to stabilize a neck injury or there is actual bleeding from the foot.

c. Remove all jewelry from the affected limb and place it in the casualty's pocket. Tell the casualty that you are doing this to prevent further injury if swelling occurs later.

2. Get splinting materials.

a. Get splints (wooden boards, tree branches, poles, an unloaded rifle) long enough to reach beyond the joints above and below the broken part.

b. Get materials to pad the splints, such as a jacket, blanket, poncho, shelter half, or leafy vegetation.

c. Get tie materials, such as strips of cloth or belts, to tie the splints.

Note: If splinting materials are not available, use the chest wall to immobilize a suspected fracture of the arm and an uninjured leg to immobilize the fractured leg. Continue with steps 7 and 8.

3. Pad the splints. Apply padding between the splint and the bony areas of the body. Suggested sites for padding: wrist, elbow, ankle, knee, crotch, and armpit.

Note: You may have access to a universal or "SAM" splint. This splint is coated with a synthetic padding and does not require additional padding.

4. Check for signs of blood circulation problems below the injury.

a. Check light-skinned persons for color of skin (skin may be pale, white, or a bluish gray color).

Performance Steps

b. Check dark-skinned persons by depressing the toenail or fingernail beds and seeing how fast the color returns. A slower return of color to the injured side indicates a circulation problem.

c. Check to see if the injured arm or leg feels colder than the uninjured one.

d. Ask the casualty about the presence of numbness, tightness, or a cold sensation.

WARNING

If there is a blood circulation problem, evacuate the casualty as soon as possible.

5. Put on a splint.

WARNING

If the fracture is open, do NOT attempt to push bones back under the skin. Apply a dressing to protect the area.

a. As a rule, splint the fracture in the position found.

CAUTION

Do NOT try to reposition or straighten the fracture unless there is no circulation below the fracture site or you cannot effectively splint it. Realignment of the limb may help to restore circulation.

(1) If there is no circulation below the fracture site, or if the limb is grossly angulated and you cannot effectively splint it, you may need to gently realign the limb to effectively splint the fracture site.

(2) With one hand supporting the fracture site, use the other hand to grasp the part of the limb farthest from the fracture and gently place traction on it (pull in the direction of the long axis of the bone, like extending a telescope).

b. Place one splint on each side of the arm or leg. Make sure the splints reach beyond the joints above and below the fracture.

Performance Steps

- c. Tie the splints with improvised (or actual) cravats.

(1) Gently place the cravats at a minimum of two points above and two points below the fracture if possible.

WARNING

Do NOT tie any cravats directly over the fracture.

- (2) Tie nonslip knots on the splint away from the injury.

6. Check the splint for tightness.

- a. Make sure the cravats are tight enough to hold the splinting materials securely in place.

- b. Recheck circulation below the injury to make sure that circulation is not impaired.

- c. Make any adjustments without allowing the splint to become ineffective.

7. Apply a sling if applicable.

Note: A sling can be used to further immobilize an arm and to provide support by the uninjured side.

- a. Make a sling from any nonstretching material (such as a strip of clothing or blanket, poncho, shelter half, belt, or shirttail).

- b. Apply the sling so the supporting pressure is on the casualty's uninjured side.

- c. Make sure the hand of the supported arm is slightly higher than the elbow.

8. Apply swathes if applicable.

Note: Apply swathes when the casualty has a splinted, suspected fracture of the elbow or leg, or when a suspected fracture cannot be splinted. (Improvise swathes from large pieces of cloth or belts.)

WARNING

Place swathes above and/or below the fracture, not over it.

Performance Steps

- a. Apply swathes to an injured arm by wrapping the swathes over the injured arm, around the casualty's back, and under the arm on the uninjured side. Tie the ends on the uninjured side.
 - b. Apply swathes to an injured leg by wrapping the swathes around both legs and tying the swathes on the uninjured side.
9. Watch the casualty closely for life-threatening conditions and check for other injuries. Seek medical aid.

Evaluation Preparation:

Setup: You will need another Soldier to play the part of the casualty. Have the casualty lie down or sit. Place splinting materials nearby. Have available splints, padding, and materials for ties, slings, and swathes that are appropriate to the fracture location on the arm or leg. If available, have two or more pairs of splints of varying lengths to help in scoring step 1.

Brief Soldier: Tell the Soldier that the casualty has a suspected closed fracture and where it is located (lower arm, elbow, upper leg, lower leg). Tell the Soldier to splint the suspected fracture. Do not evaluate step 8 in the simulated mode.

Performance Measures	GO	NO GO
1. Used splints that reached beyond the joints above and below the fracture.	_____	_____
2. Checked blood circulation below the fracture, before and after applying the splints.	_____	_____
3. Applied padding between the splints and all bony areas.	_____	_____
4. Used at least four ties (two above and two below the fracture) to secure the splints, if possible.	_____	_____
5. Tied nonslip knots on the splint that is away from the injury.	_____	_____
6. Immobilized the splinted arm or leg using a sling and/or swathes, as required, to prevent easy movement.	_____	_____

Performance Measures	<u>GO</u>	<u>NO GO</u>
7. Checked the splint for tightness.	_____	_____
8. Watched the casualty for life-threatening conditions and checked for other injuries. Sought medical aid.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1044

Perform First Aid for Nerve Agent Injury

Conditions: You and your unit are in an area where there is a threat of chemical attack. You are wearing protective overgarments and/or mask, or they are immediately available. There are casualties with possible nerve agent injuries. You will need chemical protective gloves, overgarments, overboots, protective mask and hood, mask carrier, and nerve agent antidote autoinjectors. The casualty has three sets of MARK I nerve agent antidote autoinjectors or three antidote treatment nerve agent autoinjector (ATNAAs) and one convulsant antidote for nerve agents (CANA) autoinjector.

Standards: Administer the antidote correctly to self, or administer three sets of MARK I nerve agent antidote autoinjectors or three ATNAAs followed by the CANA to a buddy following the correct sequence.

Performance Steps

Note: The ATNAA system is a nerve agent antidote device that will be used by the armed forces. A single ATNAA delivers both the atropine and pralidoxime chloride (2 PAM Cl). The ATNAA is replacing the MARK I as supplies of the MARK I are exhausted.

Note: When performing first aid on a casualty, seek medical aid as soon as possible. Do NOT stop the first aid. If the situation allows, send another person to find medical aid.

1. Identify mild signs and symptoms of nerve agent poisoning.
 - a. Unexplained runny nose.
 - b. Unexplained sudden headache.
 - c. Sudden drooling.
 - d. Tightness in the chest or difficulty breathing.
 - e. Difficulty seeing (dimness of vision or miosis).
 - f. Localized sweating and muscular twitching in the area of contaminated skin.
 - g. Stomach cramps.
 - h. Nausea.

Note: For the above signs and symptoms, first aid is considered to be self-aid.

2. React to the chemical hazard.
 - a. Put on your protective mask.

Note: Do NOT put on additional protective clothing at this time. Give yourself the nerve agent antidote first. Then, decontaminate exposed skin areas and put on remaining protective clothing.

- b. Give the alarm.
-

Performance Steps

3. Administer nerve agent antidote to self (self-aid), if necessary.

a. MARK I.

(1) Prepare to administer one atropine injection.

(a) Remove one set of MARK I from your protective mask carrier, from the pocket of the MOPP suit, or from another location as specified by your unit standing operating procedure (SOP).

(b) With one hand, hold the set of injectors by the plastic clip at eye level with the big injector on top.

(c) With the other hand, check the injection site to avoid buttons and objects in pockets where injecting.

(d) Grasp the small injector without covering or holding the needle (green) end, and pull it out of the clip with a smooth motion.

(e) Form a fist around the autoinjector with the needle (green) end extending beyond the little finger end of the fist. Be careful not to inject yourself in the hand.

Note: If the injection is accidentally given in the hand, another small injector must be obtained and the injection given in the proper site.

(f) Place the needle end of the injector against the outer thigh muscle or buttock. For injections into the thigh, grasp the trouser cargo pocket and pull forward, clearing possible obstructions from the site.

Note: The injection can be given in any part of the lateral thigh muscle from about a hand's width above the knee to a hand's width below the hip joint.

Note: Very thin Soldiers should give the injection in the upper outer part of the buttock.

CAUTION

When injecting antidote in the buttock, be very careful to inject only into the upper, outer quarter of the buttock to avoid hitting the major nerve that crosses the buttocks. Hitting the nerve may cause paralysis.

Performance Steps

(2) Administer the atropine injection.

(a) Push the injector into the muscle with firm, even pressure until it functions.

Note: A jabbing motion is not necessary to trigger the activating mechanism.

(b) Hold the injector firmly in place for at least 10 seconds.

(c) Remove the injector from your muscle and carefully place this used injector between two fingers of the hand holding the plastic clip.

(3) Prepare to administer one 2 PAM CI injection.

(a) Pull the large injector out of the clip and form a fist around the autoinjector with the needle (black) end extending beyond the little finger. Drop the clip to the ground.

(b) Place the needle end of the injector against the injection site.

(4) Administer the 2 PAM CI injection.

(a) Push the injector into the muscle with firm, even pressure until it functions.

(b) Hold the injector firmly in place for at least 10 seconds.

(5) Secure the used injectors.

(a) Use a hard surface to bend each needle to form a hook.

(b) Push the needle of each injector (one at a time) through one of the pocket flaps of the protective overgarment. Be careful not to tear your protective clothing or gloves with the needles.

(6) Massage the injection site, mission permitting.

Performance Steps

b. ATNAA.

(1) Prepare to administer one ATNAA.

(a) Remove one ATNAA from your protective mask carrier, from the pocket of the MOPP suit, or from another location as specified by your unit SOP.

(b) Remove the autoinjector from the pouch.

(c) With your dominant hand, hold the ATNAA in your closed fist with the needle (green) end extending beyond the little finger in front of you at eye level.

(d) With your nondominant hand, grasp the safety (gray) cap with the thumb and first two fingers.

CAUTION

Do NOT cover or hold the needle end with your hand, thumb, or fingers. You may accidentally inject yourself.

(e) Pull the safety cap off the bottom of the injector with a smooth motion and drop it to the ground.

(f) With the nondominant hand, check the injection site to avoid buttons and objects in pockets where injecting. For injections into the thigh, grasp the trouser cargo pocket and pull forward, clearing possible obstructions from the site.

(g) Place the needle end of the injector against the outer thigh muscle or buttock.

Note: The injection can be given in any part of the lateral thigh muscle from about a hand's width above the knee to a hand's width below the hip joint.

Note: Very thin Soldiers should give the injection in the upper outer part of the buttock.

CAUTION

When injecting antidote in the buttock, be very careful to inject only into the upper, outer quarter of the buttock to avoid hitting the major nerve that crosses the buttocks. Hitting the nerve may cause paralysis.

Performance Steps

(2) Administer the injection.

(a) Push the injector into the muscle with firm, even pressure until it functions.

Note: A jabbing motion is NOT necessary to trigger the activating mechanism.

(b) Hold the injector firmly in place for at least 10 seconds.

(c) Remove the injector from your muscle.

(3) Secure the used injector.

(a) Use a hard surface to bend the needle to form a hook, without tearing protective gloves or clothing.

(b) Push the needle of the used injector through one of the pocket flaps of the protective overgarment.

(4) Massage the injection site, mission permitting.

Note: Seek overhead cover or use a poncho to provide cover, mission permitting.

4. Decontaminate skin if necessary.

Note: Information on this step is provided in task 031-503-1013.

5. Put on remaining protective clothing.

Note: Information on this step is covered in task 031-503-1015.

6. Seek buddy-aid or medical aid.

WARNING

Do NOT give yourself additional injections. If you are able to walk without assistance, know who you are, and where you are, you will NOT need the second set of injections. If you continue to have symptoms of nerve agent poisoning, seek someone else (a buddy) to check your symptoms and administer the additional sets of injections, if required.

Performance Steps

7. Identify severe signs and symptoms of nerve agent poisoning.
 - a. Strange or confused behavior.
 - b. Wheezing, difficulty in breathing (dyspnea), and coughing.
 - c. Severely pinpointed pupils.
 - d. Red eyes with tearing.
 - e. Vomiting.
 - f. Severe muscular twitching and general weakness.
 - g. Involuntary urination and defecation.
 - h. Convulsions.
 - i. Unconsciousness or stoppage of breathing.

Note: If the casualty is exhibiting severe symptoms, assistance (buddy-aid) is required by the individual to complete first aid treatment.

8. Mask the casualty if necessary.

WARNING

Do NOT kneel at any time while providing aid to the casualty. Contact with the ground could force the chemical into or through the protective clothing.

Note: Reposition the casualty on his/her back, if necessary, to mask the individual.

- a. Place the mask on the casualty.
- b. If the casualty can follow directions, have him/her clear the mask.
- c. Check for a complete mask seal by covering the inlet valves of the mask.

Performance Steps

d. Pull the protective hood over the head, neck, and shoulders of the casualty.

e. Position the casualty on the right side, similar to a swimmer's position, with the head slanted down so that the casualty will not roll back over.

9. Administer first aid to a nerve agent casualty (buddy-aid).

a. MARK I.

(1) Prepare to administer one atropine injection.

(a) Position yourself near the casualty's thigh.

(b) Remove all three sets of autoinjectors and the single CANA autoinjector from the casualty's mask carrier, battle dress uniform (BDU) pocket, or from another location as specified by your unit SOP. Place the injectors and CANA on the casualty's side. Do NOT place the unused devices on the ground.

(c) With one hand, hold one MARK I set by the plastic clip at eye level with the big injector on top.

(d) With the other hand, check the injection site to avoid buttons and objects in pockets. For injections into the thigh, grasp the trouser cargo pocket and pull forward (toward you), clearing possible obstructions from the site.

(e) Grasp the small injector and pull it out of the clip with a smooth motion.

(f) Hold the injector in your closed fist with the needle (green) end pointing out by your little finger without covering the needle end.

(g) Place the needle end of the injector against the casualty's lateral thigh muscle or buttock.

Performance Steps

Note: The injection can be given in any part of the lateral thigh muscle from about a hand's width above the knee to a hand's width below the hip joint.

Note: Very thin Soldiers should be given the injections in the upper outer part of the buttock.

WARNING

When injecting antidote in the buttock, be very careful to inject only into the upper, outer quarter of the buttock to avoid hitting the major nerve that crosses the buttocks. Hitting the nerve may cause paralysis.

(2) Administer the atropine injection.

(a) Push the injector into the muscle with firm, even pressure until it functions.

(b) Hold the injector in place for at least 10 seconds.

(c) Remove the injector from the muscle and carefully place the used injector between two fingers of the hand holding the clip.

(3) Prepare to administer one 2 PAM CI injection.

(a) Pull the large injector out of the clip and hold the injector in your closed fist with the needle (black) end pointing out by your little finger, without covering the needle end. Drop the clip to the ground.

(b) Place the needle end of the injector against the injection site.

(4) Administer the 2 PAM CI injection.

(a) Push the injector into the muscle with firm, even pressure until it functions.

(b) Hold the injector in place for at least 10 seconds.

(c) Lay the used injectors on the casualty's side.

Note: Repeat steps 10a(1) through 10a(4) until the casualty has received a total (including self-administered) of three sets of antidote injections.

Performance Steps

b. ATNAA.

(1) Prepare to administer one ATNAA.

(a) Obtain three or all remaining ATNAAs and one CANA from the casualty's protective mask carrier, from the pocket of the MOPP suit, or from another location as specified by your unit SOP.

(b) Remove one ATNAA from its pouch.

(c) With your dominant hand, hold the ATNAA in your closed fist with the needle (green) end pointing out by your little finger, in front of you at eye level.

(d) With your nondominant hand, grasp the safety (gray) cap with the thumb and first two fingers.

CAUTION

Do NOT cover or hold the needle end with your hand, thumb, or fingers. You may accidentally inject yourself.

(e) Pull the safety cap off the bottom of the injector with a smooth motion and drop it to the ground.

(f) With the nondominant hand, check the injection site to avoid buttons and objects in pockets where injecting. For injections into the thigh, grasp the trouser cargo pocket and pull forward, clearing possible obstructions from the site.

(g) Place the needle end of the injector against the outer thigh muscle or buttock.

Note: The injection may be given in any part of the lateral thigh muscle from about a hand's width above the knee to a hand's width below the hip joint.

Note: Very thin Soldiers should be given the injection in the upper outer part of the buttock.

CAUTION

When injecting antidote in the buttock, be very careful to inject only into the upper, outer quarter of the buttock to avoid hitting the major nerve that crosses the buttocks. Hitting the nerve may cause paralysis.

Performance Steps

(2) Administer the injection

(a) Push the injector into the muscle with firm, even pressure until it functions.

Note: A jabbing motion is NOT necessary to trigger the activating mechanism.

(b) Hold the injector firmly in place for at least 10 seconds.

(c) Remove the injector from the muscle.

(d) Place the used injector on the casualty's side.

(3) Repeat the procedure for a total of three ATNAAs.

10. Administer the anticonvulsant, CANA.

a. Prepare to administer the CANA injection.

(1) Tear the protective plastic packet open and remove the injector.

(2) With your dominant hand, hold the injector in your closed fist with the needle (black) end pointing out by your little finger.

(3) With the other hand, pull the safety cap off the injector base to arm the injector.

CAUTION

Do NOT touch the needle end. You could accidentally inject yourself.

(4) Place the needle end of the injector against the casualty's injection site.

b. Administer the CANA injection.

(1) Push the injector into the muscle with firm, even pressure until it functions.

(2) Hold the injector in place for at least 10 seconds.

11. Secure the casualty's used injectors.

a. Using a hard surface bend each needle to form a hook without tearing protective gloves or clothing.

b. Push the needle of each used injector (one at a time) through one of the pocket flaps of the casualty's protective overgarment.

Performance Steps

12. Decontaminate the casualty's skin, if necessary.

Note: This information is covered in task 031-503-1013.

13. Seek medical aid.

Evaluation Preparation:

Setup: You must use nerve agent antidote injection training aids to train and evaluate this task. Actual autoinjectors will not be used. For self-aid, have the Soldier dress in MOPP 2. Have the Soldier wear a mask carrier containing a mask and the training nerve agent autoinjectors. For buddy-aid, have the Soldier being tested and the casualty dress in MOPP 2. Have the casualty lie on the ground wearing the mask carrier containing a mask and the training nerve agent autoinjectors.

Brief Soldier: For step 1, tell the Soldier to state, in any order, the mild symptoms of nerve agent poisoning. The Soldier must state seven of the eight symptoms to be scored GO. Then, tell the Soldier that he/she has mild symptoms and to take appropriate action. After the Soldier completes step 3, ask what should be done next. Then ask what he/she should do after putting on all protective clothing. Score steps 4 through 6 based upon the Soldier's responses. For step 7, tell the Soldier to state, in any order, the severe symptoms of nerve agent poisoning. The Soldier must state eight of the nine symptoms to be scored GO. Tell the Soldier to treat the casualty for nerve agent poisoning. After the Soldier completes step 11, ask what else he/she should do. Score steps 12 and 13 based upon the Soldier's responses.

Performance Measures	GO	NO GO
1. Identified mild signs of nerve agent poisoning.	_____	_____
2. Reacted to the chemical hazard.	_____	_____
3. Correctly administered the nerve agent antidote to self.	_____	_____
4. Decontaminated skin, if necessary.	_____	_____
5. Put on remaining protective clothing.	_____	_____

Performance Measures	<u>GO</u>	<u>NO GO</u>
6. Sought help (buddy-aid).	___	___
7. Identified severe signs of nerve agent poisoning.	___	___
8. Masked the casualty.	___	___
9. Correctly administered nerve agent antidote to the casualty.	___	___
10. Correctly administered the CANA injection to the casualty.	___	___
11. Secured the casualty's used injectors.	___	___
12. Decontaminated the casualty's skin, if necessary.	___	___
13. Sought medical aid.	___	___
14. Performed steps 1 through 12 in the correct sequence.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

DVC 08-36

DVC 08-37

FM 4-25.11

081-831-1045

Perform First Aid for Cold Injuries

Conditions: You see a casualty who has signs and symptoms of a cold injury. You will need a canteen of potable water, blanket (or similar item to use for warmth), and dry clothing.

Standards: Identify the type of cold injury and give the correct first aid.

Performance Steps

Note: When performing first aid on a casualty, seek medical aid as soon as possible. Do NOT stop the first aid; but, if the situation allows, send another person to find medical aid.

1. Identify the type of cold injury.
 - a. Chilblain. If the signs and symptoms are as follows go to step 2a.
 - (1) Prolonged exposure of bare skin at temperatures of 60° F to 32° F, or 20° F for acclimated, dry, unwashed skin.
 - (2) The area may be acutely swollen, red, tender, and hot with itchy skin.
 - (3) There may be no loss of skin tissue in untreated cases but continued exposure may lead to infected, ulcerated, or bleeding lesions.
 - b. Frostbite. If the signs and symptoms are as follows, go to step 2b.
 - (1) Exposure to cold, usually below 32°F depending on the wind chill factor, duration of exposure, and adequacy of protection. Individuals with a history of cold injury are likely to suffer an additional cold injury.
- Note:** The body parts most easily frostbitten are the cheeks, nose, ears, chin, forehead, wrists, hands, and feet. Frostbite may involve only the skin (superficial), or it may extend to a depth below the skin (deep).
- (2) Loss of sensation or numb feeling in any part of the body.
 - (3) Sudden blanching (whitening) of the skin of the affected part, followed by a momentary tingling feeling.
 - (4) Redness of skin in light-skinned Soldiers, grayish coloring in dark-skinned Soldiers.
 - (5) Blisters.
 - (6) Swelling or tender areas.
 - (7) Loss of previous feeling of pain in the affected area.
 - (8) Pale, yellowish, waxy-looking skin.
 - (9) Frozen tissue that feels solid (or wooden) to the touch.

Performance Steps

CAUTION

Deep frostbite (when freezing extends to a depth below the skin) is a very serious injury and requires immediate first aid and subsequent medical treatment to avoid or minimize loss of body parts.

c. Immersion foot/trench foot. If the signs and symptoms are as follows, go to step 2c.

(1) Fairly long exposure of feet to wet conditions at temperatures from about 50° F to 32° F.

(2) First stage.

(a) Parts of the affected foot are cold and painless

(b) Pulse is weak.

(c) Numbness may be present

(3) Second stage.

(a) Parts may feel hot and burning

(b) Shooting pains may begin.

(4) Later stages.

(a) Skin is pale with a bluish cast.

(b) Pulse decreases.

(c) Other signs that may follow include blisters, swelling, redness, heat, bleeding, or gangrene.

d. Snow blindness. If the signs and symptoms are as follows, go to step 2d.

(1) Sensation of grit in the eyes with pain in and over the eyes, made worse by moving the eyeball.

(2) Watery eyes.

(3) Redness.

(4) Headache.

(5) Increased pain with exposure to light.

Performance Steps

e. Hypothermia. If the signs and symptoms are as follows, go to step 2e.

- (1)** Early.
 - (a)** Shivering.
 - (b)** Pulse is faint or very difficult to detect.
 - (c)** Drowsiness and mental slowness.
 - (d)** Stiffness and lack of coordination.
 - (e)** Slurred speech.
- (2)** Moderate.
 - (a)** Glassy eyes.
 - (b)** Slow and shallow breathing.
 - (c)** Very weak, or absent, pulse.
 - (d)** Increasing stiffness and lack of coordination.
 - (e)** Unconsciousness.
- (3)** Severe.
 - (a)** Frozen extremities.
 - (b)** Irregular heart action.
 - (c)** Sudden death.

f. Dehydration (cold weather). If the signs and symptoms are as follows, go to step 2f.

- (1)** Mouth, tongue, and throat are parched and dry.
 - (2)** Swallowing becomes difficult.
 - (3)** Nausea (with or without vomiting).
 - (4)** Extreme dizziness and fainting.
 - (5)** Tired and weak feeling.
 - (6)** Muscle cramps.
 - (7)** Focusing eyes may be difficult.
-

Performance Steps

2. Perform first aid for the cold injury.

a. Chilblain.

(1) Rewarm the affected part by applying firm steady pressure with your hands, or placing the affected part under your arms or against the stomach of a buddy.

(2) Do NOT rub or massage affected areas.

(3) Have medical personnel evaluate the injury, because signs and symptoms of tissue damage may be slow to appear.

b. Frostbite.

(1) Face, ears, and nose. Cover the casualty's affected area with his/her and/or your bare hands until sensation and color return.

(2) Hands. Open the casualty's field jacket and shirt. Place the affected hands under the casualty's armpits. Close the field jacket and shirt to prevent additional exposure.

CAUTION

Do NOT remove clothing in a chemical environment.

(3) Feet. Remove the casualty's boots and socks if he/she does not need to walk any further to receive additional treatment. Place the affected feet under clothing and against the body of another Soldier.

WARNING

Do NOT attempt to thaw the casualty's feet, or other seriously frozen areas, if the Soldier will be required to walk or travel to a medical center to receive medical treatment. The possibility of injury from walking is less when the feet are frozen than after they have been thawed (if possible, avoid walking). Thawing in the field increases the possibility of infection, gangrene, or injury.

Note: Thawing may occur spontaneously during transportation to the aid station or hospital. This cannot be avoided since the body in general must be kept warm.

(4) Ensure that the casualty is kept warm and that he/she is covered (to avoid further injury).

(5) Seek medical treatment as soon as possible.

Performance Steps

(6) Reassure the casualty, protect the affected area from further injury by covering it lightly with a blanket or any dry clothing, and seek shelter out of the wind.

(7) Remove or loosen constricting clothing (except in a contaminated environment) and increase insulation.

(8) Ensure the casualty exercises as much as possible, avoiding trauma to the injured part, and is prepared for pain when thawing occurs.

(9) Protect the frostbitten part from additional injury. Do NOT—

(a) Rub the injured part with snow or apply cold water soaks.

(b) Warm the part by massage or exposure to open fire because the frozen part may be burned due to the lack of feeling.

(c) Use ointments or other salves.

(d) Manipulate the part in any way to increase circulation.

(e) Allow the Soldier to use alcohol or tobacco.

c. Immersion foot/trench foot.

Note: First aid measures are required for all stages of immersion injury.

(1) Rewarm the injured part gradually by exposing it to warm air.

(2) Protect the part from trauma and secondary infections.

(3) Use dry, loose clothing or several layers of warm coverings instead of extreme heat.

WARNING

Under no circumstances should the injured part be exposed to an open fire.

(4) Elevate the affected part.

Performance Steps

(5) Protect the part from additional injury. Do NOT—

- (a) Massage the injured part.
- (b) Moisten the skin.
- (c) Apply heat or ice.

(6) Transport the casualty to a medical treatment facility as soon as possible.

d. Snow blindness.

(1) Cover the eyes with a dark cloth. If further exposure to light is not preventable, the eyes should be protected with dark bandages or the darkest glasses available.

(2) Evacuate the casualty to the nearest medical treatment facility.

e. Hypothermia.

(1) Early or moderate.

(a) Provide heat by using a hot water bottle or canteen filled with hot water and wrapped in cloth, or another Soldier's body heat.

CAUTION

Merely placing the casualty in a sleeping bag or covering with a blanket is NOT enough; the casualty is unable to generate his/her own body heat.

CAUTION

Do NOT expose the casualty to an open fire; he/she may become burned.

(b) Call or send for help.

(c) Remove all wet clothing immediately.

(d) Place casualty in dry clothing and/or sleeping bag.

(e) Move casualty to a warm place.

(f) Evaluate other injuries and provide first aid, as required. (First aid measures can be performed while the casualty is waiting for transportation or en route.)

(g) Evacuate the casualty to the nearest medical treatment facility.

Performance Steps

(2) Severe.

(a) Start rescue breathing at once if the casualty's breathing has stopped or is irregular or shallow

(b) Give warm liquids (not hot) gradually if the casualty is conscious.

CAUTION

Do NOT force liquids on an unconscious or semiconscious casualty because he/she may choke.

(c) Evacuate to the nearest medical treatment facility as soon as possible.

Note: Rewarming a severely hypothermic casualty in the field is extremely dangerous. There is a great possibility of complications (such as rewarming shock and disturbance in the rhythm of the heartbeat).

f. Dehydration.

(1) Keep warm.

(2) Loosen clothes to improve circulation unless in a chemical environment.

(3) Provide shelter from the wind and cold.

(4) Give fluids for fluid replacement.

(5) Transport the casualty to a medical treatment facility as soon as possible.

Evaluation Preparation:

Setup: Have a Soldier play the part of the cold injury casualty. Select one type of cold injury on which to evaluate the Soldier. Coach the simulated casualty on how to answer questions about symptoms. Physical signs and symptoms that the casualty cannot readily simulate (for example, blisters) must be described to the Soldier.

Brief Soldier: Tell the Soldier to determine what cold injury the casualty has. After the cold injury has been identified, ask the Soldier to describe the proper treatment.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Identified the type of cold injury.	___	___
2. Provided the proper first aid for the cold injury.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

081-831-1046

Transport a Casualty

Conditions: You have evaluated and given first aid to a casualty. You need to move the casualty to get further medical aid and may have to remove him/her from a vehicle before transporting. Assistance from other Soldiers may be available. You will need material that will not cut or bind the casualty (cravat bandages or litter straps), poncho, shirts or jackets, and poles or tree limbs.

Standards: Transport the casualty using an appropriate carry or litter without dropping or causing further injury to the casualty.

Performance Steps

1. Remove a casualty from a vehicle, if necessary.

WARNING

If the casualty was involved in a vehicle crash you should always consider that he/she may have a spinal injury. Unless there is an immediate life-threatening situation (such as fire, explosion), do NOT move the casualty with a suspected back or neck injury. Seek medical personnel for guidance on how to transport.

- a. Laterally.

(1) With the assistance of another Soldier grasp the casualty's arms and legs.

Performance Steps

(2) While stabilizing the casualty's head and neck as much as possible, lift the casualty free of the vehicle and move him/her to a safe place on the ground.

Note: If medical personnel are available, they may stabilize the casualty's head, neck, and upper body with a special board or splint.

b. Upward.

Note: You may have to remove a casualty upward from a vehicle, for example, from the passenger compartment of a wheeled vehicle lying on its side or from the hatch of an armored vehicle sitting upright.

(1) You may place a pistol belt or similar material around the casualty's chest to help pull him/her from the vehicle.

(2) With the assistance of another Soldier inside the vehicle, draw the casualty upward using the pistol belt or similar material or by grasping his/her arms.

(3) While stabilizing the casualty's head and neck as much as possible, lift the casualty free of the vehicle and place him/her on the topmost side of the vehicle.

Note: If medical personnel are available, they may stabilize the casualty's head, neck, and upper body with a special board or splint.

(4) Depending on the situation, further move the casualty from the topmost side of the vehicle to a safe place on the ground.

2. Select an appropriate method of transporting the casualty.

WARNING

Do NOT use manual carries to move a casualty with a neck or spine injury, unless a life-threatening hazard is in the immediate area. Seek medical personnel for guidance on how to move and transport the casualty.

a. Fireman's carry. Use for an unconscious or severely injured casualty.

b. Neck drag. Use in combat, generally for short distances.

CAUTION

Do NOT use the neck drag if the casualty has a broken arm or a suspected neck injury.

Performance Steps

c. Cradle-drop drag. Use to move a casualty who cannot walk when being moved up or down stairs.

d. Use litters if materials are available, if the casualty must be moved a long distance, or if manual carries will cause further injury.

3. Transport the casualty.

a. Fireman's carry.

(1) Kneel at the casualty's uninjured side.

(2) Place casualty's arms above the head.

(3) Cross the ankle on the injured side over the opposite ankle.

(4) Place one of your hands on the shoulder farther from you and your other hand on his/her hip or thigh.

(5) Roll the casualty toward you onto his/her abdomen.

(6) Straddle the casualty.

(7) Place your hands under the casualty's chest and lock them together.

(8) Lift the casualty to his/her knees as you move backward.

(9) Continue to move backward, thus straightening the casualty's legs and locking the knees.

(10) Walk forward, bringing the casualty to a standing position but tilted slightly backward to prevent the knees from buckling.

(11) Maintain constant support of the casualty with one arm.

Free your other arm, quickly grasp his/her wrist, and raise the arm high.

(12) Instantly pass your head under the casualty's raised arm, releasing it as you pass under it.

(13) Move swiftly to face the casualty.

(14) Secure your arms around his/her waist.

(15) Immediately place your foot between his/her feet and spread them (approximately 6 to 8 inches apart).

(16) Again grasp the casualty's wrist and raise the arm high above your head.

Performance Steps

(17) Bend down and pull the casualty's arm over and down your shoulder bringing his/her body across your shoulders. At the same time pass your arm between the legs.

(18) Grasp the casualty's wrist with one hand while placing your other hand on your knee for support.

(19) Rise with the casualty correctly positioned.

Note: Your other hand is free for use as needed.

b. Neck drag.

WARNING

Do NOT use the neck drag if the casualty has a broken and/or fractured arm or a suspected neck injury. If the casualty is unconscious, protect his/her head from the ground.

(1) Tie the casualty's hands together at the wrists. (If conscious, the casualty may clasp his/her hands together around your neck.)

(2) Straddle the casualty in a kneeling face-to-face position.

(3) Loop the casualty's tied hands over and/or around your neck.

(4) Crawl forward, looking ahead, dragging the casualty with you.

c. Cradle-drop drag.

(1) With the casualty lying on his/her back, kneel at the head.

(2) Slide your hands, palms up, under the casualty's shoulders.

(3) Get a firm hold under his/her armpits.

(4) Partially rise, supporting the casualty's head on one of your forearms.

Note: You may bring your elbows together and let the casualty's head rest on both of your forearms.

Performance Steps

(5) With the casualty in a semisitting position, rise and drag the casualty backwards.

(6) Back down the steps (or up if appropriate), supporting the casualty's head and body and letting the hips and legs drop from step to step.

d. SKED litter.

(1) Remove SKED from pack and place on ground.

(2) Unfasten retainer strap, step on foot end of SKED, and unroll completely to opposite end.

(3) Bend the SKED in half and back roll. Repeat with opposite end of litter. SKED litter will now lay flat.

(4) Place SKED litter next to casualty. Ensure head end of litter is adjacent to the head of casualty. Place cross straps under SKED.

(5) Log roll casualty and slide SKED as far under him/her as possible. Gently roll casualty down on to SKED litter.

(6) Slide casualty to center of SKED litter. Be sure to keep spinal column as straight as possible.

(7) Pull straps out from under SKED litter.

(8) Lift sides of SKED and fasten the four cross straps to buckles directly opposite the straps.

(9) Lift foot portion of SKED and feed foot straps through unused grommets at foot end of SKED and fasten to buckles.

Note: Dragline is attached to the head portion of the SKED litter and used to transport the casualty off the battlefield.

e. Improvised litter.

(1) Use the poncho and two poles or limbs.

(a) Open the poncho and lay the two poles lengthwise across the center, forming three equal sections.

(b) Reach in, pull the hood up toward you, and lay it flat on the poncho.

Performance Steps

- (c) Fold one section of the poncho over the first pole.
- (d) Fold the remaining section of the poncho over the second pole to the first pole.
- (2) Use shirts or jackets and two poles or limbs.
 - (a) Button two or three shirts or jackets and turn them inside out, leaving the sleeves inside.
 - (b) Lay the shirts or jackets on the ground and pass the poles through the sleeves.
- (3) Place the casualty on the litter.
- (4) Lift the litter.
 - (a) Raise the litter together.
 - (b) Keep the litter as level as possible.

Note: Use caution when transporting on a slope, incline, and/or hill.

Evaluation Preparation:

Setup: For the one-man carries, you will need another Soldier to play the part of the casualty. If a vehicle is available, you can place the casualty in it to test step 1. Tell the casualty what the injuries are and whether he/she is conscious or unconscious. Obtain appropriate materials (strip of cloth, poles, branches, poncho, blanket, and so forth) as necessary, to test the carries.

Brief Soldier: Tell the Soldier that the casualty has been given first aid. Describe a situation in terms of the casualty's injuries, whether the casualty is conscious or unconscious, whether enemy fire can be expected or not, and what distance the casualty must be moved. Tell the Soldier to transport the casualty using an appropriate carry or a litter.

Note: Do not make the situation too complex. Remember when scoring the Soldier, two or more of the carries might be appropriate for the situation. The most important thing is that the selected carry should not cause further injury to the casualty and should not endanger the lives of the two Soldiers.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Removed the casualty from a vehicle, if necessary.	___	___
2. Selected an appropriate method of transporting the casualty.	___	___
3. Transported the casualty.	___	___
4. Did NOT cause further unnecessary injury.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

FM 4-25.11

FM 8-10-6

081-831-1053

Practice Individual Preventive Medicine Countermeasures

Conditions: You are a Soldier deployed to a unit in the field. The items you will need will vary depending on the physical environment and climate. They may include water, food, replacement clothing, lip balm, personal insect repellent, hand sanitizing gel, sunscreen, foot powder, soap, washcloth, baby wipes, own supply of toilet paper, toothbrush and toothpaste, shampoo, iodine tablets, and razor.

Standards: Apply preventive medicine countermeasures to protect, as appropriate, against cold, heat, biting insects, poisonous plants, animals, diseases from contaminated food and water, diseases from human waste, diseases from soil and common objects, sexually transmitted diseases (STD), and acquired immunodeficiency syndrome (AIDS). Maintain personal hygiene and proper level of nutrition, take measures to resist stress, and avoid adverse effects of tobacco products.

Performance Steps

Note: Every Soldier should be issued and maintain a supply of personal protection items. These items include lip balm, personal insect repellent, hand sanitizing gel, sunscreen, and foot powder.

1. Apply proper preventive medicine measures (PMMs) for protection against cold injuries.

a. Wear layers of loose clothing.

Note: Minimize sweating. When clothing becomes wet or dirty, it loses its ability to provide warmth.

b. Exercise to increase blood circulation.

(1) Tighten and relax arm and leg muscles, fingers, and toes.

(2) Use hands to massage and warm the face.

(3) Refrain from smoking because it restricts blood flow to the skin.

c. Change socks.

(1) Put on dry socks during rest breaks to reduce the risk of frostbite and trench foot.

<p style="text-align: center;">WARNING</p>

<p>Severe frostbite and trench foot can result in the loss of hands or feet.</p>
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Note: Inactive feet in damp or wet socks and boots or tightly laced boots, which impair circulation, are even more susceptible to injury.

(2) Put damp socks inside the shirt to dry.

d. Prevent dehydration.

(1) Drink sufficient fluids (potable water, juices, and warm nonalcoholic beverages).

Note: Drinking a sufficient amount of potable water in cold weather is as important as it is in hot weather. In cold weather, you may not realize that your body is losing fluids and salt. Sweat evaporates rapidly or is absorbed so completely by the layers of clothing that it is seldom visible on the skin.

(2) Rest when possible.

Performance Steps

2. Apply proper PMMs for protection against heat injuries.

- a. Drink sufficient amounts of water.

Note: Your body needs a minimum amount of water for cooling, waste elimination, and metabolism. Any attempt to train the body to use less water can be harmful and may lead to heat injuries.

(1) Hourly fluid intake should not exceed 1 1/2 quarts of water every hour. Daily fluid intake should not exceed 12 quarts. If your urine is dark yellow, you are not drinking enough water.

(2) Fluid intake needs will vary depending on type of work and temperature (see figure 081-831-1053-1 and table 081-831-1053-1).

***Examples of Categories of Work**

<i>Easy Work</i>	<i>Moderate Work</i>	<i>Hard Work</i>
Weapon maintenance Walking on hard surface at 2.5 mph, ≤ 30-lb load. Manual of arms. Marksmanship training. Drill and ceremony.	Walking on loose sand at 2.5 mph, no load. Walking on hard surface at 3.5 mph, < 40-lb load. Calisthenics Patrolling. Individual movement techniques, such as low crawl, high crawl. Defensive position construction.	Walking on loose sand at 2.5 mph with load. Walking on hard surface at 3.5 mph, ≥ 40-lb load. Field assaults.

Figure 081-831-1053-1.Categories of work

Performance Steps

Table 081-831-1053-1. *Fluid Replacement Policy for Warm Weather *(Average acclimated Soldier wearing BDU, Hot Weather)

Heat Category	WBGT Index °F	Easy Work		Moderate Work		Hard Work	
		Work / Rest	Water intake, Qt/hr	Work/ Rest	Water Intake, Qt/hr	Work/ Rest	Water Intake, Qt/hr
1*	78 – 81.9	NL	½	NL	¾	40/20 min	¾
2 (green)	82 – 84.9	NL	½	50/10 min	¾	30/30 min	1
3 (yellow)	85 – 87.9	NL	¾	40/20 min	¾	30/30 min	1
4 (red)	88 – 89.9	NL	¾	30/30 min	¾	20/40 min	1
5** (black)	>90	50/10 min	1	20/40 min	1	10/50 min	1

Caution

Hourly fluid intake should not exceed 1 ½ quarts. Daily fluid intake should not exceed 12 quarts.

*Work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specified heat category. Individual water needs will vary ± ¼ quarts per hour.

*NL = no limit to work time per hour. Rest is minimal physical activity (sitting or standing) and should be accomplished in shade, if possible.

Wearing body armor adds 5 degrees Fahrenheit to wet bulb globe temperature (WBGT) Index.

*Wearing all MOPP overgarments adds 10 degrees Fahrenheit to WBGT Index.

**Suspend physical training and strenuous activity. If an operational (nontraining) mission requires strenuous activity, enforce water intake to minimize expected heat injuries.

(3) Drink extra water before combat operations.

(4) Maintain excess water in your system for strength and alertness.

(5) Protect yourself from dehydration and heat injuries associated with wearing full chemical protective gear.

Performance Steps

b. Rest whenever possible.

(1) Take rest breaks in accordance with the heat condition table, as the tactical situation permits.

(2) Use rest breaks to drink water and to cool off. Take a cool shower, if possible.

c. Eat meals.

(1) Eat regular meals daily to replace salt lost through heavy sweating.

(2) Eat something at each meal, even if you are not hungry.

Note: Usually, eating field rations or liberal salting of the garrison diet will provide enough salt. Excess intake of salt should be avoided.

(3) Do NOT take herbal-type medications, diet supplements, or performance-enhancing drugs.

d. Protect yourself from exposure.

(1) Wear uniform properly.

(2) Use shade whenever possible.

(3) Use barrier creams and lotions.

3. Apply proper PMMs for protection against arthropod (insect) bites and arthropod-borne diseases.

a. Apply extended-duration arthropod repellent lotion to exposed skin, your ankles, and your waistline.

b. Apply insect repellent to your uniform (if not treated with permethrin).

c. Keep sleeves down and trouser legs tucked into boots to protect from biting insects.

d. Check yourself and your buddy for ticks twice a day.

4. Apply proper PMMs for protection against poisonous plants and animals.

a. Look inside sleeping bag before getting in.

b. Look inside boots before putting them on.

Performance Steps

c. Keep sleeves down and trouser legs tucked into boots to protect from poisonous plants.

d. Do not play with snakes.

5. Apply proper PMMs for protection against diseases from contaminated food and water.

a. Drink water from approved sources only

b. Eat from approved sources only.

Note: Street vendors are never approved food sources as they are not inspected by U.S. Military Preventive Medicine or Veterinary personnel. Foods consumed from street vendors can cause severe illness in U.S. troops.

6. Apply proper PMMs for protection against diseases from human waste.

a. Dig a cat-hole to use for excreting waste if your unit is on the move. Cover it sufficiently to prevent flies from spreading germs from waste to your food, and to keep unwanted animals out of your bivouac area.

b. The straddle trench latrine is used on short bivouacs and field training exercises, 1 to 3 days.

c. Deep pit latrines are constructed for temporary camps that are more than 3 days.

d. Individual waste collection bags may be used on the march, on convoys, or for small groups in isolated areas. It is important to seal and transport the waste with you until it can be burned or buried safely.

e. The pail latrine and the burn-out latrine are constructed when chemical toilets are not available, the ground is too hard, or the soil is very wet. The latrine is burned out daily by adding sufficient fuel to incinerate the excrement. The contents are burned until they are dry and odorless. Any remaining ash should be buried.

Performance Steps

7. Apply proper PMMs to protect against diseases from soil and common objects.

a. Wash your hands regularly to defend against germs from the soil and from objects handled by other people.

(1) After using the latrine.

(2) Before touching eating utensils or food.

(3) After eating.

(4) After handling any item that can potentially transfer germs.

(5) Frequently during the work day to keep your hands free of germs.

b. Cleaning your hands with hand-sanitizing gel is an effective way to disinfect them from nearly all germs that cause illnesses. You should use soap and water to wash your face and to bathe the rest of your body.

8. Maintain personal hygiene on the move.

a. While in the field or deployed you will not always have ready access to your rucksack. Always carry these items with you:

(1) A bar of soap and a washcloth, or baby wipes .

(2) Your own supply of toilet paper or baby wipes.

(3) Your toothbrush and toothpaste.

(4) Shampoo.

b. If shower or laundry facilities are not available, use plastic wash bins or other containers to bathe or wash clothing, if you have an adequate water supply.

c. Sprinkle foot powder in your socks to help absorb the moisture.

d. Remove the inserts from your boots at night to prevent fungus from growing.

e. If you get athlete's foot, you will need an antifungal solution or cream to treat it.

Performance Steps

f. Wear one pair of boots one day and change to your other pair the next day.

g. Use boot/sock liners for road marches greater than 5 km (3.1 mi) to prevent blisters.

Note: Boot/sock liners are your military issued black dress socks worn underneath your military black boot socks.

9. Maintain your level of nutrition.

Note: Soldiers typically do not eat enough when they are in the field or deployed; they lose weight, and they lose their edge on physical and mental performance.

a. Your meal, ready to eat (MRE) is the standard individual ration for operations.

Note: The MRE contains cooked entrees and other food items that require no preparation. There is a selection from among 24 different menus. It is designed to sustain the Soldier engaged in heavy activity, such as field training and deployed missions, when normal food service facilities are not available. One MRE provides an average of 1,300 calories, consisting of 13% protein, 36% fat, and 51% carbohydrates.

b. It is important to eat at least some of each item in the MRE, even if you are not hungry.

10. Take measures to resist stress.

a. Fear and physical signs or symptoms of stress are normal reactions before and during combat or other dangerous/life-threatening situations. You should not let fear or stress keep you from doing your job.

b. Talk about what is happening with your buddies, especially during after-action debriefings.

c. Learn ways to relax quickly.

Performance Steps

d. Integrate new replacements into your unit and get to know them quickly.

e. If you must join a new unit, be active in establishing friendships.

11. Protect against sexually transmitted diseases (STDs).

a. Use a condom (rubber).

Note: Individuals should use a condom during vaginal, anal, or oral sex when there is a possibility of acquiring an infection.

b. Avoid high-risk sexual behaviors.

(1) Having more than one sexual partner.

(2) Changing sex partners frequently.

(3) Having sex with casual partners, prostitutes, or their clients.

(4) Sexual practices such as anal sex.

c. Control alcohol intake (it affects your ability to use safe sex practices).

12. Protect against human immunodeficiency virus (HIV), the virus that causes AIDS.

Note: HIV is contagious in the same way STDs are contagious. Infection can result from a sexual relationship with an infected person. Sexual contact is not the only way to contract HIV; but is a major contributor.

a. Prevent sexual transmission—know your partner. Avoid having sex with persons who might be infected with HIV. At highest risk are those who have more than one sex partner, or who have unprotected sex with casual partners, prostitutes, or their clients, partners who are HIV infected, or who share needles with others.

b. Prevent transmission through shared needles or syringes—do not use injected, nonprescribed drugs.

Note: Although progress has been made in research and medications, it is important to remember that there is presently no cure for AIDS and no vaccine to prevent HIV infection.

Performance Steps

13. Avoid adverse effects of tobacco products.

a. Using tobacco affects your ability to function when you are in the field or deployed.

b. Smoking has tactical hazards that include:

(1) Cigarette smoke can be detected up to 300 meters down wind by the enemy.

(2) The flame can be detected by enemy snipers.

(3) There are possibilities of starting a fire.

c. Smoking can be hazardous to a Soldier's health, even if it is a buddy who is smoking. The long-term adverse effects of using tobacco include chronic diseases of the heart and lungs, cancer, stroke, and high blood pressure.

d. Short-term effects can cut into your effectiveness in performing your mission.

(1) The enemy can find you!

(2) Night vision decreases 20-25%.

(3) Watering eyes.

(4) Runny nose.

(5) Cough.

(6) Loss of smell and taste.

(7) Increase in heart rate (up to 30%).

(8) More easily fatigued.

(9) Elevation in blood pressure (up to 15%).

(10) Decreased appetite.

(11) Diarrhea, constipation, or both.

(12) Reduced stamina.

(13) Decreased ability to recover from illness and injury.

(14) Decrease in blood circulation to the brain.

Evaluation Preparation:

Setup: Evaluate this task during a field training exercise (FTX) or during a normal training session. If the evaluation is conducted during an FTX, the environmental and physical conditions at the FTX

will be used as the scenario for which preventive medicine countermeasures are implemented. If the evaluation is done during a normal training session, create the scenario to include environmental and physical conditions.

Brief Soldier: Tell the Soldier he/she will be evaluated on his/her ability to apply the appropriate preventive medicine countermeasures. The Soldier will respond to appropriate performance measures.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Protected against cold.	___	___
2. Protected against heat.	___	___
3. Protected against arthropod bites and arthropod-borne diseases.	___	___
4. Protected against poisonous plants and animals.	___	___
5. Protected against diseases from contaminated food and water.	___	___
6. Protected against diseases from human waste.	___	___
7. Protected against diseases from soil and common objects.	___	___
8. Maintained personal hygiene on the move.	___	___
9. Maintained proper level of nutrition.	___	___
10. Took measures to resist stress.	___	___
11. Protected against sexually transmitted diseases.	___	___
12. Protected against AIDS.	___	___
13. Avoided adverse effects of tobacco products.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show what was done wrong and how to do it correctly.

References

Required

Related

AR 600-63

FM 21-10

FM 4-25.11

**SUBJECT AREA 3: NUCLEAR, BIOLOGICAL, AND
CHEMICAL (NBC)**

031-503-1013

Decontaminate Yourself and Individual Equipment Using Chemical Decontaminating Kits

Conditions: You are at mission-oriented protective posture (MOPP) 2. You are given Technical Manual (TM) 3-4230-229-10, a protective mask, protective gloves, a full canteen of water, a poncho, load-bearing equipment (LBE), and decontaminating kits. Your skin has been exposed to chemical agents, or you have passed through a chemically contaminated area.

Standards: Decontaminate yourself and your individual equipment using the chemical decontaminating kits. Start the steps to decontaminate your skin and eyes within 1 minute after contamination. Decontaminate your exposed skin and eyes, as necessary, before chemical-agent symptoms occur. Decontaminate all individual equipment after decontaminating your skin and eyes.

Performance Steps

1. Assume MOPP3 (don your protective mask in addition to MOPP2).
2. Decontaminate your skin using the M291 decontaminating kit.

CAUTION

The M291 decontaminating kit is for external use only. Keep decontaminating powder out of your eyes and any cuts or wounds. The decontaminating powder may irritate your skin or eyes. Use water to wash the toxic agent out of your eyes, cuts, or wounds.

DANGER

Death or injury may result if you breathe toxic agents while decontaminating your face. If you need to breathe before you finish, reseal your mask, clear it, check it, get your breath, and then resume the decontaminating procedure.

Note: After decontaminating with water, cover exposed cuts or wounds with appropriate first aid wrap or bandages before handling the decontaminating kit.

CAUTION

Do NOT handle or hold leaking packets above your head. Do NOT touch or rub your eyes, lips, or the inside of your mouth with anything that has been in contact with the decontaminating powder.

CAUTION

Do NOT attempt to decontaminate a loaded weapon. Always unload and clear the weapon and place the weapon on safe before starting decontaminating procedures. Immediate decontaminating techniques remove only the liquid hazard. Certain items may still present a vapor hazard. See your supervisor for unmasking procedures.

a. Decontaminate your hands and face and the inside of your mask.

(1) Remove one skin decontamination packet from your carrying pouch.

(2) Tear it open quickly at the notch.

(3) Remove the applicator pad from the packet, and discard the empty packet.

(4) Unfold the applicator pad, and slip your finger(s) into the handle.

(5) Scrub the back of your hand, palm, and fingers until they are completely covered with black powder from the applicator pad.

(6) Switch the applicator pad to the other hand, and repeat the procedure.

Performance Steps

Note: Do not discard the applicator pad at this time.

Note: If you were masked with your hood zipped and the drawstring pulled tight when you were contaminated, stop. Discard the applicator pad, put on your protective gloves, and go to step 2b.

However, if you were masked, but the zipper and drawstring were not secure, go to step 2a(16). The stars in the illustration on page 2-5 of TM 3-4230-229-10 show areas of the face that should be scrubbed with an extra stroke because they are hard to decontaminate.

Note: The procedure is the same regardless of the type of protective mask. If you are using the new style chemical-protective overgarment with a hood attached to the protective jacket, ignore the instructions for the hood.

DANGER

Death or injury may result if you breathe toxic agents while doing the following step. If you need to breathe before you finish, reseal your mask, clear it, check it, get your breath, and then resume the decontaminating procedure.

(7) Scrub exposed skin of your face thoroughly until you are completely covered with black powder from the applicator pad.

(8) Hold your breath, close your eyes, grasp the mask beneath your chin, and pull the hood and mask away from your chin enough to allow one hand between the mask and your face.

(9) Scrub up and down across your face, beginning at the front of one ear, to your nose, and then to your other ear.

(a) Scrub across your face to the corner of your nose.

(b) Scrub an extra stroke at the corner of your nose.

(c) Scrub across your nose, to the tip of your nose, and then to the other corner of your nose.

(d) Scrub an extra stroke at the corner of your nose.

(e) Scrub across your face to your other ear.

Performance Steps

(10) Scrub up and down across your face to your mouth and then to the other end of your jawbone.

- (a)** Scrub across your cheek to the corner of your mouth.
- (b)** Scrub an extra stroke at the corner of your mouth.
- (c)** Scrub across your closed mouth to the center of your upper lip.
- (d)** Scrub an extra stroke above your upper lip.
- (e)** Scrub across your closed mouth to the other corner of your mouth.
- (f)** Scrub an extra stroke at the corner of your mouth.
- (g)** Scrub across your cheek to the end of your jawbone.

(11) Scrub up and down across your face to your chin and then to the other end of your jawbone.

- (a)** Scrub across and under your jaw to your chin, cupping your chin.
- (b)** Scrub extra strokes at the center of your chin.
- (c)** Scrub across your upper jaw to the end of your jawbone.

(12) Turn your hand out, and quickly wipe the inside of the mask where it touches your face.

(13) Discard the applicator pad.

(14) Seal your mask immediately, clear it, and check it.

(15) Remove the second skin decontamination packet from the carrying pouch.

(16) Scrub your neck and ears until they are thoroughly covered with black powder without breaking the seal between your face and your mask. Scrub your hands again until they are completely covered with black powder.

(17) Repeat steps 2a (2),(3), and (4) above.

Performance Steps

b. Assume MOPP4.

- (1) Discard the applicator pad.
- (2) Put on your protective gloves.
- (3) Fasten your hood.

c. Remove the decontaminating powder with soap and water when operational conditions permit.

3. Decontaminate your individual equipment using the M295 decontaminating kit.

a. Use the first mitt to decontaminate your gloves, the exposed areas of your mask and hood, your weapon, and your helmet.

- (1) Remove one decontamination packet from the pouch.
- (2) Tear the packet open at any notch.
- (3) Remove the decontamination mitt.
- (4) Discard the empty packet.
- (5) Unfold the decontamination mitt.

(6) Grasp the green (nonpad) side of the decontamination mitt with your nondominant hand. Pat the other gloved hand with the decontamination mitt to start the flow of decontamination powder onto your glove. Rub your glove with the decontamination mitt until it is completely covered with decontaminating powder.

(7) Insert the decontaminated, gloved hand inside the decontamination mitt. Ensure that the pad side is in the palm of your hand and that your thumb sticks through the appropriate thumbhole. Securely tighten the wristband on the gloved hand.

(8) Decontaminate individual equipment by rubbing with the pad side of the decontamination mitt until the equipment is thoroughly covered with decontamination powder. Pay special attention to areas that are hard to reach (such as cracks, crevices, and absorbent materials).

(a) Decontaminate your other glove.

(b) Decontaminate exposed areas of your mask and hood.

Performance Steps

- (c) Decontaminate your weapon.
 - (d) Decontaminate your helmet by patting it with the decontamination mitt.
 - (9) Discard the decontamination mitt.
 - b. Use the second mitt to decontaminate your LBE and accessories, mask carrier, overboots, and gloves again.
 - (1) Get another packet, and repeat steps 3a(1) through 3a(7). Then, perform the following:
 - (a) Decontaminate load-carrying equipment (LCE) and accessories (such as canteen, ammunition pouch, and first aid pouch).
 - (b) Decontaminate your mask-carrying case.
 - (c) Decontaminate your protective boots.
 - (d) Repeat the decontamination process on your protective gloves.
 - (2) Discard the decontamination mitt.
 - (3) Get another packet and repeat steps 3a(1) through 3a(7) if liquid contamination is still suspected or detected. Rub or blot areas where contamination is still suspected or detected.
- Note.** The M295 kit only removes the liquid hazard. Decontaminated items may still present a vapor hazard. Do not unmask until it has been determined that it is safe to do so.
- c. Remove the decontaminating powder when operational conditions permit.
4. Dispose of hazardous waste materials.
 - a. Dispose of uncontaminated hazardous waste materials.
 - (1) Dispose of expended or unserviceable materials according to federal, state, and local laws; military regulations and publications; host nation laws (if more restrictive than United States [US] laws); and local standing operating procedures (SOPs).
 - (2) Place used decontaminating materials in a sealed plastic bag, and label it with the contents. Give the bag to your supervisor.

b. Dispose of contaminated hazardous waste materials. Inform your supervisor of the status of contaminated hazardous waste.

Evaluation Preparation: Setup: A good time to evaluate this task is while in a field environment. Gather materials for the disposal of hazardous waste according to federal, state, and local rules and regulations.

Brief Soldier: Tell the Soldier what body parts and equipment are contaminated.

Performance Measures	GO	NO GO
1. Assumed MOPP3.	_____	_____
2. Decontaminated skin using the M291 decontaminating kit.	_____	_____
3. Decontaminated individual equipment using the M295 decontaminating kit.	_____	_____
4. Disposed of hazardous waste materials.	_____	_____

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

References

Required

TM 3-4230-229-10

Related

FM 3-11.4

FM 3-5

TM 10-8415-209-10

TM 3-4230-235-10

031-503-1015

Protect Yourself From Chemical, Biological, Radiological, or Nuclear (CBRN) Injury or Contamination With Mission-Oriented Protective Posture (MOPP) Gear

Conditions: You are given mission-oriented protective posture (MOPP) gear, Field Manual (FM) 3-11.4, Technical Manual (TM) 3-

4240-279-10, TM 3-4240-280-10, and one of the following situations in a chemically contaminated tactical environment:

1. You are ordered to achieve MOPP4.
2. You learn that a chemical attack is about to happen.
3. You must enter an area where chemical agents have been used.
4. You recognize a chemical hazard.
5. You are attacked with chemical agents without warning.

Note: If you are equipped with the joint-service lightweight integrated suit technology (JSLIST), use task number 031-503-1040 instead of this task. This task was developed for the older battle dress overgarment (BDO).

Standards: Protect yourself from CBRN injury or contamination with MOPP gear. Perform all steps in sequence, and achieve MOPP4 within 8 minutes.

Performance Steps

1. Put on gear for MOPP1.
 - a. Don the trousers.
 - (1) Put the overgarment trousers on over your normal duty uniform or, in hot weather, over your undergarments.
 - (2) Secure the trousers by snapping and zipping them and adjusting the waistband for a snug fit.
 - (3) Do NOT fasten the bottom of the trousers at this time.
 - b. Secure the jacket to the trousers by snapping the three snaps across the back of the jacket to the trousers.
 - c. Don the jacket
 - (1) Put on the overgarment jacket.
 - (2) Zip it up.
 - (3) Fasten the snaps.

Performance Steps

2. Put on the protective overboots to reach MOPP2.

Notes: Go to Step 2a if you are putting on the older-model, chemical-protective footwear cover (CPFC). (The overboots have a single eyelet at the rear.)

Go to Step 2b if you are putting on the newer-model CPFC. (The overboots have two rear eyelets.)

Go to Step 2c if you have green or black vinyl overboots.

a. Put the older-model CPFC overboots on over your leather combat boots, lacing them according to the instructions provided in the package.

- (1) Smooth the excess material as flat as possible.
- (2) Lace the overboots.
- (3) Don the cover on either foot by centering your foot on the sole.
- (4) Thread the lace through the front eyelet so that the ends are the same length.
- (5) Tie a single hitch by passing one lace end through each eyelet from the inside to the outside, drawing each lace end tight.
- (6) Pass both ends through the rear eyelet from the inside to the outside.
- (7) Bring the ends back through the side eyelets.
- (8) Tighten the lace by working the slack out of it between the side and back eyelets.

Note: The lace should hold the rear eyelet firmly against the boot.

- (9) Tie the lace tightly across the instep with a single hitch.

(10) Wrap the excess lace around your leg, tying the ends with a reef or bow knot.

Performance Steps

b. Put the newer-model CPFC overboots on over your leather combat boots, lacing them according to the instructions provided in the package.

(1) Don the cover on either foot by centering your foot on the sole.

(2) Tuck the excess front material under the front of your foot.

(3) Lace the overboots.

(a) Thread the lace through the front eyelet so that both ends are the same length.

(b) Pass each lace end through a side eyelet from the inside to the outside.

(c) Draw the laces up tightly, fastening them with a single knot.

(d) Pass the ends through the rear eyelets from the inside to the outside.

(e) Pull the laces up firmly, positioning the fish tails neatly at the sides of your ankle.

(f) Tie the laces firmly with a single knot in front.

(g) Wrap the loose lace ends around your leg, tying them firmly in front with a bow knot and tucking in the loose ends.

Note: The newer model method is being taught at the United States (US) Army Chemical School. Units that still have the older model should continue to use the older-model donning instructions.

c. Put the green vinyl overboots on over the leather combat boots, securing them by pulling the rubber bands around the metal buttons.

d. Blouse the overgarment trouser legs over the chemical-protective overboots.

e. Secure the overgarment trouser legs by pulling the zipper down, tying the drawstring, and then securing the hook-and-pile closure.

Performance Steps

- 3. Put on the protective mask with hood to reach MOPP3.
 - a. Don the protective mask.
 - b. Don the hood.
 - c. Zip up the hood (M17-series protective mask only).
 - d. Adjust the neck cord.
 - e. Attach the underarm straps.

Note: The time standards for masking do not apply to this task.

- 4. Put on additional gear to reach MOPP4.
 - a. Put on the mask. (This posture is not appropriate when a blister agent is present.)
 - b. Secure your MOPP gear by zipping all zippers and closing all closures.
 - c. Put on the chemical-protective gloves (rubber gloves and liners).
 - d. Pull the elastic cuffs of the overgarment jacket sleeves over the cuffs of the chemical-protective gloves.

Evaluation Preparation: Setup: Evaluate this task during a field exercise or normal training session. Gather all necessary MOPP gear, and ensure that it is in good condition. Be ready to direct higher MOPP levels as a Soldier reaches a preceding level.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Put on gear for MOPP1.	_____	_____
2. Put on protective overboots to reach MOPP2.	_____	_____
3. Put on the protective mask with hood to reach MOPP3.	_____	_____
4. Put on additional gear to reach MOPP4.	_____	_____
5. Completed steps 1 through 4 in 8 minutes or less.	_____	_____

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

References

Required

FM 3-11.4
TM 3-4240-279-10
TM 3-4240-280-10

Related

TM 10-8415-209-10
TM 3-4240-300-10-2
TM 3-4240-312-12&P
TM 3-4240-346-10

031-503-1017

Respond to Depleted Uranium (DU)

Conditions: You are in a combat situation where DU munitions or weapon systems that may contain DU are in use or may be used. You are given a protective mask, gloves, first aid supplies, Graphic Training Aid (GTA) 03-04-001A, and one of the following situations:

1. You encounter expended DU penetrators or parts of penetrators.
2. You encounter United States (US) or foreign armored vehicles that have breached crew compartments.
3. You encounter a fire where DU munitions may be involved.

Standards: Respond to DU, and implement protective measures as required.

Performance Steps

Note: The presence of DU will NOT prevent accomplishment of the mission and will NOT be a concern when actively engaged in direct combat.

1. Identify the DU hazard.
 - a. Recognize expended or damaged DU penetrators or parts of penetrators.

(1) DU munitions are "discarding sabot" rounds that carry a DU penetrator in a full-caliber body. The M242 DU munitions are the M919. The fin and penetrator are indications of a DU munition.

Performance Steps

(2) DU penetrators can be deformed if the penetrator hits a hard target. DU penetrators could maintain their original shapes or lose their nose cone and/or tail fin. Because a tungsten penetrator could appear very similar to a DU penetrator, assume all penetrators you find are made from DU.

b. Recognize a breached armored vehicle crew compartment.

(1) One visual indicator is a small, round entry and/or exit hole; however, other munitions may produce the same effects. Many vehicles on the battlefield (such as thin-skinned vehicles) look like Swiss cheese.

(2) Another indicator is the presence of penetrators in or around the vehicle. If a DU penetrator does not hit its target, you could see a "silver-white" penetrator for a time until the penetrator oxidizes. This is especially true in dry climates.

(3) Another indicator is the presence of DU oxides. DU oxides give the air a dull black color. Other colors (such as gold, yellow, or green) may be present, but DU oxide is usually black. DU oxides may appear as black dust, ash, charcoal-looking chunks, or large blackened fragments. The inside of the vehicle may have a layer of dust that covers everything. However, this is not always an indicator because plastics and other burned material give a similar appearance.

c. Recognize fires that involve DU munitions. DU is pyrophoric, which means that small particles may self-ignite when exposed to the friction and heat of a munitions strike. These particles tend to catch fire rapidly and burn at very high temperatures. This adds to the effect of DU munitions strikes, since these burning particles often touch off secondary fuel and ammunition explosions on penetrated vehicles. One signature of a DU strike—especially at night—is the bright green flash, often compared to a 4th of July sparkler, created by the particles igniting.

Note: There are no additional protective measures required for intact DU munitions beyond those that are standard for all munitions.

d. Identify the presence of DU contamination. The only way to positively identify the presence of DU contamination is with a radiac meter—either the AN/PDR-77 (using the beta/gamma probe) or the AN/VDR-2 (with the beta shield open).

Performance Steps

2. Protect yourself from contact with DU.
 - a. Leave all penetrators alone, and notify the chain of command of the location of the penetrator.
 - b. Put on a protective mask and cover your exposed skin (if required) to decontaminate the crew compartment of an armored vehicle that has been penetrated by armor-piercing munitions.
 - c. Remain 50 meters or more from any armored vehicle or ammunition transport vehicle that is actively burning.
- Note:** Standard field hygiene (such as washing your hands and face) will help prevent the transfer and ingestion of DU. All munitions found on the battlefield should be considered potentially dangerous and left alone for removal by specially trained personnel.
3. Report known or suspected DU contamination to the chain of command.
4. Notify medical personnel when casualties have been determined or suspected to have been exposed to DU.
5. Administer first aid for DU injuries, and treat wounds until medical personnel are available.

Evaluation Preparation: Setup: Evaluate this task during a field exercise or during a normal training session. Establish a situation where contamination may occur either from the presence of spent DU penetrators on the ground, the breaching of the armored vehicle, or a fire where DU munitions are involved. If an armored vehicle is available, simulate a DU penetrator impact and damage by any means possible.

Brief Soldier: Tell the Soldier to identify the possible hazard and respond to the situation.

Performance Measures	GO	NO GO
1. Identified the DU hazard.	___	___
2. Protected himself from contact with DU.	___	___
3. Reported known or suspected DU contamination to the chain of command.	___	___
4. Notified medical personnel when casualties have been determined or suspected to have been exposed to DU.	___	___
5. Administered first aid for DU injuries, and treat wounds until medical personnel are available.	___	___

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

References

Required

GTA 03-04-001A

Related

TB 9-1300-278

031-503-1018

React to Nuclear Hazard/Attack

Conditions: You are in a tactical situation or an area where nuclear weapons have been (or may have been) used. You are given load-bearing equipment (LBE), a piece of cloth or a protective mask, a brush or a broom, shielding material, Field Manual (FM) 3-3-1, and one of the following situations:

1. You see a brilliant flash of light.
2. You find a standard radiological contamination marker or an enemy marker.
3. You are told that fallout is in your area.
4. You receive instructions to respond to a nuclear attack.
5. You come across a suspected depleted-uranium (DU) hazard.

CAUTION

Do NOT use masks with damaged filters because certain models contain hazardous materials. Do NOT change the filter in a contaminated environment.

Standards: React to a nuclear hazard or attack with or without warning and without becoming a casualty. Identify radiological contamination markers with 100 percent accuracy, and notify your supervisor. Start the steps to decontaminate yourself within 1 minute of finding radiological contamination. Decontaminate individual equipment after you completely decontaminate yourself.

Performance Steps

1. React to a nuclear attack without warning.
 - a. Close your eyes immediately.
 - b. Drop to the ground in a prone position, facing the blast.

Note: If you are in the hatch of an armored vehicle, immediately drop down inside the vehicle.

 - c. Keep your head and face down and your helmet on.
 - d. Stay down until the blast wave passes and debris stops falling.
 - e. Cover your mouth with a cloth or similar item to protect against inhalation of dust particles.
 - f. Check for casualties and damaged equipment.
 2. React to a nuclear attack with warning.
 - a. Select the best available shelter.
 - (1) Move into a fighting position, bunker, or ditch.
 - (2) Take protective actions if you are inside a shelter.
 - (3) Remain in place if you are in an armored vehicle.
 - b. Protect your eyes.
 - c. Minimize exposed skin areas.
 - d. Cover your mouth with a cloth or similar item to protect against inhalation of dust particles.
-

Performance Steps

3. React to a radiological contamination marker.
 - a. Avoid the area, if possible.
 - b. Cross the area quickly by the shortest route that exposes you to the least amount of radiation based on mission, enemy, terrain, troops, time available, and civilian considerations (METT-TC).
 - (1) Request crossing instructions through the chain of command if you must cross.
 - (2) Maximize the use of shielding.
 - (3) Cover your mouth with a cloth or similar item to protect against inhalation of dust particles. A protective mask may be used if nothing else is available.
 - c. Identify radiological contamination markers with 100 percent accuracy, and report the discovery of any markers identified to your supervisor.
4. Remove radiological contamination (including DU) from your clothing, equipment, and exposed skin.
 - a. Shake or brush contaminated dust (all dust is considered to be radioactive) from your clothing, equipment, and exposed skin with a brush, a broom, or (if a brush or a broom is not available) your hands.
 - b. Wash your body as soon as possible, giving special attention to hairy areas and underneath your fingernails.
 - c. Conduct mission-oriented protection posture (MOPP) gear exchange if you are contaminated with wet radioactive contamination and were previously ordered to maintain a MOPP level.

Evaluation Preparation: Setup: Evaluate this task during a field exercise, if possible. Select an area that provides several shelters the Soldier can choose from (an open area, a shallow ditch, a depression, or a foxhole with overhead cover). Evaluate the Soldier's reaction to a nuclear attack without warning (brilliant flash of light) and with warning by having him stand in an open area with the nearest possible shelter no closer than 12 feet. You may simulate the attack by saying "Brilliant flash" or by using the flash attachment of a camera. Tell the Soldier that there will be a nuclear detonation

within 2 minutes and to take the best available shelter. Evaluate the Soldier's ability to react to radiological contamination markers by telling him to walk through the area (where a standard marker and a former Warsaw Pact marker have been placed) and take appropriate action. Evaluate the Soldier's ability to remove radiological contamination.

Brief Soldier: Tell the Soldier that a nuclear attack is imminent and that he must react to a nuclear attack with and without warning. Tell him that he must also react to nuclear contamination markers. Tell the Soldier that after being exposed to nuclear radiation, he must perform the steps for decontamination.

Performance Measures	GO	NO GO
1. Reacted to a nuclear attack without warning.	___	___
2. Reacted to a nuclear attack with warning.	___	___
3. Reacted to a radiological contamination marker.	___	___
4. Removed radiological contamination (including DU) from clothing, equipment, and exposed skin.	___	___

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

References

Required

FM 3-3-1

Related

FM 3-5

031-503-1019

React to Chemical or Biological (CB) Hazard/Attack

Conditions: You are in mission-oriented protective posture (MOPP) 1 gear. You are given Department of the Army (DA) Form 1594 (Daily Staff Journal or Duty Officer's Log), Field Manual (FM) 3-11.4, Technical Manual (TM) 3-4230-229-10, TM 3-4230-235-10, a protective mask, an individual decontaminating kit, a tactical environment in which CB weapons have been (or may be) used by the enemy, and one or more of the following automatic-masking situations occur:

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1. A chemical alarm sounds.
2. A positive reading is obtained on detector paper.
3. Individuals exhibit symptoms of CB-agent poisoning.
4. You observe a contamination marker.
5. Your supervisor tells you to mask.
6. You see personnel wearing protective masks.
7. You observe other signs of a possible CB attack.

Standards: React to a CB hazard/attack without becoming a casualty. Identify and notify your supervisor of chemical contamination markers with 100 percent accuracy. Start the steps to decontaminate yourself within 1 minute of finding chemical contamination. Decontaminate your individual equipment after you have completely decontaminated yourself.

Performance Steps

1. Identify the CB hazard automatic-masking criteria.
 - a. Don your protective mask when there is a high probability of a chemical attack, such as—
 - (1) A chemical alarm sounds.
 - (2) A positive reading is obtained on detector paper.
 - (3) Individuals exhibit symptoms of CB-agent poisoning.
 - (4) You observe a contamination marker.
 - (5) Your supervisor tells you to mask.
 - (6) You see personnel wearing protective masks.
 - (7) You observe other signs of a possible CB attack.
 - b. Respond to the commander's policy of automatic masking.

Note: Commanders at all levels may establish a modified policy by designating additional events as automatic-masking criteria.

2. Protect yourself from CB contamination by using your assigned protective mask without fastening the hood.

Note: The mask gives immediate protection against inhalation of agent vapors. Do NOT fasten the hood. Go to the next step immediately.

Performance Steps

3. Give the alarm.
 - a. Shout "Gas."
 - b. Give the appropriate hand-and-arm signal.
 4. Take cover to reduce exposure by using whatever means is readily available.
 5. Decontaminate exposed skin using the individual decontaminating kit, as necessary.
 6. Assume MOPP4. Cover all your skin (your head and shoulders are already protected by the mask and the overgarment).
 - a. Put on gloves with liners.
 - b. Zip and fasten the overgarment jacket.
 - c. Secure the hood, and then secure the overgarment to increase protection.
 - d. Put on the overboots.
- Note:** Combat boots provide protection, but should be covered because they absorb chemicals. It takes a long time to put on the overboots, so in an emergency, put them on last.
7. Decontaminate individual equipment using the individual decontaminating kit, as necessary.
 8. Notify your supervisor of any CB hazard markers or indicators.
 9. Continue the mission.
 10. Assume MOPP4 and perform all tasks according to the unit standing operating procedure (SOP).
 11. Use all means of CB detection to check your surrounding area for the presence of contamination.
 12. Contact your higher headquarters (HQ) if no contamination is found or if you determine the attack was non-CB.
-

Performance Steps

13. Await further guidance. The higher HQ contacts all adjacent/attached units to check the status of CB contamination in their areas. If all units report the absence of contamination, the information is reported up the chain of command.

14. Annotate the above actions on DA Form 1594.

Evaluation Preparation: Setup: A good time to evaluate this task is during a field exercise when a variety of CB hazards can be simulated. Select a site with adequate cover, and ensure that Soldiers are in MOPP1.

Brief Soldier: Tell the Soldier that there will be an encounter with simulated CB contamination and/or a CB alarm will be given. The task is to recognize the hazard and/or alarm, to take appropriate actions to protect himself, and to warn other Soldiers by giving the appropriate alarm.

Performance Measures	GO	NO GO
1. Identified the CB hazard automatic-masking criteria.	___	___
2. Protected himself from CB contamination by using the assigned protective mask without fastening the hood.	___	___
3. Gave the alarm.	___	___
4. Took cover to reduce exposure by using whatever means was readily available.	___	___
Note: Only the fact that the Soldier decontaminates himself is evaluated. The actual conduct of decontamination is evaluated in task 031-503-1013.		
5. Decontaminated exposed skin, as necessary.	___	___
Note: Only the fact that the Soldier assumes MOPP4 is evaluated. The actual donning of MOPP gear is evaluated in task 031-503-1015.		
6. Assumed MOPP4.	___	___

Performance Measures	GO	NO GO
7. Decontaminated individual equipment, as necessary.	___	___
8. Notified the supervisor of any CB hazard markers or indicators.	___	___
9. Continued the mission.	___	___

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

References

Required

DA Form 1594
 FM 3-11.4
 TM 3-4230-229-10
 TM 3-4230-235-10

Related

FM 3-5

031-503-1035

Protect Yourself From Chemical and Biological (CB) Contamination Using Your Assigned Protective Mask

Conditions: You are given your assigned protective mask with a hood and carrier, a canteen with an M1 cap, M8 detector paper, and one of the following applicable technical manuals (TMs): TM 3-4240-279-10, TM 3-4240-280-10, TM 3-4240-300-10-2, TM 3-4240-312-12&P, or TM 3-4240-346-10. You find yourself in one of the following situations:

1. You hear or see a CB attack.
2. You realize, through other means, that you are under a CB attack.
3. You are ordered to mask.
4. You must enter a contaminated area.

After having donned your protective mask, you need to drink from your canteen.

Special Conditions: Do not wear contact lenses when performing this task. Do not use masks with damaged filters because certain

models contain hazardous materials. Do not change filter elements in a contaminated environment.

Standards: Protect yourself from CB contamination using your assigned protective mask; don, clear, and check your mask within 9 seconds; and drink water through your protective mask from your canteen without becoming a casualty.

Performance Steps

1. Complete steps 2 through 4 within 9 seconds.
2. Don the mask.
 - a. Stop breathing, and close your eyes.
 - b. Remove your helmet.

(1) If you have the M17-, M24-, M25-, M40-, M43-, or M45-series protective mask, put your helmet between your legs (above your knees) or hold your rifle between your legs and place your helmet on the muzzle. If you drop your helmet, continue to mask.

(2) If you have the M42-series protective mask, remove your helmet and place it in a convenient location. Avoid placing it on a contaminated surface, if possible.

WARNING

Do not wear contact lenses with the protective mask. Remove contact lenses when the use of chemical agents is imminent.

- c. Take off your glasses, if applicable.
- d. Open the mask carrier with one hand.
- e. Grasp the mask assembly with your other hand, and remove it from the carrier.
- f. Put your chin in the chin pocket, and press the face piece snugly against your face.

Note: The temple and forehead straps have already been adjusted during fitting.

Performance Steps

6. Secure the mask hood.

CAUTION

Be careful when pulling on the hood because it could snag and tear on the buckles of the head harness.

a. If you have the M17-, M25-, M42-, or M43-series protective mask, pull the hood over your head and zip the front closed to cover all bare skin.

b. If you have the M24- or M45-series protective mask, pull the M7 hood over your helmet and head so that the hood covers your shoulders.

c. If you have the M40-series protective mask, don the hood so that it lies smoothly on your head.

(1) For masks equipped with the regular hood—

(a) Grasp the back edge of the hood skirt.

Note: The face piece should collapse against your face and remain so while you hold your breath. If it does, the face piece is airtight. If the face piece does not collapse, check for hair, clothing, or other matter between the face piece and your face.

(b) Pull the hood completely over your head so that it covers the back of your head, neck, and shoulders.

(c) Zip the front of the hood closed by pulling the zipper slider downward.

(d) Tighten the draw cord.

(e) Secure the underarm straps by fastening and adjusting them.

(f) Close your mask carrier.

(g) Continue your mission.

(2) For masks equipped with the quick-doff hood—

(a) Place your hands inside the hood and expand the elastic gathering around the neck of the hood.

Performance Steps

(b) Stretch and carefully pull the hood over your head so that the hood covers your head, neck, and shoulders.

(c) Fasten the underarm straps.

(d) Put on the helmet.

Note: If you have a combat vehicle crewman (CVC) helmet, perform the following steps:

1. Disconnect the boom microphone from the helmet.
2. Connect the mask microphone to the receptacle in the helmet.
3. Grasp the helmet next to the ear cups with your hand, and spread the helmet as far as possible.
4. Place the helmet over your head, tilting the helmet forward slightly so that the first contact when putting it on is with the forehead surface of the mask.
5. Rotate the helmet back and down over your head until it is seated in position.

(e) Close your mask carrier.

(f) Continue your mission.

Note: If the Soldier is using the mask in conjunction with the joint-Service, lightweight integrated suit technology (JSLIST), he skips this step (the mask lacks a hood because it is built in on the JSLIST).

7. Drink water while wearing the mask (only applies to masks equipped with a drinking tube.)

WARNING

Do NOT connect the quick-disconnect coupling to your canteen until all surfaces are free of contamination. Chemical contamination could enter your mouth, and you could become a casualty.

WARNING

Do NOT break the mask seal while drinking from the canteen.

Performance Steps

- a. Press in on the top of the outlet valve cover until the internal drink tube can be grasped between your teeth.
- b. Steady the mask assembly, and pull the quick-disconnect coupling out of the outlet valve cover.
- c. Flip open the cover on the M1 canteen cap.
- d. Push the quick-disconnect coupling into the canteen cap so that the pin enters the quick-disconnect coupling.

WARNING

If resistance is NOT felt, your drinking system is leaking. Do NOT drink. Replace your canteen. If resistance is still NOT felt, notify your NBC NCO.

- e. Blow to create positive pressure. You should feel some resistance.
- Note:** Do not tilt your head back while drinking.
- f. Raise the canteen upside down and drink if the system does not leak.
 - g. Stop drinking after several swallows, and lower the canteen. Blow into the internal drink tube to prevent the canteen from collapsing. Repeat the drinking procedure as required.
8. Remove the mask for storage.
 9. Perform all steps in sequence without becoming a casualty.

Evaluation Preparation: Setup: Evaluate this task during a field exercise or a tactical training session. Use a mask previously fitted to the Soldier's face. The Soldier will bring his flight or CVC helmet. The Soldier should be in MOPP4. Do not use a new decontamination kit for every Soldier; use the kit as long as possible. Ensure that the Soldier has M8 detector paper in the mask carrier before testing. If the Soldier has not made adequate progress towards drinking from the canteen after 2 minutes, stop him and give him a NO GO. This time standard is administrative.

Brief Soldier: Tell the Soldier to stand, while wearing his mask carrier containing his assigned protective mask with hood attached. Provide the Soldier with one of the scenarios described in the conditions statement (cue to begin masking). Tell him to keep the mask on until you issue the all clear order. Tell the Soldier that all time standards are for administrative (noncombat) evaluation purposes only. Tell him to drink water while wearing his assigned mask.

Performance Measures	GO	NO GO
1. Completed steps 2 through 4 within 9 seconds.	_____	_____
2. Donned the mask.	_____	_____
3. Cleared the mask.	_____	_____
4. Checked the mask.	_____	_____
5. Resumed breathing.	_____	_____
6. Secured the mask hood.	_____	_____
7. Drank water while wearing the mask.	_____	_____
8. Removed the mask for storage.	_____	_____
9. Performed all steps in sequence without becoming a casualty.	_____	_____

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

References

Required

- FM 3-3
- FM 3-11.4
- TM 3-4240-279-10
- TM 3-4240-279-10
- TM 3-4240-280-10
- TM 3-4240-300-10-2
- TM 3-4240-346-10

Related

- TM 3-4240-312-12&P

031-503-1036

Maintain Your Assigned Protective Mask

Conditions: You have used your assigned protective mask or must conduct a scheduled mask inspection. You are given your assigned protective mask (with authorized accessories and components); a container of warm, soapy water; soap; a container of warm, clear water; cheese cloth or clean rags; a small cleaning brush; alcohol; optical lens cleaning compound (national stock number [NSN] 6850-00-592-3283); the applicable supply bulletin, the applicable technical manual (TM): TM 3-4240-279-10 (M17), TM 3-4240-280-10 (M24), TM 3-4240-300-10-2 (M42), TM 3-4240-312-12&P (M43), or TM 3-4240-346-10 (M40A1); Department of the Army (DA) Form 2404 (*Equipment Maintenance and Inspection Worksheet*) or DA Form 5988-E (*Equipment Maintenance and Inspection Worksheet Electronic*); spare parts for the masks; and a set of replacement filters (M17-series mask) or a replacement canister. This task cannot be performed in mission-oriented protective posture (MOPP) 4.

Standards: Maintain your assigned protective mask, ensuring that—

1. Preventive-maintenance checks and services (PMCS) are performed on the mask according to the applicable TM.
2. The mask is cleaned and dried.
3. No damage is done to the mask.
4. Record uncorrected deficiencies on DA Form 2404 or DA Form 5988-E, and report them to your supervisor.

Performance Steps

WARNING

Do NOT attempt to remove the hose from the face piece on the M42 protective mask. This may cause leakage of toxic agents in the face mask.

CAUTION

Do NOT dunk the mask or carrier in water.

CAUTION

Wash the mask carefully so that the canister and microphone do NOT get wet.

Performance Steps

CAUTION

Ensure that all components are entirely dry before reassembling the mask and storing it.

Note: Each Soldier must care for and maintain his protective mask.

Note: Keep water away from the inlet valve connectors.

1. Conduct operator PMCS on the protective mask, carrier, hood, and accessories according to the TM applicable to your assigned protective mask.
 - a. Identify deficiencies and shortcomings.
 - b. Correct operator deficiencies.
 - c. Record all uncorrected deficiencies and shortcomings on DA Form 2404 or DA Form 5988-E, and report them to your supervisor.
2. Clean and dry the mask, hood, and authorized accessories and components according to the TM applicable to your assigned protective mask.
3. Store the mask, hood, and accessories in the carrier according to the TM applicable to your assigned protective mask.
4. Perform steps 1 through 4 without damaging the mask.

Evaluation Preparation: Setup: A good time to evaluate this task is during normal care and cleaning of the mask. Place the required equipment on a field table or another suitable surface. Simulate defects in the mask by removing components from the mask or using a defective mask not issued to the Soldier. During training and evaluation sessions, use an old set of filters or canister several times to avoid expending new ones each time. If the Soldier has not made adequate progress toward completing the task within 30 minutes, stop him and give him a NO GO. This time standard is administrative.

Brief Soldier: Tell the Soldier there is no time standard for this task on the job, but for testing purposes he must perform the task within 30 minutes. Tell him to perform operator PMCS on the mask, clean and condition his assigned protective mask, and replace the filters in the mask. Tell the Soldier that finishing a DA Form 2404 or DA Form 5988-E is not part of the task.

Performance Measures	GO	NO GO
1. Conducted operator PMCS on the protective mask, carrier, hood, and accessories according to the applicable TM.	_____	_____
2. Cleaned and dried the mask, hood, and authorized accessories and components according to the applicable TM.	_____	_____
3. Replaced defective components and parts according to the TM applicable to your assigned protective mask.	_____	_____
4. Stored the mask, hood, and accessories in the carrier according to the applicable TM.	_____	_____
5. Performed steps 1 through 4 without damaging the mask.	_____	_____

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

References

Required

- DA Form 2404
- DA Form 5988-E
- TM 3-4240-279-10
- TM 3-4240-280-10
- TM 3-4240-300-10-2
- TM 3-4240-312-12&P
- TM 3-4240-346-10

Related

031-503-1037

Detect Chemical Agents Using M8 or M9 Detector Paper

Conditions: You are in mission-oriented protective posture (MOPP) 2 in a tactical environment or an area where there is a chemical threat. You are given a protective mask, a booklet of M8 detector paper, a dispenser of M9 detector paper, an M256A1 chemical-agent

detector kit, the assigned decontaminating kit (M291 or M295), Department of the Army (DA) Form 1594 (*Daily Staff Journal or Duty Officer's Log*), Field Manual (FM) 3-11.4, FM 3.3, Technical Manual (TM) 3-6665-307-10, TM 3-6665-311-10, and a complete set of MOPP gear or a chemical-protective ensemble.

Special Conditions: Do NOT wear contact lenses when performing this task. Do NOT use masks with damaged filters because certain models contain hazardous materials. Do NOT change the filter element in a contaminated environment.

Standards: Detect chemical agents using M8 and M9 detector paper, ensuring that the M9 detector paper is attached to places likely to come in contact with liquid chemical agents. Detect and identify all liquid chemical agents in the area that are within the detection capabilities of the M8 or M9 detector paper without becoming a casualty.

Performance Steps

WARNING

Always wear protective gloves when touching M9 detector paper. Do NOT get M9 detector paper in or near your mouth or on your skin. The M9 detector paper dye may cause cancer, but the risk is small because very little dye is used.

1. Detect chemical agents using M9 detector paper.

Note: M8 and M9 detector paper will NOT detect chemical-agent vapors.

a. Attach the M9 detector paper to your MOPP gear and equipment while wearing chemical-protective gloves.

(1) Place the M9 detector paper on the MOPP gear on opposite sides of your body.

(a) If you are right-handed, place a strip of M9 detector paper around your right upper arm, left wrist, and right ankle.

Note: These are the places where a moving Soldier will most likely brush against a surface (such as undergrowth) that is contaminated with a liquid chemical agent.

(b) If you are left-handed, place a strip of M9 detector paper around your left upper arm, right wrist, and left ankle.

Performance Steps

Note: Do NOT attach M9 detector paper to hot, dirty, oily, or greasy surfaces because it may give a false positive reading.

(2) Place M9 detector paper on equipment where it will come in contact with contaminated objects and is visible to the operator.

WARNING

Some decontaminants will give false positive results on the M8 detector paper. The M8 detector paper may indicate positive results if used in an area where decontaminants have been used.

b. Monitor the M9 detector paper constantly for any color change. If you observe a color change, immediately do the following:

- (1) Mask.
- (2) Give the alarm.
- (3) Decontaminate as necessary.
- (4) Assume MOPP4.

2. Detect chemical agents using M8 detector paper if you see a liquid that might be a chemical agent or if you observe a color change on the M9 detector paper.

a. Assume MOPP4 immediately.

b. Prepare the M8 detector paper. Tear out a sheet from the book (use one-half sheet if it is perforated).

Note: You may want to put the paper on the end of a stick or another object and then blot the paper on the suspected liquid agent.

c. Blot (do not rub) the M8 detector paper on the suspected liquid agent. Do NOT touch the liquid with your protective glove.

d. Observe the M8 detector paper for a color change. Identify the contamination by comparing any color change on the M8 detector paper to the color chart on the inside front cover of the booklet.

(1) A yellow-gold color indicates the presence of a nerve (G) agent.

(2) A red-pink color indicates the presence of a blister (H) agent.

Performance Steps

(3) A dark green color indicates the presence of a nerve (V) agent.

(4) Any other color or no color change indicates that the liquid cannot be identified using M8 detector paper.

e. Store the booklet of M8 detector paper.

f. Remain in MOPP4 even if the liquid cannot be identified. Use other types of chemical-agent detector kits to verify the test results.

g. Notify your supervisor of the test results.

Note: M8 detector paper reacts positive to petroleum products and ammonia. M9 detector paper reacts positive to petroleum products, insecticides, and antifreeze. Because M9 detector paper only detects (but does not identify) chemical agents, verify all readings with M8 detector paper. If you observe a color change on M8 or M9 detector paper, assume it is a liquid chemical agent. Confirm the presence of contamination by using all means of chemical-agent detection available in your area of operation, including a visual check of your surroundings. If you determine that your reading is a false positive, perform the following actions before giving the all clear signal:

1. Ensure that every attempt has been made to recheck the area.

2. Contact your higher headquarters (HQ) or the person in charge, and report the negative results.

3. Await further guidance. The higher HQ contacts all adjacent/attached units to check the status of contamination in their areas. If all units report the absence of contamination, the information is reported up the chain of command.

4. Annotate the above actions on DA Form 1594.

Evaluation Preparation:

CAUTION

Ensure that simulants are placed on the detector paper only and never on the protective clothing.

Setup: Provide the Soldier with the items listed in the task conditions statement. Simulate an unknown liquid chemical agent by using expedient training aids (such as brake fluid, cleaning compound, gasoline, insect repellent, or antifreeze). Place drops of the

simulated agent on M9 detector paper to obtain a reading. For M8 detector paper, place the simulated agent on nonporous material (such as an entrenching tool).

Brief Soldier: Tell the Soldier that he will be entering an area where chemical agents have been used. Tell him to attach M9 detector paper to his MOPP gear and equipment. Tell him that if you observe any acts that are unsafe or that could produce a false reading you will stop the test and he will be scored a NO GO.

Performance Measures	GO	NO GO
1. Detected chemical agents using M9 detector paper.	___	___
2. Detected chemical agents using M8 detector paper.	___	___

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

References

Required

DA Form 1594
 FM 3-11.4
 FM 3-3
 TM 3-6665-307-10
 TM 3-6665-311-10

Related

031-503-1040

Protect Yourself From CBRN Injury/Contamination With the JSLIST Chemical-Protective Ensemble

Conditions: You are given the joint-service, lightweight, integrated suit (JSLIST) chemical-protective ensemble, a protective mask, FM 3-11.4, and TM 10-8415-220-10. You learn that a chemical attack is about to happen. You must enter an area where chemical agents have been used, you must recognize a chemical hazard, or you are attacked with chemical agents without warning.

Standards: Protect yourself from chemical, biological, radiological, or nuclear (CBRN) injury/contamination with the JSLIST chemical-

protective ensemble by achieving mission-oriented protective posture (MOPP) 4 within 8 minutes, performing all steps in sequence, and returning to MOPP0 when ordered.

Performance Steps

1. Don the MOPP gear.
 - a. Don the overgarment trousers.
 - (1) Extend your toes downward, put one leg into the trousers, and pull them up. Repeat the procedure for your other leg.
 - (2) Close the slide fastener, and fasten the two fly opening snaps.
 - (3) Pull the suspenders over your shoulders, and fasten the snap couplers. Adjust the suspenders to ensure that the trousers fit comfortably.
 - Note:** The trouser length can be adjusted by raising or lowering the suspenders.
 - (4) Adjust the waistband hook-and-pile fasteners for a snug fit.
 - b. Don the overgarment coat.
 - (1) Don the coat, and close the slide fastener up as far as your chest.
 - (2) Secure the front closure hook-and-pile fasteners up as far as your chest.
 - (3) Pull the bottom of the coat down over the trousers.
 - (4) Pull the ends of the coat retention cord through the front of the coat to fit around your waist, and tie the ends into a bow.
 - c. Don the overboots.
 - (1) Don the overboots over the combat boots. Adjust and secure the strap-and-buckle fasteners.
 - (2) Pull the trouser legs over the multipurpose overboots (MULOs). Secure the hook-and-pile fasteners on each ankle to fit snugly around the boot.

Note: If the MULOs are not available, use black vinyl overboots (BVOs), which are the current rain boots that are also used for chemical-biological (CB) protection.

Performance Steps

d. Don the chemical-protective mask.

- (1) Adjust the head harness, and check for a good seal.
- (2) Pull the hood over your head and the chemical-protective mask. Close the slide fastener completely. Secure the hook-and-pile fastener tape closure up as far as the top of the slide fastener.
- (3) Place the edge of the hood around the edge of the mask, and secure the hook-and-pile fastener tape.
- (4) Snap the barrel locks together; squeeze both ends of the barrel lock while pulling the draw cord, and simultaneously slide the barrel lock up to your chin.
- (5) Have a buddy check the hood seal around your mask to ensure that the hood is positioned properly and no skin is exposed (tie the excess draw cord in a bow, if necessary).

Warning

The barrel lock release button must face away from the user to prevent the barrel lock from unfastening and possibly exposing the user to contamination.

(6) Untie the bow in the coat retention cord. Bend over, reach between your legs, and grasp the coat retention cord loop. Bring the loop forward between your legs, pulling on it so that the bottom of the coat fits snugly over the trousers.

(7) Place the coat retention cord loop over the webbing strip at the bottom of the coat, fasten the webbing strip, and snap it to keep the retention cord loop in place. Some discomfort may be experienced in the crotch area due to the coat retention cord.

Note: The waistband can be readjusted by tying a bow in the coat retention cord at the front of your waist, if necessary.

e. Don the gloves.

- (1) Push the sleeves up your arm.
- (2) Don the gloves (and liners if butyl rubber gloves are used).
- (3) Pull the cuffs over the gloves, and secure the hook-and-pile fastener tape snugly on each wrist.

Note: Perform the following doffing procedures to return to MOPPO.

Performance Steps

2. Do off the MOPP gear.
 - a. Do off the gloves.
 - (1) Unfasten the hook-and-pile fastener tape on each wrist, and remove the gloves (and liners if butyl rubber gloves are worn).
 - (2) Put the gloves in the trouser pockets.
 - b. Untie the bow in the coat retention cord, unfasten the webbing strip snap, and release the coat retention cord loop.
 - c. Do off the helmet and cover if worn.
 - d. Do off the hood from the coat.
 - (1) Unfasten the barrel locks.
 - (2) Loosen the hood.
 - (3) Unfasten the hook-and-pile fastener tape at your neck.
 - (4) Pull the hood off your head.
 - e. Do off the protective mask, stow it in the carrier, and remove the carrier.
 - f. Do off the boots.
 - (1) Unfasten the ankle hook-and-pile fastener tapes.
 - (2) Unfasten the two strap-and-buckle fasteners on the MULOs.
 - (3) Remove the MULOs.
 - g. Do off the coat.
 - (1) Unfasten the front closure flap hook-and-pile fastener tape and the front slide fastener.
 - (2) Remove the coat.
 - h. Do off the trousers.
 - (1) Unfasten the suspender and waist hook-and-pile fastener tapes.
 - (2) Unfasten the front closure snaps, and open the slide fastener.
 - (3) Remove the trousers.

Performance Steps

- 3. Perform after-use, preventive-maintenance checks and services (PMCS) inspections according to TM 10-8415-220-10.
- 4. Remove the clear-plastic, resealable bags from the trousers pocket. Fold and repack the coat and trousers in individual clear-plastic, resealable bags.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the task condition statement. Evaluate this task during a field exercise or during a normal training session. Gather all the necessary MOPP gear, and ensure that all gear is in good condition. The evaluator must be prepared to direct higher MOPP levels immediately as a Soldier reaches a preceding level.

Brief Soldier: Tell the Soldier to rapidly assume the various MOPP levels.

Performance Measures	GO	NO GO
1. Donned the MOPP gear.	_____	_____
2. Doffed the MOPP gear.	_____	_____
3. Performed after-use, PMCS inspections according to TM 10-8415-220-10.	_____	_____
4. Removed the clear-plastic, resealable bags from the trousers pocket. Folded and repacked the coat and trousers in individual clear-plastic, resealable bags.	_____	_____

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

References

Required

- FM 3-11.4
- TM 10-8415-220-10

Related

- FM 3-3
- FM 3-5
- FM 4-25.11
- FM 8-285

031-503-1042

Protect Yourself From CBRN Injury/Contamination When Changing MOPP (Using JSLIST)

Conditions: You are in mission-oriented protective posture (MOPP) 4 with load-bearing equipment (LBE). Your MOPP gear is contaminated. Your buddy is in MOPP4 with LBE and is available to assist you with MOPP gear exchange. You have an uncontaminated set of MOPP gear for yourself and your buddy, a personal decontamination kit, an M295 individual equipment decontamination kit (IEDK), FM 3-11.4, long-handled scrub brushes, cutting tools, super tropical bleach (STB), a chemical-agent monitor (CAM), 3-gallon pails, sponges, paper towels, soap, and water. This task will be performed in MOPP4.

Standards: Protect yourself from chemical, biological, radiological, or nuclear (CBRN) injury/contamination when changing MOPP using the joint service lightweight integrated suit technology (JSLIST). Decontaminate individual gear and equipment without spreading contamination onto your skin or undergarments. Set uncontaminated gear aside on an uncontaminated surface. Change overgarments, overboots, and gloves without spreading contamination to the uncontaminated set of MOPP gear. Change MOPP gear without you or your buddy becoming a casualty.

Note: If the environment is chemically or biologically contaminated, omit steps 2 and 4b in the training information outline below. If the environment is radiologically contaminated, omit steps 1 and 4a. If the environment is radiologically and chemically and/or biologically contaminated, perform all steps.

Performance Steps

Note: Both Soldiers will perform steps 1 and 2 at the same time. If, during the technique, it is suspected that contamination has spread onto their skin or undergarments, decontaminate immediately with the available IEDK, and then proceed with the MOPP gear exchange.

1. Decontaminate individual gear for chemical or biological contamination without assistance.
 - a. Remove and discard the chemical protective helmet cover.
 - b. Cover the gear with STB slurry paste.

Performance Steps

- c. Brush or rub the STB slurry paste into the material.
 - d. Shake the excess off gently.
 - e. Set the gear aside on an uncontaminated surface (such as a poncho, a canvas, or similar material).
 2. Decontaminate individual gear for radiological contamination without assistance.
 - a. Brush, wipe, or shake off the dust for radiological contamination from the individual gear.
 - b. Wash the equipment with warm, soapy water.
 - c. Set the equipment aside to dry on an uncontaminated surface.
 3. Prepare for decontamination.
 - a. Buddy: Remove the M9 paper; untie the bow in the coat retention cord, if tied; unfasten the webbing strip snap at the bottom front of the coat; and release the waist coat retention cord loop.
 - b. Buddy: Loosen the bottom of the coat by pulling the material away from the body.
 - c. Feel for the suspender snap couplers on the outside of the coat, and release the snap couplers.
 - d. Unfasten the hook-and-pile fasteners at the wrist and ankles, and refasten them loosely.
 - e. Unfasten the two strap-and-buckle fasteners on the multipurpose overboots (MULO) and unfasten or cut the fasteners on the black vinyl overboots (BVOs), or untie/cut the laces on the chemical-protective overboots.
 4. Decontaminate the mask and hood.
 - a. Chemical or biological contamination.
 - (1) The buddy uses M295 to decontaminate the exposed parts of the mask, instructing the Soldier to put two fingers on the voicemitter to avoid breaking the seal.

Performance Steps

(2) The buddy starts at the eye lens outserts and wipes all exposed parts of the mask.

(3) The buddy wipes the front edge of the hood, including the barrel locks and fasteners under your chin.

(4) The buddy decontaminates his gloves in preparation to release the hood seal.

b. Radiological contamination.

(1) The buddy wipes your mask with warm, soapy water.

Note: Cool, soapy water is not as effective for removing contamination, but can be used if the material is scrubbed longer.

(2) The buddy rinses your mask with a sponge dipped in clean water.

(3) The buddy dries your mask with paper towels or rags.

(4) The buddy decontaminates his gloves in preparation to release the hood seal.

5. Doff the chemical-protective coat.

a. The buddy unties the draw cord, if tied, presses the barrel lock release, and unsnaps the barrel locks.

Note: If the buddy has difficulty grasping the barrel locks, use the draw cord to pull the locks away from the mask, allowing the buddy to grasp and unfasten the locks without touching the hood's interior.

b. The buddy unfastens the front closure flap and slides the fastener from the chin to the bottom of the coat.

c. The buddy instructs the Soldier to turn around, grasps the hood, and rolls it inside out (pulling the hood off the Soldier's head).

d. The buddy grasps the coat at the shoulders and instructs the Soldier to make a fist to prevent the chemical-protective gloves from coming off.

e. The buddy pulls the coat down and away from the Soldier, ensuring that the black part of the coat is not touched.

Note: If there is difficulty removing the coat in this manner, pull one arm off at a time.

Performance Steps

- f. The buddy lays the coat on the ground, black side up.

CAUTION

Both Soldiers must take care to avoid contaminating the inside surface of the coat because it will be used later as an uncontaminated surface to stand on during the donning procedures.

6. Doff the chemical-protective trousers.

- a. Unfasten the hook-and-pile fastener tapes at the waistband, unfasten the two front closure snaps, and open the fly slide fastener on the front of the trousers.
- b. Buddy: Grasp the trousers at the hips, and pull them down to the knees.
- c. Buddy: Have the Soldier lift one leg (with the foot pointed down). With your hand on each side, pull the trousers in an alternating motion until the Soldier can step out of the trouser leg. Repeat the process for the other leg.
- d. Discard the trousers away from the clean area.

CAUTION

Both Soldiers must take care to avoid contaminating their clothing and skin.

7. Doff the chemical-protective overboots.

- a. Buddy: Remove the chemical-protective overboots while the Soldier is standing with his arms up, shoulder-high, to avoid contaminating the clothing or his skin.

Note: The Soldier may put a hand on the buddy for balance, but he must then decontaminate the gloves.

- b. Stand next to the coat spread on ground.
- c. Remove one overboot by stepping on a heel with one foot while pulling the other foot upward.
- d. Buddy: Pull off the Soldier's overboots, one foot at a time.
- e. Step on the coat that is spread on the ground as each foot is withdrawn from the overboot.
- f. Discard the overboots away from the clean area.

Performance Steps

CAUTION

The buddy must take care to avoid touching the Soldier's combat boots. The Soldier must take care to avoid letting the combat boots touch the ground.

8. Doff the chemical-protective gloves and liners.
 - a. Hold the fingertips of the gloves, and partially slide your hand out.
 - b. Hold your arms away from your body when both hands are free. Let the gloves drop off and away from the black side of the coat.
 - c. Remove the protective glove inserts.
 - d. Buddy: Discard the Soldier's chemical-protective gloves and inserts away from the clean area.

CAUTION

Both Soldiers must take care to avoid letting the gloves make contact with the coat that is spread on the ground.

9. Don the chemical-protective trousers.
 - a. Buddy: Open the package containing the new trousers, but do not touch the inside of the package.
 - b. Stand on the uncontaminated surface. Reach into the package, and remove the trousers without touching the outside of the package.
 - c. Put on the trousers, close the slide fastener, and fasten the two fly opening snaps. Pull the suspenders over your shoulders, and fasten the snap couplers.
 - d. Adjust the length of the suspenders to ensure that you have a comfortable fit in the inseam.
 - e. Adjust the hook-and-pile fasteners at the waistband for a snug fit.

CAUTION

The Soldier must take care to ensure that the trousers touch only the uncontaminated surface.

Performance Steps

10. Don the chemical-protective coat.

a. Buddy: Open the package containing the new coat, and have the Soldier reach in and remove the coat. Be careful not to touch the outside of the package.

b. Don the coat. Close the slide fastener up as far as the chest, and secure the front closure hook-and-pile fastener tape on the front flap as far as the chest.

c. Pull the bottom of the coat down over the trousers. Grasp the loop on the back of the overgarment coat, pull the loop out and away from the overgarment coat, and bring the loop forward between your legs, pulling on the loop so that the bottom of the coat fits snugly over the trousers.

d. Place the loop over the webbing strip on the front of the coat, and fasten the strap on the webbing strip to keep the loop in place. Adjust the retention cord on the coat, if necessary. Tie any excessive cord in a bow.

CAUTION

The Soldier must take care to ensure that his body and clothing touch only the inner surface of the coat.

11. Don the chemical-protective overboots.

a. Buddy: Open the package containing the new overboots, and have the Soldier remove the overboots, being careful not to touch the outside of the package.

b. Don the overboots over the combat boots. Adjust and secure the strap-and-buckle fasteners. Pull the trouser legs over the overboots, and secure the two hook-and-pile fastener tapes on each ankle to fit snugly around the overboot.

Performance Steps

12. Don the chemical-protective hood.

- a.** Put the hood on. Close the front slide fastener on the coat completely, and secure the hook-and-pile fastener tape on the front flap as far as the top of the slide fastener.
- b.** Place the edge of the hood around the edge of the mask, and secure the hook-and-pile fastener tape on the hood.

WARNING

The barrel lock release button must face away from the user when worn to prevent the lock from unfastening and possibly exposing the user to contamination.

- c.** Pull the draw cord tight around the edge of the mask, snap the barrel locks together, squeeze both ends of the lock while pulling the draw cord, and slide the barrel lock up under the chin to keep the cord in place.
- d.** Buddy: Inspect the hood and mask to ensure that the hood is positioned properly, the skin is not exposed, and any excessive draw cord is tied in a bow, without touching the Soldier.
- e.** Adjust as directed.

Note: If buddy assistance is required for proper adjustment, the buddy decontaminates his gloves before touching the Soldier's hood or mask.

13. Don the chemical-protective gloves and liners.

- a.** Buddy: Open the package containing the new chemical-protective gloves and liners. The Soldier removes the gloves and liners, being careful not to touch the outside of the package.
- b.** Don the liners and gloves, pull the cuffs of the coat over the chemical-protective gloves, and fasten the hook-and-pile fasteners on each coat sleeve.
- c.** Put on the M9 chemical-agent detection paper as required by the standing operating procedure (SOP).

Performance Steps

- 14. Reverse roles with the buddy, and repeat steps 3 through 13.
- 15. Secure individual gear.
 - a. Place a new chemical-protective helmet cover on the helmet, if a personnel armor system, ground troop (PASGT) helmet is used.
 - b. Use the buddy system to check the fit of the gear.

Evaluation Preparation: Setup: Provide the Soldier with the items listed in the task conditions statement. Evaluate this task during field exercises or normal training sessions. Soldiers must be in MOPP4.

Brief Soldier: Identify buddy pairs, designating the initial task performer and the buddy. Provide each Soldier with one of the following three scenarios: (1) The Soldier has been exposed to chemical or biological contamination (Steps 2 and 4b are omitted), (2) The Soldier has been exposed to radiological contamination (Steps 1 and 4a are omitted), or (3) The Soldier has been exposed to radiological and chemical and/or biological contamination (all steps must be performed).

Performance Measures	<u>GO</u>	<u>NOGO</u>
1. Decontaminated individual gear for chemical or biological contamination without assistance.	_____	_____
2. Decontaminated individual gear for radiological contamination without assistance.	_____	_____
3. Prepared for decontamination.	_____	_____
4. Decontaminated the mask and hood.	_____	_____
5. Doffed the chemical-protective coat.	_____	_____
6. Doffed the chemical-protective trousers.	_____	_____
7. Doffed the chemical-protective overboots.	_____	_____
8. Doffed the chemical-protective gloves and liners.	_____	_____
9. Donned the chemical-protective trousers.	_____	_____
10. Donned the chemical-protective coat.	_____	_____

Performance Measures	GO	NOGO
11. Donned the chemical-protective overboots.	___	___
12. Donned the chemical-protective hood.	___	___
13. Donned the chemical-protective gloves and liners.	___	___
14. Reversed roles with the buddy, and repeated steps 3 through 13.	___	___
15. Secured individual gear.	___	___

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

References

Required

FM 3-11.4

Related

FM 3-3

FM 3-5

FM 4-25.11

FM 8-285

SUBJECT AREA 4: SURVIVE (COMBAT TECHNIQUES)

052-192-1042

Perform Self-Extraction From a Mined Area

Conditions: You are in an area containing buried mines and trip wire-activated mines, given a probing device, a trip wire feeler, personal protective equipment, marking material, and a vehicle.

Note: A mine detector is not available.

Standards: Self-extract from a mined area, by foot or from a vehicle, under the following conditions without causing personal injury or mine detonation: when footprints are clearly visible, when footprints are not clearly visible (stepping-stone and lane technique), and from a vehicle.

3-146

052-192-1042

11 October 2005

STP 21-1-SMCT

Locate, mark, and bypass each trip wire and mine within the area probed. Remove enough soil to confirm the presence of a mine. Report the mined area information to higher headquarters.

Performance Steps

1. Take immediate action on observed indicators or confirmation of a mine.

Note: The acronym for stop, assess, note, draw back, inform (SANDI) is used to remember the sequence of events for extraction. Stop and gain control of yourself. Assess the situation of mines or booby traps and personnel. Note the situation for future reference. Draw back to the last known safe area. Self-extraction to the nearest safe area may be referred to as draw back. Inform higher headquarters of the situation. The letters from the acronym will be reinforced throughout this task and represented with bold letters.

a. **Stop** immediately and gain control of yourself.

(1) Do not move your feet if you are on foot.

(2) Remain in the vehicle.

(3) Warn other elements operating in the area, and advise higher elements of the situation for possible support with extraction.

Note: In an emergency mine situation involving a single casualty, call for help. If the casualty is conscious, establish communication with the victim. Instruct the Soldier to remain still and administer self-help first aid. Reassure the Soldier that help is coming. The use of radio communications equipment is acceptable. While there are certain mines that can be fuzed to detonate on a specific radio frequency, these mines are extremely rare and unlikely to be encountered within a minefield. The life saving advantage of using a radio to call for help far outweighs the threat of radio frequency-activated mines. Submit a medical evacuation (MEDEVAC) report.

b. **Assess** the situation.

(1) Determine the nearest safe area not containing mines.

(2) Determine the shortest route to the safe area.

(3) Determine if in the middle of a mined area.

Performance Steps

c. Note the situation.

(1) Make notes about the mine that you see.

(a) Describe the shape, and draw pictures if necessary (square, round, conical, circular, rectangular, concave, dome, or cylindrical) (figure 052-192-1042-1).

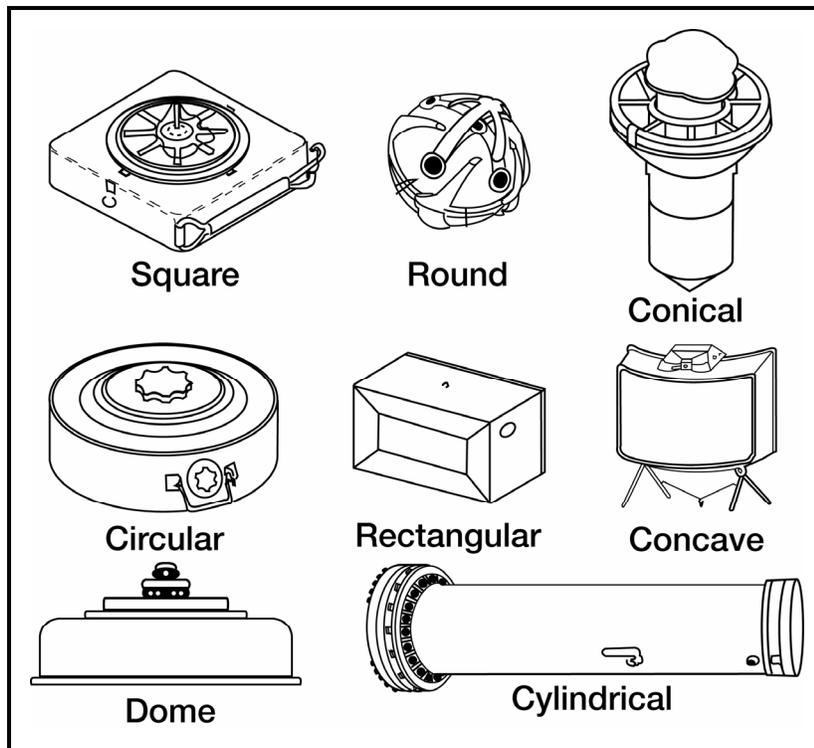


Figure 052-192-1042-1. Samples of mine shapes

(b) State the color (light green, dark green, brown, black, sand, camouflage, gray, metallic, natural wood, olive, blue, or white).

Performance Steps

(c) Annotate the size.

(d) Annotate the material type. Most mines are made of plastic, plastic casting, wood, sheet metal, cast iron, metal alloys, concrete, Bakelite™, and cast explosive.

(2) Indicate the number of mines.

(3) Annotate the terrain considerations.

(4) Indicate the location.

Notes:

1. Stay where you are, if possible, when support is available. If support is delayed, consider probing a safe area to sit.

2. Go to performance step 2 to perform self-extraction when footprints are not clearly visible (without a vehicle) or to perform casualty evacuation using the lane technique. Go to performance step 2b to perform the stepping-stone technique (no casualties). Go to performance step 3 to perform self-extraction from a vehicle. Go to performance step 4 to perform self-extraction when footprints are clearly visible (without a vehicle). Go to performance step 5 to perform actions after detecting a trip wire. Go to performance step 6 to perform actions after detecting a possible mine while probing.

3. Consider clearing an area to place excess equipment, such as a ruck sack and load bearing equipment, if it is going to take a long time to reach a safe area.

Performance Steps

2. Perform self-extraction when footprints are not clearly visible (without a vehicle).

Notes:

1. Carry a personal extraction kit. For example, as a minimum, carry 50 markers, pins, or poker chips; a trip wire feeler; and a probe (nonmetallic preferred). Use of a nonmetallic probe is recommended. When a nonmetallic probe is not available, probing tools can be made of any material as long as they are rigid enough to push through the soil, long enough to penetrate the ground at least 3 inches at a 30-degree angle, and small enough so that a Soldier can continue the probing drill for several hours. Magnetic and nonmagnetic metal tools, such as bayonets, screwdrivers, and penknives are suitable for probing when a nonmetallic probe is not available.

2. The prone position is the safest position from which to probe because it reduces the casualty-causing effects of an accidental blast. The lane technique is normally performed for casualty evacuation.

3. Use the stepping-stone technique when there are no casualties. This technique provides speed by minimizing the area probed and cleared for extraction. A probing Soldier will NOT adopt the prone position while performing this technique. Go to performance step 2b for the stepping-stone technique.

- a. Assume the prone position.

- (1) Squat down without touching your knees to the ground.

- (2) Use the *look-feel-probe* procedure to clear the area.

- (a) *Look* around for high and low trip wires. *Look* for mine indicators on the ground, to include mine fuzes, mine parts, or disturbed ground.

Performance Steps

(b) Feel for trip wires using the trip wire feeler. Push the trip wire feeler forward along the ground from your feet to your front left, then front center, and then front right. Raise the trip wire feeler in a gentle upward sweeping action to above your head height.

Feel the ground around your feet with your fingers using a slow sideways sweep, feeling for exposed mine fuze prongs or other mine parts.

Notes:

1. A trip wire feeler can be made of a light, wooden rod or stick; a light-gauge wire; plastic rods; or anything else that will allow you to feel a trip wire without activating it. The trip wire feeler must be a minimum of 24 inches long and a maximum of 36 inches long. The trip wire feeler should be stiff enough to be held straight out to the front, but not so stiff as to come in contact with a trip wire without you being able to feel the wire.

2. Go to performance step 5 for performance actions taken after detecting a trip wire.

(c) Probe the area as far forward as comfortable.

1 Hold the probe in either hand, with the palm up, allowing the blunt end of the probe to extend beyond the cup of the palm.

2 Apply just enough pressure on the probe to sink it slowly into the ground at a 30-degree angle and to a depth of 3 inches (figure 052-192-1042-2).

Performance Steps

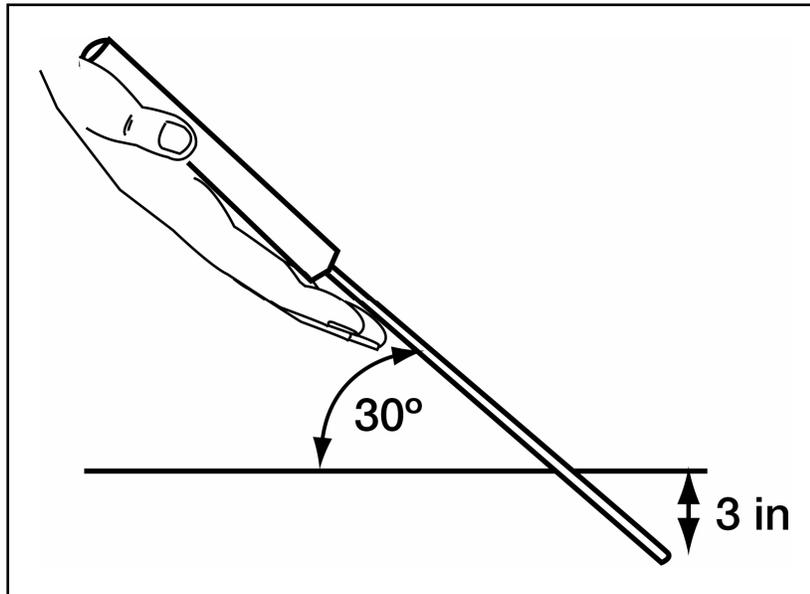


Figure 052-192-1042-2. Probing technique using a suitable probe

DANGER

Use extreme caution when probing. If you probe at an angle of more than 30 degrees, the probe tip may detonate a mine.

(d) *Probe* every 1 inch across the required extraction width path (0.6 meter [24 inches] for self extraction, 1 meter for evacuating a casualty using the individual-carry technique, and 2 meters for evacuating a casualty using a litter), then move forward 1 inch and stagger (offset) the probe indentations from the previously probed row (figure 052-192-1042-3).

Performance Steps

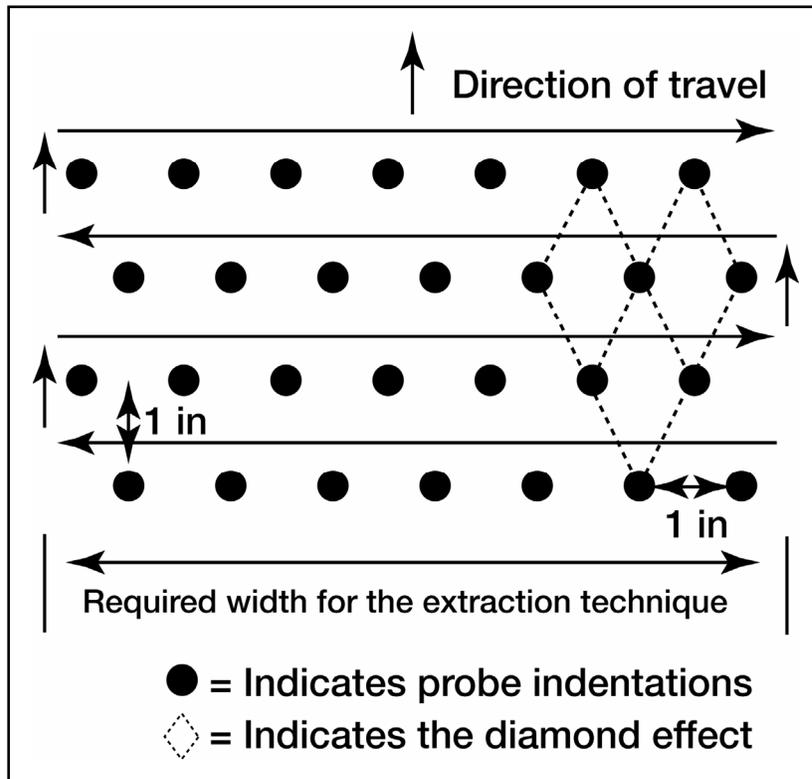


Figure 052-192-1042-3. Probing across the required extraction width path

Note: Continue the probing technique and ensure that the probe indentations in each row are offset from the previously probed rows, thus creating a diamond shape.

(3) Kneel on the ground after the area is found to be clear, and continue probing forward until you can assume the prone position.

(4) Continue the *look-feel-probe* procedure across the required extraction width path until you reach a safe area or the casualty.

Performance Steps

Note: Go to performance step 6 for actions taken after detecting a possible mine.

(a) Clear up to and under the casualty in case he/she is lying on a mine.

(b) Clear and mark a 1-meter circumference around the casualty for individual-carry extraction or a 2-meter circumference for litter-carry extraction.

(c) Remove the casualty out of the mined area.

(5) Mark the area for mines.

(6) Inform higher headquarters with noted information using the UXO spot report (figure 052-192-1042-4).

Performance Steps

LINE	
1	Date-Time Group: DTG item was discovered.
2	Reporting Activity: UIC and grid location.
3	Contact Method: Radio frequency, call sign, POC, and telephone number.
4	Type of Ordnance: Dropped, projected, placed, or thrown. If available, supply the subgroup. Give the number of items, if more than one.
5	NBC Contamination: Be as specific as possible.
6	Resources Threatened: Report any equipment, facilities, or other assets that are threatened.
7	Impact on Mission: Provide a short description of your current tactical situation and how the presence of the UXO affects your status.
8	Protective Measures: Describe any measures you have taken to protect personnel and equipment.
9	Recommended Priority: Recommend a priority of response by EOD technicians or engineers.

Figure 052-192-1042-4. UXO spot report

Performance Steps

- b. Use the stepping-stone technique (figure 052-192-1042-5).

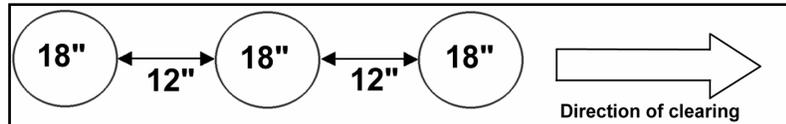


Figure 052-192-1042-5. Stepping stone technique

Note: Go to performance step 5 for actions taken after detecting a trip wire. Go to performance step 6 for performance actions taken after detecting a possible mine.

- (1) Clear individual stepping-stone areas to step into by using the look-feel-probe procedure.
- (2) Probe from a squatted position an area of 18 inches in diameter to your front to allow for both feet to stand in the area. The gap between stepping-stones should be no more than 12 inches.
- (3) Step into the cleared area and reorient toward the previously determined safe area.
- (4) Mark each stepping-stone perimeter or center.
- (5) Continue the look-feel-probe procedure during the stepping-stone technique until a safe area is reached.

Note: The look-feel-probe procedure is performed the same as previously mentioned except the area probed is 18 inches in diameter.

- (6) Mark the area for mines.
 - (7) Inform higher headquarters with noted information using the UXO spot report.
3. Perform self-extraction from a vehicle.
- a. Stop immediately.
 - b. Radio the situation to higher headquarters, and remain in the vehicle.
 - c. Extract from the rear of the vehicle after all communication efforts have failed, and walk inside the visible tire track to the last known safe area.

Performance Steps

CAUTION

Tracked vehicle tracks may also be followed, but care must be taken as small antipersonnel mine fuzes may have been missed by the gaps in the track shoes. These mines pose a threat to personnel walking inside the vehicle track marks.

Note: Go to performance step 5 for actions taken after detecting a trip wire. Go to performance step 6 for performance actions taken after detecting a possible mine while probing.

- d. Perform the look-feel-probe procedure from the vehicle to the last known safe area if the tracks are not clearly visible.
 - e. Probe an area to step in from the vehicle before making contact with the ground.
 - f. Mark the area for mines.
 - g. Inform higher headquarters with noted information using the UXO spot report.
4. Perform self-extraction when footprints are clearly visible (without a vehicle).

WARNING

This self-extraction method is the least preferred and should be performed only when time is the determining factor.

- a. Turn around carefully within your footprints, and follow the exact footprints back along the path entered.
- b. Follow the footprints until clear of the threat.
- c. Mark the area for mines.
- d. Inform higher headquarters with noted information using the UXO spot report.

Performance Steps

5. Perform the following actions after detecting a trip wire:

Note: When a trip wire is located, stand still and visually inspect the wire along its length to identify the possible mine location and trip wire anchor point.

WARNING

Do NOT attempt to touch, move, or cut any trip wires that are found.

- a. Identify the shortest route to probe around the trip wire.
- b. Probe the required extraction width path (0.6 meter [24 inches] for self extraction, 1 meter for evacuating a casualty using the individual-carry technique, and 2 meters for evacuating a casualty using a litter), 12 inches away from but along the line of the trip wire until you safely bypass the hazard.
- c. Mark the line of the trip wire along the ground surface 12 inches before the trip wire (figure 052-192-1042-6).

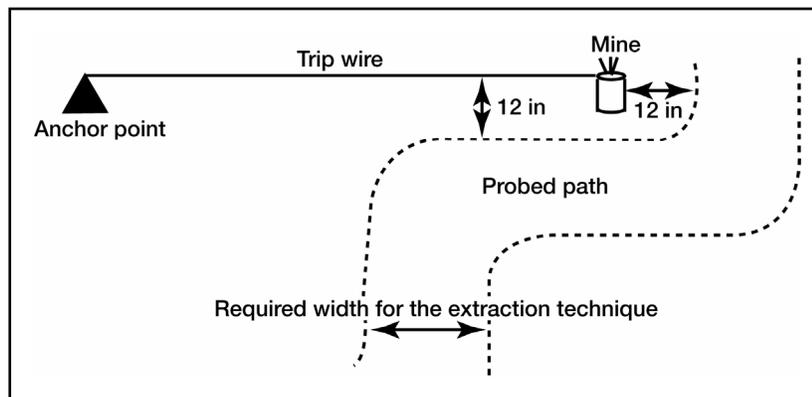


Figure 052-192-1042-6. Marking a trip wire

Performance Steps

6. Perform the following actions after detecting a possible mine while probing:

a. Stop probing when the probe encounters a solid object.

b. Investigate the solid object.

(1) Start excavation 6 inches back from the suspect object.

(2) Dig toward the suspected object using a suitable tool or your fingers in a sideward action.

Note: Periodically use the probe to verify the suspected mine location.

(3) Stop excavation when you encounter the solid object.

(a) Use two fingers from each hand to carefully remove the minimum amount of surrounding soil to confirm the object as a mine or not.

(b) Mark the location with a marker 6 inches to the rear of the mine if the object is confirmed as a mine. Continue moving forward if the object is not a mine.

WARNING

Do NOT attempt to remove or disarm the mine. Report the hazard to higher headquarters.

(c) Bypass the marked mine and continue moving toward the safe area.

c. Mark either one or both sides of the cleared path as you move forward.

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

Brief Soldier: Tell the Soldier to perform the substeps, in sequence, to self-extract from a mined area. Performance steps 2 through 4 of this task indicate different situations while performing self-extraction.

Performance Measures	<u>GO</u>	<u>NO GO</u>
<p>1. Took immediate action on observed indicators or confirmation of a mine.</p> <p style="padding-left: 20px;">a. Stopped immediately and gained control of himself/herself.</p> <p style="padding-left: 40px;">(1) Did not move his/her feet (no vehicle).</p> <p style="padding-left: 40px;">(2) Remained in the vehicle.</p> <p style="padding-left: 40px;">(3) Warned other elements operating in the area, and advised higher elements of the situation for possible support with extraction.</p> <p style="padding-left: 20px;">b. Assessed the situation.</p> <p style="padding-left: 40px;">(1) Determined the nearest safe area not containing mines.</p> <p style="padding-left: 40px;">(2) Determined the shortest route to the safe area.</p> <p style="padding-left: 40px;">(3) Determined if in the middle of a mined area.</p> <p style="padding-left: 20px;">c. Noted the situation.</p> <p style="padding-left: 40px;">(1) Made notes about the mine.</p> <p style="padding-left: 60px;">(a) Described the shape, and drew pictures if necessary (square, round, conical, circular, rectangular, concave, dome, or cylindrical).</p> <p style="padding-left: 60px;">(b) Stated the color (light green, dark green, brown, black, sand, camouflage, gray, metallic, natural wood, olive, blue, or white).</p> <p style="padding-left: 60px;">(c) Annotated the size.</p> <p style="padding-left: 60px;">(d) Annotated the material type. Most mines are made of plastic, plastic casting, wood, sheet metal, cast iron, metal alloys, concrete, Bakelite™, and cast explosive.</p> <p style="padding-left: 40px;">(2) Indicated the number of mines.</p> <p style="padding-left: 40px;">(3) Annotated the terrain considerations.</p> <p style="padding-left: 40px;">(4) Indicated the location.</p>	<p>_____</p>	<p>_____</p>

Performance Measures	<u>GO</u>	<u>NO GO</u>
<p>2. Performed self-extraction when footprints were not clearly visible (without a vehicle).</p> <p>a. Assumed the prone position.</p> <p>(1) Squatted down without touching his knees to the ground.</p> <p>(2) Used the look-feel-probe procedure to clear the area.</p> <p>(a) Looked around for high and low trip wires. Looked for mine indicators on the ground, to include mine fuzes, mine parts, or disturbed ground.</p> <p>(b) Felt for trip wires using the trip wire feeler. Pushed the trip wire feeler forward along the ground from his/her feet to his/her front left, then front center, and then front right. Raised the trip wire feeler in a gentle upward sweeping action to above head height.</p> <p><i>Felt</i> the ground around his feet with his fingers using a slow sideways sweep, feeling for exposed mine fuze prongs or other mine parts.</p> <p>(c) Probed the area as far forward as comfortable.</p> <p>1 Held the probe in either hand, with the palm up, allowing the blunt end of the probe to extend beyond the cup of the palm.</p> <p>2 Applied just enough pressure on the probe to sink it slowly into the ground at a 30-degree angle and to a depth of 3 inches.</p> <p>(d) Probed every 1 inch across the required extraction width (0.6 meter [24 inches] for self extraction, 1 meter for evacuating a casualty using the individual-carry technique, and 2 meters for evacuating a casualty using a litter), then moved forward 1 inch and staggered (offset) the probe indentations from the previously probed row.</p>	<p>_____</p>	<p>_____</p>

Performance Measures	<u>GO</u>	<u>NO GO</u>
<p>(3) Kneeled on the ground after the area was found to be clear, and continued probing forward until he/she could assume the prone position.</p>		
<p>(4) Continued the look-feel-probe procedure across the required extraction width path until he/she reached a safe area or the casualty.</p>		
<p>(a) Cleared up to and under the casualty in case he/she was lying on a mine.</p>		
<p>(b) Cleared and marked a 1-meter circumference around the casualty for individual-carry extraction or a 2-meter circumference for litter-carry extraction.</p>		
<p>(c) Removed the casualty out of the mined area.</p>		
<p>(5) Marked the area for mines.</p>		
<p>(6) Informed higher headquarters with noted information using the UXO spot report.</p>		
<p>b. Used the stepping-stone technique.</p>		
<p>(1) Cleared individual stepping-stone areas to step into by using the look-feel-probe procedure.</p>		
<p>(2) Probed from the squatted position an area of 18 inches in diameter to his/her front to allow for both feet to stand in the area. The gap between stepping-stones was no more than 12 inches.</p>		
<p>(3) Stepped into the cleared area and reoriented toward the determined safe area.</p>		
<p>(4) Marked each stepping-stone perimeter or center.</p>		
<p>(5) Continued the look-feel-probe procedure during the stepping-stone technique until a safe area was reached.</p>		
<p>(6) Marked the area for mines.</p>		
<p>(7) Informed higher headquarters with noted information using the UXO spot report.</p>		

Performance Measures	<u>GO</u>	<u>NO GO</u>
<p>3. Performed self-extraction from a vehicle.</p> <ul style="list-style-type: none"> a. Stopped immediately. b. Radioed the situation to higher headquarters, and remained in the vehicle. c. Extracted from the rear of the vehicle after all communication efforts failed, and walked inside the visible vehicle tire track to the last known safe area. d. Performed the look-feel-probe procedure from the vehicle to the last known safe area if the tracks were not clearly visible. e. Probed an area to step in from the vehicle before making contact with the ground. f. Marked the area for mines. g. Informed higher headquarters with noted information using the UXO spot report. 	<p>_____</p>	<p>_____</p>
<p>4. Performed self-extraction when footprints were clearly visible (without a vehicle).</p> <ul style="list-style-type: none"> a. Turned around carefully within his/her footprints, and followed the exact footprints back along the path entered. b. Followed the footprints until clear of the threat. c. Marked the area for mines. d. Informed higher headquarters with noted information using the UXO spot report. 	<p>_____</p>	<p>_____</p>

Performance Measures	<u>GO</u>	<u>NO GO</u>
<p>5. Performed the following actions after detecting a trip wire:</p> <ul style="list-style-type: none"> a. Identified the shortest route to probe around the trip wire. b. Probed the required extraction width path (0.6 meter [24 inches] for self extraction, 1 meter for evacuating a casualty using the individual-carry technique, and 2 meters for evacuating a casualty using a litter), 12 inches away from but along the line of the trip wire until he/she safely bypassed the hazard. c. Marked the line of the trip wire along the ground surface 12 inches before the trip wire. 	<p>_____</p>	<p>_____</p>
<p>6. Performed the following actions after detecting a possible mine while probing:</p> <ul style="list-style-type: none"> a. Stopped probing when the probe encountered a solid object. b. Investigated the solid object. <ul style="list-style-type: none"> (1) Started excavation 6 inches back from the suspected object. (2) Dug toward the suspected object using a suitable tool or his/her fingers in a sideward action. (3) Stopped excavation when he/she encountered the solid object. <ul style="list-style-type: none"> (a) Used two fingers from each hand to carefully remove the minimum amount of surrounding soil to confirm the object as a mine or not. 	<p>_____</p>	<p>_____</p>

Performance Measures	<u>GO</u>	<u>NO GO</u>
<p>(b) Marked the location with a marker 6 inches to the rear of the mine if the object was a mine. Continued moving forward if the object was not a mine.</p>		
<p>(c) Bypassed the marked mine and continued moving toward the safe area.</p>		
<p>c. Marked either one or both sides of the cleared path as he moved forward.</p>		

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/her how to do it correctly.

References

Required

Related

- FM 20-32
- GTA 05-10-044
- TC 20-32-5

052-192-1269

Detect Explosive-Hazard Indicators by Visual Means

Conditions: You are given an area (urban or rural) to maneuver in, around, or through in support of a mission or operation containing explosive-hazard indicators.

Standards: Visually detect all explosive-hazard indicators in the prescribed area without causing injury to personnel or damage to equipment. Notify the immediate supervisor of any suspected indicators.

Performance Steps

Note: Explosive hazards consist of mines, booby traps, unexploded ordnance (UXO), and improvised explosive devices (IEDs). See task 093-401-5040 for information on identifying and taking immediate actions when dealing with UXO.

WARNING

IEDs and UXO are prevailing hazards in the contemporary operational environment. IEDs and UXO include ordnance items that have been fired, projected, dropped, or placed in such a way that they could become armed and functional. Whether in an area by design or accident or deliberately placed, these items have not yet functioned. Whatever the reason, IEDs or UXO pose the risk of injury or death to all personnel and damage or destruction to equipment in the immediate vicinity. Once recognized, do not approach an IED or UXO.

1. Gather information pertaining to explosive hazards that are associated with the area of operations. Get this information from—
 - a. Leader-disseminated information (operation orders and reports).
 - b. References (graphic training aids, land mine handbooks, and special publications).
 - c. Mine or ordnance recognition boards.
 - d. Intelligence briefings.
-

Performance Steps

2. Recognize explosive-hazard indicators (environmental and deliberate).

Note: The only absolute indicators that an explosive hazard is present are if someone visually detects an explosive hazard, a person or vehicle detonates an explosive hazard, or someone witnesses a detonation. Spotting an explosive hazard as an initial indicator is extremely rare and should not be the primary focus of detecting these hazards.

CAUTION

Always be alert for signs of anything out of place, unnatural, or suspicious when maneuvering in, around, or through an area. If a possible indicator is seen, stop, assess the indicator, and look for other indicators to confirm or deny the possible hazard before continuing or taking further action.

a. Check for any environmental indicators. Look for—

Note: With the exception of stake mines and the majority of directional fragmentation mines, most hand or mechanically laid mines are buried. Burying mines disturbs the natural surface of the ground and nature will usually show where this event took place. Unusual erosion, plant growth, or animal casualties may be vital clues that there might be mines, booby traps, IEDs, or UXO present.

(1) Animals (dead or alive) with missing or damaged limbs.

Note: Animals can walk several miles before collapsing. Dead animals along a route may also be an indicator of a concealed IED.

(2) Human remains.

(3) Damaged vehicles left on or off the road.

(4) Wilted or dead patches of vegetation.

(5) Circles of lush grass among thin grass.

(6) Overgrown, unattended fields and pastures next to cultivated, used areas.

(7) Trees and bushes not collected for firewood in areas stripped of other vegetation.

(8) Odd features in the ground or patterns that are not normally present in nature.

(9) Unattended vehicles, trailers, or boxes and abandoned military equipment (weapons, ammunition, uniforms, or papers).

Performance Steps

CAUTION

These indicators may represent an IED or booby trap. Be alert for wires, detonating cord, or a shock tube running from these devices to the roadside. Cables or wires used in command-detonated devices are sometimes buried. Look for disturbed soil in lines running up to the road and away from the suspected or suspicious areas.

- (10) Ground that has been disturbed, to include—
 - (a) Depressions in the ground (regular or odd spacing).
 - (b) Raised patches of earth (regular or odd spacing).
 - (11) Unused paths, routes, or trails.
 - (12) Debris on or along a route that could conceal an IED or UXO.
 - (13) Suspicious guard rails and bridge overpasses. Be aware of suspected strike locations or suspicious personnel in the vicinity of these locations.
 - (14) Indications of road repair (new fill, pavement, patches, ditches, or culverts).
- Note:** There may be signs of single holes or several holes, possibly in some form of a pattern at tactical or key locations.
- (15) Potholes in tracks.
 - (16) Disturbances in previous tire tracks or tracks that stop unexplainably.
 - (17) Single or multiple craters (look for submunitions).
 - (18) Unusual or suspicious civilian activity, to include—
 - (a) Areas avoided by local civilians (pedestrian or vehicular traffic).
 - (b) Absence of children in the area.
 - (c) Civilians with video cameras recording ordinary activities or military movements.
 - (19) Patterns of objects that could be used as a sighting line or concealing wire leads for IEDs.
 - (20) Mine, explosives, or ordnance crates or packaging.
 - (21) Patches of new brickwork, plaster, or mud on walls.
 - (22) Abandoned defensive positions, trenches, and destroyed buildings.

Performance Steps

(23) Graffiti on walls or buildings in the local language.

(24) Signs being placed where they were not previously posted.

(25) Abandoned buildings, vehicles, piles of wood, or materials.

CAUTION

Buildings are excellent sites for booby traps. Assume that all unoccupied buildings are booby-trapped.

(26) Trip wires, strings, or cables.

(27) Evidence of electrical wires, batteries, mousetraps, clothespins, steel tubes, or springs. If detected, additional hazards may be in the general area due to the setup of a deliberate chain reaction (daisy chain) or decoy.

(28) Small shiny metal plates, split lightweight bomb casings, empty cluster bomb canisters, and small parachutes or drogues (funnel-shaped drag chute) from submunitions (all indicators of cluster bomb strikes or scatterable mine attacks). If detected, additional items could be in the local area due to the dud rate of cluster bomb submunitions.

b. Check for any deliberate indicators (improvised or manufactured).

Note: Not all armies and fighting organizations mark their minefields and other explosive hazards to the same standards as required by the United States (U.S.) Army. Many local factions, militia, or units will lay mines and mark them in their own way with readily available materials rather than formal markings. These markings are generally used to warn their own troops and local civilians of the presence of mines, booby traps, IEDs, or UXO. Friendly units operating in these environments must gain this local knowledge to identify mine markers and explosive-hazard areas.

(1) Check for improvised markings of mines, booby traps, IEDs, and UXO (figure 052-192-1269-1). Look for—

(a) Rock piles or individual rocks painted red (used by the United Nations [UN], threat army, or local factions as danger area markers).

Performance Steps

(b) Different-colored tapes attached to a stick, tree limb, picket, pole, or wall.

(c) Crossed bones, sticks, or twigs.

(d) Graffiti in the local language (a translator or an interpreter may be required) that warns civilians of a possible explosive hazard.

(e) Pieces of both cloth and metal material attached to poles, sticks, or walls.

Note: Step 2(1)(b) through (e) are used by various fighting factions and locals to mark the minefield perimeters.

(f) A circle of stones surrounding objects (used by locals to mark individual mines, UXO, and IEDs).

(g) Rows of light-colored stones or stones that are painted white (used by the UN to mark safe lanes and cleared areas; stones are usually in regular patterns and close together).

(h) Red lettering and marks painted on rock faces or building walls.

Note: For example, start point (SP), indicating the minefield start point. Internationally recognized humanitarian demining reference markers, such as reference point (RP) and benchmark (BM). Minefields will be within visual distance of these markers.

(i) Burned fields (may indicate UN mine clearance operations).

(j) Wooden posts with red and white tops to delineate ongoing UN minefield clearance operations.

Performance Steps

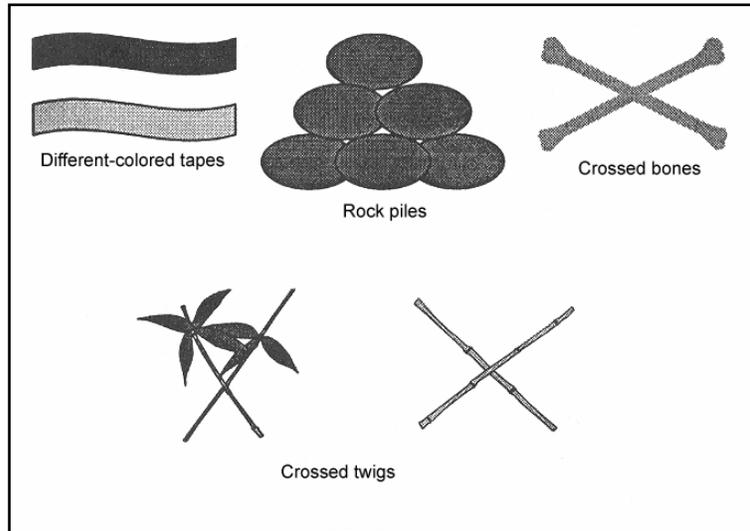


Figure 052-192-1269-1. Examples of explosive-hazard markers

Performance Steps

(2) Check for manufactured markings of mines, booby traps, IEDs, and UXO (figure 052-192-1269-2). Look for—

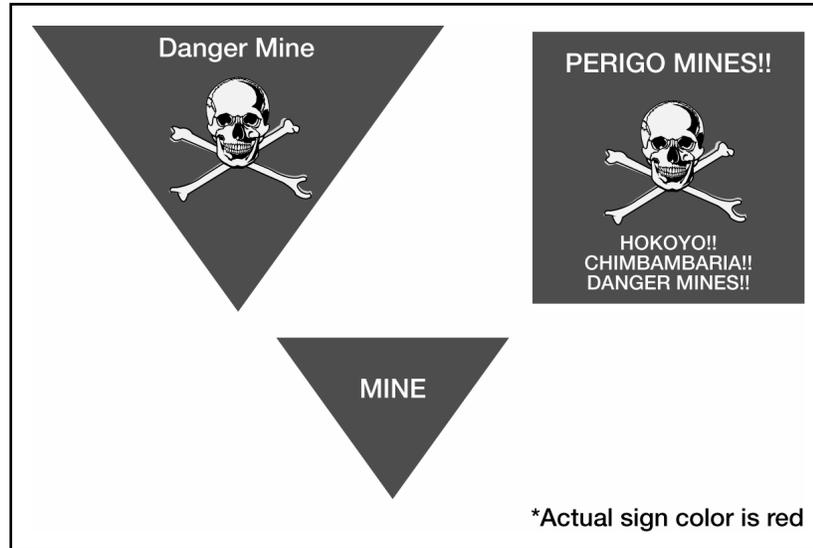


Figure 052-192-1269-2. Example of mine signs

(a) Red rectangular or triangular signs attached to wire, stakes, posts, or pickets with a written warning on one side.

(b) Signs with a picture of a person being blown up by a mine.

3. Notify the immediate supervisor of any suspected indicators.

Evaluation Preparation: Setup: Provide an area that contains suspected mine, booby trap, UXO, and IED indicators. Provide several types of indicators like those listed in step 2. Record and provide a description of all suspected explosive-hazard indicators and their locations on an evaluation sheet. Observe the Soldier's performance for improper identification that may cause him/her to miss an indicator within the designated lane.

Brief Soldier: Tell the Soldier to locate all explosive-hazard indicators within the designated lane.

Performance Measures	GO	NO- GO
1. Gathered information pertaining to explosive hazards that were associated with the area of operations.	___	___
2. Recognized explosive-hazard indicators.	___	___
3. Notified the immediate supervisor of any suspected indicators.	___	___

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/her how to do it correctly.

References

Required

Related

FM 20-32
GTA 05-10-044
GTA 09-12-001
TC 20-32-5

071-326-0502

Move Under Direct Fire

Conditions: Given a tactical situation where you must approach an enemy position from a distance of 250 to 300 meters across varied terrain, armed with an M16A1 rifle or M203 grenade launcher, wearing load carrying equipment (LCE), and as a member of a two-man team.

Standards: Move within 100 meters of the enemy position and use the correct individual tactical fire and movement techniques dictated by terrain features. Coordinate movement with team members and provide covering fire for each member.

Performance Steps

1. Select an individual movement route within your team, or squad route or axis of advance (figure 071-326-0502-1).

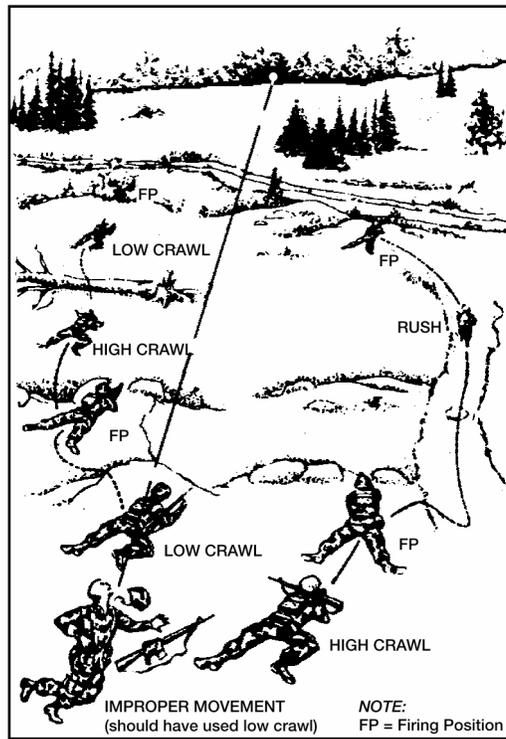


Figure 071-326-0502-1. Individual movement route

- a. Search the terrain to your front for—

- (1) A gully, ravine, ditch, or wall at a slight angle to your direction of movement.

Note: These features provide cover and concealment when using the low or high crawl.

- (2) Hedgerows or a line of thick vegetation.

Note: These features provide concealment only during the low or high crawl.

Performance Steps

(3) Large trees, rocks, stumps, fallen timber, rubble, vehicle hulks, folds, or creases in the ground.

Note: These features provide cover and concealment for use as temporary positions. Use the rush if the area between them has no concealment.

(4) High grass or weeds.

Note: These features provide only partial concealment. You can use the rush, because using the high or low crawl could move vegetation and reveal your location.

b. Select your next position (and the route to it) as the one that—

(1) Exposes you to the least enemy fire.

(2) Does not require you to cross in front of other members of your element, masking their fires.

2. Determine the correct individual movement technique.

a. Select the high crawl when—

(1) The route provides cover and concealment.

(2) Poor visibility reduces enemy observation.

(3) Speed is required, but the terrain and vegetation are suitable only for the low crawl.

b. Select the low crawl when—

(1) The route provides cover or concealment less than 1 foot high.

(2) Visibility provides the enemy good observation.

(3) Speed is not required.

c. Select the rush when—

(1) You must cross open areas.

(2) Time is critical.

Performance Steps

3. Communicate the movement plan to your buddy or team leader using hand signals, so that the Soldier not moving can cover by fire the other Soldier's movement, if any.

Note: When moving as a member of a fire team, watch and listen to your team leader who will lead you along the best route available and ensure that covering fire is provided when you move. Stay with your team leader and follow his or her example.

4. Use the high crawl (figure 071-326-0502-2).



Figure 071-326-0502-2. High crawl

- a. Keep your body off of the ground
 - b. Rest your weight on your forearms and lower legs.
 - c. Cradle your weapon in your arms, keeping its muzzle off the ground.
 - d. Keep your knees well behind your buttocks, so your buttocks stays low.
 - e. Move forward by alternately advancing your right elbow and left knee, then your left elbow and right knee.
-

Performance Steps

5. Use the low crawl (figure 071-326-0502-3).

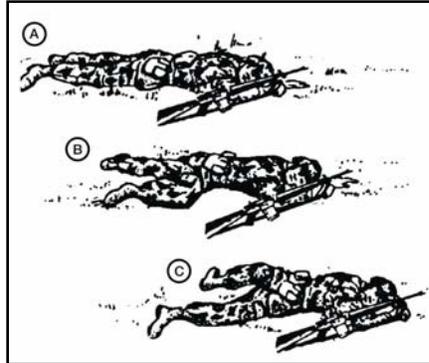


Figure 071-326-0502-3. Low crawl

- a. Keep your body as flat as possible to the ground.
- b. Hold your weapon by grasping the sling at the upper sling swivel and letting the handguard rest on your forearm. Let the butt of the weapon drag on the ground. This will help you keep the muzzle off the ground.
- c. Move forward by—
 - (1) Pushing both arms forward while pulling your right leg forward.
 - (2) Pulling with both arms while pushing with your right leg.
 - (3) Continuing this push-pull movement until you reach your next position, changing your pushing leg frequently to avoid fatigue.

Performance Steps

6. When enemy fire allows brief exposure, use the rush to move from one covered position to another (figure 071-326-0502-4).

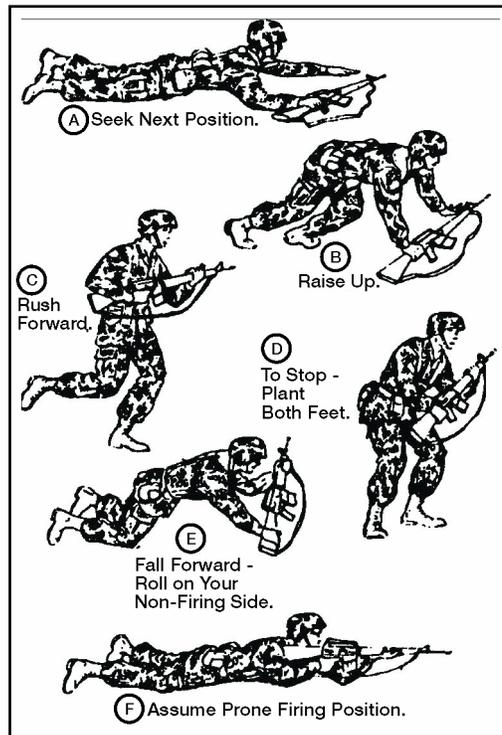


Figure 071-326-0502-4. Rush

- a. Move from your firing position by rolling or crawling.
- b. Start from the prone position.
- c. Slowly raise your head and select your next position.
- d. Lower your head while at the same time drawing your arms into your body, elbows down, and pulling your right leg forward.
- e. Raise your body in one movement by straightening your arms.

Performance Steps

- f. Spring to your feet, stepping off with either foot.
 - g. Run to the next position—
 - (1) Keep the distance short to avoid accurate enemy fire.
 - (2) Try not to stay up any longer than 3 to 5 seconds so that the enemy does not have time to track you with automatic fire.
 - h. Plant both feet just before hitting the ground.
 - i. Fall forward by—
 - (1) Sliding your right hand down to the heel of the butt of your weapon.
 - (2) Breaking your fall with the butt of your weapon.
 - j. Assume a firing position.
 - (1) Roll on your side.
 - (2) Place the butt of your weapon in the hollow of your shoulder.
 - (3) Roll or crawl to a covered or concealed firing position.
7. Cover your buddy's movement with fire.

Evaluation Preparation: Setup: Take Soldiers on a simulated march or field exercise in battle dress with LCE and weapons. Select an area with varying cover types and heights. Select a site about 300 meters away to serve as an enemy position. Point out the site to the Soldiers. Pair up Soldiers being tested.

Brief Soldier: Tell the Soldiers to pretend they are under direct fire. Tell them to move from their present position to within 100 meters of the enemy position and use the buddy system. Tell the Soldiers to use the appropriate movement technique in performance measures 4, 5, and 6, as appropriate for the scenario and terrain. It may not be appropriate for each Soldier to use all three techniques.

Performance Measures	GO	NO GO
1. Select an individual movement route within your team or squad route or axis of advance that provides cover or concealment such as—	—	—
a. A gully, ravine, ditch, or wall at a slight angle to your direction of movement.		
b. Hedgerows or a line of thick vegetation.		
c. Large trees, rocks, stumps, fallen timber, rubble, vehicle hulks, folds or creases in the ground.		
d. High grass or weeds.		
2. Select your next position (and the route to it) as one that—	—	—
a. Exposes you to the least enemy fire.		
b. Does not require you to cross in front of other members of your element, masking their fires.		
3. Determine the correct movement technique.	—	—
a. Select the high crawl when—		
(1) The route provides cover and concealment.		
(2) Poor visibility reduces enemy observation.		
(3) Speed is required, but the terrain and vegetation are suitable only for the low crawl.		
b. Select the low crawl when—		
(1) The route provides cover or concealment less than 1 foot high.		
(2) Visibility provides the enemy good observation.		
(3) Speed is not required.		

Performance Measures	GO	NO GO
<ul style="list-style-type: none"> c. Select the rush when— <ul style="list-style-type: none"> (1) You cross open areas. (2) Time is critical. 		
<ul style="list-style-type: none"> 4. Communicate the movement plan using hand signals so that the Soldier not moving can cover by fire any movement by the other Soldier. 	—	—
<ul style="list-style-type: none"> 5. Used the high crawl. <ul style="list-style-type: none"> a. Keep your body off of the ground. b. Rest your weight on your forearms and lower legs. c. Cradle your weapon in your arms, and keep the muzzle off the ground. d. Keep your knees well behind your buttocks. e. Move forward by alternately advancing your right elbow and left knee, and left elbow and right knee. 	—	—
<ul style="list-style-type: none"> 6. Use the low crawl. <ul style="list-style-type: none"> a. Keep your body as flat as possible to the ground. b. Hold your weapon by grasping the sling at the upper sling swivel, letting the handguard rest on your forearm and the butt of the weapon drag on the ground. This will help you keep the muzzle off the ground. c. Move forward by— <ul style="list-style-type: none"> (1) Pushing both arms forward while pulling your right leg forward. (2) Pulling with both arms while pushing with your right leg. 	—	—

Performance Measures	<u>GO</u>	<u>NO GO</u>
<p>(3) Continuing this push-pull movement until you reach your next position, changing your pushing leg frequently to avoid fatigue.</p>		
<p>7. Use the rush to move from one covered position to another.</p>	_____	_____
<p>a. Move from your firing position by rolling or crawling.</p>		
<p>b. Start from the prone position.</p>		
<p>c. Select your next position by slowly raising your head.</p>		
<p>d. Lower your head while drawing your arms into your body, keep your elbows down, and pull your right leg forward.</p>		
<p>e. Raise your body in one movement by straightening your arms.</p>		
<p>f. Spring to your feet, stepping off with either foot.</p>		
<p>g. Run to the next position—</p>		
<p>(1) Keep the distance short.</p>		
<p>(2) Stay up no longer than 3 to 5 seconds.</p>		
<p>h. Plant both feet just before you hit the ground.</p>		
<p>i. Fall forward by—</p>		
<p>(1) Sliding your right hand down to the heel of the butt of your weapon.</p>		
<p>(2) Breaking your fall with the butt of the weapon.</p>		

Performance Measures	GO	NO GO
j. Assume a firing position.		
(1) Roll on your side.		
(2) Place the butt of the weapon in the hollow of your shoulder.		
(3) Roll or crawl to a covered or concealed firing position.		
8. Cover your buddy's movement with fire.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required
FM 21-75

Related

071-326-0503

Move Over, Through, or Around Obstacles (Except Minefields)

Conditions: Given an individual weapon, load-carrying equipment (LCE), one smoke grenade, wood or grass mats or chicken wire, a grappling hook, wrapping material, wire cutters (optional), and a buddy, in daylight or darkness, at a field location, and with a route that has both natural and manmade crossings and obstacles (walls and barbed wire entanglements).

Standards: Approach within 100 meters of a suspected enemy position over a specified route. Negotiate each obstacle that you encounter within the designated time. Retain all your equipment. Avoid becoming a casualty to a booby trap or early warning device.

Performance Steps

1. Cover your advance using smoke when crossing an obstacle.
2. Ensure your buddy is covering you, since obstacles are normally protected by either fire or observation.
3. Cross barbed wire obstacles.

Performance Steps

WARNING

The enemy routinely attaches tripwire-activated mines to barbed wire.

- a. Check barbed wire for booby traps or early warning devices.
 - (1) Look for booby traps or early warning devices attached to the barbed wire.
 - (2) Throw a grappling hook with a length of rope attached over the barbed wire.
 - (3) Pull the rope to set off any booby traps or early warning devices.
- b. Cross over barbed wire using wood, grass mats, or chicken wire to protect you from the barbs.
 - (1) Throw the wood, mat, or chicken wire over the barbed wire.
 - (2) Cross carefully because such a mat or net forms an unstable path.
- c. Cross under barbed wire.
 - (1) Slide head first on your back under the bottom strands.
 - (2) Push yourself forward with your shoulders and heels, carrying your weapon lengthwise on your body and holding the barbed wire with one hand while moving.
 - (3) Let the barbed wire slide on the weapon to keep the barbed wire from catching on your clothing and equipment.
- d. Cut your way through barbed wire.
 - (1) Leave the top wire in place to reduce the chance that the enemy will discover the gap.
 - (2) Wrap cloth around the barbed wire between your hands.
 - (3) Cut partly through the barbed wire.
 - (4) Bend the barbed wire back and forth quietly until it separates.
 - (5) Cut only the lower strands.

Performance Steps

4. Cross exposed danger areas such as roads, trails, or small streams.
 - a. Select a point at or near a bend in the road or stream. If possible, select a bend that has cover and concealment on both sides.
 - b. Crawl up to the edge of the open area.
 - c. Observe the other side carefully before crossing.
 - d. Move rapidly but quietly across the exposed area.
 - e. Take cover on the other side.
 - f. Check the area around you.
5. Cross over a wall.
 - a. Roll quickly over the top.
 - b. Do not go over standing upright.
6. Cover your buddy as he or she crosses the obstacle.

Evaluation Preparation: Setup: Select a good field location with crossings, walls, and barbed wire entanglements. Designate a suspected opposing force position and point this out to the Soldiers. Establish a time by running the course twice and timing yourself and an assistant over the course. Average the times and add 10 percent as the maximum time Soldiers will have to run the same course.

Brief Soldiers: Tell Soldiers that they will be evaluated on how they move over, through, and around the obstacles while attempting to get within 100 meters of an enemy position. Tell them that they must negotiate at least one of each type obstacle: exposed danger areas, barbed wire, and a wall. Tell them they must run the course within the time you computed while setting up the site.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Cover your advance using smoke.	___	___
2. Ensure your buddy is covering you.	___	___

Performance Measures	<u>GO</u>	<u>NO GO</u>
3. Cross barbed wire obstacles.	<p align="center">_____</p>	<p align="center">_____</p>
<p>a. Check barbed wire for booby traps or early warning devices.</p>		
<p>(1) Look for booby traps or early warning devices attached to the barbed wire.</p>		
<p>(2) Throw a grappling hook with a length of rope attached over the barbed wire.</p>		
<p>(3) Pull the rope to set off any booby traps or early warning devices.</p>		
<p>b. Cross over barbed wire using wood, grass mats, or some chicken wire.</p>		
<p>(1) Throw the wood, mat, or chicken wire over the barbed wire.</p>		
<p>(2) Cross carefully, because such a mat or net forms an unstable path.</p>		
<p>c. Cross under barbed wire.</p>		
<p>(1) Slide headfirst on your back under the bottom strands.</p>		
<p>(2) Push yourself forward with your shoulders and heels, carrying your weapon lengthwise on your body, and hold the barbed wire with one hand while moving.</p>		
<p>(3) Allow the barbed wire to slide on the weapon so that the wire does not catch on your clothing and equipment.</p>		
<p>d. Cut your way through barbed wire.</p>		
<p>(1) Leave the top wire in place.</p>		
<p>(2) Wrap cloth around the barbed wire between your hands.</p>		
<p>(3) Cut partly through the barbed wire.</p>		
<p>(4) Bend the barbed wire quietly until it separated.</p>		
<p>(5) Cut only the lower strands.</p>		

Performance Measures	GO	NO GO
4. Cross exposed danger areas such as roads, trails, or small streams.	_____	_____
a. Select a point at or near a bend in the road or stream that has cover and concealment on both sides.		
b. Crawl up to the edge of the open area.		
c. Observe the other side carefully before crossing.		
d. Move rapidly but quietly across the exposed area.		
e. Take cover on the other side.		
f. Check the area around you.		
5. Cross over a wall.	_____	_____
a. Roll quickly over the top.		
b. Do not go over standing upright.		
6. Cover your buddy while crossing the obstacle.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 21-75

Related

071-326-0510

React to Indirect Fire While Dismounted

Conditions: You are a member (without leadership responsibilities) of a squad or team. You are either in a defensive position or moving on foot. You hear incoming rounds, shells exploding or passing overhead, or someone shouting "incoming."

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Standards: React to each situation by shouting "Incoming!" Follow the leader's directions if available, and take or maintain cover.

Performance Steps

1. Shout "Incoming!" in a loud, easily recognizable voice.
2. Look to your leader for additional instructions.
3. Remain in your defensive position (if appropriate), and make no unnecessary movements that could alert the enemy to your location.
4. Take cover outside the impact area (if you are in an exposed position or moving). Keep your body low if the leader is not in sight.

Evaluation Preparation: Setup: Take the Soldiers on a simulated march or field exercise.

Brief Soldiers: Tell the Soldiers that they must react to indirect fire on the move and when in a fixed position after hearing the command INCOMING.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Shout "incoming" in a loud, easily recognizable voice.	___	___
2. Look to the leader for additional instructions.	___	___
3. Remain in defensive position (if appropriate), and make no unnecessary movements that could alert the enemy to your location.	___	___
4. Take cover outside of the impact area (if they are in an exposed position or moving), and, if your leader is out of sight, keep your body low.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required
FM 21-75

Related

3-188

071-326-0510

11 October 2005

STP 21-1-SMCT

071-326-0511

React to Flares

Conditions: Given a tactical situation at night, the sound of a flare rising, or sudden illumination from a ground or overhead flare.

Standards: React to a ground or an overhead flare without being seen by the enemy or losing your night vision.

Performance Steps

1. Respond to ground flares.
 - a. Move from the illuminated area.
 - b. Reorient yourself when alone or in a group IAW standard operating procedures (SOP) or as instructed.
 - c. Continue the mission.
 2. Respond to an overhead flare with warning such as the sound of a rising flare.
 - a. Assume the prone position, behind concealment when available, before the flare bursts.
 - b. Protect your night vision by closing one eye and observing with the other.
 - c. Switch and use the night vision-protected eye to reorient yourself or rejoin your group when the flare burns out.
 - d. Continue the mission.
 3. Respond to an overhead flare without warning.
 - a. Assume the prone position behind concealment (when available) until the flare burns out.
 - b. Protect your night vision by closing one eye and observing with the other.
 - c. When you must cross a wire obstacle where the prone position is not possible, crouch low until the flare burns out before crossing.
-

Performance Steps

- d. Switch eyes and use the night vision-protected eye to reorient yourself or rejoin your group when the flare burns out.
- e. Continue the mission.

Evaluation Preparation: Setup: Have ground flares set so that you can ignite them when you are ready. Have handheld flares to use to simulate the overhead flares.

Brief Soldier: Tell the Soldier to react to the flares as they appear. After grading the Soldier on his reaction to the ground flare and the overhead flare with warning, tell the Soldier that he should react to the next flare only after the flare has burst (simulate "without warning").

Performance Measures	GO	NO GO
1. Respond to a ground flare.	_____	_____
a. Move out of the illuminated area.		
b. Reorient alone or in a group.		
c. Continue the mission.		
2. Respond to an overhead flare with warning.	_____	_____
a. Assume the prone position before the flare bursts.		
b. Protect your night vision by closing one eye and observing with the other eye.		
c. Reorient or rejoin your group when the flare burns out.		
d. Continue the mission.		
3. Respond to an overhead flare without warning.	_____	_____
a. Assume the prone position until the flare burns out.		
b. Protect your night vision by closing one eye and observing with the other.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
c. Crouch low until the flare burns out when crossing wire obstacles where the prone position is not possible.		
d. Use night vision eye to reorient or to rejoin group when the flare burned out.		
e. Continued the mission.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required
FM 21-75

Related

071-326-0513
Select Temporary Fighting Positions

Conditions: Given a tentative defensive position, at a halt during movement or upon receiving direct fire.

Standards: Select a firing position that protects you from enemy observation and fire, and that allows you to place effective fire on enemy positions without exposing most of your head and body.

Performance Steps

1. Choose a position that takes advantage of available cover and concealment (figure 071-326-0513-1).

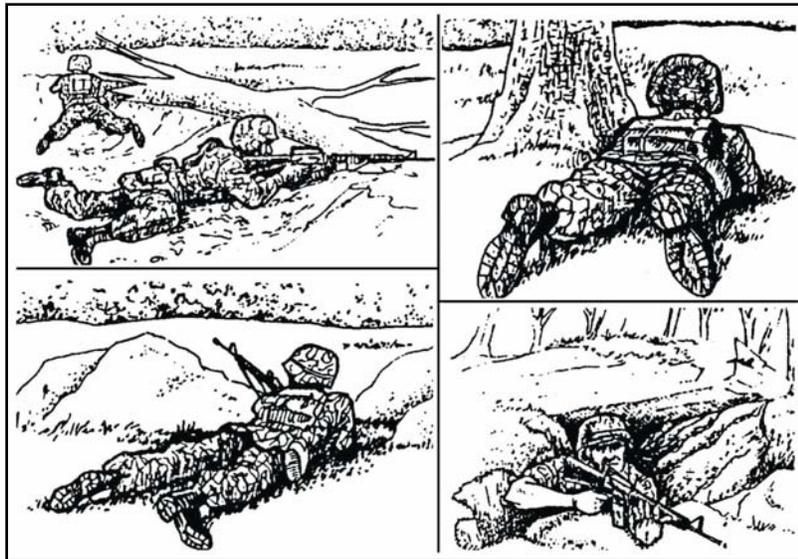


Figure 071-326-0513-1. Temporary fighting positions.

Note: Cover protects you from bullets, fragments of exploding rounds, flame, nuclear effects, and biological and chemical agents. Cover can also conceal you from enemy observation. Cover can be natural or man-made. Concealment hides you from enemy observation. Concealment does not protect you from enemy fire. Never make the mistake of thinking that concealment can protect you from enemy fire. Concealment, like cover, can also be natural or man-made.

2. Choose a position that allows you to observe and fire around the side of an object while concealing most of your head and body.
3. Choose a position that allows you to stay low when observing and firing, whenever possible.

Note: This position allows you to aim better and take advantage of concealing vegetation.

Performance Steps

4. Choose a position with a background that does not silhouette you against the surrounding environment.

Note: A position like this reduces your chances being detected.

5. Follow your leader's directions after your initial selection of a temporary battlefield position.

Note: Your leader may reposition you to gain better coverage of the area.

Evaluation Preparation: Setup: Evaluate this task during a march or a simulated march in an area with varying degrees of cover and concealment. Have the Soldier wear full battle gear.

Brief Soldier: Tell the Soldier that the enemy has been reported in the area, and that he might encounter the enemy at any time. At preselected points during the march, at a rest halt, after ordering the Soldier to take an overwatch position, or after ordering the Soldier to take a tentative defensive position, have the Soldier select a temporary fighting position.

Performance Measures	GO	NO GO
1. Choose a position that uses available cover and concealment.	___	___
2. Choose a position that allows observation and fire around the side of an object while concealing most of your head and body.	___	___
3. Choose a position that allows you to stay low when observing and firing, whenever possible.	___	___
4. Choose a position with a background that prevents you from silhouetting yourself against your surroundings.	___	___
5. Follow your leader's directions after the initial selection of a temporary battlefield position.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required
FM 21-75

Related

071-326-3002

React to Indirect Fire While Mounted

Conditions: In a combat environment, given a combat-loaded tracked vehicle.

Standards: React to indirect fire by moving the vehicle from the impact area and then continuing the mission.

Performance Steps

1. Give an order to close all hatches.
2. Direct movement away from the impact area.
3. Analyze the situation.
4. Give a situation report.
5. Continue the mission.

Evaluation Preparation: Setup: At the test site, provide a combat-loaded track vehicle. Use only dummy ammunition for training purposes. Take Soldiers on a simulated march.

Brief Soldier: Tell the Soldiers that they must react to a simulated indirect-fire mortar or artillery fire while mounted in a tracked vehicle.

Performance Measures	GO	NO GO
1. Give an order to close all hatches.	___	___
2. Direct movement away from the impact area.	___	___
3. Analyze the situation.	___	___
4. Give a situation report.	___	___
5. Continue the mission.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-21.71

FM 7-7

071-326-5703

Construct Individual Fighting Positions

Conditions: Given load-carrying equipment (LCE) with bayonet; scabbard; entrenching tool; poncho; and M16A1 rifle; a specific location and sector of fire, and logs to construct overhead cover.

Standards: 1. Construct a hasty fighting position that gives frontal cover from enemy direct fire and allows you to fire to the front and oblique.

2. Construct a one-man fighting position wide enough for you and your equipment, armpit deep, with frontal and overhead cover at least 18 inches deep, with grenade sumps and with a floor sloped toward the sumps. Ensure that the position allows you to place fire on your assigned sector.

Performance Steps

Note: When you first move into battle, you might have little or no time to prepare a position.

1. Prepare a hasty fighting position.
 - a. Select a hasty fighting position that:
 - (1) Is behind whatever cover is available.
 - (2) Provides frontal protection.
 - (3) Allows you to shoot to the front and at an oblique angle.
 - (4) Is in a small depression or a hole at least 18 inches deep.

Note: The term "hasty position" does not preclude digging.

Performance Steps

- b.** In whatever time you have, improve your position by digging or scraping out a prone shelter that gives you some protection (figure 071-326-5703-1).



Figure 071-326-5703-1. Hasty fighting position

- 2.** Prepare a one-Soldier fighting position (figure 071-326-5703-2).



Figure 071-326-5703-2. One-man fighting position

Performance Steps

Note: This type of position allows flexibility in the use of cover. The hole need only be long enough for you and your equipment. You must be able to shoot to both the front and oblique from behind frontal cover. It does not provide the security a two-Soldier position does.

- a. Obtain position location and sector of fire from your leader.
- b. Put in sector-of-fire stakes.
- c. Partially clear a field of fire within your sector.
- d. Dig a hasty hole for minimum protection, being careful not to destroy natural camouflage around your position.
- e. Save grass clumps for use as camouflage later.

Note: At this stage of construction of the position, you should be able to fight effectively in the event of a surprise attack.

Performance Steps

- f. Dig in, shaping the hole to fit the natural cover available.

Note: Depending on the size and shape of the frontal cover that you are using, you may not be able to dig a rectangular hole.

- (1) Make the foxhole armpit deep (figure 071-326-5703-3).

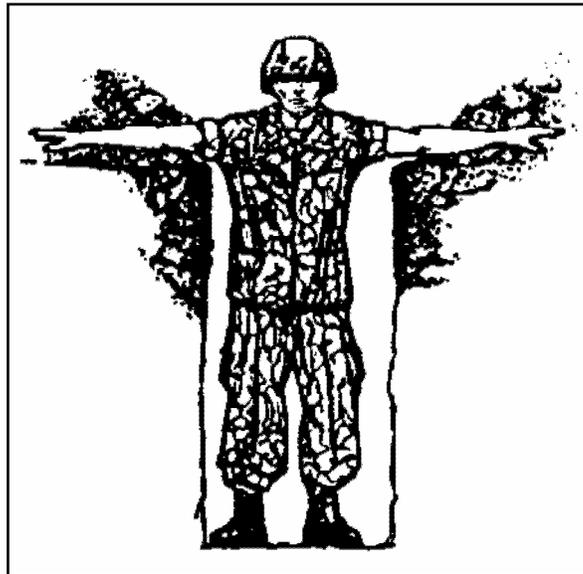


Figure 071-326-5703-3. Fighting position armpit deep

Note: Frontal cover is important so you can shoot without exposing your head to enemy fire. Ideally, you will have a natural parapet, such as a tree, mound, rock, or stump that will blend with the surrounding terrain available for frontal cover.

- (2) Use the dirt from your hole to build a parapet that—
- (a) Provides frontal cover with at least 45 centimeters (18 inches) of earth between you and the enemy if a natural parapet is not available.
 - (b) Is high enough to cover your head.
 - (c) Is far enough in front of the hole to allow for elbow rests and sector stakes.

Performance Steps

(3) Modify your position on steep terrain by digging out firing ports at each end of the hole so that the ground between the firing ports then serves as frontal cover for the position (figure 071-326-5703-4).



Figure 071-326-5703-4. Fighting position on slope

Note: On a steep slope, a Soldier in a hole behind frontal cover cannot shoot attackers without being exposed to enemy fire.

g. Save remaining dirt for later use as flank, overhead, and rear cover (figure 071-326-5703-5).

Performance Steps

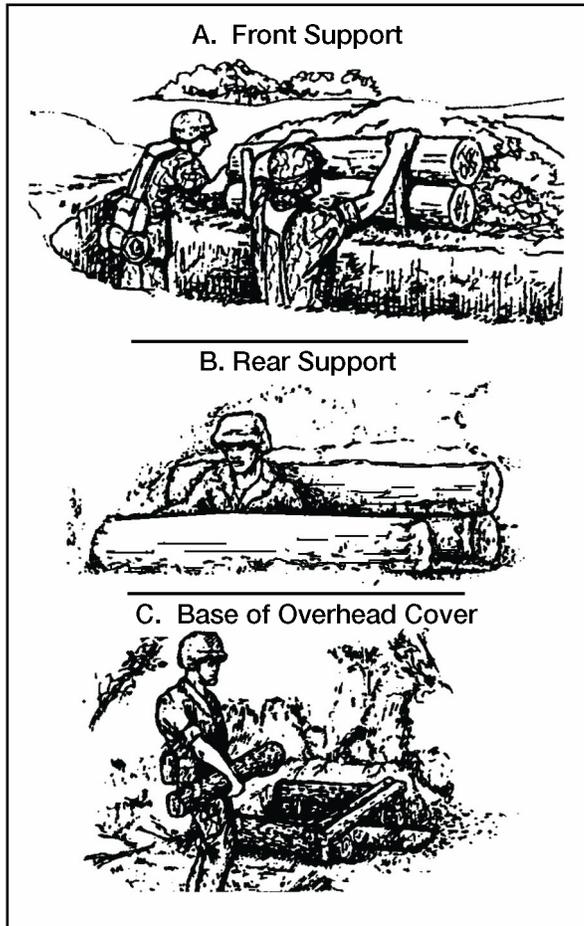


Figure 071-326-5703-5. Constructing overhead cover

Performance Steps

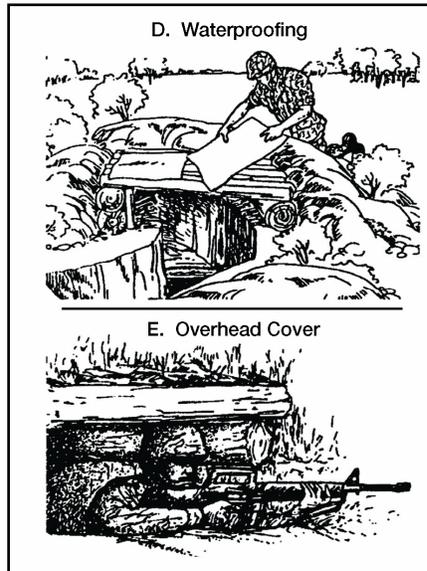


Figure 071-326-5703-5. Constructing overhead cover (continued)

- h.** Dispose of excess dirt.
 - (1)** Carry it away from your position.
 - (2)** Camouflage it.
- i.** Dig two trench-shaped grenade sumps (figure 071-326-5703-6).

Performance Steps

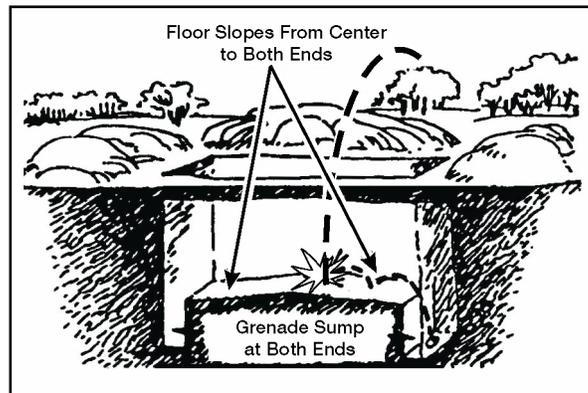


Figure 071-326-5703-6. Two trench-shaped grenade sumps

- (1) Place one at each end of the position.
 - (2) Make the trenches as wide as an entrenching tool blade, as deep as the entrenching tool, and as long as the position is wide.
 - j. Slope the floor toward the sumps (figure 071-326-5703-6).
- Note:** The slope should be steep enough so that a grenade thrown into the position will easily and quickly roll into one of the sumps.
3. Finish clearing the field of fire.
 - a. Clear only what is absolutely necessary.
 - b. Check the observation and field of fire from inside the position.
 4. Save any cut foliage, dirt, or grass clumps to camouflage your position.
 5. Construct for the fighting position overhead cover that provides the best possible protection from airbursts while allowing you to fight from underneath it.
 - a. Use logs 10 to 15 centimeters (4 to 6 inches) thick for the supports, base, and top.

Performance Measures	<u>GO</u>	<u>NO GO</u>
<p>1. Prepare a hasty fighting position that—</p> <ul style="list-style-type: none"> a. Is behind available cover. b. Provides frontal protection. c. Allows firing to the front and at an oblique angle. d. Is in a small depression or a hole at least 18 inches deep. 	<p>_____</p>	<p>_____</p>
<p>2. Prepare a one-man fighting position that—</p> <ul style="list-style-type: none"> a. Has sector-of-fire stakes. b. Is dug in a shape that fits the natural cover available. c. Is armpit deep. d. Has a parapet that— <ul style="list-style-type: none"> (1) Provides frontal cover with at least 18 inches of earth between you and the enemy if a natural parapet is unavailable. (2) Is high enough to cover your head. (3) Is far enough in front of the hole to allow for elbow rests and sector stakes. (4) Is modified on steep terrain by digging out firing ports at each end of the hole so that the ground between the firing ports serves as frontal cover for the position. 	<p>_____</p>	<p>_____</p>
<p>3. Dispose of excess dirt.</p> <ul style="list-style-type: none"> a. Carry it away from your position. b. Camouflage excess dirt. 	<p>_____</p>	<p>_____</p>

Performance Measures	<u>GO</u>	<u>NO GO</u>
4. Dig two trench-shaped grenade sumps.	_____	_____
a. Place one at each end of the position.		
b. Make the trenches as wide as an entrenching tool blade, as deep as the entrenching tool, and as long as the position is wide.		
5. Slope the floor toward the sumps.	_____	_____
6. Complete clearing the field of fire:	_____	_____
a. Clear only what is absolutely necessary.		
b. Check the observation and field of fire from inside the position.		
7. Construct the fighting position overhead cover that provides the best possible protection from airbursts while allowing you to fight from underneath it by—	_____	_____
a. Using 4- to 6-inch logs for supports, base, and top of cover.		
b. Covering logs with at least 18 inches of dirt.		
8. Construct flank overhead cover when frontal overhead cover would significantly increase the silhouette of the position, making it vulnerable to detection.	_____	_____
9. Camouflage your position using available materials so that it is not visible from 35 meters to the front.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 7-8

Related

071-331-0815

Practice Noise, Light, and Litter Discipline

Conditions: As a member of an element conducting a tactical mission.

Standards: Ensure that—

1. Noise was kept at a minimum.
2. No light was visible to the enemy.
3. The area was free of litter and other evidence of the unit's presence.

Performance Steps

1. Comply with noise discipline.
 - a. Avoid all unnecessary vehicular and foot movement.
 - b. Secure (with tape or other materials) metal parts, such as weapon slings, canteen cups, and identification tags, to prevent them from making noise during movement.
 - c. Be careful to avoid restricting the movement of the parts of the weapon that must move in order for you to operate it.
 - d. Talk only when necessary to conduct or explain operations.
 - e. Use radios only when necessary, keeping the volume low so only you can hear the radio.
2. Comply with light discipline.
 - a. Do not smoke except when concealed from enemy view.

Note: Smoking at night should be restricted, as the enemy can see and smell the smoke.

- b. Conceal flashlights and other light sources so that the light is filtered, for example, under a poncho.
-

Performance Steps

- c. Cover anything that reflects light, for example, metal surfaces, vehicles, glass.
 - d. Use all available natural concealment.
 - e. Camouflage all vehicles and equipment.
3. Comply with litter discipline.
- a. Take all litter, such as empty food containers, empty ammunition cans or boxes, and old camouflage, to established collection points when occupying a position.
 - b. Carry all litter with you until you can dispose of it without leaving any trace when moving.

Evaluation Preparation: Setup: Schedule this exercise in conjunction with field maneuvers or field exercises, or use defensive positions.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Comply with noise discipline requirements by—	___	___
a. Avoiding all unnecessary vehicular and foot movement.		
b. Securing metal parts, preventing them from making noise during movement.		
c. Being careful not to restrict moving parts of secured weapons, preventing operation.		
d. Talking only when necessary to conduct or explain operations.		
e. Using radios only when necessary, keeping the volume low so that only you can hear the radio.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
2. Comply with light discipline requirements by—	___	___
a. Smoking only when concealed from enemy view.		
b. Concealing flashlights and other light sources so that the light is filtered.		
c. Covering anything that reflects light.		
d. Using all available natural concealment.		
e. Camouflaging all vehicles and equipment.		
3. Comply with litter discipline requirements by—	___	___
a. Taking all litter to established collection points when occupying a position.		
b. Carrying all litter with you until you can dispose of it without leaving any trace when moving.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 7-8

Related

071-331-1004

Perform Duty as a Guard

Conditions: Given an assigned guard post, post-specific equipment, and special orders.

Standards: Perform duty IAW general orders, special orders, and local SOPs.

Performance Steps

1. Receive order changes, if any.
2. Walk posts or assumes the prescribed position, carrying the weapon in prescribed manner.
3. Salute officers when performing guard duty on posts that do not require a challenge.
4. Challenge personnel as specified by special orders. Challenge position is port arms or raised pistol.

a. Challenge one person by assuming challenge position approximately 30 steps from individual and stating "Halt." Once the individual has halted, the guard calls "Who is there?"

Note: The guard may change position to best determine if the individual should be passed, denied access or apprehended and turn over to the commander of the relief. Take the appropriate action based on identification of the person.

b. Challenge a group in the same manner. If persons are in a vehicle, allows only one person to approach for identification.

c. Challenges multiple groups or individuals. Guard challenges multiple groups and individuals in the same manner. Advances personnel to be recognized in the same manner; only one at a time and in order of seniority.

Note: During a duty tour a guard is required to execute orders ONLY from the commanding officer, the field officer of the day, the officer of the day and officers of the guard. A guard surrenders his weapon only to, and on only upon orders from whom he lawful receives orders while on post.

5. Pass on changes to orders to his relief.

Evaluation Preparation: Setup: At the test site, provide the Soldier with a guard post, equipment needed to operate that post, and special orders. Provide a group to approach the post.

Brief Soldier: Tell the Soldier to read the special orders and assume the sentry duties of the post.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Receive order changes.	___	___
2. Salute officer when required. (Post does not require challenging).	___	___
3. Challenge individual.	___	___
4. Challenge group.	___	___
5. Pass the order changes to the relief.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 22-6

071-410-0002

React to Direct Fire While Mounted

Conditions: In a combat environment, given a tracked vehicle and a requirement to react to direct fire.

Standards: The vehicle returns fire and takes appropriate action after analysis of the situation based on an order received from the chain of command.

Performance Steps

Note: If the vehicle is in formation, it moves IAW company tactical SOP. If not, it should use evasive action as appropriate to avoid threat fire while performing Step 2.

1. Direct return fire to destroy or suppress threat fire.

Note: If threat is destroyed, continue the present mission.

2. Direct the driver to a hull down position.

Note: Direct dismount, if appropriate, to establish a base of fire.

3. Analyze the situation.

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Performance Steps

- 4. Give a situation report.
- 5. Take defensive or offensive action based on orders from chain-of-command.

Evaluation Preparation: Setup: At the test site, provide a tracked vehicle and all equipment and materials listed in the task condition statement. Use only blank ammunition for training. Take the Soldiers on a simulated march.

Brief Soldier: Tell the Soldiers to simulate direct fire while mounted in a tracked vehicle.

Performance Measures	GO	NO GO
1. Directed return fire to destroy or suppress threat fire.	___	___
2. Directed the driver to a hull-down position.	___	___
3. Analyzed the situation.	___	___
4. Gave a situation report.	___	___
5. Took defensive or offensive action based on orders from the chain-of-command.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-21.71

FM 7-7

071-710-0006

Plan Use of Night Vision Devices

Conditions: In a combat environment, given a platoon with a requirement to plan for the use of night vision devices.

Standards: Made a plan that designated who operated the night vision devices and what, where, and when they did.

Performance Steps

1. Analyze the platoon's mission.
2. Analyze the terrain.
3. Determine what operational (working properly) night vision devices the platoon has on hand. Assets available.
4. Consider the operating range of the platoon's reconnaissance, surveillance, and target acquisition (RSTA) devices as well as how badly inclement weather could limit those ranges.
5. If the platoon has BFVs or similar vehicles, develop and include a plan to rotate observation responsibilities between vehicle crew members.
6. If the platoon has BFVs or similar vehicles, include a plan for recharging the vehicle's and equipment's batteries during limited visibility conditions.
7. Include in the plan the mounting of the night weapon sights on the various weapon systems. State how the platoon will use them in both surveillance and target acquisition role.
8. Discuss how the platoon will coordinate with other units in order to ensure overlapping sectors of observation (if applicable).
9. Establish a procedure for implementing the platoon OPLAN.
10. Ensure the OPLAN is disseminated.

Evaluation Preparation: Setup: Provide the leader with equipment and RSTA (reconnaissance, surveillance, and target acquisition) assets.

Brief Soldier: Tell the Soldier to remember that Soldiers using night vision devices lose their visual efficiency after about 30 minutes. Therefore, to avoid eye fatigue, the OPLAN should require that the Soldier using the equipment rest after each 30-minute shift, and that after 1 1/2 to 2 hours, observation duty rotates to another Soldier.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Analyzed the platoon's mission.	___	___
2. Analyzed the terrain.	___	___
3. Determined what operational (properly working) night vision devices the platoon had on hand.	___	___
4. Considered the operating range of the platoon's RSTA devices as well as how badly inclement weather would have limited those ranges.	___	___
5. If the platoon had BFVs or a similar vehicles, developed and included a plan to rotate observation responsibilities between vehicle crew members.	___	___
6. If the platoon had BFVs or similar vehicles, included a plan for recharging the vehicle's and equipment's batteries during limited visibility conditions.	___	___
7. Included in the plan the mounting of the night weapon sights on the various weapon systems. Stated how the platoon would use them in both surveillance and target acquisition roles.	___	___
8. Discussed how the platoon would coordinate with other units in order to ensure overlapping sectors of observation (if applicable).	___	___
9. Established a procedure for implementing the platoon OPLAN.	___	___
10. Ensured the OPLAN was disseminated.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-21.71

STP 21-1-SMCT

11 October 2005

071-710-0006

3-213

093-401-5040

React to Unexploded Ordnance Hazards

Conditions: In a field environment, given an item(s) of simulated unexploded ordnance (UXO), marking materials, and a 9-line explosive hazard spot report (formally the UXO spot report).

Standards: Identify UXO by type and subgroup; recognize associated hazards; take immediate action to prevent death, injury, or damage to materiel; report the UXO hazard using the 9-line explosive hazard spot report (formally the UXO spot report).

Performance Steps

1. Recognize the UXO hazard

DANGER

Never approach any closer to a UXO once it has been identified. Approaching UXO may cause them to explode.

Never strike, jar, or touch a UXO. Do NOT move or remove anything on or near a suspect UXO. UXO can be extremely sensitive and can cause serious injury or death if disturbed in any way.

Many types of UXO may contain an incendiary (fire producing), chemical, biological, or radiological hazard in addition to explosives.

Do NOT make radio transmissions within 100 meters of a UXO. Some types of UXO are sensitive to electro-magnetic radiation (EMR) and may explode.

Performance Steps

a. Identify the four types and subgroups of UXO

(1) Dropped

(a) Bombs (See figure 093-401-5040-1)

-Vary in length from 3 to 6 feet.

-Vary in diameter from 5 to 36 inches.

-Often have a sloped or "bullet" shaped nose, fins and/or a parachute on the back.

-May contain high explosive, incendiary, or chemical fillers.

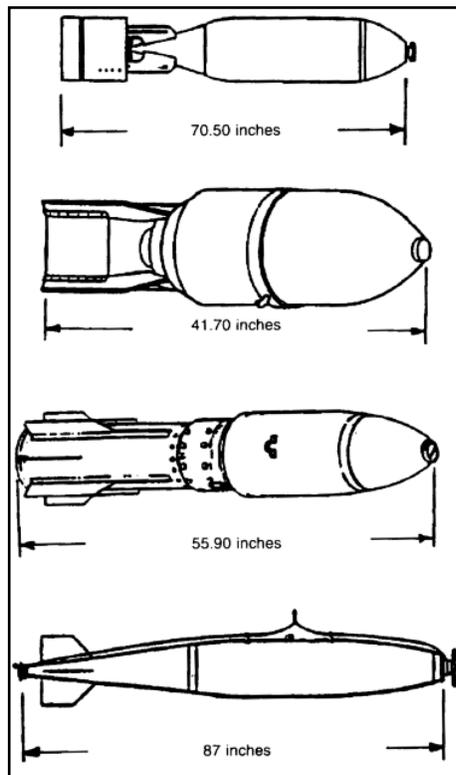


Figure 093-401-5040-1

Performance Steps

(b) Dispensers (See figure 093-401-5040-2)

- Contain numerous submunitions or bomblets.
- Most have the same characteristics of bombs.
- May be found intact or partially open.

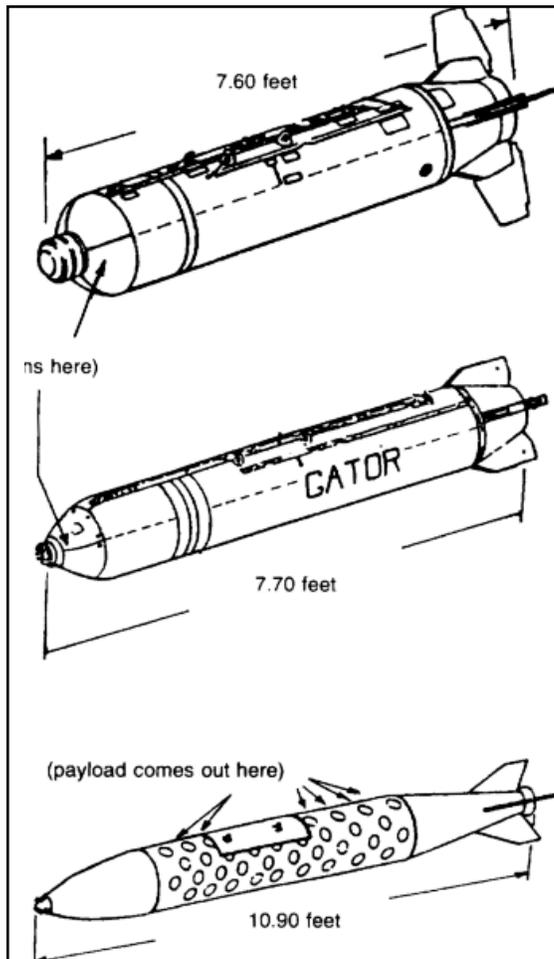


Figure 093-401-5040-2

Performance Steps

(c) Submunitions (see figures 093-401-5040-3a through 093-401-5040-3e)—

- Can contain explosive, chemical, biological, radiological, and/or incendiary.
- Designed to be scattered over a wide area.
- Come in many shapes and sizes; may or may not be "bullet" shaped. May look like balls, wedges, or cylinders.
- May have fins, ribbons, parachutes, or trip wires.

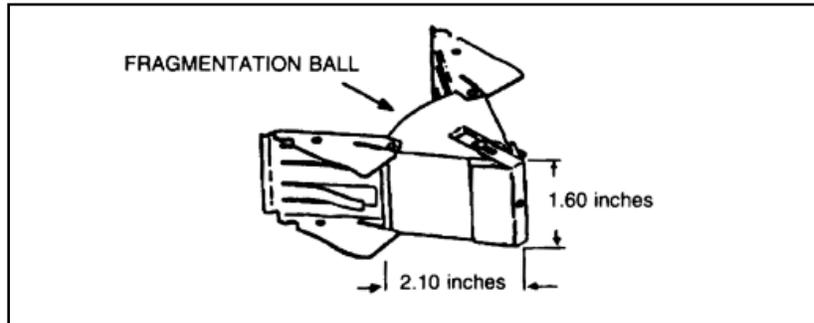


Figure 093-401-5040-3a

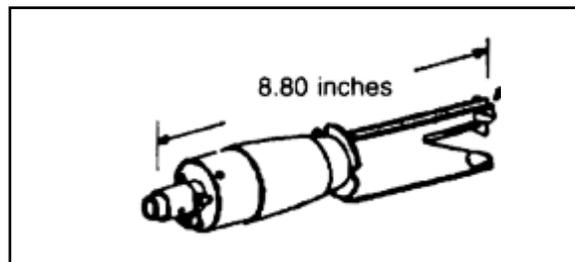


Figure 093-401-5040-3b

Performance Steps

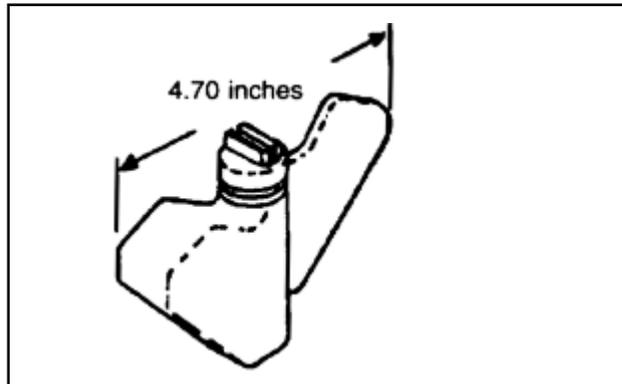


Figure 093-401-5040-3c

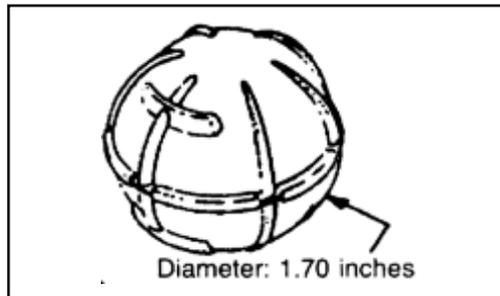


Figure 093-401-5040-3d

Performance Steps

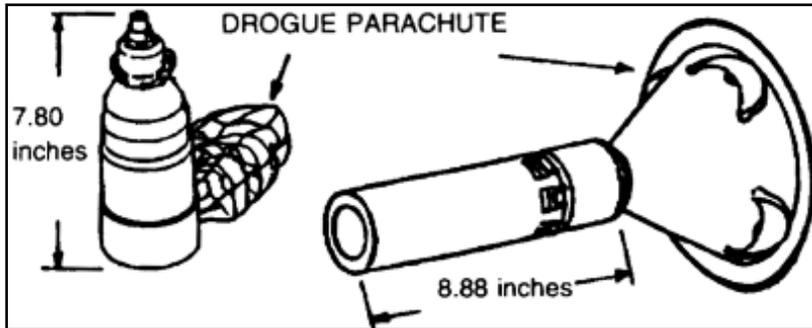


Figure 093-401-5040-3e

DANGER

When a submunition is identified, leave the area by the same path you entered. There may be many more in the same area.

Small size does NOT diminish the danger of submunitions, the smallest can easily injure or kill.

(2) Projected

(a) Projectiles (see figures 093-401-5040-4a through 093-401-5040-4b)—

-Includes munitions from large machine guns, artillery howitzers, and naval guns.

-Range in size from 20 millimeter up to 16 inches in diameter, 10 to 30 inches in length.

-Most resemble a "bullet" shape.

-Can contain explosive, chemical, biological, radiological, and/or incendiary hazards.

Performance Steps

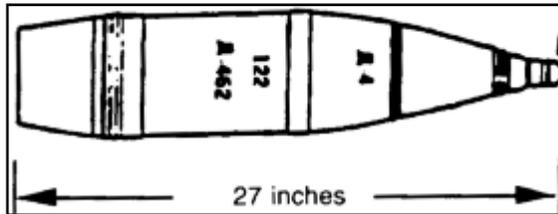


Figure 093-401-5040-4a

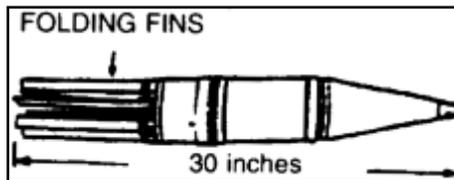


Figure 093-401-5040-4b

(b) Mortars (see figures 093-401-5040-5a through 093-401-5040-5b)

- Most have fins and have a "bullet" shape.
- Range in size from 60 mm to 120mm in diameter; 12 to 36 inches in length.
- Can contain explosive, chemical, and/or incendiary hazards.

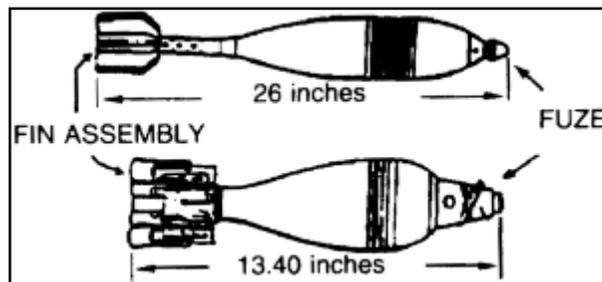


Figure 093-401-5040-5a

Performance Steps

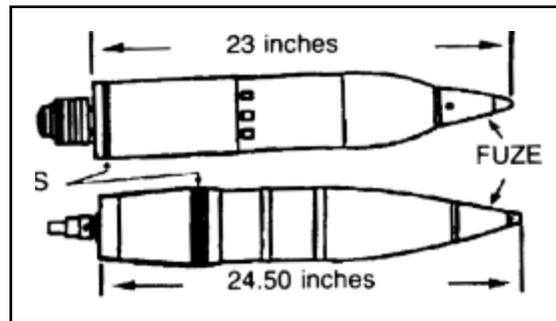


Figure 093-401-5040-5b

(c) Rockets (see figures 093-401-5040-6a through 093-401-5040-6c)

-May or may not have fins; have some sort of rocket motor vents in back.

-Range in size from 24 inches to several feet in length.

-Can contain explosive, chemical, and/or incendiary hazards.

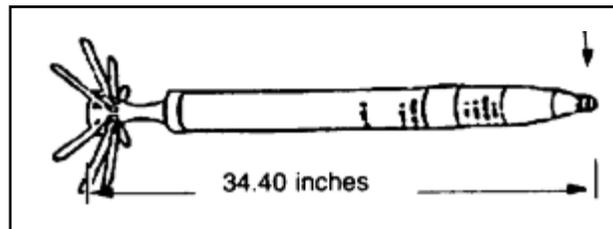


Figure 093-401-5040-6a

Performance Steps

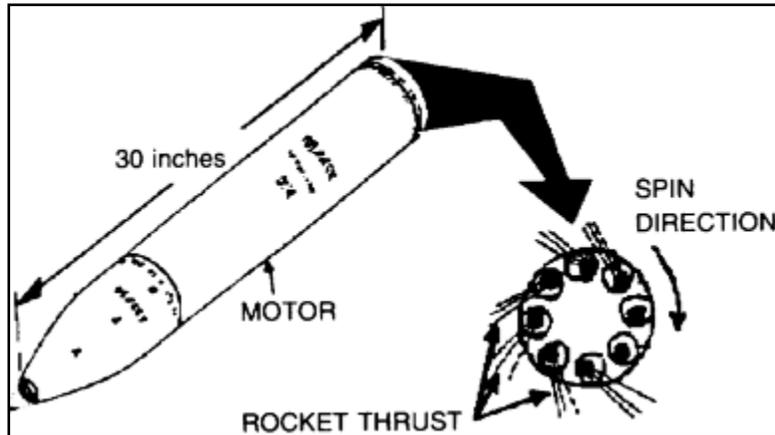


Figure 093-401-5040-6b

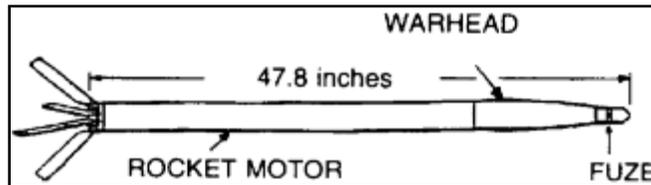


Figure 093-401-5040-6c

(d) Guided Missiles (see figures 093-401-5040-7a and 093-401-5040-7b)—

- Most have fins; some have wires in the end for guidance.
- Very similar to rockets.
- Can contain explosive or incendiary hazards.

Performance Steps

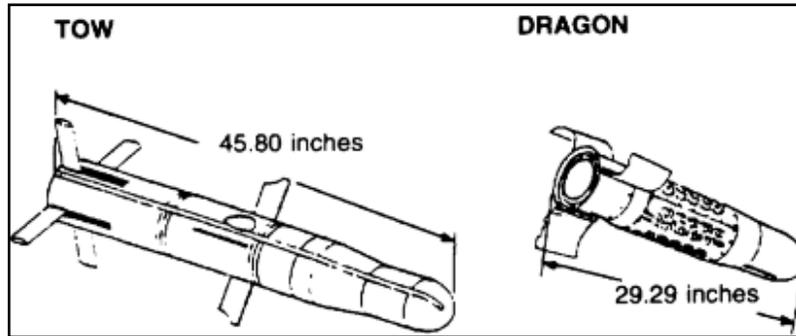


Figure 093-401-5040-7a

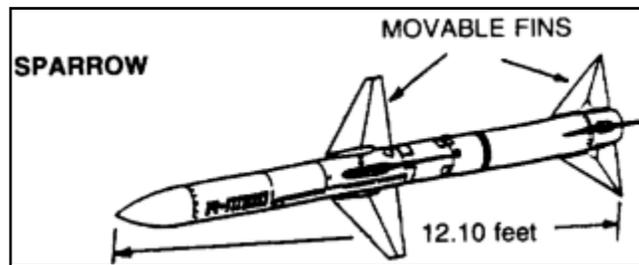


Figure 093-401-5040-7b

(e) Rifle Grenades (See figures 093-401-5040-8a and 093-401-5040-8b)—

- Designed to be fired from rifles or shoulder fired launchers.
- Resemble rockets but are of smaller size.
- Can contain explosive and/or incendiary hazards.

Performance Steps

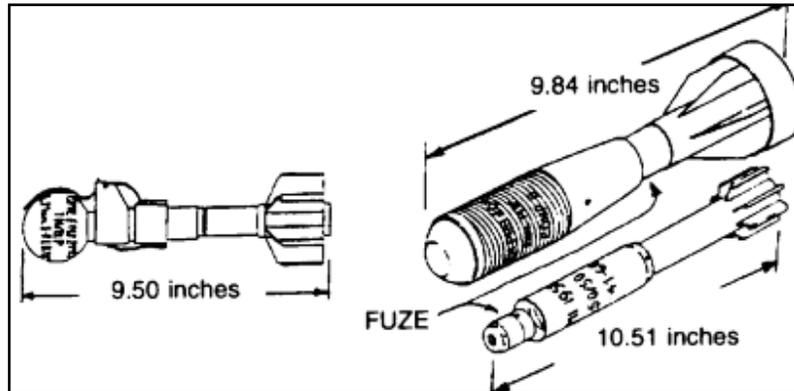


Figure 093-401-5040-8a

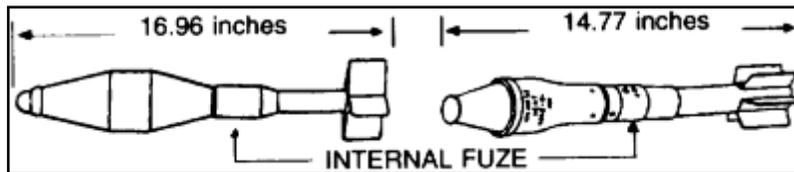
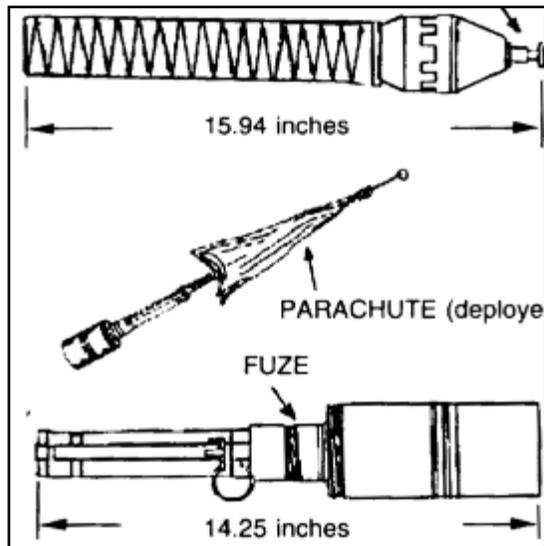
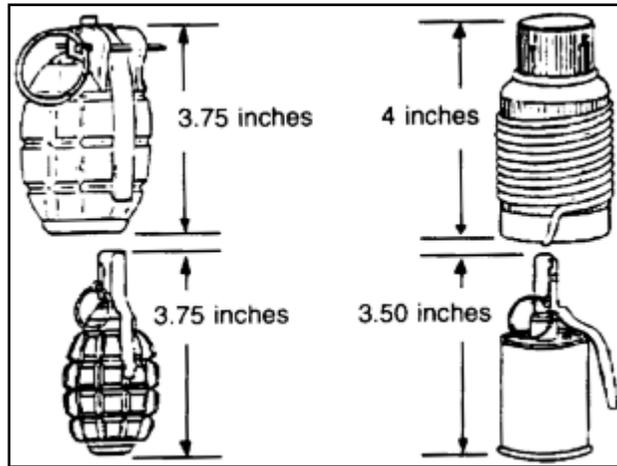


Figure 093-401-5040-8b

(3) Thrown (See figures 093-401-5040-9a and 093-401-5040-9b)

- Includes all types of grenades, including simulators.
- Most are round or cylindrical in shape; are small enough to be thrown by a person.
- Can contain explosive and/or incendiary hazards.
- Dud simulators require the same safety procedures as other ordnance.

Performance Steps



Performance Steps

DANGER

Never approach a grenade that was thrown and did not detonate, even if you threw it. Do not move, jar, or disturb, fuze may function at any time.

Never pick up, move, or disturb a found grenade, even if spoon or safety pin are attached. It maybe booby trapped and explode when disturbed.

(4) Placed (See figures 093-401-5040-10a and 093-401-5040-10b)

- Includes all land or sea mines.
- Range is size from 2 inches in diameter to several feet in length.
- Have a variety of fuze types; pressure plates, tilt rods, trip wires, electronic sensors, or command detonated.
- Can contain explosive, incendiary, or chemical hazards.

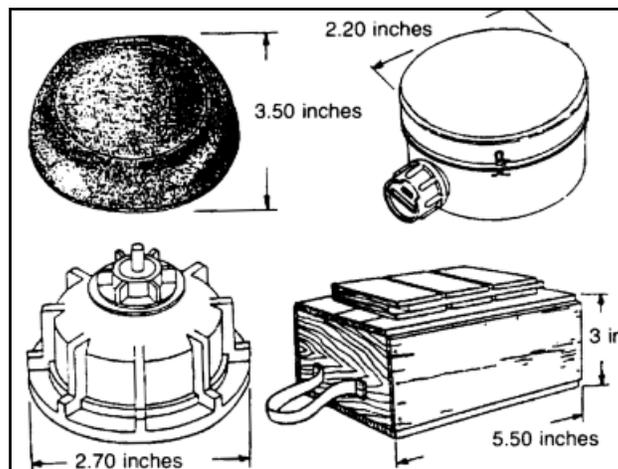


Figure 093-401-5040-10a

Performance Steps

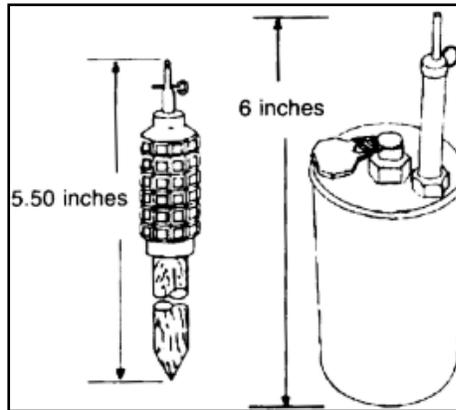


Figure 093-401-5040-10b

DANGER

Consider all mines to be booby-trapped or have anti-disturbance fuzing. Never attempt to uncover or remove placed ordnance.

2. React to the UXO Hazard

a. Do NOT touch or disturb the UXO or any wires, parachutes, or anything attached or surrounding the UXO. Do NOT move any closer to UXO.

b. If any peculiar smells, liquids, or dead animals are present, chemical or biological agents maybe present; don mask and MOPP gear immediately.

c. Mark location without approaching closer with some sort of recognizable material (such as white engineer tape, marking ribbon, clothing, or sign). Place marker above ground at waist level if possible. Take note of physical terrain features of location and route back to UXO in order for EOD team to return to dispose of UXO.

Performance Steps

d. Evacuate personnel and equipment from area surrounding the UXO:

(1) Bombs, dispensers, large projected munitions (90 millimeter diameter and larger) evacuate a 360-degree perimeter at least 600 meters.

(2) Submunitions, placed, thrown, small projected munitions (smaller than 90-milimeter diameter) evacuate a 360-perimeter at least 300 meters.

e. If personnel or equipment cannot be evacuated, seek as much frontal and overhead cover as possible.

f. If UXO is suspected to have a chemical agent, ensure all personnel stay upwind of item and are in full MOPP.

3. Report the UXO Hazard

a. Report UXO hazard to your chain of command. You or your chain of command should request Explosive Ordnance Disposal (EOD) support using the 9-line Explosive Hazard Spot Report (Formally the UXO Spot Report):

(1) Date and time of the fall, impact, or finding of the UXO item(s).

(2) The exact location of item(s) including grid coordinate (8-digit minimum), landmarks, reference points, or street addresses.

(3) The name and organization of person reporting the incident including call sign or phone number.

(4) Identify UXO by type (dropped, projected, thrown, placed) and subgroup.

(5) Any NBC contamination present?

(6) What resources are threatened?

(7) How the UXO has affected unit mission.

(8) The safety measures that have been taken including the evacuation distances that have been accomplished.

(9) The requested priority for receiving EOD support (immediate, indirect, minor, no threat)

b. Be prepared to provide a guide to the EOD team.

Evaluation Preparation: Setup: Do not evaluate this task using live UXO. Utilize training items from your local installation training support center. Preliminary instruction of this task can be obtained by requesting support from nearest Army EOD company. Evaluate this task during any training exercise where UXO is likely to be encountered. Place UXO training aid near personnel, facilities, or equipment (within the Soldier's area of responsibility). Soldier should identify UXO from a distance of 5 to 10 meters away, or through the use of binoculars.

Brief Soldier: Tell the Soldier he/she will be evaluated on his/her ability to properly recognize, react, and report a UXO hazard. The Soldier will identify the UXO by type and subgroup, take appropriate actions to react to the hazards, and report the hazard using the 9-line explosive hazard spot report (formally the UXO spot report).

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Identified UXO by type and subgroup	___	___
2. Reacted to UXO hazard, observing all applicable safety precautions	___	___
3. Marked the UXO.	___	___
4. Determined appropriate evacuation distance (large item: 600 meters; small item: 300 meters).	___	___
5. Reported UXO hazard using the 9-line explosive hazard spot report (formally the UXO spot report).	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures performed correctly. Score the Soldier NO GO if any performance measure is not performed correctly. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 21-16

GTA 09-12-001

093-401-5050

React to a Possible Improvised Explosive Device (IED)”

Warning

All Soldiers must receive a theater specific IED threat brief to accomplish this task successfully.

Specific identification features for IEDs are ever-changing, based on enemy capabilities and available resources.

Condition: During military operations you encounter a possible improvised explosive device (IED).

Standard: Properly establish initial exclusion area, security, and report IED to higher headquarters with 100-percent accuracy.

DANGER

To avoid causing an IED to explode—

Do NOT attempt to move the IED.

Do NOT approach the IED.

Avoid using communication/electronic equipment within established exclusion area.

Performance Steps

1. Establish minimum initial exclusion area of 300 meters around “Possible Improvised Explosive Device (IED)”..

Warning

Adjust exclusion areas based on METT-TC.

Note. (See figure 1-5 as a basic guide.)

2. Establish security:
 - a. Search secure area for possible secondary explosive device(s)/hazards, while maintaining security.
 - b. Identify potential enemy force observation/vantage points.

Performance Steps

- c. Seek all available manmade or natural frontal and overhead cover.
 - d. Avoid establishing a “reaction” pattern.
3. Forward information to higher HQ headquarters using standard 9-line unexploded ordnance (UXO) report (See figures 093-401-5050-1- through 6).
 4. Continue mission in accordance with Higher HQ in accordance with higher headquarters guidance.

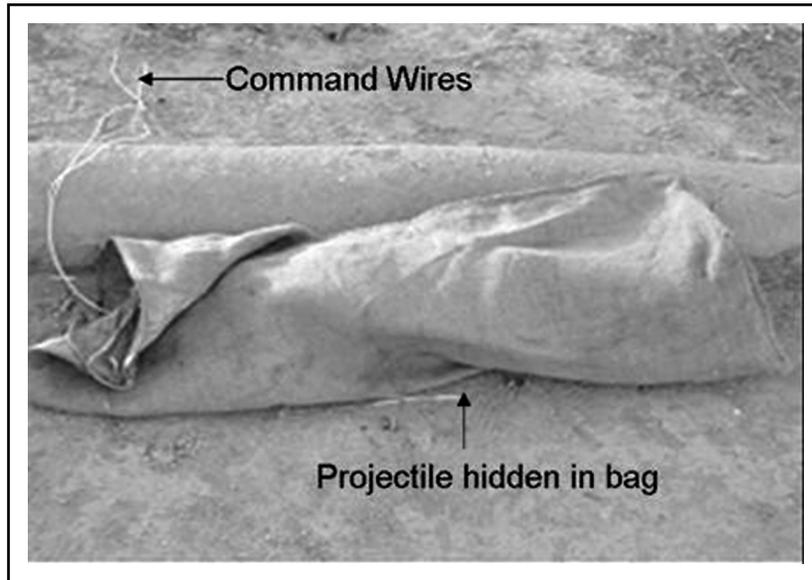


Figure 093-401-5050-1. Example IED along side of Road in OIF AOR (21 Oct 03)

Performance Steps

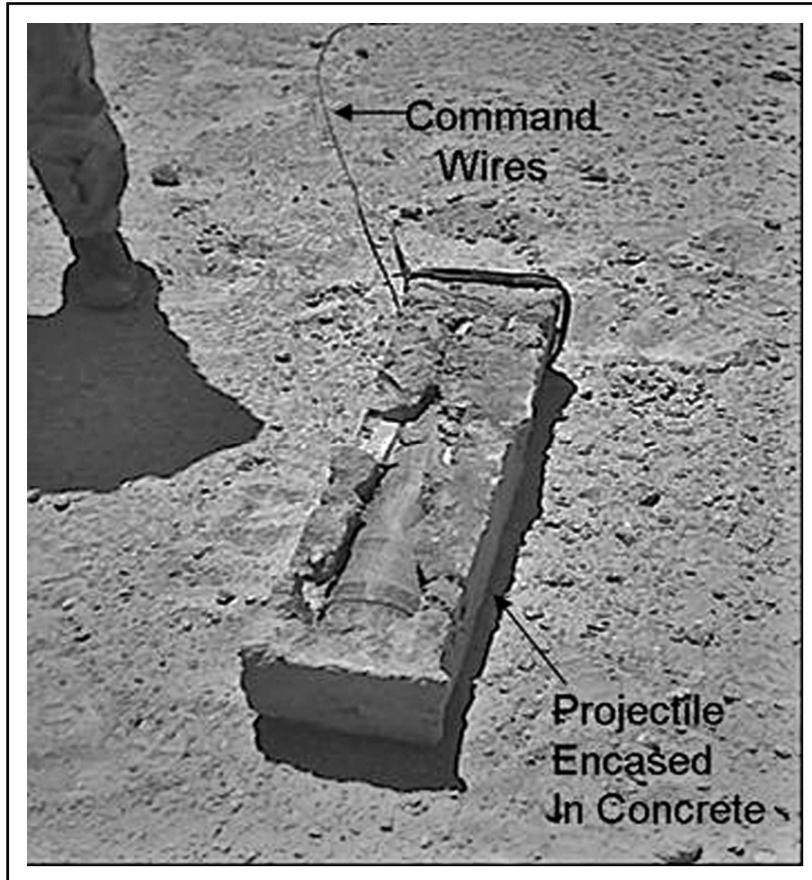


Figure 093-401-5050-2. Example IED in OIF and OEF AOR (21 Oct 03)

Performance Steps

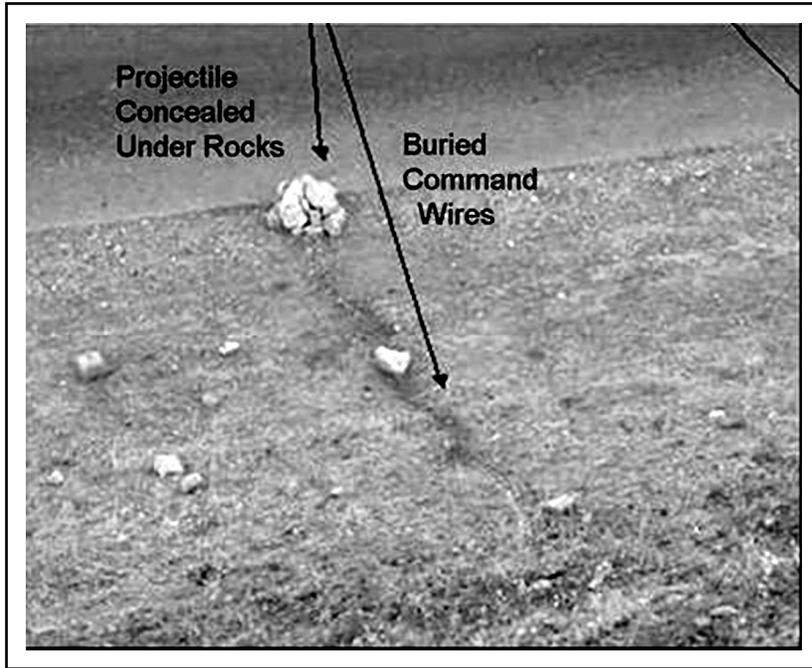


Figure 093-401-5050-3. Example IED in OIF AOR (21 Oct 03)

Performance Steps



Figure 093-401-5050-4. Example Improvised Grenade encountered in OIF and OEF AOR (21 Oct 03)

Performance Steps

Threat Description		Explosives Mass (TNT Equivalent)	Building Evacuation distance	Outdoor Evacuation Distance
High Explosives (TNT Equivalent)		Pipe Bomb 5 lbs 2.3 kg	70 ft 21 m	850 ft 259 m
		Suicide Belt 10 lbs 4.5 kg	90 ft 27 m	1,080 ft 330 m
		Suicide Vest 20 lbs 9 kg	110 ft 34 m	1,360 ft 415 m
		Briefcase/ Suitcase Bomb 50 lbs 23 kg	150 ft 46 m	1,850 ft 564 m
		Compact Sedan 500 lbs 227 kg	320 ft 98 m	1,500 ft 457 m
		Sedan 1,000 lbs 454 kg	400 ft 122 m	1,750 ft 534 m
		Passenger/ Cargo Van 4,000 lbs 1,814 kg	640 ft 195 m	2,750 ft 838 m
		Small Moving Van/ Delivery Truck 10,000 lbs 4,536 kg	860 ft 263 m	3,750 ft 1,143 m
		Moving Van/ Water Truck 30,000 lbs 13,608 kg	1,240 ft 375 m	6,500 ft 1,982 m
		Semitrailer 60,000 lbs 27,216 kg	1,570 ft 475 m	7,000 ft 2,134 m

Figure 093-401-5050-5a.

Performance Steps

Threat Description		LPG Mass/Volume	Fireball Diameter	Safe Distance
Liquefied Petroleum Gas (LPG-Butane or Propane)	 Small LPG Tank	20 lbs/ 5 gal 9 kg/ 19 lb	40 ft 12 m	160 ft 48 m
	 Large LPG Tank	100 lbs/25 gal 45 kg/95 lb	69 ft 21 m	276 ft 84 m
	 Commercial/Residential LPG Tank	2,000 lbs/ 500 gal 907 kg/ 1,893 lb	184 ft 56 m	736 ft 224 m
	 Small LPG Truck	8,000 lbs/ 2,000 gal 3,630 kg/ 7,570 lb	292 ft 89 m	1,168 ft 356 m
	 Semi tanker LPG	40,000 lbs/ 10,000 gal 18,144 kg/ 37,850 lb	499 ft 152 m	1,996 ft 608 m

Figure 093-401-5050-5b.

Standard 9-line UXO Report

Line 1: Date time group discovered: (Command policy dictates Local or Zulu time).

Line 2: Reporting activity (UIC/unit designation). Location: mandatory 8-digit grid: (include: landmarks, reference points, or street addresses).

Line 3: Contact method: radio frequency/call sign or telephone number. (if using phone number, provide name).

Line 4: Type of munitions: (dropped, projected, placed, or thrown).

Line 5: NBC contamination: Yes or No, known or suspected NBC contamination. If yes, report type of agent if known/identified.

Line 6: Resources threatened: (what resource is threatened—is it a critical asset?).

Line 7: Impact on mission: (How the UXO is affecting the mission).

Line 8: Protective measures taken: (unit emplaced protective measures).

Line 9: Recommended priority: (immediate, indirect, minor, or no threat).

Performance Steps

Sample Report:

Line 1: 121300LMAR98

Line 2: 1-75th Infantry Bn, C-Co, EP2134567891, 150 meters South of the grid referenced road junction.

Line 3: 49.7000, Tripwire 60 or 1-800-435-6789, SFC Snuffy

Line 4: Placed, possible improvised explosive device (IED)

Line 5: None

Line 6: MSR speedway

Line 7: Unit cannot conduct re-supply operations; MSR is in passable

Line 8: Constructed sandbag barricade and evacuated non-essential personnel 300 meters. Mission-essential personnel are in protective gear, all are utilizing frontal and overhead cover

Line 9: Immediate

Note: Proper format is not as important as getting the information to the higher HQ

Minimum Required Reporting Information:

At a minimum the report must contain—

- (a) "Who" discovered the item (point of contact)
 - (b) "What" item is (type/subgroup)
 - (c) "Where" the UXO is (location/8 digit grid (mandatory))
 - (d) "When" the item was discovered
 - (e) Recommended priority (immediate, indirect, minor, or no threat)
-

Performance Steps

HANDS-ON EVALUATION <small>For use of this form, see STP 11-25S14-SM-TG; the proponent agency is TRADOC</small>		DATE 11 October 2005	
TASK TITLE React to a "Possible Improvised Explosive Device (IED)"		TASK NUMBER 093-401-5050	
ITEM a	PERFORMANCE STEP TITLE b	SCORE (Check One)	
		PASS c	FAIL d
1.	Upon encountering an IED	<input type="checkbox"/> P	<input type="checkbox"/> F
	a. Ensured all movement toward possible IED stopped.	<input type="checkbox"/> P	<input type="checkbox"/> F
	b. Established initial minimum 300-meter exclusion area.	<input type="checkbox"/> P	<input type="checkbox"/> F
	c. Established security.	<input type="checkbox"/> P	<input type="checkbox"/> F
2.	Submitted standard 9-line UXO report to higher headquarters.	<input type="checkbox"/> P	<input type="checkbox"/> F
3.	Did NOT move possible IED.	<input type="checkbox"/> P	<input type="checkbox"/> F
4.	Did NOT approach possible IED.	<input type="checkbox"/> P	<input type="checkbox"/> F
5.	Did NOT use any communication or electronic devices within initial exclusion area.	<input type="checkbox"/> P	<input type="checkbox"/> F
6.	Continued mission in accordance with higher headquarters guidance.	<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
EVALUATOR'S NAME		UNIT	
SOLDIER'S NAME		STATUS <input type="checkbox"/> GO <input type="checkbox"/> NO GO	

DA FORM 5164-R, SEP 85

EDITION OF DEC 82 IS OBSOLETE

AFD V2.01

Figure 093-401-5050-6. Completed DA Form 5164-R

Evaluation Preparation: Tell the Soldier that “possible IED are in use in the AOR. Place the Soldier in a scenario that will require him/her to encounter a possible IED.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Upon encountering a possible IED:	___	___
a. Ensured all movement toward possible IED stopped.		
b. Established initial minimum 300-meter exclusion area.		
c. Established security.		
2. Submitted standard 9-line UXO report to higher headquarters.	___	___
3. Did NOT move possible IED.	___	___
4. Did NOT approach possible IED.	___	___
5. Did NOT use any communication or electronic devices within initial exclusion area.	___	___
6. Continued mission in accordance with higher headquarters guidance.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If any performance measure is failed, tell the Soldier what was done wrong and how to do it correctly.

171-137-0001

SEARCH VEHICLES IN A TACTICAL ENVIRONMENT

Conditions: You have been given the mission and authority to search vehicles. A search area is available as are security personnel, an occupied vehicle, and an improvised mirror device.

Standards: Stop the vehicle and inform the occupants of the reason for the search. Identify the occupants by looking at their driver's licenses or identification (ID) cards. Search the vehicle, inside and out, following a sequenced search pattern. Release the vehicle to

the driver, if prohibited items were not found. Apprehend the offender, if prohibited items are found, and notify your supervisor.

Performance Steps

WARNING

Performing any task outside or off of the tank in a common operating environment (COE), always be aware of possible threat snipers.

WARNING

When performing any task outside of the tank in a COE, wear your combat protective gear (Kevlar, body armor and protective mask) according to your unit's tactical standing operating procedures (TACSOP).

WARNING

Always be aware of your surroundings, there are several types of threats you will have to be prepared to react to, including but not limited to the following:

- A. Suicide bombers, (mounted and dismounted).
- B. Mortar attacks.
- C. Rocket propelled grenade (RPG) attacks.

Note: At least one member of the search team must provide security at all times while others conduct the search.

1. Stop the vehicle.
2. Inform the occupants of the reason for the search.
3. Identify the occupants by looking at their driver's licenses or ID cards.
4. Direct the occupants to get out of the vehicle.
5. With the exception of the driver, direct the occupants to move to a place about 5 meters from the vehicle and out of the flow of traffic where they can be watched.
6. Direct the driver to open all doors and compartments, to include the ashtray, glove box and/or armrest, trunk, and hood.

Performance Steps

Note: At this point the driver joins the other occupants of the car about five meters from the vehicle.

Note: Searching the occupants of the vehicle is covered under a separate task (STP 17-19D2-SM and STP 17-19K2-SM, task 171-137-0002). The results of the vehicle search may require that a personal search be conducted at the same time.

7. Search the following areas on the vehicle:

Note: Use an improvised mirror device to search the undercarriage and other areas that are difficult to see.

Note: While conducting the search look for any electrical wires that seem out of place or any unidentifiable foreign objects.

a. Search the inside of the vehicle, to include—

- (1) Behind and under the seat.
- (2) Under the dashboard.
- (3) Glove and tool compartment.
- (4) Above the sun visor.

b. Search the outside of the vehicle, in sequence, to include—

- (1) Left front fender well and behind the wheel.
- (2) Under the front bumper and behind and under the grill.
- (3) Under the hood and all areas behind the radiator and around the engine.
- (4) Right front fender well and behind the wheel.
- (5) Under the right side of the body, back to and including the right rear fender well, and behind the wheel.
- (6) Inside cargo areas and the trunk.
- (7) Under and behind the rear bumper.
- (8) Left rear fender well and behind the wheel.
- (9) Under the left side of the body, back to the left front fender well.
- (10) Top of the vehicle.
- (11) Fuel tank(s).

Performance Steps

8. If prohibited items are not found in the vehicle, release the vehicle to the driver.
9. If prohibited items are found in the vehicle, apprehend the offender and notify your supervisor.

Performance Measures	GO	NO GO
1. Stopped the vehicle.	___	___
2. Informed the occupants of the reason for the search.	___	___
3. Identified the occupants by looking at their driver' licenses or ID cards.	___	___
4. Directed the occupants to get out of the vehicle.	___	___
5. With the exception of the driver, directed the occupants to move to a place about 5 meters from the vehicle and out of the flow of traffic where they could be watched.	___	___
6. Directed the driver to open all doors and compartments, to include the ashtray, glove box and/or armrest, trunk and hood.	___	___
7. Searched the vehicle in a sequenced manner.	___	___
8. If prohibited items were not found in the vehicle, released the vehicle to the driver.	___	___
9. If prohibited items were found in the vehicle, apprehended the offender and notified your supervisor.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show him what was done wrong and how to do it correctly.

References

Required

Related

FM 19-10

FM 3-20.15 (FM 17-15)

FM 3-20.98 (FM 17-98)

191-376-5140

Search a Vehicle for Explosive Devices or Prohibited Items at an Installation Access Control Point

Conditions: You are at the vehicle search lane at an installation access control point. You are given a search mirror, a flashlight, a reflective vest, the local standing operating procedure (SOP), and a directive to search an identified vehicle for suspected explosive devices or prohibited items.

Standards: Search the undercarriage, the exterior, and interior of a vehicle, and find any explosive devices or prohibited items present.

Performance Steps

1. Stop the vehicle by using hand-and-arm signals.

DANGER

Always position yourself so you are highly visible to traffic with good approach sight distance. Wear reflective vests so vehicle drivers can see you easily. Never step into the path of an approaching vehicle to direct movement or stop the vehicle.

2. Direct the driver to turn the engine off and apply the parking brake.
3. Interview the driver and vehicle occupants.
 - a. Identify yourself to the driver and occupants.
 - b. Inform the driver that the vehicle must be searched as a condition for entry onto the installation.

Performance Steps

c. Identify each occupant by physically taking possession of, and looking at, their military or Department of Defense (DOD) identification (ID) card, state driver's license, or another form of a state or federal government-issued ID photo, and comparing the photo to the person.

Note: Notify your supervisor and the military police if you feel that the photo does not match the person being identified or if the ID has been tampered with.

d. Request to see the following documentation:

- (1) Vehicle registration.
- (2) Proof of vehicle insurance.

Note: Notify your supervisor and the military police if you feel that the documentation you are being shown is not valid.

e. Determine the specific reason why access to the installation is needed by asking questions such as—

- (1) Where are you going?
- (2) Who are you going to meet?
- (3) Do you drive this vehicle most of the time?
- (4) Would there be any contraband or prohibited items in this vehicle?
- (5) Has this vehicle had any repairs recently? If so, what?

f. Maintain eye contact with the driver throughout the interview, and report suspicious behavior to the supervisor.

g. Notify the supervisor and military police if the driver appears impaired from the use of alcohol or drugs and if any suspected prohibited items are in plain view during the interview.

4. Direct the occupants to exit the vehicle.

a. Direct the driver to open all interior compartment doors, the hood, the trunk, and rear doors (if applicable) of the vehicle, while maintaining constant observation.

b. Direct the occupants to move to a designated safe area (about 5 meters from the vehicle and/or out of the flow of traffic) where they can be observed.

Performance Steps

5. Search the undercarriage of the vehicle.
 - a. Use a flashlight and a mirror to inspect under the vehicle carefully.
 - b. Check for indicators such as new frame welds; items taped or attached to the frame; an unusual looking muffler; a fresh undercoating; and signs of recent installation of components such as a fuel tank, muffler, or other items.
6. Search the exterior of the vehicle.
 - a. Check for general indicators of explosive devices or prohibited items while searching the exterior of the vehicle. Check for the following:
 - (1) Anything unusual in factory-built compartments.
 - (2) New or shiny bolts and/or screws.
 - (3) Unusual scratches, possibly made by screwdrivers, wrenches, or similar tools.
 - (4) Signs of tampering, such as broken parts or bent sheet metal.
 - (5) Unusually clean or dirty components and areas.
 - (6) Wire and tape stored in the vehicle.
 - (7) New or broken welds.
 - (8) Unusual fingerprints of grease and/or oil in otherwise clean areas.
 - (9) Fresh bodywork (fresh fiber glassing, fresh paint, and so forth).
 - (10) Fresh wiring and electrical tape.
 - (11) New caulking.
 - (12) Missing or altered vehicle identification number.
 - (13) False compartments that are not part of vehicle design.

WARNING

Do NOT wear jewelry or other dangling item that can become snagged on a vehicle. Always ensure that the engine is off and the parking brake is set before beginning the inspection.

Performance Steps

- b. Check the exterior front, including—
 - (1) Headlights that are not working.
 - (2) A modified front grill or false compartment.
 - (3) No access to the front bumper cavity.
- c. Check the exterior sides, including—
 - (1) Compartments, new welds, taped items, or fresh paint in the front fender wells.
 - (2) Doors that feel heavy when swung.
 - (3) Foreign items in the gas tank tube (driver opens the gas tank for inspection).

DANGER

Death or serious injury may result if you breathe toxic agents while searching the gas tank tube of vehicles.

- d. Check the tires, including—
 - (1) New tires.
 - (2) Tires with a solid sound.
 - (3) Strange odor from an air valve.
 - (4) Unusually clean or dirty lug nuts or hubcaps compared to other wheels.
- e. Check the exterior rear, including—
 - (1) Taillights that are not working.
 - (2) No access to the rear bumper cavity.
- f. Check the tailgate (if applicable), including—
 - (1) An unusually heavy tailgate.
 - (2) Fresh paint or body filler.
 - (3) Inconsistent or nonhollow sounds when tapped.
- g. Check the pickup bed (if applicable), including—
 - (1) Inconsistent or nonhollow sounds when tapped.
 - (2) Fresh paint or body filler.
 - (3) An unusually thick floor.

Performance Steps

- (4) Unusual welds and/or seams.
- (5) Any caulking.
- h. Check the cargo area (if applicable), including—
 - (1) Fresh paint or body filler.
 - (2) Inconsistent or nonhollow sounds when tapped.
 - (3) An unusually thick floor.
 - (4) A false ceiling.
 - (5) Any caulk and/or glue.
 - (6) Any strange smell.
- 7. Search the engine compartment.
 - a. Look for a large battery box or extra battery.
 - b. Look for odd and/or clean wires.
 - c. Look for larger components (air cleaner and fan blade shrouds).

WARNING

Never place your hands in the vicinity of the fan blades while conducting the search. Some vehicles are equipped with an automatic cooling system that may cause the fan blades to start operating after the ignition switch is in the off position.

- d. Identify any unusual odor indicating containers that may contain fuel.
- e. Look for foreign objects in the air filter cavity.
- f. Look for the cold air filter.
- g. Look for freshly painted areas, new welds, shiny bolts, or sheet metal work on firewalls.
- h. Check for a clean engine in a dirty car.
- i. Check the hood to see if it feels heavy when opened and closed. Have the driver open the hood, but move the hood up and down yourself.

Performance Steps

- j. Look for a false wall or modified fender compartment.
- k. Identify any clean or wiped areas.
- 8. Search the trunk compartment, if applicable.
 - a. Check for a new trunk mat and/or carpet.
 - b. Check for caulk, glue, or any other strange smells.
 - c. Check the trunk lid to see if it feels heavy when opened and closed.
 - d. Look for a raised floor.
 - e. Identify any strange odors from the spare tire.
 - f. Listen for nonhollow or inconsistent sounds in the walls.
 - g. Look for an unusual space between the back seat and trunk wall.
 - h. Look to see if the spare tire is not flush with the floor.
- 9. Search the interior of the vehicle.
 - a. Search the dash, including—
 - (1) Electrical components. See if the components function or if the light emitting diode (LED) is on when the vehicle power is off.
 - (2) New, damaged, or scratched screws.
 - (3) Plugged air vents.
 - (4) Broken or missing blowers.
 - b. Look for a false compartment in the glove box.
 - c. Look for unusual lumps or bulges in the front and/or rear seats.
 - d. Feel for rigid front and/or rear seats.
 - e. Look for a false or modified ceiling.

Performance Steps

- f. Look for an unusually thick floor.
 - g. Look for stress cracks in the windshield (no stone impact mark).
- 10.** Take action when the search reveals suspected explosive devices or prohibited items in the vehicle.
- a. Explosive devices.
 - (1) Never attempt to handle or disarm suspected explosive devices.
 - (2) Suspend all radio and cellular phone traffic, 100 meters around the vehicle.
 - (3) Secure the driver and all occupants of the vehicle, and notify the supervisor and military police.
 - (4) Immediately evacuate the surrounding area.
 - (5) Secure the scene until it is cleared by explosive ordnance disposal (EOD) personnel or until properly relieved.
 - (6) Release the driver and occupants to the supervisor or military police along with any documentation and identification collected.
 - b. Prohibited items.
 - (1) Never handle the prohibited items unless ordered by the supervisor or military police.
 - (2) Notify the supervisor and military police.
 - (3) Secure the driver and all occupants of the vehicle.
 - (4) Secure the scene until it is cleared by the supervisor or until properly relieved.
 - (5) Release the driver and occupants to the supervisor or military police along with any documentation and identification collected.
-

Performance Steps

11. Release the driver and occupants if no explosive devices or prohibited items are found or if suspected items are cleared by the military police or EOD personnel.

a. Give ID cards and all gathered documentation back to the driver.

b. Help the driver safely enter the flow of traffic (if applicable).

Evaluation Preparation: Setup: Provide the Soldier with a vehicle to search in a well-lit area. Identify a role player and a role player occupant for the vehicle. Ensure that role players are authorized to operate the vehicle prior to beginning this task. Notify role players that they are to comply with and follow all instructions given by the Soldier searching the vehicle. Have role players place a dummy explosive device or dummy prohibited item somewhere in, under, or on the vehicle to be searched prior to the Soldiers arriving to test. The dummy explosive device or dummy prohibited item can be handmade. It should not be large enough to gain immediate discovery yet not so small that it cannot be detected by a highly motivated Soldier conducting a reasonable search. Give the Soldier a search mirror, a flashlight, a reflective vest, and the local SOP.

Brief Soldier: Tell the Soldier that he has an armed partner pulling overwatch security for him through the duration of this task. The tester will play the role of the Soldier's supervisor and the military police. Point at the vehicle that you want the Soldier to search and tell the Soldier to conduct this task as outlined in the performance steps. Tell the Soldier that the vehicle has a role player driver and a role player occupant, and that both role players will respond to his instructions.

Performance Measures	GO	NO GO
1. Stopped the vehicle by using hand-and-arm signals.	___	___
2. Directed the driver to turn the engine off and apply the parking brake.	___	___
3. Interviewed the driver and vehicle occupants.	___	___

Performance Measures	GO	NO GO
4. Directed the occupants to exit the vehicle.	___	___
5. Searched the undercarriage of the vehicle.	___	___
6. Searched the exterior of the vehicle.	___	___
7. Searched the engine compartment.	___	___
8. Searched the trunk compartment, if applicable.	___	___
9. Searched the interior of the vehicle.	___	___
10. Took action when the search revealed suspected explosive devices or prohibited items in the vehicle.	___	___
11. Released the driver and occupants if no explosive devices or prohibited items were found or if suspected items were cleared by the military police or EOD personnel.	___	___

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/her how to do it correctly.

References

Required

Related

AR 190-13

AR 525-13

191-376-5141

Search a Commercial Vehicle for Explosive Devices or Prohibited Items at an Installation Access Control Point

Conditions: You are at the commercial-vehicle search lane at an installation access control point. Given a search mirror, a flashlight, a reflective vest, the local standing operating procedure (SOP), and a directive to search an identified vehicle for suspected explosive devices or prohibited items.

Standards: Search the commercial vehicle, and find any explosive devices or prohibited items present.

Performance Steps

1. Stop the vehicle by using hand-and-arm signals.

CAUTION

Always position yourself so you are highly visible to traffic with good approach sight distance. Wear a reflectorized vest so vehicle drivers can see you easily. Never step into the path of an approaching vehicle to direct movement or stop the vehicle.

2. Direct the driver to turn the engine off and apply the parking brake.
3. Interview the driver and vehicle occupants.

- a. Identify yourself to the driver and occupants.

- b. Inform the driver that his/her vehicle must be searched as a condition for entry onto the installation.

- c. Identify each occupant by physically taking possession of, and looking at, their military or Department of Defense (DOD) identification (ID) card, state driver's license, or another form of a state or federal government-issued photo ID card, and compare the photo to the person.

Note: Notify your supervisor and the military police if the photo on the ID card does not match the individual being identified or if the ID card has been tampered with.

- d. Request to see the following documentation:

- (1) Vehicle registration.

- (2) Logbook or itinerary.

- (3) Manifest, shipping papers, or bill of lading.

Note: Notify your supervisor and the military police if you feel the documentation you are being shown is not valid.

- e. Determine specifics of a cargo shipment by asking questions such as—

- (1) Where are you going?

- (2) What is your cargo and did you watch as it was loaded?

- (3) What is the name and position of the person to which you are delivering the cargo?

- (4) Do you drive this vehicle most of the time?

Performance Steps

(5) Would there be any contraband or prohibited items in this vehicle?

(6) Has this vehicle had any repairs recently? If so, what?

f. Maintain eye contact with the driver and observe occupants throughout the interview, and report suspicious behavior to the supervisor.

g. Notify the supervisor and the military police if the driver appears impaired from the use of alcohol or drugs or if any suspected prohibited items are in plain view during the interview.

4. Direct the occupants to exit the vehicle.

a. Direct the driver to open all interior compartment doors, the hood, the trunk, and rear doors (if applicable) of the vehicle, while maintaining constant observation.

b. Direct the occupants to move to a designated safe area (about 5 meters from the vehicle, out of the flow of traffic) where they can be observed.

Performance Steps

5. Identify the type of commercial vehicle being searched.
 - a. Determine if the commercial vehicle is a tractor (see figure 191-376-5141-1).

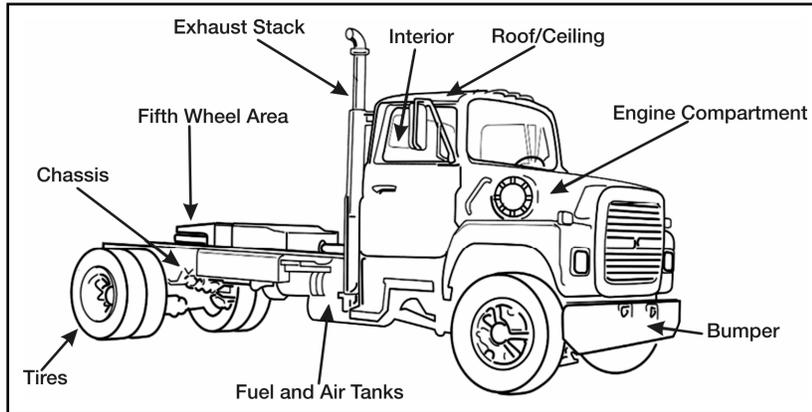


Figure 191-376-5141-1. Tractor

- b. Determine if the commercial vehicle is a trailer (see figure 191-376-5141-2).

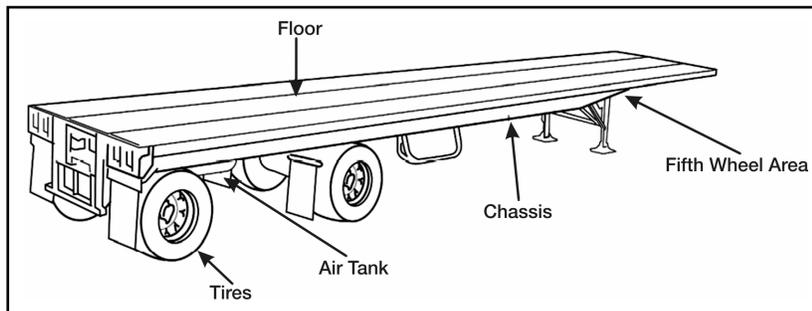


Figure 191-376-5141-2. Trailer

- c. Determine if the commercial vehicle is a hot-liquid asphalt tanker (see figure 191-376-5141-3).

Performance Steps

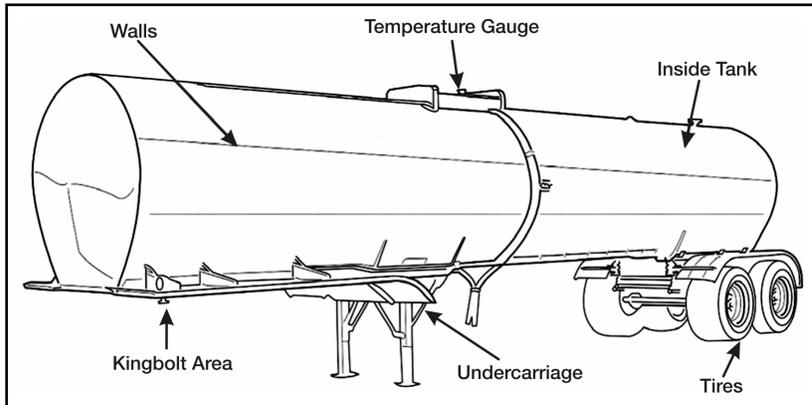


Figure 191-376-5141-3. Hot-liquid asphalt tanker

d. Determine if the commercial vehicle is a closed hopper vessel (see figure 191-376-5141-4).

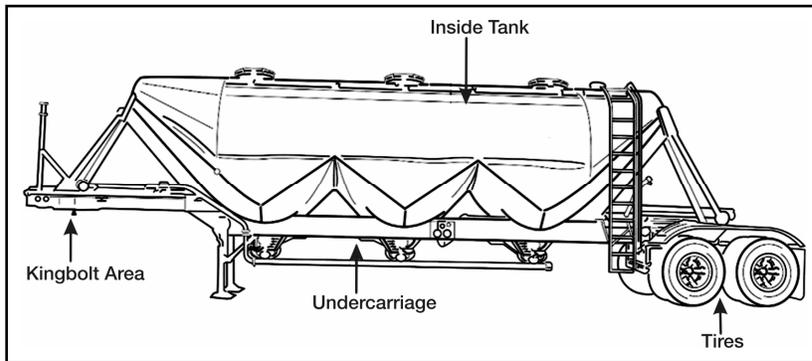


Figure 191-376-5141-4. Closed hopper vessel

e. Determine if the commercial vehicle is a gasoline trailer (see figure 191-376-5141-5).

Performance Steps

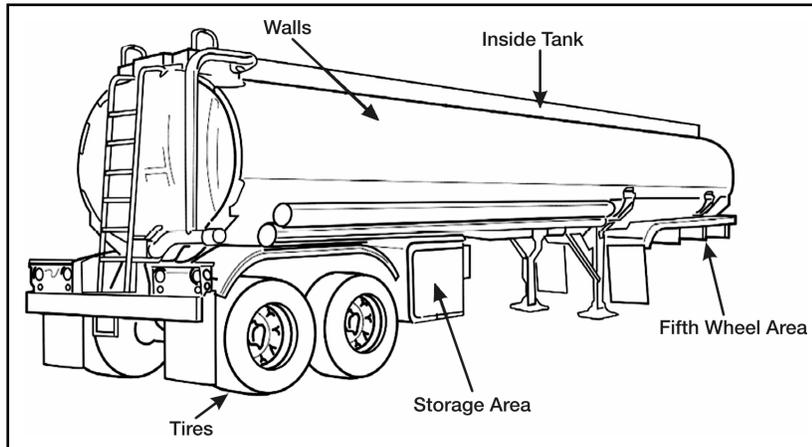


Figure 191-376-5141-5. Gasoline trailer

f. Determine if the commercial vehicle is a liquid tanker (see figure 191-376-5141-6).

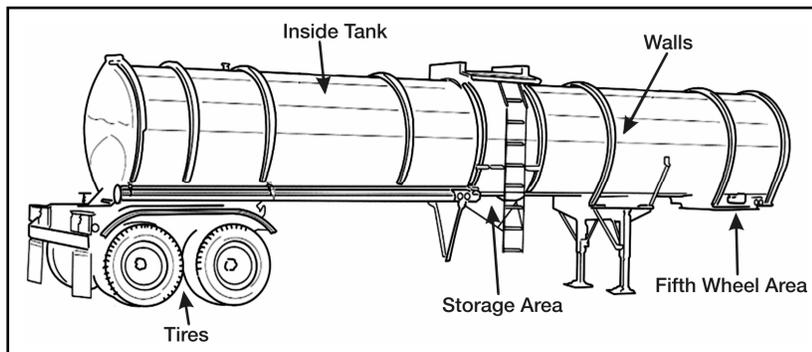


Figure 191-376-5141-6. Liquid tanker

g. Determine if the commercial vehicle is a propane tanker (see figure 191-376-5141-7).

Performance Steps

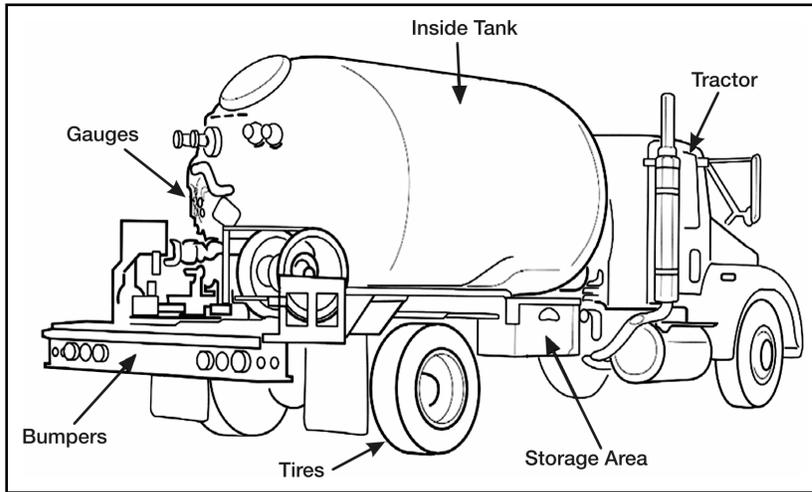


Figure 191-376-5141-7. Propane tanker

h. Determine if the commercial vehicle is a septic service truck (see figure 191-376-5141-8).

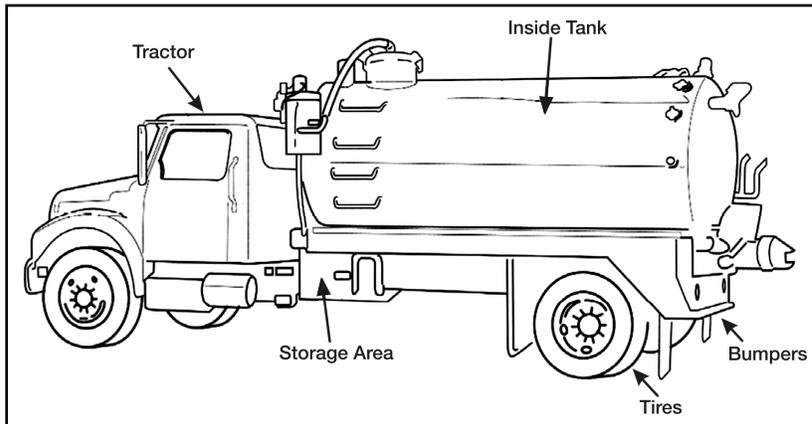


Figure 191-376-5141-8. Septic service truck

Performance Steps

- i. Determine if the commercial vehicle is a semivan trailer, straight-box truck, or a step van (see figure 191-376-5141-9).

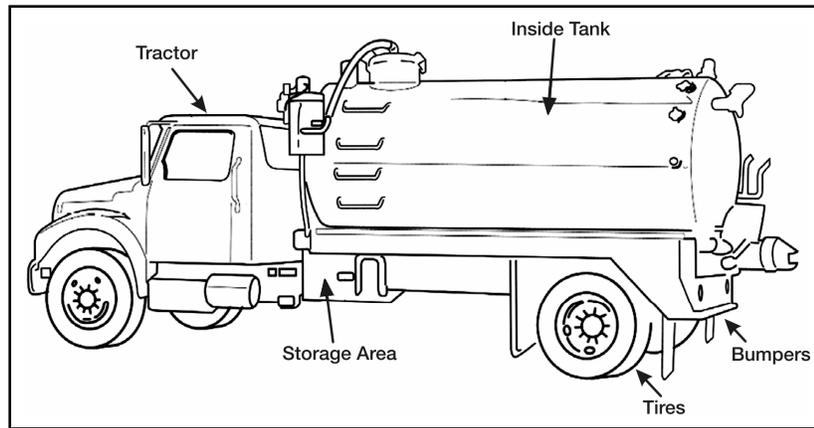


Figure 191-376-5141-9. Semivan trailer/straight-box truck/step van

- j. Determine if the commercial vehicle is a refrigeration trailer (see figure 191-376-5141-10).

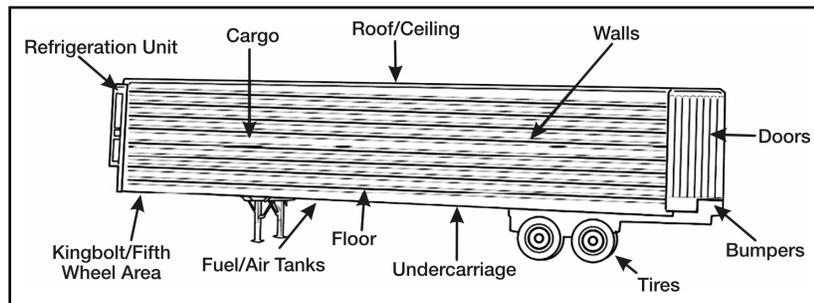


Figure 191-376-5141-10. Refrigeration trailer

- k. Determine if the commercial vehicle is a garbage truck (permanent bed) (see figure 191-376-5141-11).

Performance Steps

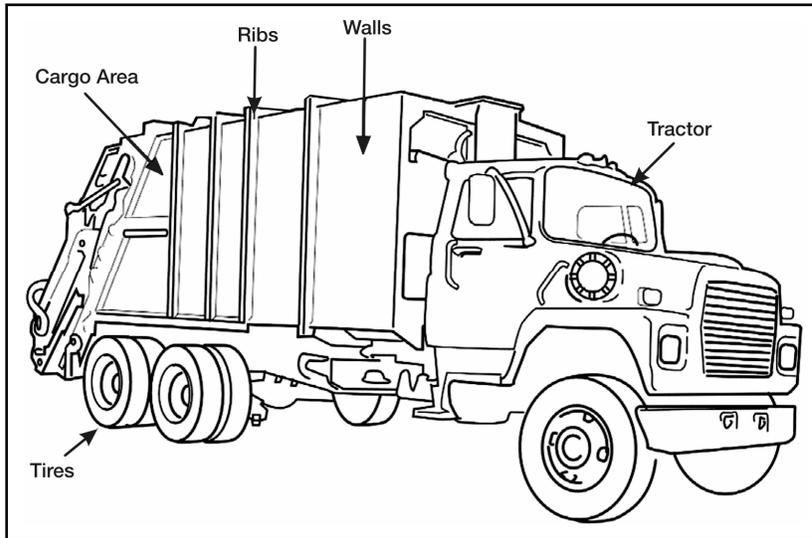


Figure 191-376-5141-11. Garbage truck (permanent bed)

I. Determine if the commercial vehicle is a garbage truck (dumpster) (see figure 191-376-5141-12).

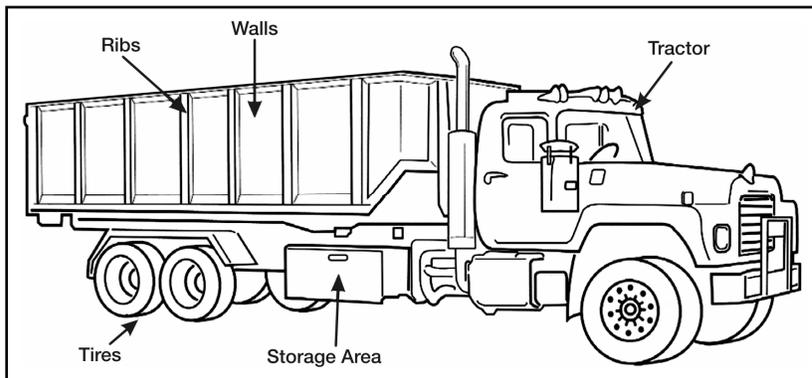


Figure 191-376-5141-12. Garbage truck (dumpster)

Performance Steps

m. Determine if the commercial vehicle is a bus (see figure 191-376-5141-13).

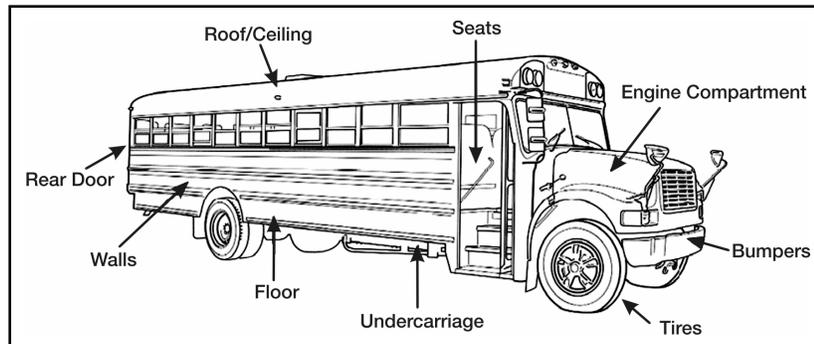


Figure 191-376-5141-13. Bus

n. Determine if the commercial vehicle is a concrete truck or mixer (see figure 191-376-5141-14).

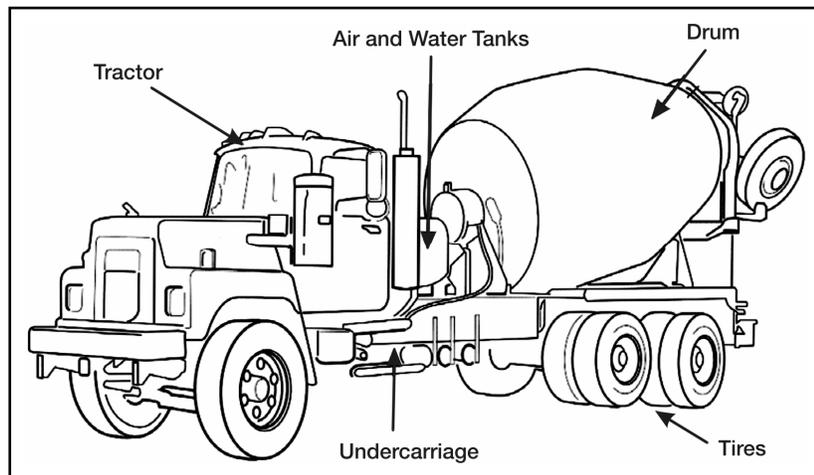


Figure 191-376-5141-14. Concrete truck or mixer

Performance Steps

- o. Determine if the commercial vehicle is a dump truck (see figure 191-376-5141-15).

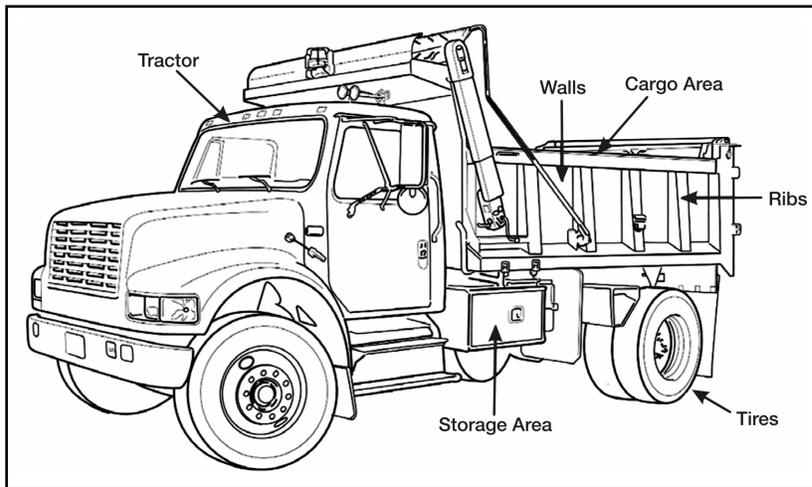


Figure 191-376-5141-15. Dump truck

- p. Determine if the commercial vehicle is a camper or motor home (see figure 191-376-5141-16).

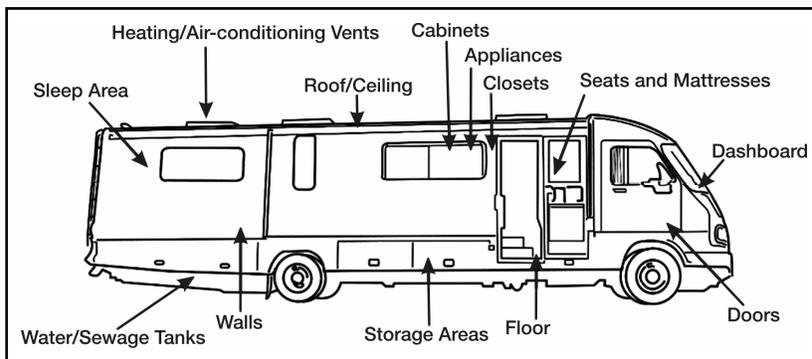


Figure 191-376-5141-16. Camper or motor home

Performance Steps

- q. Determine if the commercial vehicle is a boat and boat trailer (see figure 191-376-5141-17).

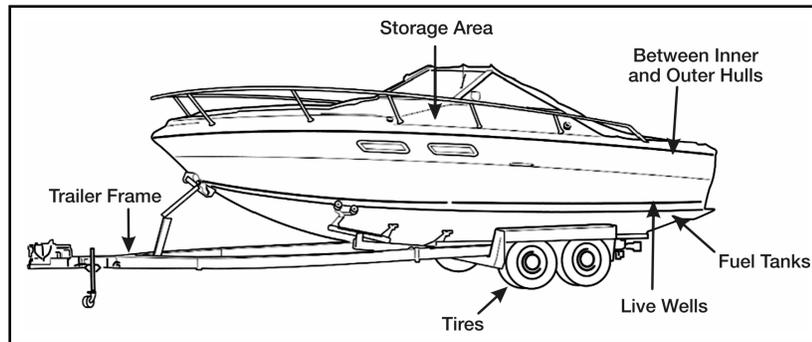


Figure 191-376-5141-17. Boat and boat trailer

6. Search the undercarriage and chassis of the vehicle.

Note: Use a flashlight and mirror to inspect under the vehicle carefully for general indicators of explosive devices or prohibited items while searching the entire vehicle.

7. Search the identified commercial vehicle, paying particular attention to high-threat "hot spot" areas denoted (see figures 191-376-5141-1 through 191-376-5141-17).

DANGER

Do NOT open the tank or any discharge valve on commercial vehicles. Death or serious injury may result if you breathe toxic agents while searching commercial vehicles containing gas, propane, or other toxic agents. The tank areas on commercial vehicles, in most cases, cannot be physically inspected.

Performance Steps

8. Take action when the search reveals suspected explosive devices or prohibited items in the vehicle.

a. Explosive devices.

(1) Never attempt to handle or disarm suspected explosive devices.

(2) Suspend all radio and cellular phone traffic 100 meters around the vehicle.

(3) Secure the driver and all occupants of the vehicle, and notify the supervisor and military police.

(4) Immediately evacuate the surrounding area.

(5) Secure the scene until it is cleared by explosive ordnance disposal (EOD) personnel or until properly relieved.

(6) Release the driver and occupants to the supervisor or military police along with any documentation and identification collected.

b. Prohibited items.

(1) Never handle the prohibited items unless ordered by the supervisor or military police.

(2) Notify the supervisor and military police.

(3) Secure the driver and all occupants of the vehicle.

(4) Secure the scene until cleared by the supervisor or until properly relieved.

(5) Release the driver and occupants to the supervisor or military police along with any documentation and identification collected.

9. Release the driver and occupants if no explosive devices or prohibited items are found or if suspected items are cleared by the military police or EOD personnel.

a. Give ID cards and all gathered documentation back to the driver of the vehicle.

b. Help the driver safely enter the flow of traffic (if applicable).

Evaluation Preparation:

Setup: Provide the Soldier with a commercial vehicle to search in a well-lit area. Vehicles in the DOD inventory may be used in this task if no civilian commercial vehicles are available. Identify a role player driver and a role player occupant for the commercial vehicle. Ensure that role players are authorized to operate the equipment prior to beginning this task. Notify role players that they are to comply with and follow all instructions given by the Soldier searching the vehicle. Have the role players place a dummy explosive device or dummy prohibited item somewhere in, under, or on the commercial vehicle to be searched prior to the Soldiers arriving to test. The dummy explosive device or dummy prohibited item can be handmade. It should not be large enough to gain immediate discovery yet not so small that it cannot be found by a highly motivated Soldier conducting a reasonable search. Give the Soldier a search mirror, a flashlight, a reflective vest, and the local SOP.

Brief Soldier: Tell the Soldier that he or she has an armed partner pulling overwatch security for him or her for the duration of this task. The tester will play the role of the Soldier's supervisor and the military police. Point at the commercial vehicle that you want the Soldier to search and tell the Soldier to conduct this task as outlined in the performance steps. Tell the Soldier that the commercial vehicle has a role player driver and a role player occupant, and that both role players will respond to your instructions.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Stopped the vehicle by using hand-and-arm signals.	___	___
2. Directed the driver to turn the engine off and apply the parking brake.	___	___
3. Interviewed the driver and vehicle occupants.	___	___
4. Directed the occupants to exit the vehicle.	___	___
5. Identified the type of commercial vehicle being searched.	___	___
6. Searched the undercarriage and chassis of the vehicle.	___	___

Performance Measures	<u>GO</u>	<u>NO GO</u>
7. Searched the identified commercial vehicle, paying particular attention to high-threat "hot spot" areas.	_____	_____
8. Took action when the search revealed suspected explosive devices or prohibited items in the vehicle.	_____	_____
9. Released the driver and occupants if no explosive devices or prohibited items were found or if suspected items were cleared by military police or EOD personnel.	_____	_____

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/her how to do it correctly.

References

Required

Related

AR 190-13

AR 525-13

191-376-5151

Control Access to a Military Installation

Conditions: You are on duty performing installation access control. You are given a reflective vest, a duty uniform, the local standing operating procedure (SOP), and a directive to check all pedestrians and persons in vehicles without proper identification (ID) (also check packages or items they are carrying) and vehicles without a Department of Defense (DOD) decal as a condition for entry onto the installation.

Standards: Prevent unauthorized personnel, packages, and/or vehicles from entering the installation.

Performance Steps

1. Determine if the person attempting entry is a pedestrian or is in a vehicle.

Note: If the individual is a pedestrian, skip to step 7.

2. Perform a visual check of the exterior front of the vehicle as it approaches.

a. Look at the windshield or bumper and verify that the DOD decal is visible and valid.

b. Observe the approach of the vehicle for anything that would arouse suspicion and indicate foul play or terrorist activity.

3. Stop the vehicle by using hand-and-arm signals.

DANGER

Always position yourself so you are highly visible to traffic with good approach sight distance. Wear a reflectorized vest so vehicle drivers can see you easily. Never step into the path of an approaching vehicle to direct movement or stop the vehicle.

a. Position yourself so you are on the driver's side (where the center line of the road would be) of the approaching vehicle.

b. Assume the basic stance.

(1) Stand with your feet about shoulder width apart so your weight is evenly distributed. Do NOT lock your knees or tense your body.

(2) Let your arms hang naturally.

(3) Hold your head and body erect, but not stiff.

c. Direct the vehicle to stop.

(1) Look toward the vehicle.

(2) Extend your left arm up and out to the front, parallel to the ground. Ensure that your hand is straight and fingers extended, with the palm of the hand facing the oncoming traffic.

Performance Steps

4. Identify the driver and vehicle occupants.
 - a. Identify each occupant by physically taking possession of, and looking at, their military or DOD ID card, state driver's license, or another form of a state or federal government-issued photo ID card.
 - (1) Compare the photo to the person and inspect the ID card to ensure that it is valid and has not been tampered with.
 - (2) Notify your supervisor and the military police if the photo does not match the person, if you are unsure that the ID card you are being shown is valid, or if you suspect that the ID card has been tampered with.
 - b. Maintain eye contact with the driver and observe all occupants throughout the interview, and report suspicious behavior to your supervisor.
5. Determine if the vehicle and occupants are authorized access.
 - a. Determine if the vehicle has a DOD decal. If it does not, direct the driver to pull to the inspection lane to be checked.
 - b. Determine if an unidentified person can produce an authorized form of a state or federal government-issued photo ID card. If not direct them to the access control operations center to possibly be searched, to be checked against the barred persons list, to be vouched for by an authorized person on the installation, or to be denied access to the installation.

Note: Keep in mind that the driver or other occupants of the vehicle may be under duress by the unidentified person. Because of this potential problem, local SOPs and commanders may implement a duress code policy that would alert access controllers to the suspect. Local SOPs will dictate whether the occupants of a vehicle not possessing a DOD decal be issued a temporary visitor's pass. See the local SOP for further guidance.

Performance Steps

6. Grant or deny the vehicle and occupants access to the installation by using hand-and-arm signals.

a. Grant access if the vehicle and occupants are authorized access to the installation.

(1) Extend your right arm up and out to the right side parallel to the ground. Ensure that your hand is straight, palm up, and fingers extended and together.

(2) Rotate your right forearm across the front of your body so that your hand stops just below your chin with the palm facing down, your elbow is a fixed axis. Do NOT move any other part of your body.

(3) Complete the signal by dropping your arm smartly and resuming the basic stance.

b. Deny access to the installation if the vehicle does not have a DOD decal and the occupants do not have proper ID. Notify your supervisor and the military police of any suspicious activity.

7. Perform a visual check of the person approaching the pedestrian gate.

a. Look to see if the person is carrying a briefcase, box, or any item that should be checked according to the local SOP.

b. Observe the person for unusual bulges in clothing and for being dressed inappropriately for the time of year or season (for example, a long jacket in hot weather).

c. Observe the person approaching for anything that would arouse suspicion or indicate terrorist activity.

8. Stop the person by using a verbal command and/or hand-and-arm signals.

9. Interview the person.

a. Identify each person by physically taking possession of, and looking at, their military or DOD ID card, state driver's license, or another form of a state or federal government-issued photo ID card.

(1) Compare the photo to the person and inspect the ID card to ensure that it is valid and has not been tampered with.

Performance Steps

(2) Notify your supervisor and the military police if the photo does not match the person, if you are unsure that the identification you are being shown is valid, or if you suspect that the ID card has been tampered with.

b. Inquire about the contents of any briefcase, package, or container.

c. Maintain eye contact with the person throughout the interview and report suspicious behavior to the supervisor.

10. Determine if the person is authorized access.

a. Determine if the unidentified person can produce an authorized form of a state or federal government-issued photo ID card. If not, direct them to the access control operations center to be checked against the barred persons list, to be vouched for by an authorized person on the installation, or to be denied access to the installation.

b. Direct any unidentified person that has a briefcase, package, or another container to the access control operations center, to have them and the carried package checked.

11. Grant or deny the person access to the installation by using a verbal command and/or hand-and-arm signals.

a. Grant access if the person is authorized access to the installation.

(1) Extend your right arm up and out to the right side parallel to the ground. Ensure that your hand is straight, palm up, and fingers extended and together.

(2) Rotate your right forearm across the front of your body so that your hand stops just below your chin with the palm facing down, your elbow is a fixed axis. Do not move any other part of your body.

(3) Complete the signal by dropping your arm smartly and resuming the basic stance.

b. Deny the person access to the installation if they do not have proper ID. Notify your supervisor and the military police of any suspicious activity.

Evaluation Preparation: Setup: Provide the Soldier with a training site that is suitable for access control operations and is well-lit. Use vehicles in the DOD inventory with a DOD decal, if no civilian vehicle with a DOD decal are available. Identify role players to act as either a driver or a pedestrian attempting entry onto the installation. If role players are in a vehicle, ensure that they are authorized to operate the equipment prior to beginning this task. Instruct role players to comply with instructions given by the Soldier being tested. The tester will determine what type of ID card the role players use.

Brief Soldier: Tell the Soldiers they can familiarize themselves with the local SOP before they perform the task and refer to the SOP during the task, if needed. The tester will play the role of the supervisor or military police, if needed. Tell the Soldier to conduct this task as outlined in the performance steps and that the role players are compliant and will obey their instructions.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Determined if the person attempting entry was a pedestrian or was in a vehicle.	___	___
2. Performed a visual check of the exterior front of the vehicle as it approached.	___	___
3. Stopped the vehicle by using hand-and-arm signals.	___	___
4. Identified the driver and vehicle occupants.	___	___
5. Determined if the vehicle and occupants were authorized access.	___	___
6. Granted or denied the vehicle and occupants access to the installation by using hand-and-arm signals.	___	___
7. Performed a visual check of the person approaching the pedestrian gate.	___	___
8. Stopped the person by using a verbal command and/or hand-and-arm signals.	___	___
9. Interviewed the person.	___	___

Performance Measures	GO	NO GO
10. Determined if the individual was authorized access.	_____	_____
11. Granted or denied the person access to the installation by using a verbal command or hand-and-arm signals.	_____	_____

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 190-13

551-721-1359

Operate a Vehicle in a Convoy

Conditions: Given a briefing by the convoy commander, a vehicle with before-operation maintenance performed, hearing protection (as needed). Task must be performed under the march unit commander's supervision.

Standards: Operate the vehicle according to specific instructions from the convoy or march unit commander. Correctly maintain established convoy interval and speed. Correctly react to, and relay, all hand signals and follow all highway warning and regulatory signs, according to FM 21-305. Perform all requirements without injury to personnel or damage to equipment.

Performance Steps

1. Start the engine upon receiving the signal or the order from the march unit commander.
 - a. Refer to the vehicle technical manual for starting procedures.
 - b. Fasten seat belt for operator and all passengers (if equipped).
 - c. Wear hearing protection while operating vehicle.
-

Performance Steps

2. Set the vehicle in motion upon receiving signal or order to move out. Refer to vehicle technical manual for proper procedures.
3. Operate the vehicle at the prescribed speed and within the proper interval between vehicles. Follow guidance from convoy or serial/march unit commander.
4. Acknowledge hand signals by adjusting speed, interval, and position accordingly.
5. Relay hand signals received from the march unit commander to other drivers.
6. Park the vehicle, during halts, as directed.
7. Perform during-operation preventive maintenance checks.
8. Check vehicle load, during halts, for security (if loaded).
9. Shutdown engine (unless told otherwise by supervisor or serial/march unit commander).
 - a. Refer to vehicle technical manual for proper shutdown procedures.
 - b. Chock vehicle wheels, as necessary.
10. Resume vehicle convoy operations (steps 1 through 6). Follow signals or orders from serial/march unit commander.
11. Shutdown engine at destination (repeat step 9). Refer to vehicle technical manual for proper procedures.
12. Perform after-operation preventive maintenance checks.
 - a. Refer to vehicle technical manual for proper procedures.
 - b. Follow additional guidance from supervisor or serial/march unit commander.

Evaluation Preparation: Setup: Set up the convoy with six vehicles at the starting point. Select a route for the convoy, which will not interfere with the regular traffic. Use a noncommissioned officer (NCO) trained in convoy procedures to act as the convoy

commander. Have the convoy commander brief the Soldier on convoy operations.

Brief Soldier: Tell the Soldier to follow the instructions given in the convoy commander's briefing.

Performance Measures	GO	NO GO
1. Started the engine upon receiving the signal, or the order, from the march unit commander.	___	___
2. Set the vehicle in motion.	___	___
3. Operated the vehicle at prescribed speed and within the proper interval between vehicles.	___	___
4. Acknowledged hand signals by adjusting speed, interval, and position.	___	___
5. Relayed hand signals received from the march unit commander.	___	___
6. Parked vehicle, during halts, as directed.	___	___
7. Performed during-operation preventive maintenance checks.	___	___
8. Checked vehicle load, during halts, for security.	___	___
9. Shutdown engine (unless told otherwise by supervisor or march unit commander).	___	___
10. Resumed vehicle convoy operations (repeated step 1 through 6).	___	___
11. Shutdown vehicle at destination (repeated step 9).	___	___
12. Performed after-operation preventive maintenance checks.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If any performance measure is failed, tell the Soldier what was done wrong and how to do it correctly.

References

Required

FM 21-305

Related

FM 4-01.30

FM 55-15

FM 55-30

TM 9-2320-260-10

TM 9-2320-272-10

TM 9-2320-279-10-1

TM 9-2320-279-10-2

TM 9-2320-280-10

TM 9-2320-283-10

TM 9-2320-360-10

TM 9-2320-364-10

TM 9-2320-365-10

TM 9-2320-366-10-1

TM 9-2320-366-10-2

TM 9-2330-357-14&P

TM 9-2330-385-14

SUBJECT AREA 5: NAVIGATE

071-329-1006

Navigate from One Point on the Ground to Another Point While Dismounted

Conditions: Given a standard topographic map of the area, scale 1:50,000, a coordinate scale and protractor, a compass, and writing materials.

Standards: Move on foot to designated points at a rate of 3,000 meters per hour.

Performance Steps

1. Determine your pace count.

a. When you have to go a certain distance on foot, you can measure distance by counting your paces. The average Soldier travels 116 paces to travel 100 meters. Check your pace length by practicing on a known 100-meter distance, like a football field plus one end zone, which totals 110 yards (about 100 meters).

b. When you travel cross-country as you do in the field, you use more paces to travel 100 meters, usually about 148 instead of 116. This is because you are traveling over uneven ground, and must use more paces to make up for your movement up and down hills. You should check your pace over at least 600 meters of crisscrossing terrain to learn how many paces it takes you to travel an average 100 meters over such terrain.

c. Be sure you know how many paces it takes you to walk 100 meters on both level and crisscrossing terrain.

(1) The challenge in pacing is to maintain a straight line. At night, people tend to walk in a clockwise circle unless they use compasses. In daylight, you should use aiming points and a compass. Also, remember to figure only the straight-line distance when you have to walk around an obstacle.

(2) Another challenge is keeping count of paces taken. One way is to use pebbles. For instance, suppose you want to pace off 1 kilometer. (A kilometer is 1,000 meters or the distance between two of the black grid lines on your map.) Put ten pebbles in your right pocket. When you go 100 meters, move one pebble to your left pocket and start your count over. When all ten pebbles had been moved to your left pocket, you have traveled 1 kilometer. Or, you can tie knots in a string, one knot per 100 meters.

d. Sample problem: You are to move 715 meters. Your pace count for 100 meters is 116 paces.

(1) Using the pebble method, you need seven pebbles to mark the 700 meters. But how many paces will you need to cover the other 15 meters?

Performance Steps

(2) To determine this, multiply 15 meters by your pace count (116), that is, $15 \times 116 = 1,740$. Mark out the last two numbers (40). The remaining digits, 17, indicate the number of paces you will need to go 15 meters.

(3) So you would go 715 meters using the pebble method by pacing off 116 paces per 100 meters until all seven pebbles are used, then go an additional 17 paces to arrive at 715 meters.

2. Navigate from one point to another using terrain association. This technique uses terrain or man-made features as landmarks or checkpoints to maintain the direction of movement. Use this technique anywhere, day or night, as long as the terrain has distinguishable features. You use terrain association when moving from the unit area to the motor pool. You walk down the road or sidewalk using intersections or buildings to steer or turn on (landmarks or checkpoints). In the field, where you might have no roads or buildings, you use terrain features for your axis and checkpoints.

a. Locate your position on the map, and then locate your destination or objective. A straight line between the two is seldom the best way to travel. For example, look at figure 071-329-1006-1. Assume that you are to move from A to B. Notice that traveling a straight line between them might take you through several ridges and valleys (the "X's" on figure 071-329-1006-1).

Performance Steps

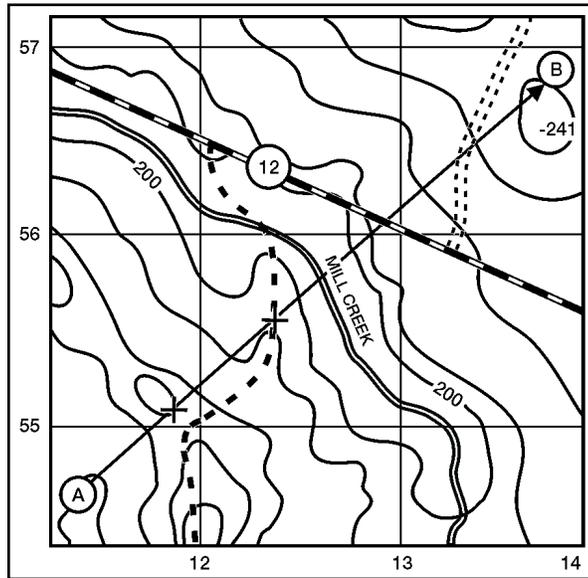


Figure 071-329-1006-1. Straight-line route

b. When adjusting your route, consider the following:

(1) Tactical aspect. Avoid skylining open areas and danger areas like streams or crossings on roads and hilltops. Your tactical concern is survival. The mission is causing you to move to your objective. You need to be sure you get to that objective. Looking at figure 071-329-1006-2, you decide for tactical reasons to cross the stream where you would not be seen from the road (C) and to cross the road in a small valley (D). You know that valleys offer better cover and concealment, so you will use them (E and F).

Performance Steps

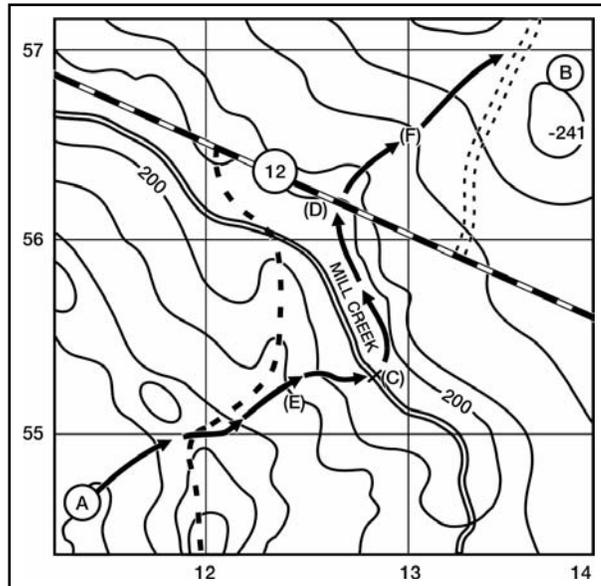


Figure 071-329-1006-2. Adjusted route

(2) Ease of movement. Always pick the easiest route that the tactical situation will allow. However, you achieve surprise by doing the unexpected. However, a difficult route increases your chance of getting lost. Also, traveling a difficult route might be noisy and can tire you out before you reach your objective.

(3) Boundaries. Traveling in a straight line is almost impossible, with or without a compass. Pick an axis or corridor. Pick boundaries that you can spot or feel. Hardtop roads, streams, high grounds, and railroads all make good boundaries. This way, if you start to wander too far off course, you will know it.

Performance Steps

c. Suppose you decide that the route in figure 071-329-1006-3 offers ease of movement. Check your axis up the valley (1, figure 071-329-1006-3); across the ridge at the saddle (2, figure 071-329-1006-3); cross the stream, turn left and keep the stream on the left, high ground on the right (4, figure 071-329-1006-3); to the third valley (5, figure 071-329-1006-3); to the saddle, then on the objective (6, figure 071-329-1006-3).

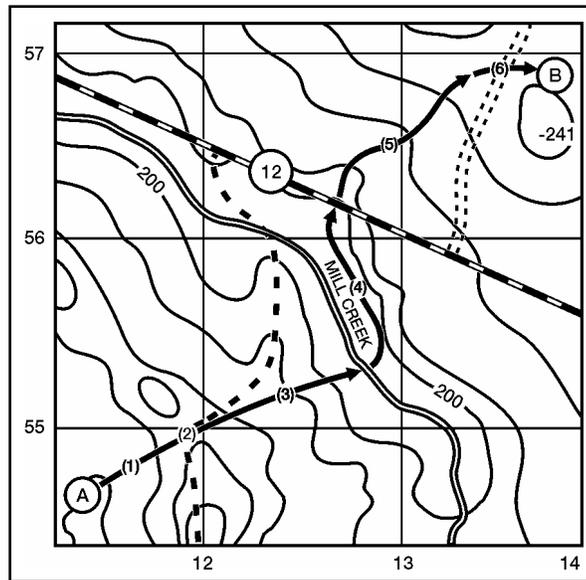


Figure 071-329-1006-3. Route of travel

d. With boundaries to keep you straight, you need to know where on your corridor you are located. Use checkpoints to do this. The best checkpoint is a line or linear feature that you cannot miss, because you must cross a linear feature across your corridor, or axis no matter where you are in the axis. Use hardtop roads, railroads, power lines, perennial streams (solid blue lines; the dashed blue lines indicate streams that are frequently dry), rivers, ridges, and valleys.

Performance Steps

Note: Do NOT use light-duty roads and trails, because a map never shows everything on the ground. DO NOT use wood lines, either, because they are rarely permanent.

e. Refer to figure 071-329-1006-3 and pick your checkpoints.

(1) The saddle—use Hill 241 to line on up the right valley, which you will follow to—

(2) The stream, which you will move alongside it until...

(3) The bend in the stream, when you turn right to...

(4) The road in the valley (the ridge crossing on the road on the 12 grid line will serve as a limiting feature), then up to...

(5) The far saddle, and right to your objective (B).

f. If you cannot find linear features, use an elevation change—a hill or depression, a small ridge, or a valley. Look for one contour line of change during the day, two at night. Regardless of contour interval, you will spot a contour interval of change on foot.

g. Determine the distance between checkpoints. DISTANCE IS THE CAUSE FOR MOST NAVIGATIONAL MISTAKES. Estimate or measure the distance from one checkpoint to another, then trust that distance.

h. Refer to figure 071-329-1006-4 and check your distances:

(1) 500 meters to the saddle (1).

(2) 800 meters to the stream (2).

(3) 500 meters to the bend in the stream (3).

(4) 300 meters to the road (4).

(5) 1,000 meters to the far saddle (5).

Performance Steps

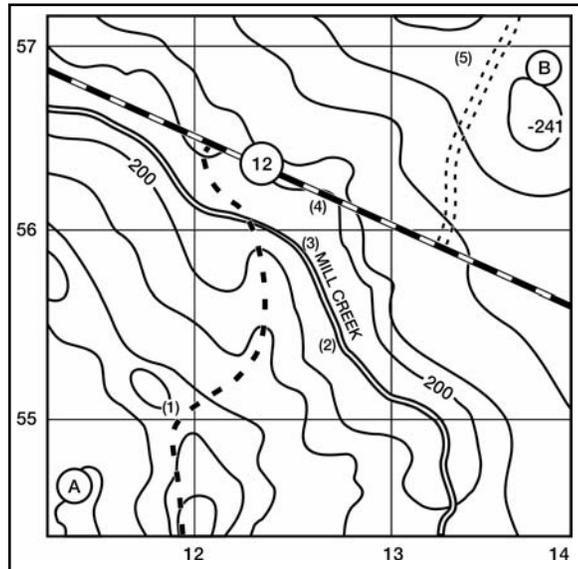


Figure 071-329-1006-4. Checkpoints

3. Navigate from one point to another using dead reckoning.

a. Dead reckoning is a technique of following a set route or line for a determined distance. Use this technique on flat terrain such as deserts and swamps. You can use this technique day or night. To use dead reckoning—

(1) Locate the start and finish points on the map (figure 071-329-1006-5).

Performance Steps

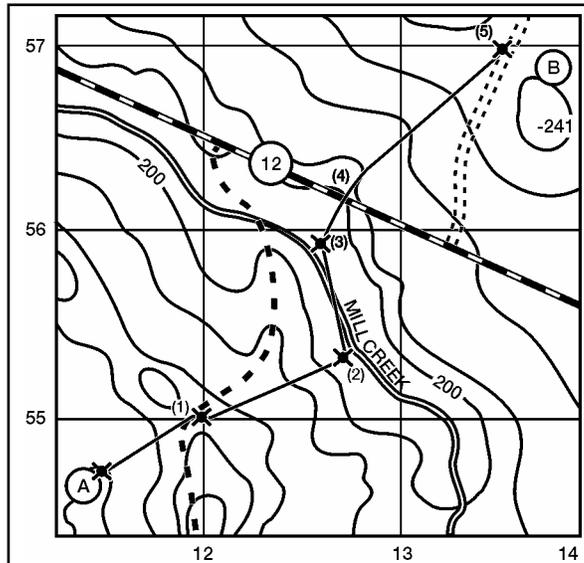


Figure 071-329-1006-5. Distance between checkpoints

(2) Determine the grid azimuth from the start point to the finish point, or to the first intermediate point on the map.

(3) Convert the grid azimuth taken from the map to a magnetic azimuth.

(4) Determine the distance between the start and finish points or between any intermediate points on the map.

Note: If you do not know how many paces you take for each 100 meters, you should move to a 100-meter course and determine your pace count.

(5) Convert the map distance to pace count.

(6) Make a thorough map reconnaissance of the area between the start point and the finish point.

Performance Steps

b. Before moving from the start point, shoot an azimuth on a well-defined object on the ground in the direction of travel. These objects, known as steering points, may be lone trees, buildings, rocks, or any easily identifiable point. At night, the most likely steering point will be a star. Due to the rotation of the earth, the positions of the stars continually change. You must check your azimuth frequently, but only when halted. Using your compass while you are moving will cause you to go off-course. Your steering mark might be beyond your objective. Remember to travel the distance you determined.

c. Once you have selected a steering point, you should move toward it, remembering to begin your count. For every 100 meters you travel, you should have some method of tracking the number of 100 meters you travel.

d. Upon reaching your first steering point, shoot an azimuth to another steering mark, and repeat step c until you reach the finish point.

e. If you should encounter an obstacle, you might have to detour around it (figure 071-329-1006-6). To do this, complete a series of 90-degree turns until you bypass the obstacle and return to your original azimuth.

Performance Steps

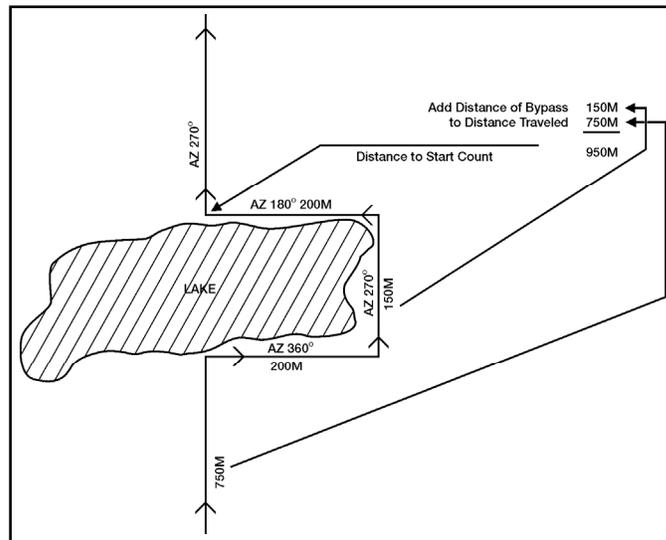


Figure 071-329-1006-6. Bypassing an obstacle

- (1) At the edge of the obstacle, make a note of the number of paces taken to this point.
- (2) To detour to the right, add 90 degrees to your original azimuth.
- (3) Using the new azimuth, pick a steering mark and move toward it, making sure you begin a new pace count. Move on this azimuth until you reach the end of the obstacle.
- (4) Stop and note the number of paces taken, and again add or subtract 90 degrees from the azimuth just read, and move to the far side of the obstacle.
- (5) Upon reaching the far side, stop the count and note the number of paces taken; add this number to the pace count noted in step (1).
- (6) Again add or subtract 90 degrees from the azimuth used, and then move the same number of paces you took on the first leg of your offset or detour.

Performance Steps

(7) Place the compass on your original azimuth, pick up the pace count you ended with when you cleared the obstacle, and proceed to your finish point.

f. Bypassing the same obstacle at night calls for special considerations:

(1) To make a 90-degree turn, hold the compass as you would to determine a Magnetic Azimuth.

(2) Turn until the center of the luminous letter "E" is under the luminous line (do not change the setting of the luminous line).

Note: If you turn to the right, "E" is under the luminous line. If you turn to the left, "W" is under the line.

(3) Proceed in that direction until you outflank the obstacle.

(4) Turn until the north arrow is under the luminous line, and then proceed parallel to your original course until you have bypassed the obstacle.

(5) Turn until the "W" is under the luminous line and move back the same distance you originally moved.

(6) Finally, turn until the North arrow is under the luminous line, and then proceed on your original course.

(7) You must count your paces just as you do when you bypass an obstacle in daylight.

g. After reaching the finish point, conduct a detailed terrain analysis to confirm your location.

4. Navigate from one point to another by comparing and combining terrain association with dead reckoning.

a. You will often have to consider the advantages and disadvantages of each technique.

(1) Terrain association is fast and easy, and it allows for mistakes. It also is subject to map accuracy and can only be used with recognizable terrain features.

(2) Dead reckoning is accurate and works on flat terrain that lacks terrain features; however, all work must be precise, and the technique takes time.

Performance Steps

b. Sometimes you will have to combine the techniques. For instance, in the desert, you might need to use dead reckoning to arrive at or near a road or ridge, and then use terrain association to follow that feature to an objective.

Evaluation Preparation: Setup: Select an area with varying terrain and vegetation that is large enough to have two points, 1,000 to 2,000 meters apart. Each point is on or near an identifiable terrain feature and is marked on the ground with a sign containing a letter or number. Dummy signs are placed not less than 100 meters nor more than 200 meters to the right and left of the correct point. Clearly mark correct points on the map. Prepare a sheet of paper giving the azimuth and distance for each leg of the course to be covered. Have pencils available for the tested Soldier.

Brief Soldier:

1. Terrain Association.

a. Give the Soldier the map and tell him to identify the best route to take between the two points that have been plotted on the map (1,000 to 2,000 meters apart).

Note: The best route must have been determined by an SME before the test.

b. Give the Soldier the map and tell him he must move from point A on the map to point B (1,000 to 2,000 meters apart) using terrain association (no compass is used). Tell the Soldier he has _____ time to complete the course.

2. Dead Reckoning. Give the Soldier the sheet of paper with the azimuth and the distance for each leg of the course (three to five points, 200 to 500 meters apart), and the compass; no map will be used. Tell the Soldier to move over the course shown by the azimuth and the distance on the paper. Tell the Soldier to record the letter or number at the end of each leg of the course. Tell the Soldier he has _____ time to complete the course.

Note: Time standards are based on the average time it takes two SMEs to complete the course plus 50 percent. For example, SME time, 1 hour. 1 hour added to 50 percent = Course Test Time of 1 hour, 30 minutes.

Soldiers being tested are given 10 minutes to study the map and to determine their course of action. At the end of this time, the Soldier moves to the start point and begins the test. Time starts when Soldiers leave the start point and ends when the finished point is crossed.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Terrain association.	_____	_____
a. Within 10 minutes, identify the best route, and explain why you picked it.		
b. Write down the correct letter or number at the end of each leg of the course.		
2. Dead reckoning.	_____	_____
a. Write down the correct letter or number of each leg of the course.		
b. Arrive at correct destination within the specified time.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26
STP 21-1-SMCT

Related

071-329-1030

Navigate from One Point on the Ground to Another Point While Mounted

Conditions: Given a standard 1:50,000-scale topographic map of the area, a coordinate scale, a protractor, and a compass, while mounted in a vehicle with cross-country capability.

Standards: Direct the driver to the designated point(s) at a rate of 9 kilometers per hour using—

1. Terrain association.
2. Dead reckoning.

Performance Steps

1. Determine the effects of terrain on the vehicle when navigating mounted.

a. Vehicle speed and mobility.

(1) Great distances can be covered quickly. Develop the ability to estimate the distance traveled. Meanwhile, use the odometer, which shows the distance traveled. Remember that 0.1 mile is about 160 meters, and 1 mile is about 1,600 meters (1.6 kilometers).

(2) Mobility is an advantage while navigating. When disoriented, mobility makes it easier to move and reorient.

b. Vehicle capabilities.

(1) Most military vehicles can knock down a tree. Larger vehicles can clear more trees but cannot knock down several trees at once. Find paths between trees that are wide enough for the vehicle (figure 071-329-1030-1).

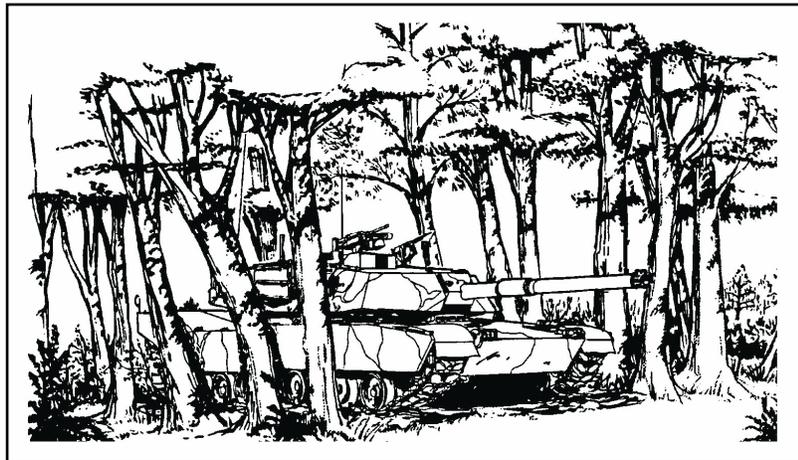


Figure 071-329-1030-1. Vehicle capabilities

Performance Steps

CAUTION

During training, follow installation SOP or local guidelines concerning cross-country vehicle travel.

(2) Military vehicles are designed to climb 60-percent (30-degree) slopes if the surface is dry and firm. If gravel, vegetation, or mud is on the slope, the practical slope-climbing capability is about 40 percent (20 degrees, figure 071-329-1030-2).

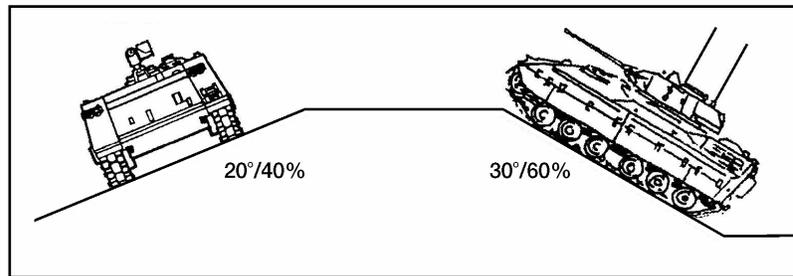


Figure 071-329-1030-2. Climbing slope and side slope capabilities

(a) Determine the approximate slope by looking at the route selected on a map. One contour line in any 100 meters of map distance on that route indicates a 10-percent slope. Two contour lines indicate a 20-percent slope, and so forth. If there are four contour lines in 100 meters, look for another route.

Note: The above figures are true for a 10-meter or 20-foot contour interval. If the map has a different contour interval, adjust the arithmetic. For instance, if there is one contour line in 100 meters, a 10-meter interval would give a 10-percent slope.

(b) The side slope is more important than the climbing slope. A 40-percent side slope is the maximum in good weather (figure 071-329-1030-2). Traverse a side slope slowly and without turning. Rocks, stumps, or sharp turns can cause a downhill track to be thrown under the vehicle, which is a major recovery task.

(3) For tactical reasons, movement is often in draws or valleys due to the cover they provide. Side slopes make slow movement necessary.

Performance Steps

2. Know the effects of weather on vehicle movement.
 - a. Weather can halt mounted movement. Snow and ice are dangerous. Rain and snow affect soil load-bearing ability. Heavy rain may restrict cross-country vehicles to road movement.
 - b. Adjust the route to avoid flooded or muddy areas. A stuck vehicle hinders combat capability.
3. Know both methods of navigation.
 - a. Terrain association. This is the most used method of navigation. The navigator plans the route for movement from one terrain feature to another. An automobile driver uses the same technique while driving along the streets in a city. He guides himself using intersections or other landmarks. Like a driver, the navigator selects routes, or "streets," between key points, or "intersections." These routes must sustain vehicle travel, and they should be as direct and easy to follow as possible. In a typical move, the navigator determines his location and the location of his objective. He notes the position of each on his map and selects a route between the two.
 - (1) Determine the start point and destination.
 - (2) Draw or visualize a straight line between the two points on the map.
 - (3) Inspect the terrain along that line for ease of movement, for features recognizable under predicted weather conditions, and for tactical considerations.
 - (4) After analyzing the terrain, adjust the route as follows:
 - (a) Consider tactical aspects. Avoid skylining, select key terrain for overwatch positions, and select concealed routes.
 - (b) Consider ease of movement. Use the easiest possible route. Bypass difficult terrain. A difficult route is hard to follow. It is also noisier, slower, and causes more wear to the vehicle (and possibly recovery problems). Achieve tactical surprise by doing the unexpected. Try to select an axis or corridor, not a specific route. Allow room for vehicles to maneuver.

Performance Steps

(c) Use terrain features as checkpoints. They must be easily recognizable under the current light and weather conditions and from a moving vehicle. The best checkpoints are linear features that cross the route. Use perennial streams, rivers, hardtop roads, ridges, valleys, and railroads. The next best are elevation changes; hills, depressions, spurs, and draws. Look for two contour lines of change. Less than two lines of change cannot be spotted while mounted.

(d) Follow terrain features. Movement and navigation along a valley floor or near or on the crest of a ridgeline are easiest.

(e) Determine directions. Break the route down into smaller segments and determine the rough direction to follow. You do not need a compass. Just use the main points of direction such as North, Northeast, or East. Before moving, note the location of the sun and the direction of north. Locate changes of direction, if any, at the checkpoints chosen.

(f) Determine distance. Obtain the total distance to be traveled and the approximate distance between checkpoints. Plan to use the vehicle odometer to keep track of distance traveled.

Note: Convert map distance to ground distance by adding 20 percent for cross-country movement.

(g) Make notes. Usually, mental notes are adequate. Imagine what the route will be like and remember it.

(h) Plan. Restudy the route selected. Determine where problems may occur and how you can avoid them.

b. Dead reckoning. This means moving a given distance in meters along a given line, which is usually an azimuth in degrees.

Note: There is no accurate method of determining direction in vehicles.

(1) Dead reckoning with steering marks. This procedure is the same for vehicle travel as it is on foot.

(a) Dismount from the vehicle.

(b) Move away from the vehicle (about 50 meters).

Performance Steps

(c) Set the azimuth on the compass and choose a steering mark (rock, tree, hilltop) in the distance on that azimuth.

(d) Remount and have the driver identify the steering mark. Proceed to it in as straight a line as possible.

(e) On arrival at the steering mark or when direction changes, repeat paragraphs (a) through (c) for the next leg of travel.

(2) Dead reckoning without steering marks. Use this procedure only in flat, featureless terrain.

(a) Dismount from the vehicle, which has been positioned in the direction of travel. Move about 50 meters to the front of the vehicle.

(b) Face the vehicle and read the azimuth to the vehicle.

(c) Determine the forward azimuth (direction of travel) by adding or subtracting 180 degrees.

(d) Have the driver drive on a straight line toward you.

(e) Remount the vehicle, hold the compass as you will hold it while the vehicle is moving, and read the azimuth to the front.

(f) The compass swings off the azimuth determined, but it should pick up a constant deviation. For instance, the azimuth to the steering mark was 75 degrees while you were away from the vehicle. When you remounted, and the driver drove straight forward, the compass showed 67 degrees. This is a deviation of minus 8 degrees. All you have to do is to hold the 67-degree heading.

(g) At night, do the same thing, but without a steering mark. From the map, determine the azimuth of travel. Line up the vehicle on that azimuth, then move well in front of the vehicle. Be sure it is aligned correctly. Mount, have the driver move slowly forward, and note the deviation.

Note: Traversing the turret (if the vehicle has one) changes the deviation.

Performance Steps

(3) Turret alignment. Another method, if the vehicle has a stabilized turret, is alignment of the turret on the azimuth to be traveled. Switch the turret stabilization system ON. The gun tube remains pointed at the destination, no matter which way you turn the vehicle.

CAUTION

If you have to take the turret off-line to engage a target, repeat the entire process.

Note: This technique works, and is safe for the stabilization system. However, because the vehicle is subject to stabilization drift, use this technique for no more than 5,000 meters before resetting.

(4) Distance factor. Computing the distance factor in dead reckoning is usually a simple process. Determine the map distance to travel and add 20 percent to convert to ground distance. Use the vehicle odometer to control the distance of travel.

4. Learn to combine and use both methods.

a. Terrain association is fast and forgiving. It is the best method under most circumstances, and it can be used day or night.

b. Dead reckoning is accurate if done correctly, but precision is required. Dead reckoning is slow, but works in flat terrain.

c. The two methods are often combined.

(1) Use dead reckoning to travel across a large, flat area to a ridge.

(2) Use terrain association for the rest of the move.

d. The ability to use both methods is required. Probable errors, in order of frequency, include the failure to—

(1) Determine distance(s) to be traveled.

(2) Travel the proper distance.

(3) Properly plot or locate the objective.

(4) Select easily recognized checkpoints or landmarks.

(5) Consider ease of movement.

Evaluation Preparation: Setup: At the test site, provide the materials and equipment given in the task condition statement. Select an area with varied terrain and vegetation. The area must be large enough to have three to five points at least 1,000 and up to

5,000 meters apart. Each point is on or near an identifiable terrain feature. Mark them on the ground with a sign containing a letter or number. Place dummy signs between 100 and 200 meters to the right and left of the correct point. Clearly mark all correct points on the map. Prepare a sheet of paper giving the azimuth and distance for each leg of the course. Have pencils available for the Soldier.

Brief Soldier:

1. Terrain association. Give the Soldier the map and tell him to direct the driver and vehicle over the course recorded on the map. Tell the Soldier to record the letter or number at the end of each leg of the course. Tell the Soldier that he will cover the course using terrain association.

2. Dead reckoning with steering marks. Give the Soldier a protractor, a compass, and a sheet of paper with the azimuth and distance for each leg of the course and tell him—

1. That he will not use a map.
2. To direct the driver and vehicle over the course recorded on the paper.
3. To record the letter or number at the end of each leg to the course.
4. To cover the course using steering marks.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Terrain association. Write the correct letter or number found at the end of each leg of the course.	_____	_____
2. Dead reckoning.	_____	_____
a. Move away from the vehicle.		
b. Set the azimuth on your compass and select a steering mark.		
c. Have the driver identify the steering mark.		
d. Write the correct letter or number found at the end of each leg of the course.		
e. Repeat performance measures 2a, b, and c for each leg of the course.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-25.26

FM 90-3

SUBJECT AREA 6: COMMUNICATE

113-600-2001

Communicate Via a Tactical Telephone

Conditions: Given a requirement to communicate a message via a tactical telephone and the following:

1. An unclassified message (approximately 25 words in length).
2. A tactical telephone (DNVT, TA-838/TT, TA-341()/TT, TA-1042A/U and TA-954/TT) installed in a point to point configuration and operating in a non-secure mode.
3. ACP 125 US Supp-1, and ACP 125(E).

Standards: Perform the task correctly; the message is communicated within 10 minutes with no errors.

Performance Steps

1. Initiate call (lift handset from cradle).
2. Verify distant end is ready to receive message.
3. Communicate message.
4. Verify message was received.
5. Disconnect call (return handset to cradle).

Evaluation Preparation: Setup: Provide the Soldier with the following:

1. Ensure the tactical telephone (DNVT, TA-838/TT, TA-341()/TT, TA-1042A/U and TA-954/TT) is installed and connected to the distant tactical telephone (DNVT, TA-838/TT, TA-341()/TT, TA-1042A/U and TA-954/TT).
2. Ensure both tactical telephones (DNVT, TA-838/TT, TA-341()/TT, TA-1042A/U and TA-954/TT) are set to operate in the point-to-point mode.
3. Have a prepared message (approximately twenty-five words in length) for the Soldier to communicate.

Brief Soldier: Tell the Soldier he/she must communicate the prepared message.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Initiated call (lifted handset from cradle).	___	___
2. Verified distant end is ready to receive message.	___	___
3. Communicated message.	___	___
4. Verified message was received.	___	___
5. Disconnected call (returned handset to cradle).	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

- ACP 125 US SUPP-1
- ACP 125(E)

Related

113-637-2001

Communicate Via a Tactical Radio in a Secure Net

Conditions: Given an operational radio set (SINCGARS, IHFR, VRC-12 series, and so forth), with an SOI, fill device with appropriate

fills, and fill cable, TM 11-5820-890-10-8, TM 11-5820-401-10-2, and an operational distant station.

Standards: Establish voice communications with the distant tactical radio/network, within 3 minutes.

Performance Steps

1. Place radio into operation.
 - a. Preset controls.
 - b. Turn radio set on.
 - c. Test radio transmission (RT) circuits.
2. Enter net.
 - a. Load appropriate fills.
 - b. Operate radio set.
3. Transmit message.
 - a. Establish secure communications.
 - b. Use prowords, call signs, frequencies, item numbers, and authentications.

Evaluation Preparation: Brief Soldier: Tell the Soldier that he or she will be required to establish voice communications with the distant tactical radio/network, within 3 minutes. The 3 minute time limit is only an administrative training requirement.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Placed radio into operation.	_____	_____
a. Preset controls.		
b. Turned radio set on.		
c. Tested radio transmission (RT) circuits.		
2. Entered net.	_____	_____
a. Loaded appropriate fills.		
b. Operated radio set.		

Performance Measures	GO	NO GO
3. Transmitted message.	_____	_____
a. Established secure communications.		
b. Used prowords, call signs, frequencies, item numbers, and authentications.		

References

Required

SOI
 TM 11-5820-401-10-2
 TM 11-5820-890-10-8

Related

FM 24-18
 FM 24-19

SUBJECT AREA 7: SEE

071-331-0804

Perform Surveillance Without the Aid of Electronic Devices

Conditions: Given an enemy force equipped with wheel and track vehicles within range of sight or hearing during day and night.

Standards: Identify 50 percent of the enemy Soldiers and vehicles within your field of view using proper surveillance techniques.

Performance Steps

1. Conduct a visual search in daylight:
 - a. Make a fast overall search of the entire area by raising your eyes quickly from just in front of your position to the maximum range you wish to observe (figure 071-331-0804-1). (For a wide area, subdivide and repeat the procedure.)

Performance Steps

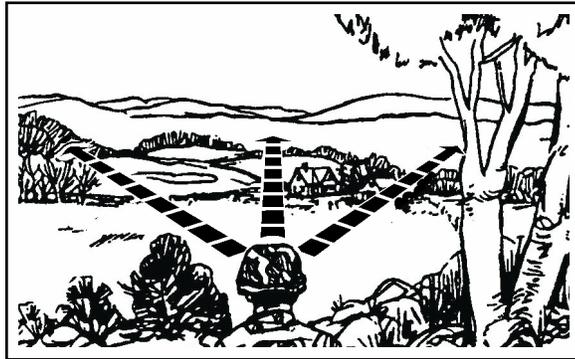


Figure 071-331-0804-1. Fast overall search

- b.** Observe by overlapping, 50-meter-deep strips of terrain in detail, alternately searching left to right, right to left (figure 071-331-0804-2).

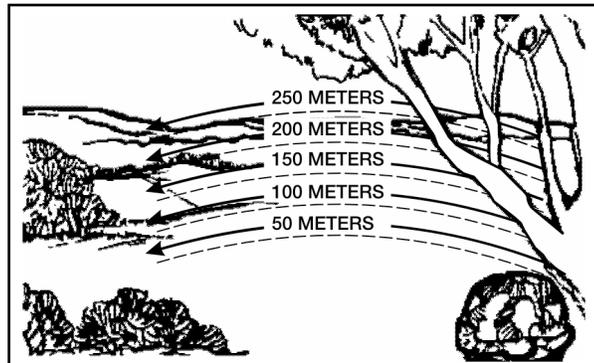


Figure 071-331-0804-2. Overlapping strip search

- c.** Search suspicious spots thoroughly.
- 2.** Identify improperly camouflaged personnel, equipment, and positions by looking for—
 - a.** Camouflage or foliage that does not match.

Performance Steps

- b. Dead foliage.
 - c. Outlines that should be obscured.
 - d. Bright colors or reflections that should be subdued.
 - e. Tracks, footpaths, and piles of dirt and litter.
 - f. Over-clearing of fields of fire and observation.
3. Conduct surveillance at night:
- a. Accustom your eyes to low light before night operations by doing one of the following:
 - (1) Stay in a secure, darkened area for 30 minutes such as an assembly area or initial rally point.
 - (2) Stay in a red-lighted area for 20 minutes, followed by 10 minutes in darkness.
 - (3) Wear red goggles for 20 minutes, followed by 10 minutes in darkness.
 - b. Scan search areas at night by moving your eyes in short, quick, irregular movements (figure 071-331-0804-3).

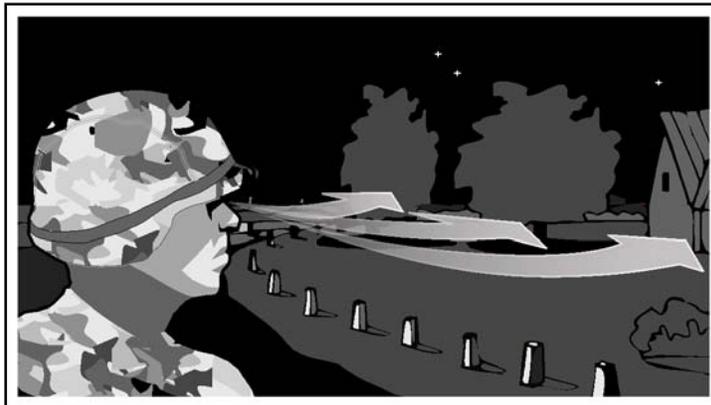


Figure 071-331-0804-3. Night vision search.

Performance Steps

- c. Use off-center vision to observe specific objects by looking about 6 to 10 degrees left, right, above, or below them (figure 071-331-0804-4).

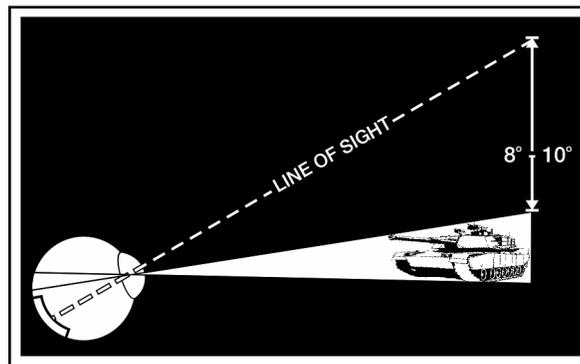


Figure 071-331-0804-4. Off-center vision

- d. Preserve night vision by—
 - (1) Closing both eyes when exposed to bright light.
 - (2) Closing one eye only and observing with other when surveillance must be maintained.

Note: Maintaining surveillance is one of the basic, critical combat skills. Because it is hard to tell if the above techniques are being used, frequent training is the only way to ensure mastery of this skill. This task is easy to integrate with other tactical training. In addition to the training in this task, frequent familiarization with the sounds of vehicles and weapons fire, with common smells, such as gasoline, campfires, and deodorants, in the field environment is recommended.

Evaluation Preparation: Setup: During a field exercise that involves camouflaging, have Soldiers conduct day and night surveillance. Simulate the following situations. Have each Soldier conduct surveillance at night and during the day before scoring him GO or NO GO:

1. Situation 1, day surveillance.
 - a. Improperly camouflaged enemy Soldiers in fighting positions.
 - b. Stationary, properly camouflaged vehicles.

2. Situation 2, night surveillance. Moving and stationary enemy Soldiers silhouetted on the skyline.

Brief Soldier: Tell the Soldier to conduct surveillance during the day and at night. During surveillance, the Soldier must locate 50 percent of the enemy Soldiers within field of view, and must differentiate between a tracked vehicle and a wheeled vehicle.

Performance Measures	GO	NO GO
1. Identify the following situations during daylight:	___	___
a. Fifty percent of improperly camouflaged enemy Soldiers in fighting positions.		
b. A camouflaged wheeled vehicle and a tracked vehicle.		
2. Identify the following situations during night surveillance:	___	___
a. Moving enemy Soldiers.		
b. Stationary enemy Soldiers.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required
FM 21-75

Related

071-730-0014

Identify Combat Vehicles

Conditions: Given combat vehicles.

Standards: Identify combat vehicles by actual nomenclature.

Performance Steps

1. Observe vehicle.
 2. Observe vehicle characteristics.
-

Performance Steps

3. Compare observed vehicle characteristics with known vehicle attributes. Four areas of characteristics are used to identify vehicles. Most armored vehicles have all four areas of characteristics, though not all vehicles do.

a. Track and suspension system: Many tanks can be recognized by their track and suspension systems. However, recognizing a vehicle by this feature alone is often difficult. Grass, dirt, terrain, dust, or other factors often obscure the tracks. To identify the track and suspension system, check to see whether it has support or return rollers. Few threat vehicles, except the T-10, T-64, T-72, BMD, BMP, SP-122, and SP-152, have either.

(1) Characteristics of most Warsaw Pact vehicles include a flat Christie suspension system, without support or return rollers, without torsion bars, and with unevenly spaced road wheels.

(2) Characteristics of most NATO vehicles include a suspended track, support or return rollers, torsion bars, shock absorbers, and evenly spaced road wheels.

b. Turret. Most turrets can be grouped into three categories:

(1) Big bulky turrets - older models.

(2) Well sloped turrets - newer models.

(3) Streamlined turrets - newer models.

c. Main gun. Armament varies from machine guns to large cannons. In turreted vehicles, normally the heaviest armament is in the turret. Look for the main gun, the main gun bore evacuator, and its relative location on the main gun.

(1) Types of main guns:

(a) Smooth main gun without bore evacuator or blast deflector.

(b) Main gun with bore evacuator.

(c) Main gun with bore evacuator and muzzle brake or blast deflector.

(2) Types of muzzles:

(a) Single baffle.

Performance Steps

(b) Double baffle.

(c) Multibaffle.

d. Cupolas. The cupola is a small, turret-like projection normally on top of the turret, which is used by the vehicle commander. It usually mounts a machine gun.

4. Eliminate any vehicle that lacks an observed, characteristic attribute.

5. Record actual vehicle.

Evaluation Preparation: Setup: At the test site, provide the Soldier(s) with all equipment and materials needed for testing. Before evaluating the Soldier(s), check the computer/GTA media being used to ensure that it is operational. If using the ROC-V, check to ensure the software has been loaded and set at the ready mode.

Brief Soldier: Read the following instructions to the Soldier(s): "At this time, you will be evaluated on your ability to identify combat vehicles. You must identify 28 out of 40 vehicles by actual nomenclature."

Performance Measures	GO	NO GO
1. Observe vehicle.	___	___
2. Observe vehicle characteristics.	___	___
3. Compare observed vehicle characteristics with known vehicle attributes.	___	___
4. Eliminate any vehicle that does not have an observed characteristic attribute.	___	___
5. Record vehicle.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

3-304

071-730-0014

Related

FM 3-23.24 (23-24)

11 October 2005

STP 21-1-SMCT

References

Required

Related

FM 3-90.1

GTA 17-02-011

GTA 17-02-013

SUBJECT AREA 8: HAND GRENADES AND LAND MINES

071-325-4401

Perform Safety Checks on Hand Grenades

Conditions: Given any standard issue US hand grenade with extra safety clips and load-carrying equipment (LCE).

Standards: Inspect the grenade for defects; identify and correct defects, if possible; report and turn in grenades that have defects you cannot correct; identify each grenade by type; and correctly attach grenades to your ammunition pouch.

Performance Steps

1. Identify the grenades listed in table 071-325-4401-1 by type, color, markings, and usage.

Table 071-325-4401-1. Hand grenades.

TYPE	COLOR/MARKINGS	USAGE
M67 Fragmentation	OD with yellow marking.	To disable or kill personnel. Will explode 4 to 5 seconds after the safety lever is released.
M18 Colored smoke	OD with color of smoke on top.	To signal personnel.
M34 WP Smoke	Light green, yellow band, red marking. "OLD MARKING" light gray, yellow band, yellow printing.	To signal personnel. Can produce casualties up to 35 meters away.
AN-M8 HC Smoke	Light green, black marking, white top.	To screen, "provide concealment."
AN-M14 TH3 Incendiary	Light red with black lettering.	To destroy equipment and start fires.
ABC-M25A2 CS Riot Control	Gray, red band(s) and markings.	To control riots or disable individuals without serious injury.

2. Inspect hand grenades for defects. Correct defects, if possible.
 - a. Check the fuse to ensure it is screwed tightly on the body of the grenade.
 - b. Check the safety clip to ensure that—
 - (1) It is present.
 - (2) It is in the correct position.

Performance Steps

- c. Replace safety clips (only if missing).
 - (1) Slide the clip onto the handle.
 - (2) Attach the loop portion of the clip around the fuse.
 - (3) Snap the clip end around the safety lever.
- d. Check the safety pin.
 - (1) Ensure the clip is in the correct position. If not, carefully push it into place while holding down the safety lever.
 - (2) Ensure the clip is straight (not bent). If it is bent, carefully bend it back in position.
- e. Check the safety ring for cracking. Reject any grenade that has a cracked safety ring.
- f. Check the grenade for dirt. Wipe any dirty or grimy grenade clean with a cloth.
- g. Turn in any defective grenade.

WARNING

Do not—

- 1. Try to modify a grenade.
- 2. Try to defuse a grenade.
- 3. Try to remove a grenade found upside down in its packing container.
- 4. Handle a dud grenade.
- 5. Attach grenade(s) to your clothing or equipment by the pull ring.

- 3. Attach the grenade to an ammunition pouch.
 - a. Attach the grenade to the new style pouch.
 - (1) Slip the grenade safety lever over the small strap sewn on each side of the ammunition pouch.
 - (2) Push the grenade down until it firmly seats against the side of the pouch.

Performance Steps

- (3) Ensure the pull ring points downward.
- (4) Wrap the carrying strap around the fuse, safety lever, and pull ring.
- b. Attach the grenade to the old style pouch.
 - (1) Slip the safety lever over the strap sewn on each side of the pouch. Push down the grenade until it firmly seats against the side of the pouch.
 - (2) Ensure the pull ring points downward, and wrap the carrying strap around the fuse, safety lever, and pull ring.
- 4. Check grenades occasionally while moving to ensure that the fuse is tight and the strap is secure.

Evaluation Preparation: Setup: Provide the following six inert hand grenades: M67 fragmentation grenade, M18 colored smoke grenade, M34 WP smoke grenade, AN-M8 HC smoke grenade, AN-M14 TH3 incendiary grenade, and the ABC-M25A2 CS riot-control grenade. The Soldier being tested is not required to identify the grenades' alphanumeric nomenclature. Secure a number of inert hand grenades that contain at least two of the following defects:

1. The fuse is unscrewed from the body of the grenade.
2. A loose safety clip.
3. A partially removed and or bent safety pin.
4. A cracked safety pin.
5. A broken safety lever.
6. A dirty grenade. Ensure that you know the defects present in each grenade before testing the Soldier.

Brief Soldier: Tell the Soldier to identify each hand grenade; to inspect the grenade; and to correct the defects where possible. If the Soldier discovers a defect that cannot be corrected, the Soldier must tell you the defect and that the grenade should be turned in. Tell the Soldier to attach a grenade to his or her ammunition pouch.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Identify each of the following grenades:	_____	_____
a. Fragmentation grenade.		
b. Riot-control grenade.		
c. White phosphorus (WP) grenade.		
d. White smoke (HC) grenade.		
e. Colored smoke grenade.		
f. Incendiary grenade.		
2. Inspect the grenade.	_____	_____
a. Check to ensure the fuse is screwed in tightly on the body of the grenade.		
b. Check the position of the safety clip.		
c. Check the safety pin. If wrongly positioned, carefully push it into place while securely holding the lever down. If bent, carefully bend it back into position.		
d. Check the safety ring for cracking; reject any grenade that has a cracked safety ring.		
e. Check for and wipe any dirt off the grenade.		
f. Turn in defective grenades.		
3. Attach the grenade to the ammunition pouch.	_____	_____
a. Check the fuse for tightness.		
b. Slip the grenade's safety lever over the strap on the side of the ammunition pouch, with the pull ring or safety pin pointing downward.		
c. Wrap the carrying strap around the neck of the fuse, the safety lever, and the pull ring; and snap the carrying strap to the carrying sleeve.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

TM 9-1330-200-12

071-325-4407

Employ Hand Grenades

Conditions: Given load-carrying equipment (LCE) and an offensive (concussion), riot-control, smoke, or incendiary grenade with a time-delay fuse.

Standards: Throw the hand grenade to hit a target; avoid exposing, and thus endangering yourself, for more than 5 seconds at a time.

Performance Steps

1. Position your body in a comfortable and natural position.
 - a. Make sure you are in a covered position.
 - b. Look at the target and judge the distance to the target.
 - c. Align your body with the target as if you were going to throw a football or baseball.

Note: This is body-target alignment.

2. Grip the hand grenade as follows:
 - a. Hold the safety lever down with your thumb.
 - b. Keep the pull ring and safety clip (if present) free, and face it towards your throwing hand.
3. Arm the grenade.
 - a. Remove the safety clip.

Note: Hold the safety lever down with your thumb. This keeps the pull ring and safety clip free and facing your non-throwing hand.

- b. Pull the pin.

Performance Steps

4. Confirm your body-target alignment.
 - a. TARGET-Troops in the open. EFFECTIVE ENGAGEMENT—Within 5 meters of center.
 - b. TARGET-Troops with overhead cover. EFFECTIVE ENGAGEMENT—Inside the enclosure.
 - c. TARGET-Troops dug in without overhead cover. EFFECTIVE ENGAGEMENT—Inside the position.
5. Toss the grenade using an overhand movement. Release the grenade when it comes into your field of vision ensuring that you—
 - a. Keep your eyes on the target.
 - b. Follow through your throwing motion.
 - c. Take cover, exposing yourself to fire for no more than 5 seconds.
6. Return to the position behind cover until the grenade detonates, and avoid exposing yourself for more than 5 seconds at a time.
7. Detonate the grenade within the effective bursting radius of the target.

Evaluation Preparation: Setup: At the test site, provide the Soldier with 5 dummy grenades to engage the targets. Provide targets of troops in the open, troops with overhead cover, or troops dug in without overhead cover.

Brief Soldier: Tell the Soldier to fasten 4 of the grenades to the ammunition pouches on his or her LCE and to hold one in his hand. Tell the Soldier that at least 1 grenade must detonate within the effective bursting radius of the target. Tell the Soldier not to expose himself for more than 5 seconds at a time.

Performance Measures	GO	NO GO
1. Position your body in a covered position, aligned as if to throw a football or a baseball.	___	___
2. Grip the hand grenade, hold the safety lever down with your thumb, keep the pull ring free, and face your throwing hand.	___	___
3. Arm the grenade by removing the safety clip and the pulled ring.	___	___
4. Confirm your body's target alignment by looking at the target.	___	___
5. Throw the grenade overhand while keeping your eyes on the target.	___	___
6. Return to the position behind cover until the grenade detonates, and avoid exposing your body for more than 5 seconds at a time.	___	___
7. Detonate the grenade within the effective bursting radius of the target.	___	___
Note: You will not be scored a NO GO for a target until you have thrown all five grenades.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

TM 9-1330-200-12

Related

071-325-4425

Employ an M18A1 Claymore Mine

Conditions: Given an M18A1 Claymore mine in a bandoleer, an M57 firing device, an M40 test set, and a firing wire with blasting cap, all packed in an M7 bandoleer; a sandbag; and two wooden stakes.

3-312

071-325-4425

11 October 2005

STP 21-1-SMCT

Standards:

1. Conduct a circuit test of the firing device, with the blasting cap secured under a sandbag.
2. Install the M18A1 claymore mine, so that—
 - a. The front of the mine centers on a kill zone.
 - b. The firing device is 16 meters to the rear or side of the emplaced mine and is fired from a covered position.
 - c. The mine, firing wire, and firing device are camouflaged.
 - d. The installation is confirmed by conducting a final circuit test.
3. Fire the mine by actuating the firing device handle with a firm, quick squeeze, when the target is in the kill zone.

Performance Steps

1. Inventory and account for all accessories in the M18A1 Claymore mine bandoleer (figure 071-325-4425-1).

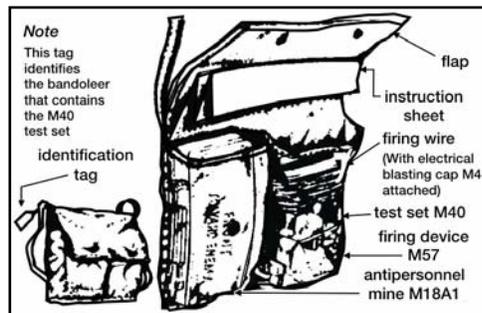


Figure 071-325-4425-1. Components of the M18A1 Claymore mine

WARNING

During testing and installation, keep the M57 firing device in your possession to prevent someone else from accidentally firing it.

Performance Steps

2. Conduct a circuit test at the firing point (figure 071-325-4425-2).

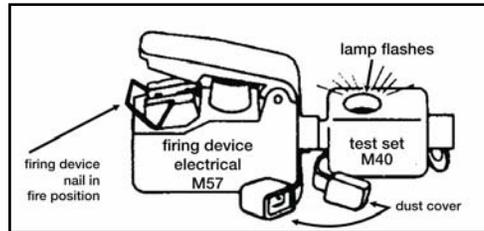


Figure 071-325-4425-2. Circuit test of the M57 firing device and M40 test set

- a. Remove the electrical wire and accessories while leaving the mine in the bandoleer.
- b. Remove the dust cover from the connector of the M57 firing device and from the female connector of the M40 test set.
- c. Plug the test set into the firing device.
- d. Position the firing device bail to the FIRE position.
- e. Activate the handle of the firing device with a firm, quick squeeze, observing the flash of light through the window of the test set.

Note: The flashing light indicates that the M57 firing device and M40 test set are functioning correctly.

- f. Remove the shorting plug cover from the connector of the firing wire and from the end of the test set.
- g. Plug the connector of the firing wire into the test set (figure 071-325-4425-3).
- h. Place the blasting cap under a sandbag, behind a tree, or in a hole in the ground to protect the person performing the circuit check should the blasting cap detonate.

Performance Steps

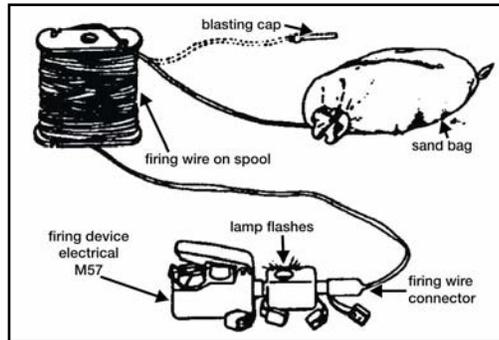


Figure 071-325-4425-3. Circuit test of the M18A1 Claymore mine firing system

i. Place the M57 firing device bail in the FIRE position and actuate the firing handle.

Note: The lamp in the window of the M40 test set should flash.

j. Place the firing device on SAFE; remove the firing device and the M40 test set.

k. Place the shorting plug cover on the firing wire.

3. Install the M18A1 Claymore mine.

a. Tie the shorting plug end of the firing wire to a fixed object such as a stake or tree at the firing position (figure 071-325-4425-4).

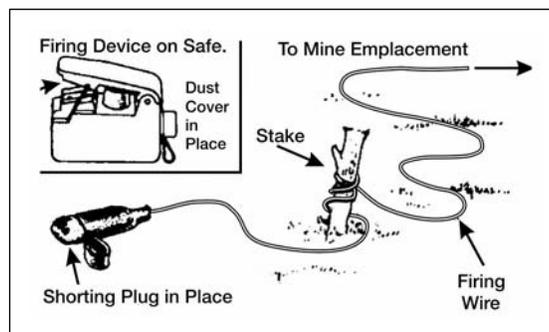


Figure 071-325-4425-4. Firing wire secured

Performance Steps

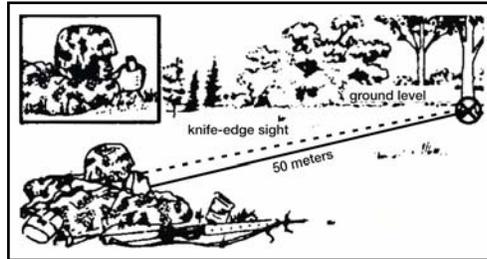


Figure 071-325-4425-6. Aiming knife-edge sight

e. Position one eye about 6 inches to the rear of the sight.

(1) On a knife-edge sight, align the two edges of the sight with the aiming point (figures 071-325-4425-7 and 071-325-4425-8).

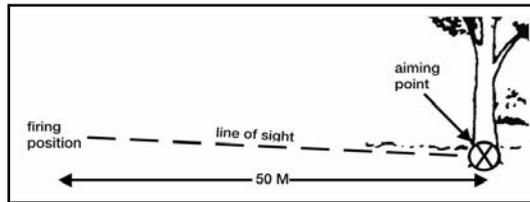


Figure 071-325-4425-7. Aiming knife-edge sight (continued)

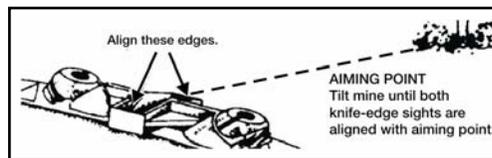


Figure 071-325-4425-8. Aiming knife-edge sight (continued)

(2) On a slit-type peep sight, align the groove of the sight in line with the aiming point that is 2.5 meters (8 feet) off the ground (figures 071-325-4425-9 and 071-325-4425-10).

Performance Steps

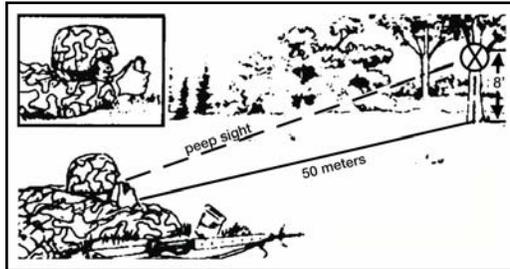


Figure 071-325-4425-9. Aiming slit-type peep sight

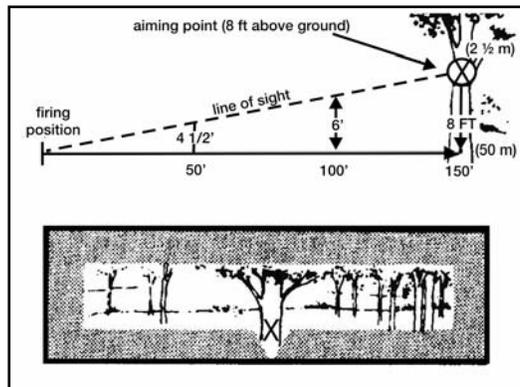


Figure 071-325-4425-10. Aiming slit-type peep sight (continued)

Note: The aiming point should be in the center of the desired area of coverage, with the bottom edge of the peep sight parallel to the ground that is to be covered with the fragment spray.

5. Arm the mine.

- a. Secure the firing wire about 1 meter to the rear of the mine, so the mine will remain aligned if the firing wire is disturbed.
- b. Unscrew one of the shipping plug priming adapters from the mine.

Performance Steps

- c. Slide the slotted end of the shipping plug priming adapter onto the firing wire of the blasting cap between the crimped connections and the blasting cap.
- d. Pull the excess wire through the slotted end of the adapter until the top of the blasting cap is firmly seated in the bottom portion of the shipping plug priming adapter (figure 071-325-4425-11).

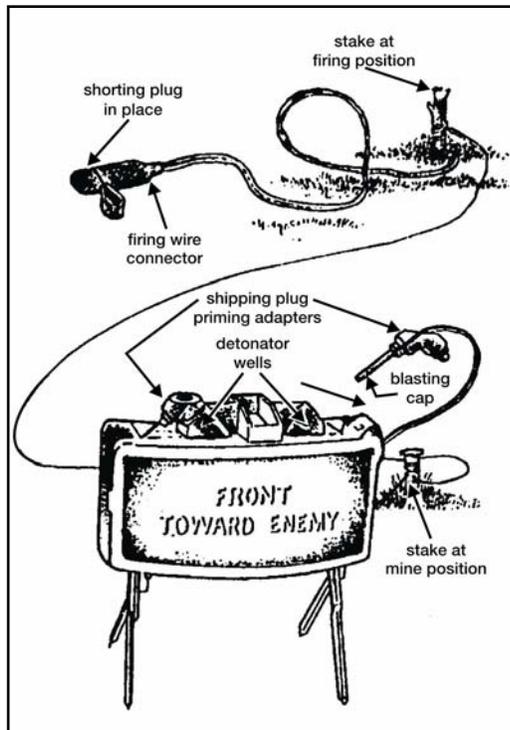


Figure 071-325-4425-11. Arming the mine

- e. Screw the adapter, with the blasting cap, into the detonator well.

Performance Steps

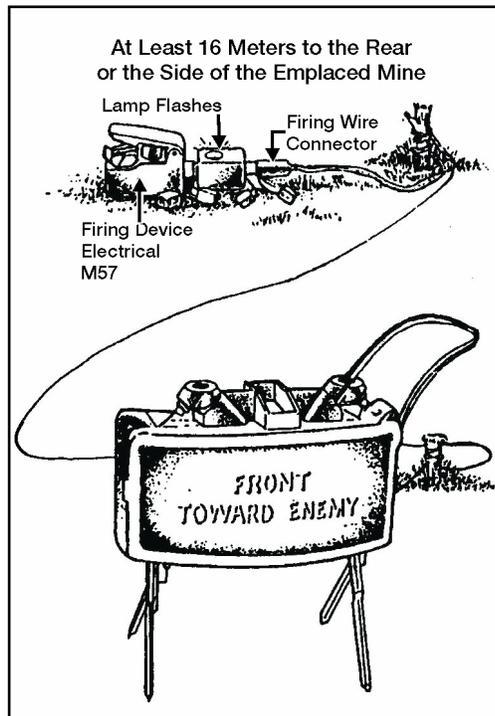


Figure 071-325-4425-12. Testing the circuit

a. To ensure that the mine will function properly after installation, test the firing circuit to check for any break in the wire that might have occurred during the installation. Any friendly troops within 250 meters to the front and sides or 100 meters to the rear of the mine must be under cover.

b. When retesting the circuit on a Claymore mine with the blasting cap inserted in the detonation well, remain behind cover or in a fighting position.

Performance Steps

9. Fire the mine.
 - a. Remove the dust cover from the firing device and firing wire.
 - b. Connect the firing wire to the firing device.
 - c. Position the firing device safety bail in the FIRE position (figure 071-325-4425-13).

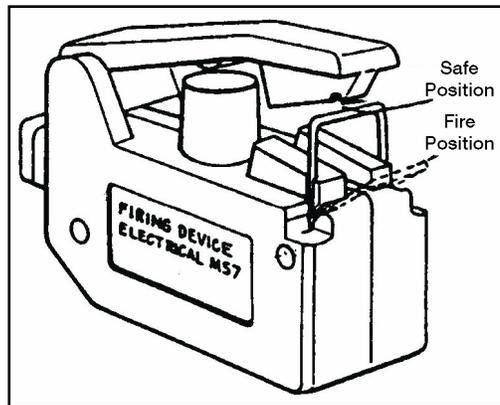


Figure 071-325-4425-13. Firing device in the FIRE position

- d. Actuate the firing device handle with a firm, quick squeeze.
- e. Assume a prone position behind cover.

Note: The mine is most effective when employed against targets 20 to 30 meters in front of it.

Evaluation Preparation: Setup: During training, use only inert blasting caps and mines.

At the test site, place one M7 bandoleer containing an inert M18A1 Claymore mine, an M57 firing device, and an M40 test set. Make sure each mine is complete and serviceable.

Place one wooden stake in the ground at the test position and another at the mine-emplacment point. The distance between the emplacement point and firing point must be no less than 16 meters. The stake at the aiming point should be painted red or some other distinguishable color.

Once the Soldier has emplaced the mine and completed the circuit test, assume a prone position and visually confirm that the mine is correctly aimed. To make this easier, place stakes 1 meter on each side of the aiming point stake. The height of the stakes should not exceed 1 foot above the ground.

During the circuit test, do not attempt to observe the flash on the M40 test set. Doing so could interfere with the Soldier's performance.

Throughout the evaluation, if the Soldier says that he or she cannot see the flashing light, tell him or her, "Continue with the test."

Brief Soldier: Tell the Soldier to perform a circuit check on the firing wire and then install the mine. (Camouflaging and burying the wire are not covered in this evaluation.)

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Inventory the M18A1 Claymore mine bandoleer, and ensure all components are present and in serviceable condition.	_____	_____
2. Conduct a circuit test.	_____	_____
a. Remove the electrical wire and accessories while leaving the mine in the bandoleer.		
b. Remove the dust cover from the connector of the M57 firing device and from the female connector of the M40 test set.		
c. Plug the test set into the firing device.		
d. Position the firing device bail to the FIRE position.		
e. Actuate the firing handle; observe the flash in the test set window.		
f. Remove the shorting plug cover from the connector of the firing wire and from the end of the test set.		
Note: Place the sandbag over the blasting cap anytime before you plug the test set into the firing wire connector.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
g. Plug the test set into the firing wire connector.		
h. Place the M57 firing device bail in the FIRE position and actuate the firing handle.		
i. Place the firing device on SAFE; remove the M57 firing device and M40 test set.		
j. Place the shorting plug cover on the firing wire.		
3. Install the M18A1 Claymore mine.	_____	_____
a. Tie the shorting plug end of the firing wire to fixed object, such as a stake or tree, at the firing position.		
b. Place the bandoleer on your shoulder.		
c. Unroll the wire to the mine emplacement site.		
4. Aim the mine.	_____	_____
5. Arm the mine.	_____	_____
a. Secure the wire at the mine site.		
b. Insert the blasting cap in either detonator well.		
c. Lock the blasting cap in place with the shipping plug priming adapter.		
d. Recheck the lay of the mine.		
Note: If you try to put the blasting cap through the hole in the shipping plug priming adapter, you get a NO GO on step 3.		
6. Camouflage the mine.	_____	_____
7. Bury the firing wire from the mine back to the firing position.	_____	_____

Performance Measures	<u>GO</u>	<u>NO GO</u>
8. Recheck the circuit.	_____	_____
a. Remove the electrical wire and accessories while leaving the mine in the bandoleer.		
b. Remove the dust cover from the connector of the M57 firing device and from the female connector of the M40 test set.		
c. Plug the test set into the firing device.		
d. Position the firing device bail to the FIRE position.		
e. Actuate the firing handle.		
f. Observe the flash through the window on the test set.		
g. Place a sandbag over the blasting cap.		
h. Plug the test set into the firing wire connector.		
i. Activate the firing handle and observe the window in the test set for a flash.		
j. Place the firing device on SAFE.		
k. Replace the shorting plug cover on the firing wire.		
9. Fire the M18A1 Claymore mine.	_____	_____
a. Remove the dust cover from the firing device and firing wire.		
b. Connect the firing wire to the firing device.		
c. Position the firing device safety bail in the FIRE position.		
d. Actuate the firing device handle with a firm, quick squeeze.		

Performance Measures	GO	NO GO
e. Assume a prone position behind cover.		
Note: You may assume the prone position anytime before placing the firing device on FIRE.		
f. Complete steps 9a through 9e in sequence.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 23-23

Related

SUBJECT AREA 9: M16-SERIES RIFLE

071-008-0007

Engage Targets With an M16-Series Rifle Using an AN/PAS-13-Series Thermal Weapon Sight

Conditions: Given an M16-series rifle with a mounted and zeroed AN/PAS-13 series thermal weapon sight (TWS), loaded magazines with 5.56-mm ammunition, threat targets, and a requirement to engage such targets.

Standards: Detect and determine range to targets; fire the M16-series rifle to engage targets in the assigned sector of fire; and apply correct marksmanship fundamentals and target engagement techniques so that each target is hit or suppressed.

Performance Steps

1. Place TWS into operation.
2. Assume an appropriate firing position based on the situation. The firing position should protect you from enemy fire and observation, yet allow you to place effective fire on targets in your sector of fire.
 - a. Foxhole. Advantages: best when available. Disadvantages: no overhead cover.

Performance Steps

b. Prone. Advantages: steady, easy to assume, low silhouette, and easily adapted to use of cover and support. Disadvantages: effectiveness can be limited by terrain and vegetation irregularities.

c. Prone supported. Advantages: steadier than prone; other advantages the same as prone. Disadvantages: same as prone.

d. Kneeling. Advantages: used when firing from behind something; used on ground that is level or gently sloping upward. Disadvantage: exposed to small arms fire.

e. Kneeling supported. Advantages: steadier than kneeling; other advantages the same as kneeling. Disadvantages: exposure to small arms fire.

f. Standing. Advantages: used in assault to surprise targets or when other positions are not appropriate. Disadvantages: unstable and allows more exposure to small arms fire.

3. Identify targets in your designated sector of fire.

4. Load the weapon.

5. Acquire targets using TWS reticule. Use the small dots shown in a horizontal row to the right of the reticule center as aiming points for M16-series rifles.

a. Personnel: Place the target on the horizontal line and match its height with one of the vertical lines. Measurement is made from the horizontal line to the top (or bottom) of each vertical line for the range indicated.

b. Tank: When viewed from the side, place the left edge of tank at the left side of the horizontal line. Read the range to the tank from the scale at the right edge of the tank. When viewed from front or rear, use one-half the indicated range value (since width of the tank is approximately half the length of the tank).

6. Fire on target(s) until they are destroyed or until you receive an order to cease fire.

Evaluation Preparation: Setup: Evaluate this task on a live-fire range. Provide the Soldier with the equipment and materials in task condition statement.

Brief Soldier: Brief the Soldier on range safety in accordance with installation SOPs. Tell the Soldier to assume the prone supported or supported fighting position. Tell the Soldier you are evaluating his/her ability to place effective fire on targets using the M16-series rifle equipped with the AN/PAS-13 thermal weapon sight.

Performance Measures	GO	NO GO
1. Placed TWS into operation.	___	___
2. Assumed an appropriate firing position based on the situation.	___	___
3. Identified targets in the designated sector of fire.	___	___
4. Loaded the weapon.	___	___
5. Acquired targets using TWS reticle.	___	___
6. Fired on target(s) until they were destroyed or until the order to cease fire was received.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 21-75

TM 11-5855-309-12&P

071-311-2025

Maintain an M16-Series Rifle

Conditions: Given an M16-series rifle, magazine, 5.56-mm ammunition, small arms maintenance equipment case, and lubricating instructions. You have the following cleaning materials: swabs, pipe cleaner; and cleaner, lubricant and preservative (CLP).

You also have lubricating oil, semifluid, weapons; lubricating oil, arctic weapons; and rifle bore cleaner.

Standards: Clean, inspect, and lubricate the rifle and magazine so that they function correctly; clean and inspect the ammunition; turn in any unserviceable ammunition.

Performance Steps

1. Clear the rifle.
 - a. Remove the magazine from the rifle, if there is one present.
 - b. Cock the rifle.
 - c. Turn the selector to SAFE (figure 071-311-2025-1).

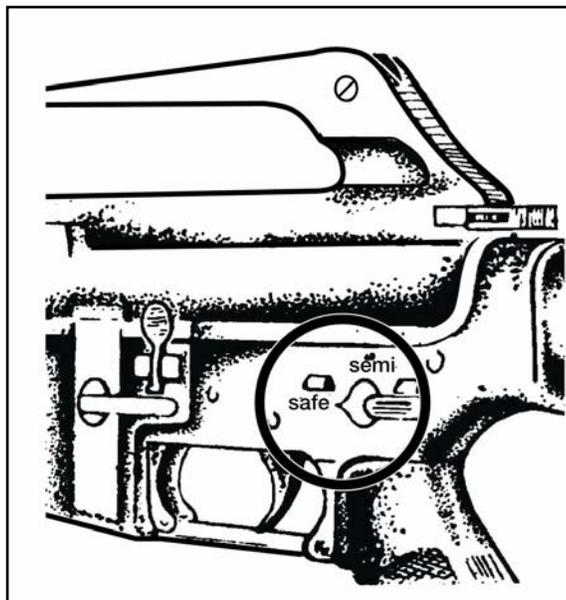


Figure 071-311-2025-1. Selector lever on safe

Note: The selector cannot be turned to SAFE unless the rifle is cocked.

- d. Lock the bolt open (figure 071-311-2025-2).

Performance Steps

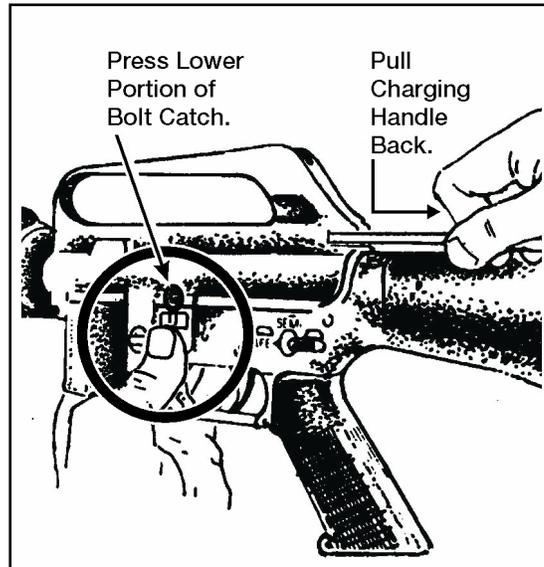


Figure 071-311-2025-2. Locking the bolt open

- (1) Pull the charging handle rearward.
 - (2) Press the bottom of the bolt catch.
 - (3) Allow the bolt to move forward until it engages the bolt catch.
 - (4) Return the charging handle to the forward position.
 - (5) Ensure the selector is on SAFE.
- e. Inspect the receiver and chamber to ensure they do not contain ammunition (figure 071-311-2025-3).

Performance Steps

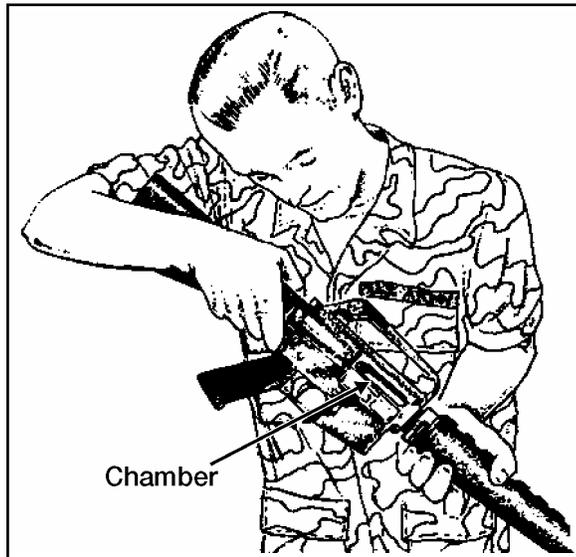


Figure 071-311-2025-3. Inspecting the chamber

- f.** Allow the bolt to go forward by pressing the upper portion of the bolt catch (figure 071-311-2025-4).

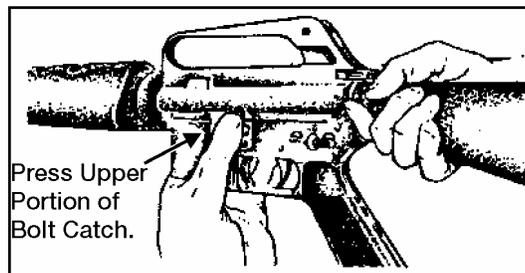


Figure 071-311-2025-4. Releasing the bolt

- 2.** Disassemble the rifle.
 - a.** Verify the rifle is clear.
 - b.** Remove the sling.

Performance Steps

- c. Remove the handguards only if you can see dirt or corrosion through the vent holes (figure 071-311-2025-5). Handguards on the M16A2 are interchangeable because they are identical.

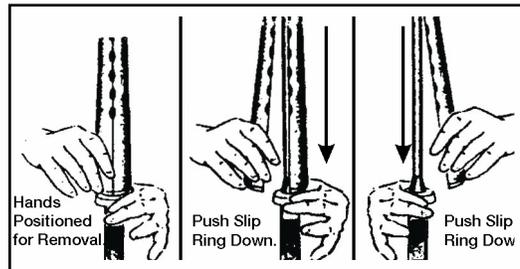


Figure 071-311-2025-5. Removing the handguards

WARNING

Avoid bending or denting the gas tube while removing the handguards.

- d. Push the takedown pin as far as it will go and pivot the upper receiver from the lower receiver (figure 071-311-2025-6).

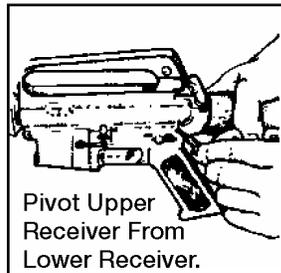


Figure 071-311-2025-6. Pushing the takedown pin

- e. Push the receiver pivot pin (figure 071-311-2025-7).

Performance Steps

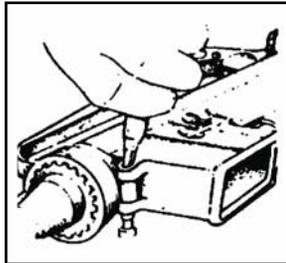


Figure 071-311-2025-7. Pushing the receiver pivot pin

- f.** Separate the upper and lower receivers (figure 071-311-2025-8).

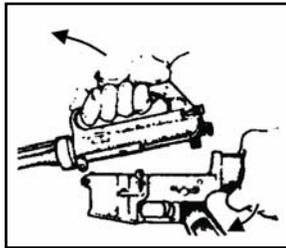


Figure 071-311-2025-8. Separating the upper and lower receivers

- g.** Pull back the charging handle (figure 071-311-2025-9).

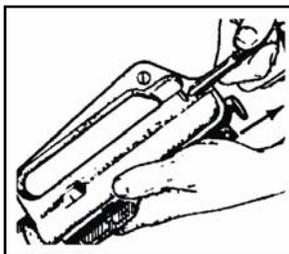


Figure 071-311-2025-9. Pulling the charging handle

- h.** Remove the bolt carrier and bolt (figure 071-311-2025-10).

Performance Steps

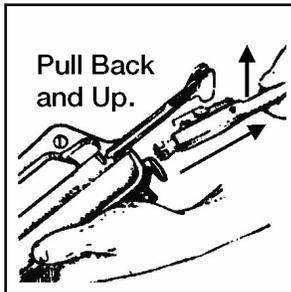


Figure 071-311-2025-10. Removing the bolt carrier and bolt

- i. Remove the charging handle (figure 071-311-2025-11).

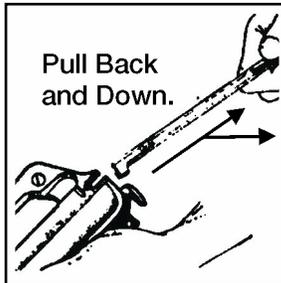


Figure 071-311-2025-11. Removing the charging handle

- j. Remove the firing pin retaining pin (figure 071-311-2025-12).

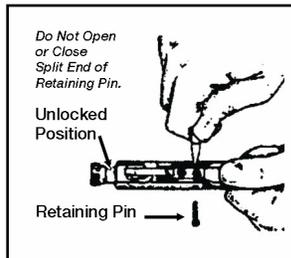


Figure 071-311-2025-12. Removing the firing pin retaining pin

Performance Steps

- k.** Put the bolt assembly in the locked position by pushing in the bolt (figure 071-311-2025-13).

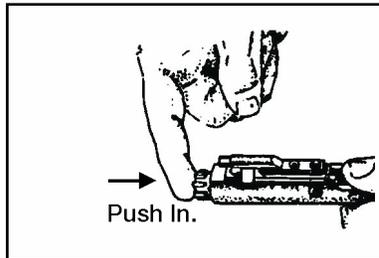


Figure 071-311-2025-13. Bolt in the locked position

- l.** Remove the firing pin by allowing it to drop out of the rear of the bolt carrier into your hand (figure 071-311-2025-14).

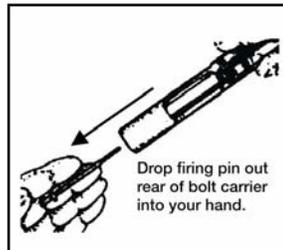


Figure 071-311-2025-14. Removing the firing pin

- m.** Remove the bolt cam pin by turning it one-quarter turn and lifting it out (figure 071-311-2025-15).
-

Performance Steps

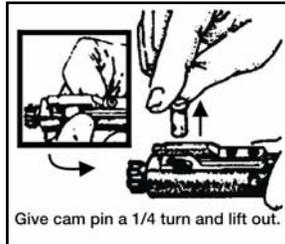


Figure 071-311-2025-15. Removing the bolt cam pin

- n. Pull the bolt assembly from the carrier (figure 071-311-2025-16).

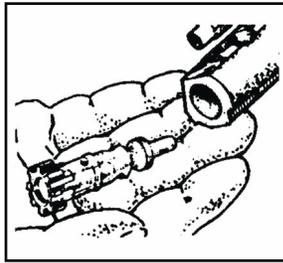


Figure 071-311-2025-16. Removing the bolt

Note: Perform steps o through r only when the parts are dirty or damaged.

- o. Remove the extractor pin by pushing it out with the firing pin (use care not to damage the firing pin) (figure 071-311-2025-17).

Performance Steps

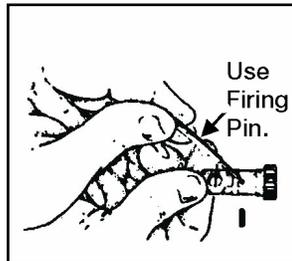


Figure 071-311-2025-17. Removing the extractor pin

- p. Lift out the extractor and spring (figure 071-311-2025-18), taking care so that the spring does not separate from the extractor.

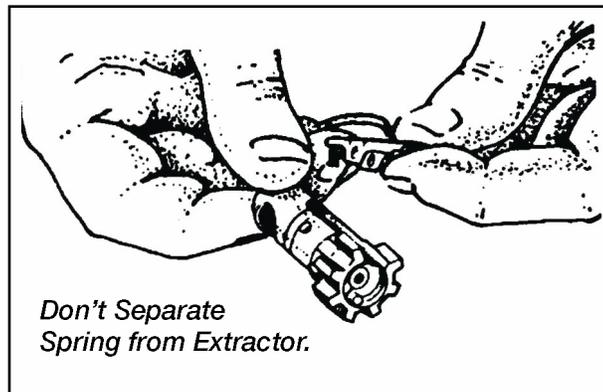


Figure 071-311-2025-18. Removing the extractor and spring

Note: Press the top of the extractor to check spring function.

- q. Release the buffer by pressing the buffer and depressing the retainer.

- r. Remove the buffer and action spring separating the buffer from the spring (figures 071-311-2025-19 and 20).

Performance Steps

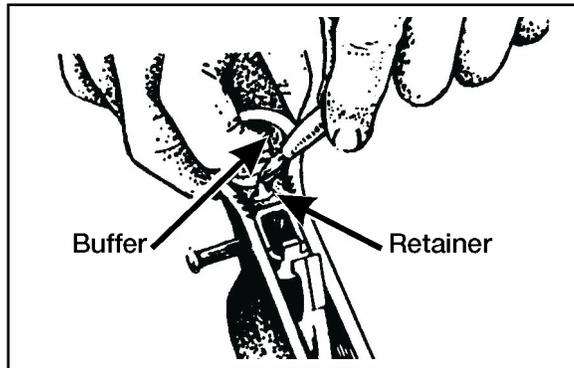


Figure 071-311-2025-19. Separating the buffer and spring

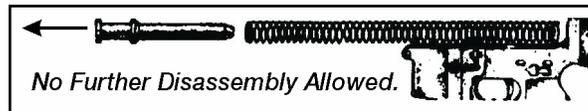


Figure 071-311-2025-20. Separating the buffer and spring (continued)

s. Do not disassemble the rifle further.

3. Clean the rifle by removing carbon buildup and lubricating according to lubrication instructions. Make sure you remove any excessive oil from the bore before firing.

Note: After firing ball or blank ammunition, clean the weapon one time only with CLP. Under all but the coldest arctic conditions, use only CLP to lubricate the rifle.

a. Clean the upper and lower receiver groups using CLP to remove powder fouling in the upper receiver (figure 071-311-2025-21).

Performance Steps

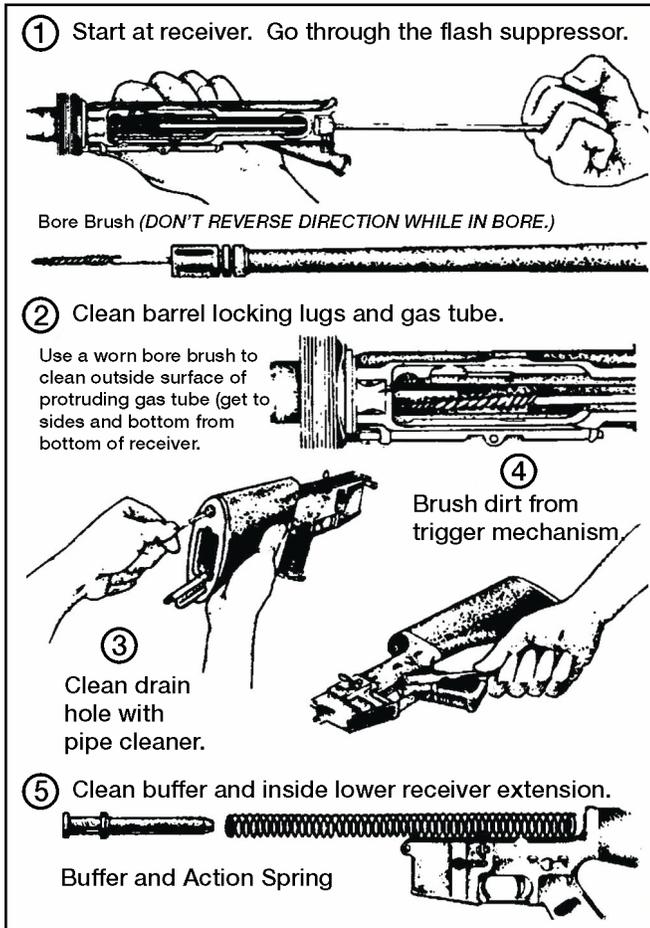


Figure 071-311-2025-21. Cleaning the receivers

b. Clean the bolt carrier group, wiping the following parts with swabs and other parts from the small-arms maintenance equipment case (figure 071-311-2025-22).

Performance Steps

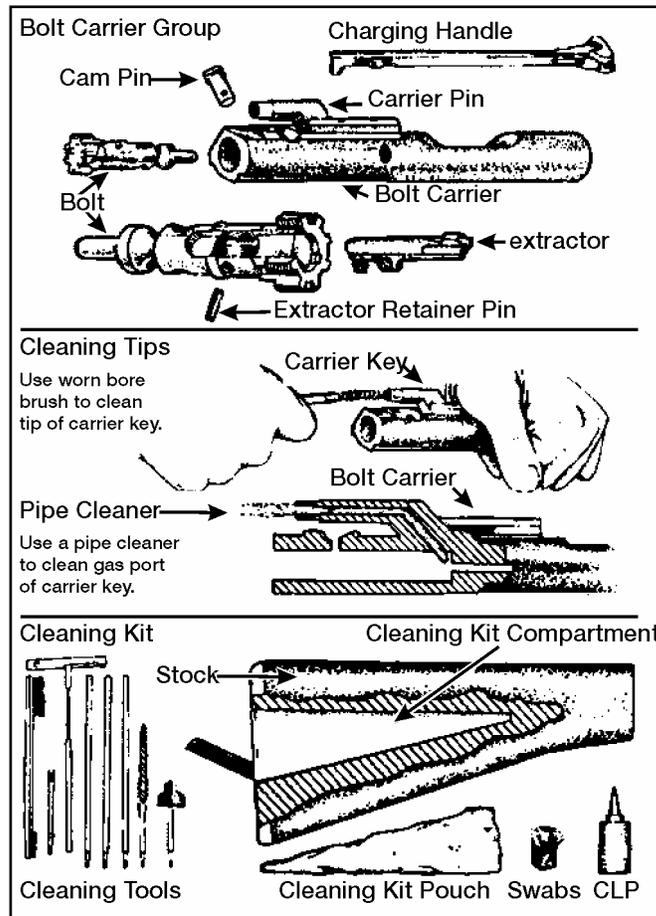


Figure 071-311-2025-22. Cleaning the bolt carrier group

- (1) The outer and inner surfaces of the bolt carrier.
- (2) The carrier key.
- (3) The firing pin recess and firing pin.
- (4) The firing pin hole with a pipe cleaner.
- (5) The carbon deposits and dirt from the locking lugs.

Performance Steps

(6) The areas behind the bolt ring and under the lip of the extractor.

c. Clean the following rifle parts lightly lubricating with CLP (See figure 071-311-2025-22).

- (1) Lugs in the barrel extension, bore, and chamber.
 - (2) Bolt carrier.
 - (3) Slide cam pin area.
 - (4) Piston rings.
 - (5) Outside the bolt body.
 - (6) Inside the bolt carrier key.
 - (7) Firing pin and firing pin recess.
 - (8) Outside surface of the protruding gas tube with a worn bore brush.
 - (9) Buffer.
 - (10) Action spring.
 - (11) Inner surfaces of the lower receiver extension.
 - (12) Inside the lower receiver.
 - (13) All other components.
-

Performance Steps

4. Inspect disassembled rifle bolt assembly (figure 071-311-2025-23).

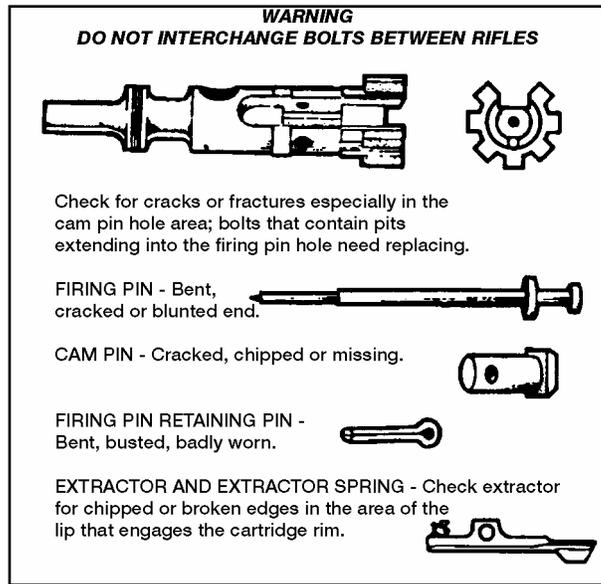


Figure 071-311-2025-23. Inspecting the bolt assembly

- a. Identify defective or missing components.
- b. Report deficiencies to the armorer.

WARNING
Do not interchange bolts between rifles.

Performance Steps

5. Assemble the rifle.
 - a. Insert the spring and buffer (figure 071-311-2025-24).

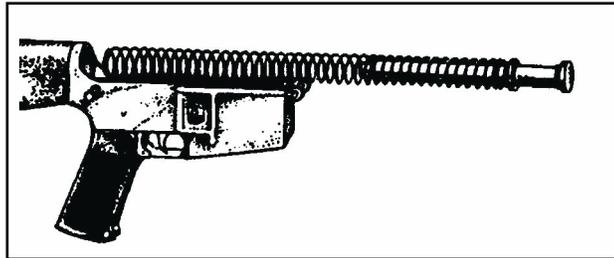


Figure 071-311-2025-24. Placing the spring and buffer

- b. Insert the extractor and spring (figure 071-311-2025-25).

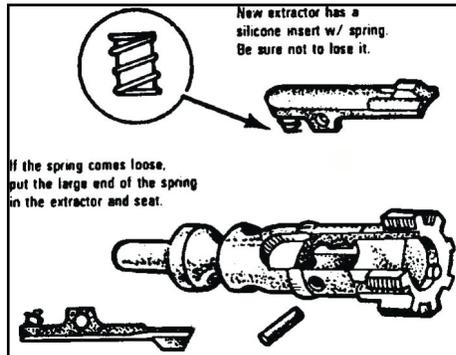


Figure 071-311-2025-25. Placing the extractor and spring

Performance Steps

- c. Push the extractor pin in (figure 071-311-2025-26).

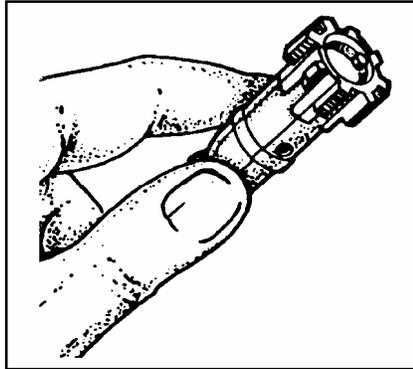


Figure 071-311-2025-26. Holding the extractor pin in

- d. Slide the bolt into the carrier until the bolt cam pin hole in both the bolt carrier and the bolt are aligned (figure 071-311-2025-27).

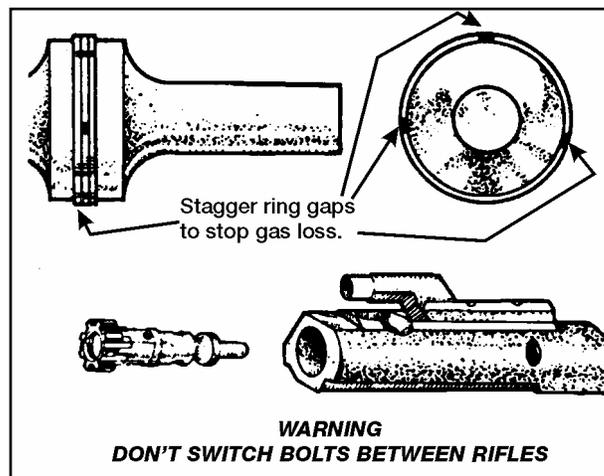


Figure 071-311-2025-27. Placing the bolt in the carrier

Performance Steps

- e. Replace the bolt cam pin by putting it in the bolt carrier, turning it one-quarter turn (figure 071-311-2025-28).

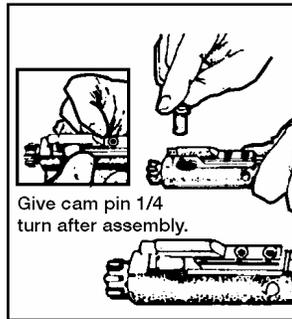


Figure 071-311-2025-28. Replacing the bolt cam pin

- f. Drop in the firing pin to seat it (figure 071-311-2025-29).

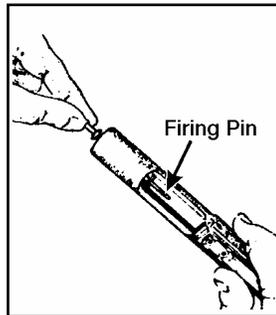


Figure 071-311-2025-29. Placing the firing pin

Performance Steps

- g.** Put the firing pin retaining pin in the bolt carrier to seat it (figure 071-311-2025-30).

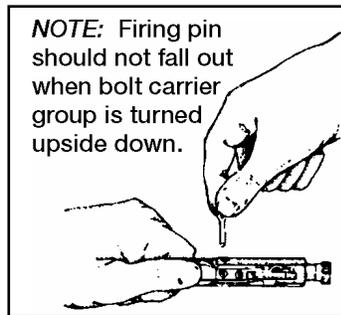


Figure 071-311-2025-30. Placing the firing pin retaining pin

- h.** Pull the bolt back (figure 071-311-2025-31).

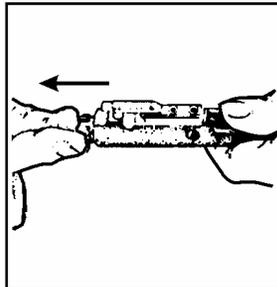


Figure 071-311-2025-31. Pulling back on the bolt

Performance Steps

- i. Place the charging handle by engaging it, then pushing the charging handle part of the way in (figure 071-311-2025-32).

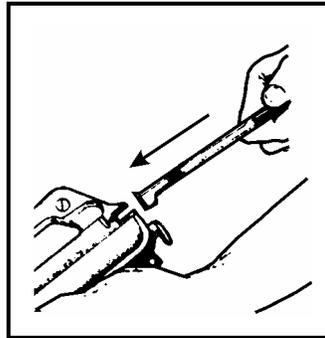


Figure 071-311-2025-32. Placing the charging handle in the receiver

- j. Slide the bolt carrier into the upper receiver (figure 071-311-2025-33).

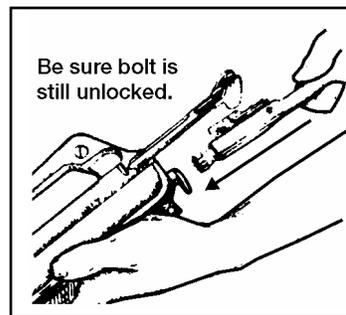


Figure 071-311-2025-33. Placing the bolt carrier

Performance Steps

- k. Push the charging handle and bolt carrier together in the upper receiver (figure 071-311-2025-34).

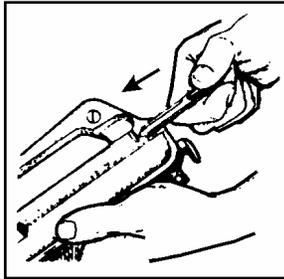


Figure 071-311-2025-34. Placing the charging handle and the bolt carrier

- l. Join the upper and lower receiver (figure 071-311-2025-35).

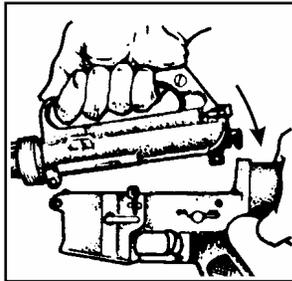


Figure 071-311-2025-35. Joining the upper and lower receivers

- m. Engage the receiver pivot pin (figure 071-311-2025-36).

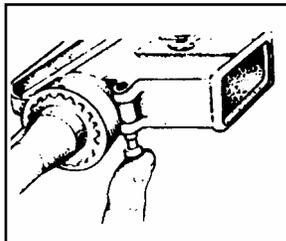


Figure 071-311-2025-36. Engaging the receiver pivot pin

Performance Steps

CAUTION

The selector lever must be on SAFE before closing the upper receiver.

- n. Close the upper and lower receiver groups, seating the takedown pin and ensuring the selector switch is on SAFE (figure 071-311-2025-37).

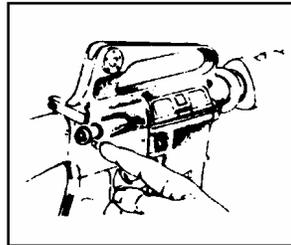


Figure 071-311-2025-37. Seating the takedown pin

- o. Put the handguards in place (figure 071-311-2025-38).

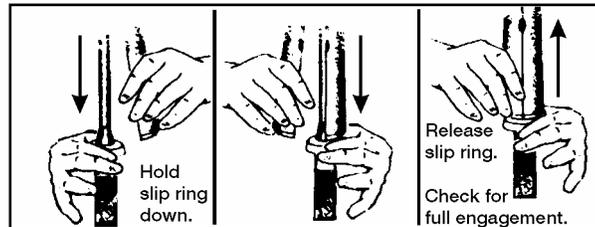


Figure 071-311-2025-38. Placing the handguards

- p. Replacing the sling (figure 071-311-2025-39).

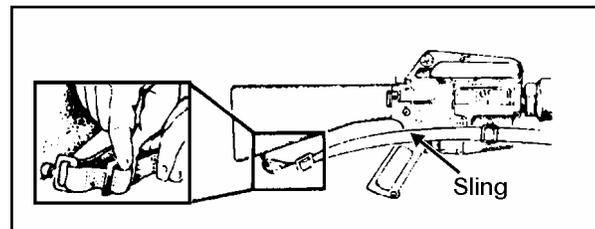


Figure 071-311-2025-39. Placing the sling

Performance Steps

- 6.** Disassemble the magazine without removing the follower from the spring.
 - a.** Release the base catch (figure 071-311-2025-40).

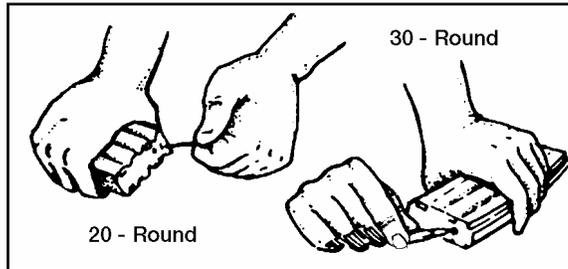


Figure 071-311-2025-40. Releasing the base catch of the magazine

- b.** Remove the base (figure 071-311-2025-41).



Figure 071-311-2025-41. Removing the base of the magazine

- c.** Remove the spring and follower by jiggling them (figure 071-311-2025-42).

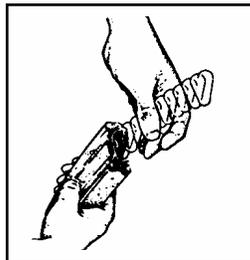


Figure 071-311-2025-42. Removing the magazine spring and the follower

Performance Steps

7. Clean the magazine.
 - a. Wipe the dirt from the tube, spring, and follower.
 - b. Lubricate the spring lightly.
8. Assemble the magazine.
 - a. Jiggle the spring and follower together to install them in the magazine.
 - b. Slide the base under all four tabs, making sure that the print is on the outside.
9. Clean the ammunition using a clean, dry cloth to wipe dirt and foreign matter from the ammunition. Do not coat with oil.

Evaluation Preparation: Setup: Have Soldiers use their own rifles and magazines. Provide swabs, CLP, pipe cleaners, and, if available, preservative lubricant (PL), special lubricating oil, and rifle bore cleaner (RBC). (The Soldier should not select the PL, special lubricating oil, or RBC for use.) Also, provide several rounds of dummy ammunition, if available.

Brief Soldier: Tell the Soldier to clean, inspect, and lubricate the rifle and magazine following normal safety practices.

Performance Measures	GO	NO GO
1. Cleared the rifle before disassembly. <ol style="list-style-type: none">a. Removed the magazine from the rifle.b. Cocked the rifle.c. Turned the selector to SAFE.d. Locked the bolt open.e. Checked the receiver and chamber to ensure they did not contain ammunition.f. Allowed the bolt to go forward by pressing the upper portion of the bolt catch.	<input type="checkbox"/>	<input type="checkbox"/>

Performance Measures	<u>GO</u>	<u>NO GO</u>
2. Disassembled the rifle.	_____	_____
a. Verified the rifle was clear.		
b. Removed the sling.		
c. Removed the handguards if you can see dirt or corrosion through the vent holes.		
d. Pushed the takedown pin as far as it will go and pivoted the upper receiver from the lower receiver.		
e. Pushed the receiver pivot pin.		
f. Separated the upper and lower receivers.		
g. Pulled back the charging handle.		
h. Removed the bolt carrier and bolt.		
i. Removed the charging handle.		
j. Removed the firing pin retaining pin.		
k. Put the bolt assembly in the locked position by pushing in the bolt.		
l. Removed the firing pin by allowing it to drop out of the rear of the bolt carrier into your hand.		
m. Removed the bolt cam pin by turning it one-quarter turn and lifting it out.		
n. Pulled the bolt assembly from the carrier.		
o. Removed the extractor pin by pushing it out with the firing pin.		
p. Lifted out the extractor and spring, taking care so that the spring did not separate from the extractor.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
q. Released the buffer by pressing the buffer and depressing the retainer.		
r. Removed the buffer and action spring separating the buffer from the spring.		
3. Cleaned the rifle using the correct materials.	_____	_____
a. Cleaned the upper and lower receiver group.		
b. Cleaned the bolt carrier group.		
c. Cleaned all of the other rifle parts and lubricated the rifle with CLP.		
4. Inspected for unserviceable parts.	_____	_____
a. Identified the defective or missing components.		
b. Reported deficiencies to the armorer.		
5. Assembled the rifle.	_____	_____
a. Inserted the spring and buffer.		
b. Inserted the extractor and spring.		
c. Pushed the extractor pin in.		
d. Slid the bolt into the carrier until the bolt cam pin hole in both the bolt carrier and the bolt were aligned.		
e. Replaced the bolt cam pin by putting it in the bolt carrier, turning it one-quarter turn.		
f. Dropped in the firing pin to seat it.		
g. Put the firing pin retaining pin in the bolt carrier.		
h. Pulled the bolt back.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
i. Placed the charging handle by engaging it, then pushing the charging handle part of the way in.		
j. Slid the bolt carrier into the upper receiver.		
k. Pushed the charging handle and bolt carrier together in the upper receiver.		
l. Joined the upper and lower receiver.		
m. Engaged the receiver pivot pin.		
n. Closed the upper and lower receiver groups.		
o. Put the handguards in place.		
p. Replaced the sling.		
6. Disassembled the magazine without removing the follower from the spring.	_____	_____
a. Released the base catch.		
b. Removed the base.		
c. Removed the spring and follower.		
7. Cleaned the magazine.	_____	_____
a. Wiped the dirt from the tube, spring and follower.		
b. Lubricated the spring lightly.		
8. Assembled the magazine.	_____	_____
a. Jiggled the spring and follower together to install them in the magazine.		
b. Slid the base under all four tabs, ensured the printed portion was on the outside.		
9. Cleaned the ammunition.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance

measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

GTA 07-01-039

TM 9-1005-249-10

Related

FM 3-22.9

071-311-2027

Load an M16-Series Rifle

Conditions: Given an unloaded M16-series rifle with a magazine loaded with ammunition.

Standards: Load an M16A1 rifle in the semiautomatic and automatic modes; or load an M16A2 or M16A4 rifle in both the semiautomatic and burst modes. Ensure that a round is chambered in training weapon of choice and that the selector is returned to the SAFE position.

Performance Steps

1. Determine the mode in which the rifle will be operated by using table 071-311-2027-1.

Table 071-311-2027-1. M16 family operating modes.

ONLY A1	BURST EQP WEAPONS	OPERATING MODE	SELECTOR POSITION	RIFLE WILL
X	X	Safe	SAFE	Not fire.
X	X	Semiautomatic	SEMI	Fire 1 round each time the trigger is pulled.
X		Automatic	AUTO	Fire as long as the trigger is held down or the ammo lasts.
	X	Burst	BURST	Fire a 3-round burst each time the trigger is pulled.

2. Prepare the M16A1, M16A2, or M16A4 rifle for semiautomatic fire and the M16A1 rifle for automatic fire.

Performance Steps

- a. Point the rifle muzzle in a safe direction.
- b. Cock the rifle (this also opens the bolt).
- c. Return the charging handle to the forward position.
- d. Place the selector lever on SAFE (figure 071-311-2027-1).

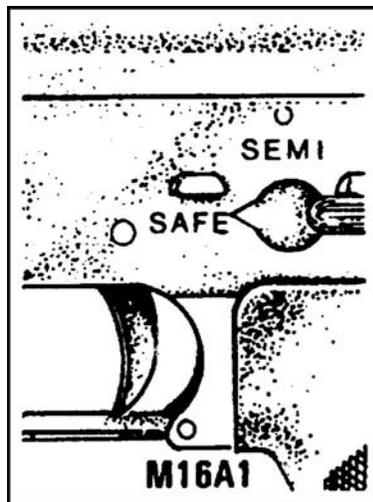


Figure 071-311-2027-1. Selector lever on SAFE

- e. Check the chamber to ensure it is clear (figure 071-311-2027-2).

Performance Steps

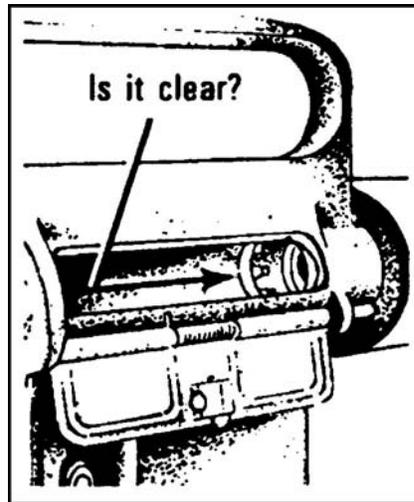


Figure 071-311-2027-2. Inspecting the chamber

- f. Insert the magazine, pushing it upward until the magazine catch engages and holds the magazine (figure 071-311-2027-3).

Performance Steps

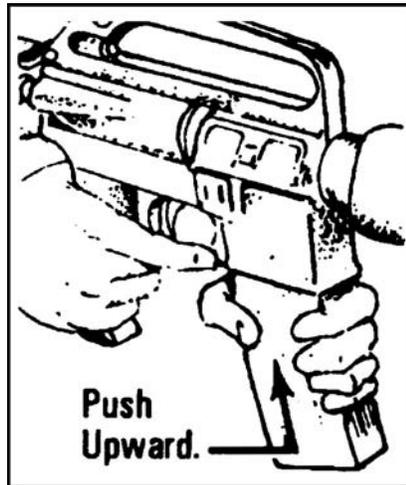


Figure 071-311-2027-3. Magazine inserted

g. Tap upward on the bottom of the magazine to ensure it is seated.

Note: The magazine may be loaded with the bolt assembly open or closed.

3. Prepare the M16A2 or M16A4 rifle for burst fire.

- a. Point the rifle muzzle in a safe direction.
- b. Cock the rifle (this also opens the bolt).
- c. Return the charging handle to the forward position.
- d. Place the selector lever in the BURST position (figure 071-311-2027-4).

Performance Steps

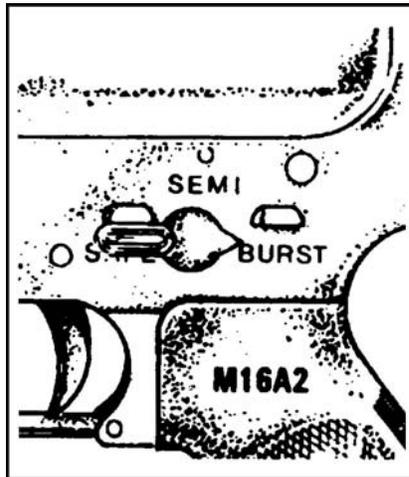


Figure 071-311-2027-4. Selector lever on BURST

- e. Pull the trigger, holding it in the rear position.
 - f. Pull the charging handle to the rear and release it (figure 071-311-2027-5).
-

Performance Steps

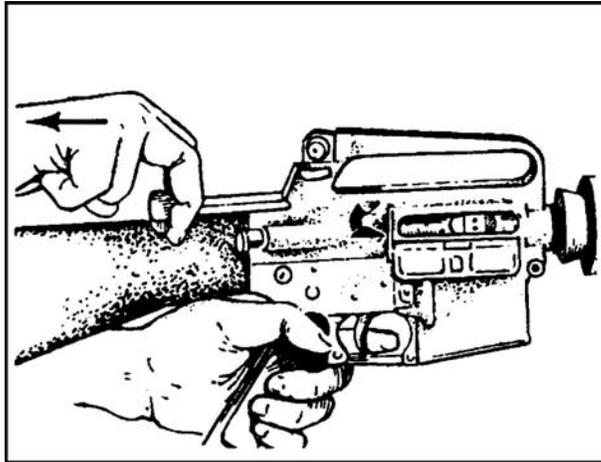


Figure 071-311-2027-5. Charging handle

- g. Repeat step 3f three times.
- h. Pull the charging handle to the rear, holding it in place.
- i. Release the trigger.
- j. Push in on the bottom portion of the bolt catch, locking the bolt in the rear position (figure 071-311-2027-6).

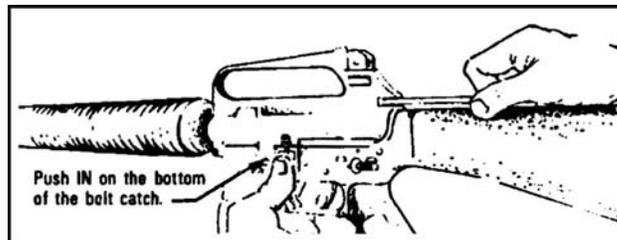


Figure 071-311-2027-6. Bolt locked to the rear

- k. Slide the charging handle all the way forward.
- l. Place the selector on SAFE.

Performance Steps

m. Insert the magazine, pushing it upward until the magazine catch engages and holds the magazine (figure 071-311-2027-3).

n. Tap upward on the bottom of the magazine to ensure it is seated.

4. Chamber a round.

a. With the bolt open:

(1) Depress the upper portion of the bolt catch to release the bolt (figure 071-311-2027-7).

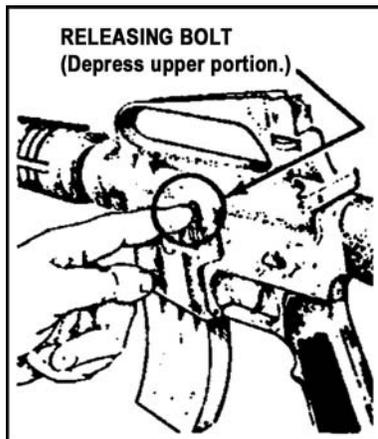


Figure 071-311-2027-7. Bolt catch

(2) Tap the forward assist to ensure that the bolt is fully forward and locked (figure 071-311-2027-8).

Performance Steps

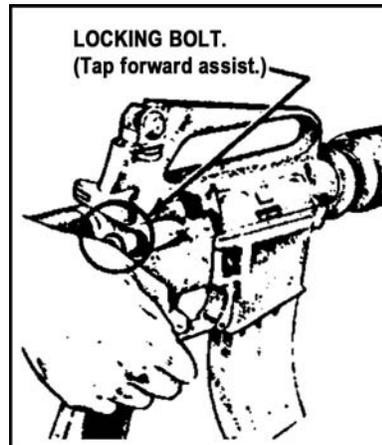


Figure071-311-2027-8. Forward assist

WARNING

The rifle is now loaded. Ensure it is pointed in a safe direction.

(3) Place selector lever on SAFE, closing the ejection port cover if the rifle is not to be fired immediately.

b. With the bolt closed:

(1) Pull the charging handle to the rear as far as it will go.

(2) Release the charging handle. Do not ride the charging handle; allow it to return on its own.

(3) Tap the forward assist to ensure the bolt is fully forward and locked.

WARNING

The rifle is now loaded. Ensure it is pointed in a safe direction.

(4) Place the selector lever on SAFE, closing the ejection port cover if the rifle is not to be fired immediately.

Evaluation Preparation: Setup: Have Soldiers use their assigned rifles and magazines. Provide blank or dummy ammunition when evaluating this task.

Brief Soldier: Tell the Soldier to load the rifle using the steps appropriate for the model being used. An M16A2 rifle must be loaded in both the semiautomatic and BURST modes.

Performance Measures	GO	NO GO
Note: Perform steps 1 and 3 through 5 for the M16A1 rifle and steps 1 through 5 for the M16A2 or M16A4 rifle.		
1. Prepared the M16A1, M16A2, or M16A4 rifle for semiautomatic fire and the M16A1 rifle for automatic fire; ensured the chamber was cleared and the magazine was seated.	_____	_____
2. Prepared the M16A2 or M16A4 rifle for burst fire; ensured the magazine was seated.	_____	_____
3. Chambered a round; ensured the bolt was fully forward and locked.	_____	_____
4. Pointed the rifle in a safe direction.	_____	_____
5. Placed the selector lever in the SAFE position.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

TM 9-1005-249-10

TM 9-1005-319-10

071-311-2028

Unload an M16-Series Rifle

Conditions: Given a loaded M16-series rifle from which you must remove the ammunition.

Standards: Clear the rifle, remove all ammunition, and secure the rifle in the SAFE mode.

Performance Steps

1. Point the rifle muzzle in a safe direction.
2. Remove the magazine from the rifle.
3. Place the selector lever on SAFE.
4. Lock the bolt open.
 - a. Pull the charging handle rearward.
 - b. Press the bottom of the bolt catch.
 - c. Return the charging handle to the forward position.
5. Remove any ammunition from the receiver and chamber.
6. Press the upper portion of the bolt catch, allowing the bolt to go forward.
7. Pull the trigger to release the pressure on the firing pin spring.

Evaluation Preparation: Setup: At a test site, provide an M16-series rifle loaded with dummy ammunition. (You can also evaluate the Soldier using their individual rifle if loaded. Do not require the Soldier to pull the trigger after releasing the bolt.)

Brief Soldier: Tell the Soldier to unload the rifle.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Pointed the rifle muzzle in a safe direction.	_____	_____
2. Removed the magazine from the rifle.	_____	_____
3. Placed the selector lever on SAFE.	_____	_____
4. Locked the bolt open.	_____	_____
a. Pulled the charging handle rearward.		
b. Pressed the bottom of the bolt catch.		
c. Returned the charging handle to the forward position.		
5. Removed any ammunition from the receiver and chamber.	_____	_____

Performance Measures	GO	NO GO
6. Pressed the upper portion of the bolt catch, allowing the bolt to go forward.	_____	_____
7. Pulled the trigger to release the pressure on the firing pin spring.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

TM 9-1005-249-10

071-315-2308

Engage Targets With an M16-Series Rifle Using a Night Vision Sight AN/PVS-4

Conditions: During darkness, given an M16-series rifle with a mounted and zeroed AN/PVS-4 night vision sight; one silhouette target between 50 and 100 meters, one at 150 meters, and one between 200 and 250 meters; and one magazine with 18 rounds of ammunition.

Standards: Fire all 18 rounds and hit the targets at least nine times.

- At least 5 rounds must hit the 150-meter target.
- At least 2 rounds must hit the 50- to 100-meter target.
- At least two rounds must hit the 200- to 250-meter target.

Performance Steps

Note: Ensure the AN/PVS-4 has the proper sighting reticle (figure 071-315-2308-1).

1. Place the sight into operation.
 2. Use the sight reticle. When used with the rifle, the AN/PVS-4 sight reticle consists of two parts (figure 071-315-2308-1).
-

Performance Steps

- a. Use the upper part of the reticle (range scale) to determine range to the target.
- b. Use the lower part of the reticle to aim the weapon.

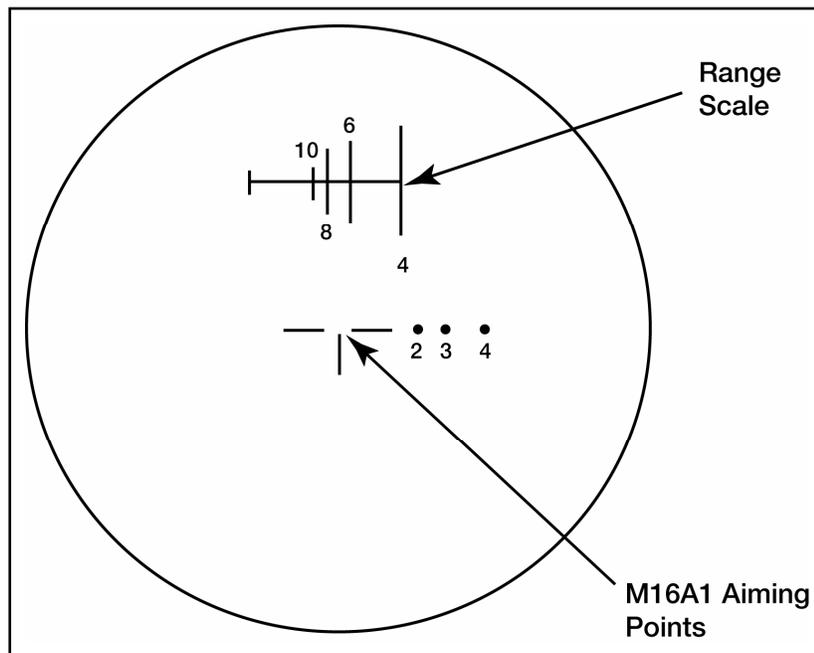


Figure 071-315-2308-1. Sight reticle

Note: Ensure the AN/PVS-4 is mounted to the rifle using the rifle mounting adapter and not the M203 mounting bracket.

3. Determine range to target.

a. The vertical lines on the range scale tell how far away a 6-foot tall person is.

(1) Place the target on the horizontal line and match it with one of the vertical lines (A, figure 071-315-2308-2).

(2) Read the number at the bottom or top of the vertical line. That is the distance in hundreds of meters to the target.

Performance Steps

Note: If the figure is the same height as the vertical line, then that is the distance in hundreds of meters to the target. If the figure is same height as the vertical line above and below the horizontal line, then the distance is half the number at the top or bottom of that line (B, figure 071-315-2308-2).

b. The horizontal line of the range scale indicates the range (in hundreds of meters) of a 20-foot target such as a tank or large truck viewed from the side.

(1) Place the left edge of the vehicle at the left side of the horizontal line (figure 071-315-2308-3).

(2) Read the range to the tank from the scale at the right edge of the tank. As shown in A, figure 071-315-2308-3, the range to the vehicle is 1,000 meters.

Note: When viewed from the front or rear, the vehicle width is about half the length. Read the placement of the vehicle width as about half the length. Read the placement of the vehicle width on the range scale as half the range scale value. As shown in B, figure 071-315-2308-3, the range to the vehicle is 400 meters.

4. Engage targets using the sight reticle.

a. The rifle aiming point for ranges out to 250 meters is the center of the three straight lines (zero aiming point, figure 071-315-2308-4). The top of the vertical line is the aiming point for 400 meters, and the bottom of the line is the aiming point for 600 meters.

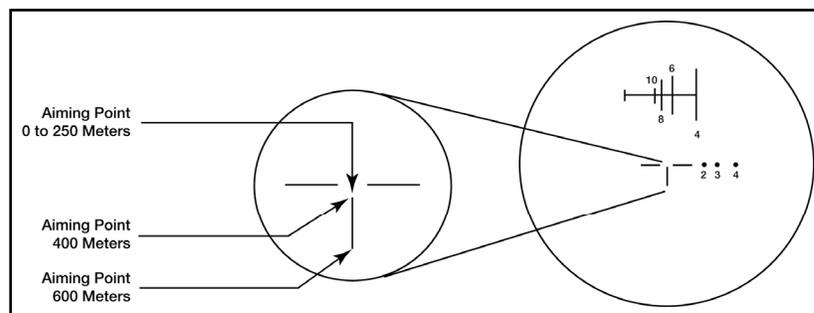


Figure 4. Zero aiming point

Performance Steps

b. Locate the target, estimate the range, and place the proper aiming point on the target.

WARNING

To prevent eye injury from weapon recoil, attach the eye guard to the sight before firing the weapon.

c. Fire the weapon using correct marksmanship procedures.

Note: When firing the rifle, disregard the three dots to the right of the aiming point; you would only need these if you were firing the M203.

Evaluation Preparation: Setup: At a live-fire range, provide the equipment and materials given in the task condition statement. Turn off the sight after evaluation.

Brief Soldier: Tell the Soldier to engage all targets with a minimum of 9 hits out of 18 rounds.

Performance Measures	GO	NO GO
1. Place the AN/PVS-4 into operation.	___	___
2. Engage targets.	___	___
a. Engage the 150-meter target with at least five hits.		
b. Engage the 50- to 100-meter target with at least two hits.		
c. Engage the 200- to 250-meter target with at least two hits.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

TM 11-5855-213-10

3-368

071-315-2308

11 October 2005

STP 21-1-SMCT

SUBJECT AREA 10: M240B MACHINE GUN

071-000-0005

Prepare a Range Card for a Machine Gun

Conditions: During daylight, in a defensive fighting position, given a tripod-mounted machine gun with a traversing and elevation (T&E) mechanism; an assigned primary sector of fire with recognizable targets (either an FPL [final protective line] or PDF [principal direction of fire]); a secondary sector of fire with recognizable targets; blank DA Forms 5517-R, Standard Range Card; a pencil; a lensatic compass; and a map of your assigned sector of fire.

Standards: Prepare a range card for your position in duplicate; sketch the terrain in your assigned sector of fire; locate and sketch magnetic north, using the appropriate symbol; and sketch sector limits, the gun symbol, an FPL or a PDF, and dead space. In the DATA SECTION write the weapon, the unit, and other data; sketch terrain features that offer likely targets and number them in priority; and record the range and direction to and the elevation and description of each target.

Performance Steps

1. Show the gunner where to place fires on designated targets during limited visibility conditions such as night, fog, or smoke.
2. Provide the gunner conducting a relief in place with all the information he needs to respond immediately to enemy action.
3. Provide the platoon leader and company commander with information they need to plan fires.
4. Write all necessary information on the range card. Prepare a duplicate range card for the platoon leader. Include all sketches, symbols (figure 071-000-0005-1) and data on both copies.

Performance Steps

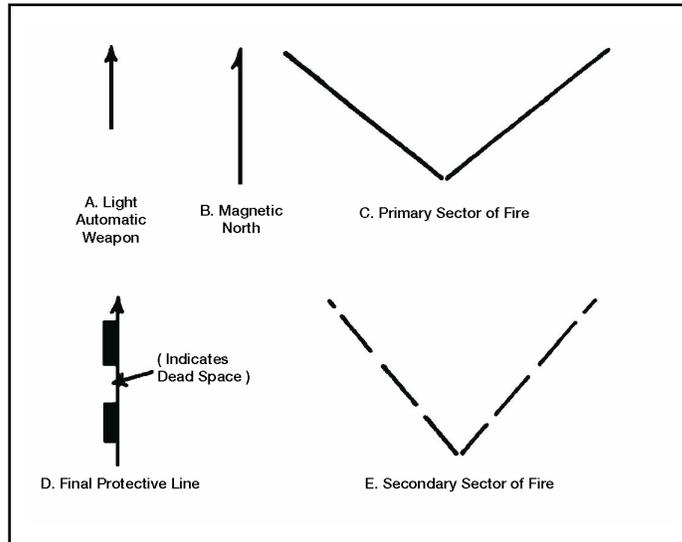


Figure 071-000-0005-1. Symbols

- a. On the range card, roughly sketch the terrain in front of the position.
 - (1) Center the machine gun position at the bottom of the sketch.
 - (2) Include any prominent natural and man-made features that a target could use to take cover.
 - b. Using the lensatic compass, determine magnetic north.
 - c. Write the following information in the top portion of the range card (figures 071-000-0005-2 and -3):
-

Performance Steps

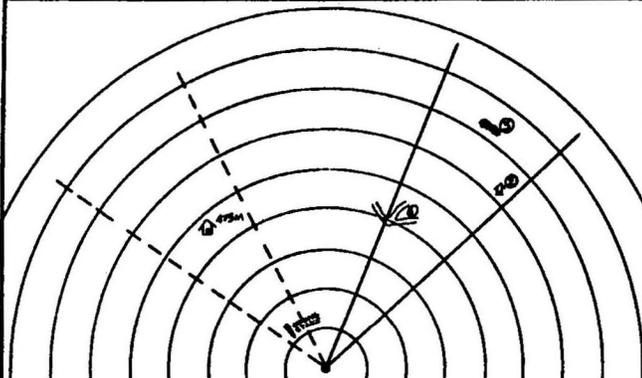
STANDARD RANGE CARD					
For use of this form see FM 3-21.71; the proponent agency is TRADOC.					
SQD. <u>2D</u>	May be used for all types of direct fire weapons.				 MAGNETIC NORTH
PLT <u>2D</u>					
CO _____					
					
DATA SECTION					
POSITION IDENTIFICATION <u>FL93668141</u>				DATE <u>11 NOV</u>	
WEAPON <u>M60</u>			EACH CIRCLE EQUALS <u>100</u> METERS		
NO.	DIRECTION/DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION
1	<u>L035</u>	<u>0/24</u>	<u>400</u>		<u>PDF (ROAD JUNCTION)</u>
2	<u>R375</u>	<u>-70/15</u>	<u>625</u>		<u>BARN</u>
3	<u>R175</u>	<u>-70/40</u>	<u>725</u>		<u>HEDGEROW</u>
REMARKS: <u>① TW 30/R17</u> <u>② TW 3/L3</u> <u>③ TW 7/R3</u>					
DA FORM 5517-R, FEB 1986					

Figure 071-000-0005-2. Primary sector with principal direction of fire

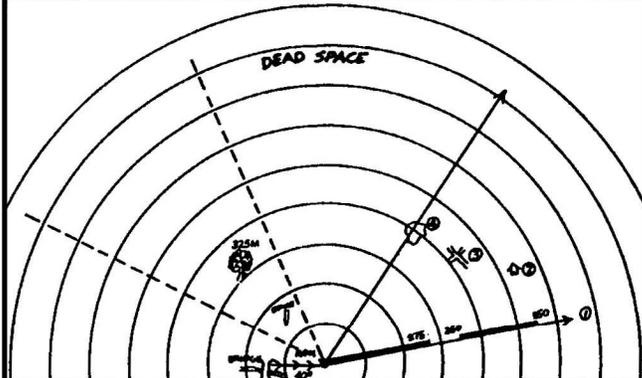
Performance Steps

STANDARD RANGE CARD
For use of this form see FM 3-21.71; the proponent agency is TRADOC.

SQD 2^D
PLT 2^D
CO _____

May be used for all types of direct fire weapons.

MAGNETIC NORTH 



DATA SECTION

POSITION IDENTIFICATION			DATE <u>20 APRIL</u>		
WEAPON <u>M 60</u>			EACH CIRCLE EQUALS <u>100</u> METERS		
NO.	DIRECTION/DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION
<u>1</u>	<u>-</u>	<u>+50/3</u>	<u>550</u>		<u>FPL</u>
<u>2</u>	<u>R275</u>	<u>+50/45</u>	<u>525</u>		<u>BARN</u>
<u>3</u>	<u>L102</u>	<u>0/28</u>	<u>425</u>		<u>ROAD JUNCTION</u>
<u>4</u>	<u>L370</u>	<u>0/12</u>	<u>375</u>		<u>BOULDER</u>
REMARKS: <u>① - 4</u> <u>③ TW 14/LB</u>					

DA FORM 5517-R, FEB 1986

Figure 071-000-0005-3. Primary sector with final protection line

- (1) SQD. Write in the squad's designation.
- (2) PLT. Write in the platoon's designation.
- (3) CO. Write in the company's designation.
- (4) MAGNETIC NORTH. Sketch the direction for magnetic north using the symbol shown in B, figure 071-000-0005-1.

Performance Steps

d. Determine the location of the gun position relative to a prominent terrain feature. You could use a hilltop, road junction, or building—in other words, use either a man-made or natural terrain feature.

(1) Use any terrain feature located within 1,000 meters of the gun.

(2) If no such feature exists, then, somewhere near the gun position on the sketch, write in the eight-digit map coordinates for your position (figure 071-000-0005-2).

(3) Use a compass to determine the azimuth in mils or degrees from the terrain feature to the gun position or from the gun position to the terrain feature. Compute the back azimuth from the gun to the feature by adding or subtracting 3200 mils or 180 degrees.

(4) Determine the distance between the gun and the feature by pacing or looking at a map.

(5) Draw the terrain feature in the lower left- or right-hand corner of the card, whichever better shows the terrain feature's position relative to the gun.

(6) Draw a barbed line between the position and the terrain feature.

(7) Above the line, record the distance in meters.

(8) Below the line, record the azimuth in mils or degrees from the terrain feature to the gun.

(9) Use the direction of the arrow's barbs to show the direction of the azimuth.

e. Sketch the primary sector of fire (C, figure 071-000-0005-1), using either a PDF or an FPL.

(1) FPL. Use an FPL (figure 071-000-0005-3 DATA SECTION, Item No. 1) only if the position offers a good grazing distance. Base the primary sector of the line of fire. Make the FPL the sector limit closest to friendly troops.

(a) Sketch the limits of the primary sector of fire.

(b) Sketch an FPL (D, figure 071-000-0005-1) on the sector limit assigned by your leader.

Performance Steps

(c) Have someone walk the FPL (if the enemy situation permits) to identify and measure dead spaces (section[s] of an FPL where a person drops below the light of sight).

(d) Show the dead space(s) on the sketch by a break(s) in the FPL symbol. Write in the ranges to the beginning and end of each dead space(s).

(e) Write in the maximum range of graze.

(2) PDF. If you cannot identify an FPL, you must assign a PDF (figure 071-000-0005-2 DATA SECTION, Item No.1)

(a) Sketch the limits of the assigned primary sector of fire; the angle should not exceed 875 mils (the maximum traverse of a tripod-mounted machine gun).

(b) Sketch the symbol for a light automatic weapon (A, figure 071-000-0005-1). Orient the symbol toward the most dangerous target in the sector. (Get this information from the platoon leader.)

f. Label the targets in the primary sector in their order of priority. Label the FPL or PDF with the number "1" (figures 071-000-0005-2 and -3).

g. Sketch the secondary sector of fire (E, figure 071-000-0005-1).

(1) Label the range (in meters) from the gun to each target in the secondary sector.

(2) Sketch aiming and elevation stakes between the gun position and the target as shown in figures 071-000-0005-2 and -3.

5. Using the T&E mechanism, determine the direction, elevation, and range to each target. Write this information in the DATA SECTION of the range card as follows (figures 071-000-0005-2 and -3):

a. Center the traversing handwheel on the center mark.

b. If assigning an FPL, lay the gun for direction. (For this step, you will not write anything on the range card.)

Performance Steps

- (1) Lock the traversing slide on the extreme left or right side of the bar, depending on which side of the primary sector the FPL is on.
- (2) Align the barrel on the FPL by moving the tripod legs.

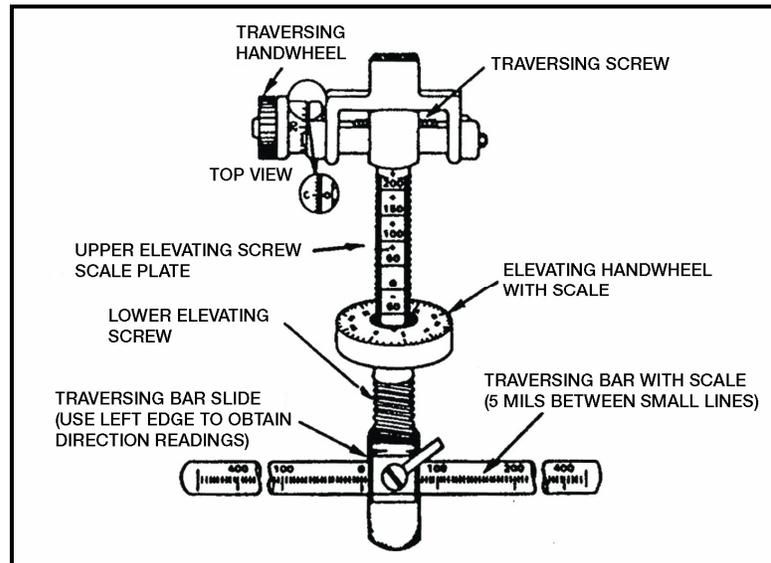


Figure 071-000-0005-4. Traversing and elevating mechanism

- c. When assigned a PDF, lay the gun for direction.
 - (1) Align on the primary sector by traversing the slide to one side.
 - (2) Move the tripod to align the barrel on the sector limit.
 - (3) Align on the PDF by traversing the slide until the machine gun is aimed at the center of the target.
- d. Fix the tripod legs in place by digging them in or sandbagging them.

Performance Steps

- e. Determine the direction to each target.
 - (1) Lay the gun on the base of the target.
 - (2) Read the direction on the traversing bar at the left edge of the traversing bar slide (figure 071-000-0005-4).
 - (3) Determine by the direction of the barrel whether the reading is right or left.
- f. Determine the elevation for each target.
 - (1) Lay the gun on the base of the target by rotating the elevating handwheel (figure 071-000-0005-4).
 - (2) Read the number (including a "+" or "-" sign, unless the number is "0") above the first visible line on the elevating scale. (In figure 071-000-0005-4, this reading is "-50.")
 - (3) Read, from the elevating handwheel, the number in line with the indicator. (In figure 071-000-0005-4, this reading is "3.")
6. Record the data you found using the T&E mechanism (figure 071-000-0005-4).
 - a. Enter the reading in the ELEVATION column in the DATA SECTION of the range card, separating the two numbers with a slash.
 - b. Enter the range to each target in the appropriate column in the DATA SECTION.
 - c. Enter the description of each target in the appropriate column in the DATA SECTION.
 - d. Fill in the REMARKS block for each target as needed.
 - e. Enter the width and depth (in mils) of linear targets. The "-4" in figure 071-000-0005-3 REMARKS block means that depressing the barrel 4 mils will cause the strike of the rounds to go to ground level along the FPL.

Performance Steps

f. When entering the target width (TW) in the REMARKS block, give the width in mils, and express it in two values. For example, in figure 071-000-0005-2, Target 3 measures 7 mils wide. The second value, R3, means that if the gunner lays the gun on the target and traverses 3 mils to the right, the point of aim will lay to the right edge of the target. Target 3, figure 071-000-0005-3, shows the width of the target as 15 mils; traversing 8 mils to the left will move the point of aim to the left edge of the target.

g. Do not determine data for the secondary sector of fire; the gunner will fire the weapon in the bipod mode.

7. Keep one copy of the range card at the machine gun position. Send the other copy to platoon headquarters. Complete range cards for primary positions. Partially prepare range cards for alternate and supplementary positions. Prepare the range card as soon as you arrive in a position, regardless of the expected length of stay. Continually revise the range card the whole time you occupy the position.

Evaluation Preparation: Setup: Provide the Soldier all the equipment needed to prepare a range card: pencil, paper, a stationary firing position, sector of fire, and target reference point designated.

Brief Soldier: Tell the Soldier to prepare only one copy of the range card for training purposes.

Performance Measures	GO	NO GO
1. Prepared the range card.	_____	_____
a. Sketched the terrain located in front of the position.		
b. Determined the direction of magnetic north.		
c. Sketched the direction of magnetic north.		
d. Completed the DATA SECTION.		
e. Determined the location of the gun position relative to a prominent terrain feature.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
<ul style="list-style-type: none"> f. Sketched the primary sector of fire using either a PDF or an FPL. g. Labeled the targets. h. Sketched the secondary sector of fire. 		
<p>2. Used the T&E mechanism, determined the direction, elevation, and range.</p> <ul style="list-style-type: none"> a. Centered the traversing handwheel. b. Laid the gun for direction. c. Adjusted the tripod legs. d. Read the direction to each target. e. Read the elevation to each target. 	_____	_____
<p>3. Used the T&E mechanism to determine data for targets and then recorded it on the range card.</p> <ul style="list-style-type: none"> a. Entered the reading for elevation in the ELEVATION block in the DATA SECTION of the range card. b. Entered the range to the target in the RANGE block in the DATA SECTION of the range card. c. Described each target in writing. d. Completed the REMARKS block for each target, as needed. 	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-22.68

Related

071-025-0001

Maintain an M240B Machine Gun

Conditions: Given a cleared M240B machine gun; M122A1 tripod mount assembly; linked 7.62-mm ammunition; and a small-arms case with the following items: cleaner, lubricant, and preservative (CLP); lubricating oil arctic weather (LAW); rifle bore cleaner (RBC); rags; pipe cleaners; chamber and bore brushes; cleaning rod; cleaning rags; small-arms swabs; and an M240B scraper and reamer.

Standards: Clean and lubricate the M240B machine gun and components. Inspect all parts, components, and ammunition for serviceability; turn in unserviceable items to maintenance. Correctly assemble the gun and ensure it is operational.

Performance Steps

1. Check to ensure the weapon is clear.

WARNING

Be sure to clear weapon before disassembling, cleaning, inspecting, transporting, or storing.

- a. Put safety to "F."
 - b. Pull cocking handle assembly to the rear, locking the bolt to the rear. Return cocking handle to forward position.
 - c. Place safety to "S."
 - d. Push in latches to open cover assembly.
 - e. Remove ammunition belt if present.
 - f. Raise feed tray.
-

Performance Steps

- g.** Inspect the chamber area. Remove any ammunition, ammunition casings, or links.
 - (1)** Check feed pawl assembly and feed tray assembly.
 - (2)** Lift the feed tray assembly and inspect the chamber.
 - (3)** Check the space between the face of the bolt and the chamber.
 - (4)** Check the space under the bolt and operating rod assembly.
- h.** Lower feed tray.
- i.** Place safety to "F."
- j.** Hold cocking handle assembly to rear, depress trigger, and ease bolt forward to close and lock.
- k.** Close cover assembly. Make sure it locks shut.

Note: Be sure bolt is forward with safety in "F" (fire position) when gun is not in use.

2. Disassemble the M240B.

WARNING

A hot barrel can burn you. If the barrel is hot, use your heat resistant mittens.

Note: The following steps do not have to be performed in sequence.

- a.** Remove barrel assembly.
 - (1)** Check to ensure bolt is forward.
 - (2)** Depress barrel locking latch and hold.
 - (3)** Turn barrel carrying handle to upright position.
 - (4)** Push forward and lift barrel out.
- b.** Remove heat shield assembly from barrel. Lift rear of heat shield assembly from barrel; pry front tabs out of holes on gas hole bushing.

Performance Steps

- c. Remove trigger-housing assembly.
 - (1) Depress spring pin and remove it (this can usually be done without tools).
 - (2) Pull trigger-housing assembly down and back and remove it.
- d. Remove butt stock and buffer assembly. Depress backplate latch and lift butt stock and buffer assembly straight up.
- e. Remove driving spring rod assembly.
 - (1) Push the driving spring rod assembly forward and up to disengage its retaining stud from the receiver.
 - (2) Pull rearward on the driving spring rod and remove it from the receiver.
- f. Remove bolt and operating rod assembly.
 - (1) Depress cover latches and raise cover assembly.
 - (2) Pull cocking handle assembly back to move the bolt and operating rod assembly to the rear of the receiver.
 - (3) Reach into the receiver and push rearward on the bolt until the bolt and operating rod assembly are slightly out of the rear end of the receiver.
 - (4) Grasp bolt and operating rod assembly and remove it from the receiver.
 - (5) Return cocking handle to forward position.
- g. Remove the cover assembly.
 - (1) Close cover.
 - (2) Push out spring pin as far as possible using the back plate of the butt stock or buffer assembly. Then remove it with your fingers.
 - (3) Depress cover latches, lift up, and remove cover assembly.
 - (4) Remove feed tray.
- h. Remove hand guard.
 - (1) Extend bipod legs to down and locked position.
 - (2) Pull hand guard straight down and off gas cylinder.

Performance Steps

WARNING

Using gasoline, kerosene, hydraulic oil, benzene, benzol, high pressure water, steam, or air for cleaning is prohibited.

3. Clean the M240B parts, components, and ammunition.

CAUTIONS

1. Do not use abrasives to clean the bore, piston, gas cylinder, or gas regulator plug.
2. Do not submerge buffer in any liquid. Wipe with clean wiping rag only.
3. Avoid getting CLP in the gas cylinder when cleaning the bore.

- a. Use cleaning patches, CLP, and bore brush to clean bore.
- b. Use CLP on receiver brush bristles to clean the receiver.
- c. Use rags and CLP to remove powder fouling, corrosion, dirt, and rust from all metal components and surfaces.
- d. Use only a clean rag to clean the cover assembly.
- e. Clean the gas cylinder.
 - (1) Use a gas cylinder cleaning brush dampened with CLP to clean the gas cylinder bore.
 - (2) Use a combination tool to clean the front interior of the gas cylinder.
 - (a) Insert the combination tool with handle upward into the front end of the gas cylinder of the receiver body. Ensure the tool is fully inserted and seated against the gas cylinder.
 - (b) Apply slight pressure to the handles and turn clockwise to remove carbon.
- f. Clean the gas regulator using the scraper and reamer.
 - (1) Insert the scraper into the central hole of the gas regulator plug. Remove carbon by twisting the scraper clockwise until it is fully seated against gas regulator plug.
 - (2) Clean regulator plug grooves by inserting the scraper tool into the grooves and turning regulator plug clockwise.
 - (3) Insert the small reamer into each gas inlet hole and twist back and forth to remove carbon (use hand pressure only).

Performance Steps

(4) Scrape carbon from surface of gas regulator plug using tip of scraper.

(5) Insert large reamer through hole in gas port bushing into gas port hole in barrel; remove carbon by twisting reamer back and forth until it enters bore of barrel.

g. Clean M122A1 tripod assembly.

(1) T&E mechanism. Use a clean, dry wiping rag to remove foreign matter. Use small arms cleaning brush to clean numbers on the scale.

(2) Tripod assembly and flex mount. Use a cleaning rag saturated with carbon-removing compound to clean. Wipe all parts dry with clean wiping rags.

h. Clean ammunition. Use a clean, dry wiping rag to remove foreign matter.

4. Inspect the M240B parts, components, and ammunition.

a. Barrel assembly.

(1) Check barrel for bulges, bends, burrs, or pits in the chamber or bore.

(2) Check to ensure flash suppressor is not loose.

(3) Check front sight for damage and looseness.

(4) Check barrel carrying handle assembly for damaged or missing parts. Move the barrel release slowly to the right and count the clicks. Fewer than two or more than seven clicks indicate defective parts.

(5) Check to ensure heat shield is present, securely attached to barrel, and undamaged.

b. Butt stock and buffer assembly.

(1) Check for burrs and rough edges on the mating grooves and flanges.

(2) Check the backplate latch to ensure it locks the buffer assembly securely.

(3) Check the buffer plug and ensure it sticks out through the backplate and is flush or higher than the protrusion below it.

Performance Steps

- (4) Shake to check the buffer for rattling sounds; use finger pressure to ensure the plug cannot rotate.
- (5) Check the butt stock for cracks.
- c. Driving spring rod assembly.
 - (1) Check the spring for broken strands.
 - (2) Check the rod assembly for bends.
- d. Bolt and operating rod assembly.
 - (1) Inspect the bolt and operating rod assembly for bent, broken, cracked or missing parts. Check for burrs or pits on the surface.
 - (2) Check for cracks or wear on the tip of the firing pin.
 - (3) Ensure you cannot move extractor with your fingers.
- e. Trigger-housing assembly.
 - (1) Check for broken, missing, or damaged parts.
 - (2) Inspect the tripping lever and sear for burrs on edges.
 - (3) Check cocking action by pushing back on the tripping lever (sear will rise). Pull the trigger (sear will lower).
 - (4) Check safety. Place on "S" (safe) and pull the trigger. The sear should not drop down far enough to lock in the downward position. Place the safety on "F" (fire) and pull the trigger. The sear should drop down and lock in the downward position.
- f. Cover assembly.
 - (1) Pivot the feed lever back and forth to ensure it operates smoothly without binding.
 - (2) Push in on the cover latches to make sure the retaining clip is present, secure, and does not bind in the housing.
 - (3) Push down on the cartridge guides and feed pawls to make sure the springs are present and secure.
 - (4) Inspect accessory-mounting rail for nicks or burrs.
- g. Feed tray. Check for cracks, deformation, broken welds, and loose rivets.
- h. Hand guard. Check for cracks, broken, or missing parts.

Performance Steps

i. Receiver assembly.

(1) Check that the rear sight is securely mounted and operates properly.

(2) Check that the cocking handle operates properly.

(3) Check for damaged or missing ejection port cover, spring, and pin. Check for proper operation of ejection port cover.

(4) Lower and raise the bipod legs to ensure they move freely without binding.

(5) Check accessory-mounting rail for nicks or burrs that may prevent proper attachment of optional sighting devices.

(6) Check barrel locking latch and cover detent for proper spring tension.

j. Components.

(1) T&E mechanism.

(a) Inspect hand wheels for smooth operation or rust.

(b) Check threads for burrs and rust.

(c) Check traversing slide lock for spring action. Ensure elevating mechanism sleeve fits on traversing bar and clamps firmly.

(d) Check traversing and elevating scales for legibility.

(e) Inspect quick-release pin and chain for burrs and rust. Check for missing spring-loaded balls.

(2) Tripod assembly.

(a) Check for completeness of tripod. Ensure that all nuts and bolts are tightly secured.

(b) Inspect for cracks on the legs and tripod head.

(c) Check for missing, broken, or inoperative lock latch.

(d) Check pintle lock release cam for correct operation.

(e) Check locking action of front leg clamping assembly.

Performance Steps

(f) Check that the rear legs lock in the open position. Ensure sleeve latch notch and right leg slide notch engages completely. Ensure latch spring has good tension.

(g) Check telescoping, indexing, and locking action of rear legs and front leg locking assemblies.

(3) Flexible mount assembly.

(a) Check for missing or damaged parts. Check for rust, cracks, and burrs.

(b) Inspect pintle lock assembly for nut, bolt, and cotter pin. Check pintle surface for burrs and rust.

k. Inspect or check ammunition for damage and corrosion. Turn in any unserviceable ammunition.

5. Lubricate M240B parts and components.

a. Generously lube the following parts:

(1) Barrel assembly—on the camming surfaces of the bolt-locking lugs.

(2) Operating rod—on the rollers, camming recess, and those surfaces immediately below the yoke that ride within the receiver rails.

(3) Cover—in the feed cam assembly.

(4) Bolt—on the bolt-locking lugs and actuator cam roller.

b. Lightly lube the following parts:

(1) Driving spring.

(2) Bolt and operating rod assembly moving parts, polished areas, firing pin, and roller.

c. Do not lubricate the following parts:

(1) Butt stock.

(2) Face of bolt.

(3) Piston.

(4) Gas regulator and gas cylinder.

(5) Rear sight.

(6) Composite or rubber components.

Performance Steps

- d. Lightly lubricate all components and wipe with oily rag to remove excess oil.
6. Assemble the M240B.
 - a. Replace barrel assembly.
 - (1) Insert gas regulator plug into the gas hole bushing with the number 1 gas setting facing the barrel.
 - (2) Place gas collar over the front end of the gas regulator plug. Rotate collar until it slips onto gas regulator plug. Press in and rotate counterclockwise to lock in place (pull collar to be sure it is in the locked position).
 - (3) Install heat shield on barrel. Insert the front metal tabs of the heat shield into the holes located on the sides of the gas hole bushing. Push down on the heat shield so that it snaps onto the barrel.
 - (4) With gas regulator downward and the carrying handle in the vertical position, insert barrel fully into the receiver socket and push barrel carrying handle to the right as far as it will go to lock (fewer than two or more than seven clicks indicate defective parts). Do not force. If barrel binds in socket or if barrel carrying handle will not rotate when pushed, do not pound on barrel carrying handle. Take machine gun to unit maintenance.
 - b. Replace cover assembly and feed tray.
 - (1) Align the feed tray guides with receiver brackets.
 - (2) Place cover assembly onto the receiver with its mounting holes aligned with mounting brackets on the receiver.
 - (3) Close cover assembly. To secure the cover and feed tray to the receiver, insert the spring pin in the mounting holes from the right side only. Open cover assembly. Check to ensure cover detent holds cover assembly open. If cover assembly does not remain open in two positions, notify unit maintenance.
 - c. Replace trigger-housing assembly.
 - (1) Insert the holding notch on the trigger-housing into the forward recess on the bottom of the receiver.
 - (2) Lift the trigger-housing up and align holes of trigger-housing with the mounting holes of the receiver.

Performance Steps

- (3) Hold the trigger-housing in place and insert the spring pin.
- d. Replace bolt and operating rod assembly.
 - (1) Insert the bolt and operating rod assembly into the rear of the receiver. Ensure bolt is on top of receiver rails.
 - (2) Push the assembly into the receiver as far as possible. Pull the trigger and hold it while pushing the assembly all the way into the receiver.
 - (3) Close cover assembly.
- e. Replace the driving spring rod assembly.
 - (1) Insert driving rod spring assembly all the way into the receiver.
 - (2) Push in and lower driving rod spring assembly to seat the retaining stud in the hole on the bottom of the receiver.
- f. Replace butt stock and buffer assembly.
 - (1) Position the bottom recess grooves of the butt stock onto the top of the receiver recess grooves.
 - (2) Slide the butt stock down until it locks on the receiver. Top of buffer should be flush with top of receiver.
- 7. Perform a function check to ensure the M240B is assembled correctly.

Evaluation Preparation: Setup: At the test site, provide all the equipment and materials listed in task condition statement. Use only dummy ammunition for training purposes.

Brief Soldier: Tell Soldier to perform maintenance on the M240B and linked 7.62-mm ammunition.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Checked to ensure the weapon was clear.	___	___
2. Disassembled the M240B.	___	___
3. Cleaned the M240B parts, components, and ammunition.	___	___

Performance Measures	GO	NO GO
4. Inspected the M240B parts, components, and ammunition.	_____	_____
5. Lubricated M240B parts and components.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.68

TM 9-1005-313-10

071-025-0003

Load an M240B Machine Gun

Conditions: Given a cleared M240B machine gun (mounted on bipod, tripod, or vehicle) and linked 7.62-mm ammunition.

Standards: Loaded linked ammunition in the feed tray groove so that when the cover was closed, a round remained in the tray groove and ammunition fed correctly.

Performance Steps

1. Clear the weapon.
 - a. Place safety to the "F" position.
 - b. Charge the weapon.
 - (1) Pull the cocking handle to the rear, locking the bolt in the rear position.
 - (2) Push the cocking handle to the forward and locked position.
 - c. Place safety to the "S" position.
 - d. Open the cover assembly.
 - (1) Press in and hold the feed cover latches.
 - (2) While holding the latches, lift up on the cover assembly.

Performance Steps

- e. Remove any ammunition if it is present.
 - f. Raise the feed tray.
 - g. Inspect the chamber to ensure no ammunition is present.
 - h. Lower the feed tray.
 - i. Place safety to the "F" position.
 - j. Pull and hold cocking handle to the rear.
 - k. While holding the cocking handle to the rear, depress the trigger and ease the bolt forward to the closed and locked position.
2. Load ammunition.

Note: Position the open side of links in the down position.

- a. Place link belt on feed tray with the first round against the cartridge stop and tip of round pointing towards the barrel.
- b. Close the cover assembly ensuring the latches lock into place.

CAUTION

Make sure round does not move away from cartridge stop during closing and latching of cover.

Evaluation Preparation: Setup: Use dummy ammunition to test this task. At the test position, provide an M240B and a belt of linked dummy 7.62-mm ammunition. For standardization, always place the bolt and cocking handle forward and the safety on "S." Ensure the ammunition is clean and linked properly.

Brief Soldier: Tell the Soldier to load the M240B machine gun.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Cleared weapon.	___	___
2. Loaded ammunition.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.68

TM 9-1005-313-10

071-025-0004

Unload an M240B Machine Gun

Conditions: Given an M240B loaded with linked 7.62-mm ammunition.

Standards: Remove all ammunition and links from the weapon. Clear the weapon and ensure the chamber is empty and the safety is on "F" (fire).

Performance Steps

1. Remove ammunition from the M240B.
 - a. With palm up, pull the cocking handle to the rear, ensuring that the bolt locks to the rear.
 - b. Return the cocking handle to its forward position.
 - c. Place the safety lever on "S" (safe).
 - d. Raise the cover and remove ammunition belt.
 - e. Remove any ammunition, links, or brass from the chamber area.
2. Clear the M240B.
 - a. Confirm that no ammunition remains in the chamber.
 - b. Close the cover.
 - c. Place the safety on "F" (fire).
 - d. With palm up, pull the cocking handle to the rear and hold it.

CAUTION

The bolt must be eased forward to prevent damage to the feed tray assembly and operating rod assembly.

Performance Steps

- e. Pull the trigger, allowing the bolt to ease forward.
- f. Place the safety on "F" (fire).

Evaluation Preparation: Setup: At the test site, provide the Soldier with all the equipment listed in the task condition statement. Use only dummy ammunition for training purposes.

Brief Soldier: Tell the Soldier to unload the M240B.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Removed ammunition from the M240B.	___	___
2. Cleared the M240B.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.68

TM 9-1005-313-10

071-025-0007

Engage Targets With an M240B Machine Gun

Conditions: Given an M240B machine gun, linked 7.62-mm ammunition, targets in an assigned sector of fire, and a requirement to engage those targets.

Standards: Fire the M240B machine gun to engage targets in the assigned sector of fire, and use correct M240B machine gun target engagement techniques so that you hit each target.

Performance Steps

1. Assume a suitable firing position. Based on the situation, assume the position that allows you to observe and engage targets yet minimize your exposure to enemy fire.
 - a. Tripod firing. A number of firing positions can be used based on situation (prone, sitting, or kneeling; or standing if firing from prepared position).
 - b. Bipod firing. Prone supported position and bipod-supported fighting position are the best positions for delivering effective fire on targets. Assume these positions when possible.
 - (1) Shoulder firing position. Use this position to engage specific targets during movement when you can assume no other position or the situation dictates its use, such as the final stages of an assault.
 - (2) Underarm firing position. Use this position when closing with the enemy, when a heavy volume of fire in the target area is required, and when rapid movement is necessary.
 - (3) Hip firing position. Use this position when a heavy volume of fire in the target area is required and rapid movement is not necessary.
2. Identify targets in your designated sector of fire.
3. Align the sights on the target.
 - a. Obtain sight alignment by centering the front sight blade in the aperture of the rear sight with the top of the front sight blade even with the top of the rear sight slide.
 - b. Obtain a sight picture by centering the target over the front sight blade so that it appears to rest on top of the front sight blade and on top of the rear sight slide.
4. Load and engage targets using correct M240B firing techniques.
 - a. Use correct trigger manipulation.
 - (1) Pull straight to the rear and release.
 - (2) Fire the weapon at the rate of fire appropriate for the target (sustained, rapid, or cyclic).

Performance Steps

- b.** Use correct fire engagement technique based on target types.
 - (1)** Deliver fixed fire against a point target when only one aiming point is necessary to cover the target with fire.
 - (2)** Use traversing fire to distribute fire on wide targets by successive changes in direction.
 - (a)** With the tripod-mounted gun, make changes in 2- to 6-mil increments on the traversing hand wheel between bursts.
 - (b)** With the bipod-mounted gun, make minor changes by shifting your shoulders to the right or left to select successive aiming points throughout the width of the target area. For major changes, move your elbows and align your body to remain directly behind the gun.
 - (3)** Use searching fire to distribute fire on deep targets by successive changes in elevation.
 - (a)** With the tripod-mounted gun, make changes in 2-mil increments on the elevating hand wheel between bursts.
 - (b)** When using the bipod, move your elbows closer together to lower the muzzle, or farther apart to raise the muzzle.
 - (4)** Use traversing and searching fire to distribute fire on wide and deep targets by successive changes in direction and elevation. Make adjustments in the same manner as described for traversing fire and searching fire.
 - (5)** Use swinging traverse fire (tripod-mounted gun only) to deliver fire against targets too wide to cover with the traversing hand wheel or against fast moving targets. Loosen the traversing slide lock lever and make changes in direction by moving the muzzle left or right. Make changes in elevation by turning the elevating hand wheel.
 - (6)** Use free gun fire (tripod- or vehicle-mounted gun only) against targets requiring rapid major changes in direction and elevation. To deliver this type of fire, remove the T&E mechanism from the receiver to allow the gun to be moved in any direction.

Performance Steps

c. Use correct application of fire to engage specific types of targets (for single gun engagement).

(1) Point target. Engage point targets with fixed fire.

(2) Area target. Initially aim at the midpoint of the target area. Traverse and search to either flank, then back to the opposite flank.

(3) Linear target. Initially aim at the midpoint of the target. Traverse fire to one flank and then to the other to cover the entire target.

(4) Deep target. Initially aim at the midpoint of the target unless another portion of the target is more critical or presents a greater threat. Search down to one aiming point in front of the near end and back up to one aiming point beyond the far end.

(5) Linear target with depth. Initially aim at the midpoint of the target unless another portion of the target is more critical or presents a greater threat. Traverse and search to the flank closest to your position, then back to the other to cover the entire target.

(6) Moving target. To hit a moving target, estimate the speed of the target and the lead required to fire and hit it. Fire, then track the target as it moves. Adjust the lead by observing tracers and the strike of the bullets.

d. Adjust fire to place effective fire on the target. Based on time, range, and amount of adjustment, use one of the following methods:

(1) Sight correction method. When the initial burst is not correctly placed, adjust elevation and windage as required. This method is time-consuming.

(2) Adjusted aiming point method. Use the adjusted aiming point method to quickly adjust fires without making a sight adjustment. If the initial burst misses the target, rapidly select a new aiming point the same distance from the target as the center of impact of the initial burst but in the opposite direction.

Evaluation Preparation: Setup: Evaluate this task on a live-fire range. Evaluate the Soldier's ability to use correct engagement techniques to engage specific types of targets. Provide the Soldier with equipment and materials required to fire the course.

Brief Soldier: Brief Soldier on range safety in accordance with installation regulations. Tell the Soldier to assume the bipod-

supported prone position or bipod-supported fighting position. Tell the Soldier you are evaluating both his/her ability to adjust fire and his/her ability to hit the target.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Assumed a suitable firing position.	___	___
2. Identified targets in your designated sector of fire.	___	___
3. Aligned the sights on the target.	___	___
4. Loaded and engaged targets using correct M240B firing techniques.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.68

TM 9-1005-313-10

SUBJECT AREA 11: M249 MACHINE GUN

071-010-0006

Engage Targets With an M249 Machine Gun

Conditions: Given an M249 machine gun and linked 5.56-mm ammunition.

Standards: Apply correct M249 machine gun target engagement techniques and hit each target in your assigned sector of fire.

Performance Steps

1. Assume a suitable firing position. Based on your situation, assume the position that will allow you to observe and engage targets, yet minimize your exposure to enemy fire.

a. Bipod-supported prone. The bipod-supported prone position (figure 071-010-0006-1) and the bipod-supported fighting position (figure 071-010-0006-2) are the best positions for delivering effective fire on targets. Assume these positions when possible.

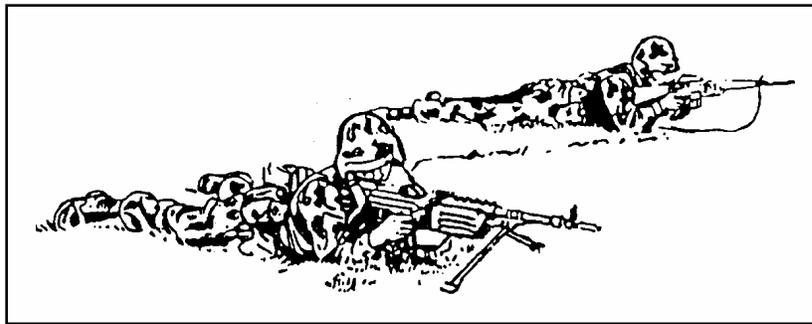


Figure 071-010-0006-1. Bipod-supported prone position



Figure 071-010-0006-2. Bipod-supported fighting position

Performance Steps

b. Shoulder. Use the shoulder firing position (figure 071-010-0006-3) to engage targets at ranges less than 100 meters when no other position can be assumed or when the situation dictates its use; for example, in the final stages of the assault.



Figure 071-010-0006-3. Shoulder firing position

c. Underarm. Use the underarm firing position when moving in and around the objective during the assault (figure 071-010-0006-4).

Performance Steps



Figure 071-010-0006-4. Underarm firing position

- d. Hip. Use the hip firing position when closing with the enemy, when a heavy volume of fire in the target area is required, and when rapid movement is not necessary (figure 071-010-0006-5).

Performance Steps



Figure 071-010-0006-5. Hip firing position

2. Fire the weapon using the correct sight picture (figure 071-010-0006-6).
 - a. Sight alignment. Center the front sight post in the peep sight (A, figure 071-010-0006-6).
 - b. Focus of the eye. Place the eye directly on line with the center of the rear sight. Focus on the tip of the front sight post. The natural ability of the eye to center objects in a circle and to seek the point of greatest light (center of the peep sight) aids in providing correct sight alignment.
 - c. Sight picture. Center the target over the front sight post (B, figure 071-010-0006-6). If firing on a 10-meter range target, use the sight picture in C, figure 071-010-0006-6.
-

Performance Steps

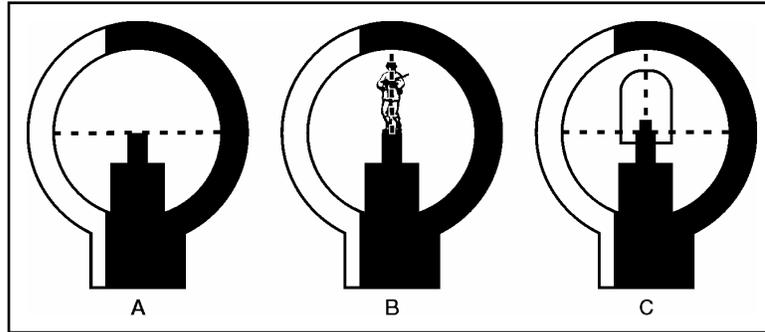


Figure 071-010-0006-6. Sight picture

3. Fire the weapon in three-round bursts at the rate of fire appropriate for target size. Use correct trigger manipulation techniques (that is, pull the trigger straight to the rear and release it).
4. Apply correct engagement technique based on target types (figure 071-010-0006-7).

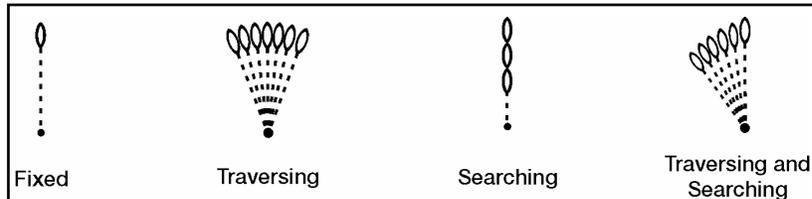


Figure 071-010-0006-7. Classes of fire with respect to the weapon

- a. Fixed fire. This type of fire is delivered against a point target when the depth and width of the beaten zone will cover the target. Only one aiming point is necessary to cover the target with fire.

Performance Steps

b. Traversing fire. This type of fire is distributed in width by successive changes in direction, which means moving the muzzle of the weapon to the left or right to distribute fire laterally. To make minor changes in direction, shift the shoulders to the right or left to select successive aiming points throughout the width of the target area. For major changes, move the elbows and align the body to remain directly behind the gun.

c. Searching fire. This type of fire is distributed in depth by successive changes in elevation, which means moving the muzzle of the weapon up or down to distribute fire in depth. Select successive aiming points in depth throughout the target area. To make changes in elevation, move elbows closer together to lower the muzzle or farther apart to raise the muzzle.

d. Traversing and searching fire. This type of fire is distributed in width and depth by successive changes in direction and elevation. Combining traversing fire and searching fire provides good coverage of the target. Adjustments are made in the same manner as described for traversing fire and searching fire, which means moving the muzzle of the weapon to the left or right to distribute fire laterally. To make minor changes in direction, shift the shoulders to the right or left to select successive aiming points throughout the width of the target area. For major changes, move the elbows and align the body to remain directly behind the gun.

5. Use observation of fire and adjustment of fire to place effective fire on the target.

a. Observation of fire. Observe the burst of fire by noting the strike of the rounds in the target area, the tracers in flight, or, in the case of the 10-meter range, the holes made in the target.

b. Adjustment of fire. Use the adjusted aiming point method to quickly adjust fires without making a sight adjustment. If the initial burst misses the target, rapidly select a new aiming point the same distance from the center of impact of the initial burst but in the opposite direction. Fire a second burst (figure 071-010-0006-8).

Performance Steps

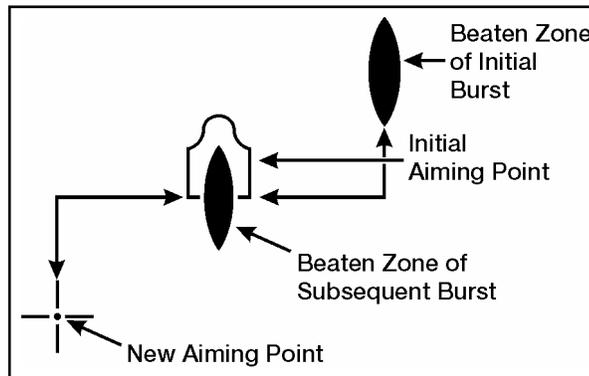


Figure 071-010-0006-8. Adjusted aiming point method

- 6.** Use correct engagement technique to engage specific targets.
 - a.** Point target. Engage point targets with fixed fire (figure 071-010-0006-9).

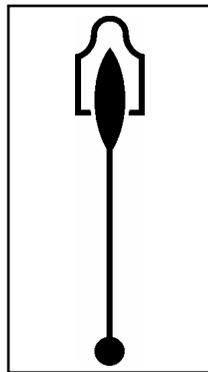


Figure 071-010-0006-9. Engagement of point target

- b.** Area target. Initially, aim at the midpoint of the target area. Traverse and search to either flank, then back to the opposite flank (figure 071-010-0006-10).

Performance Steps

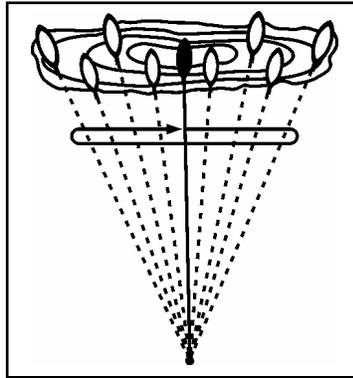


Figure 071-010-0006-10. Engagement of area target

c. Linear target. Initially, aim at the midpoint of the target. Traverse fire to one flank and then to the other to cover the entire target (figure 071-010-0006-11).



Figure 071-010-0006-11. Linear target

d. Deep target. Initially, aim at the midpoint of the target unless another portion of the target is more critical or presents a greater threat. Search down to one aiming point in front of the near end and back up to one aiming point beyond the far end (figure 071-010-0006-12).

Performance Steps



Figure 071-010-0006-12. Deep target

e. Linear target with depth. Initially, aim at the midpoint of the target unless another portion of the target is more critical or presents a greater threat. Traverse and search to the flank closest to your position then back to the other flank to cover the entire target (figure 071-010-0006-13).



Figure 071-010-0006-13. Linear targets with depth

f. Moving target. To hit a moving target, estimate the speed of the target and the lead required to fire and hit it. Fire, then track the target as it moves. Adjust the lead by observing tracers and the strike of the bullets (figures 071-010-0006-14 and -15).

Performance Steps

Table 071-010-0006-1. Vehicle lead

Speed in Miles per Hour	Range of Target		
	300 M	500 M	900 M
15	½ target length	1 target length	2 target lengths

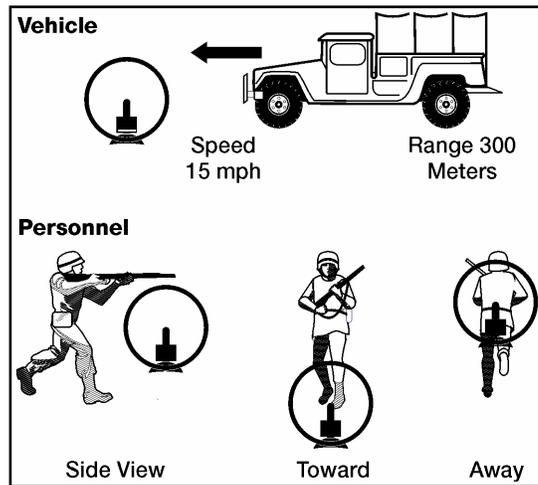


Figure 071-010-0006-15. Moving target aiming points.

Evaluation Preparation: Setup: Evaluate this task on a live-fire range by having the Soldier fire Table IV in FM 3-22.68. Evaluate the Soldier's ability to use correct engagement techniques to engage specific types of targets. Provide the Soldier with equipment and materials required to fire the course.

Brief Soldier: Brief Soldier on range safety in accordance with installation regulations. Tell the Soldier to assume the bipod-supported prone position or bipod-supported fighting position. Tell the Soldier you are evaluating both his/her ability to adjust fire and his/her ability to hit the target.

Performance Measures	GO	NO GO
1. Assumed correct bipod-supported prone position or bipod-supported fighting position.	___	___
2. Field zeroed on a 300-meter target with no more than 12 rounds.	___	___
3. Engaged single E-type silhouettes (point targets) at various ranges.	___	___
4. Engaged double E-type silhouettes (automatic weapon positions) at various ranges.	___	___
5. Engaged linear E-type silhouettes (troops on line) at various ranges.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.68

071-312-4025

Maintain an M249 Machine Gun

Conditions: Given an M249 machine gun; linked 5.56-mm ammunition; cleaning kit with pipe cleaners, small-arms swabs, chamber and bore brushes, cleaning rod, wiping rags, scraper tool, and cleaner lubricant preservative (CLP).

Standards: Clean and lubricate the M249 machine gun; inspect parts; turn in unserviceable parts; assemble the gun; ensure it is operational; clean and inspect linked 5.56-mm ammunition for serviceability; and turn in unserviceable ammunition.

Performance Steps

Note: The M249 machine gun is available with old and new style barrels. Diagrams used here show the new-style barrel.

1. Clear the M249 machine gun.
 - a. Move the safety to the fire position.
 - b. With your right hand, palm up, pull the cocking handle to the rear and lock the bolt to the rear.
 - c. Hold the cocking handle to the rear and move the safety to the safe position. Push the cocking handle forward to the locked position. Place weapon on safe.
 - d. Push the cocking handle forward to its lock position (you should hear a click).
 - e. Raise the cover and feed mechanism assembly. To check for brass, links, or ammunition—
 - (1) Check the feed pawl assembly under the feed cover.
 - (2) Check the feed tray assembly.
 - (3) Lift the feed tray assembly and inspect the chamber.
 - (4) Check the space between the bolt assembly and chamber.
 - (5) Insert two fingers in the magazine well and feel for brass or ammunition.
 - f. Close the cover and feed mechanism assembly. Move the safety to the fire position.
 - g. Pull the cocking handle to the rear, press the trigger, and ease the bolt forward.
2. Disassemble the M249 machine gun.

WARNING

Ensure bolt is in forward position before removing drive spring, return rod, and transfer mechanism assembly.

- a. Remove the drive spring, return rod, and transfer mechanism assembly.

Performance Steps

(1) Raise the cover assembly. Pull the upper retaining pin at the rear of the receiver to the left. Let the butt pivot downward so the rear opening of the receiver is clear (figure 071-312-4025-1).

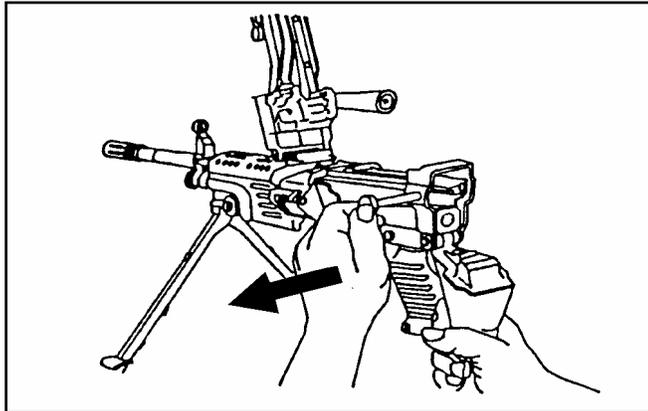


Figure 071-312-4025-1. Rear opening of the receiver

Note: The upper and lower retaining pins in the rear of the receiver are captured pins. Do not try to remove them completely during disassembly.

(2) Hold the weapon with one hand on the buttstock. At the same time, use the thumb of the other hand to push in and upward on the return rod and transfer mechanism assembly to release them from the positioning groove, then withdraw the return rod and transfer mechanism assembly and spring (figure 071-312-4025-2).

Performance Steps

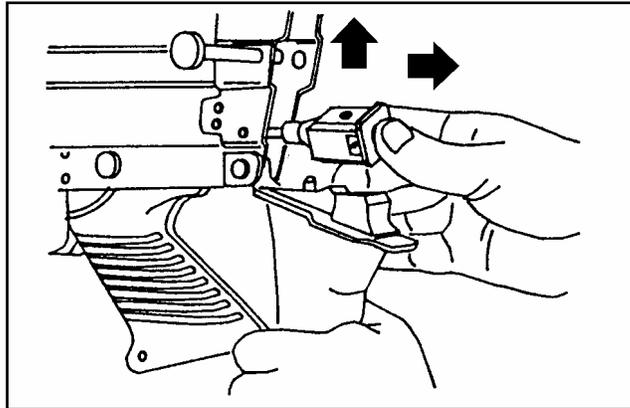


Figure 071-312-4025-2. Removal of the return rod and transfer mechanism assembly

- (3) Separate the spring from the return rod and transfer mechanism assembly (figure 071-312-4025-3).

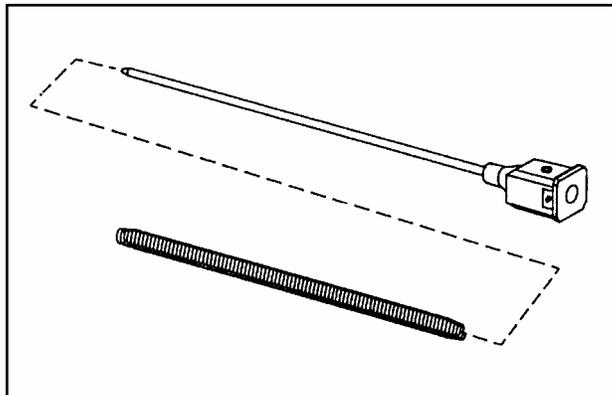


Figure 071-312-4025-3. Removal of the spring

- b. Remove the operating rod, slide assembly, and bolt assembly.

Performance Steps

(1) Pull the cocking handle to the rear to move operating rod, slide assembly, and bolt assembly from the rear of the receiver (figure 071-312-4025-4).

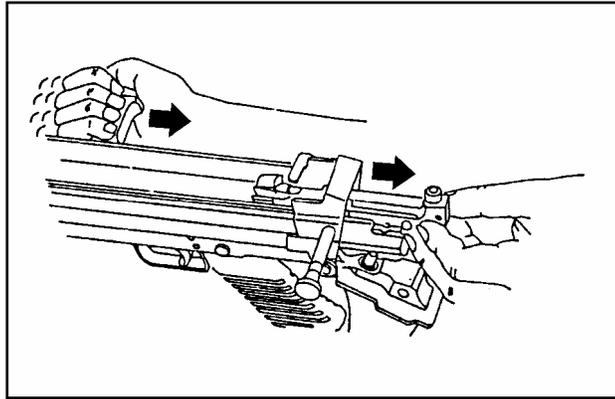


Figure 071-312-4025-4. Removal of the operating rod, slide assembly, and bolt assembly

(2) Rotate the bolt clockwise to disengage the lug. Remove the bolt from the slide assembly. Separate the piston from the slide assembly by pressing the rearmost retaining pin to the left and lifting the piston off the slide assembly (figure 071-312-4025-5).

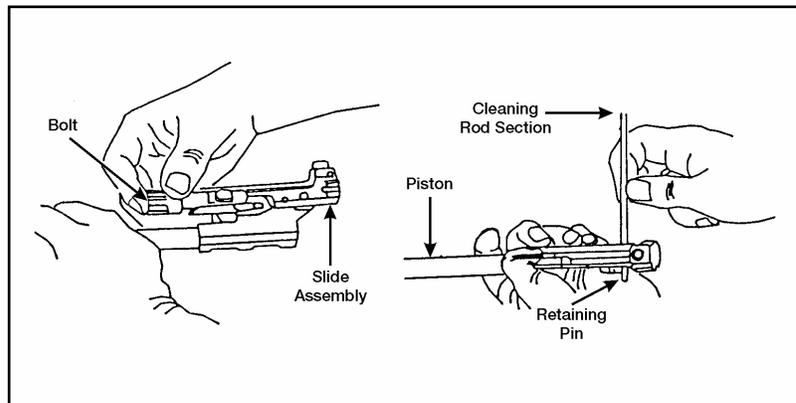


Figure 071-312-4025-5. Removal of the bolt and piston

Performance Steps

c. Remove the heat shield. Hold the weapon with one hand. With the other hand, grasp the heat shield just forward of the barrel handle, and lift it off the barrel (figure 071-312-4025-6).

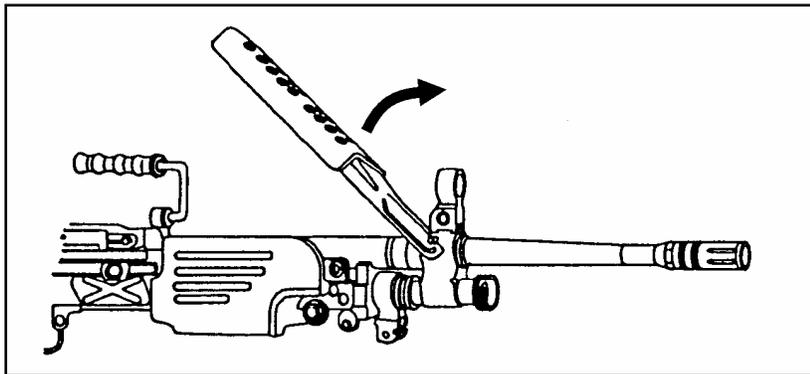


Figure 071-312-4025-6. Removal of the heat shield

d. Remove the barrel (figure 071-312-4025-7).

(1) Ensure the folding handle on the new style barrel is in carrying (up) position.

(2) Depress the barrel-locking lever with your left hand. Grasp and lift the carrying handle with your right hand. Push the barrel forward.

Performance Steps

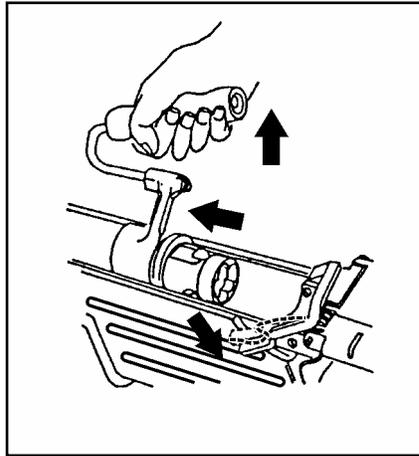


Figure 071-312-4025-7. Removal of the barrel

- e. Remove the handguard (figure 071-312-4025-8)
 - (1) Push the handguard retaining pin to the left using a section of the cleaning rod.
 - (2) Pull downward and remove the handguard.

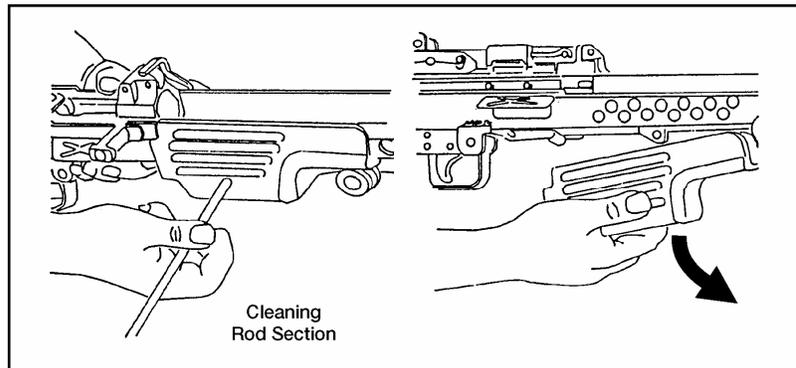


Figure 071-312-4025-8. Removal of the handguard

- f. Remove the gas regulator.

Performance Steps

- (1) Position the gas collar so you can insert the scraper assembly into the notch in the front left of the gas block.
- (2) Insert the tip of the scraper assembly in the notch; hold the scraper firmly in position (figure 071-312-4025-9).

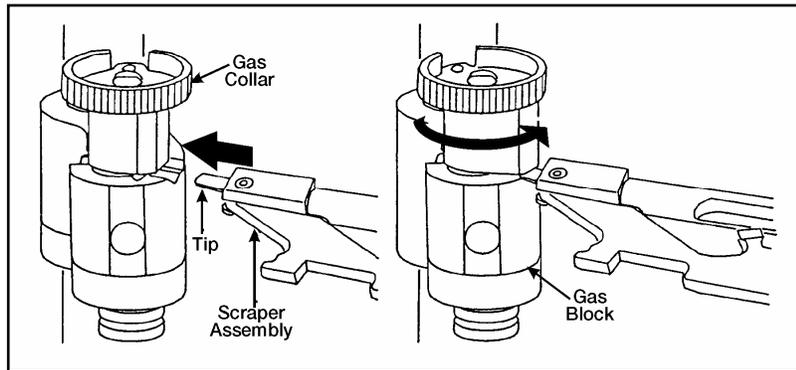


Figure 071-312-4025-9. Insertion of the scraper assembly

- (3) Turn the collar counterclockwise and remove it (figure 071-312-4025-10).
- (4) Remove the gas regulator from the gas block (figure 071-312-4025-10).

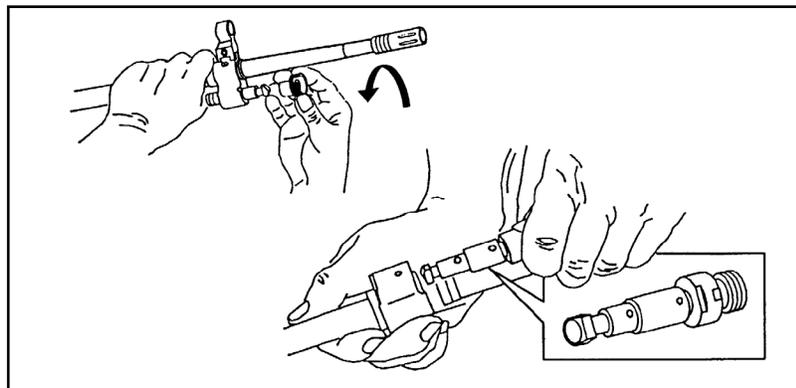


Figure 071-312-4025-10. Removal of the gas regulator from the gas block

Performance Steps

- g.** Remove the buttstock and buffer assembly.

Note: The upper and lower retaining pins in the rear of the receiver are captured pins. Do not try to remove them completely during disassembly.

(1) Using a section of the cleaning rod, push the lowermost retaining pin to the left.

(2) While supporting the trigger mechanism with one hand, use the other to pull the buttstock and buffer assembly rearward and remove it (figure 071-312-4025-11).

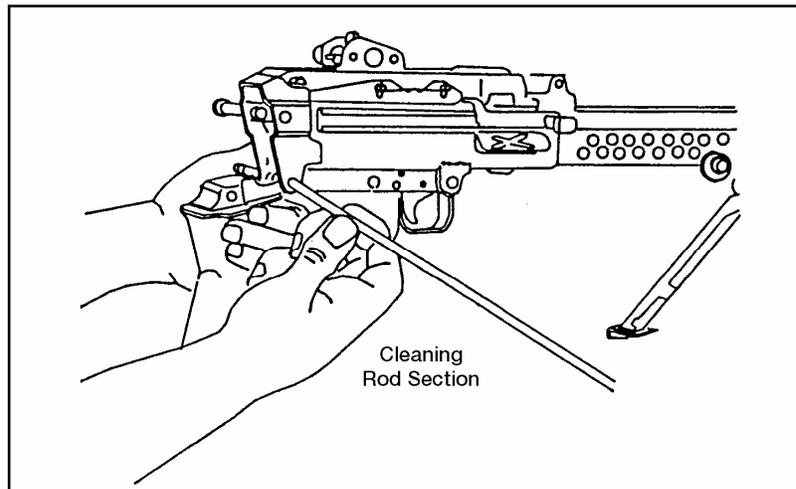


Figure 071-312-4025-11. Removal of the buttstock and buffer assembly

- h.** Remove the trigger mechanism by pulling rearward and down (figure 071-312-4025-12).

Performance Steps

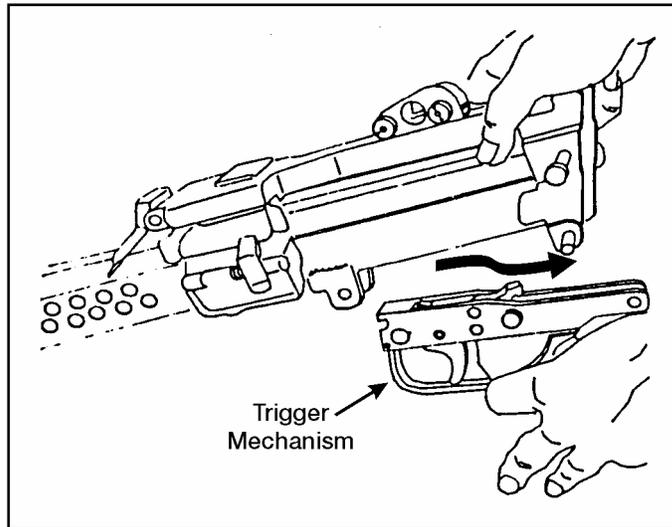


Figure 071-312-4025-12. Removal of the trigger mechanism

i. Remove the gas cylinder.

(1) Turn the gas cylinder to the left or right to release the locking spring.

(2) Pull the gas cylinder forward to remove it (figure 071-312-4025-13).

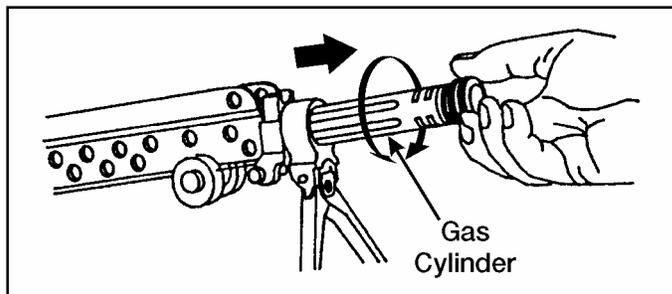


Figure 071-312-4025-13. Removal of the gas cylinder

Performance Steps

j. Remove the bipod. The bipod should slip off the receiver easily. If it does not, turn the bipod left or right to loosen any dirt or corrosion (figure 071-312-4025-14).

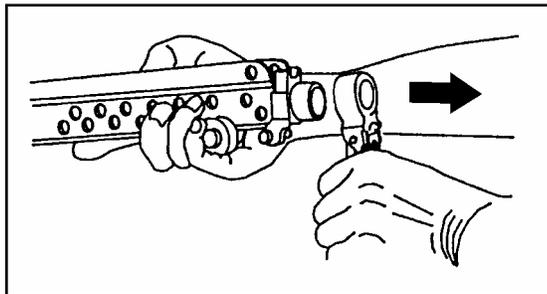


Figure 071-312-4025-14. Removal of the bipod

3. Clean the M249.

WARNING

Do not use gasoline, kerosene, hydraulic oil, benzene, benzol, high-pressure water, steam, or compressed air for cleaning.

Note: Do not use abrasives to clean the bore, piston, gas cylinder, or gas regulator.

a. Clean the bore and chamber using a bore brush, a chamber brush, CLP, and fresh swabs..

b. Clean the gas regulator using the scraper. Do not use CLP on the collar, gas block, or body.

(1) Clean the gas vent hole (figure 071-312-4025-15).

Performance Steps

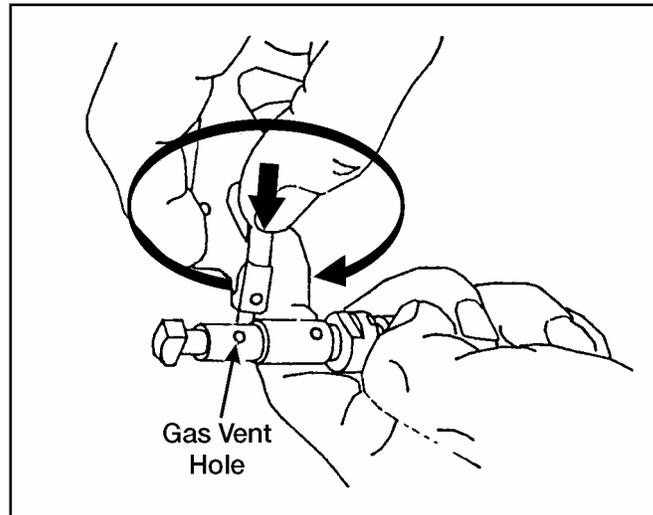


Figure 071-312-4025-15. Cleaning of the gas vent hole

(2) Clean the central hole of the gas regulator with the appropriate part of the scraper by turning the scraper clockwise and pushing it inward toward the bottom of the housing (figure 071-312-4025-16).

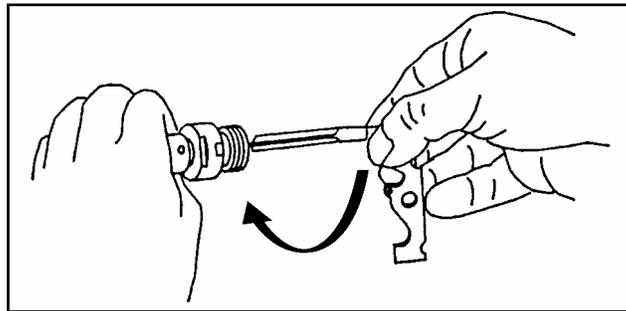


Figure 071-312-4025-16. Cleaning of the central hole

(3) Clean the two grooves of the regulator body using the protruding tips of the scraper (figure 071-312-4025-17).

Performance Steps

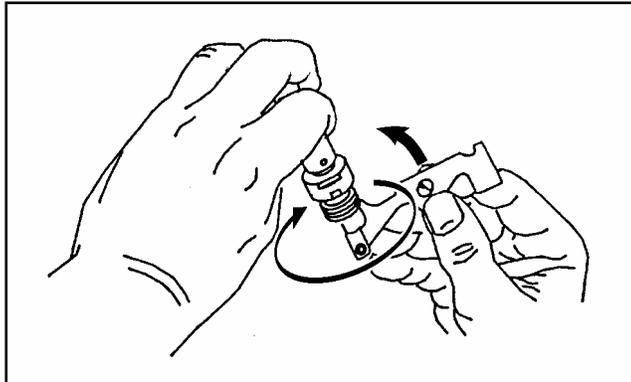


Figure 071-312-4025-17. Cleaning of the grooves of the regulator body

c. Clean the gas cylinder and piston using the scraper. Do not use CLP on the gas cylinder or on the piston.

(1) Clean the front interior of the gas cylinder (repositioned in receiver with bipod in place) by inserting and turning the flat side of the scraper in a full 360-degree circular motion (figure 071-312-4025-18).

(2) Clean the internal grooves on the front side of the gas cylinder as previously described (using the protruding tips of the scraper), but insert the scraper farther into the gas cylinder (figure 071-312-4025-19).

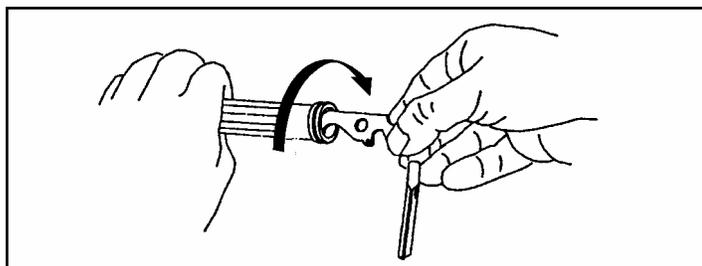


Figure 071-312-4025-19. Cleaning of the gas cylinder's internal grooves

(3) Clean the three grooves of the piston using a full, 360-degree circular motion (figure 071-312-4025-20).

Performance Steps

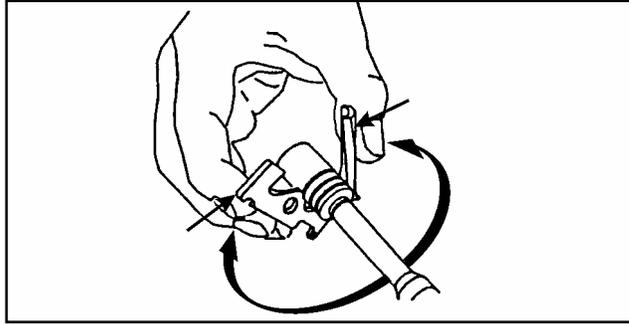


Figure 071-312-4025-20. Cleaning of the grooves of the piston

(4) Clean the hole in the front of the piston by inserting and turning the flat side of the scraper in a full 360-degree circular motion (figure 071-312-4025-21).

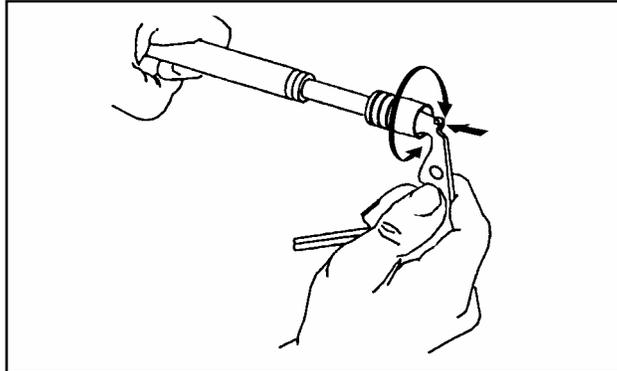


Figure 071-312-4025-21. Cleaning of the hole in the piston

- d.** Remove carbon and dirt from all other parts of the weapon using CLP and a wiping rag.
- e.** Clean ammunition boxes with a brush and clean, dry wiping rag.
- f.** Clean ammunition with a clean, dry wiping rag.

Performance Steps

4. Inspect the M249 machine gun.
 - a. Inspect the bore and chamber for chips and pitting.
 - b. Check the front sight for looseness.
 - c. Inspect the flash suppressor (old style barrel) or compensator (new style barrel), the barrel extension, and the barrel release for cracks, dents, burrs, or other damage.
 - d. Check the cover assembly for smooth operation, spring tension, bent parts, and excessive wear.
 - e. Check the cocking assembly for free movement and for bent or cracked parts.
 - f. Check the rails for excessive wear, burrs, and chips.
 - g. Check the barrel-locking latch and the springs for tension.
 - h. Check for broken pistol grip and chipped or cracked trigger housing holding lug.
 - i. Check the tripping lever and the seat for burrs, cracks, chips, or wear.
 - j. Check the cocking action by pushing back on the tripping lever; the sear should rise. Pull the trigger; the sear should lower.
 - k. Check the safety function. Push the safety to the right so that the red band does not show. Pull the trigger; the sear will not lower. Push the safety to the left so that the red band shows. Pull the trigger again; the sear will lower.
 - l. Check the slide assembly, bolt assembly, piston assembly, and return rod and transfer mechanism assembly for burrs, cracks, and broken pins. Push down on roller of the slide assembly to ensure it retracts. Check the driving spring for broken strands.
 - m. Check bipod legs for correct operation.
 - n. Check the rear sight assembly for serviceability.

Performance Steps

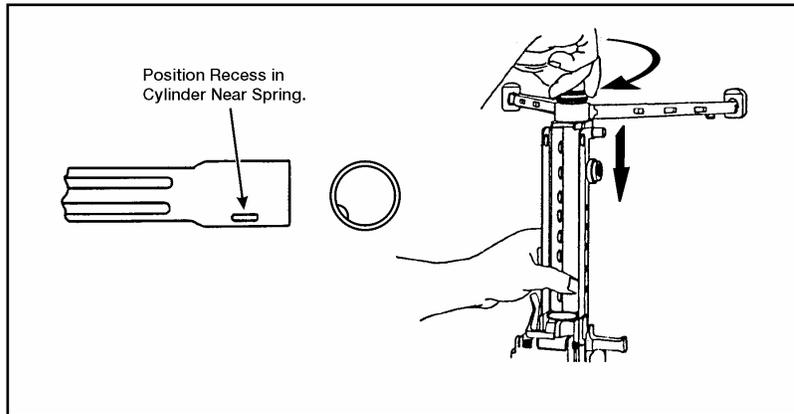


Figure 071-312-4025-22. Replacement of the bipod and gas cylinder

b. Replace the handguard.

- (1) Stow the cleaning equipment in the handguard.
- (2) Place the handguard onto the receiver and slide it backward until it stops.
- (3) Using a cleaning rod section, push the handguard retaining pin to the right. This locks the handguard into position (figure 071-312-4025-23).

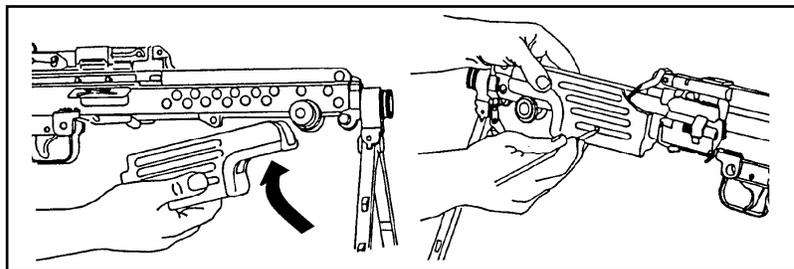


Figure 071-312-4025-23. Replacement of the handguard

- (4) Pull downward on the handguard to ensure it locks into position.

Performance Steps

c. Replace the gas regulator.

(1) Insert the gas regulator into the lower end of the hole in the gas block. Align the notch on the gas regulator body with the notch in the gas block (figure 071-312-4025-24).

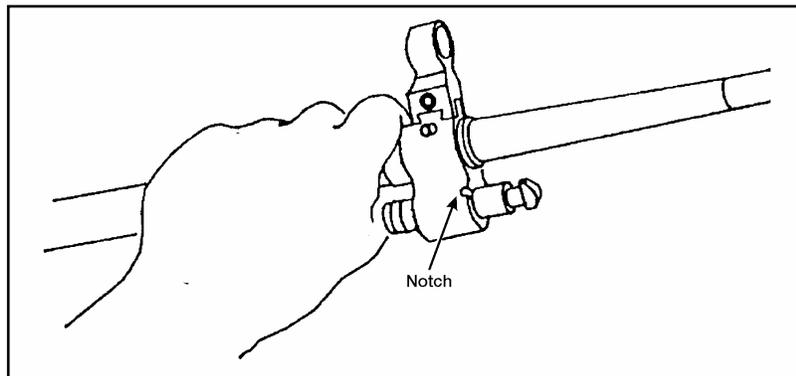


Figure 071-312-4025-24. Replacement of the gas regulator

(2) With the gas regulator installed and supported on a firm surface, place the gas collar on the protruding end of the gas regulator. Rotate the gas collar until it slips in place. To lock the gas regulator in place, press it in and rotate it (figure 071-312-4025-25).

Performance Steps

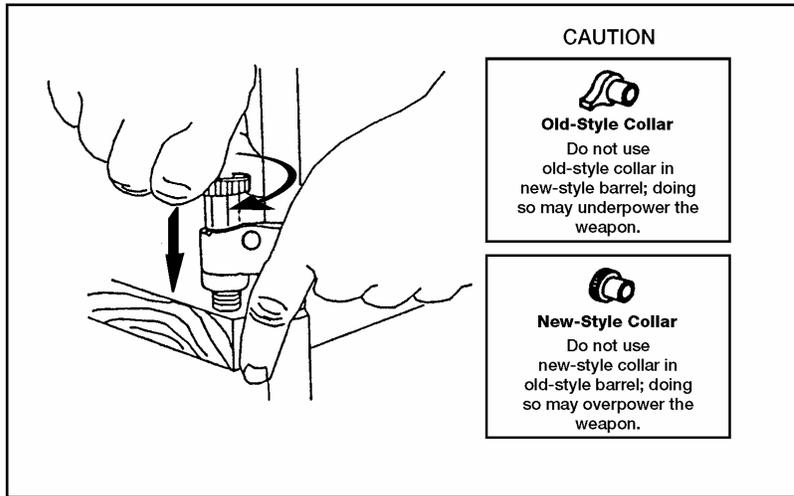


Figure 071-312-4025-25. Replacement of the gas collar

d. Replace the barrel.

(1) Depress the barrel-locking lever with your left hand (figure 071-312-4025-26).

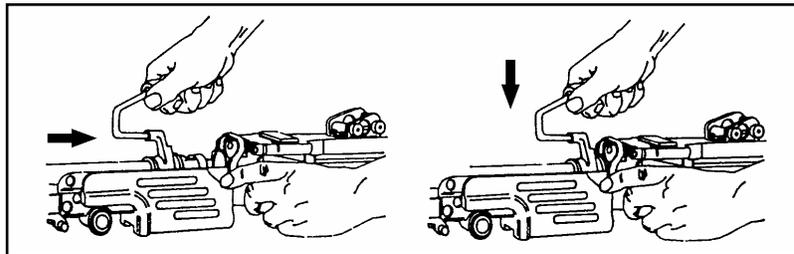


Figure 071-312-4025-26. Replacement of the barrel

(2) Hold the carrying handle with your right hand; pull the barrel rearward into the receiver. Push the carrying handle downward and release the barrel-locking lever. Check to ensure the barrel locks into position.

Performance Steps

- e. Replace the trigger mechanism (figure 071-312-4025-27).

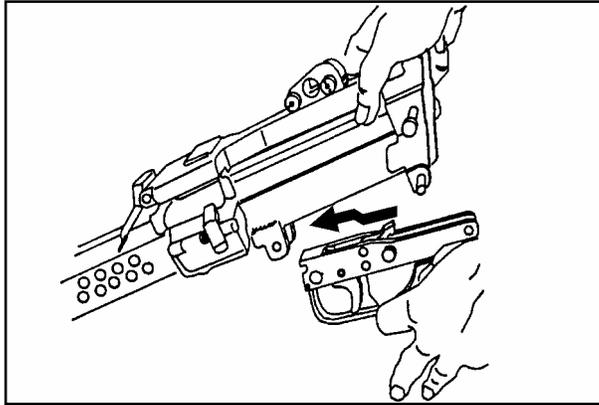


Figure 071-312-4025-27. Replacement of trigger mechanism

- (1) Pull the retaining pin to the left side of the receiver.
- (2) Align the trigger mechanism with the slot on the bottom of the receiver. To hold the trigger mechanism in place, push the lower retaining pin into the right side hole on the rear of the trigger mechanism assembly.

f. Replace the buttstock and shoulder assembly (figure 071-312-4025-28). Support the trigger mechanism with your left hand. Align the lower hole in the buttstock and buffer assembly with the rear hole in the trigger mechanism. Push the lower retaining pin to the right.

Performance Steps

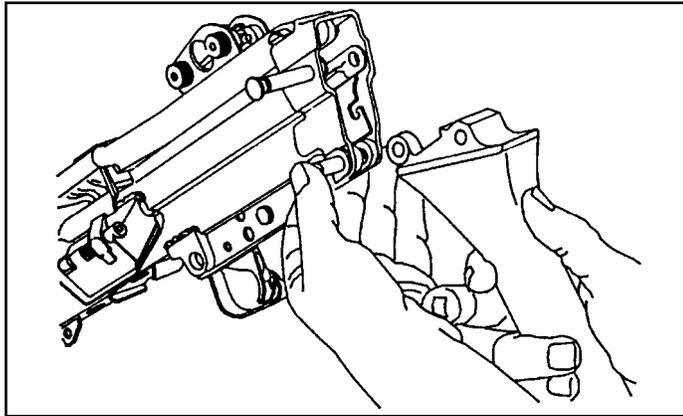


Figure 071-312-4025-28. Replacement of the buttstock and shoulder assembly

g. Replace the operating rod, slide assembly, and bolt assembly.

(1) Secure the slide assembly to the piston by pushing the retaining pin from the left to the right. Place the firing pin spring on the firing pin (figure 071-312-4025-29).

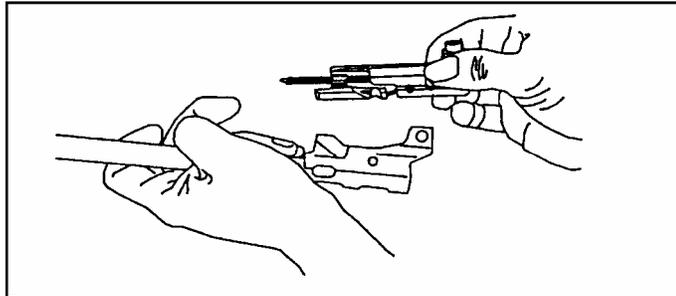


Figure 071-312-4025-29. Attachment of the slide assembly to the piston

(2) Put the bolt assembly into the slide assembly. Press in to compress the firing pin spring. Rotate the bolt and hook its driving lug into the slide assembly (figure 071-312-4025-30).

Performance Steps

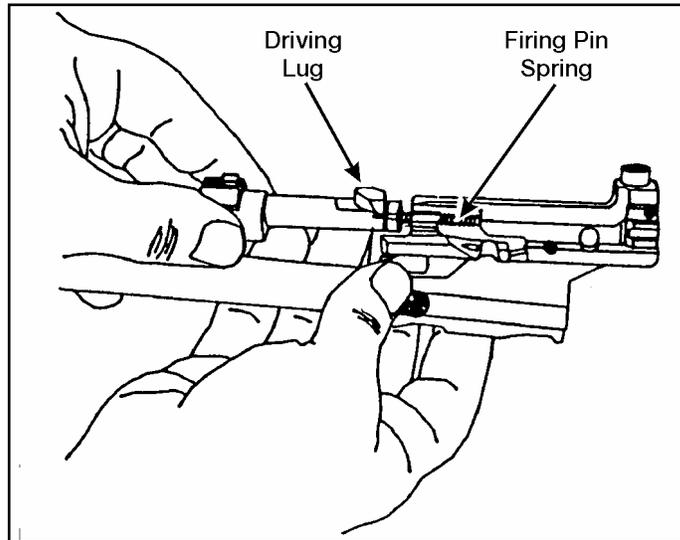


Figure 071-312-4025-30. Attachment of the bolt assembly to the slide assembly

(3) Put the assembled parts into the receiver with the feed cover open. Align and place the bolt lugs; slide the cutouts carefully onto the receiver rails. Press the trigger and, at the same time, push the parts all the way forward (figure 071-312-4025-31).

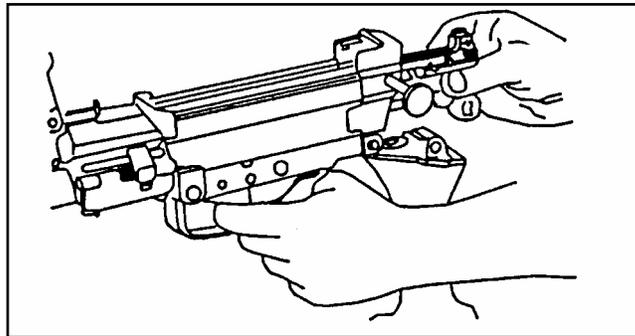


Figure 071-312-4025-31. Replacement of the operating rod, slide assembly, and bolt assembly

Performance Steps

h. Replace the spring, return rod, and transfer mechanism assembly.

(1) Put the slide spring on the return rod and transfer mechanism assembly (figure 071-312-4025-32).

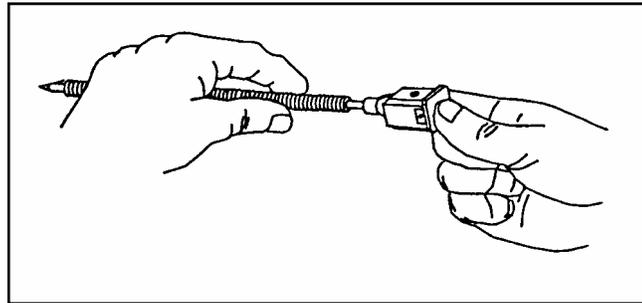


Figure 071-312-4025-32. Replacement of the spring

(2) Ensure that the headed end of the vertical pin in the transfer mechanism assembly points upward (on top of the transfer mechanism assembly) (figure 071-312-4025-33).

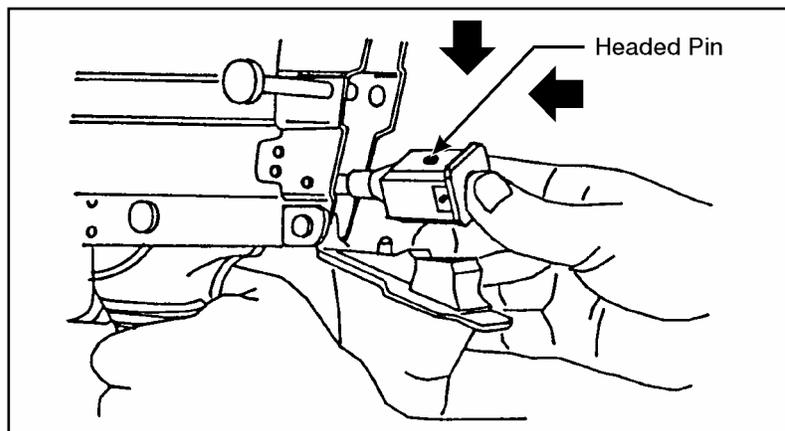


Figure 071-312-4025-33. Replacement of the return rod and transfer mechanism assembly

Performance Steps

(3) Hold the pistol grip with one hand. With the other hand, push the return rod and transfer mechanism assembly into its housing in the piston. Press inward and downward on the rear of the assembly until its two lugs move into the receiver grooves.

i. Pivot the buttstock and buffer assembly upward into position. Push the retaining pin to the right, and close the cover assembly (figure 071-312-4025-34).

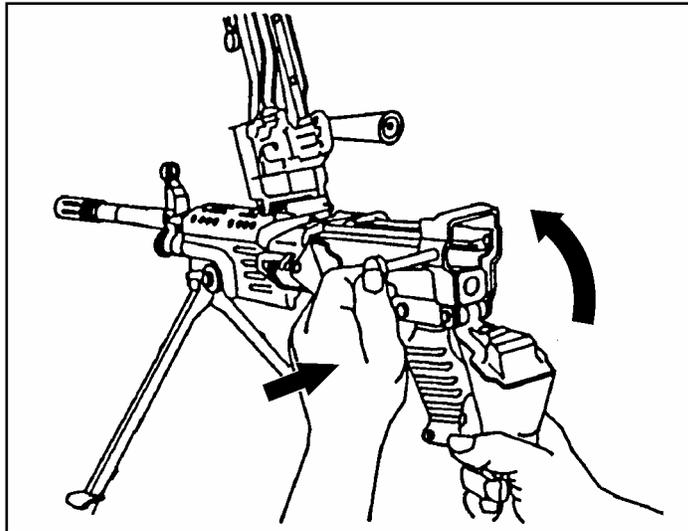


Figure 071-312-4025-34. Cleaning of the rear of the receiver

j. Replace the heat shield assembly (figure 071-312-4025-35).

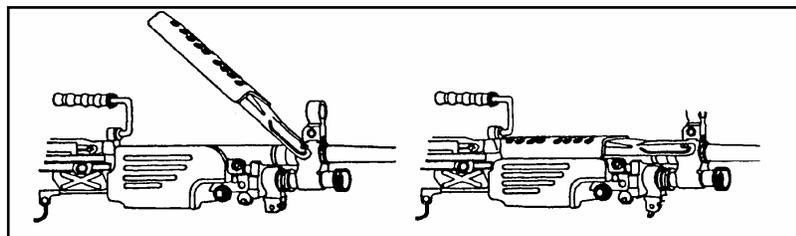


Figure 071-312-4025-35. Replacement of the heat shield assembly

Performance Steps

(1) Hook the metal extensions of the heat shield assembly under the front sight pins (new style barrel) with the spring clips down on top of the barrel

Note: Although old style barrels do not have protruding front sight pins, you can still install heat shield assemblies on them.

(2) Apply downward pressure and snap the heat shield onto the barrel. Be careful not to pinch yourself.

7. Perform a function check to ensure you have assembled the weapon correctly.

Evaluation Preparation: Setup: At the test site, provide all the equipment and materials listed in task conditions statement. Use only dummy ammunition for training purposes.

Brief Soldier: Tell the Soldier to perform maintenance on the M249, ammunition box, and linked 5.56-mm ammunition.

Performance Measures	GO	NO GO
1. Clear the weapon.	___	___
2. Disassemble the weapon without damaging any parts.	___	___
3. Clean the weapon, ammunition box, and ammunition.	___	___
4. Identify any damage, worn, or malfunctioning part(s).	___	___
5. Identify any damaged ammunition.	___	___
6. Lubricate the weapon using the correct lubrication technique.	___	___
7. Assemble the weapon in correct sequence without damaging any parts.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

TM 9-1005-201-10

Related

FM 3-22.68

071-312-4027

Load an M249 Machine Gun

Conditions: Given an M249 machine gun, small arms ammunition box, and linked 5.56-mm ammunition.

Standards: Attach the ammunition box to the receiver correctly. Place linked 5.56-mm ammunition in the feed tray groove so that, when the cover is closed, a round remains in the tray groove and the ammunition feeds correctly.

Performance Steps

1. With the palm facing up, pull the cocking handle to the rear. This locks the bolt in the rear position.
 2. Push the cocking handle forward until you hear it click into the locked position (figure 071-312-4027-1).
-

Performance Steps

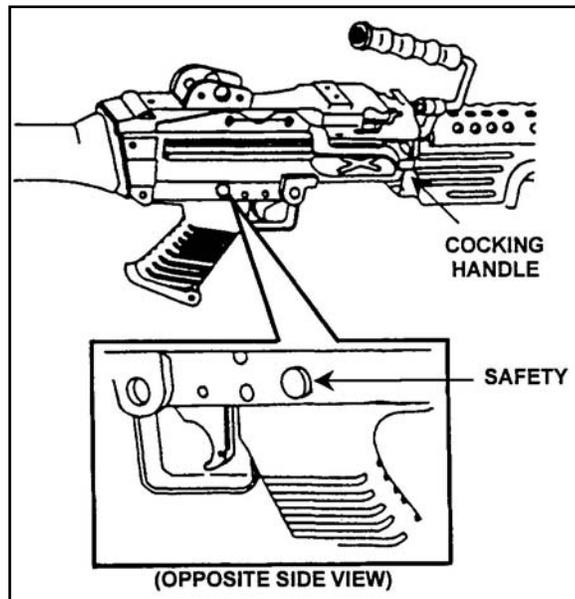


Figure 071-312-4027-1. M249 locking handle and safety

3. Push the safety from left to right for safe mode (the red band will not show) (figure 071-312-4027-1).
4. Open the cover, raise the feed tray assembly, and make sure the feed tray, receiver, and chamber area are clear (figure 071-312-4027-2).

Performance Steps

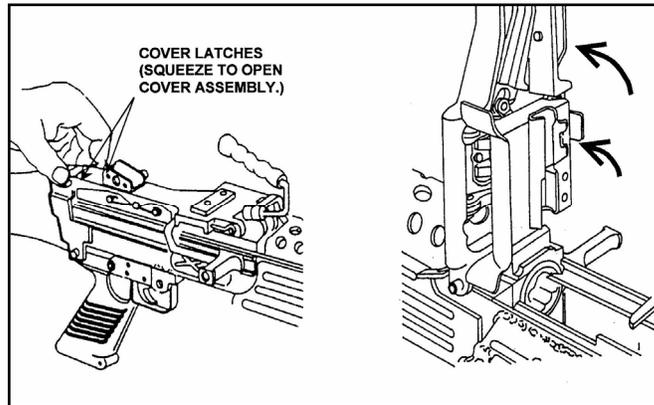


Figure 071-312-4027-2. Checking the of feed tray, receiver, and chamber area

5. Attach the ammunition box with linked 5.56-mm ammunition to the underside of the receiver. To do so, align the box latch with the dovetail on the receiver (figure 071-312-4027-3). Pull outward on the ammunition box to make sure the aligning box latch engages.

Performance Steps

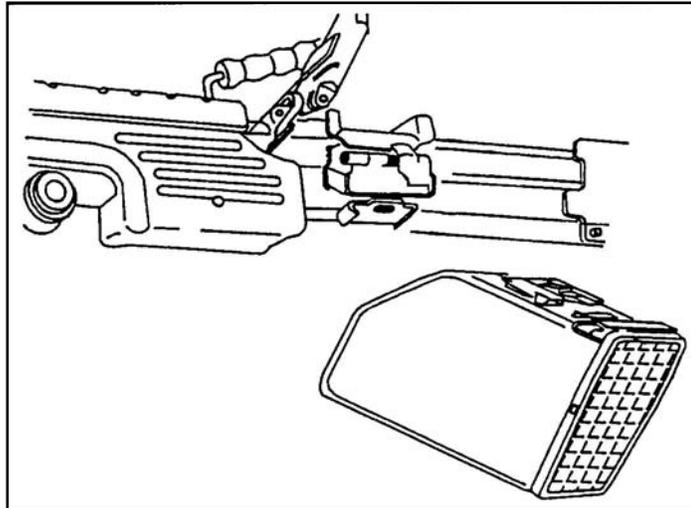


Figure 071-312-4027-3. Attachment of the ammunition box

6. Place the link belt in the feed tray with the first round against the cartridge stop, and hold the belt in place. Close the cover assembly (figure 071-312-4027-4).

Performance Steps

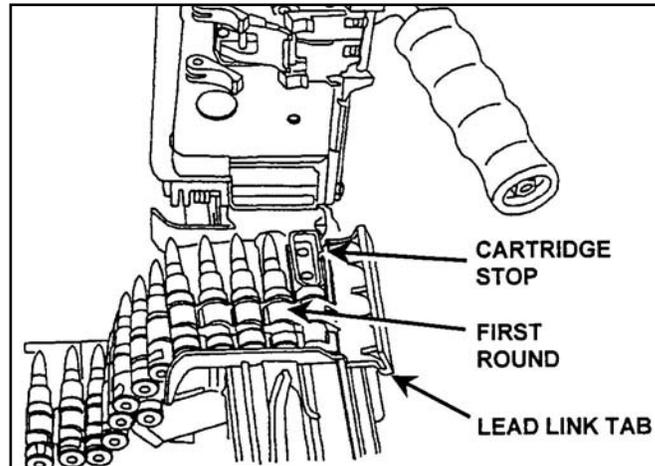


Figure 071-312-4027-. Link belt in feed tray

WARNING

The weapon is now loaded.

Evaluation Preparation: Setup: Use dummy ammunition to test this task. At the test position, provide an M249 and a belt of linked, dummy 5.56-mm ammunition. For standardization, always make sure to place the bolt and cocking handle forward and the safety on safe. Make sure the ammunition is clean and linked properly. Have an assistant relink and wipe the ammunition clean before the next test.

Brief Soldier: Tell the Soldier to load the M249 machine gun.

Performance Measures	GO	NO GO
1. Lock the bolt in the rear position.	___	___
2. Push the cocking handle forward to the locked position.	___	___
3. Push the safety to safe position.	___	___

Performance Measures	GO	NO GO
4. Check to make sure the feed tray, receiver, and chamber are clear.	_____	_____
5. Attach ammunition box with linked ammunition to the receiver.	_____	_____
6. Place link belt in feed tray with first round against cartridge.	_____	_____
7. Close the cover.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.68

TM 9-1005-201-10

071-312-4028

Unload an M249 Machine Gun

Conditions: Given an M249 machine gun loaded with 5.56-mm ammunition (linked or in an M16 magazine).

Standards: Remove all ammunition, expanded brass, links, and magazine from the weapon.

Performance Steps

1. Pull the cocking handle to the rear to lock the bolt in the rear position.
 2. Place the safety on safe (the red band will not show) and return the cocking handle to its forward position.
-

Performance Steps

3. Remove ammunition and links.
 - a. Belt-fed. Raise the cover and remove any ammunition or links from the feed tray.
 - b. Magazine-fed. Push down on the magazine release tab and pull the magazine out. Then, raise the cover.
4. Raise the feed tray and inspect the chamber to ensure that it contains no ammunition. However, if it does contain ammunition, remove the ammunition.
5. Close the cover.
6. Place the safety in the fire mode (the red band will show).
7. Pull the cocking handle to the rear, and pull the trigger while manually easing the bolt forward to the closed position.

Evaluation Preparation: Setup: At the test site, provide the Soldier with all the equipment given in the task condition statement. Evaluate this task using dummy 5.56-mm linked rounds or dummy 5.56-mm ammunition loaded in 30-round M16 magazines.

Brief Soldier: Tell the Soldier to unload the M249 in the correct manner.

Performance Measures	GO	NO GO
1. Pull the cocking handle to the rear, locking the bolt in the rear position.	___	___
2. Place the safety on safe mode (the red band will not show) and returned the cocking handle to its forward position.	___	___
3. Remove ammunition and links. <ol style="list-style-type: none">a. Belt-fed. Raise the cover and remove any ammunition or links from the feed tray.b. Magazine-fed. Push down on the magazine release tab and pull the magazine out. Then raise the cover.	___	___

Performance Measures	GO	NO GO
4. Raise the feed tray and inspect the chamber to ensure that it contains no ammunition. If it contains ammunition, remove it.	_____	_____
5. Close the cover.	_____	_____
6. Place the safety in the fire mode (the red band will show).	_____	_____
7. Pull the cocking handle to the rear, and pull the trigger while manually easing the bolt forward to the closed position.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.68

SUBJECT AREA 12: M60 MACHINE GUN

071-312-3025

Maintain an M60 Machine Gun

Conditions: Given an M60 machine gun that needs to be cleaned and inspected. You have a cleaning kit, cleaner lubricant preservative (CLP), lubricating oil arctic weather (LAW), swabs, a dummy cartridge, and a field table or ground cloth on which to work.

Standards:

1. Disassemble the M60 machine gun into the following groups: stock; buffer and operating rod; bolt assembly; trigger mechanism; barrel; feed cover, feed tray, and hanger; forearm; and receiver.
2. Clean the M60 machine gun, remove powder fouling and other foreign material, and identify any unserviceable parts. Do not get CLP in the gas cylinder.
3. Lubricate the M60 machine gun.

4. Assemble the M60 machine gun, perform a function check, ensure the forearm group is locked in place, the hinge pin is interlocked with the latch engaging the sear pin, and the stock group latch is engaged.

Performance Steps

WARNING

Weapon must be clear before disassembling.

1. Clear the M60 machine gun.
 - a. Pull the cocking handle to the rear.
 - b. Lock the bolt to the rear.
 - c. Raise the feed cover.
 - d. Ensure the chamber is empty.
 - e. Close the feed cover.
 - f. Place the safety lever on FIRE.
 - g. Pull the cocking handle to the rear and hold it.
 - h. Pull the trigger and allow the bolt to ease forward.
 - i. Place the selector lever on SAFE.
 2. Remove the stock group.
 - a. Raise the hinged shoulder rest.
 - b. Insert the nose of a dummy cartridge into the latch hole (figure 071-312-3025-1).
-

Performance Steps

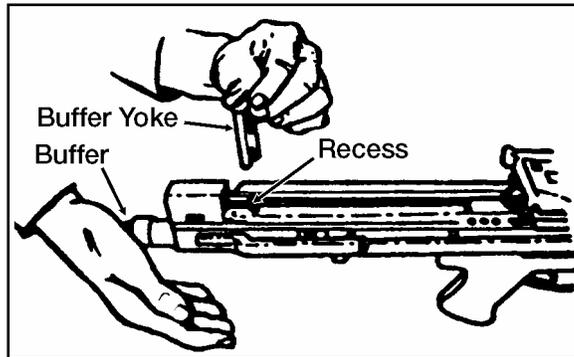


Figure 071-312-3025-2. Buffer yoke

- (2) Remove the buffer yoke from the top of the receiver.
- (3) Remove the buffer slowly by pulling it rearward. Allow the driver spring guide to expand until the end of the guide is showing at the rear of the receiver.
- (4) Pull the buffer plunger from the driver spring guide (figure 071-312-3025-3).

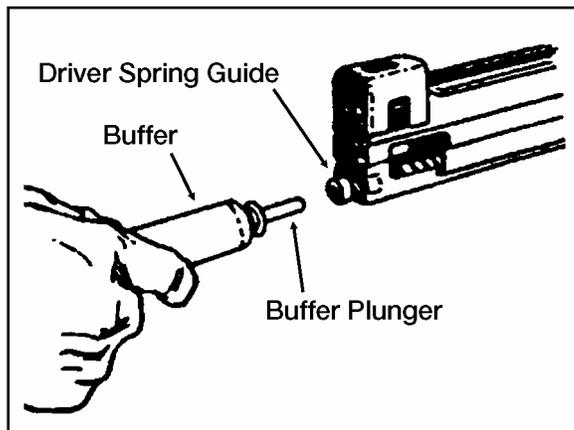


Figure 071-312-3025-3. Buffer

Performance Steps

- (5) Pull the driver spring guide and spring from the receiver.
- (6) Separate the driver spring from the driver spring guide.
- b. Remove the operating rod and bolt.
 - (1) Grasp the pistol grip with the left hand.
 - (2) Pull the cocking handle to the rear with your right hand until the bolt separates from the barrel socket.
 - (3) Return the cocking handle to the forward position.
 - (4) Pull the cam roller until it stops. This pulls the rod and bolt to the rear.
 - (5) Push the bolt to the rear with your finger on the face of the bolt (figure 071-312-3025-4).

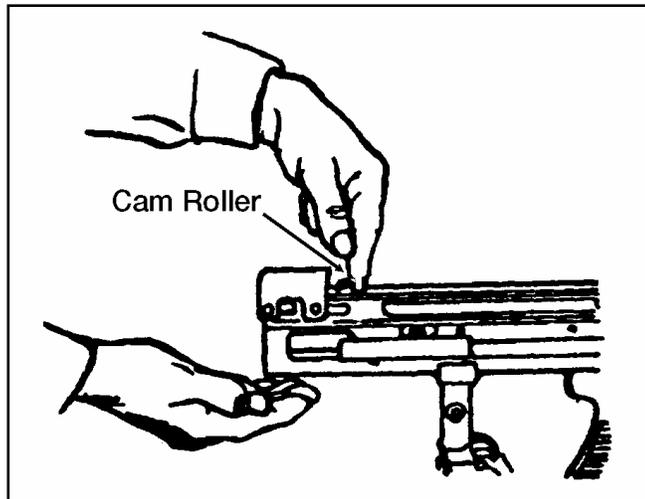


Figure 071-312-3025-4. Cam roller

- (6) Grasp the operating rod and bolt when they are about 4 inches out of the cylinder to prevent the bolt from rotating.
- (7) Pull the operating rod and bolt from the receiver (figure 071-312-3025-5).

Performance Steps

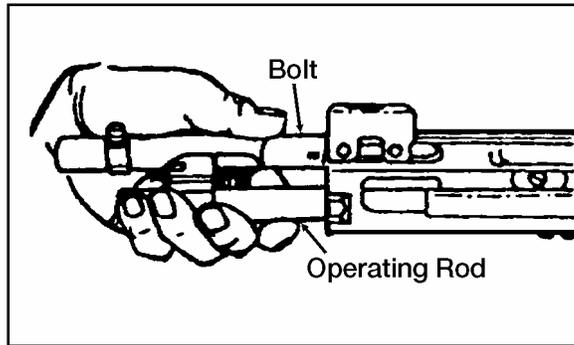


Figure 071-312-3025-5. Operating rod and bolt

- (8) Relax your grip, allowing the bolt to rotate slowly.
- (9) Grasp the bolt and operating rod with both hands. The bolt should be on the bottom, facing away from your body.
- (10) Disengage the bolt from the operating rod by pulling forward on the operating handle and lifting upward (figure 071-312-3025-6).

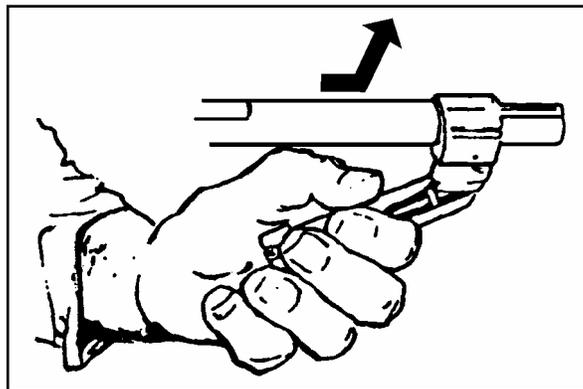


Figure 071-312-3025-6. Bolt assembly and operating rod being separated

Performance Steps

- 4.** Remove the trigger mechanism group consisting of the grip, leaf spring, and retaining pin.
 - a.** Press in on the rear of the leaf spring.
 - b.** Rotate the rear of the leaf spring up to clear it from the sear pin (figure 071-312-3025-7).

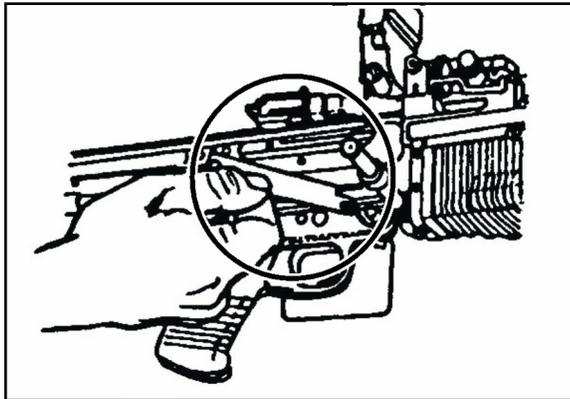


Figure 071-312-3025-7. Sear pin

- c.** Pull the leaf spring to the rear, disengaging it from the front notch of the retaining pin.
- d.** Remove the retaining pin by pushing it to the left.
- e.** Remove the trigger mechanism.
 - (1)** Slide the trigger mechanism slightly forward.
 - (2)** Rotate the front of the trigger mechanism housing down.
 - (3)** Remove the trigger mechanism (figure 071-312-3025-8).

Performance Steps

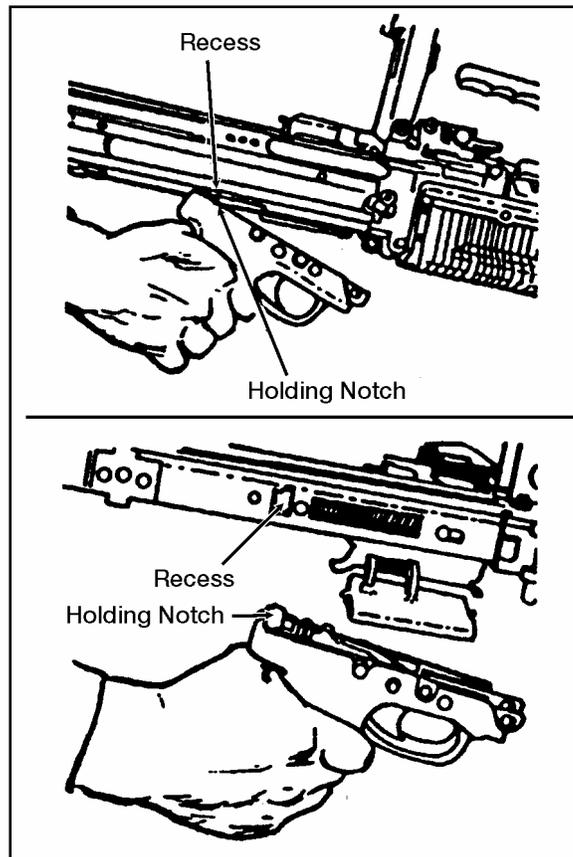


Figure 071-312-3025-8. Trigger mechanism group

5. Remove the cover, feed tray, and hanger group.
 - a. Remove the feed cover.
 - (1) Raise the feed cover.
 - (2) Unlock the hinge pin using a pointed object (figure 071-312-3025-9).

Performance Steps

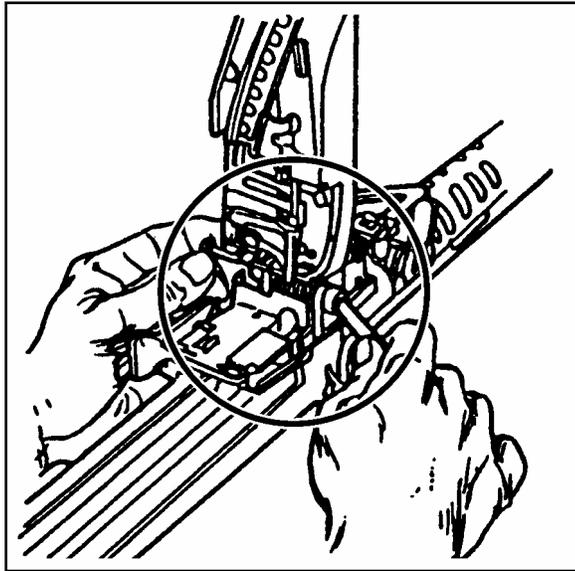


Figure 071-312-3025-9. Hinge pin latch

- (3) Push the hinge pin out of its recess and remove it from the opposite side of the hinge pin latch.
 - (4) Lift the feed cover from the receiver assembly.
 - (5) Remove the feed cover spring from the cover.
- b.** Lift the feed tray and hanger group from the receiver assembly (figure 071-312-3025-10).

Performance Steps

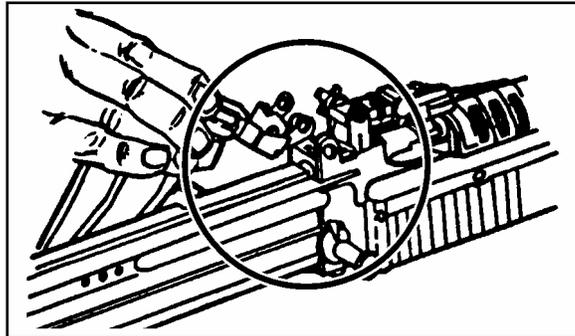


Figure 071-312-3025-10. Feed tray and hanger group

6. Remove the barrel group, made up of the barrel, flash suppressor, front sight, bipod assembly, and gas cylinder system.
 - a. Push in on the barrel locking lever plunger (figure 071-312-3025-11).

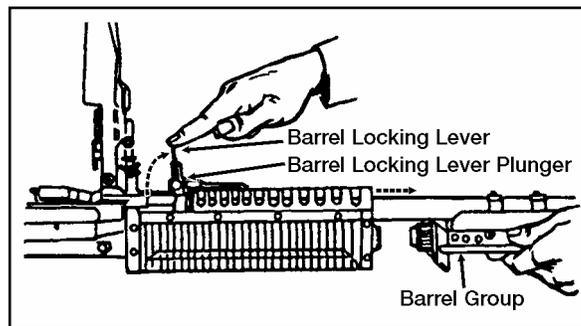


Figure 071-312-3025-11. Barrel locking lever

- b. Raise the barrel locking lever to the vertical position.
 - c. Remove the barrel group by pulling it straight to the front of the rifle.

Performance Steps

7. Remove the forearm assembly.
 - a. Turn the receiver so the top is facing down.
 - b. Insert a pointed object into the latch hole at the bottom rear of the forearm assembly (figure 071-312-3025-12).

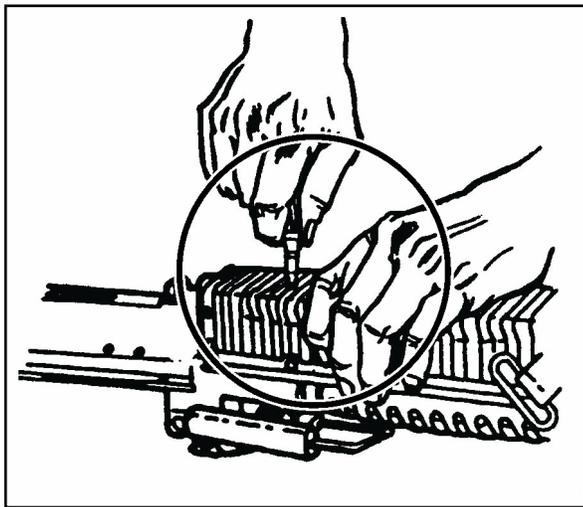


Figure 071-312-3025-12. Forearm latch

- c. Release the forearm latch by pressing downward with a pointed object.
 - d. Raise the rear of the forearm assembly slightly.
 - e. Pull the forearm assembly to the front to remove it.

Note: This completes general disassembly of the M60 machine gun. The receiver group requires no disassembly.

8. Clean the M60 machine gun.

CAUTION

Do not use gasoline, kerosene, benzene, or high pressure water, steam, or air for cleaning.

Performance Steps

- a. Position the gas cylinder above the barrel during cleaning so as not to get CLP in the gas cylinder.
- b. Clean the bore using CLP and a bore brush attached to a cleaning rod.
 - (1) Run the brush through the bore without reversing the direction of the brush while it is in the bore.
 - (2) Repeat the preceding step until most of the powder fouling and other foreign matter have been removed.
 - (3) Swab out the bore several times using a cleaning rod and a swab wet with CLP.
 - (4) Swab out the bore several times using a cleaning rod and a dry swab.
- c. Clean the chamber using CLP and a chamber brush attached to a cleaning rod.
 - (1) Run the brush through the chamber.
 - (2) Repeat the preceding step until most of the powder fouling and other foreign matter have been removed.
 - (3) Swab out the chamber several times using a cleaning rod and a swab wet with CLP.
 - (4) Swab out the chamber several times using a cleaning rod and dry swab.
- d. Clean the receiver with a receiver brush and CLP.
 - (1) Brush the receiver until most of the powder fouling and other foreign matter have been removed.
 - (2) Swab out the receiver several times using a cleaning rod section and a swab wet with CLP.
 - (3) Swab out the receiver several times using a cleaning rod section and dry swab.
- e. Clean the buffer and operating rod group using CLP and a receiver brush. Do not submerge the buffer in any cleaning solvents.
 - (1) Brush the buffer group until powder fouling and other foreign matter have been removed.

Performance Steps

(2) Swab out the operating rod several times using a cleaning rod section and a swab wet with CLP.

(3) Swab out the operating rod several times using a cleaning rod section and a dry swab.

f. Wipe down all parts of the M60 machine gun except the rubber-coated parts with a rag wet with CLP.

g. Dry all parts cleaned with CLP.

9. Inspect the parts for serviceability.

a. Stock group.

(1) Ensure the stock group fits securely on the receiver.

(2) Check the guide rails for cracks, bends, or burrs.

(3) Check the shoulder rest and stock latch for binding.

(4) Check the rubber coating for gumming or cracking.

b. Buffer and operating rod group.

(1) Check the yoke and yoke recess for burrs, cracks, or bends.

(2) Ensure the buffer plunger fits easily into the recess in the driver spring guide.

(3) Check the driver spring for kinks and broken or separated wires.

(4) Check the driver spring guide for bends, ensuring the spool is tight on the shaft.

(5) Check the sear notch on the operating rod for excessive wear or burring.

c. Bolt assembly group.

(1) Check the bolt plug, bolt plug pin, and actuator cam assembly for chips and burrs.

(2) Check the firing pin for cracks or wear on the tip.

(3) Check the ejector and extractor to ensure they are under spring tension and are not chipped or worn.

Performance Steps

- d. Trigger mechanism group.
 - (1) Check the shoulder of the sear for excessive wear.
 - (2) Check the mechanism for cracks (check carefully near the retaining pins).
 - (3) Check the leaf spring to ensure it is under tension.
 - (4) Check the safety for correct function. (The sear should move only slightly when the safety lever is on SAFE, and freely when the safety lever is on FIRE.)
- e. Barrel group.
 - (1) Check to ensure the suppressor is tight.
 - (2) Check the front sight and barrel locking-cam for bends, cracks, burrs, or excessive wear.
 - (3) Check the bipod assembly for correct functioning. (The legs should lock in the up and down position. The leg extension should lock at the desired heights.)
 - (4) Check the gas piston and gas cylinder for burrs.
 - (5) Check the detent on the tab lock washers of the gas cylinder nut and gas cylinder extension to ensure it is not broken.
 - (6) Check the bleeder hole in the gas cylinder extension to ensure it is clear.
- f. Feed cover, feed tray, and hanger.
 - (1) Check to ensure all parts inside the feed cover are under spring tension.
 - (2) Check the feed cover to ensure it is not bent or torn.
 - (3) Check the belt holding pawl to ensure it is under spring tension.
- g. Forearm assembly.
 - (1) Check the assembly to ensure it is not bent.
 - (2) Check the spring in the latch to ensure it is not broken.
- h. Receiver group.
 - (1) Check the receiver to ensure it is not bent or cracked.
 - (2) Check the cocking handle to ensure it slides freely within its guide path.

Performance Steps

(3) Check the elevation scale on the rear sight to ensure it is legible. The elevation screw should not be burred or worn.

10. Lubricate the M60 machine gun.

Note: When lubricating the M60 machine gun at temperatures below 0 degrees Fahrenheit, use LAW and lubricate lightly to avoid freeze-ups; under all other conditions, use CLP. When using LAW, lubrication techniques are the same as for CLP.

a. Make sure you do not get CLP inside the buffer assembly or inside the gas cylinder.

b. Run a cleaning patch with several drops of CLP on it through the bore.

c. Wipe down all non rubber-coated exterior surfaces of the M60 machine gun with a rag with several drops of CLP on it.

d. Use CLP to lubricate the following surfaces.

(1) Bolt locking lugs by the camming surfaces.

(2) Operating rod surfaces along the receiver rails.

(3) Actuator roller on the bolt and where the bolt actuator rides the feed pawl carrier on the underside of the cover assembly.

11. Assemble the M60 machine gun in the following order.

a. Assemble the forearm group.

(1) Guide the forearm assembly over the operating rod tube, ensuring the operating rod does not strike the baffles inside the forearm assembly.

(2) Align the recess in the forearm assembly with the end of the operating rod tube.

(3) Tap up on the bottom rear of the forearm assembly with the palm of your hand to lock it in position.

b. Assemble the feed cover, feed tray, and hanger group.

(1) Align the guides of the feed tray and hanger on the left side of the cover mounting brackets and seat the feed tray, and hanger in the receiver.

(2) Replace the cover.

Performance Steps

- (a) Insert the cover spring in the cover.
 - (b) Align the cover with the mounting brackets.
 - (c) Insert the hinge pin from the right side.
 - (d) Insert the hinge pin latch from the left side, making sure that the hinge pin and the hinge pin latch interlock.
- c. Assemble the barrel group.
- (1) Make sure the barrel locking lever is in the vertical position (figure 071-312-3025-11).
 - (2) Put the rear of the barrel through the forearm assembly.
 - (3) Align the gas cylinder nut with its recess in the forearm assembly.
 - (4) Lower the barrel locking lever to its most downward position.
- d. Assemble the trigger mechanism group (figure 071-312-3025-8).
- (1) Engage the holding notch of the trigger mechanism group in its recess in the bottom of the receiver (figure 071-312-3025-8).
 - (2) Rotate the front of the trigger mechanism up.
 - (3) Align the holes of the trigger mechanism with the mounting bracket on the receiver.
 - (4) Insert the retaining pin from the left.
 - (5) Attach the leaf spring by placing the open end of the leaf spring on the retaining pin.
 - (6) Engage the hooked end to the sear pin.
- e. Assemble the bolt and operating rod group.
- (1) Hold the bolt securely in one hand with the camming slot up. The face of the bolt should be toward the body.
 - (2) Position the rear of the operating rod yoke against the rear firing pin spool with the other hand (figure 071-312-3025-13).

Performance Steps

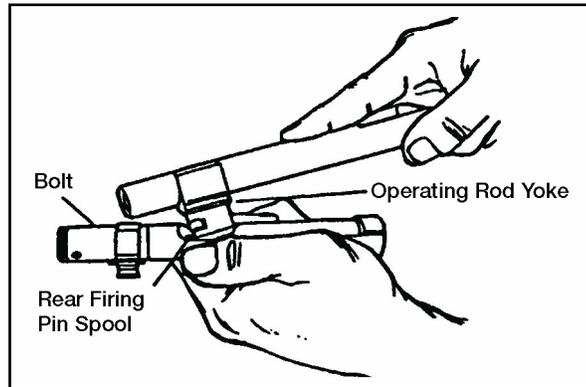


Figure 071-312-3025-13. Rear of operating rod yoke positioned against rear firing pin spool

- (3) Push on operating rod, compressing the firing pin spring.
- (4) Position the operating rod yoke between the firing pin spool.
- (5) Push forward on the rear of the bolt with the other hand, causing the bolt to rotate until the locking lugs are vertical and the cam roller is up.
- (6) Push the operating rod and bolt (ensure the cam roller faces up) into the receiver until the end of the operating rod is even with the rear of the receiver (figure 071-312-3025-14).

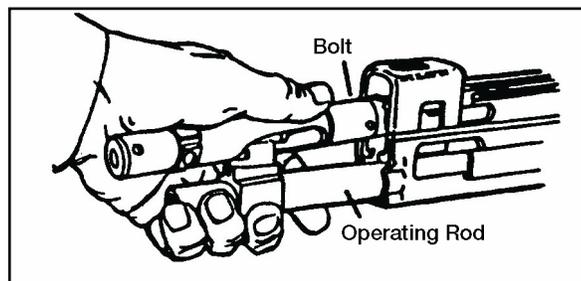


Figure 071-312-3025-14. Operating rod and bolt

- (7) Put the driver spring guide into the driver spring.

Performance Steps

(8) Put the free end of the driver spring in the opening of the operating rod.

(9) Pull the trigger.

(10) Push in the driver spring until the head of the guide is about 1 inch from the receiver (figure 071-312-3025-3).

f. Assemble the buffer group (figure 071-312-3025-2).

(1) Put the buffer plunger into the driver spring guide.

(2) Push forward on the buffer until the operating rod and bolt go fully forward.

(3) Push in on the buffer until the recesses on the buffer are aligned with the recesses in the receiver.

(4) Place the buffer yoke in the buffer recess on top of the receiver.

g. Assemble the stock group.

(1) Align the guide rails of the stock group with the guide rails on the receiver.

(2) Push forward until the stock is fully seated. You will hear a distinct click when the latch engages.

12. Perform a function check to ensure that the M60 machine gun is assembled correctly.

a. Place the safety on FIRE.

b. Pull the cocking handle to the rear.

c. Return the cocking handle forward to the locked position.

d. Close the cover.

e. Place the safety on SAFE.

f. Pull the trigger; the weapon should not fire.

g. Place the safety on FIRE.

h. Pull the cocking handle to the rear, holding it in that position.

i. Pull the trigger, allowing the bolt to ease forward.

j. Store the weapon in the arms room or continue the mission.

Evaluation Preparation: Setup: At the test site, provide one M60 machine gun, all required cleaning equipment, and a field table or ground cloth on which to work.

Brief Soldier: Tell the Soldier to disassemble, clean, assemble, and perform a function check on the machine gun.

Performance Measures	GO	NO GO
1. Cleared the weapon so that the selector lever was on SAFE.	___	___
2. Disassembled the weapon into the major groups without damaging any components.	___	___
3. Cleaned the weapon removing the powder fouling and other foreign material, drying all components cleaned with CLP.	___	___
4. Identified any damaged, worn, or malfunctioning components.	___	___
5. Assembled the weapon in the correct sequence without damaging any components.	___	___
6. Performed a function check, ensured the weapon operates properly.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

- FM 3-22.68
- TM 9-1005-224-10
- TM 9-1005-224-23&P

Related

071-312-3027

Load an M60 Machine Gun

Conditions: Given a cleared M60 machine gun with a bipod, linked 7.62-mm ammunition.

Standards: Load linked ammunition in the feed tray groove. Ensure that when you close the cover, a round remains in the tray groove and the ammunition feeds correctly.

Performance Steps

WARNING

Keep all loaded weapons pointed in the direction of the target area.

1. Place the safety on "F" (fire).
2. With the palm of your hand facing up, pull the cocking handle to the rear to lock the bolt open.
3. Return the cocking handle to the forward position.
4. Place the safety on "S" (safe).
5. Raise the cover.
6. Ensure that the feed tray, receiver group, and chamber are clear.
7. Place the first round of the belt in the feed tray groove. Ensure that the double link is leading with the open side of the link down.
8. Hold the belt up (about six rounds from the loading end) while closing the cover, to ensure that the first round remains in the feed tray groove.

Evaluation Preparation: Setup: At the test position, emplace an M60 machine gun with bipod legs extended. Place a belt of linked, dummy, 7.62-mm ammunition with the gun. For standardization, place the bolt and cocking handle forward, the safety on "S," and the belt of ammunition on top of the cover. Ensure the ammunition is clean and linked properly. For repeat testing, get an assistant to relink and wipe the ammunition clean.

Brief Soldier: Tell the Soldier to load the M60 machine gun.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Place the safety on "F."	___	___
2. Pull the cocking handle to the rear position with the palm up.	___	___

Performance Measures	GO	NO GO
3. Return the cocking handle to the forward position.	___	___
4. Place the safety on "S."	___	___
5. Raise the cover.	___	___
6. Ensure the feed tray, receiver group, and chamber are clear.	___	___
7. Place the first round in the feed tray groove.	___	___
8. Hold the belt up while closing the cover.	___	___
9. Close the cover so that the first round remains in the feed tray groove.	___	___
10. Complete performance measures 1 through 9 in sequence.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-22.68

Related

TM 9-1005-224-10

071-312-3028

Unload an M60 Machine Gun

Conditions: Given an M60 machine gun loaded with linked 7.62-mm ammunition, and a bipod.

Standards: Remove all ammunition and links from the machine gun. Clear the weapon, ensure the chamber is empty and the safety is on "S" (safe).

Performance Steps

WARNING

Keep the M60 machine gun oriented on the target area while unloading.

1. Remove the ammunition from the M60 machine gun.
 - a. Pull the cocking handle to the rear, ensuring that the bolt is locked to the rear.
 - b. Place the safety lever on "S" (safe).
 - c. Return the cocking handle to its forward position.
 - d. Raise the cover.
 - e. Remove any ammunition or links from the tray.
 - f. Raise the feed tray.
 - g. Look into the chamber to ensure that it is empty.
2. Clear the weapon.
 - a. Confirm that no ammunition is in the chamber.
 - b. Close the cover.
 - c. Place the safety on "F" (fire).
 - d. Pull the cocking handle to the rear, holding it.

CAUTION

To prevent damage to the feed tray and operating rod assemblies, ease the bolt forward. Do not close the cover with the bolt forward.

- e. Pull the trigger, allowing the bolt to ease forward.
- f. Place the safety on "S" (safe).

Evaluation Preparation: Setup: At the test site, place an M60 machine gun loaded with a belt of five or more rounds of linked ammunition. Extend the bipod legs. For standardization, begin with the bolt forward and the safety on "F" (fire).

Brief Soldier: Tell the Soldier to assume the prone position.

Performance Measures	GO	NO GO
1. Remove the ammunition from the M60 machine gun.	_____	_____
a. Pull the cocking handle to the rear, ensuring that the bolt is locked to the rear.		
b. Place the safety lever on "S" (safe).		
c. Return the cocking handle to the forward position.		
d. Raise the cover.		
e. Remove any ammunition or links from the tray.		
f. Raise the feed tray.		
g. Look into the chamber to ensure that it is empty.		
2. Clear the M60 machine gun.	_____	_____
a. Confirm that no ammunition is in the chamber.		
b. Close the cover.		
c. Place the safety on "F" (fire).		
d. Pull and hold the cocking handle to the rear.		
e. Pull the trigger, allowing the bolt to ease forward.		
f. Place the safety on "S" (safe).		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-22.68

Related

STP 21-1-SMCT

11 October 2005

071-312-3028

3-461

071-312-3031

Engage Targets With an M60 Machine Gun

Conditions: Given a zeroed M60 machine gun with a bipod and linked 7.62-mm ammunition, and engageable targets in the assigned sector of fire.

Standards: Fire the M60 machine gun to engage targets in your assigned sector of fire, and apply correct M60 machine gun target-engagement techniques so that you hit each target.

Performance Steps

1. Assume a stable, prone firing position.
2. Align the sights on the target to get a correct sight picture.
 - a. Align the sight by centering the front sight blade in the aperture of the rear sight with the top of the front sight blade, and even with the top of the rear sight slide (figure 071-312-3031-1).

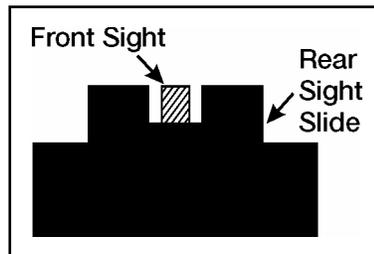


Figure 071-312-3031-1. Sight alignment

- b. Obtain a sight picture by centering the target over the front sight blade. The target should appear to rest on top of the front sight blade and on top of the rear sight slide (figure 071-312-3031-2).

Performance Steps

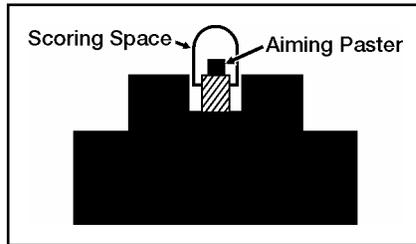


Figure 071-312-3031-2. Sight picture

3. Fire the M60 machine gun.
 - a. Pull the trigger straight to the rear.
 - b. Say to yourself, "Fire a burst of six."
 - c. Release the trigger.

Note: This self-talk will help you control the number of rounds in each burst. It also prevents excessive wear on the sear and the sear notch.

4. If you miss the target with your initial burst, select a new aiming point the same distance from the target as the center of impact of the initial burst, but in the opposite direction, and fire a second burst.
5. Adjust fire using the adjusted aiming point method (figure 071-312-3031-3).

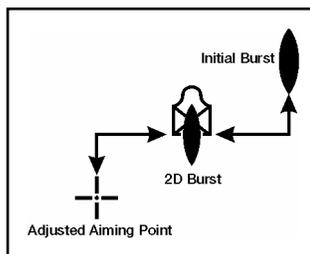


Figure 071-312-3031-3. Adjusting the aiming point

Performance Steps

- a. Observe the impact of rounds in the target area by watching the flight of tracer rounds or the strike of rounds in the target area.
- b. Change your body position.

Note: Traverse means to move the muzzle of the weapon to the left or right to distribute fire laterally.

- c. Traverse the target area with a bipod-mounted M60 machine gun by selecting successive aiming points (figure 071-312-3031-4).

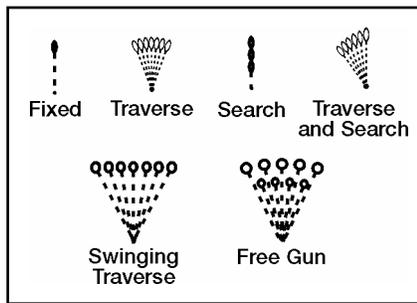


Figure 071-312-3031-4. Traversing and searching

- (1) Shift your shoulders slightly to the right or left for minor changes in direction.
- (2) For major changes, move your elbows and align your body to remain directly behind the gun.

Note: "Search" means to move the muzzle of the weapon up or down to distribute fire in depth across the target area.

- d. Search the target area by selecting successive aiming points. Change elevation by moving your elbows closer together or farther apart (figure 071-312-3031-4).

6. Engage an area target using six- to nine-round bursts.

- a. Determine the width and depth of the target.
- b. Fire six- to nine-round bursts until you hit the center mass of the target area (figure 071-312-3031-5).

Performance Steps

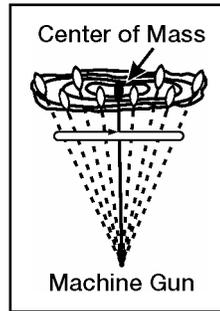


Figure 071-312-3031-5. Center of mass

- c.** Adjust fire by traversing and searching to cover all of the target area.
- 7.** Engage a point target using six- to nine-round bursts (figure 071-312-3031-6).

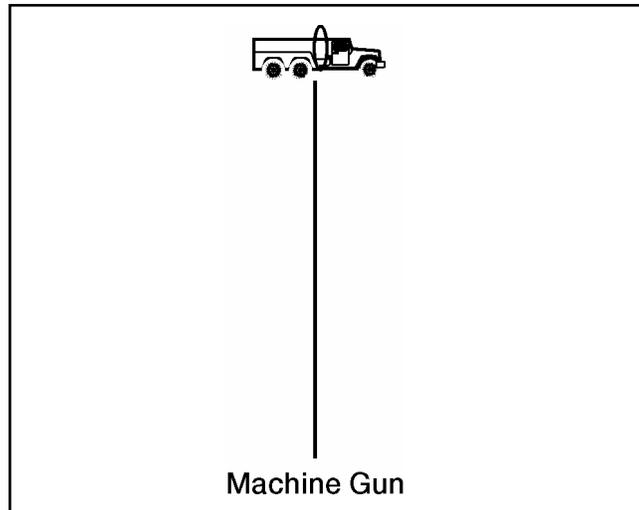


Figure 071-312-3031-6. Point target engagement

- a.** Select a distinct aiming point.

Performance Steps

- b.** Estimate range.
 - c.** Fire six- to nine-round bursts to obtain accurate range and deflection.
 - d.** Place effective fire on the target by observing the rounds as they impact in the target area. Make necessary adjustments to hit the target.
- 8.** Engage a moving target using six- to nine-round bursts (figure 071-312-3031-7).

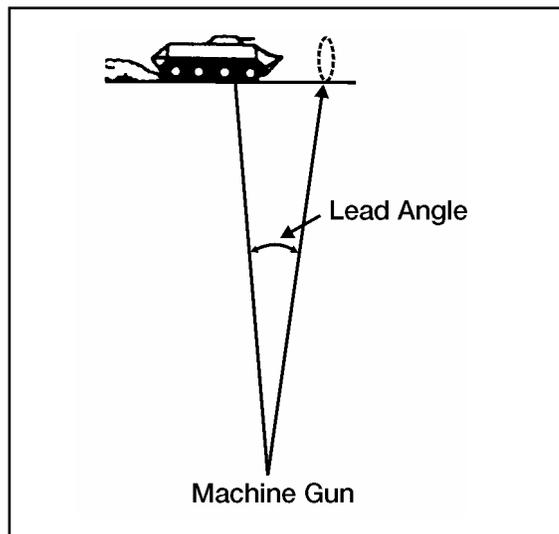


Figure 071-312-3031-7. Moving target engagement

- a.** Estimate the speed of the target and the lead required to fire and hit it.
- b.** Fire, tracking the target as it moves.
- c.** Adjust the lead by observing tracers and the strike of the bullets.

Evaluation Preparation: Setup: Evaluate this task on a live-fire range. Evaluate the Soldier on the ability to fire center mass of a target by traversing and searching the weapon to adjust aim. Provide the Soldier with point targets, area targets, and moving targets. If the Soldier hits the target with the first burst, provide directions so that the Soldier demonstrates the ability to adjust fire. If moving targets are unavailable, provide the Soldier with a scenario in which the Soldier must describe the proper technique to use.

Brief Soldier: Tell the Soldier to assume the prone position. Assign the Soldier a sector, and direct the Soldier to engage area, point, and moving targets, and to hit center mass of each. Tell the Soldier that you are evaluating the ability to adjust fire as much as the ability to hit the target. If a moving target is unavailable, tell the Soldier to simulate firing on a moving target while describing for you the actions required.

Performance Measures	GO	NO GO
1. Assume a stable, prone firing position.	_____	_____
2. Align the sights on the target to get a correct sight picture.	_____	_____
a. Obtain sight alignment by centering the front sight blade in the aperture of the rear sight with the top of the front sight blade, even with the top of the rear sight slide.		
b. Obtain a sight picture by centering the target over the front sight blade so that it appears to rest on top of the front sight blade and on top of the rear sight slide.		
3. Fire the M60.	_____	_____
a. Pull the trigger straight to the rear.		
b. Say to yourself "Fire a burst of six."		
c. Release the trigger.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
4. Adjust fire using the adjusted aiming point method:	<input type="checkbox"/>	<input type="checkbox"/>
a. Make a minor change in direction.	<input type="checkbox"/>	<input type="checkbox"/>
b. Make a major change in direction.	<input type="checkbox"/>	<input type="checkbox"/>
c. Widen the impact area by traversing.	<input type="checkbox"/>	<input type="checkbox"/>
d. Raise the impact point by searching.	<input type="checkbox"/>	<input type="checkbox"/>
5. Engage an area target using six- to nine-round bursts.	<input type="checkbox"/>	<input type="checkbox"/>
a. Determine the width and depth of the target.	<input type="checkbox"/>	<input type="checkbox"/>
b. Fire six- to nine-round bursts until you hit the center mass of the target area.	<input type="checkbox"/>	<input type="checkbox"/>
c. Adjust fire by traversing and searching to cover all of the target area.	<input type="checkbox"/>	<input type="checkbox"/>
6. Engage a point target using six- to nine-round bursts.	<input type="checkbox"/>	<input type="checkbox"/>
a. Select a distinct aiming point.	<input type="checkbox"/>	<input type="checkbox"/>
b. Estimate range.	<input type="checkbox"/>	<input type="checkbox"/>
c. Fire six- to nine-round bursts to obtain accurate range and deflection.	<input type="checkbox"/>	<input type="checkbox"/>
d. Place effective fire on the target by observing the rounds as they impact in the target area. Make necessary adjustments to hit the target.	<input type="checkbox"/>	<input type="checkbox"/>

Performance Measures	GO	NO GO
7. Engage a moving target using six- to nine-round bursts.	___	___
a. Estimate the speed of the target and the lead required to fire and hit it.		
b. Fire, tracking the target as it moves.		
c. Adjust the lead by observing tracers and the strike of the bullets.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-22.68

Related

SUBJECT AREA 13: MK 19 MACHINE GUN

071-030-0001

Maintain an MK 19 Machine Gun

Conditions: Given an MK 19 machine gun, an M3 tripod, a traversing and elevating (T&E) mechanism, an M64 cradle mount; rifle bore cleaner (RBC), lubricant oil (LSA), or lubricating oil (LSAT or LAW); grease (GMD); cleaning solvent (PD680); wiping rags or cloth (abrasive crocus); a cleaning rod assembly and a small arms cleaning brush; linked 40-mm ammunition, and one spent 40-mm cartridge case.

Standards: Clean and lubricate the MK 19 and its components. Inspect all parts and turn in those in need of maintenance. Reassemble the gun so that it is operational. Clean and inspect ammunition for serviceability. Turn in any unserviceable ammunition.

Performance Steps

1. Clear the MK 19.
 - a. Place the safe/fire switch in the safe (S) position. Ensure the bolt is forward.
 - b. Open the top cover and inspect the feed tray and extractors on the bolt face to ensure that no round is in the pickup position.
 - c. Unlock and pull charger handle 2 to 3 inches to the rear; inspect the face of the bolt and the chamber for ammunition.
 - d. Return the bolt to the forward position and rotate the charger handle to the locked position.
2. Disassemble the MK 19.
 - a. Remove the feed throat assembly (figure 071-030-0001-1). Squeeze the two sets of grip pins together and pull them straight out.
 - b. Remove the bolt and backplate assembly.

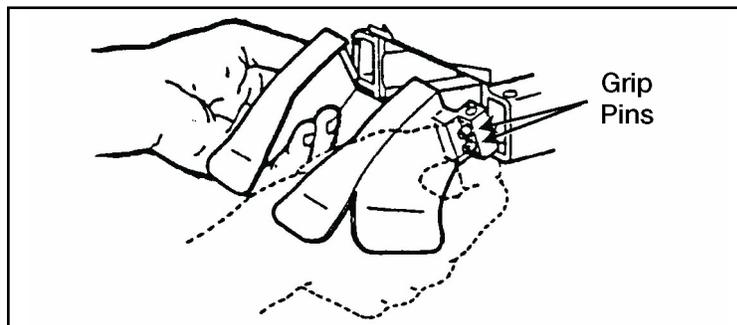


Figure 071-030-0001-1. Removal of feed throat assembly

WARNING

Make sure the bolt is in the forward position before you remove the backplate pin assembly. Failure to observe this warning will result in injury.

- (1) Place the safe/fire switch on fire (F).
- (2) Open the top cover.

Performance Steps

(3) Using the rim of a spent cartridge, pull the backplate pin straight out (figure 071-030-0001-2).

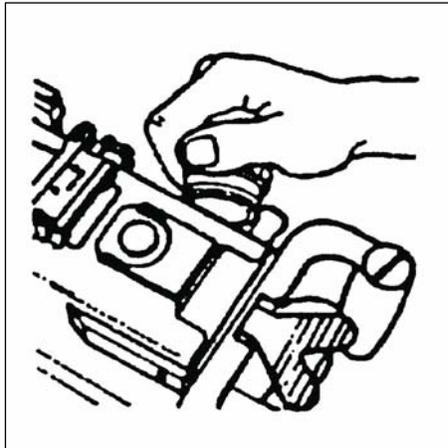


Figure 071-030-0001-2. Removal of backplate pin

(4) Lift up slightly on the backplate assembly. Slowly pull the bolt and backplate assembly out of the receiver.

(5) Support the bolt with one hand and maintain a control grip with the other hand. Lift the bolt up slightly and remove it (figure 071-030-0001-3).

Performance Steps

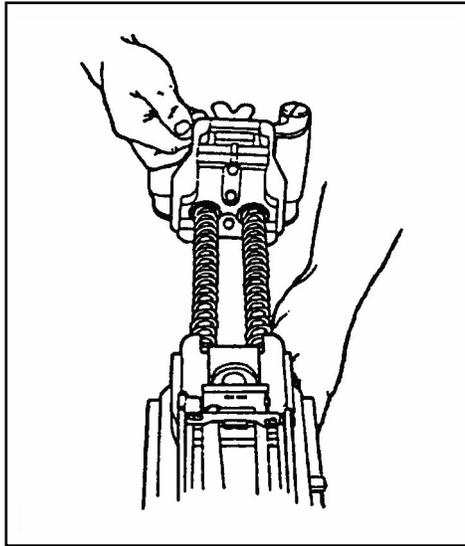


Figure 071-030-0001-3. Removal of bolt and backplate assembly

- c. Remove the primary drive lever and vertical cam assembly.

CAUTION

Do not rest the vertical cam assembly on its chromed surface.

(1) Reach under the top of the receiver to locate the drive lever lock on the vertical cam assembly and slide the lock rearward about 1/4 inch (figure 071-030-0001-4).

Performance Steps

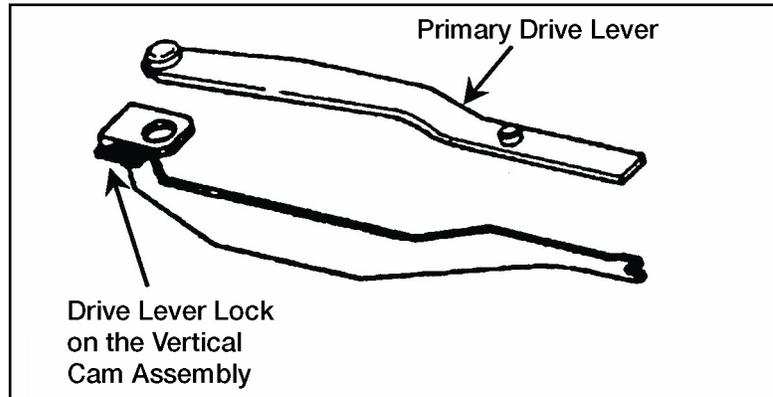


Figure 071-030-0001-4. Primary drive lever and vertical cam assembly

(2) Press down on the primary drive lever's pivot post. This releases the primary drive lever and vertical cam assembly (figure 071-030-0001-5).

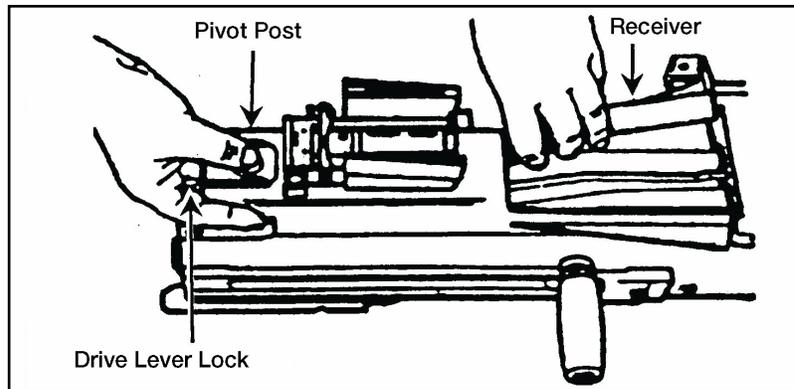


Figure 071-030-0001-5. Removal of the primary drive lever and vertical cam assembly

(3) Pull out the cam (to the rear) and the lever from the receiver.

Performance Steps

d. Remove secondary drive lever.

(1) Push down on the pivot post from the outside top cover. This releases the secondary drive lever (figure 071-030-0001-6).

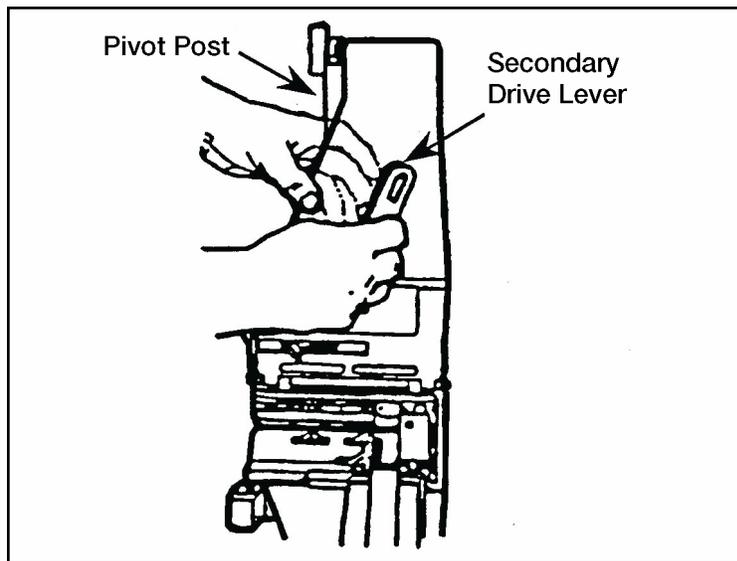


Figure 071-030-0001-6. Removal of the secondary drive lever

(2) Lift out the secondary drive lever from the top cover (figure 071-030-0001-7).

Performance Steps

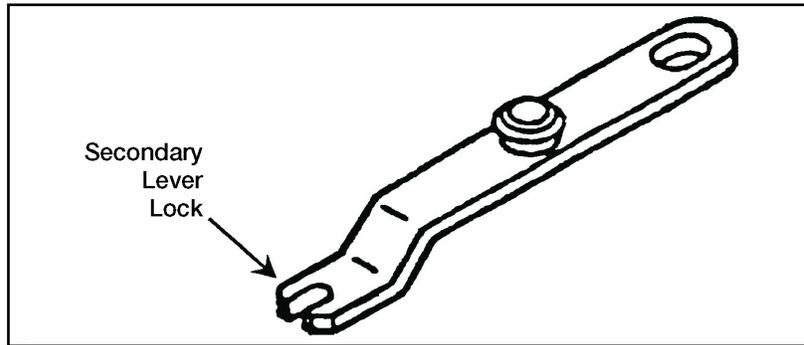


Figure 071-030-0001-7. Secondary drive lever

- e. Remove the feed slide assembly (figure 071-030-0001-8).

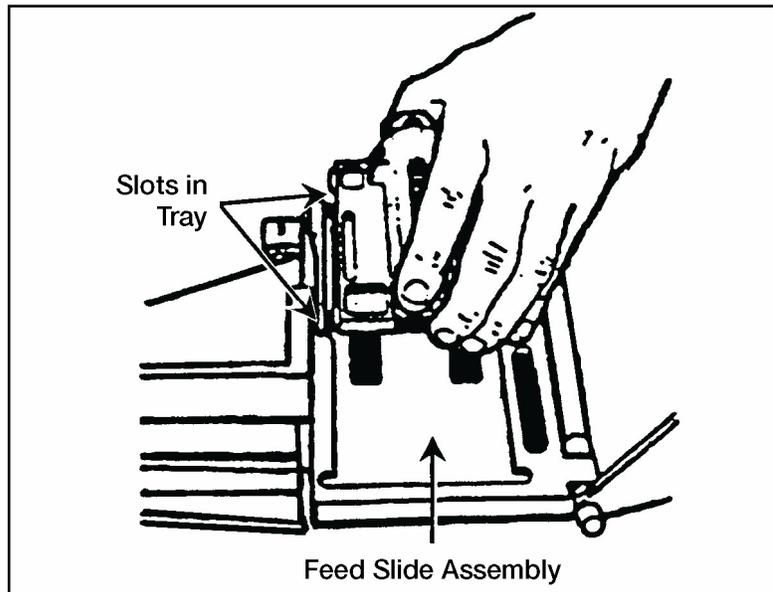


Figure 071-030-0001-8. Removal of the feed slide assembly

- (1) Pivot the tray that holds the feed slide assembly out of the top cover.

Performance Steps

(2) Move the feed slide assembly to line up the tabs with the slots in the tray.

(3) Lift upward on the feed slide assembly.

f. Remove the top cover assembly and feed tray (figure 071-030-0001-9).

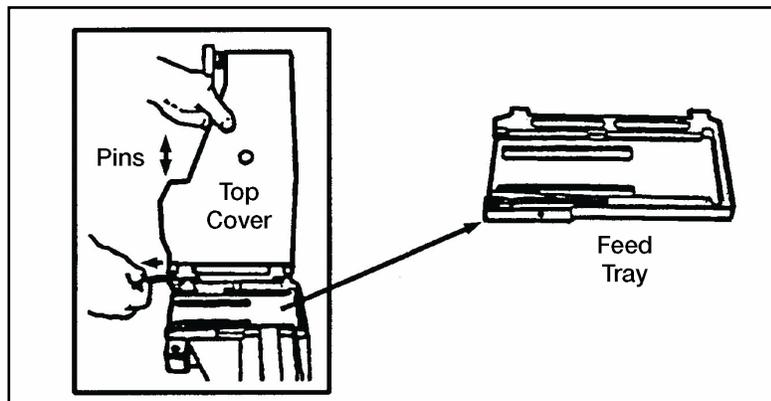


Figure 071-030-0001-9. Removal of the top cover assembly and feed tray

CAUTION

Using your fingers only, not pliers, remove the top cover pins. Forcing the pin could break the small cross pin on the rod.

Note: The feed tray must be down for you to remove the top cover pins.

(1) Hold the top cover straight up to align the end of the cross pin.

(2) Pull straight out on the pins.

(3) Lift off the top cover.

(4) Lift the tray out of the feeder.

g. Remove the alignment guide assembly (figure 071-030-0001-10).

Performance Steps

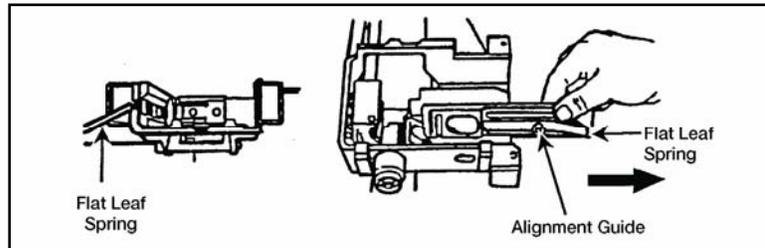


Figure 071-030-0001-10. Removal of the alignment guide assembly

- (1) Depress the flat leaf spring by using a cartridge link toggle (male end) or a small tool.
- (2) Slide the alignment guide toward the feeder mouth.
- (3) Pull rearward on the alignment guide and lift it out.

h. Remove the ogive plunger by pulling it out (figure 071-030-0001-11).

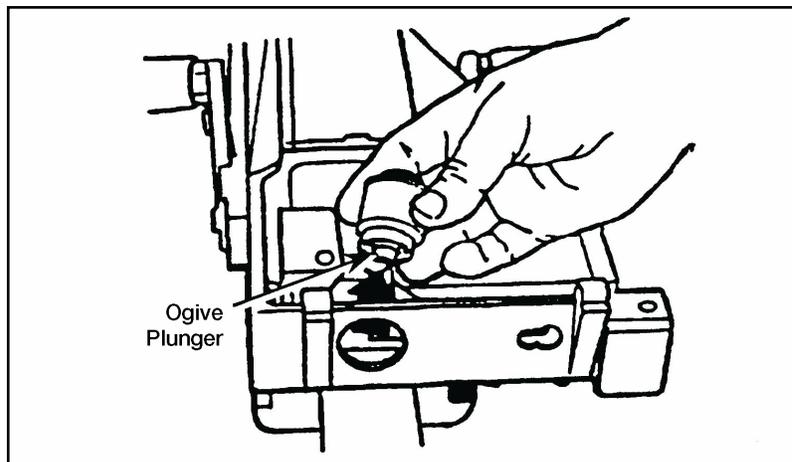


Figure 071-030-0001-11. Removal of the ogive plunger

i. Remove the round positioning block (figure 071-030-0001-12).

Performance Steps

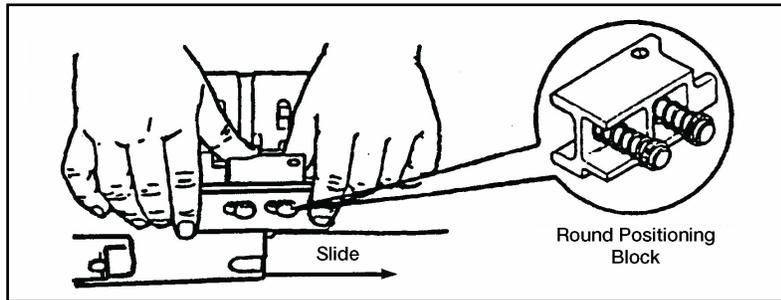


Figure 071-030-0001-12. Removal of the round positioning block

(1) Grasp the two control grips with both hands and lift up slightly to disengage the backplate from the locking lugs in the receiver.

(2) Pull the round positioning block toward the muzzle end of gun.

j. Remove the charger assemblies (both sides)(figure 071-030-0001-13).

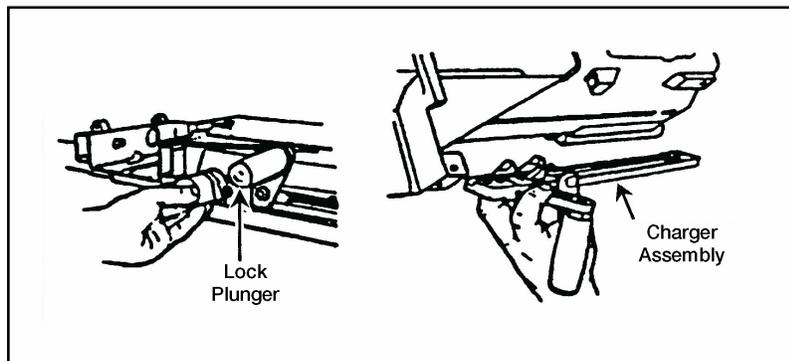


Figure 071-030-0001-13. Removal of the charger assembly

(1) Rotate the charger handle up.

(2) Using either your fingers or a spent case, pry out on the lip of the lock plunger.

Performance Steps

(3) Lift up on the lock plunger to retract it; slide the charger assembly all the way to the rear.

(4) Pull the charger assembly away from the receiver.

k. Remove the receiver sear assembly (figure 071-030-0001-14).

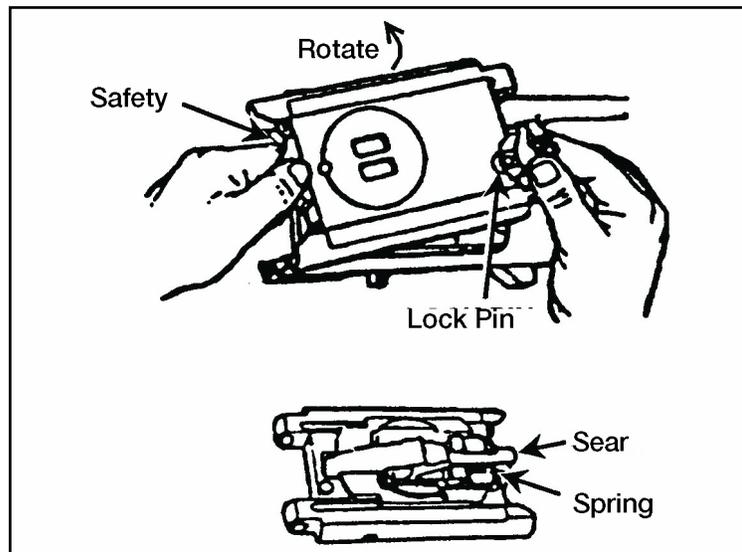


Figure 071-030-0001-14. Removal of the receiver sear assembly

(1) Turn the receiver on its top. Put the safe/fire switch in fire (F) position.

(2) Lift up slightly on the lock pin with your fingers, using a cartridge link.

(3) Squeeze the receiver sear (underneath the safety) and simultaneously rotate the sear housing assembly approximately 15 degrees in either direction.

(4) Press down on the sear housing assembly and rotate the assembly until it stops (90 degrees from its original position).

Performance Steps

(5) Press the receiver sear and safety together while you put safe/fire switch on safe (S). This locks the sear in the down position and keeps you from accidentally losing the sear spring.

(6) Lift out the sear housing assembly.

3. Clean the parts of the MK 19.

Note: Do not reverse the direction of the bore brush while it is in the bore.

a. Clean the receiver assembly (figure 071-030-0001-15).

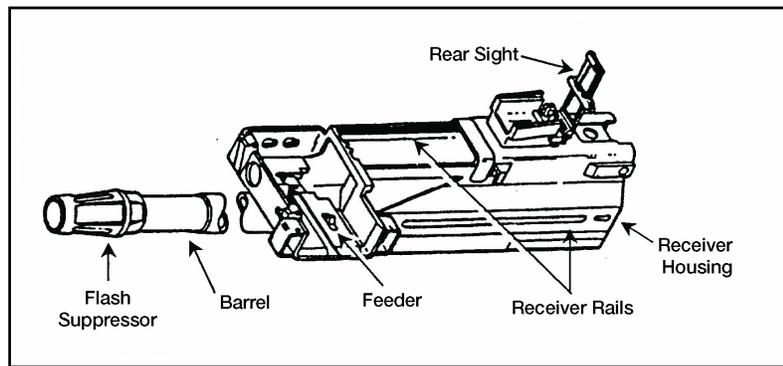


Figure 071-030-0001-15. Receiver assembly

(1) Apply solvent to a rag or brush. Wipe or brush dirt away from all parts, especially the interior of the receiver housing, receiver rails, and feeder.

(2) Swab out the bore and chamber, using a bore brush and RBC.

(3) Wipe all parts dry.

b. Clean the receiver sear assembly (figure 071-030-0001-14).

(1) Use only cleaning solvent on a rag or brush.

(2) Wipe or brush away dirt.

(3) Wipe dry.

Performance Steps

WARNING

Never immerse the sear housing assembly in solvent. Solvent may dilute the lubricant inside the sear housing.

c. Clean the alignment guide assembly, ogive plunger, round positioning block, and secondary drive lever: wipe or brush off dirt and dry.

WARNING

Never immerse the ogive plunger assembly in solvent.

d. Clean the charger assemblies.

(1) Apply cleaning solvent to a rag or brush, and wipe or brush off any dirt.

(2) Wipe dry.

e. Clean the vertical cam assembly, primary drive lever, feed slide assembly, and feed tray.

(1) Soak in cleaning solvent.

(2) Wipe or brush off dirt.

(3) Wipe dry.

f. Clean the top cover assembly.

(1) Apply cleaning solvent to a rag or brush and wipe or brush off dirt from all parts.

(2) Wipe all surfaces dry.

g. Clean the bolt and backplate assembly.

(1) Apply cleaning solvent to rag or brush and wipe or brush off dirt from all parts.

(2) Wipe all surfaces dry.

4. Clean the components.

a. Clean the T&E mechanism.

(1) Remove foreign matter with a clean, dry wiping rag.

(2) Use small-arms cleaning brush to clean the numbers on the scale.

Performance Steps

- e. Charger assembly (left and right).
 - (1) Check the grooved edges for burrs and bends.
 - (2) Check the latches for spring action on detects.
 - (3) Check the entire charger assembly for cracks, burrs, bends, and chips.
- f. Vertical cam assembly and primary drive lever.
 - (1) Check the vertical cam assembly for bends, burrs, pits, scratches, and aluminum buildup on chromed surface (mirror like surface).
 - (2) Check the drive lever lock for looseness or binding.
 - (3) Check the primary drive lever for burrs, especially around the pivot posts.
- g. Secondary drive lever.
 - (1) Check for missing retaining ring from the pivot post.
 - (2) Check the pivot post and forked end for burrs.
- h. Feed slide assembly and feed tray.
 - (1) Check the feed pawls and feed tray for burrs and binding.
 - (2) Check the guide rails for burrs.
- i. Top cover assembly.
 - (1) Check the top cover housing for cracks and rust.
 - (2) Check the latch for binding, looseness, and breaks.
- j. Bolt and backplate assembly.
 - (1) Check the cocking lever for chips, burrs, and breaks.
 - (2) Check the guide rods for binding and bends.
 - (3) Check the recoil spring for weak action: Position the bolt end against a hard, flat surface and push up and down on backplate assembly.
 - (4) Check the backplate pin for missing retaining spring.
 - (5) Check the safety wire for looseness and breaks, or if missing.
- k. Report any deficiencies to your supervisor.

Performance Steps

7. Inspect all components for serviceability.
 - a. T&E mechanism.
 - (1) Inspect the handwheels for smooth operation and rust. Check the threads for burrs and rust.
 - (2) Check the traversing slide lock for spring action. Make sure the elevating mechanism sleeve fits on the traversing bar and clamps firmly.
 - (3) Check the traversing and elevating scales for legibility.
 - (4) Inspect the quick-release pin and chain for burrs and rust; check for missing spring-loaded balls.
 - b. M3 Tripod.
 - (1) Check for completeness of tripod; make sure all nuts and bolts are tightly secured.
 - (2) Check for cracks on the legs and tripod head.
 - (3) Check for missing, broken, or inoperative lock latch.
 - (4) Check the pintle lock release cam for correct operation.
 - (5) Check the locking action of the front leg clamping assembly.
 - (6) Make sure the rear legs lock in the open position, the sleeve latch notch and the right leg slide notch engage completely, and the latch spring has good tension.
 - (7) Check the telescoping, indexing, and locking actions of rear legs and front leg locking assembly.
 - c. MK64 gun cradle mount.
 - (1) Check for missing or damaged parts.
 - (2) Check for rust, cracks, and burrs.
 - (3) Inspect pintle lock assembly for nut, bolt, and cotter pin. Check the pintle surface for burrs and rust.
 - d. Report any deficiencies to supervisor.
 8. Inspect ammunition for damage and corrosion. Turn in any unserviceable ammunition.
-

Performance Steps

9. Lubricate the MK 19 and components. Do not use CLP, and do not mix lubricants.

CAUTION:

1. Never immerse the sear housing, ogive plunger, or bolt assemblies in cleaning solvent. Solvent could dilute the lubricant or grease inside.
2. Never lubricate the MK 19 with CLP.
3. Avoid mixing lubricants.
4. Completely wipe off all excess lubricant.

a. Lubricate lightly to moderately with LSAT, LSA, or GMD (never CLP). In cold weather (0 to -25 degrees Fahrenheit), use LSAT, LSA, GMD, or LAW. In extra cold weather (-25 degrees Fahrenheit and below), use LAW.

b. Apply lubricant to all weapon parts and surfaces except charger handles. Work in the lubricant by moving the parts.

c. Lubricate all components and wipe them with a clean dry rag to remove excess oil.

10. Assemble the MK 19 machine gun.

a. Attach the charger assemblies (both sides) (figure 071-030-0001-16).

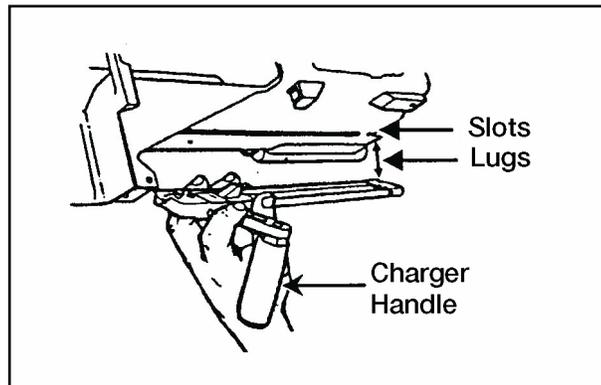


Figure 071-030-0001-16. Attachment of the charger assemblies

Performance Steps

- (1) Turn the receiver upright.
 - (2) Rotate the charger handles to the straight-up position.
 - (3) Line up the lugs on the charger with the slots in the receiver rail. Insert the charger lugs into the slots.
 - (4) Hold the charger tightly against the rail. Slide the charger forward until it locks into place.
- b. Attach the round positioning block (figure 071-030-0001-17).

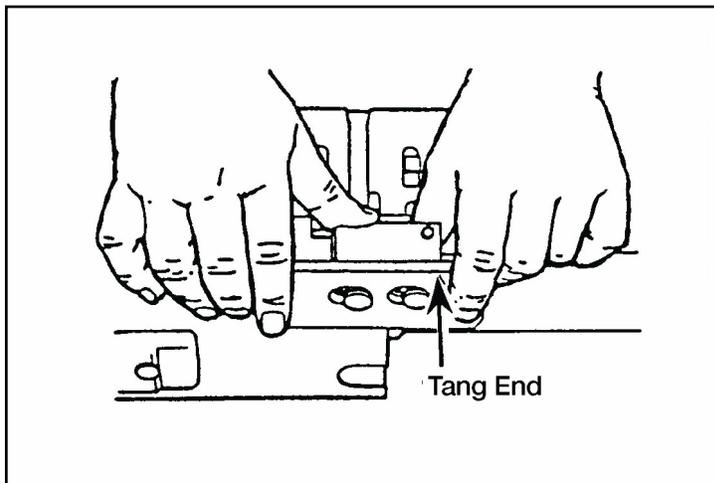


Figure 071-030-0001-17. Attachment of the round positioning block

- (1) Insert the blocks into the slots with the tang end forward.
 - (2) Push against the block and slide it toward the rear until the block locks into place.
- c. Insert the ogive plunger assembly into the opening.
- d. Insert the alignment guide assembly (figure 071-030-0001-18).

Performance Steps

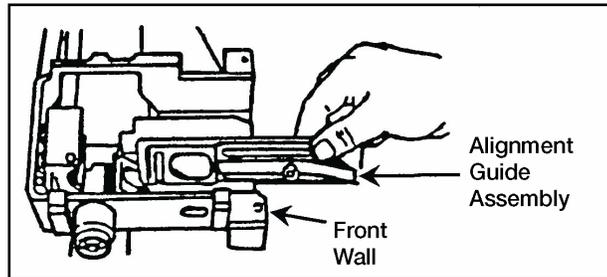


Figure 071-030-0001-18. Insertion of the alignment guide assembly

(1) Position the alignment guide assembly so that the pin is lined up with the slot in the feeder wall.

(2) Hold the alignment guide against the front wall and slide the alignment guide into the receiver until it clicks.

e. Attach the feed tray and feed slide assembly (figure 071-030-0001-19).

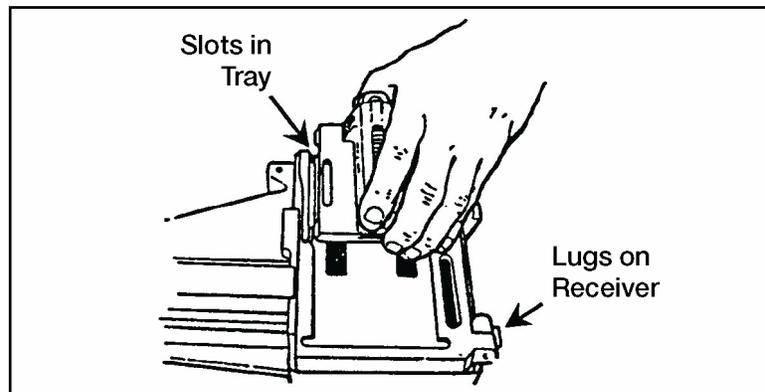


Figure 071-030-0001-19. Attachment of the feed slide assembly

(1) Place the tray in the top of the feeder, recessed side up.

(2) The pinholes on the tray should line up with the lugs on the receiver.

(3) Position the feed slide assembly by lining up the tabs with the slots on the tray.

Performance Steps

- (4) Insert the tabs into the slots. Drop the feed slide assembly into the tray and move it slightly to ensure engagement.
- f. Attach the top cover assembly (figure 071-030-0001-20).

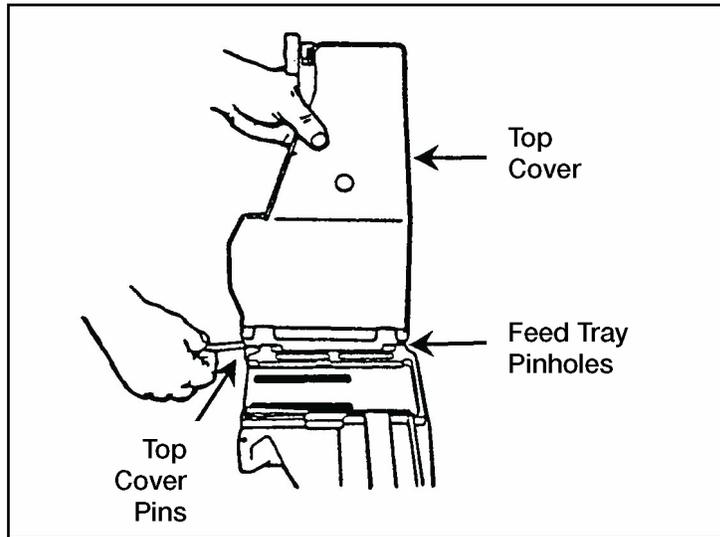


Figure 071-030-0001-20. Attachment of the top cover assembly

- (1) Ensure the feed tray is in the proper place in the receiver.
- (2) Place the top cover on the receiver. Line up the pinholes on the cover with the receiver's lug end and the pinholes on the feed tray.
- (3) Hold the top cover straight up. Insert the top cover pins on both sides. Fully insert the cross pin. Rotate the top cover so that is fully open.

WARNING

To avoid breaking the cross pin, insert it fully into the receiver before you close the top cover.

Performance Steps

- g. Engage the secondary drive lever (figure 071-030-0001-21).

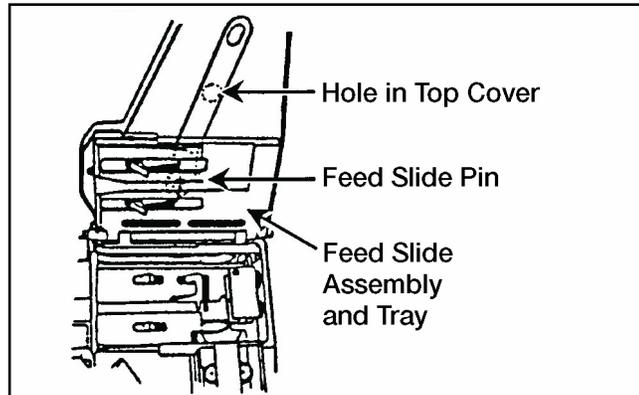


Figure 071-030-0001-21. Engaging the secondary drive lever

- (1) Rotate the feed slide assembly and tray upward.
- (2) Engage the forked end of the secondary drive lever with the feed slide pin.
- (3) Press the raised pivot post through the hole in the stop cover.
- (4) Press the secondary drive lever against the top cover until it locks into place.

CAUTION

Engage the secondary drive lever with the feed slide pin, or the gun will not fire.

Performance Steps

- h. Engage the vertical cam assembly (figure 071-030-0001-22).

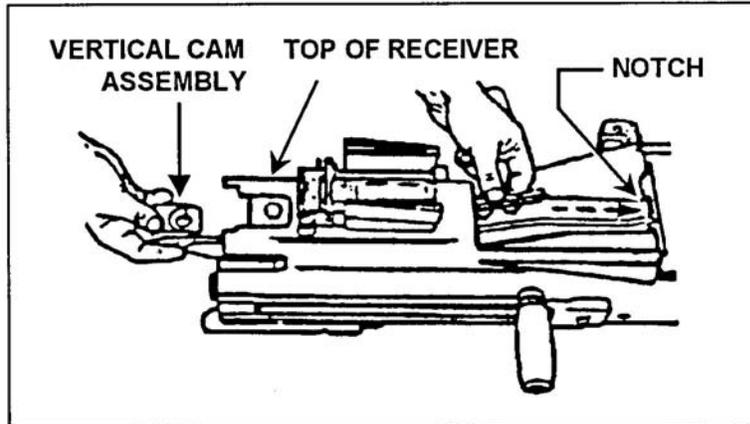


Figure 071-030-0001-22. Engagement of the vertical cam assembly

- (1) Slide the vertical cam assembly through the rear of the receiver. The raised portion should slide over the top of the receiver. The drive lever lock should be underneath.
 - (2) Engage the forked end in the notch.
- i. Engage the primary lever (figure 071-030-0001-23)

Performance Steps

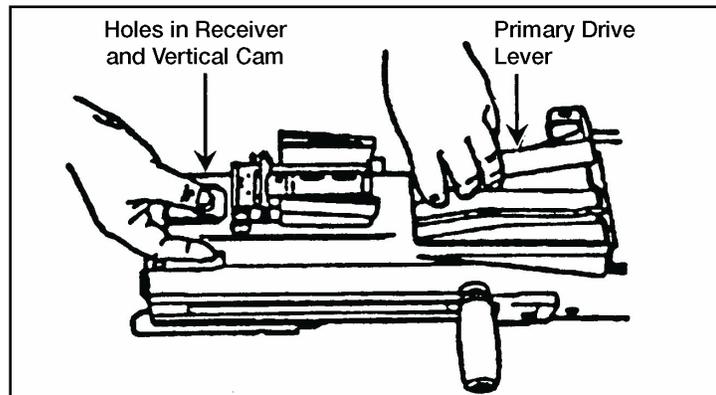


Figure 071-030-0001-23. Engagement the primary drive lever

- (1)** Hold the vertical cam assembly in place and slide the primary drive lever into the receiver.
- (2)** Slide the primary drive lever lock to the rear and engage the pivot post lever through the holes in the receiver and vertical cam.
- (3)** Slide the primary drive lever lock forward. (The primary drive lever lock is located on the vertical cam just beneath the top of the receiver).

Performance Steps

- j. Insert the bolt and backplate assembly (figure 071-030-0001-24).

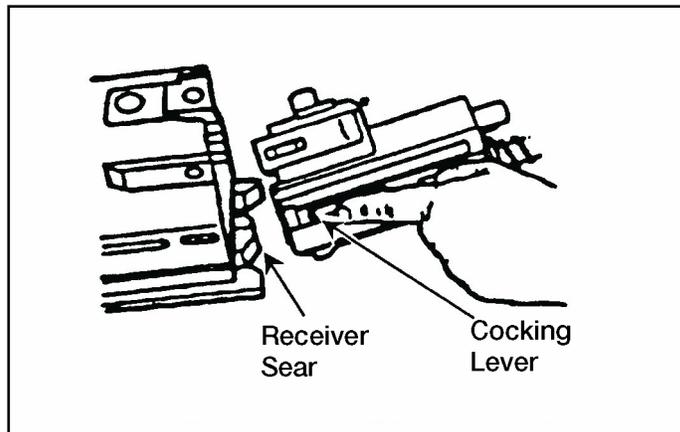


Figure 071-030-0001-24. Insertion of the bolt and backplate assembly

- (1) Place the safe/fire switch in the fire (F) position.
- (2) Press the receiver sear using your thumbs or the rim of a cartridge case.
- (3) Make sure the cocking lever is cocked and forward.
- (4) Slide the bolt and backplate assembly all the way forward.
- (5) Insert the backplate pin to lock the assembly in place.
- (6) Close the cover.

WARNING

Before inserting the bolt and backplate assembly, put the cocking lever in the forward position.

CAUTION

Before closing the top cover, always make sure the secondary drive lever engages the feed slide pin, the feed slide assembly is to the left, and the bolt is forward. Never try to force the top cover closed. Doing so could damage the weapon.

Performance Steps

- k. Attach the receiver sear assembly (figure 071-030-0001-25).

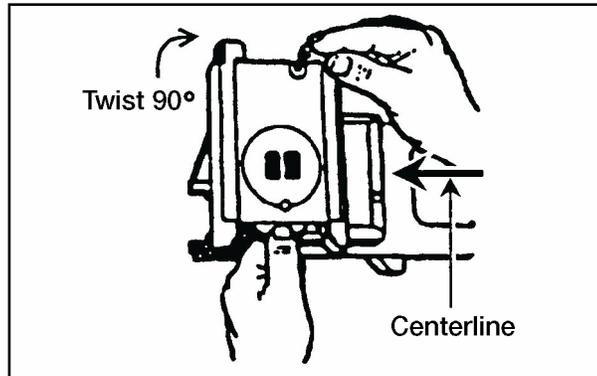


Figure 071-030-0001-25. Attachment of the receiver sear assembly

- (1) Turn the receiver over on its top.
 - (2) Place the sear housing on the receiver and line up the sear housing assembly at a right angle to the barrel center line.
 - (3) Put the safe/fire switch on fire (F) position.
 - (4) Press down and rotate the housing assembly until it stops.
 - (5) Press up on the sear and rotate it until it locks in position.
- I. Attach the feed throat assembly.
- (1) Squeeze the grip pins and align them with the holes in the receiver.
 - (2) Release the grip pins to attach the feed throat.
11. Perform a function check to make sure you have assembled the weapon correctly.

Evaluation Preparation: Setup: At the test site, provide the Soldier with the equipment listed in the task condition statement. Use the performance steps in the training outline to evaluate the Soldier's performance of the task.

Brief Soldier: Tell the Soldier to perform operator-level maintenance on the MK 19 and to perform a function check to ensure the weapon functions correctly.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Cleared the weapon.	___	___
2. Disassembled the weapon without damaging any parts.	___	___
3. Cleaned the weapon parts.	___	___
4. Cleaned the components.	___	___
5. Cleaned the ammunition.	___	___
6. Inspected all parts, components, and ammunition for serviceability.	___	___
7. Reported all deficiencies to your supervisor.	___	___
8. Lubricated the weapon parts and components using the correct lubricant and lubrication techniques.	___	___
9. Assembled the weapon in the correct sequence without damaging any parts.	___	___
10. Performed a function check.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.27

TM 9-1010-230-10

071-030-0004

Engage Targets With an MK 19 Machine Gun

Conditions: Given a zeroed MK 19 machine gun (tripod- or cupola-mounted), linked 40-mm grenade ammunition, and a sector of fire with engageable targets.

Standards: Fire the MK 19 machine gun to engage targets in your assigned sector of fire. Apply correct machine gun target engagement techniques so that each target is covered with fire.

Performance Steps

1. Assume a suitable firing position. Based on your situation, select a firing position that will allow you to observe and engage targets yet minimize exposure to enemy fire.

a. Seated firing positions. Sit directly behind the weapon between the trail legs of the tripod.

(1) Legs extended. Extend your legs under the tripod (figure 071-030-0004-1).

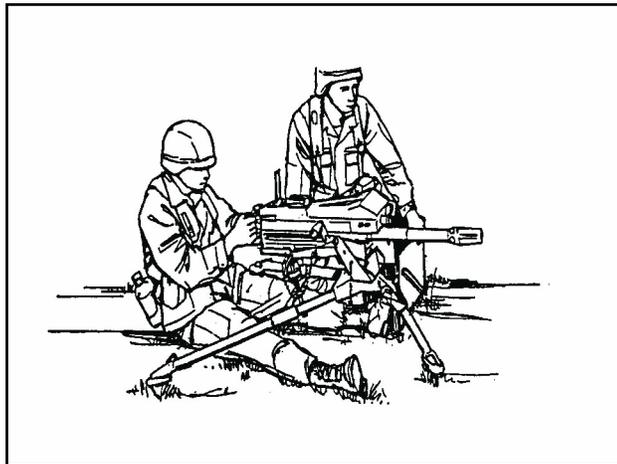


Figure 071-030-0004-1. Seated firing position, legs extended

(2) Legs crossed. Cross your legs and place your elbows on the inside of your thighs for support when firing the weapon (figure 071-030-0004-2).

Performance Steps

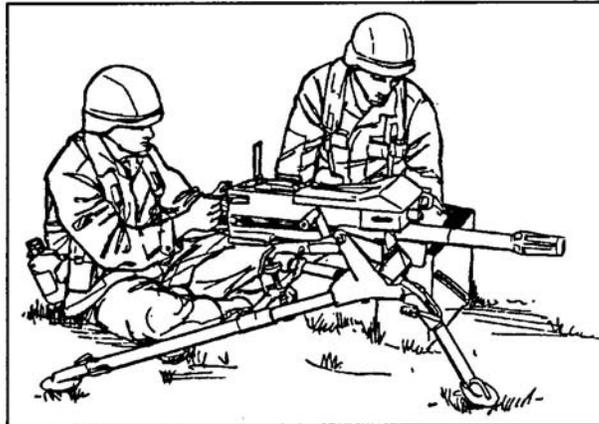


Figure 071-030-0004-2. Seated firing position, legs crossed

(3) Legs braced. Extend your legs, brace them on the trail legs of the tripod, and place your elbows on the inside of your thighs for support (figure 071-030-0004-3).

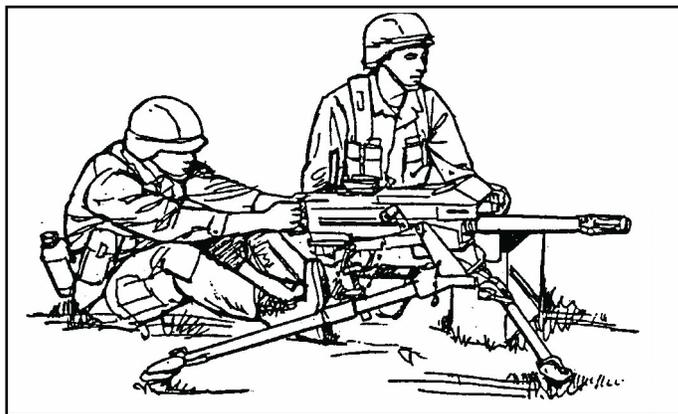


Figure 071-030-0004-3. Seated firing position, legs braced

b. Kneeling position. Kneel and grasp the control grips with your thumbs on the trigger (figure 071-030-0004-4).

Performance Steps

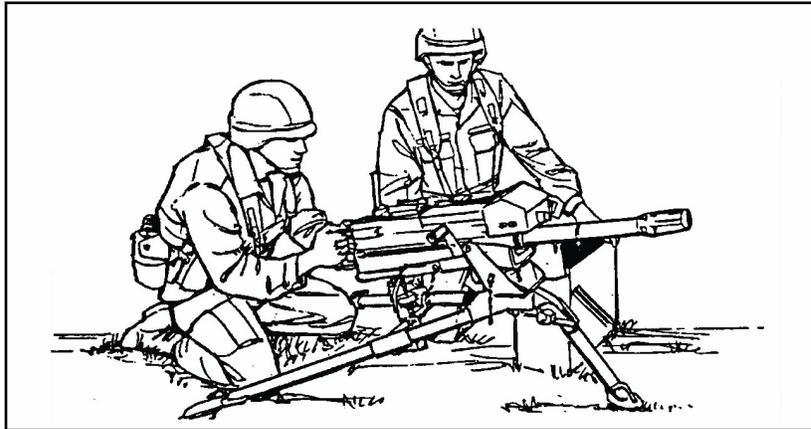


Figure 071-030-0004-4. Kneeling position

c. Standing position. Use for gun mounted on a vehicle pedestal (figure 071-030-0004-5).

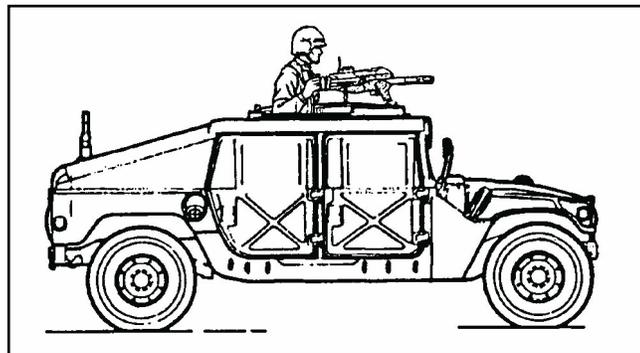


Figure 071-030-0004-5. Standing position for mounted gun

2. Acquire the target using correct sight alignment.

Performance Steps

3. Apply correct engagement technique based on target types.
 - a. Use correct gun manipulation technique (figure 071-030-0004-6).
 - (1) Fixed fire. This is fire delivered against a point target. Only one aiming point is necessary with little or no manipulation of the gun.
 - (2) Traversing fire. This is fire distributed against a wide target requiring successive changes in direction of gun, which means using the T&E mechanism to traverse the gun left or right to distribute fire laterally.
 - (3) Searching fire. This is fire delivered against a deep target or a linear target with depth in width by successive changes in elevation, which means using the T&E mechanism to move the muzzle of the weapon up or down to distribute fire in depth.
 - (4) Traversing and searching fire. This is fire delivered in width and depth by successive changes in direction and elevation. It is employed against a target whose long axis is oblique to the direction of fire.
 - (5) Swinging traverse. This is fire delivered against targets that require major changes in direction but little or no change in elevation. Loosen the traversing slide lock enough to swing the gun laterally.
 - (6) Free gun. This is fire delivered against moving targets that must be rapidly engaged with fast changes in direction and elevation. To fire free gun, remove the T&E mechanism.

Performance Steps

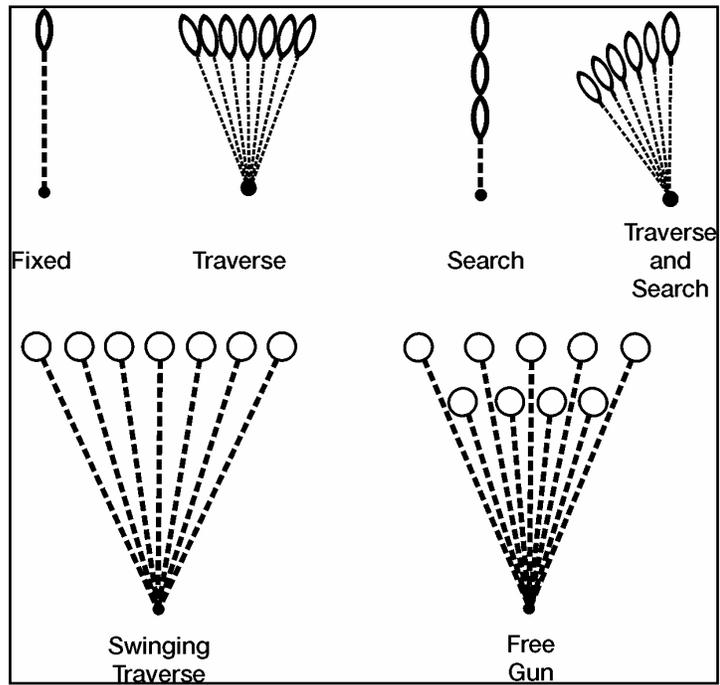


Figure 071-030-0004-6. Techniques of fire with respect to the MK 19

b. Use correct application of fire to engage specific targets.

(1) Point target. Engage point targets with fixed fire using a single aiming point (figure 071-030-0004-7).

Performance Steps

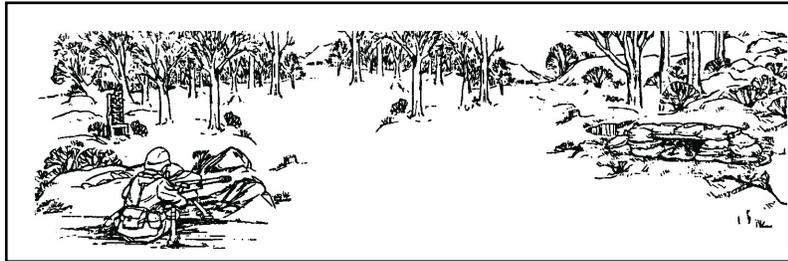


Figure 071-030-0004-7. Point target

(2) Linear target. Initially aim just outside of either flank or fire. Traverse fire back and forth from flank to flank, covering the entire target area (figure 071-030-0004-8).

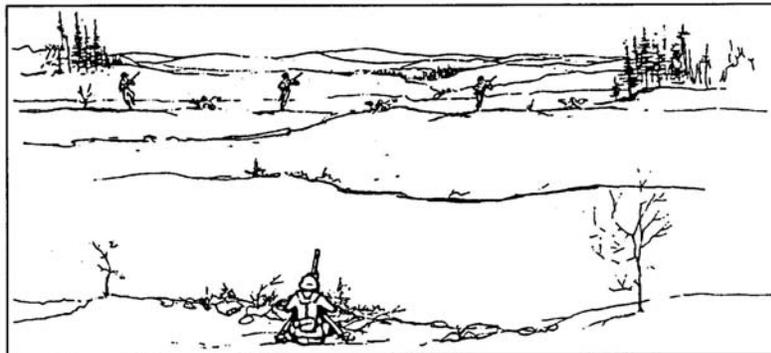


Figure 071-030-0004-8. Linear target

(3) Linear target with depth. Initially aim at the near flank with range set to the midpoint of the target unless another portion of the target is more critical or presents a greater threat. Fire on the near flank, then traverse and search back and forth, covering the entire target (figure 071-030-0004-9).

Performance Steps

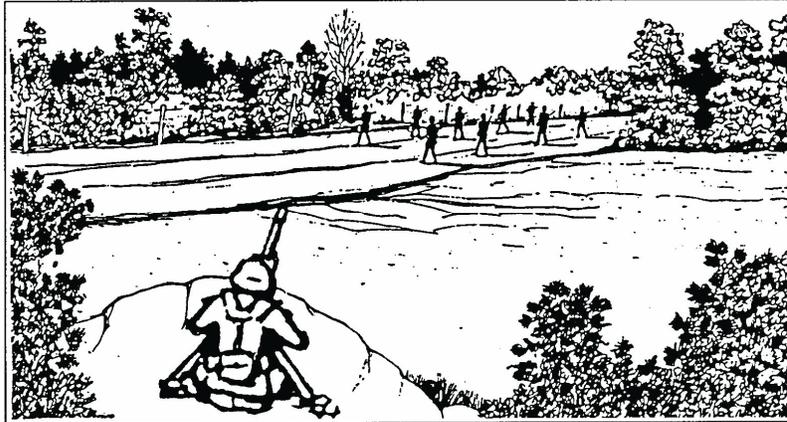


Figure 071-030-0004-9. Linear target with depth

(4) Deep target. Initially aim at the end of the target closest to the gun, unless another portion of the target is more critical or presents a greater threat (auto rifleman). Fire and search up the far end and back again repeatedly (figure 071-030-0004-10).

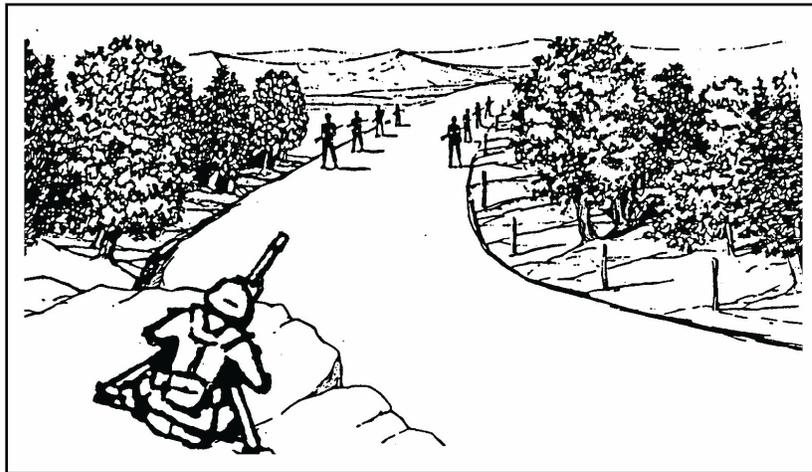


Figure 071-030-0004-10. Deep target

Performance Steps

(5) Area target. Initially aim at the midpoint of the target area. Traverse and search to either flank, then traverse and search to the opposite flank (figure 071-030-0004-11).

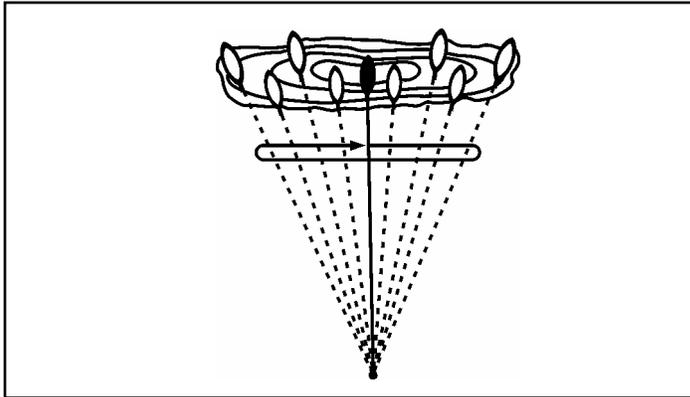


Figure 071-030-0004-11. Engagement of area targets, single gun

4. Use observation of fire and adjusted aiming point to place effective fire on the target.
 - a. Observation of fire. Observe the strike of the rounds in relation to the target; adjust elevation and direction needed to move the center of impact onto the target.

Note: This does not call for use of the sights.

EXAMPLE: Suppose you fire at a target 500 meters away. The rounds impact 20 meters short and 50 meters right. To manipulate the gun onto the target, use the traversing and elevating mechanism hand wheels to move the muzzle left and up the proper number of clicks.

- b. Adjusted aiming point. Use this method to quickly adjust fires without making a sight or T&E adjustment (figure 071-030-0004-12).

- (1) If the initial burst misses the target, rapidly select a new aiming point the same distance from the center of impact of the initial burst but in the opposite direction.

- (2) Lay the gun on that aiming point and fire.

Performance Steps

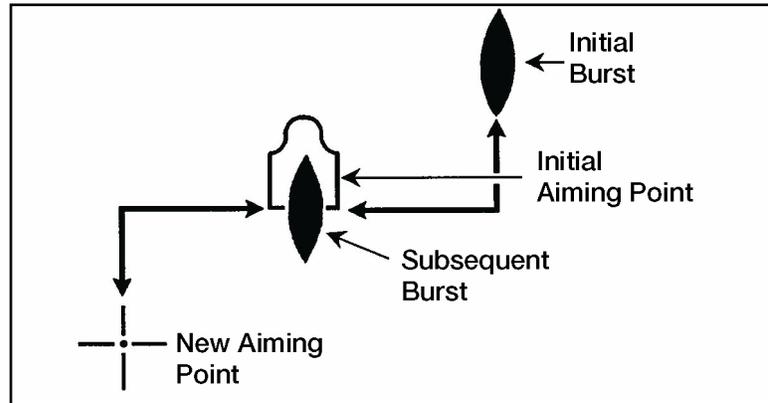


Figure 071-030-0004-12. Adjusted aiming point method

5. Fire on the targets until they are destroyed or until you receive an order to cease fire.

Evaluation Preparation: Setup: Evaluate this task on a live-fire range designed for 40-mm machine gun firing. For a tripod-mounted MK 19, tell the Soldier to fire Table 2, tasks 4 through 8, FM 3-22.27, Appendix C. For a vehicle-mounted MK 19, tell the Soldier to fire Table 3, tasks 2 through 5, FM 3-22.27, Appendix C.

Brief Soldier: Tell the Soldier to perform the tasks outlined in Appendix C, FM 3-22.27. Brief the Soldier on the task conditions, standards, and ammunitions. Tell the Soldier he/she will be evaluated on his/her ability to apply correct target engagement techniques and place effective fire on targets.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Assumed a suitable firing position.	___	___
2. Applied correct engagement technique based on target type.	___	___
a. Used correct gun manipulation technique.	___	___
b. Used correct application of fire to engage specific targets.	___	___

Performance Measures	<u>GO</u>	<u>NO GO</u>
3. Placed effective fire on targets (scored a minimum of 84 points).	___	___
4. Used correct application of fire to engage specific targets.	___	___
5. Used observation of fire and adjusted aiming point to place effective fire on the target.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.27

071-030-0005

Load an MK 19 Machine Gun

Conditions: Given a can of linked 40-mm grenade ammunition and a cleared MK 19 machine gun mounted on an M3 tripod or on a vehicle. (If firing from a vehicle, the ammunition can bracket must be attached to the gun mount.)

Standards: Load linked ammunition through feed throat into feeder so that when cover is closed, the round is straight and firmly seated against the bolt and the ammunition feeds correctly.

Performance Steps

1. Make sure the chamber is empty, the bolt is in the forward position, and the charger handles are in the up (lock) position.
2. Make sure the safety switch is in the safe (S) position.

WARNING

Do not let the top cover slam shut from the open position. Injury to personnel or damage to equipment could result.

Performance Steps

3. Insert the first round.
 - a. Open the top cover and insert the first round through the feed throat into the feeder, link opening first (figure 071-030-0005-1).

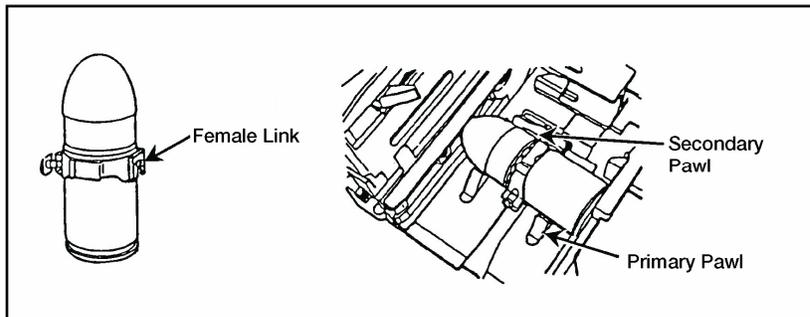


Figure 071-030-0005-1. Insertion of first round through feed throat

- b. Push or slide the round across the first set of feeder pawls, making sure the round is straight and firmly seated against the bolt (figure 071-030-0005-2).

Performance Steps

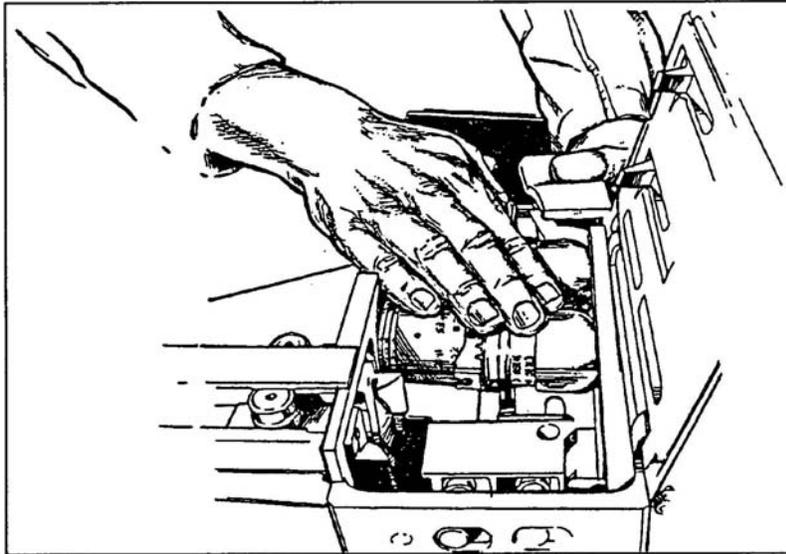


Figure 071-030-0005-2. Pushing round across feeder pawls

- c. Index the feed slide assembly to the left and close the top cover (figure 071-030-0005-3).

Performance Steps

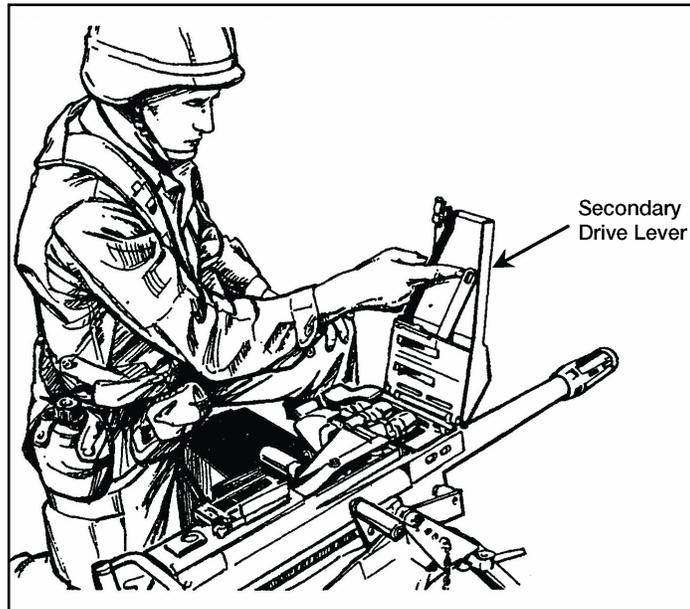


Figure 071-030-0005-3. Indexing the feed slide assembly

4. Charge the weapon (figure 071-030-0005-4).
 - a. Grasp charger handles palms down.
 - b. Press charger handle locks and rotate charger handles down.
 - c. Pull charger handles sharply to the rear until the bolt seats.
 - d. Push charger handles forward and rotate them up into the lock position.
-

Performance Steps

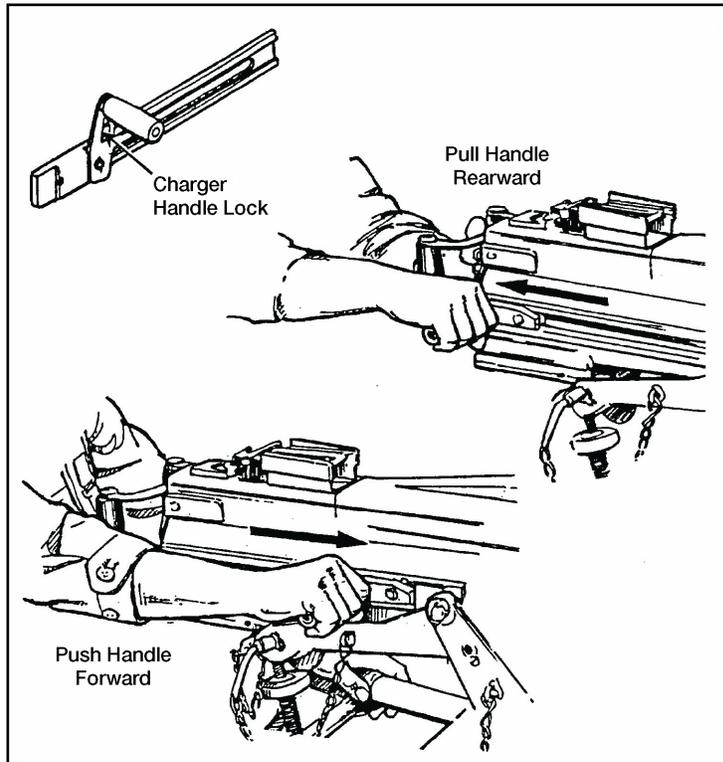


Figure 071-030-0005-4. Charging the MK 19 machine gun

5. Load the first round.
 - a. Place safety switch in fire (F) position and press trigger.

Note: Bolt will move forward and load the first round on the bolt-face (half load).
 - b. Rotate charger handles down and pull them sharply to the rear until the bolt seats. This pulls the bolt with the loaded round into position for firing (full load).
 - c. Place safety switch in safe (S) position.

Performance Steps

- d. Push the chargers forward and rotate the charger handles up into the lock position. The weapon is fully loaded.
- e. Leave safety switch on safe (S) position until ready to fire.

WARNING

For firing, charger handles must be FORWARD and UP. Keep your weapon pointed downrange and the line-of-fire clear of objects.

Evaluation Preparation: Setup: Provide the Soldier with the equipment listed in condition.

Brief Soldier: Tell the Soldier to load the MK 19 according to proper procedures.

Performance Measures	GO	NO GO
1. Made sure the chamber was empty, the bolt was forward, and the charger handles were in the lock position.	___	___
2. Made sure the safety switch was in the safe (S) position.	___	___
3. Inserted the first round.	___	___
a. Opened the top cover and inserted the first round through the feed throat and into the feeder, link opening first.		
b. Pushed or slid the round across the first set of feeder pawls, made sure the round was straight and firmly seated against the bolt.		
c. Indexed the feed slide assembly to the left and closed the top cover.		
4. Charged the weapon.	___	___
a. Grasped the charger handles palms down.		
b. Pressed the charger handle locks and rotated charger handles down.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
c. Pulled charger handles sharply to the rear until the bolt seated.		
d. Pushed charger handles forward and rotated them up into the lock position.		
5. Loaded the first round.	_____	_____
a. Placed safety switch on the fire (F) position and pressed the trigger.		
b. Rotated charger handles down and pulled them sharply to the rear until the bolt seated.		
c. Placed safety switch on the safe (S) position.		
d. Pushed charger forward and rotated the charger handles up into the locked position.		
e. Left safety switch in the safe (S) position until ready to fire.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.27

TM 9-1010-230-10

071-030-0006

Unload an MK 19 Machine Gun

Conditions: Given an MK 19 machine gun mounted on an M3 tripod or vehicle and loaded with linked 40-mm grenade ammunition.

Standards: Unload the MK 19 machine gun, remove ammunition and empty casings. Clear the weapon; make sure the chamber is empty and the safety switch is in the safe (S) position.

Performance Steps

1. Place the safety switch on the safe (S) position.
2. Charge the weapon.
3. Return the charger handles to the forward position and rotate only one charger handle up.
4. Remove the live round or spent case from bolt.
 - a. Insert the tip of a cleaning rod through the right hand rail as close to the bolt face as possible (figure 071-030-0006-1).

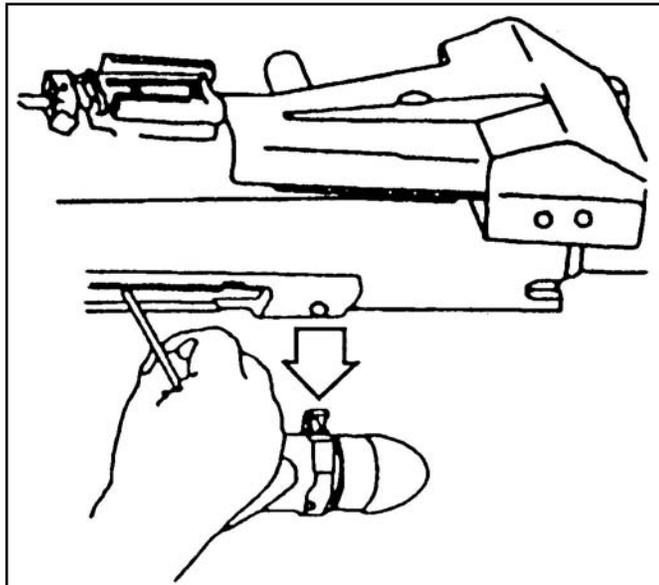


Figure 071-030-0006-1. Removal of round or spent case

- b. Lift up on the cleaning rod to force the live round or case off the bolt face and out the bottom of the gun. Catch the live round or the spent case as it falls out.

Performance Steps

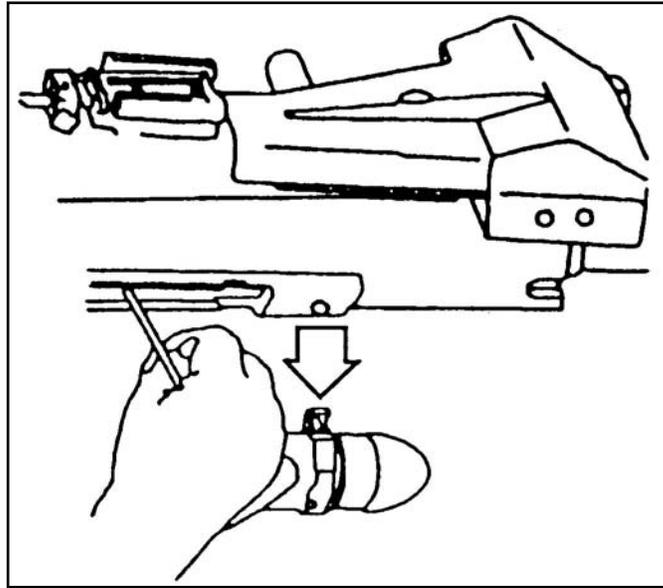


Figure 071-030-0006-2. Removal of round or spent case

5. Remove linked rounds from the feeder.
 - a. Open the top cover. Check for rounds in the feeder. If you find any rounds in the feeder, perform the following actions (figure 071-030-0006-2).

Performance Steps

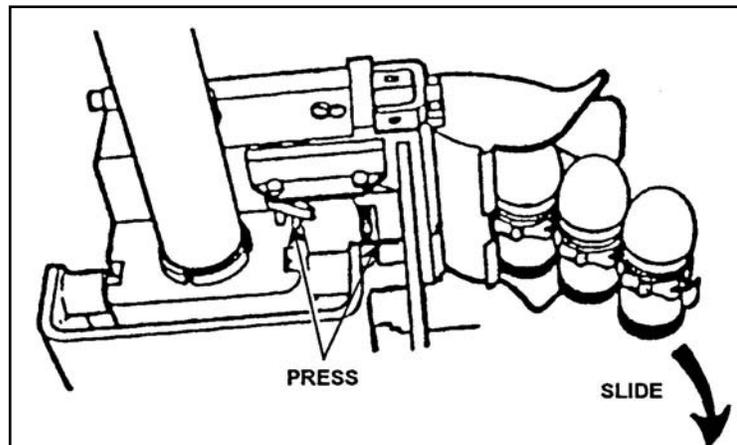


Figure 071-030-0006-3. Removal of linked rounds from the feeder

(1) With one hand, reach beneath the feeder. Press the primary and secondary positioning pawls at the same time.

(2) At the same time, slide the linked rounds out of the feeder and feed throat.

b. Place linked rounds in the ammunition can.

Performance Steps

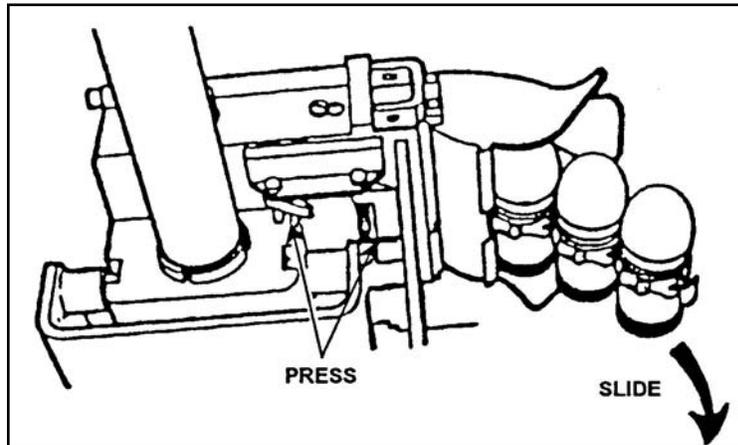


Figure 071-030-0006-2. Removal of linked rounds from the feeder

6. Place the safety switch in the fire (F) position.
7. Ride the bolt forward.
 - a. Hold one charger handle to the rear.
 - b. Press the trigger to release the bolt; ride the bolt forward.
 - c. Make sure both charging handles are forward and in the up position.
8. Place the safety switch in the safe (S) position.
9. Index the feed slide assembly to the left.
10. Close and latch the top cover.

Evaluation Preparation: Setup: Provide the Soldier with the equipment listed in the task condition statement.

Brief Soldier: Tell the Soldier to unload the MK 19 according to the task steps.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Placed the safety switch on safe (S) position.	_____	_____
2. Charged the weapon.	_____	_____
3. Returned the charger handles to the forward position and rotated only one charger handle up.	_____	_____
4. Removed the live round or spent case from bolt.	_____	_____
a. Inserted the tip of a cleaning rod through the right-hand rail as close to the bolt face as possible.		
b. Raised up on the cleaning rod to force the live round or case off the bolt face and out the bottom of the gun. Caught the live round or the spent case as it fell out.		
5. Removed any linked rounds from the feeder.	_____	_____
a. Opened the top cover. Checked for rounds in the feeder. If rounds were found in the feeder, then the following actions were performed:		
(1) With one hand, reached beneath the feeder and pressed the primary and secondary positioning pawls at the same time.		
(2) At the same time, slid the linked rounds out of the feeder and feed throat.		
b. Placed linked rounds in the ammunition can.		
6. Placed the safety switch on fire (F) position.	_____	_____
7. Rode the bolt forward.	_____	_____
a. Held one charger handle to the rear.		
b. Pressed the trigger to release the bolt, and rode the bolt forward.		
c. Made sure both charging handles were forward and in the up position.		

Performance Measures	GO	NO GO
8. Placed the safety switch on safe (S) position.	___	___
9. Indexed the feed slide assembly to the left.	___	___
10. Closed and latched the top cover.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.27

TM 9-1010-230-10

071-030-0007

Perform a Function Check on an MK 19 Machine Gun

Conditions: Given a cleared MK 19 machine gun mounted on an M3 tripod or vehicle carrier.

Standards: Conduct an operational check of the MK 19 machine gun; ensure it is correctly assembled and functions properly.

Performance Steps

WARNING

Before performing any procedure, make sure the weapon is clear of ammunition.

1. Check the functioning of the safety switch.
 - a. With the cover closed, place safety switch on safe (S).
 - b. Pull the bolt to rear, push charger handles to forward position, and rotate handles up.
 - c. Press the trigger. Bolt should not go forward.
 - d. Place the safety switch on fire (F) position.

Performance Steps

- e. Press the trigger. Bolt should spring forward.
 - f. Place the safety switch on safe (S) and leave the bolt in forward position.
2. Open top cover assembly and inspect the feed tray assembly and the chamber to ensure the gun is clear.
- a. Open the top cover.
 - b. Touch the firing pin. If it is not protruding, recharge and release the bolt spring under pressure.
 - c. Inspect the bolt face to make sure it is not worn, dirty, pitted, corroded, or in need of lubrication.

WARNING

Do not allow the top cover to slam shut from the raised position. Doing so could injure your hand or damage the equipment.

3. Check the feed slide assembly and feeder.
- a. Move the secondary drive lever back and forth. The feed slide assembly should move freely.
 - b. Press the feed pawls to check for spring pressure.
 - c. Inspect the link guide for roughness and galling.
- Note:** Before closing the top cover, always make sure of the following:
- The secondary drive lever is engaged with the feed slide pin.
 - The feed slide assembly is to the left.
 - The bolt is forward.
 - Never try to force the top cover closed. Doing so could damage the equipment.
- d. Close and latch the top cover.
4. If you find any deficiencies that you cannot correct, the MK 19 is unserviceable. Report the deficiencies to your supervisor.

Evaluation Preparation: Setup: At the test site, provide the Soldier with the equipment listed in task condition.

Brief Soldier: Tell the Soldier to perform a function check to determine if the MK 19 machine gun functions properly.

Performance Measures	GO	NO GO
1. Checked functioning of safety switch.	___	___
2. Inspected interior of receiver assembly for missing or damaged parts.	___	___
3. Checked feed slide assembly and feeder.	___	___
4. Reported deficiencies to supervisor.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

TM 9-1010-230-10

SUBJECT AREA 14: CALIBER .50 M2 MACHINE GUN

071-022-0001

Maintain a Caliber .50 M2 Machine Gun

Conditions: Given a caliber .50 M2 machine gun; M3 tripod; MK64 gun cradle mount; pintle; traversing and elevating (T&E) mechanism; linked caliber .50 ammunition; headspace and timing gauge; cleaner, lubricant, and preservative (CLP); rifle bore cleaner (RBC); lubricating oil semifluid (LSA); carbon removing compound; bore brush; wiping rags; M4 cleaning rod; small arms (2-inch) cleaning swabs; and a wooden block.

Standards: Clean and lubricate the caliber .50 M2 machine gun and its components; clean and inspect all parts and ammunition, and turn in unserviceable parts for maintenance; and assemble the gun so that it is operational.

Performance Steps

1. Clear the caliber .50 M2 machine gun.
 - a. Unlock the bolt latch release and raise the cover (figure 071-022-0001-1).
 - b. Pull and lock the bolt to the rear, leaving the retracting slide handle to the rear.
 - c. Inspect the chamber and T-slot to make sure they hold no rounds.
 - d. Place a wooden block inside the receiver, between the bolt and the rear of the barrel.
 - e. Insert the cleaning rod in the muzzle end of the barrel until you can see the rod in the receiver. Remove the cleaning rod.
 - f. Grasp the retracting slide handle, press the bolt latch release, and ease the bolt forward. Close the cover.

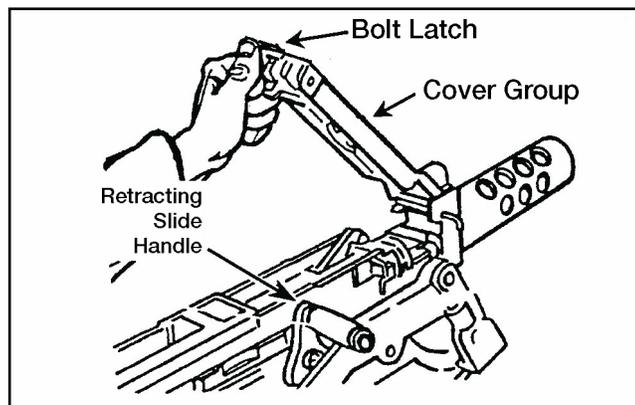


Figure 071-022-0001-1. Raising of the cover

Performance Steps

2. Disassemble the machine gun.
 - a. Remove the barrel assembly.
 - (1) Raise the cover group (figure 071-022-0001-1).
 - (2) Grasp the retracting slide handle with the right hand, palm up. Pull the bolt to the rear until the barrel locking spring lug aligns with the 3/8-inch hole in the right side plate of the receiver (figure 071-022-0001-2).
 - (3) Place the smallest loop of a caliber .50 link between the trunnion block and the barrel extension (figure 071-022-0001-2) to keep the barrel locking spring lug aligned with the 3/8-inch hole.
 - (4) Unscrew the barrel from the receiver. Be careful not to damage the threads or barrel locking notches.
 - (5) Remove the caliber .50 link to allow the bolt to go forward slowly. Make sure the bolt group does not slam forward with the barrel removed.

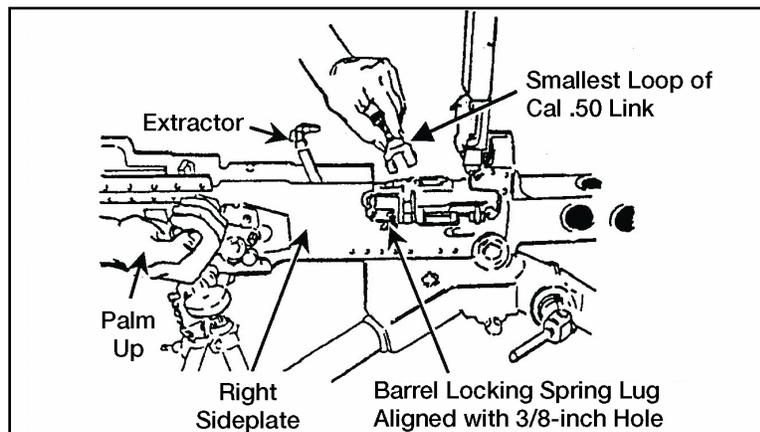


Figure 071-022-0001-2. Align the lug

Performance Steps

- b. Remove the backplate assembly.

WARNING

Do not remove the backplate unless the bolt is in the forward position. When removing the backplate, stand to one side of the weapon to avoid possible injury from the driving spring rod.

- (1) Ensure the bolt is forward and the bolt latch release is unlocked (in the single shot mode) (figure 071-022-0001-3).

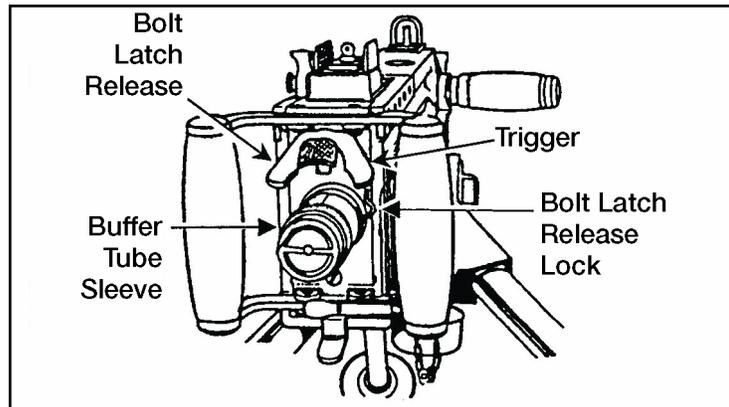


Figure 071-022-0001-3. Release the bolt latch

- (2) Pull the backplate latch lock straight back while lifting up on the backplate latch (figure 071-022-0001-4).

Performance Steps

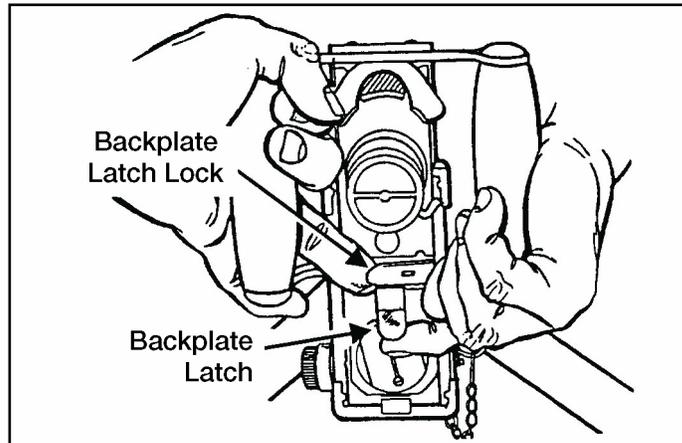


Figure 071-022-0001-4. Removal of the backplate

- (3) Remove the backplate assembly by lifting straight up.
- c. Remove the driving spring rod assembly (figure 071-022-0001-5).
-

Performance Steps

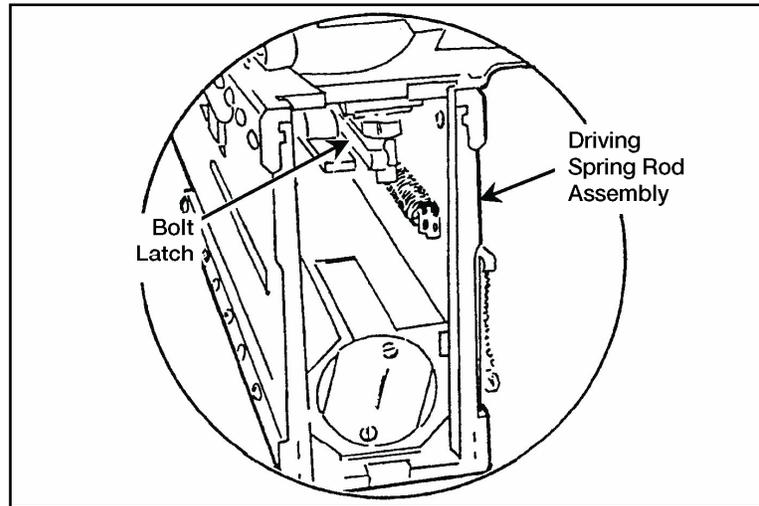


Figure 071-022-0001-5. Removal of the driving spring rod assembly

(1) Push the rear of the driving rod assembly forward and to the left to free it from the side of the receiver.

WARNING

Never try to charge the machine gun while the backplate is off and the driving spring rod assembly is in place. If the backplate is off and the driving spring assembly is compressed, the retaining pin on the driving spring can slip from its seat in the side plate, which could cause serious injury to anyone behind the machine gun.

(2) Pull the driving spring rod assembly to the rear and out of the receiver.

d. Remove the bolt assembly.

(1) Retract the bolt assembly far enough to the rear to align the bolt stud with the bolt stud hole in the right side plate of the receiver (figure 071-022-0001-6).

Performance Steps

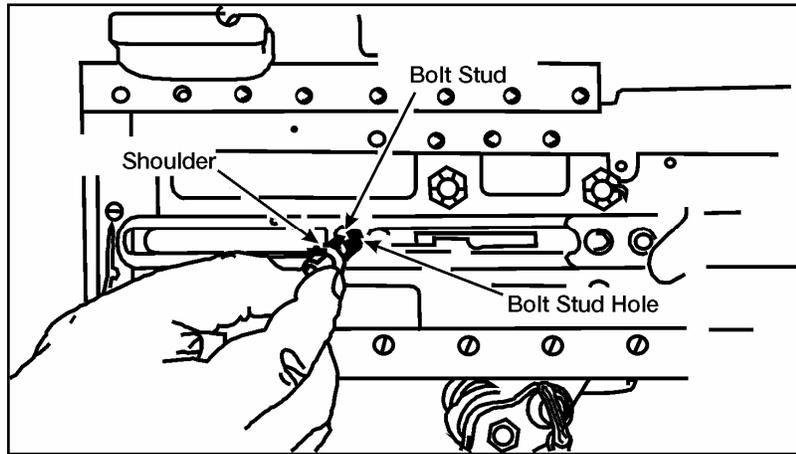


Figure 071-022-0001-6. Removal of the bolt stud

(2) If you accidentally move the bolt all the way to the rear, the bolt latch will engage in the bolt latch notches in the top of the bolt. If this occurs, raise the bolt latch and push the bolt forward to align the bolt stud with the clearance hole (figure 071-022-0001-7).

Performance Steps

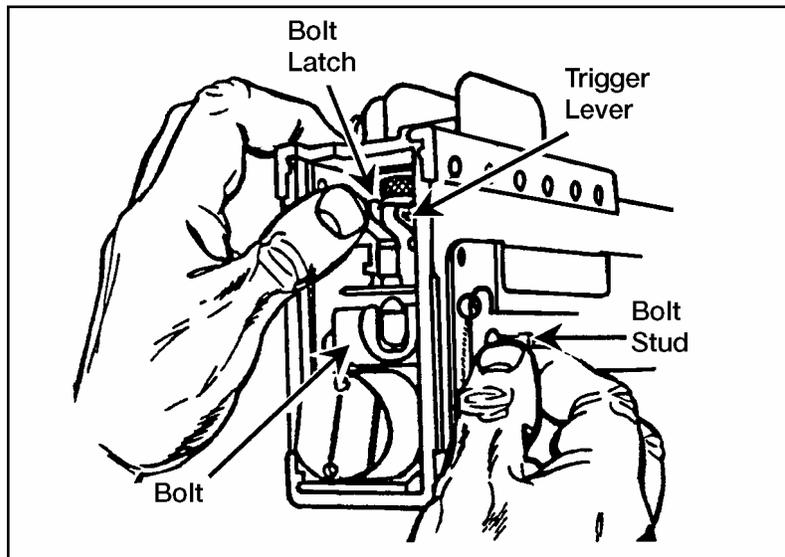


Figure 071-022-0001-7. Unlatch the bolt

- (3) Remove the bolt stud.
- (4) Remove the bolt assembly by pulling it from the rear of the receiver (figure 071-022-0001-8).

Performance Steps

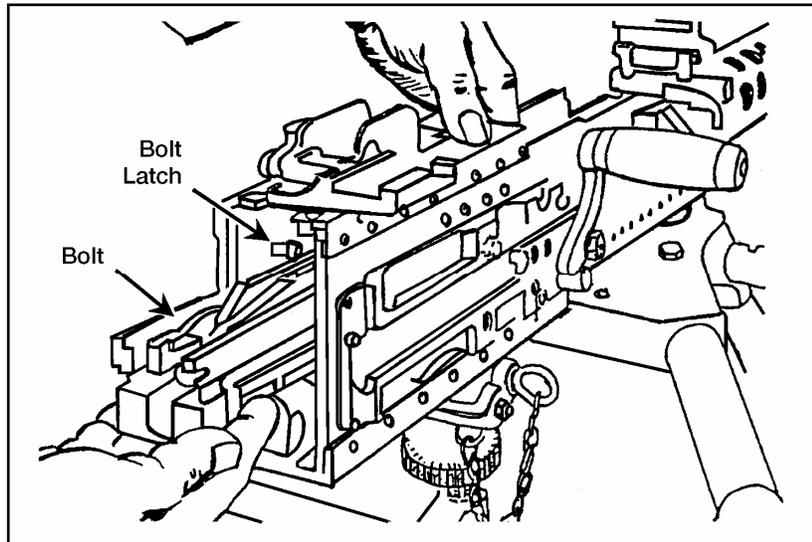


Figure 071-022-0001-8. Removal of the bolt from the receiver

(5) Disassemble the bolt.

(a) Rotate the cartridge extractor upward and remove it from the left side of the bolt (figure 071-022-0001-9).

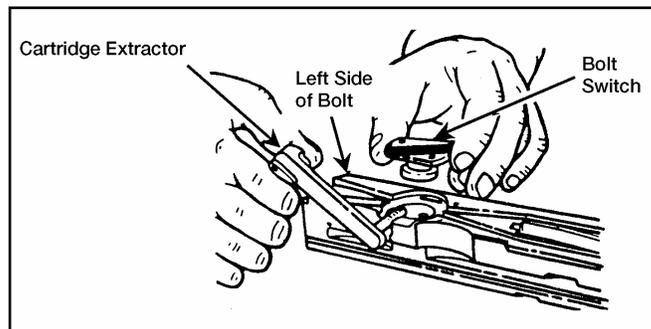


Figure 071-022-0001-9. Removal of the cartridge extractor and bolt

(b) Remove the bolt switch by lifting it straight up.

Performance Steps

(c) Place the cocking lever in its rearmost position. Press down on the sear with a swab holder and release the firing pin spring (figure 071-022-0001-10).

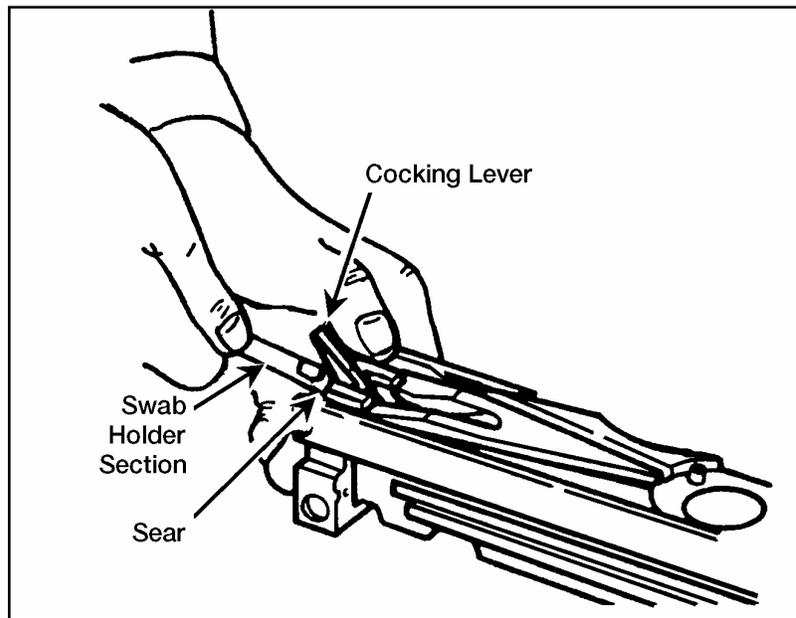


Figure 071-022-0001-10. Release the firing pin spring

(d) Insert a swab holder section in the hole at the rear of the bolt and push out the cocking lever pin and the cocking lever (figure 071-022-0001-11).

Performance Steps

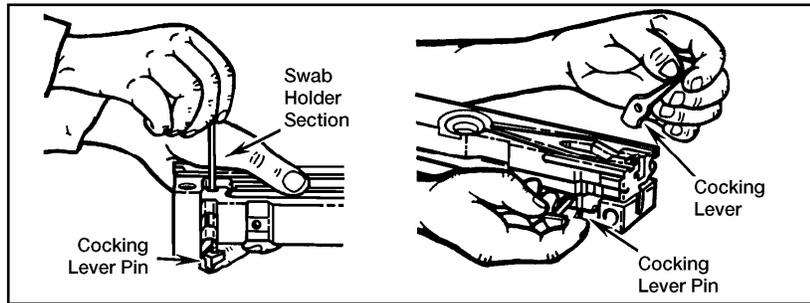


Figure 071-022-0001-11. Removal of the cocking lever pin and cocking lever

(e) Use the thin end of the cocking lever to rotate the accelerator stop lock to the center of the bolt, then pry up the accelerator stop lock and remove it (figure 071-022-0001-12).

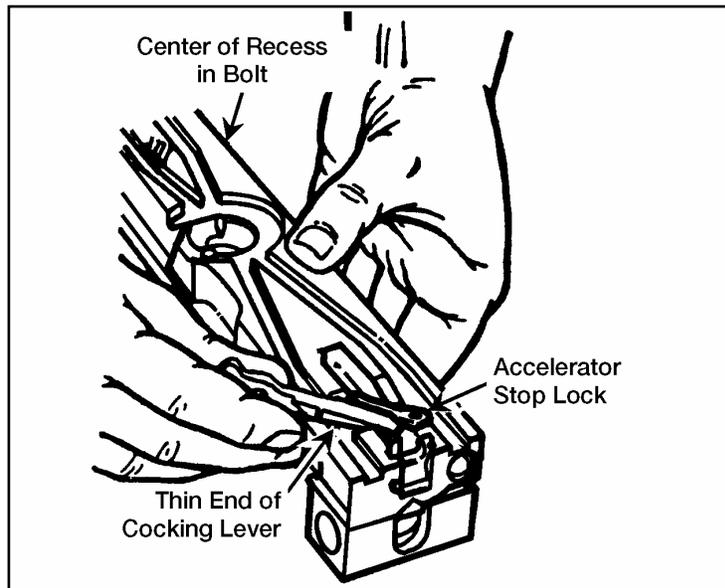


Figure 071-022-0001-12. Removal of the accelerator stop lock

Performance Steps

(f) Using the thin end of the cocking lever, press the accelerator stop from the bolt, turn the bolt over, and pry the accelerator stop from bottom of bolt (figure 071-022-0001-13).

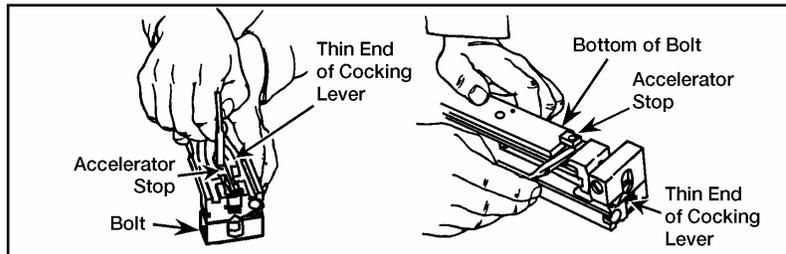


Figure 071-022-0001-13. Removal of the accelerator stop

(g) Depress the sear and remove the sear slide, sear, and sear spring (figure 071-022-0001-14).

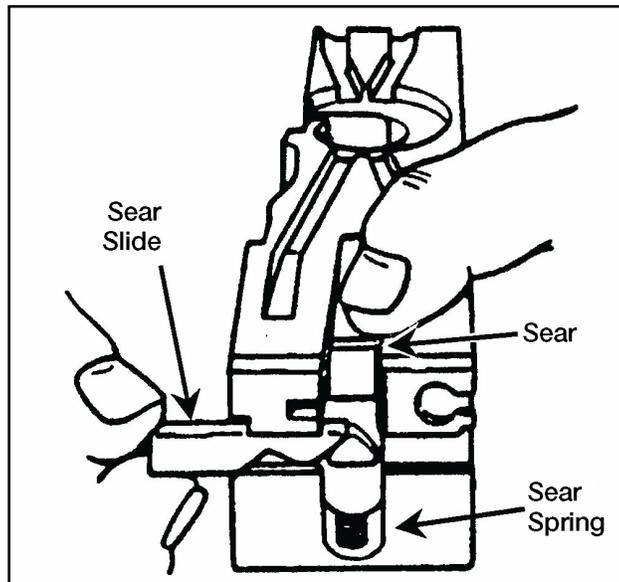


Figure 071-022-0001-14. Removal of the sear slide, sear, and sear spring

Performance Steps

(h) Tip the front end of the bolt upward and remove the firing pin extension assembly (figure 071-022-0001-15).

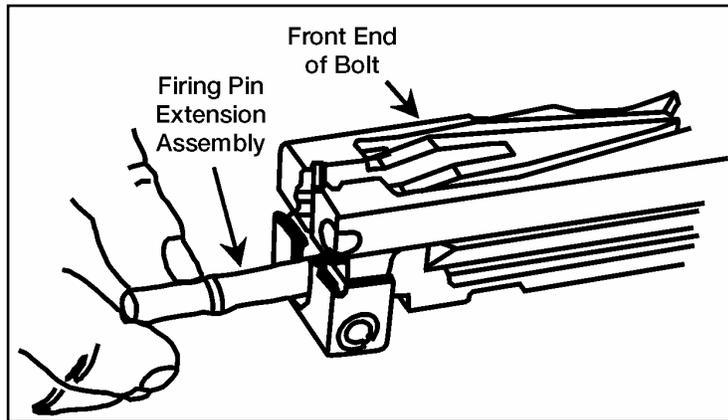


Figure 071-022-0001-15. Removal of the firing pin extension assembly

(i) Remove the firing pin from the firing pin extension assembly.

e. Remove the barrel buffer and barrel extension (figure 071-022-0001-16).

Performance Steps

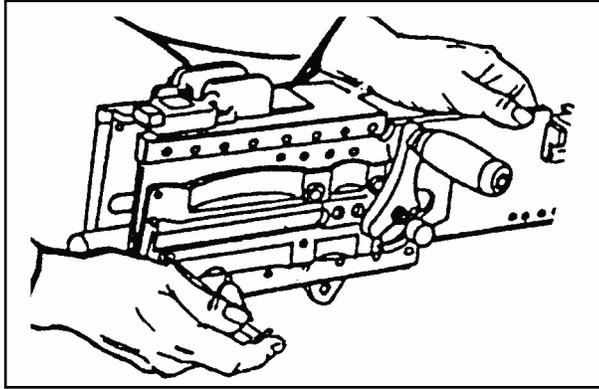


Figure 071-022-0001-16. Removal of the barrel buffer and barrel extension assemblies

(1) Insert a pointed instrument (you can use the pointed end of the M4 cleaning rod) in the hole at the lower rear corner of the right side plate. Depress the buffer body lock and, at the same time, place one hand inside the receiver and push the barrel extension and buffer assemblies to the rear until the buffer accelerator is near the rear of the receiver body.

WARNING

Maintain thumb pressure on the buffer accelerator while removing the barrel buffer and barrel extension assemblies.

(2) Maintain pressure on the buffer accelerator with your thumb and remove the barrel buffer and barrel extension assemblies from the receiver. Separate them by pushing forward on the accelerator tips (figure 071-022-0001-17).

Performance Steps

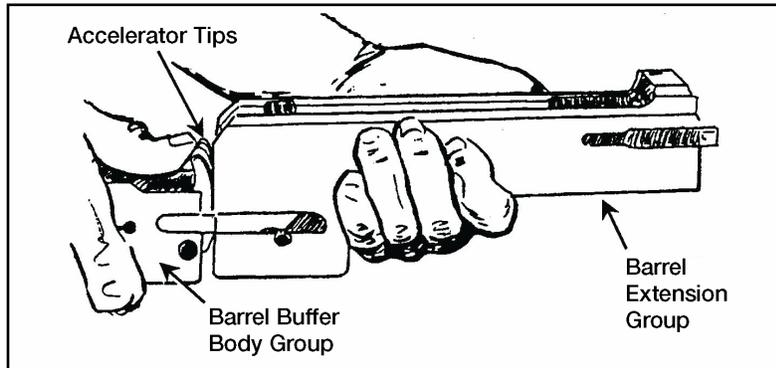


Figure 071-022-0001-17. Separation of the barrel buffer and barrel extension assemblies

(3) Disassemble the barrel buffer assembly.

(a) Remove the buffer assembly by pushing it out the rear of the body of the barrel buffer (figure 071-022-0001-18).

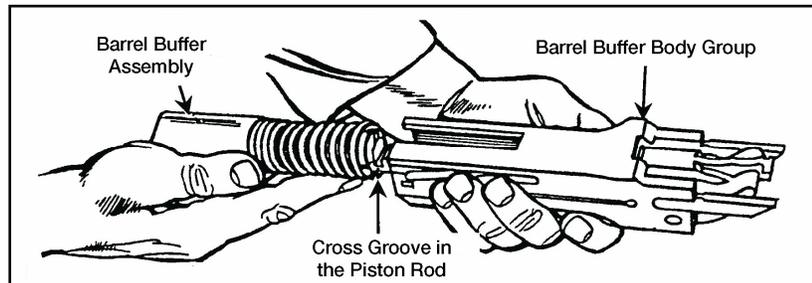


Figure 071-022-0001-18. Removal of the barrel buffer assembly

(b) Using a swab holder, drive the accelerator pin assembly from the barrel buffer body group.

(c) Remove the buffer accelerator.

(4) Disassemble barrel extension assembly.

(a) Using the pointed end of the M4 cleaning rod, remove breech lock pin assembly (figure 071-022-0001-19).

Performance Steps

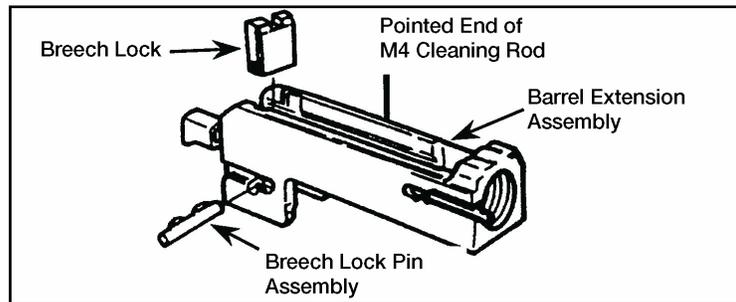


Figure 071-022-0001-19. Removal of the breech lock pin assembly and breech lock

(b) Remove breech lock.

f. Disassemble receiver assembly.

(1) Remove the front cartridge stop and rear cartridge stop assembly (figure 071-022-0001-20).

Performance Steps

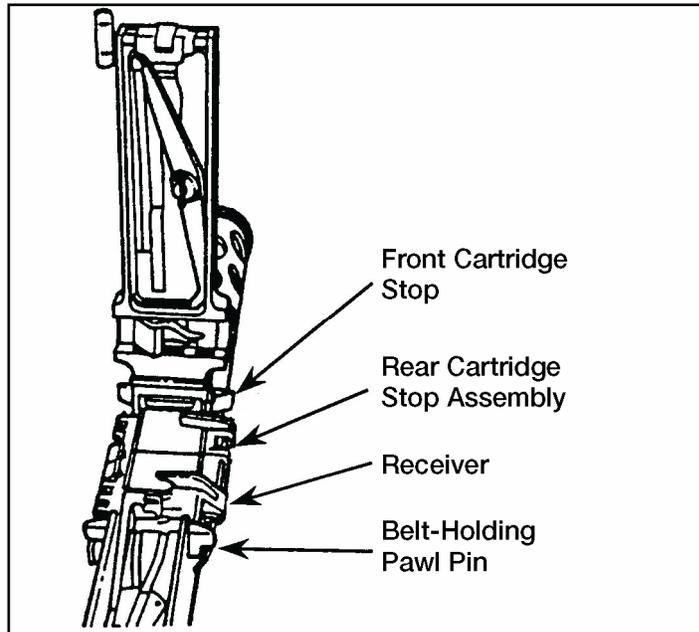


Figure 071-022-0001-20. Removal of the cartridge stop assemblies

(2) Press down on belt-holding pawl assembly to prevent loss of springs, and remove the belt-holding pawl pin. Remove belt-holding pawl assembly and springs (figure 071-022-0001-21).

Performance Steps

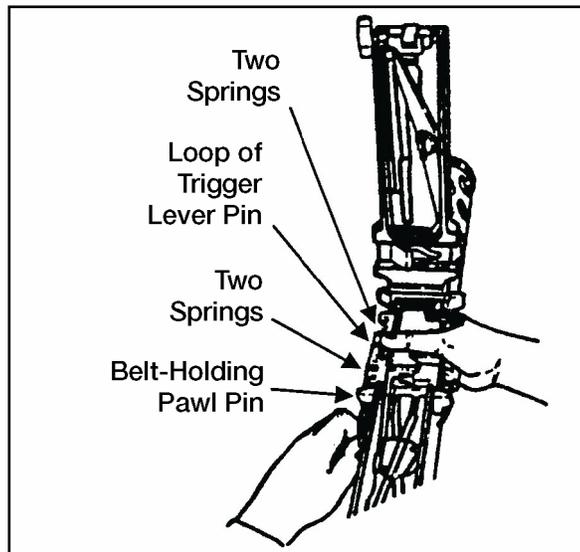


Figure 071-022-0001-21. Removal of the belt-holding pawl pin, assembly, and springs

(3) Raise the loop of the trigger lever pin and rotate it into a vertical position. Reach inside the receiver, grasp the trigger lever, and remove the trigger pin assembly and trigger lever (figure 071-022-0001-22).

Performance Steps

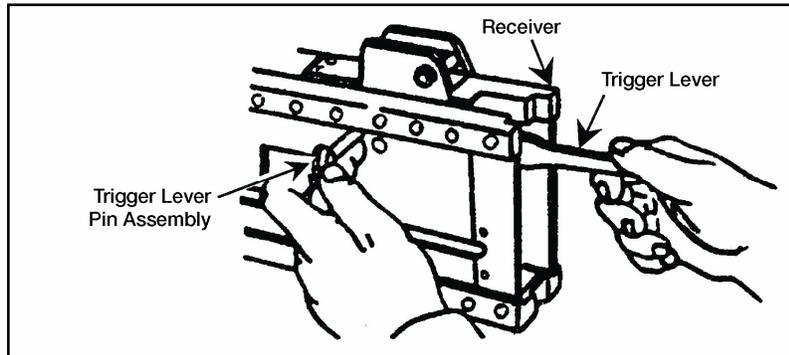


Figure 071-022-0001-22. Removal of the trigger lever pin assembly and trigger lever

3. Clean the caliber .50 machine gun and components.
 - a. Barrel assembly.
 - (1) Clean the bore. Screw the bore brush into the cleaning rod, dip the bore brush in RBC, and push the cleaning rod through the chamber end of barrel. Unscrew the bore brush from the cleaning rod. Repeat the process until clean.
 - (2) Clean the chamber. Screw the chamber brush into the cleaning rod, dip the chamber brush in RBC, and clean the chamber using a clockwise twisting motion.
 - (3) Insert a cleaning swab in the cleaning rod and swab out the bore from the chamber end and back. Repeat until a swab comes out clean.
 - (4) Wipe outside surfaces of barrel with carbon removing compound.
 - (5) Remove all traces of RBC before lubricating.
 - Note:** Do not submerge the backplate assembly in any fluid.
 - b. Backplate assembly. Use only clean wiping rags to remove foreign matter from backplate.

Performance Steps

d. Bolt assembly.

(1) Check movement of cartridge extractor in bolt: it should raise and lower without binding. Check movement of cartridge ejector.

(2) Check bolt switch, cocking lever pin, cocking lever, accelerator stop lock, accelerator stop, and sear slide for cracks, bends, and burrs.

(3) Inspect sear for cracks and burrs. Inspect sear notch for wear, chips, and burrs. Inspect sear spring for breaks and lack of tension.

(4) Inspect firing pin for cracks and chipped or sharp tip. Tip should be smooth and well rounded.

(5) Check firing pin extension for cracks, burrs, and free movement in bolt.

(6) Make sure bolt is free of burrs and cracks and firing pin hole is not visually out of round.

e. Barrel buffer assembly.

(1) Inspect buffer body lock for tension, staking, and retention in barrel buffer body.

(2) Inspect buffer accelerator for broken claws or chipped tips.

(3) Inspect accelerator pin assembly for broken or missing spring.

(4) Inspect buffer spring for cracks or breaks.

(5) Inspect breech lock depressors. They must have slight vertical (up and down) movement but should have no lateral (side to side) movement.

f. Barrel extension assembly.

(1) Make sure barrel extension assembly is not bent and that the bolt guideways are smooth and free of burrs.

(2) Inspect threads of barrel extension assembly for damage.

(3) Make sure barrel locking spring is staked and fully seated in its groove. Also, make sure the locking end of the spring has good tension and the lug is not damaged.

Performance Steps

(4) Check breech block for smooth movement in guideways of barrel extension assembly.

g. Receiver and cover assembly.

(1) Inspect belt holding pawl brackets for looseness, bends, and cracks.

(2) Inspect side plates for bends that would affect movement of any internal parts.

(3) Check for cracks and burrs at backplate grooves.

(4) Check operation of rear sight. Make sure windage and elevation screws function properly, leaf assembly has good spring tension, and sight assembly is secured tightly to receiver.

(5) Make sure bolt stop is present and in good condition.

(6) Make sure trigger lever moves freely.

(7) Make sure trigger lever pin locks in place.

(8) Make sure cotter pin is in place on extractor switch.

(9) Check retracting slide assembly for visible damage.

Check retracting slide handles for smooth movement. Make sure cotter pins are present and in good condition, and safety wire is in place and properly laced.

h. Inspect components.

(1) T&E mechanism.

(a) Inspect hand wheels and threads for burrs and rust. Check hand wheels for smooth operation.

(b) Make sure traversing slide lock lever has spring action. Make sure elevating mechanism sleeve fits on traversing bar and clamps firmly.

(c) Check traversing and elevating scales for legibility.

(d) Inspect quick-release pin and chain for burrs and rust. Check quick-release pin for presence of spring loaded balls.

Performance Steps

(2) M3 tripod.

- (a)** Check for completeness of tripod. Make sure all nuts and bolts are tightly secured.
- (b)** Check for visible cracks on legs and tripod head.
- (c)** Check for missing, broken, or inoperative sleeve lock latch.
- (d)** Check pintle lock assembly. Check surfaces of pintle, bolt, and nut for burrs and rust. Make sure cotter pin is present and in good condition.
- (e)** Check locking action of front leg clamping assembly.
- (f)** Check that rear legs lock in the open position. Make sure sleeve latch notch and right leg slide notch engage completely. Make sure latch spring has good tension.
- (g)** Check telescoping, indexing, and locking action of rear legs and front leg clamping assembly.

(3) MK64 gun cradle mount.

- (a)** Check for missing or damaged parts.
- (b)** Check for rust, cracks, and burrs.
- (c)** Check pintle lock assembly. Check surfaces of pintle, bolt, and nut for burrs and rust. Make sure cotter pin is present and in good condition.

- i.** Inspect ammunition. Check for damage or corroded rounds.

5. Lubricate the caliber .50 machine gun.

- a.** Remove all traces of RBC or carbon removing compound.

CAUTION

Do not mix lubricants on the same weapon. The weapon must be thoroughly cleaned with dry cleaning solvent during change from one lubricant to another.

- b.** Lubricate exterior of backplate with a light coat of oil. Do not lubricate interior of backplate.

Performance Steps

- c. Lubricate all other parts with a light coat of LSA or CLP (at temperatures above 0 degrees Fahrenheit) or LAW (at temperatures below 0 degrees Fahrenheit).
- 6. Assemble the caliber .50 machine gun.
 - a. Assemble the trigger lever (figure 071-022-0001-23).

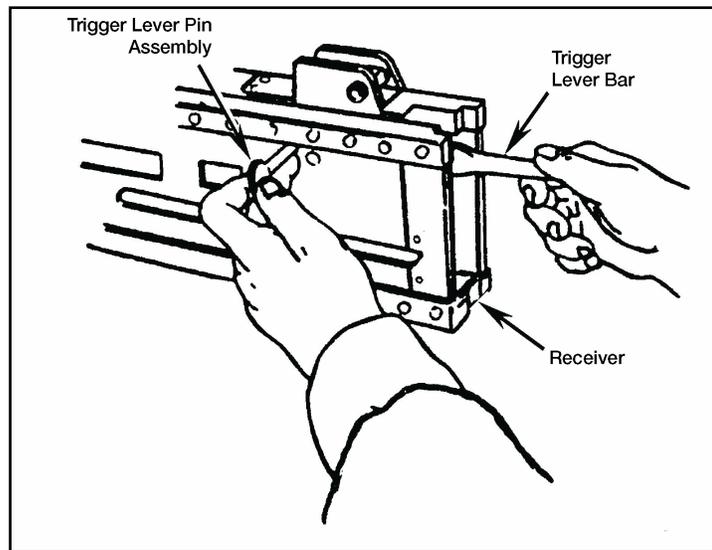


Figure 071-022-0001-23. Assembly of the trigger lever

- (1) Place the trigger lever bar in the receiver directly under the timing nut so that the hole in the trigger lever bar is aligned with the mounting hole in the receiver.
- (2) Insert trigger lever pin assembly (loop end vertical) in the assembly hole on left side of receiver. Match key on trigger lever pin with keyway in side plate of receiver and install the pin completely.
- (3) Rotate trigger pin lever assembly 90 degrees and lock in place. Fold the loop end down.

Performance Steps

b. Assemble receiver group.

(1) Determine the direction of feed. (figure 071-022-0001-24 shows left-hand feed.) Place the right-hand rear cartridge stop assembly and front cartridge stop on the belt-holding pawl bracket.

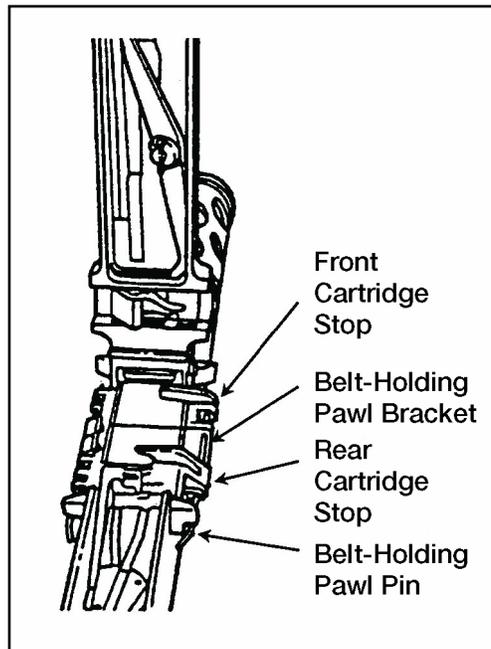


Figure 071-022-0001-24. Installation of the rear cartridge stop assembly and front cartridge stop

- (2) Install belt-holding pawl pin with hooked end to rear.
- (3) Seat belt-holding pawl springs in place on the belt-holding pawl bracket.
- (4) Place belt-holding pawl assembly on the springs. Compress springs and insert belt-holding pawl pin (figure 071-022-0001-25).

Performance Steps

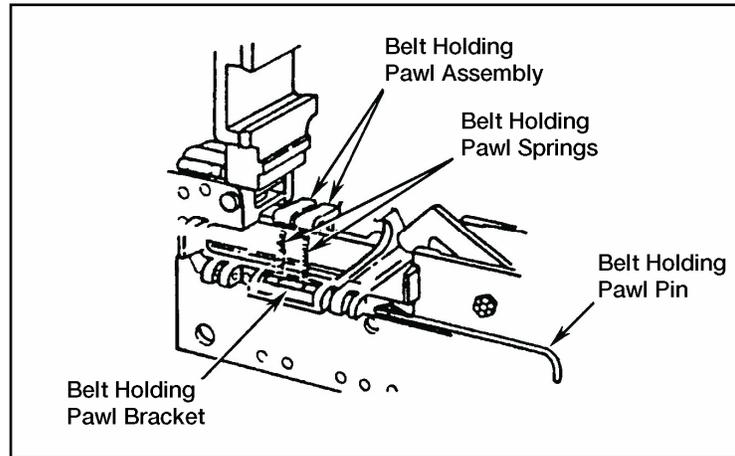


Figure 071-022-0001-25. Installation of the belt-holding pawl assembly

c. Assemble barrel extension (figure 071-022-0001-26).

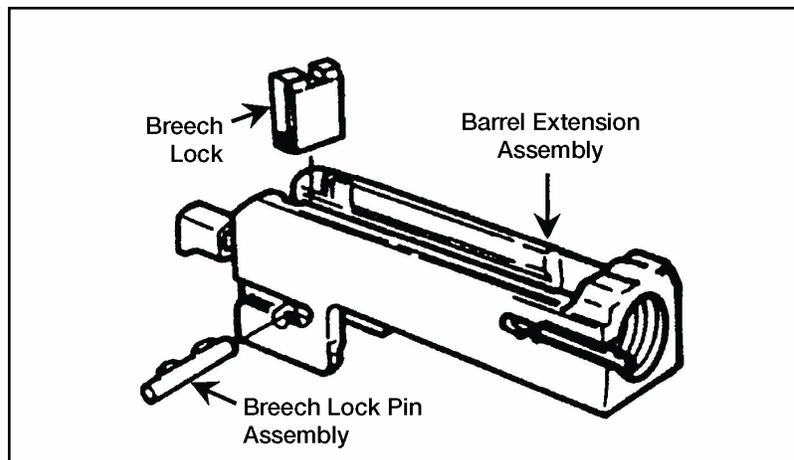


Figure 071-022-0001-26. Assembly of the barrel extension assembly

(1) Install breech block lock with beveled edge up and to the front of barrel extension assembly.

Performance Steps

(2) Install breech lock pin assembly in barrel extension. Make sure both ends of breech lock pin assembly are flush with sides of barrel extension assembly.

d. Assemble barrel buffer assembly.

(1) Place buffer accelerator (tips up) into barrel buffer body, align mounting holes, and install buffer pin assembly. Ensure both ends of barrel buffer pin assembly are flush with sides of barrel buffer body (figure 071-022-0001-27).

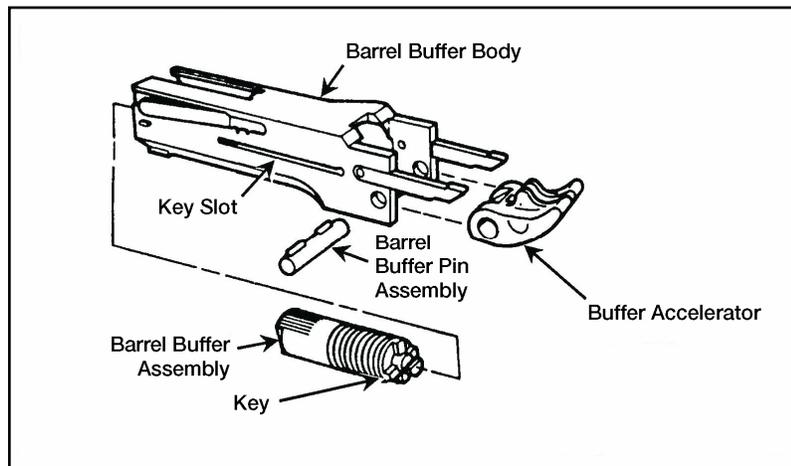


Figure 071-022-0001-27. Assembly of the barrel buffer assembly

(2) Align key on barrel buffer assembly with key slot in barrel buffer body and slide barrel buffer assembly into barrel buffer body.

(3) Hold the barrel buffer assembly with the buffer accelerator up and engage the notch on the shank of the barrel extension assembly with the cross groove in the piston rod of the barrel assembly (figure 071-022-0001-28).

Performance Steps

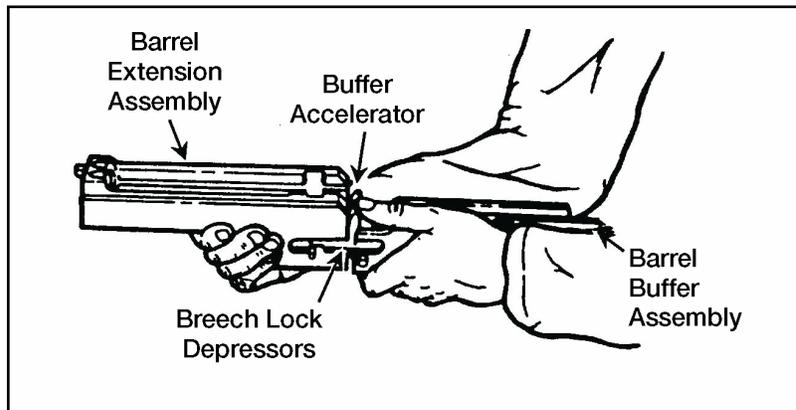


Figure 071-022-0001-28. Attachment of the barrel buffer and barrel extension assemblies

(4) Align breech lock depressors in grooves of barrel extension assembly and push barrel buffer assembly forward.

(5) Install barrel buffer assembly and barrel extension assembly in receiver (figure 071-022-0001-29).

Performance Steps

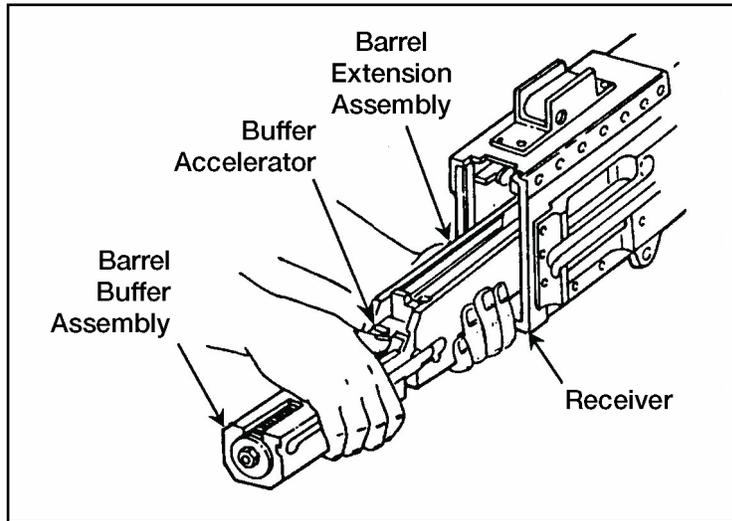


Figure 071-022-0001-29. Installation of the barrel buffer and barrel extension assemblies

Performance Steps

e. Assemble bolt assembly.

(1) Attach firing pin to firing pin extension assembly (figure 071-022-0001-30).

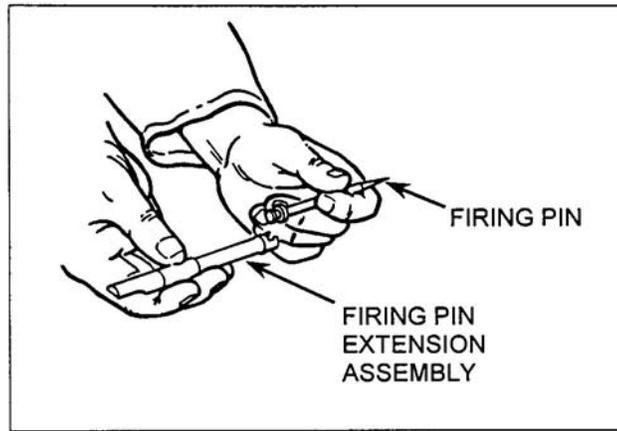


Figure 071-022-0001-30. Attachment of the firing pin to the firing pin extension assembly

Performance Steps

(2) Insert firing pin extension assembly into bolt with notch of firing pin extension assembly down (figure 071-022-0001-31).

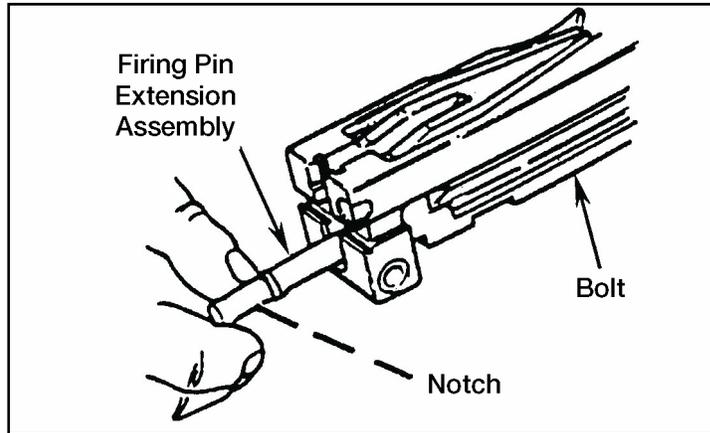


Figure 071-022-0001-31. Installation of the firing pin extension assembly

(3) Slide firing pin extension assembly forward so that tip of firing pin protrudes from face of bolt.

(4) Place sear spring in recess on bolt. Slide sear down into vertical grooves at rear of bolt with wedge-shaped lug pointed outward and upward (figure 071-022-0001-32).

Performance Steps

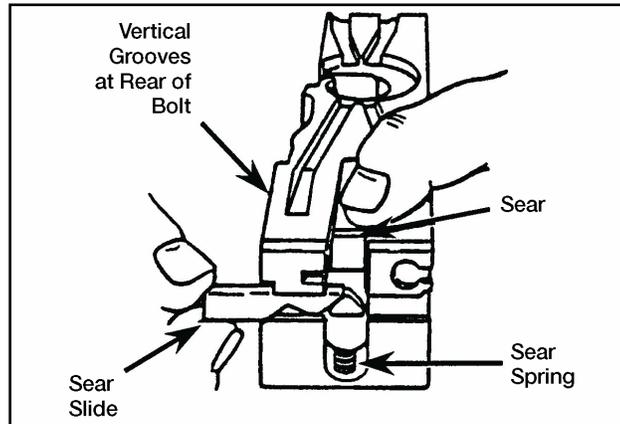


Figure 071-022-0001-32. Installation of the sear side

(5) Compress sear spring by pressing down on the sear. Install sear slide from left side of bolt in grooves of bolt with "V" notch down.

Note: Make sure the pin end of the accelerator is installed behind the firing pin spring, not through a coil.

(6) Insert pin end of accelerator stop through bottom of bolt (figure 071-022-0001-33).

Performance Steps

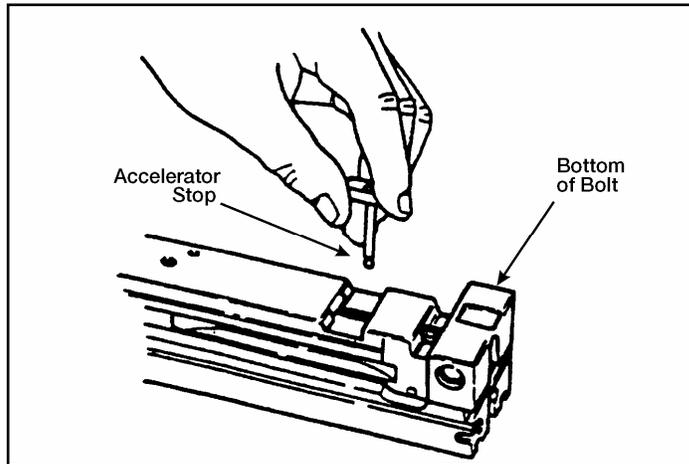


Figure 071-022-0001-33. Attachment of the accelerator stop

Note: Base end of accelerator stop should be installed with long end forward so beveled edges match.

(7) Turn bolt over. Place forked end of accelerator stop lock on notched end of accelerator stop.

(8) Using the wedge-shaped end of the cocking lever, press down on the flat end of the accelerator stop lock, and move the cocking lever into the groove on the left side of the bolt (figure 071-022-0001-34).

Performance Steps

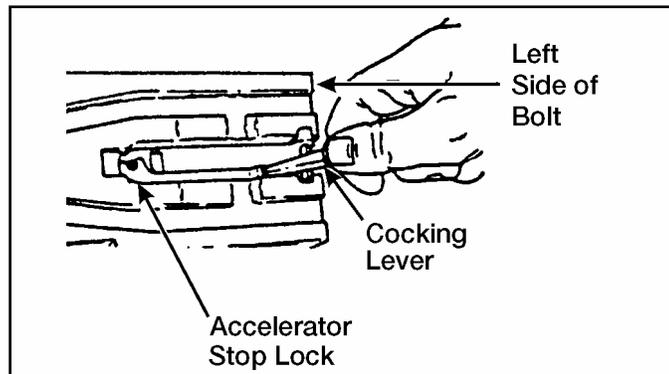


Figure 071-022-0001-34. Attachment of the accelerator stop lock

(9) Insert cocking lever, with rounded nose on lower end of lever to rear, into slot in top of bolt (figure 071-022-0001-35).

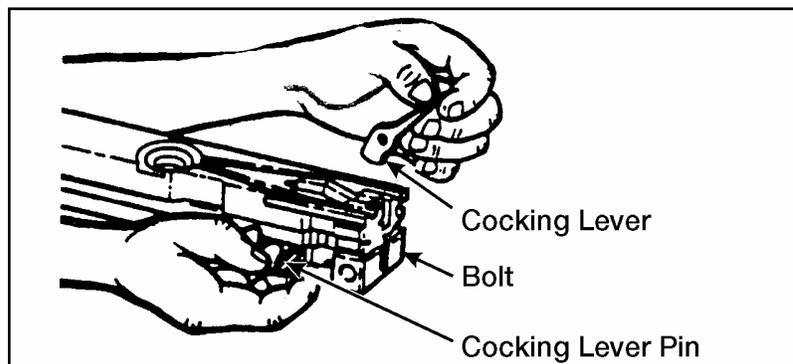


Figure 071-022-0001-35. Attachment of the cocking lever

(10) Align the hole in the cocking lever with the holes in the bolt. Insert the cocking lever pin from the left side.

(11) Push the cocking lever forward to charge the firing pin. Return the cocking lever to the rearward position.

Performance Steps

WARNING

Do not try to release the firing pin with the cocking lever forward. The cocking lever could spring back forcibly and cause serious injury.

(12) Test firing pin release. Trip the firing pin by depressing the top of the sear with a section of a swab-holder. If doing so makes a sharp metallic sound, then the firing pin spring is in good condition (figure 071-022-0001-36).

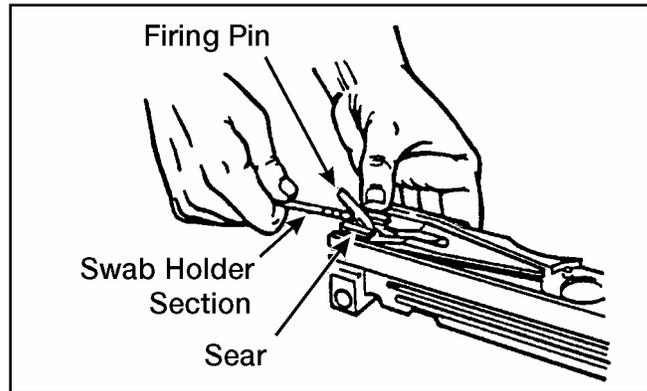


Figure 071-022-0001-36. Testing of the firing pin release

(13) Place cocking lever in forward position. Determine the direction of feed before installing the bolt switch.

(14) Place bolt switch in position so that the feed groove is continuous for feed direction indicated (figure 071-022-0001-37).

Performance Steps

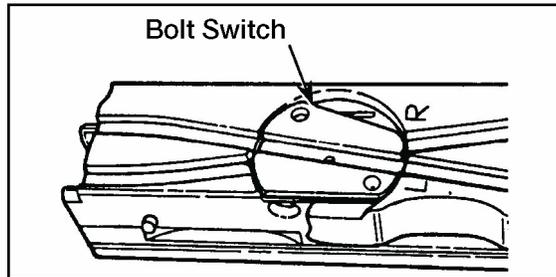


Figure 071-022-0001-37. Setting of the bolt switch

(15) Hold cartridge extractor in vertical position and insert shank end of cartridge extractor into left side of bolt. Make sure cartridge extractor fits into bolt as far as possible.

(16) Rotate cartridge extractor downward to full horizontal position. Check that flange on bottom of cartridge extractor has engaged shoulder on bolt.

(17) Ensure cocking lever is forward.

(18) Push bolt assembly forward into receiver until bolt latch engages notches in top of bolt assembly (figure 071-022-0001-38).

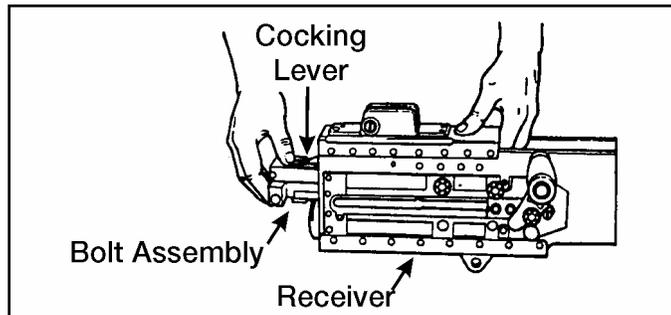


Figure 071-022-0001-38. Installation of the bolt assembly

(19) If you cannot install the bolt this way, remove the barrel extension and buffer assembly from the receiver. Install the bolt assembly into the barrel extension and buffer assembly and then install them in the receiver (figure 071-022-0001-39).

Performance Steps

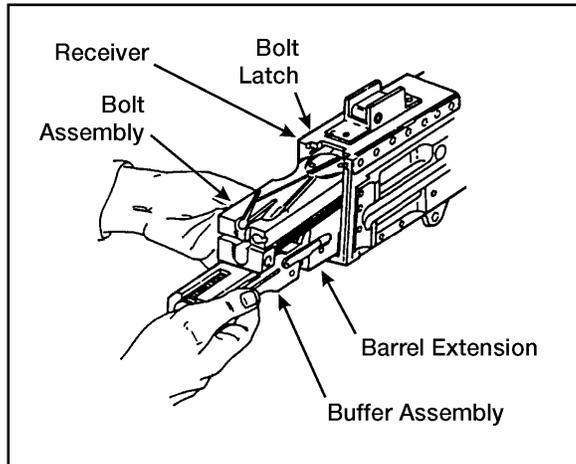


Figure 071-022-0001-39. Installation of the bolt assembly within the barrel extension and buffer assembly

(20)Raise bolt latch and push bolt assembly into the receiver.

(21)Align holes in bolt assembly with stud assembly hole in receiver and install bolt stud in hole in bolt assembly. Place bolt in forward position (figure 071-022-0001-40).

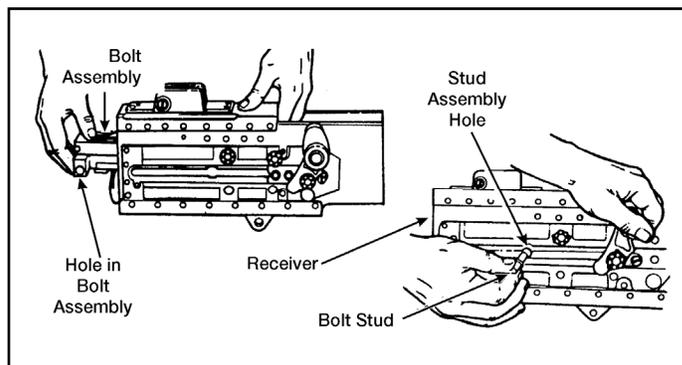


Figure 071-022-0001-40. Installation of the bolt assembly

Performance Steps

f. Assemble driving spring rod assembly (figure 071-022-0001-41). Install the driving spring rod assembly in the upper right corner of the bolt. Push forward and to the right until the driving spring rod assembly engages in the hole in the side plate of the receiver—not in the groove for the backplate.

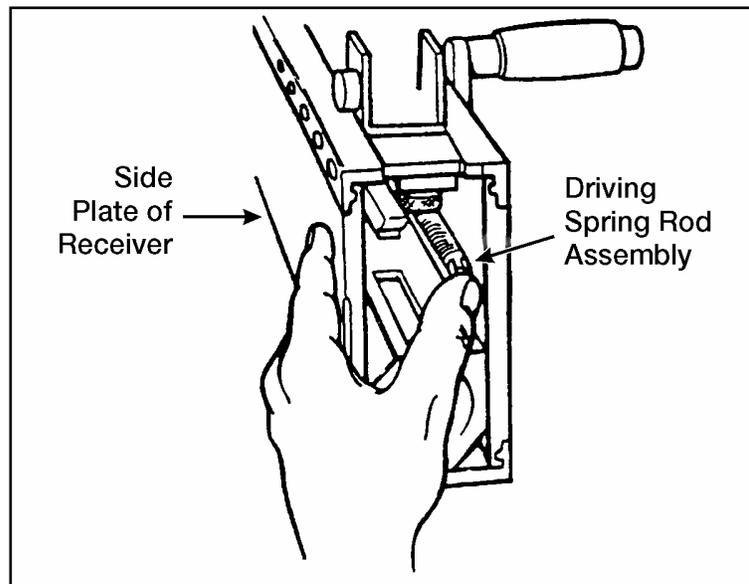


Figure 071-022-0001-41. Installation of the driving spring rod assembly

g. Install backplate assembly (figure 071-022-0001-42).

Performance Steps

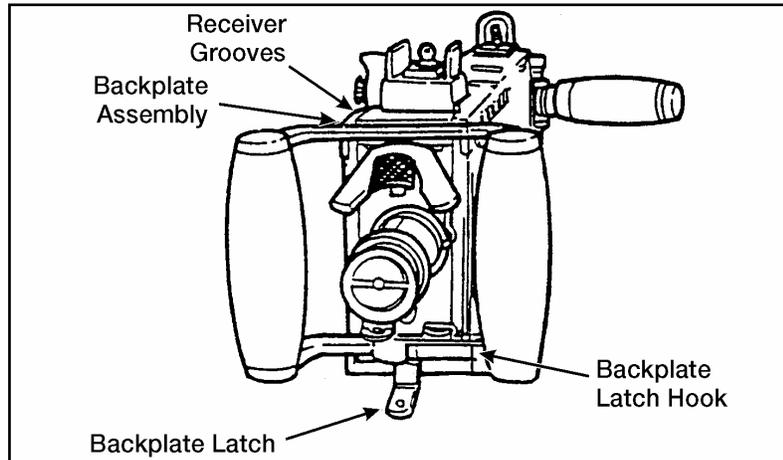


Figure 071-022-0001-42. Installation of the backplate assembly

(1) Align backplate assembly with receiver grooves. Pull backplate latch lock while lifting up on backplate latch. Lower backplate assembly down until engaged in receiver.

(2) Test proper locking by pulling up on backplate assembly.

h. Assemble barrel assembly.

(1) Retract bolt far enough for barrel locking spring lug to center in barrel locking spring hole on right side of receiver.

(2) Place the smallest loop of a caliber .50 link between the trunnion block and the barrel extension to keep the barrel locking spring lug aligned with the 3/8-inch hole.

(3) Install and screw barrel assembly completely into receiver. Unscrew barrel assembly two clicks and check headspace.

7. Perform a function check to make sure weapon is assembled correctly.

a. Place the weapon in the single-shot mode.

(1) Open the cover and pull the retracting slide handle to the rear. Bolt should lock to rear in single-shot mode.

Performance Steps

(2) Hold the retracting slide handle to the rear; depress bolt latch release and ease the bolt forward.

(3) Press trigger; weapon should fire.

b. Place the weapon in the automatic-fire mode.

(1) Pull the retracting slide handle to the rear and hold. Bolt should not lock to rear in automatic-fire mode.

(2) Release pressure on the retracting slide handle and ease the bolt forward.

(3) Press trigger; weapon should fire.

Evaluation Preparation: Setup: At the test site, provide the Soldier with equipment listed in conditions. Use performance steps in the training outline to evaluate Soldier's performance of the task.

Brief Soldier: Tell the Soldier to clear, disassemble, clean, inspect, lubricate, assemble, and perform a function check on the weapon.

Performance Measures	GO	NO GO
1. Cleared the weapon.	___	___
2. Disassembled the weapon without damaging any parts.	___	___
3. Cleaned the weapon, components, and ammunition.	___	___
4. Identified any damaged, worn, or malfunctioning parts.	___	___
5. Lubricated weapon using the correct lubrication technique.	___	___
6. Assembled weapon in correct sequence without damaging any parts.	___	___
7. Performed a function check.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.65

TM 9-1005-213-10

071-022-0003

Load a Caliber .50 M2 Machine Gun

Conditions: Given a cleared caliber.50 machine gun, mounted on a tripod or cupola, and linked caliber.50 ammunition.

Standards: Load the linked ammunition in the feed tray groove so that when the cover is closed, a round remains in the tray groove, and the ammunition feeds correctly.

Performance Steps

1. Check to ensure weapon is clear.
2. Load ammunition.
 - a. Ensure the bolt is forward and the cover is closed.
 - b. Insert the double-loop end of the belt in the feed tray until the belt-holding pawl engages the first round.
 - c. With the palm of your hand facing up, pull the retracting slide handle to the rear and release it. (If the bolt latch release is up, return the retracting slide handle to the forward position and then release the bolt.)
 - d. With the palm of your hand facing up, pull the retracting slide handle to the rear a second time and release it. When the bolt goes forward the second time, the gun is loaded.
 - e. To set the gun in automatic mode, lock the bolt-latch release down.
 - f. To set gun in single-shot mode, keep the bolt-latch release unlocked and in the up position. Release it manually for each round.

Evaluation Preparation: Setup: Provide the Soldier with equipment and materials listed in the conditions. Evaluate this task in a

classroom or training area using dummy linked caliber.50 ammunition.

Brief Soldier: Tell the Soldier to load the weapon using the belt of ammunition.

Performance Measures	GO	NO GO
1. Ensured the bolt was forward and the cover was closed.	_____	_____
2. Inserted the double-loop end of the belt into the feed tray until the belt-holding pawl held the first round.	_____	_____
3. Pulled the retracting slide handle to the rear and released it. If the bolt latch release was up, returned the retracting slide handle to the forward position, then released the bolt.	_____	_____
4. Pulled the retracting slide handle to the rear a second time and released it. When the bolt went forward the second time, the gun was loaded.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.65

TM 9-1005-213-10

071-022-0004

Unload a Caliber .50 M2 Machine Gun

Conditions: Given a caliber .50 M2 machine gun mounted on a tripod or cupola, loaded with linked caliber .50 ammunition.

Standards: Remove all ammunition and links from the machine gun. Clear the weapon, ensure the chamber is empty, and the weapon is in the single-shot mode.

Performance Steps

1. Unload a cold weapon (less than 200 rounds have been fired from the weapon).
 - a. Keep gun oriented on target area.
 - b. Place the gun in the single-shot mode.
 - c. Raise the cover.
 - d. Lift the extractor away from the ammunition belt.
 - e. Remove the ammunition belt from the feed-way.
 - f. With palm up, pull the retracting slide handle to the rear to lock the bolt to the rear.
 - g. Inspect the chamber and T-slot area to ensure they contain no ammunition, links, or brass.
 - h. Hold charging handle, release the bolt, and allow the bolt to move slowly forward.
 - i. Close the cover.
 2. Unload a hot weapon (more than 200 rounds have been fired from the weapon).
 - a. Keep gun oriented on target area.
 - b. Place the gun in the single-shot mode.
 - c. Fire the round that is in the chamber.
 - d. Raise the cover and remove the ammunition belt from the feed-way.
 - e. Press down on the bolt-latch release to allow the bolt to go forward and chamber the round in the T-slot.
 - f. Close the cover and fire the round.
 - g. Open the cover and inspect the chamber and T-slot area to ensure they contain no ammunition, links, or brass.
-

Performance Steps

- h. Hold charging handle, release the bolt, and allow the bolt to move slowly forward.
- i. Close the cover.

Evaluation Preparation: Setup: Provide all equipment and materials listed in the task conditions statement. You can evaluate this task in a classroom or training area using dummy linked caliber .50 ammunition.

Brief Soldier: Tell the Soldier to unload and clear the caliber .50 M2 machine gun.

Performance Measures	GO	NO GO
1. Placed the gun in the single-shot mode.	_____	_____
2. Raised the cover.	_____	_____
3. Removed the ammunition belt from the feed tray.	_____	_____
4. Closed the cover.	_____	_____
5. Pulled the bolt to the rear and locked it.	_____	_____
6. Raised cover and inspected to make sure there were no rounds in the chamber.	_____	_____
7. Held the charging handle and released the bolt, allowing it to move slowly forward.	_____	_____
8. Pressed the trigger.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.65

TM 9-1005-213-10

071-313-3454

Engage Targets With a Caliber .50 M2 Machine Gun

Conditions: Given a zeroed caliber .50 M2 machine gun (tripod or cupola mounted), linked caliber .50 ammunition, and a sector of fire with engageable targets.

Standards: Fire the caliber .50 M2 machine gun to engage targets in your assigned sector of fire. Apply the correct target-engagement techniques so that you cover the entire target with fire.

Performance Steps

1. Assume a suitable firing position that allows you to observe and engage targets, but that reduces your exposure to enemy fire.
 - a. Prone position (figure 071-313-3454-1).



Figure 071-313-3454-1. Prone position (tripod mount)

- b. Sitting position (figure 071-313-3454-2).

Performance Steps



Figure 071-313-3454-2. Sitting position (tripod mount)

c. Standing position (figure 071-313-3454-3).

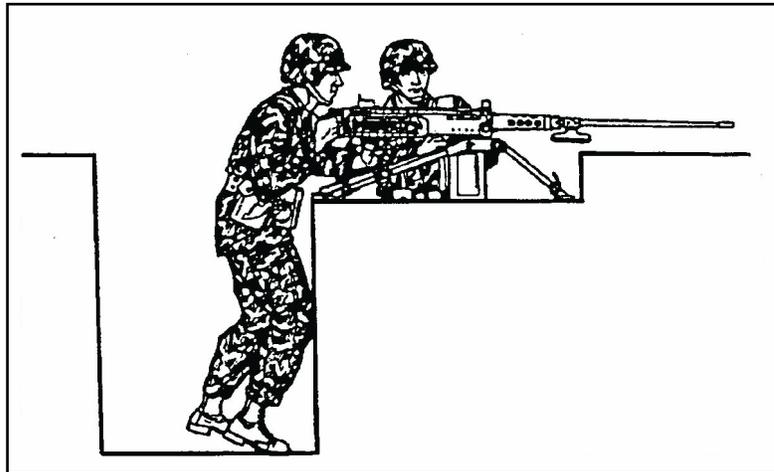


Figure 071-313-3454-3. Standing position (tripod mount)

d. Standing position for cupola-mounted gun (figure 071-313-3454-4).

Performance Steps

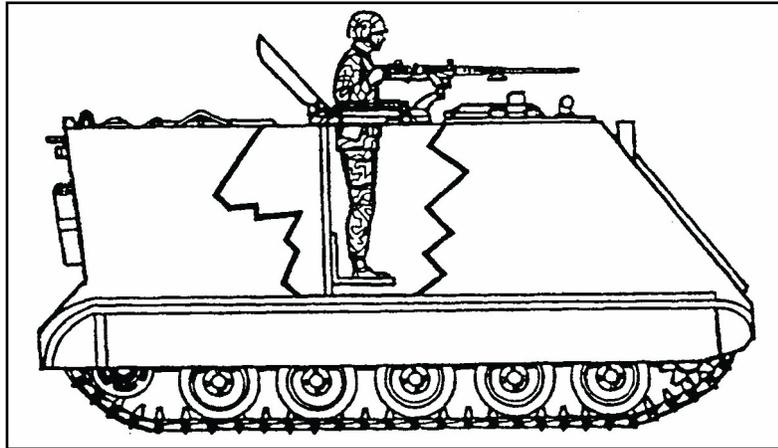


Figure 071-313-3454-4. Standing position (cupola mount)

- e. Standing position for high-mobility, multipurpose wheeled vehicle (HMMWV)-mounted gun (figure 071-313-3454-5).

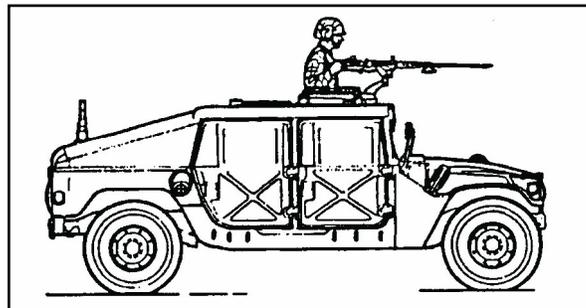


Figure 071-313-3454-5. Standing position (HMMWV mount)

Performance Steps

2. Obtain the correct sight picture.
 - a. Sight alignment. Center the front sight post in the peep sight (figure 071-313-3454-6).

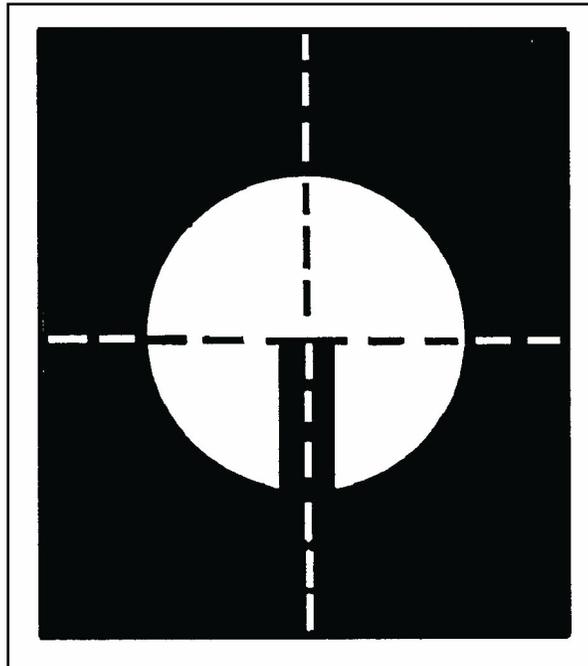


Figure 071-313-3454-6. Correct sight alignment

- b. Sight picture. Place top center of front sight blade at bottom center of intended target (figure 071-313-3454-7).

Performance Steps



Figure 071-313-3454-7. Correct sight picture

3. Apply the correct engagement technique based on target type (figure 071-313-3454-8).

Performance Steps

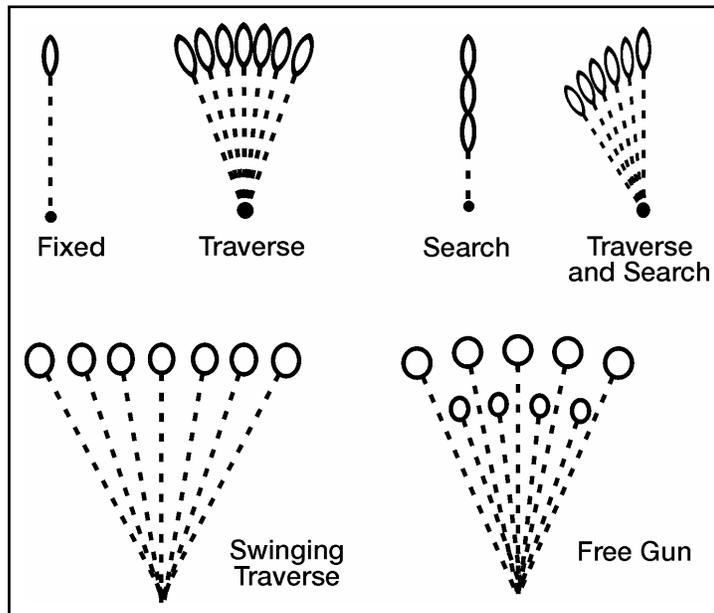


Figure 071-313-3454-8. Techniques of fire with respect to the gun

a. Use the correct gun manipulation technique.

(1) Fixed fire. Refers to fire delivered against a point target. Only one aiming point is necessary, with little or no manipulation of the gun.

(2) Traversing fire. Refers to fire distributed against a wide target, requiring successive changes in the gun direction. To distribute fire laterally, use the T&E mechanism to traverse the gun left or right.

(3) Searching fire. Refers to fire delivered against a deep target or a linear target with depth by successively changing elevation. To distribute fire in depth, use the T&E mechanism to move the muzzle of the weapon up or down.

Performance Steps

(4) Traversing and searching fire. Refers to fire delivered in width and depth by successive changes in direction and elevation. Use this type of fire against a target whose long axis is oblique to the direction of fire.

(5) Swinging traverse. Refers to fire delivered against targets that require major changes in direction but little or no change in elevation. Loosen the traversing slide lock enough to swing the gun laterally.

(6) Free gun. Refers to fire delivered against moving targets that must be rapidly engaged with fast changes in direction and elevation. To fire free gun, remove the T&E mechanism.

b. Correctly apply fire to engage specific targets.

(1) Point target. Engage point targets with fixed fire using a single aiming point (figure 071-313-3454-9).



Figure 071-313-3454-9. Point target

(2) Linear target. Initially aim at the midpoint of the target. Traverse fire to one flank and then to the other to cover the entire target (figure 071-313-3454-10).

Performance Steps

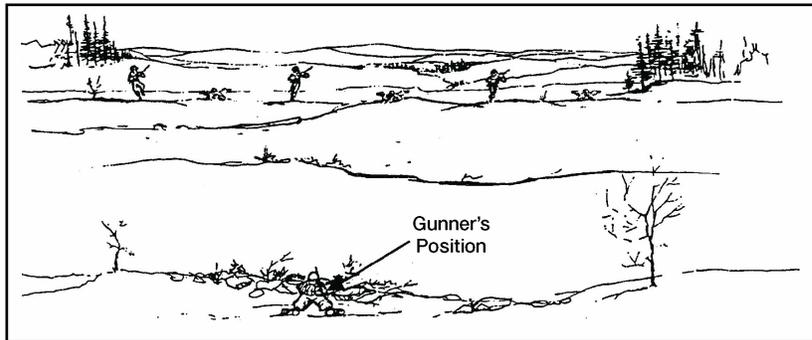


Figure 071-313-3454-10. Linear target and one gun

(3) Linear target with depth. Initially aim at the midpoint of the target, unless another portion of the target is more critical or presents a greater threat. Traverse and search to the flank closest to your position, then back to the other flank, so that you cover the entire target (figure 071-313-3454-11).

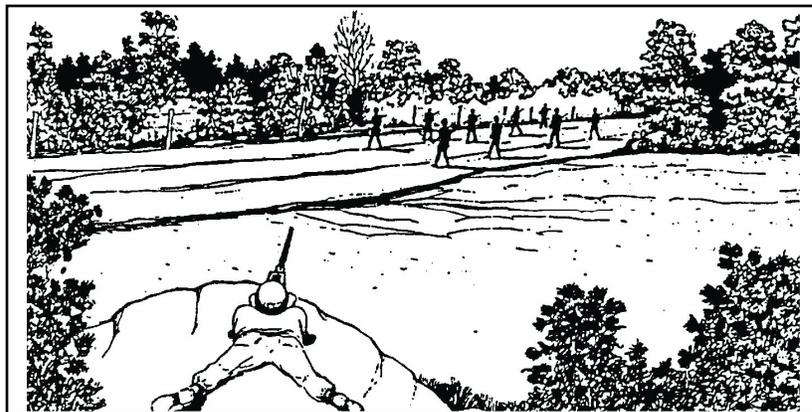


Figure 071-313-3454-11. Linear target with depth

(4) Deep target. Initially aim at the midpoint of the target, unless another portion of the target is more critical or presents a greater threat. Search down to the near end, then search up to the far end (figure 071-313-3454-12).

Performance Steps

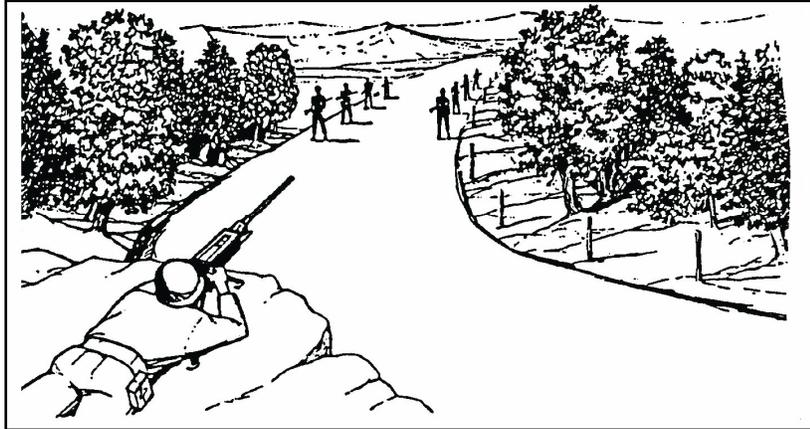


Figure 071-313-3454-12. Deep target

(5) Area target. Initially aim at midpoint of the target area. Traverse and search to either flank, then traverse and search to the opposite flank (figure 071-313-3454-13).

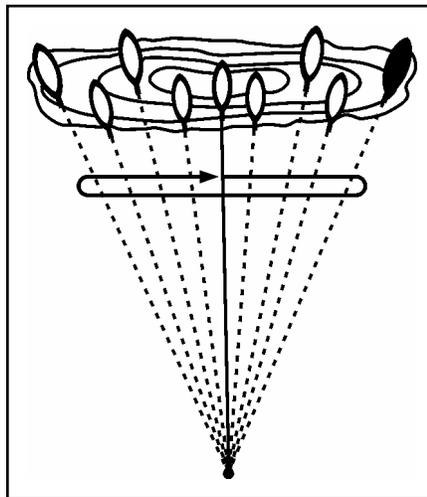


Figure 071-313-3454-13. Area targets

Performance Steps

4. Observe fire and adjust the aiming point to place effective fire on the target.
 - a. Observation of fire. Observe bursts of fire by noting tracers in flight or the strike of the rounds in the target area.
 - b. Adjusted aiming point. Adjust fire quickly without adjusting the sight. If the initial burst misses the target, rapidly select a new aiming point the same distance from the center of impact of the initial burst but in the opposite direction. Fire a second burst (figure 071-313-3454-14).

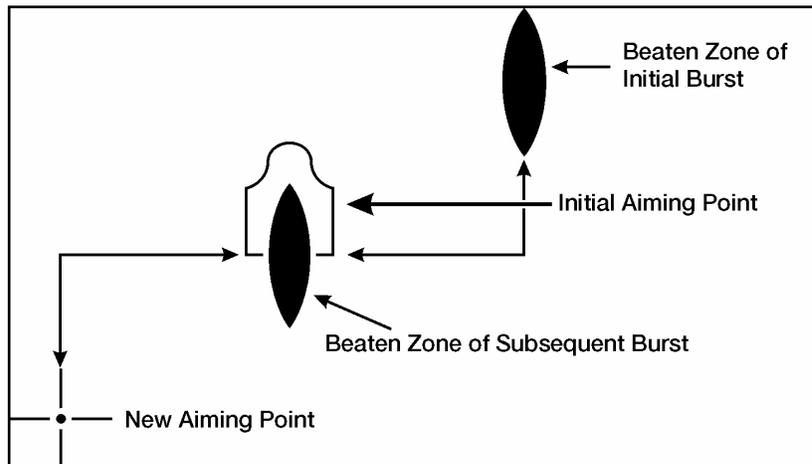


Figure 071-313-3454-14. Adjusted aiming point

5. Fire on the targets until they are all destroyed, or until you receive an order to cease fire.

Evaluation Preparation: Setup: Evaluate this task on a 10-meter live-fire range equipped with basic machine gun target posters (FSN 6920-078-5128). Provide the Soldier with a caliber .50 M2 machine gun (tripod mounted) with 236 rounds of linked .50 caliber ammunition (117 rounds for practice and 119 rounds for qualification). Conduct 10-meter firing IAW Table I, Appendix C, FM 3-22-65.

Brief Soldier: Tell the Soldier to fire Table I IAW Appendix C, FM 3-22.65 (brief the conditions, standards, and ammunition). Tell the Soldier that when you instruct him to fire, you will evaluate his ability to apply correct target-engagement techniques and to place effective fire on targets.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Assume a suitable firing position.	___	___
2. Apply correct engagement technique based on target type.	___	___
a. Manipulate the gun correctly.	___	___
b. Apply fire correctly to engage specific targets.	___	___
3. Place effective fire on targets (scored at least 84 points).	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.65

TM 9-1005-213-10

SUBJECT AREA 15: M136 LAUNCHER

071-054-0001

Prepare an M136 Launcher for Firing

Conditions: Given an M136 launcher (AT4) and a requirement to prepare it for firing.

Standards: Perform prefire checks on the M136 AT4 and prepared the round for firing.

Performance Steps

Note: Because the M136 launcher is issued as a round of ammunition rather than as a weapon, the launcher is completely used; therefore, inspection is limited to visual examination of the external components.

1. Perform the prefire checks. The overall condition of the launcher should be inspected before it is used (figure 071-054-0001-1). The firer should ensure that-
 - a. The transport safety pin is in place and fully seated and the lanyard is attached.
 - b. The cocking lever is in the SAFE position and is folded down.
 - c. The fire-through muzzle cover is intact. If the seal is torn, it should be removed to ensure that no foreign objects have gotten into the launcher.
 - d. The launcher's color-coded band is the correct color: black for high-explosive antitank; gold for target-practice tracers; and blue for field-handling trainers.
 - e. The sights function properly. Open the sight covers to ensure the sights pop up and are not damaged.
 - f. The red safety catch does not move when depressed.
 - g. The rear seal is not damaged.
 - h. The shoulder stop is not broken or damaged and it unsnaps and folds down.
 - i. The carrying sling is not frayed and is attached to the launcher.
 - j. The launcher body has no cracks, dents, or bulges.
-

Performance Steps

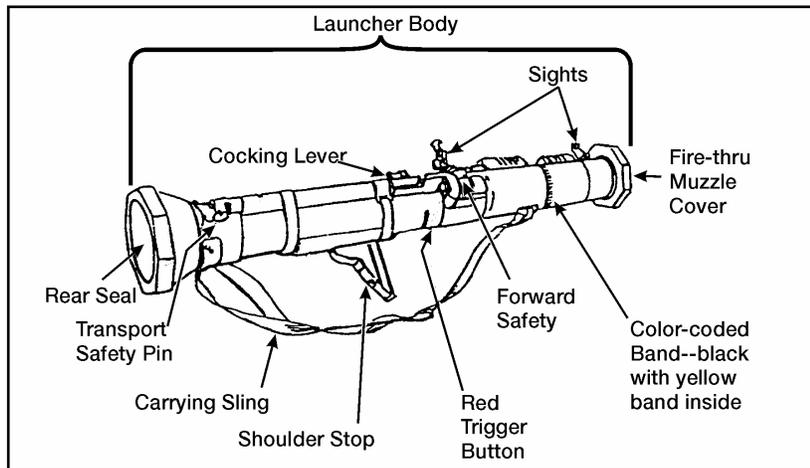


Figure 071-054-0001-1. Parts of the M136 launcher to be inspected

2. Prepare the launcher for firing. Preparation procedures are-
 - a. Remove the launcher from the carrying position and cradle it with the left arm (figure 071-054-0001-2).

Performance Steps

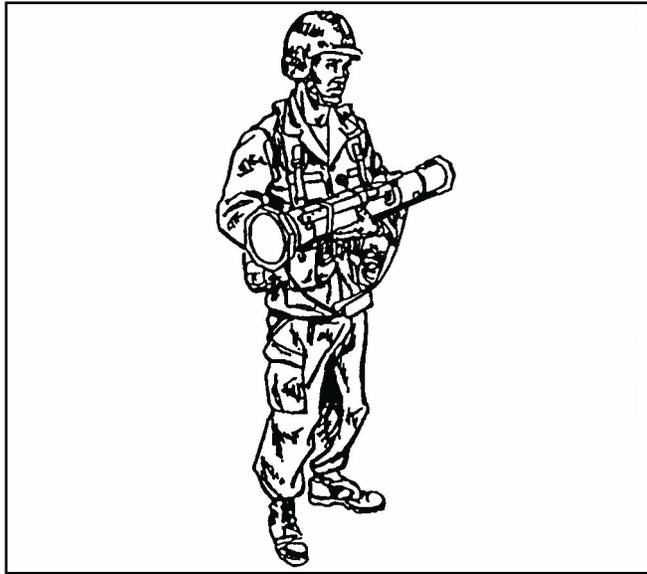


Figure 071-054-0001-2. Cradle position

- b. While cradling the launcher, pull the transport safety pin with the right hand and release it (figure 071-054-0001-3).

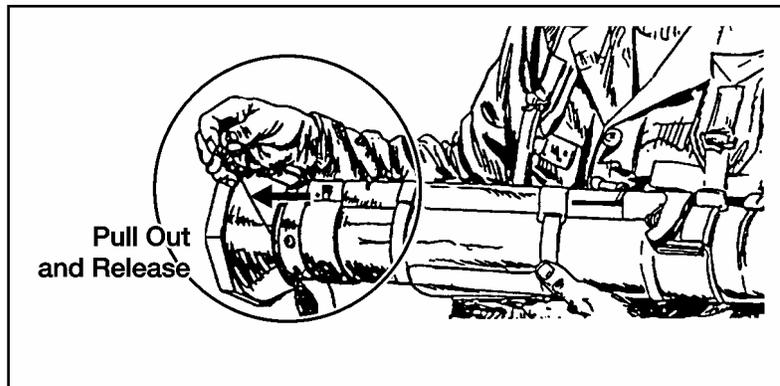


Figure 071-054-0001-3. Removing the transport safety pin

Performance Steps

Note: Ensure the transport safety pin is attached to the launcher by its lanyard.

If the launcher has no lanyard, place the transport safety pin in your pocket. If the launcher remains unfired, reinsert the transport safety pin.

WARNINGS

1. Make sure personnel wear earplugs.
2. Point the weapon toward the target.
3. Clear the backblast area.

- c. Unsnap and unfold the shoulder stop (figure 071-054-0001-4).

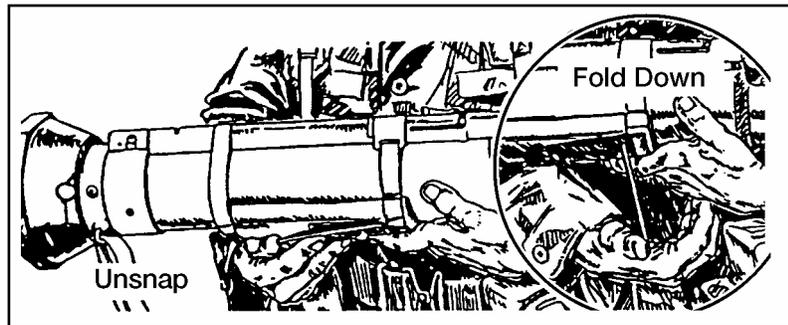


Figure 071-054-0001-4. Unsnapping the shoulder strap

- d. With the shoulder stop in position, place the launcher on the right shoulder.

- e. With the launcher on the right shoulder and supported with the left hand, release the front sight by pressing down on the sight cover and sliding it to the rear. Release the rear sight by pressing down on the cover and sliding it forward. Sliding the covers off allows the sights to pop up.

- f. Check the backblast area.

Performance Steps

g. Cock the launcher by unfolding the cocking lever with the right hand. Place the thumb of the right hand under the cocking lever. Grip the front of the firing mechanism for support. Push the cocking lever forward to the right. Let the cocking lever slide back (figure 071-054-0001-5).

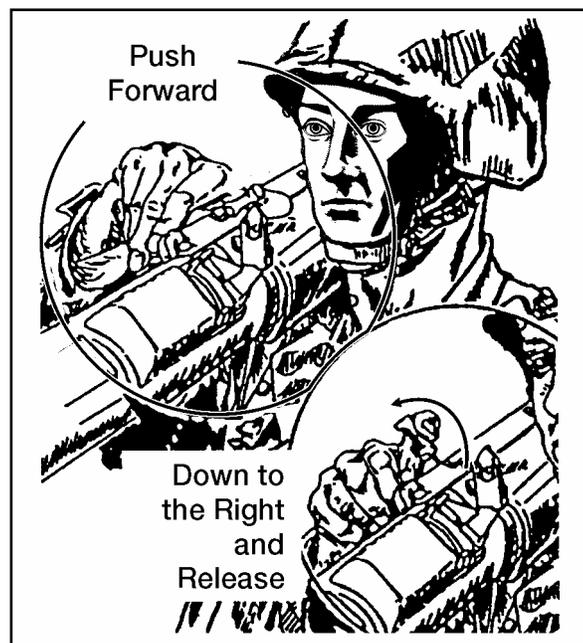


Figure 071-054-0001-5. Cocking the launcher

h. Adjust the rear sight for the required range.

(1) When closing the sight cover, set the sight on a range of 200 meters. Therefore, when the rear sight is uncovered, the battlesight setting is 200 meters. If the range to the target is more than 200 meters but less than 250 meters, no sight adjustment is required (figure 071-054-0001-6).

Performance Steps

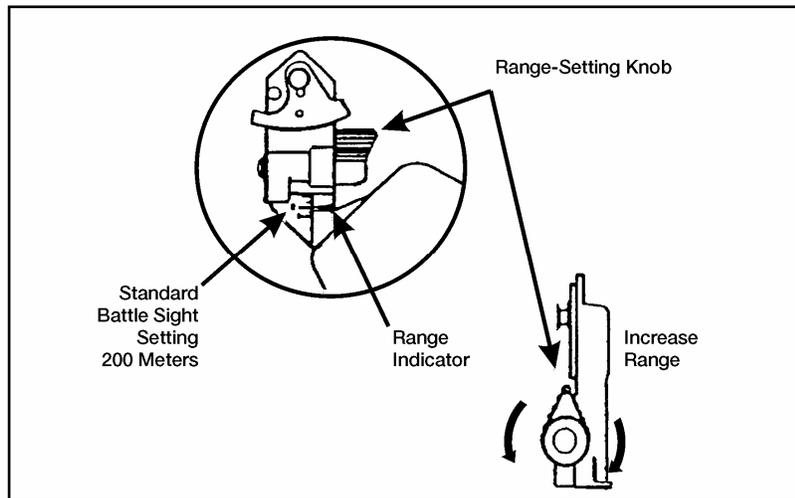


Figure 071-054-0001-6. Adjusting the rear sight

(2) To adjust the rear sight range setting to more than 200 meters, turn the range knob clockwise (toward the muzzle). To decrease the range, turn the range knob counterclockwise (toward the gunner). There is a click at each 50-meter increment; this sound aids you during limited visibility (figure 071-054-0001-6).

Evaluation Preparation: Setup: At the test site, provide an expended AT4 or a tracer trainer in the carrying configuration; have the Soldier place it in the carrying position. Tell the Soldier the range to the target. Ask the Soldier when the rear sight requires adjustment.

Brief Soldier: Tell the Soldier to prepare the launcher to fire. Tell the Soldier that he will be required to answer questions about the launcher.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Performed the prefire checks.	_____	_____
a. Checked the transport safety pin.		
b. Ensured the cocking lever is on SAFE.		
c. Checked the fire-through muzzle cover.		
d. Checked the color-coded band.		
e. Checked the front and rear sights.		
f. Checked the red safety catch.		
g. Checked the rear seal.		
h. Checked the shoulder stop.		
i. Checked the carrying sling.		
j. Checked the body of the launcher.		
2. Prepared the launcher for firing.	_____	_____
a. Removed the transport safety pin.		
b. Unsnapped and unfolded the shoulder stop.		
c. Placed the launcher on the right shoulder.		
d. Released the front and rear sights.		
e. Checked the backblast area.		
f. Cocked the launcher.		
g. Adjusted the rear sight.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-23.25

Related

071-054-0002

Restore an M136 Launcher to Carrying Configuration

Conditions: Given an M136 launcher (AT4) prepared for firing and the requirement to restore the launcher to carrying configuration.

Standards: Restore the launcher to a safe carrying configuration without damaging the equipment.

Performance Steps

Note: The launcher is prepared for immediate firing but is not fired.

1. If you are to remain in the same position:
 - a. Release the red safety catch (this step applies only if the firing sequence has proceeded to this point).
 - b. Return the cocking lever to the SAFE (uncocked) position by pushing it up and to the left, then pulling it rearward. Fold the cocking lever down.
 - c. Keep the launcher pointed at the target area, remove the launcher from the shoulder.
 - d. With the launcher cradled in the left arm, replace the transport safety pin.
2. If the gunner is to move to another position, in addition to the steps shown above:
 - a. Return the rear sight to the battlesight setting of 200 meters, fold down the front and rear sights, and close the sight covers.

CAUTION

The rear sight may be damaged if it is not returned to a battlesight setting of 200 meters before closing the sight cover.

- b. Fold the shoulder stop and snap it back into position.

Evaluation Preparation: Setup: At the test site, provide an expended AT4 or a tracer trainer. The AT4 or tracer trainer is in the ready to fire configuration.

Brief Soldier: Tell the Soldier to assume a correct standing, ready-to-fire position with the launcher. Once he/she has assumed the firing position, tell him/her to return the launcher to the carrying configuration.

Performance Measures	GO	NO GO
Note: The performance measures are scored in sequence.		
1. Released the red safety catch.	_____	_____
2. Returned the cocking lever to the SAFE position and folded the cocking lever down.	_____	_____
3. Removed the launcher from the shoulder and cradled it with the left arm.	_____	_____
4. Replaced the transport safety pin.	_____	_____
5. Returned the rear sight to the battlesight setting.	_____	_____
6. Folded the sights and closed the sight covers.	_____	_____
7. Folded the shoulder stop and snapped it in place.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-23.25

Related

TM 9-1315-886-12

SUBJECT AREA 16: M203 GRENADE LAUNCHER

071-311-2125

Maintain an M203 Grenade Launcher

Conditions: Given an M203 grenade launcher, cleaner, lubricant, preservative (CLP), thong; bore brush, and clean rags.

Standards: Clear the M203 grenade launcher; disassemble the M203; clean and lubricate the M203; inspect the M203 before assembly; assemble the M203; and perform a function check on the M203.

Performance Steps

1. Clear the M203 grenade launcher.
2. Disassemble the M203 (figure 071-311-2125-1).

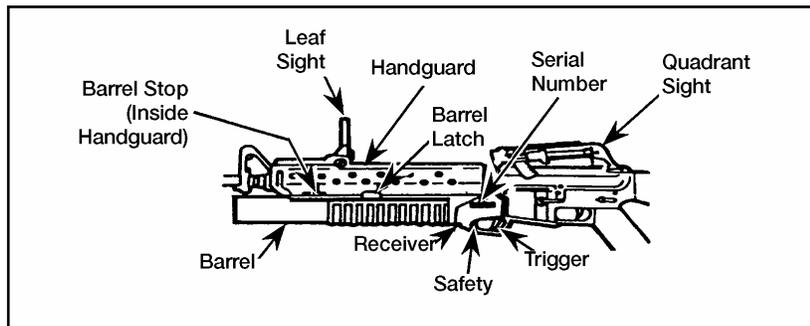


Figure 071-311-2125-1. Components of the M203 grenade launcher

WARNING

Before disassembling the weapon, clear the rifle and grenade launcher.

- a. Remove the quadrant sight (if used) by loosening the knurled screw on the right side (figure 071-311-2125-2).

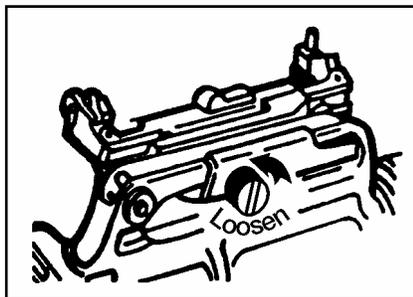


Figure 071-311-2125-2. Removing quadrant sight

- b. Pull back the slip ring. Lift up on the handguard and pull it to the rear to remove (figure 071-311-2125-3).

Performance Steps

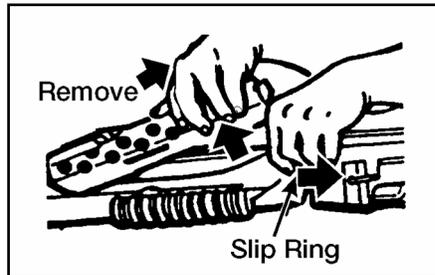


Figure 071-311-2125-3. Removing handguards

- c. Press the barrel latch and move the barrel forward to the barrel stop (figure 071-311-2125-4).

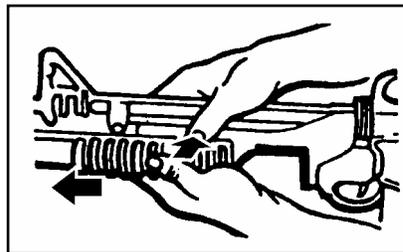


Figure 071-311-2125-4. Unlocking and opening the M203 barrel

- d. Press the barrel stop to release the barrel from the receiver and remove the barrel (figure 071-311-2125-5).

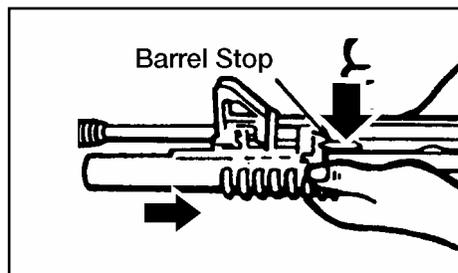


Figure 071-311-2125-5. Removing the M203 barrel

Performance Steps

Note: Further disassembly may be performed only by the armorer.

3. Clean and lubricate the M203.

a. Bore. Attach a clean, dry rag to the thong and thoroughly moisten the rag with CLP. Pull the rag through the bore several times. Attach the bore brush to the thong, pull it through the bore several times, and follow this with more rags moistened with CLP, if needed (figure 071-311-2125-6). Pull dry rags through the bore and inspect each rag as it is removed. The bore is clean when a dry rag is removed unfouled. Pull a rag lightly moistened with CLP through the bore to leave a light coat of lubricant inside the barrel.

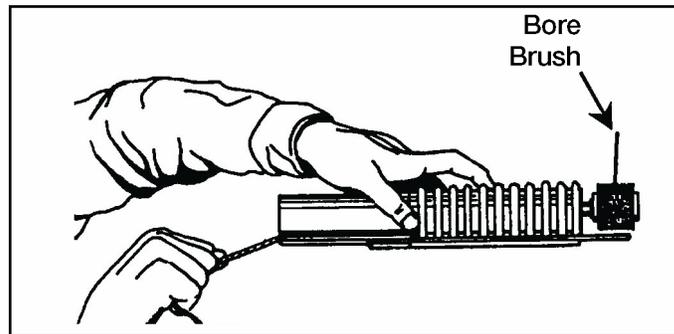


Figure 071-311-2125-6. Cleaning the M203 barrel

b. Breech insert. Clean the face of the breech insert retainer with a patch and CLP. Remove the CLP cleaner with dry rags, then lubricate the breech with a light coat of CLP.

c. All other parts. Use a brush and dry rags to clean all other parts and surfaces. Apply a light coat of CLP to the exterior of the launcher after cleaning.

d. Safety mechanism. Clean the safety mechanism properly with CLP. Lubricate the safety with CLP.

Performance Steps

4. Inspect the M203 before assembly.
 - a. Check handguard for cracks, dents, or distortion that prevent its firm attachment to the rifle.
 - b. Check leaf sight for bent or damaged parts and for rust or corrosion.
 - c. Check leaf sight for legibility of marking.
 - d. Check barrel for cracks and general condition. Inspect all parts for wear and damage.
 - e. Check for burrs, scratches, nicks, or other damage.
5. Assemble the M203.
 - a. Press the barrel stop. Slide the barrel into the receiver (figure 071-311-2125-7).

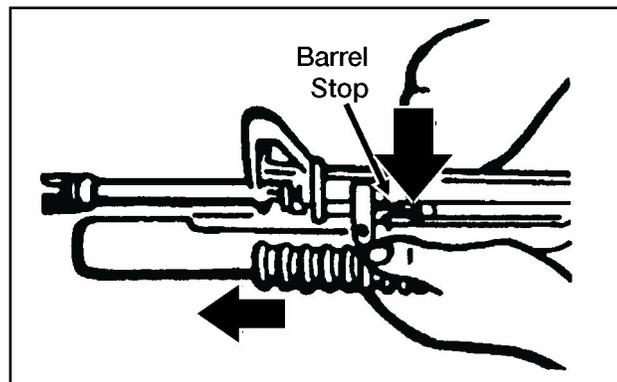


Figure 071-311-2125-7. Installing the M203 barrel

- b. Move the barrel rearward to lock (figure 071-311-2125-8).

Performance Steps

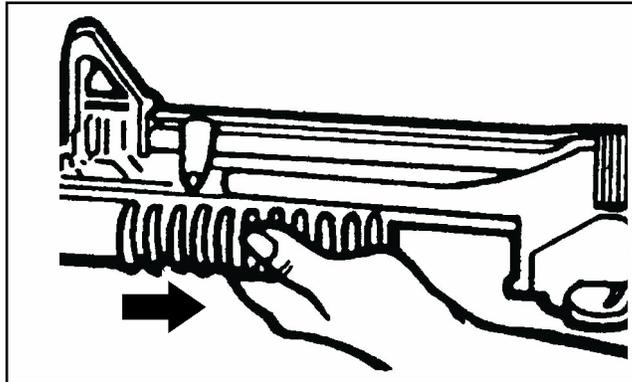


Figure 071-311-2125-8. Locking the M203 barrel

- c. Install the handguard and secure with the slip ring (figure 071-311-2125-9).

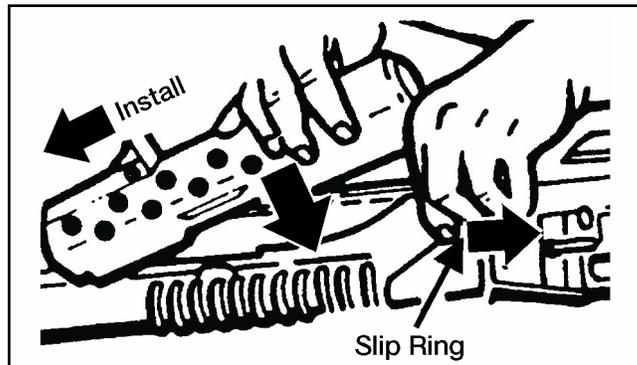


Figure 071-311-2125-9. Installing the handguards

- d. Install the quadrant sight (figure 071-311-2125-10).

Performance Steps

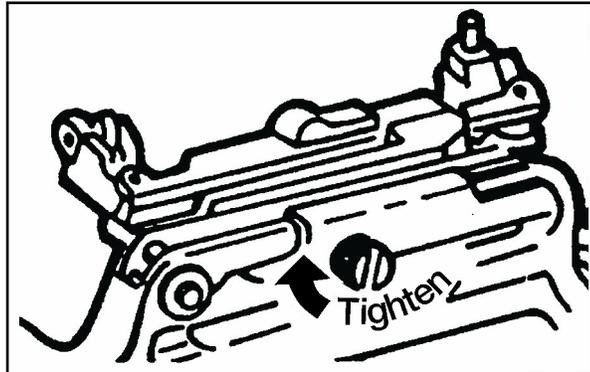


Figure 071-311-2125-10. Installing the quadrant sight

6. Perform a function check on the M203.
 - a. Check the proper operation of the sears. Cock the launcher and pull the trigger. The firing pin should release. Hold the trigger to the rear and cock the launcher. Release the trigger, then pull. The firing pin should release.
 - b. Check the safety in both SAFE and FIRE positions with trigger. Launcher must be cocked before safety can be placed in SAFE position.
 - c. Check the leaf sight windage adjustment screw for proper operation. Do not move the elevation adjustment screw if the weapon has been zeroed.
 - d. Move barrel forward and back to be sure the stop and barrel latch function.

Evaluation Preparation: Setup: At the test site, provide all materials and equipment given in the task condition statement.

Brief Soldier: Tell the Soldier to perform unit maintenance on the M203 grenade launcher.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Cleared the M203 grenade launcher.	_____	_____
2. Disassembled the M203.	_____	_____
a. Removed the quadrant sight.		
b. Pulled back the slip ring.		
c. Moved the barrel forward to the barrel stop.		
d. Removed the barrel.		
3. Cleaned and lubricated the M203.	_____	_____
a. Cleaned the bore.		
b. Cleaned the breech insert.		
c. Cleaned all other parts.		
d. Cleaned the safety mechanism.		
4. Inspected the M203 before assembly.	_____	_____
a. Checked the handguards.		
b. Checked the leaf sight.		
c. Checked the barrel.		
d. Checked for burrs, scratches, and other damage.		
5. Assembled the M203.	_____	_____
a. Slid the barrel into the receiver.		
b. Closed the barrel.		
c. Installed the handguard.		
d. Installed the quadrant sight.		

Performance Measures	GO	NO GO
6. Performed a function check on the M203.	_____	_____
a. Checked operation of the sears.		
b. Checked safety in both the SAFE and the FIRE positions.		
c. Checked the leaf sight windage adjustment screws for proper operation.		
d. Checked the barrel latch and the stop function.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.31

TM 9-1010-221-10

071-311-2127

Load an M203 Grenade Launcher

Conditions: Given an M203 grenade launcher, ammunition, and a requirement to load the weapon.

Standards: Insert ammunition into the chamber without damaging the equipment or injuring personnel and follow all safety procedures in accordance with TM 9-1010-221-10.

Performance Steps

WARNING
Keep muzzle down range and clear of all troops.

1. Ensure the safety is in SAFE ("S") position until ready to fire.
2. Depress barrel latch.

Performance Steps

3. Slide barrel assembly forward (extraction and cocking automatically take place during this step).
4. Before loading, make sure the bore and chamber are clean and dry.
5. Insert the ammunition into the chamber.

WARNING

Do not fire pyrotechnic ammunition made for the AN-M8 pyrotechnic pistol in the M203 grenade launcher. Make sure you have the right ammunition. Never load aircraft ammunition M384 (HE) or M385 (practice). It could result in serious injury.

6. Slide the barrel closed until it locks and clicks.

Evaluation Preparation: Setup: At the test site, in an outside field environment, provide all equipment and materials listed in the task condition statement.

Brief Soldier: Tell the Soldier to load the M203 grenade launcher and to perform all steps correctly.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Ensured the safety was in SAFE ("S") position until ready to fire.	___	___
2. Pressed the latch and slide the barrel forward.	___	___
3. Before loading, made sure the bore and chamber were cleaned and dried.	___	___
4. Inserted the ammunition into the chamber.	___	___
5. Slid the barrel closed until it locked and clicked.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.31

TM 9-1010-221-10

071-311-2128

Unload an M203 Grenade Launcher

Conditions: Given a loaded M203 grenade launcher and a requirement to unload it.

Standards: Press the latch and move the barrel forward to eject ammunition and catch the round as it drops.

Performance Steps

Note: If weapon has been fired and only a shell casing is in the chamber, disregard step 3 and the requirement for slow movement in step 4.

1. Place safety in the ON position.
2. Depress barrel latch.
3. Place one hand under the barrel assembly forward of the trigger guard.
4. Slowly slide barrel assembly forward (round will eject).
5. Secure the round.

Evaluation Preparation: Setup: At the test site, in an outside field environment, provide all equipment and materials listed in the task conditions statement.

Brief Soldier: Tell the Soldier to unload the M203 grenade launcher, performing all steps correctly.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Pressed the latch.	___	___
2. Moved the barrel forward.	___	___
Note: The round is extracted and ejected automatically.		
3. Caught the round—did not let it drop.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.31

TM 9-1010-221-10

071-311-2129

Correct Malfunctions of an M203 Grenade Launcher

Conditions: Given an M203 grenade launcher mounted on an M16-series rifle and 40-mm ammunition. The grenade launcher has failed to function or fire.

Standards: Correct malfunctions of an M203 grenade launcher and follow all safety precautions in accordance with TM 9-1010-221-10.

Performance Steps

1. Keep the weapon pointed at the target and keep all Soldiers clear of the muzzle (at least 80 meters or 264 feet).

Note: M203 malfunctions consist of hangfires and misfires. A hangfire is a delay in the propellant's igniting. A misfire is a failure to fire. Both are handled in the same way since they are often indistinguishable.

2. Wait 30 seconds from the time of the failure to fire, then open the breech.

Performance Steps

3. Remove the round from the breech.
 - a. Release the barrel latch.
 - b. Slide the barrel forward to eject the round.
 - c. Either catch the ejected round or reduce the distance the round falls by holding the weapon close to the ground.
 - d. If the round does not eject, tap the casing with the rifle cleaning rod.
 - e. If the casing cannot be removed, notify the NCOIC or unit maintenance.
4. Examine the primer to determine whether the round or the firing mechanism is defective.
 - a. If the primer is dented, keep the damaged round separate from other ammunition until it can be disposed of properly.
 - b. If the primer is not dented, then the firing mechanism is faulty. Report it to the NCOIC or unit maintenance.

Note: If the primer is not dented, the round may be reloaded on an operational M203.

Evaluation Preparation: Setup: Provide all materials listed in the task condition statement. Use dummy ammunition for training.

Brief Soldier: Tell the Soldier that he/she must assume a firing position to apply any required immediate action.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Kept the weapon pointed at the target and kept all troops clear of the muzzle (at least 80 meters or 264 feet).	___	___
2. Waited 30 seconds from the time of the failure to fire, then opened the breech.	___	___

Performance Measures	<u>GO</u>	<u>NO GO</u>
3. Removed the round from the breech.	_____	_____
a. Released the barrel latch.		
b. Slid the barrel forward to eject the round.		
c. Caught the ejected round or reduced the distance the round falls by holding the weapon close to the ground.		
d. If the round did not eject, tapped the casing with the rifle cleaning rod.		
e. Notified NCOIC or unit maintenance if the casing could not be removed.		
4. Examined the primer to determine whether the round or the firing mechanism was defective.	_____	_____
a. Kept the damaged round separate from other ammunition until properly disposed if the primer is dented.		
b. Reported the faulty firing mechanism to the NCOIC or unit maintenance, if the primer was not dented.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.31

TM 9-1010-221-10

071-311-2130**Engage Targets With an M203 Grenade Launcher**

Conditions: Given a zeroed M203 grenade launcher mounted on an M16-series or M4-series rifle, enemy targets located within engagement ranges, and sufficient ammunition.

Standards: Destroy or disable enemy targets without causing injury or death to friendly personnel.

Performance Steps

Note: This task may be performed using either of two sights found on the system.

WARNING

Keep muzzle pointed downrange and clear of all friendly troops.

1. Keep the safety in the SAFE position until ready to fire.
2. Load the M203 grenade launcher.

WARNING

Fire high-explosive (HE) grenades at targets within 130 meters (427 feet) (minimum safe) only from a protected position. When training (minimum safe), do not fire at targets within 130 meters (427 feet). In combat, do not fire at targets closer than 31 meters (102 feet).

Performance Steps

3. Determine range to target (figure 071-311-2130-1).

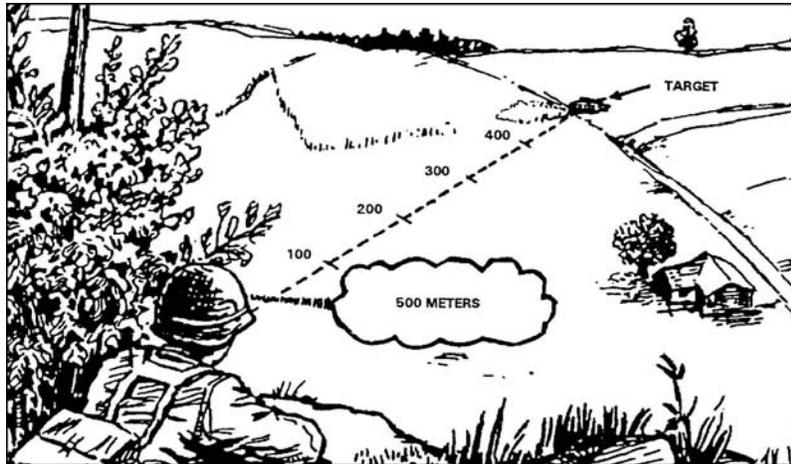


Figure 071-311-2130-1. Range estimation

4. Determine if the target can be engaged.
5. Determine if the target should be engaged.
6. Select the appropriate firing technique based on target range (figure 071-311-2130-2).

Performance Steps

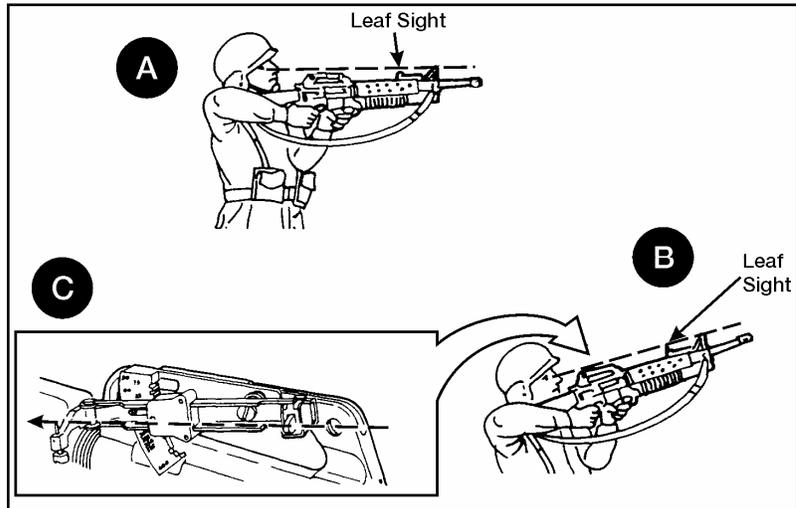


Figure 071-311-2130-2. Firing techniques

a. For short-range targets at 50 meters or less, place the leaf sight down and use the rifle sights (A, figure 071-311-2130-2).

Note: Estimate distance to target and aim head high on the target.

b. For targets from 50 to 250 meters, raise the leaf sight and use with the rifle front sight (B, figure 071-311-2130-2).

c. For targets from 250 to 400 meters, use the front and rear sight of the quadrant sight only (C, figure 071-311-2130-2).

Performance Steps

7. Select and assume an appropriate firing position (figure 071-311-2130-3).

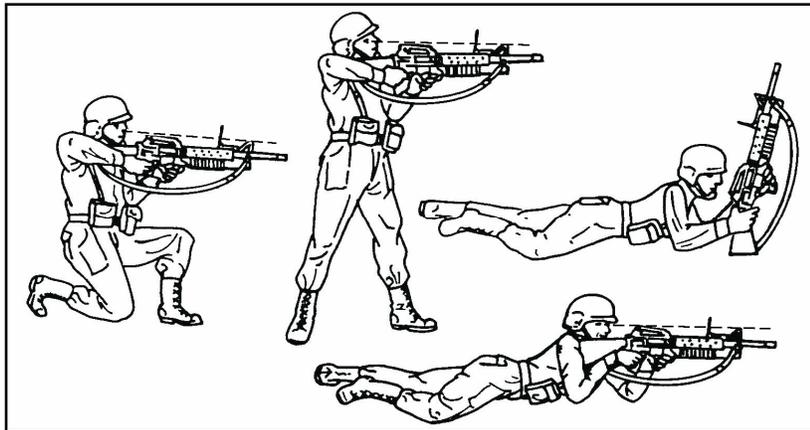


Figure 071-311-2130-3. Firing positions

Note: Launcher may be fired from the standing, kneeling, or prone position.

- a. Place the stock of the weapon on the ground when firing long range from the prone position.
- b. Hold the stock firmly against your shoulder for all other positions.

8. Obtain sight picture (using leaf sight or quadrant sight).

Note: Leaf sight may be used at ranges between 50 and 250 meters. Quadrant sight ranges are from 50 to 400 meters.

Performance Steps

9. Adjust the leaf sight if necessary (figure071-311-2130- 4).

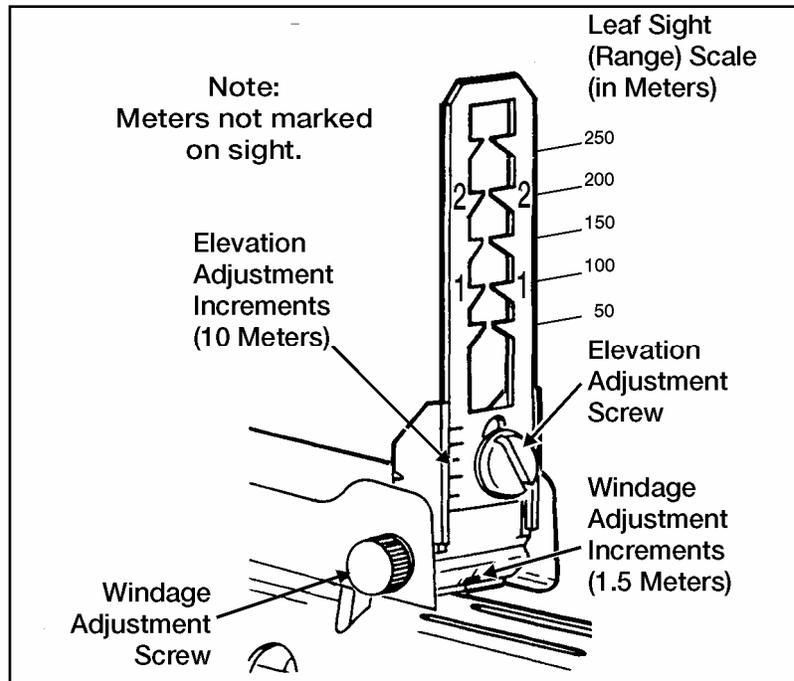


Figure 071-311-2130-4. Leaf sight

Notes:

1. For range, the leaf sight scale is marked in 50-meter (165-foot) increments for targets from 50 to 250 meters.
2. For elevation, one increment equals 10 meters (33 feet) at a 200-meter (660-foot) range.
3. For windage, one increment equals 1.5 meters (5 feet) at a 200-meter (660-foot) range.
 - a. For headwind and rear wind:
 - (1) Loosen the elevation adjustment screw to move the leaf sight up to increase range for headwind.
 - (2) Lower it to decrease range for rear wind.

Performance Steps

(3) Use the rim of a used 40-mm cartridge to turn the elevation adjustment screw.

b. For left wind and right wind:

(1) Turn the windage adjustment screw clockwise to adjust for wind from the left.

(2) Turn the windage adjustment screw counterclockwise to adjust for wind from the right.

10. Adjust the quadrant sight if necessary (figure 071-311-2130-5).

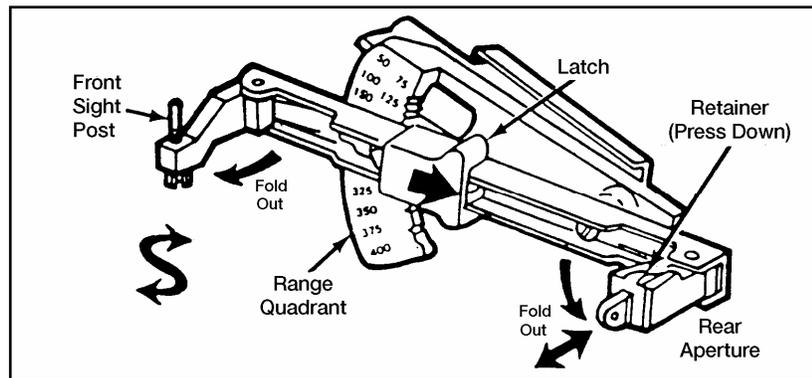


Figure 071-311-2130-5. Quadrant sight

Note: Range quadrant is marked in 25-meter (83-foot) increments from 50 to 400 meters (165 to 1,320 feet).

- a. Pull the latch toward you to release the quadrant sight arm.
- b. Select elevation.

Note: For elevation adjustment, one notch equals 5 meters (17 feet) at a 200-meter (660-foot) range.

c. For headwind and rear wind:

(1) Turn the front sight post left to increase range for headwind.

(2) Turn the front sight post right to decrease range for rear wind.

Performance Steps

d. For left wind and right wind:

(1) Depress the retainer and slide the rear aperture in to adjust for wind from the right.

(2) Slide the rear aperture out to adjust for wind from the left.

Note: The vertical line marks the center. One notch equals 1.5 meters (5 feet) at a 200-meter (660-foot) range.

11. Move safety to the FIRE position.

WARNING

Be sure there are no obstacles (such as the sling or branches) in the line of fire.

12. Aim and squeeze the trigger to fire.

Note: Practice breath control when firing the rifle.

13. If the first round misses, adjust fire as necessary by sensing the impact of the round and manipulating the sight.

Note: Continue the adjustment process until a hit is obtained or the area has been covered by fire.

a. If time allows, whether using the AN/PVS-4 or AN/PVS-7, adjust the sights, but if time is critical, adjust the point of aim instead.

b. If the grenade lands more than 25 meters over or short of the target, adjust the range quadrant to bring the next grenade on target.

c. If the grenade explodes less than 25 meters from the target, adjust the point of aim to bring the next grenade on target.

d. If the launcher is properly zeroed, deviation errors will be small and you can easily correct them by adjusting the aiming point. Adjust for wind as described in steps 9 and 10.

Evaluation Preparation: Setup: At a live-fire M203 range, provide all the materials indicated in the task condition statement.

Brief Soldier: Tell the Soldier to engage targets at ranges from 50 to 250 meters in his sector of fire.

Performance Measures	GO	NO GO
1. Kept the safety in the SAFE position until ready to fire.	___	___
2. Loaded the M203 grenade launcher.	___	___
3. Determined range to target.	___	___
4. Selected the appropriate firing technique based on target range.	___	___
5. Selected firing position.	___	___
6. Adjusted the leaf sight.	___	___
7. Adjusted the quadrant sight.	___	___
8. Moved safety to the FIRE position.	___	___
9. Aimed and squeezed the trigger to fire.	___	___
10. Adjusted fire by sensing the impact of the round and manipulating the sight.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-22.31

TM 9-1010-221-10

SUBJECT AREA 17: M4 CARBINE

071-100-0003

Engage Targets With an M4 or M4A1 Carbine

Conditions: Given an M4 or M4A1 carbine, magazines, ammunition, individual combat equipment, and stationary or moving targets (personnel or equipment) at engageable ranges.

3-602

071-100-0003

11 October 2005

STP 21-1-SMCT

Standards: Detect and determine range to targets. Fire the M4 or M4A1 carbine, engage targets in assigned sector of fire, and apply correct marksmanship fundamentals and target engagement techniques so that each target is hit or suppressed.

Performance Steps

1. Assume an appropriate firing position based on the situation. The firing position should protect you from enemy fire and observation, yet allow you to place effective fire on targets in your sector of fire.
 - a. Foxhole. Advantages: best when available. Disadvantages: no overhead cover.
 - b. Prone. Advantages: steady, easy to assume, low silhouette, and easily adapted to use of cover and support. Disadvantages: effectiveness can be limited by terrain and vegetation irregularities.
 - c. Prone supported. Advantages: steadier than prone; other advantages the same as prone. Disadvantages: same as prone.
 - d. Kneeling. Advantages: used when firing from behind something; used on ground that is level or gently sloping upward. Disadvantage: exposed to small-arms fire.
 - e. Kneeling supported. Advantages: steadier than kneeling; other advantages the same as kneeling. Disadvantages: exposed to small-arms fire.
 - f. Standing. Advantages: used in assault to surprise targets or when other positions are not appropriate. Disadvantages: exposed to small-arms fire.
2. Identify targets in your designated sector of fire.
3. Determine range to a target.
 - a. Your M4 or M4A1 carbine sights can be used to estimate range to targets(s). Viewed through the front sight, a man-sized target appears—
 - (1) Twice the width as the front sight post at about 90 meters.
 - (2) The same width as the front sight post at about 175 meters.
 - (3) Half the width of the front sight post at about 350 meters.

Performance Steps

4. Load and fire on targets using appropriate engagement techniques.

a. Load the weapon.

b. Use the appropriate aiming technique.

(1) Engage a stationary target using reference points or sighting points.

(2) Engage a target moving towards you as you would a stationary target.

(3) Engage a target moving laterally, using the new single lead technique, by placing the trailing edge of the front sight post at the center of the target. This method causes the lead to increase automatically as the range increases.

(4) Engage multiple targets by first firing at the one presenting the greatest danger (usually the closest) and then rapidly proceeding to next target.

c. Use the quick-fire technique when there is no time to properly aim. Use this technique on targets within 30 meters of your location. (This technique is most effective in urban terrain or heavy bush.)

(1) Use the standing position.

(2) Use the raised stockwell, looking 2 or 3 inches above the sights, on a plane that is level with the barrel.

(3) Look at the target, NOT at the sights.

d. Fire on the targets until they are destroyed or until you receive an order to cease fire.

Evaluation Preparation: Setup: On a live-fire range, provide sufficient quantities of equipment and ammunition to support the number of Soldiers tested. Have each Soldier use his own rifle and magazine.

Brief Soldier: Tell Soldier that he/she is to detect and engage targets in his/her sector and, when asked, state the range to the target.

Performance Measures	GO	NO GO
1. Assumed an appropriate firing position based on the situation.	___	___
2. Identified targets in your designated sector of fire.	___	___
3. Determined range to a target.	___	___
4. Loaded and fired on targets using appropriate engagement techniques.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 21-75

FM 3-22.9

TM 9-1005-319-10

071-100-0004

Maintain an M4 or M4A1 Carbine

Conditions: Given an M4 or M4A1 carbine, magazine, 5.56-mm ammunition, and small-arms accessory case with the following cleaning materials: clean wiping rags; bore brush; chamber brush; toothbrush; cleaning rod; small-arms swabs; pipe cleaners; cleaner, lubricant, and preservative (CLP); lubricating oil, arctic weather (LAW); and carbine bore cleaner.

Standards: Clean, inspect, and lubricate the carbine and magazine so that they function correctly; clean and inspect the ammunition; turn in any unserviceable ammunition.

Performance Steps

1. Clear the carbine.

- a. Remove the magazine from the carbine. If there is one present.
- b. Cock the carbine.
- c. Turn the selector to SAFE.

Note: The selector cannot be turned to SAFE unless the carbine is cocked.

- d. Lock the bolt open.
 - (1) Pull the charging handle rearward.
 - (2) Press the bottom of the bolt catch.
 - (3) Allow the bolt to move forward until it engages the bolt catch.
 - (4) Return the charging handle to the forward position.
 - (5) Ensure the selector is on SAFE.
- e. Check the receiver and chamber to ensure they do not contain ammunition.

2. Disassemble the carbine.

CAUTION

Do not use a screwdriver or any other tool when removing the handguards. Doing so may damage the handguards, slip ring, or both.

WARNING

Use care not to bend or dent the gas tube while removing handguards.

- a. Remove the sling.
- b. Remove the handguards only if you can see dirt or corrosion through the vent holes. Handguards are interchangeable because they are identical.

Performance Steps

CAUTION

Use only hand pressure to disengage the pivot and takedown pins. Force other than hand pressure may cause damage to the weapon so that replacement of the weapon is required. Push the pivot and takedown pins only far enough to disengage the upper receiver from the lower receiver.

- c. Push the takedown pin as far as it will go and pivot the upper receiver from the lower receiver.
- d. Push the receiver pivot pin.
- e. Separate the upper and lower receivers.
- f. Pull back the charging handle.
- g. Remove the bolt carrier and bolt.
- h. Remove the charging handle.

CAUTION

Do not fully remove the round nuts from the threaded studs. The threaded studs are flared on the end to prohibit removal. However, if the nuts are inadvertently removed, they may be reinstalled.

- i. Remove carrying handle assembly. Loosen the round nuts on the left side of the carrying handle approximately four turns. Loosen the clamping bar from the left side of the upper receiver and lift off the carrying handle.
- j. Remove the firing pin retaining pin.
- k. Put the bolt assembly in the locked position by pushing in the bolt.
- l. Remove the firing pin by allowing it to drop out of the rear of the bolt carrier into your hand.
- m. Remove the bolt cam pin by turning it one-quarter turn and lifting it out.
- n. Pull the bolt assembly from the carrier.

Note: Perform steps o through q only when the parts are dirty or damaged.

Performance Steps

c. Bolt carrier group.

- (1) Clean outer and inner surfaces of bolt carrier with rags and CLP.
- (2) Clean carrier key (use worn bore brush).
- (3) Clean firing pin recess and firing pin with brush and CLP.
- (4) Clean firing pin hole with pipe cleaner and CLP.
- (5) Clean carbon deposits and dirt from locking lugs with cleaning brush and CLP.
- (6) Clean areas behind bolt ring and under lip of extractor with brush and CLP.

4. Inspect carbine for serviceability.

a. Upper receiver group.

- (1) Check for free movement of the forward assist assembly.
- (2) Check for broken or damaged ejection port cover.
- (3) Check rear sight windage and elevation knob for damage and looseness.
- (4) Check carrying handle assembly for missing or damaged parts and ensure the handle assembly will mount to the upper receiver.
- (5) Check front sight assembly for damage.
- (6) Inspect bore and chamber for pitting or obstructions.
- (7) Inspect bolt lugs for cracks and burrs.
- (8) Check for free movement of slip ring.
- (9) Check the compensator for proper alignment.

Note: The compensator has five slots. The third or middle slot should line up with the front sight post. If not, turn in for maintenance.

- (10) Check the bolt guide rails for chips and burrs.

b. Lower receiver.

- (1) Check trigger mechanism for missing or damaged parts.
- (2) Check bolt catch for free movement.
- (3) Check magazine release button for free movement.

Performance Steps

(4) Check buttstock assembly for dents, and rust and ensure proper operation of retaining nut and lock-release lever.

(5) Check action spring and buffer for damage.

c. Bolt carrier group.

(1) Check bolt carrier for chips, burrs, and cracks.

(2) Check bolt for cracks or fractures, especially in the cam pin hole area. Bolts that contain pits in the firing pin hole need replacing.

(3) Check firing pin retaining pin for bends and excessive wear.

(4) Check firing pin for bends, cracks, and blunted or sharp end.

(5) Check cam pin for cracks and chips.

(6) Check extractor for chipped or broken edges in the area of the lip that engages the cartridge rim. Check to ensure the rubber insert is inside the extractor spring.

d. Report and turn in unserviceable parts for maintenance.

5. Lubricate the carbine.

Notes:

1. Under all but the coldest arctic conditions, CLP is the lubricant to use on the carbine. Between +10 degrees F and -10 degrees F, either CLP or LAW can be used. For -35 degrees F or lower, use LAW only.

2. Lightly lube means apply a film of lubricant barely visible to the eye.

3. Generously lube means apply the lubricant heavily enough so that it can be spread with the finger.

a. Upper receiver and carrying handle.

(1) Upper receiver. Lightly lube inside of receiver, bore, chamber, locking lugs, outer surfaces of barrel and front sight, and mating surface for carrying handle.

(2) Carrying handle. Apply a drop or two of lubricant to both threaded studs. Lightly lube the clamping bar and both round nuts. Lightly lube the mating surface.

Performance Steps

(3) Front sight detent. Depress and apply two or three drops of CLP to front sight detent. Depress several times to work lube into the spring.

(4) Adjustable rear sights. Use one or two drops of CLP. Rotate the following parts to ensure lubricant is spread evenly above and below:

- Elevation screw shaft.
- Elevation knob.
- Windage knob.
- Windage screw

b. Lower receiver group.

(1) Lightly lube inside and outside lower receiver extension, buffer, and action spring. Lightly lube inside buttstock assembly. Generously lube buttstock lock-release lever and retaining pin.

(2) Generously lube takedown pin, pivot pin, detents, and all other moving parts and their pins.

c. Bolt carrier group.

(1) Lightly lube charging handle and inner and outer surfaces of bolt carrier.

(2) Place one drop of CLP in the carrier key.

(3) Apply a light coat of CLP on firing pin and firing pin recess in bolt.

(4) Generously lube outside of the bolt body, bolt rings, and cam pin area.

(5) Apply a light coat of CLP on extractor and pin.

6. Assemble the carbine.

a. Install buttstock assembly. Align the buttstock assembly with lower receiver extension; pull downward on the lock release lever near the retaining pin, and slide the buttstock assembly onto the lower receiver extension.

b. Insert action spring and buffer.

c. Insert extractor and spring.

Performance Steps

- d. Push in extractor pin.
- e. Slide bolt into carrier.

WARNING

Be sure the cam pin is installed in the bolt group. If it is not, the carbine can still fire and will explode.

- f. Replace bolt cam pin.
- g. Drop in and seat firing pin.
- h. Pull bolt back.
- i. Replace retaining pin.
- j. Engage, then push charging handle in part of the way.

WARNING

Do not exchange or switch bolt assemblies from one M4 or M4A1 to another.

- k. Slide in bolt carrier group.
 - l. Push in charging handle and bolt carrier group together.
 - m. Join upper and lower receivers.
 - n. Engage receiver pivot pin.
 - o. Close upper and lower receiver groups. Push in takedown pin.
 - p. Replace handguards.
 - q. Replace sling.
7. Perform a function check on the M4 or M4A1 carbine to determine correct functioning.

Performance Steps

8. Maintain M16/M4 magazine and ammunition.

a. Maintain magazine.

(1) Disassemble magazine.

-Insert the nose of a cartridge into the hole in the base of the magazine and raise the rear of the magazine until the indentation on the base is clear of the magazine.

-Slide the base forward until free of the tabs.

-Remove the magazine spring and follower (do not separate).

(2) Clean all parts using a rag soaked with CLP. Dry all parts.

(3) Inspect parts for damage such as dents and corrosion. If any damage is found, turn in to maintenance.

(4) Lubricate the magazine. Lightly lube the spring only.

(5) Assemble the magazine.

-Insert the follower and spring in the magazine tube and jiggle the spring to seat them in the magazine.

-Slide the base under all four tabs until it is fully seated.

Make sure the printing is on the outside.

b. Maintain ammunition.

(1) Clean ammunition with a clean dry rag.

(2) Inspect for and turn in any ammunition with the following defects: corrosion, dented cartridges, cartridges with loose bullets, and cartridges with the bullet pushed in.

Evaluation Preparation: Setup: Have Soldiers use their own weapons and magazines. Provide swabs; cleaner, lubricant, preservative (CLP); pipe cleaners; lubricating oil; and rifle bore cleaner (the Soldier should not select rifle bore cleaner for use). Also provide several rounds of dummy ammunition if available.

Brief Soldier: Tell the Soldier to clean, inspect, and lubricate the weapon and magazine following normal safety practices.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Cleared the carbine.	_____	_____
2. Disassembled the carbine.	_____	_____
3. Cleaned the weapon using the correct materials.	_____	_____
4. Inspected for unserviceable parts.	_____	_____
5. Assembled the carbine.	_____	_____
6. Performed function check.	_____	_____
7. Disassembled the magazine.	_____	_____
8. Cleaned the magazine.	_____	_____
9. Assembled the magazine	_____	_____
10. Cleaned the ammunition.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

TM 9-1005-319-10

SUBJECT AREA 18: 9-MM PISTOL

071-004-0001

Maintain an M9 Pistol

Conditions: Given an M9 pistol with components (M12 or M7 holster, magazine, and ammunition pocket), 9-mm ammunition, cleaner lubricant preservative (CLP), lubricating oil arctic weather (LAW), lubricating oil semifluid (LSA), bore brush, wiping rags, M4 cleaning rod (a one-section handle and a swab holder), and small-arms cleaning swabs.

3-614

071-004-0001

11 October 2005

STP 21-1-SMCT

Standards: Clean and lubricate M9 pistol and magazine; inspect parts; turn in unserviceable parts for maintenance; assemble pistol; ensure pistol is operational; clean and inspect ammunition for serviceability; and turn in unserviceable ammunition.

Performance Steps

1. Clear the pistol.
 - a. Place the safety lever in SAFE position.
 - b. Hold the pistol in the raised pistol position.
 - c. Depress the magazine release button; remove the magazine from the pistol.
 - d. Pull the slide to the rear; remove any chambered round.
 - e. Push the slide stop up, locking the slide to the rear.
 - f. Look into the chamber to ensure that it is empty.
2. Disassemble the pistol and magazine.
 - a. Depress the slide stop and let the slide go forward.
 - b. With your right hand, hold the pistol with the muzzle slightly raised.
 - c. With your forefinger, press the disassembly lever button (figure 071-004-0001-1).

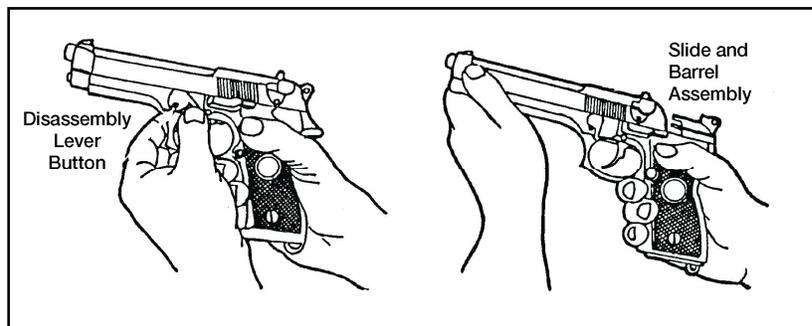


Figure 071-004-0001-1. Disassembly lever button

- d. Rotate the disassembly lever downward until it stops.

Performance Steps

e. Pull the slide and barrel assembly forward (figure 071-004-0001-1), and remove it from the receiver.

f. Slightly compress the recoil spring and spring guide. At the same time, lift them up and remove them, allowing the recoil spring to stretch slowly (figure 071-004-0001-2).

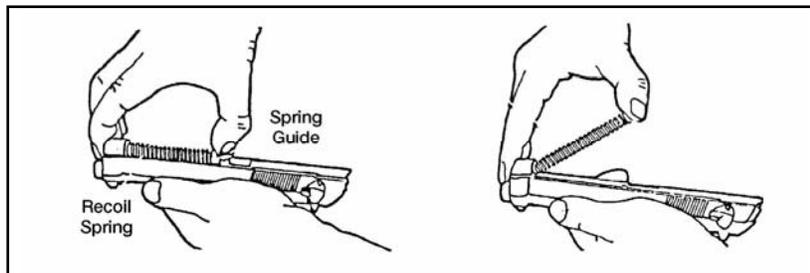


Figure 071-004-0001-2. Removal of the recoil spring and spring guide

g. Separate the recoil spring from the spring guide.

h. Push in on the locking block plunger while pushing the barrel forward slightly. Lift and remove the locking block and barrel assembly from the slide (figure 071-004-0001-3).

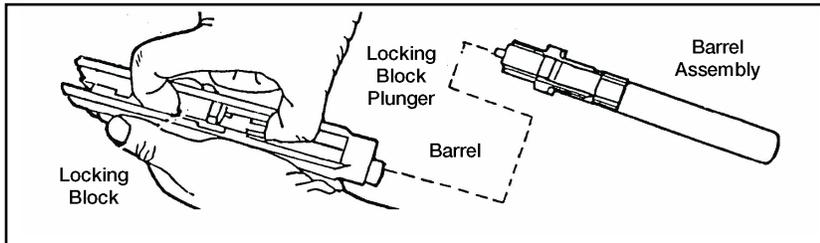


Figure 071-004-0001-3. Removal of the locking block and barrel assembly

i. Disassemble the magazine (figure 071-004-0001-4).

Performance Steps

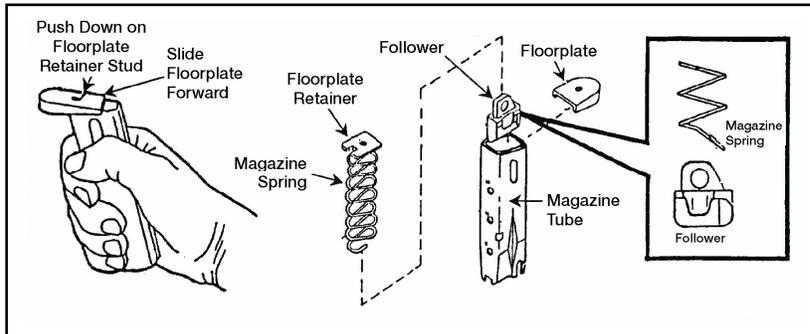


Figure 071-004-0001-4. Disassembly of the magazine

- (1) Grasp the magazine firmly, with the floor plate up and the back of the magazine tube against the palm of your hand.
- (2) Depress the locking block to make the locking block plunger protrude.
- (3) Using the locking block plunger, push down on the floor plate retainer stud.
- (4) Slide the floor plate slightly forward with your thumb.
- (5) While removing the floor plate, use your thumb to keep pressure on the magazine spring.
- (6) Remove the floor plate retainer, the magazine spring, and the follower from the magazine tube.
- (7) Remove the magazine spring from the follower.
- (8) Remove the floor plate retainer from the magazine spring.

3. Clean the pistol and magazine.

CAUTION

Use the bore brush to clean only the bore. Using it on any other part of the pistol will cause damage.

a. Slide assembly.

- (1) Clean slide assembly with a cloth. Use CLP on a soft brush to remove excess dirt and carbon.
- (2) Wipe dry with a clean cloth.

Performance Steps

b. Barrel assembly.

(1) Attach a bore brush to a cleaning rod. Moisten the bore brush with CLP and insert it into the chamber end of the barrel. Make sure the brush completely clears the muzzle before you pull it back through the bore. Repeat this procedure several times to loosen carbon deposits.

(2) To clean and dry the barrel, push a clean swab through the bore. Repeat as necessary with fresh swabs until a swab comes out clean.

(3) Clean locking block with a soft brush.

(4) Clean the recoil spring and spring guide with CLP and a soft brush or cloth.

c. Receiver assembly. Wipe the receiver assembly clean with a cloth and, if needed, a soft brush.

d. Magazine (figure 071-004-0001-4).

(1) Wipe the magazine tube and the follower with CLP, a cloth, and a soft brush.

(2) Clean the magazine spring, floor plate retainer, and floor plate with a clean cloth.

e. Holster. Remove dirt from exterior with stiff brush. Wipe interior with clean cloth.

f. Ammunition. If ammunition gets wet or dirty, clean it and remove corrosion from it at once using a dry cloth.

4. Inspect for serviceability.

a. Slide assembly.

(1) Check to ensure the ambidextrous safety moves freely.

(2) Check the firing block for damage.

(3) Check the rear sight for looseness.

b. Barrel assembly.

(1) Inspect the bore and chamber for pitting or obstructions.

(2) Check the locking block plunger to ensure the locking block moves freely.

Performance Steps

- (3) Inspect the locking lugs for cracks and burrs.
 - c. Recoil spring and recoil spring guide.
 - (1) Check recoil spring to ensure it is not bent or damaged.
 - (2) Check recoil spring to ensure it is straight and free of cracks and burrs.
 - d. Receiver assembly.
 - (1) Check for bends, chips, and cracks.
 - (2) Check to ensure the slide stop and magazine stop move freely.
 - (3) Check the guide rails for excessive wear, burr, cracks, or chips.
 - e. Magazine assembly (figure 071-004-0001-4).
 - (1) Check for damage to the spring and follower.
 - (2) Inspect magazine lips to ensure they are not bent excessively and to ensure they have no cracks and burrs.
 - (3) Check to ensure the magazine tube is not bent.
 - f. Ammunition.
 - (1) Check for damaged or corroded ammunition. Turn in heavily corroded or damaged ammunition.
 - (2) Check to ensure ammunition is free of oil and grease.
- 5. Lubricate the pistol and magazine.

Notes:

- 1. CLP, LSA, and LAW are the only lubricants authorized for this pistol.
- 2. You can use CLP and LSA interchangeably.
- 3. Before firing, remove excess lubricant from the bore.
 - a. Lubricate all parts with a light coat of LSA or CLP at temperatures above -10 degrees Fahrenheit, or LAW at temperatures below +10 degrees Fahrenheit.
 - b. Do not mix LAW with other lubricants.

Performance Steps

6. Assemble the pistol (figure 071-004-0001-5).

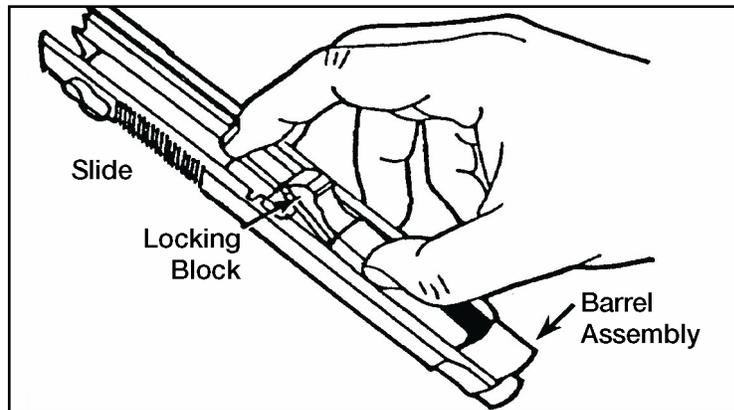


Figure 071-004-0001-5. Insertion of the barrel assembly

- a. Grasp the slide with the bottom facing up.
- b. With the other hand, grasp the barrel assembly with the locking block facing up.
- c. Insert the muzzle into the forward end of the slide. At the same time, lower the rear of the barrel assembly by moving the barrel slightly downward with light thumb pressure. The barrel will fall into place.
- d. Insert the recoil spring guide into the recoil spring (figure 071-004-0001-6).

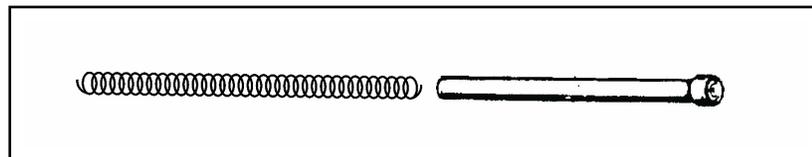


Figure 071-004-0001-6. Recoil spring and spring guide

Performance Steps

e. Insert the end of the recoil spring and the recoil spring guide into the recoil spring housing. At the same time, compress the recoil spring and lower the spring guide until it is fully seated on the locking block cutaway (figure 071-004-0001-7).

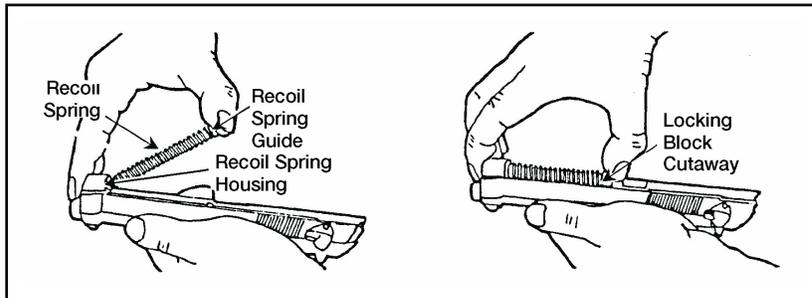


Figure 071-004-0001-7. Insertion of the recoil spring and guide

CAUTION

Be sure that the hammer is uncocked and firing pin block lever is in the down position. If the hammer is cocked, carefully and manually lower the hammer. Do not pull the trigger while placing the slide onto the receiver.

f. Push the firing pin block lever down. Grasp the slide and barrel assembly with the sights up, and align the slide on the receiver assembly guide rails (figure 071-004-0001-8).

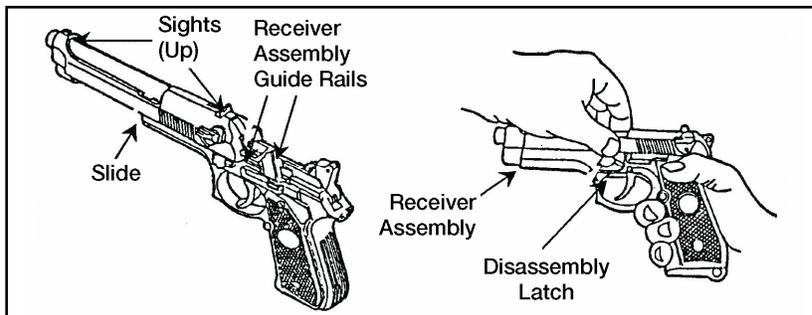


Figure 071-004-0001-8. Final assembly

Performance Steps

g. Push until the rear of the slide is a short distance beyond the rear of the receiver assembly and hold. At the same time, rotate the disassembly latch lever upward. A click indicates a positive lock (figure 071-004-0001-8).

h. Assemble the magazine.

(1) Insert the follower into the top coil of the magazine spring. Make sure the notches on the follower and magazine tube are on the same side.

(2) Insert the magazine spring with follower into magazine tube.

(3) Turn the magazine bottom up, with its backside against the palm of the hand. Attach and center the floor plate retainer on the bottom spring coil.

CAUTION

After inserting the magazine spring, keep tension on it with your thumb. Be careful not to place the lips of the magazine tube on a hard surface while you reassemble the magazine.

(4) Push and hold the magazine spring and floor plate retainer down. At the same time, slide the floor plate over the sidewalls until it seats fully.

(5) Carefully insert the magazine into the pistol well. You will hear a click when it locks into position.

WARNING

Make sure the pistol is clear and unloaded.

7. Perform a function check.

Evaluation Preparation: Setup: At the test site, provide a field table with all the equipment given in the task condition statement.

Brief Soldier: Tell the Soldier to clear, disassemble, clean, inspect, lubricate, assemble, and perform a function check on the weapon.

Performance Measures	GO	NO GO
1. Cleared the pistol.	___	___
2. Disassembled the pistol and magazine without damaging any parts.	___	___
3. Cleaned the pistol, components, and ammunition.	___	___
4. Inspected the pistol, components, and ammunition for defects.	___	___
5. Correctly lubricated pistol and magazine.	___	___
6. Assembled pistol and magazine in correct sequence.	___	___
7. Performed a function check.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

TM 9-1005-317-10

071-004-0003

Load an M9 Pistol

Conditions: Given an unloaded M9 pistol and a separate magazine loaded with M9 ammunition.

Standards: Correctly load the magazine and ammunition into the pistol; ensure the safety lever is in the safe position.

Performance Steps

WARNING

The M9 pistol has single- and double-action firing modes. When the safety is set to FIRE, squeezing the trigger will automatically cock and fire the pistol (this is the double-action mode).

Keep your finger away from the trigger until you intend to fire.

1. Place safety lever in SAFE position.
2. Insert the loaded magazine into the pistol's magazine well until you hear a click when the magazine seats fully.
3. Point the pistol in a safe direction (usually at the target or skyward).
4. Retract the slide fully and release it. This strips a cartridge from the magazine and chambers it.

Evaluation Preparation: Setup: At the test site, provide the equipment listed in the task condition statement. Use dummy rounds to evaluate this task.

Brief Soldier: Tell the Soldier to load the M9 pistol so it will fire a round when he squeezes the trigger.

Performance Measures	GO	NO GO
1. Placed the safety lever in SAFE position.	___	___
2. Inserted the loaded magazine into the magazine well.	___	___
3. Pointed the pistol in a safe direction (usually at the target or skyward).	___	___
4. Retracted and released the slide to chamber a cartridge from the magazine.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References**Required****Related**

TM 9-1005-317-10

071-004-0004**Unload an M9 Pistol****Conditions:** Given an M9 pistol loaded with rounds.**Standards:** Correctly remove magazine and ammunition from the pistol; remove all rounds from the magazine; and ensure the pistol safety lever is in the SAFE position.

Performance Steps**WARNING**

The M9 pistol will fire in the single- or double-action mode. With the safety in the FIRE position, squeezing the trigger automatically cocks and fires the pistol. This is the double-action mode of firing the pistol. Keep your finger away from the trigger unless you intend to fire.

1. Remove the magazine and the ammunition from the pistol.
 - a. Place the safety lever in the SAFE position.
 - b. Depress the magazine release button, and remove the magazine from the pistol.
 - c. Point the pistol in a safe direction (usually at the target or skyward).
 - d. Retract the slide fully to remove the chambered cartridge.
 - e. Lock the slide to the rear using the slide stop. Visually inspect the chamber to make sure it is empty.
 - f. Release the slide. Ensure the safety lever is in the SAFE position.
-

Performance Steps

2. Remove the ammunition from the magazine.
 - a. With one hand, hold the magazine upright, front end forward. With your thumb, firmly press down on the cartridge rim, and push forward. As the cartridge moves forward, tip the forward end of it up and out with your index finger.
 - b. Repeat the above steps until the magazine is empty.

Evaluation Preparation: Setup: At the test site, provide the equipment listed in the task condition statement. Use dummy rounds to evaluate this task.

Brief Soldier: Tell the Soldier to unload the M9 pistol and remove all ammunition from the magazine.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Removed magazine and ammunition from the pistol.	___	___
2. Removed ammunition from magazine.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References**Required****Related**

TM 9-1005-317-10

071-004-0006**Engage Targets With an M9 Pistol**

Conditions: Given an M9 pistol and one or more magazines loaded with 9-mm ammunition.

Standards: Apply the correct M9 target engagement techniques and engage hostile targets.

Performance Steps

1. Identify the target(s). The most likely target you will engage is an enemy Soldier on foot.
2. Apply the fundamentals of quick fire.

Note: To fire quickly without using the pistol sights, use the pistol as an extension of your arm.

- a. To use the pistol grip, hold the pistol in your nonfiring hand. Form a "V" with the thumb and forefinger of your firing hand.
 - b. Place the pistol in the "V," with the sights in line with your firing arm.
 - c. Hold your upper arm close to your body, and your forearm at about a 45-degree angle.
 - d. Wrap your lower three fingers around the grip, putting equal pressure to the rear with all three fingers (figure 071-004-0006-1).
 - e. Place your thumb alongside the pistol without applying any pressure.
 - f. Place your trigger finger on the trigger so that it can be pulled to the rear.
 - g. Tightly grip the pistol until your hand begins to tremble. Relax until the trembling stops. At this point, you have applied the necessary pressure for a solid grip.
-

Performance Steps

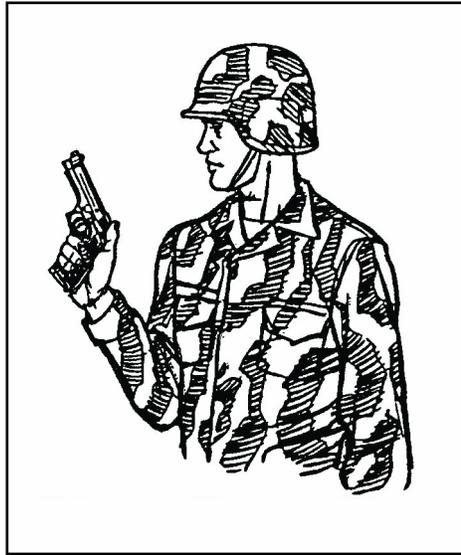


Figure 071-004-0006-1. Pistol ready position, one-hand grip

Note: If you relax any of your three fingers on the grip, you must reapply the entire grip.

3. Choose one of the following supported or unsupported grips:

a. Supported grip. The only supported grip is the one-hand grip (figure 071-004-0006-2). Begin by gripping the weapon as described. Allow the thumb of your firing hand to rest without pressure beside your weapon. Place your trigger finger, between the tip and the second joint, on the trigger, so you can squeeze the trigger to the rear. Your trigger finger must work independently of your other fingers.

Performance Steps

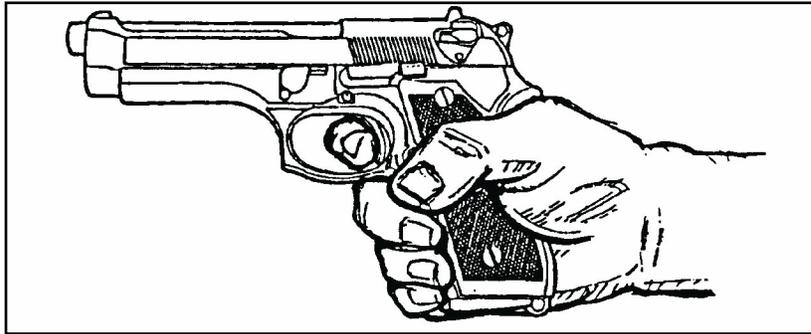


Figure 071-004-0006-2. One-hand grip

b. Unsupported grips. You may use any of three nonfiring hand grips to support your firing hand (figures 071-004-0006-3, 4, and 5).

(1) Fist grip (figure 071-004-0006-3). Begin by gripping the weapon as previously described. Firmly close the fingers of your nonfiring hand over the fingers of your firing hand. Make sure the index finger of your nonfiring hand is between the middle finger of your firing hand and the guard. Place your nonfiring thumb beside your firing thumb.

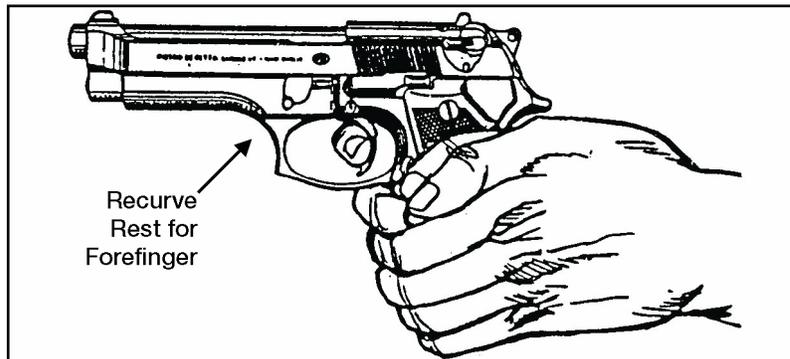


Figure 071-004-0006-3. Fist grip

Performance Steps

Note: The M9 pistol has a recurved trigger guard, which allows you to place the index finger of your nonfiring hand on the front of the trigger guard if you wish.

(2) Palm-supported grip (figure 071-004-0006-4). Begin by gripping the weapon as previously described. Place your nonfiring hand under your firing hand. Wrap your nonfiring fingers around the back of your firing hand. Place your nonfiring thumb over the middle finger of your firing hand.

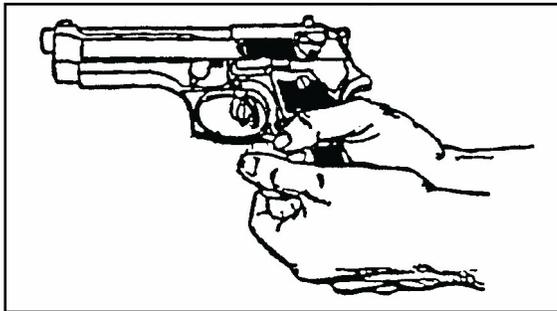


Figure 071-004-0006-4. Palm-supported grip

(3) Weaver grip (figure 071-004-0006-5). Apply this grip the same as the fist grip, but wrap your nonfiring thumb over your firing thumb.

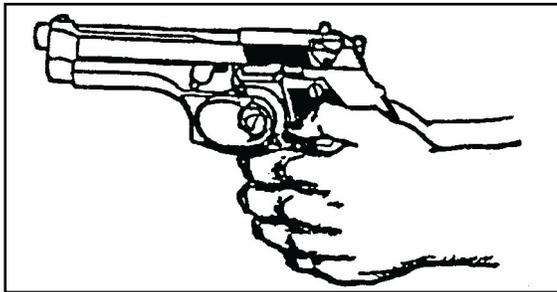


Figure 071-004-0006-5. Weaver grip

Performance Steps

4. Select the most stable firing position with the best cover.
Consider the following positions:

a. Prone (figure 071-004-0006-6). To assume the prone position—

- (1) Lie flat on the ground, facing the target.
- (2) Extend your arms to the front with your firing arm locked.
- (3) Wrap your nonfiring hand around either the wrist or the fingers of your firing hand.
- (4) Face forward. Keep your head down between your arms and behind the weapon.

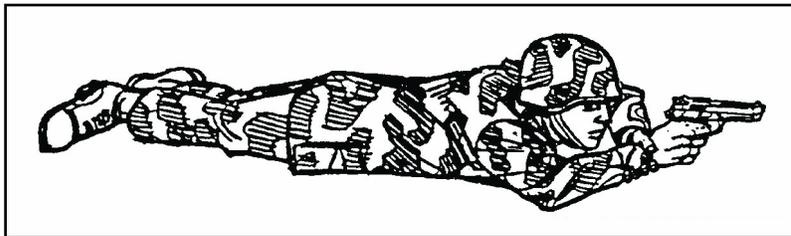


Figure 071-004-0006-6. Prone position

b. Standing-with-support (figure 071-004-0006-7). To assume this position—

- (1) Use available cover for support. For example, stand behind a tree or wall.
- (2) Stand behind a barricade with your firing side in line with the edge of the barricade.
- (3) Place the palm of your nonfiring hand at eye level on the edge of the barricade, and extend your thumb past the edge of the barricade.
- (4) Lock the elbow of your firing arm. Rest your forearm on the extended thumb of your nonfiring hand.
- (5) Move the foot on your nonfiring side forward until your toe touches the bottom of the barricade.

Performance Steps

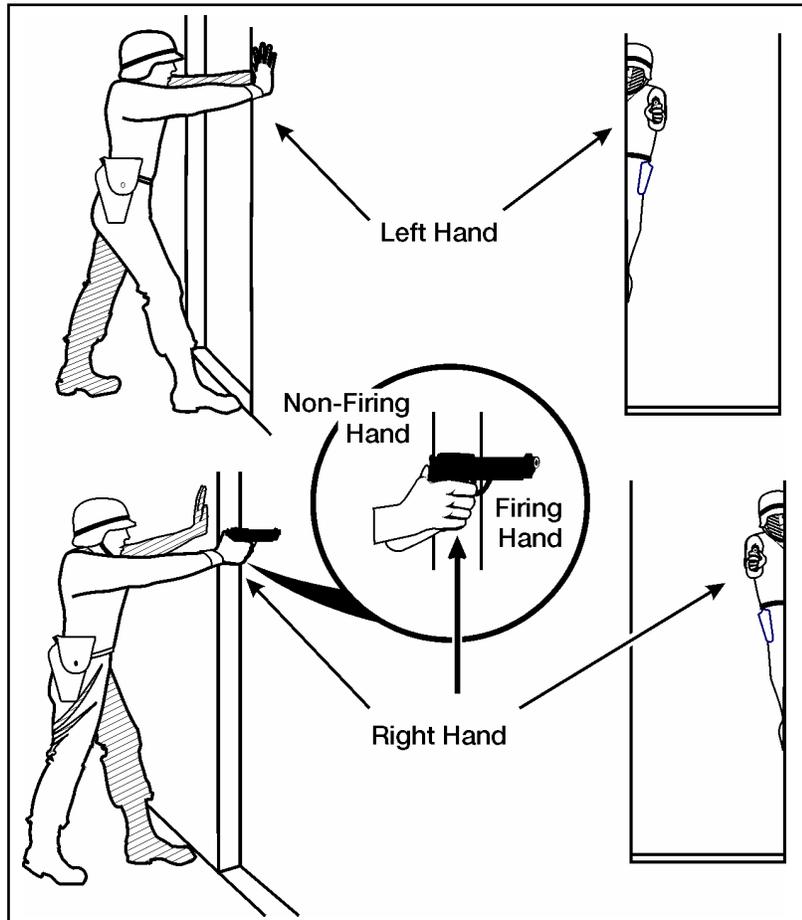


Figure 071-004-0006-7. Standing-with-support position

c. Kneeling (figure 071-004-0006-8). To assume this position—

- (1) Use available cover for support such as a low wall, rocks, or a vehicle that you can fire over.
- (2) Place your firing knee on the ground. Put your left knee down to fire left-handed, or your right knee down to fire right-handed.

Performance Steps

(3) Bend your other knee. Place the foot on your nonfiring side flat on the ground, pointing toward the target. Extend your arms over available cover and use it for support.

(4) Lock the wrist and elbow of your firing arm.

(5) Wrap your nonfiring hand around your firing fist or wrist to support your firing arm.

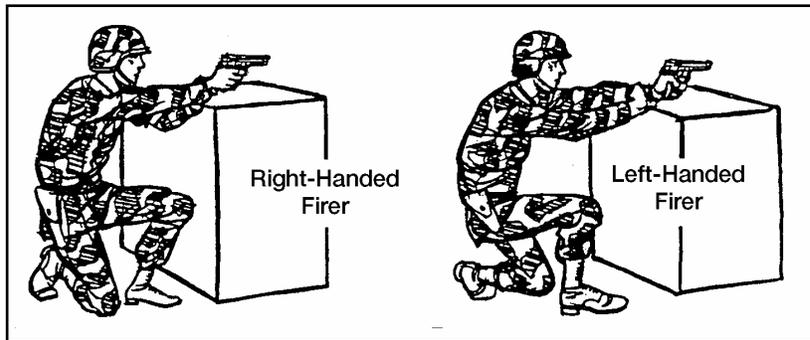


Figure 071-004-0006-8. Kneeling position

Note: This position could silhouette you, making you a better target. When possible, fire around the sides of walls, rocks, or vehicles instead of over them.

d. Standing-without-support position (figure 071-004-0006-9). To assume this position—

(1) Face the target.

(2) Place your feet a comfortable distance apart.

(3) Wrap your nonfiring hand around the fist or wrist of your firing hand. Lock the wrist and elbow of your firing arm toward the target.

(4) Keep your body straight.

Performance Steps

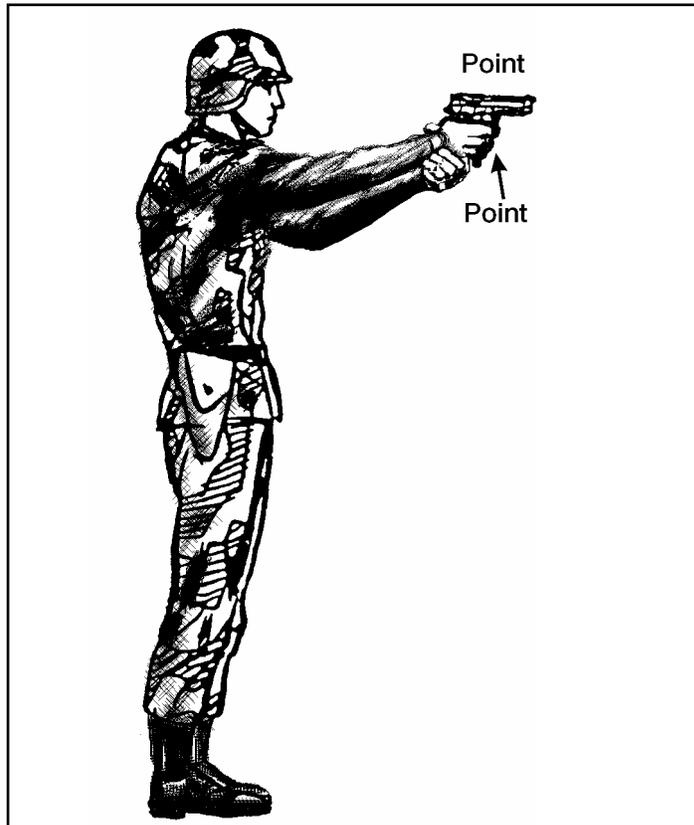


Figure 071-004-0006-9. Standing-without-support position

- e. Crouching (figure 071-004-0006-10). This position is the same as the standing-without-support position, except you must bend your knees slightly. Balance by leaning forward at the waist.

Performance Steps

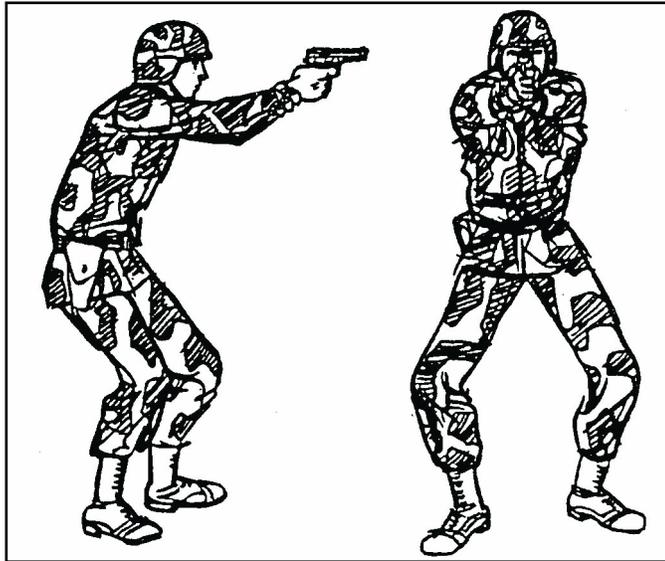


Figure 071-004-0006-10. Crouching position

5. Apply the fundamentals of marksmanship.
 - a. Pistol grip. To obtain a proper pistol grip—
 - (1) Place the pistol in the "V" formed by the thumb and forefinger of your firing hand. Line the sights up with your firing arm. Wrap your lower three fingers around the pistol. Grip with your middle finger under the trigger guard. Exert equal pressure on all three lower fingers to the rear, back through the wrist and forearm (figure 071-004-0006-1).
 - (2) Rest your thumb on top of your middle finger when gripping the pistol. Do not exert any downward pressure.
 - (3) Grip the pistol firmly, but not so firmly that your hand trembles.

Performance Steps

b. Sight alignment. To sight properly—

(1) Align the front sight blade in the rear sight notch so that an equal amount of light shows on either side of the front sight. Ensure the tops of the front and rear sights are even.

(2) Relax as much as possible.

(3) Maintain the correct sight alignment, and focus on the front sight.

(4) Squeeze the trigger with a steadily increasing pressure straight to the rear, taking care not to disturb the sight alignment until after the hammer falls.

Note: When there is more than one target, choose the target that is the greatest danger. This is often the closest target.

Evaluation Preparation: Setup: Evaluate this task during daylight on a 9-mm combat pistol qualification course. Provide the Soldier with 8 magazines and 52 rounds of live ammunition.

Brief Soldier: Tell the Soldier to use his/her own pistol and that he/she must hit 25 of the 30 targets using correct engagement techniques.

Performance Measures	GO	NO GO
1. Assumed the firing positions.	_____	_____
a. Assumed the prone position.		
b. Assumed the standing-with-support position.		
c. Assumed the standing-without-support position.		
d. Assumed the kneeling position.		
e. Assumed the crouching position.		
2. Applied the fundamentals of marksmanship.	_____	_____
3. Engaged the targets:	_____	_____
a. From the prone position.		
b. From the standing-with-support position.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
c. From the standing-without-support position.		
d. From the kneeling position.		
e. From the crouching position.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measures are failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

Related

FM 3-23.35

TM 9-1005-317-10

SUBJECT AREA 19: CROWD CONTROL

191-376-4121

Use a Riot Baton

Conditions: You are a member of a riot control formation and must position yourself in a crowd control situation. You are given a riot baton, a flak vest, shin guards, and a helmet with a face shield.

Standards: Perform all necessary steps to use the riot baton properly and defend yourself against individuals in a crowd. Observe all safety precautions.

Performance Steps

1. Grip the riot baton.
 - a. Put the thong over your right thumb, as shown in figure 191-376-4121-1, and bring it around so the thong wraps over the back of the hand, as shown in figure 191-376-4121-2. This is called the baton thong position.



Figure 191-376-4121-1. Baton thong position, graphic 1

Performance Steps



Figure 191-376-4121-2. Baton thong position, graphic 2

b. Rotate your right hand over and onto the baton handle and grasp it about 6 inches from the end. The thong will be pressed against the back of the hand as shown in figure 191-376-4121-3. This is called the right-hand grip.



Figure 191-376-4121-3. Right-hand grip

Note: This gives you a secure grip and allows for a quick release of the weapon when the hand is relaxed.

2. Assume the parade rest position.

a. Place your feet a comfortable distance (about shoulder width) apart.

Performance Steps

- b.** Grip the baton in your right hand and allow your right arm to hang naturally.
- c.** Hold the baton horizontally across your body.
- d.** Grasp the baton with your left hand, palm facing out and away from the body, about 6 inches from the end of the baton as shown in figure 191-376-4121-4.



Figure 191-376-4121-4. Parade rest position

Performance Steps

3. Assume the port position. This is a ready position for individual defensive tactics.

Note: Assemble and move to all formations in the port position.

a. Lift the left end of the baton up by bending your left elbow while in the parade rest position. Your left hand should be level with your left shoulder.

b. Ensure the striking end of the baton bisects the angle between the neck and the left shoulder.

c. Hold the baton about 8 inches from the body, as shown in figure 191-376-4121-5. This is the port position.



Figure 191-376-4121-5. Port position

Performance Steps

4. Assume the on-guard position.

Note: This is a ready position used when making initial contact with rioters. Do NOT hold it for long periods; it is tiring to the body. Protective movements are normally executed from this position.

- a. Stand with your feet apart and your left foot forward. Bend your knees slightly and lean forward.
 - b. Hold the baton against your hip with your right hand.
 - c. Hold your left forearm horizontally across your body with your palm up and at a level that will protect your throat area.
 - d. With your left hand, grasp the baton about 6 inches from the end. Figures 191-376-4121-6 and 191-376-4121-7 show the guard position from the front and side.
-

Performance Steps



Figure 191-376-4121-6. On-guard position (front view)

Performance Steps

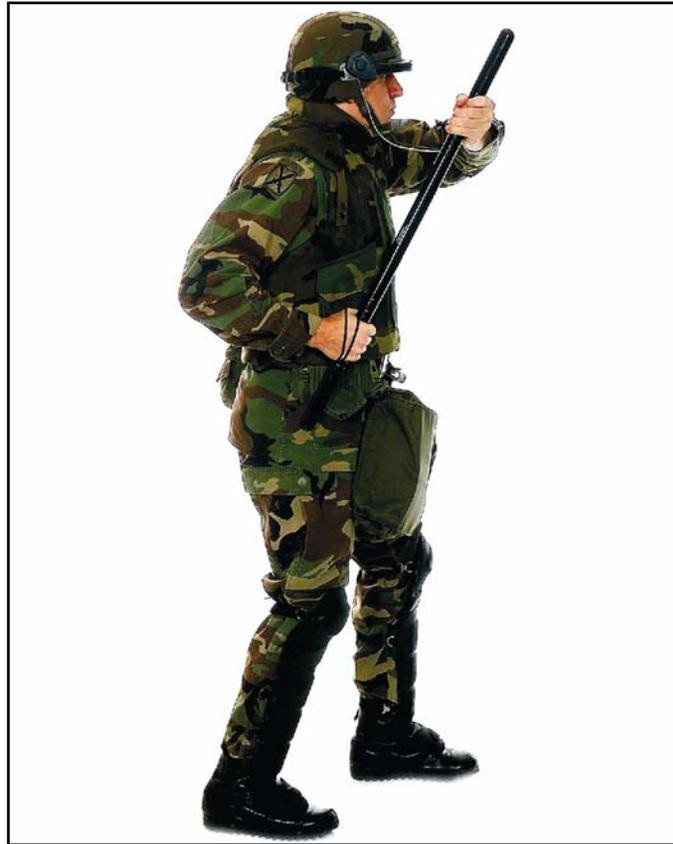


Figure 191-376-4121-7. On-guard position (side view)

5. Ensure that a blow is not directed to one of the five fatal points. Refer to figure 191-376-4121-8.

Performance Steps

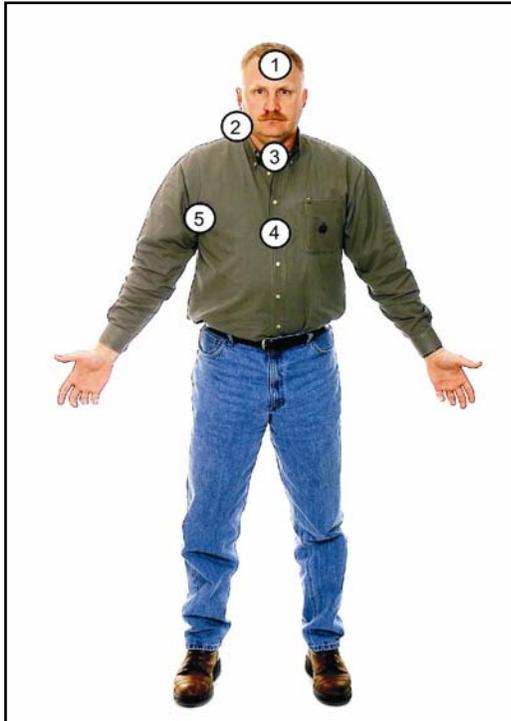


Figure 191-376-4121-8. Five fatal points of impact

WARNING

Never direct a blow to any of the five fatal points of impact on the human body. These are the head, the side of the neck or throat, the chest cavity (heart area), and the armpit. Deliver blows only to vulnerable parts on your opponent's body, such as the shoulder.

Performance Steps

- 6.** Perform the short-thrust offensive technique from the on-guard position.
 - a.** Take one rapid step forward with your left foot.
 - b.** Snap your left arm straight and push your right hand to drive the striking end of the baton into a vulnerable point of the opponent's body.
 - c.** Return to the on-guard position.
 - 7.** Perform the long-thrust offensive technique from the on-guard position.
 - a.** Hold the baton in your right hand, take one rapid step forward with your right foot, and simultaneously release your left-hand grip.
 - b.** Snap the baton forward by rapidly extending your right arm, driving the striking end of the weapon into a vulnerable point on the opponent's body.
 - c.** Return to the on-guard position.
 - 8.** Perform the butt-stroke offensive technique from the on-guard position.
 - a.** Raise your right hand (while keeping your left hand level with your left shoulder) until the baton is almost parallel to the ground.
 - b.** Advance the body rapidly by moving your right foot forward one step.
 - c.** Snap your right arm straight forward by sliding your right hand up the baton until the thong is tight across the back of the hand.
 - d.** Drive the butt end of the baton to the left, striking the opponent's shoulder.
 - e.** Return to the on-guard position.
-

Performance Steps

- 9.** Perform the baton smash offensive technique from the parade rest, port, or on-guard position.
- a.** Hold the baton at chest level, horizontal to the ground.
 - b.** Advance your left foot rapidly and snap both arms straight.
 - c.** Smash the length of the baton across the opponent's chest.
 - d.** Return to the position.

- 10.** Defend yourself against a blow to the head.

Note: All defensive tactics are started from the parade rest, port, or on-guard position.

- a.** Assume the parade rest, port, or on-guard position.
- b.** Snap your left hand to the left side of your body and your right hand up and to the left.
- c.** Block the attacker's blow and immediately snap both arms up so the left hand is near the left shoulder and the right hand is in front of the left shoulder.
- d.** Execute a jab or smash by stepping forward with your right foot, driving your body forward. Jab the thong end of the baton into the attacker's upper body.
- e.** Return to the original starting position.

- 11.** Defend yourself against a backhand blow.

- a.** Assume either the parade rest, port, or on-guard position.
 - b.** Snap both arms out and to your right or left front, depending on the direction of the oncoming blow.
 - c.** Raise your left hand above your head so the grip end of the baton is pointing down.
 - d.** Block the attacker's blow.
-

Performance Steps

e. After blocking the blow, bring your right hand up near the right shoulder.

f. Move the left hand down, parallel to the chest area, in preparation for a butt stroke. Refer to step 7.

12. Defend yourself against a long thrust.

a. Assume the parade rest, port, or on-guard position.

b. Move your left hand across your body toward the left.

c. Move your right hand down and toward the left.

d. Slide your left hand down the baton to the right hand. Your body and baton are now in position to defend with a counterblow.

13. Defend yourself against an overhead stab.

a. Assume the parade rest, port, or on-guard position.

b. Step backward with your left foot when the attacker stabs downward.

c. Slide your left hand down the baton to meet the right, and raise the baton up over your left side and shoulder.

d. Disarm the attacker by snapping the baton down against his/her wrist or forearm.

e. Return your left hand and left foot to their original position in preparation to execute a baton smash.

14. Defend yourself against an upward thrust.

a. Assume the parade rest, port, or on-guard position.

b. Hold the baton horizontally, about 6 inches from your lower chest.

Performance Steps

- c. Snap both arms straight down, and strike the opponent's wrist to cause him to drop his/her weapon.
 - d. Hold the baton with both your hands and immediately bring the baton close to your shoulders and hold it across your chest in preparation to execute the baton smash.
- 15. Defend yourself against an unarmed attacker.**
- a. Slide your left hand toward your right and lift the baton to shoulder level, parallel to the ground.
 - b. Move your body slightly to the rear by withdrawing your left foot.
 - c. Use your baton to deliver a counterblow to the attackers shoulder or collarbone if he/she attempts to strike you with a blow.
 - d. Deliver a counterblow to the attacker's right forearm if he/she attempts to strike you with a blow.
 - e. Jab the attacker in the groin or stomach with your baton if he/she attempts to grab you.

Evaluation Preparation: Setup: Provide the Soldier being evaluated with a riot baton, a flak vest, and a helmet with a face shield.

Brief Soldier: Tell the Soldier being evaluated that he/she must perform each step to demonstrate the riot baton grip, the parade rest, port and on-guard positions, the three offensive techniques; and the six defensive techniques correctly, as described in this task in steps 1 through 14.

Performance Measures	GO	NO GO
1. Gripped the riot baton.	_____	_____
2. Assumed the parade rest position.	_____	_____
3. Assumed the port position.	_____	_____
4. Assumed the on-guard position.	_____	_____
5. Ensured a blow was not directed to one of the five fatal points.	_____	_____

Performance Measures	<u>GO</u>	<u>NO GO</u>
6. Performed the short-thrust offensive technique from the on-guard position.	___	___
7. Performed the long-thrust offensive technique from the on-guard position.	___	___
8. Performed the butt-stroke offensive technique from the on-guard position.	___	___
9. Performed the baton smash offensive technique from the rest, port, or on-guard position.	___	___
10. Defended against a blow to the head.	___	___
11. Defended against a backhand blow.	___	___
12. Defended against a long thrust.	___	___
13. Defended against an overhead stab.	___	___
14. Defended against an upward thrust.	___	___
15. Defended against an unarmed attacker.	___	___

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

References

Required

Related

FM 3-19.15

191-376-4122

Position Yourself in Riot Control Formations

Conditions: You are given orders to be a member of a squad or platoon detailed in a crowd control situation. You are given a riot baton, an M16 rifle, a bayonet with a sheath, a flak vest, a protective mask, a helmet with a face shield, and shin guards.

Standards: Position yourself in a formation, as directed by the squad or platoon leader to control the crowd effectively.

Performance Steps

1. Assume the safe-port position as shown in figure 191-376-4122-1.



Figure 191-376-4122-1. Safe-port position

Note: Use this position when moving into a riot control formation or when changing formations.

- a. Grasp the small of the gun stock with your right hand. The forefinger should be toward the rear of the pistol grip.

Performance Steps

- b.** Use your left hand to hold the sling against the hand guard by grasping the weapon just below the sling and touching the upper swing swivel. Ensure the magazine well faces away from your body.
 - c.** Hold the upper part of your left arm parallel with the ground, and bend your elbow so your forearm is straight up.
 - d.** Keep your right elbow close to your body.
 - e.** Position the heel of the rifle butt slightly to the right of your right shirt pocket.
 - f.** Slant the rifle enough to look straight ahead over the magazine well.
- 2.** Assume the safeguard position, as shown in figure 191-376-4122-2.
-

Performance Steps



Figure 191-376-4122-2. Safeguard position

- a.** Use your right hand to grasp the small of the stock and hold it against the right side of your waist. The butt of the stock will extend to the rear of your buttocks.
- b.** Use your left hand, with the left arm slightly bent at the elbow, to grasp the weapon just below the sling swivel. Turn the weapon so the magazine well is facing down.
- c.** Raise the bayonet to throat level.
- d.** Place your feet together, as for the position of attention when at a halt.

Performance Steps

- 3.** Assume the on-guard position, as shown in figure 191-376-4122-3.

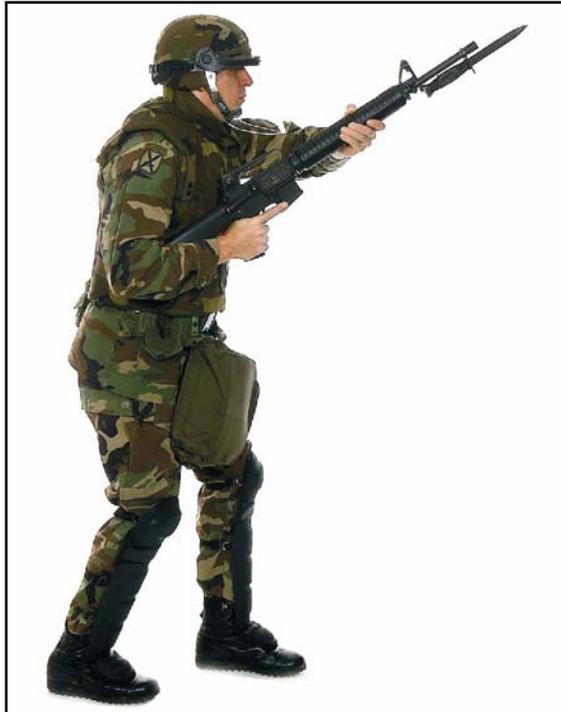


Figure 191-376-4122-3. On-guard position

- a.** Grasp the pistol grip with your right hand, and using the right forearm, hold the stock snugly against your right waist, with the rifle butt even with the right seam of your trousers.
 - b.** Use your left hand, with the left arm slightly bent at the elbow, to grasp the weapon just below the sling swivel. Turn the weapon so the magazine well is facing down.
-

Performance Steps

c. Place your feet a comfortable distance apart when at a halt. Line up your left heel with your right toe and point your toes at the crowd. Slightly bend your knees, and lean forward while keeping your hips level. Point the bayonet at throat level.

d. Make a resounding stomp with your left foot when assuming the on-guard position.

Note: When using riot batons, execute the positions according to the supervisor's commands. Refer to task 191-376-4121.

4. Form a squad line formation using the hand signal shown in figure 191-376-4122-4. Assume the safe-port position when the command, "Squad as skirmishers" is given, or when the squad leader gives the hand-and-arm signal for a squad line formation.



Figure 191-376-4122-4. Hand signal for a squad line formation

Performance Steps

Notes:

1. On the command "Move," the base member will double-time to the position indicated by the squad leader.
2. Remaining squad members will double-time forward and position themselves on the line with the base member, one pace to the right of the preceding member.
3. Everyone will remain in the safe-port position until ordered to another position.
4. Any size squad, platoon, or larger unit can be employed, and a crowd control formation can be adapted to fit the unit organization.
5. Form the squad echelon-right formation using hand signals, as shown in figure 191-376-4122-5. Assume the safe-port position when the command of "Squad echelon right" is given, or when the squad leader gives the hand signal for an echelon-right formation.

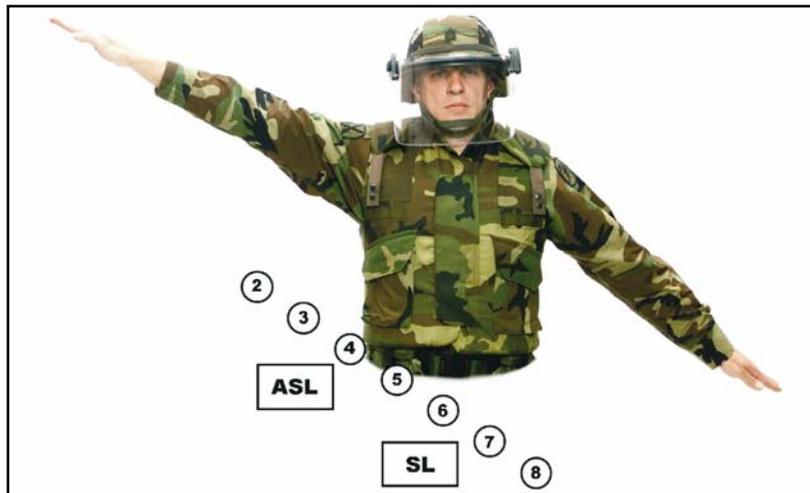


Figure 191-376-4122-5. Hand signal for a squad echelon-right formation

Performance Steps

Notes:

1. On the command "Move," the base member will double-time to the position indicated by the squad leader.
 2. Remaining squad members will double-time forward and position themselves on the line with the base member, one pace to the right and one pace to the rear of the preceding member.
 3. Everyone will remain at safe port until ordered to another position.
6. Form a squad echelon-left formation (figure 191-376-4122-6).



Figure 191-376-4122-6. Hand signal for a squad echelon-left formation

7. Form the squad wedge formation using the hand signal shown in figure 191-376-4122-7. Assume the safe-port position when the command "Squad wedge" is given, or when the squad leader gives the hand signal for a wedge formation.

Performance Steps

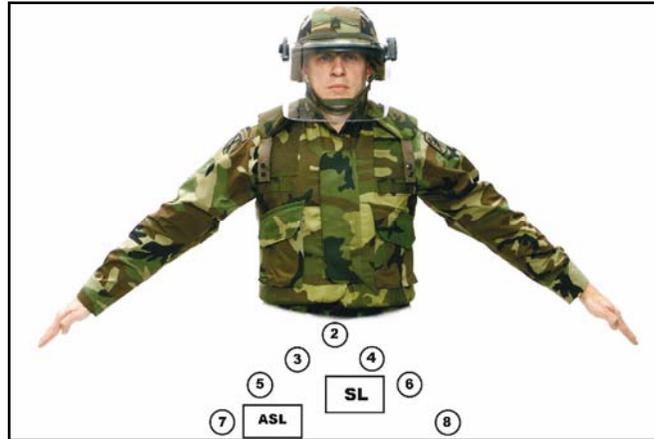


Figure 191-376-4122-7. Hand signal for a squad wedge formation

Notes:

1. On the command "Move" the base member will double-time to the position indicated by the squad leader.
2. Remaining odd-numbered squad members will double-time forward and position themselves on line with the base member, one pace to the left and one pace to the rear of the preceding member.
3. Remaining even-numbered squad members will double-time forward and position themselves on line with the base member, one pace to the right and one pace to the rear of the preceding member.
4. Everyone will remain at the safe-port position until ordered to another position.
8. Assemble from a riot control formation.
 - a. On the command "Squad assemble," assume the safe-port position.
 - b. On the command, "Move," the base member will double-time to the position indicated by the squad leader.

Performance Steps

Note: Remaining squad members will double-time forward and form a column behind the base member. Everyone will remain at the safe-port position until ordered to another position.

Evaluation Preparation: Setup: Have each Soldier being evaluated perform at every position in the formations.

Brief Soldier: Brief the Soldier on the nine positions of a squad, and review task 191-376-4121.

Performance Measures	GO	NO GO
1. Assumed the safe-port position.	_____	_____
2. Assumed the safeguard position.	_____	_____
3. Assumed the on-guard position.	_____	_____
4. Formed a squad line formation using hand signals.	_____	_____
5. Formed the squad echelon-right formation using hand signals.	_____	_____
6. Formed a squad echelon-left formation.	_____	_____
7. Formed a squad wedge formation.	_____	_____
8. Assembled from a riot control formation	_____	_____

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

References

Required

Related

FM 3-19.15

SUBJECT AREA 20: CASUALTY REPORTING AND HANDLING

101-515-1997

Inter Isolated Remains (After Receiving Authorization)

Conditions: In a tactical situation given authorization from the responsible commander, isolated remains, an entrenching tool, shrouding material or human remains pouch, personal effects bag, a GPS, area map, DD Form 1076 (*Military Operations Record of Personal Effects of Deceased Personnel*) and DD Form 1079 (*Interment/Disinterment Register*), JP 4-06, and a metal stake to mark site.

Standards: Inter isolated remains in accordance with JP 4-06.

Performance Steps

1. Prepare a burial site large enough to accommodate remains to be interred.
 - a. Attempt to locate the grave near the scene of death.
 - b. Inter on high ground away from water source.
 - c. Dig grave approximately 3 1/2 feet deep, 7 feet long, and 2 feet wide.
 2. Prepare remains for interment.
 - a. Inventory all personal effects found on remains using DD Form 1076 or a blank sheet of paper.
 - b. Record the name, rank, SSN, sex, nationality, date of death, date of interment, religious preference of deceased, and person(s) conducting the interment of DD Form 1079 or on a blank sheet of paper.
- Note:** If any of the above data cannot be determined, annotate "unknown" in appropriate space.
- c. Place all personal effects and identification media in a sealed container and place on remains.

Performance Steps

- d. Shroud the remains using a human remains pouch, poncho, or other suitable material.
- 3. Inter individual remains.
 - a. Place remains face up in the grave.
 - b. Refill the grave.
 - c. Mark the head of the grave using stacked rocks, metal stake, or other available item.
- 4. Using a GPS, if possible, determine the location of the interment and record the 10-digit grid coordinates on DD Form 1079 or a blank sheet of paper.
- 5. Submit all documents to higher headquarters, along with an incident report containing all relevant information pertaining to the interment.

Evaluation Preparation: Score the Soldier a GO if all performance measures are passed (P). Score the Soldier NO GO if any performance measure is failed (F). If the Soldier fails any performance measures show what was done wrong and how to do it correctly.

Performance Measures	GO	NO GO
1. Prepared a burial site large enough to accommodate the number of remains to be interred.	___	___
a. Attempted to locate the grave near the scene of death.		
b. Located grave on high ground away from water source.		
c. Dug grave approximately 31/2 feet deep, 7 feet long, and 2 feet wide.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
2. Prepared remains for interment.	_____	_____
a. Inventoried all personal effects found on remains using DD Form 1076 or on a blank sheet of paper.		
b. Recorded name, rank, SSN, unit, sex, nationality, date of death and date of interment of deceased and person(s) conducting the interment on DD Form 1079 or a blank sheet of paper.		
c. Annotated "unknown" in appropriate spaces.		
d. Placed all personal effects and identification media in a sealed container and placed on remains.		
e. Shrouded remains using human remains pouch, poncho, or other suitable material.		
3. Interred individual remains.	_____	_____
a. Placed the remains face up in grave.		
b. Refilled the grave.		
c. Marked the head of the grave using stacked rocks, metal stake, or other available item.		
4. Used a GPS to determine the location of the interment and recorded the 10-digit grid coordinates on DD Form 1079 or on a blank piece of paper.	_____	_____
5. Submitted all documents to higher headquarters along with an incident report containing all relevant information pertaining to the interment.	_____	_____

Evaluation Guidance: Use a predetermined site and provide the Soldier with required material to perform the task. Use a mannequin for training purposes and tell the Soldier to treat the mannequin as if it were an actual fatality.

References

Required

JP 4-06

Related

FM 3-25.26

101-515-1998

Evacuate Isolated Remains

Conditions: In a tactical situation given JP 4-06, transportation (vehicle or aircraft), tie down straps, location of isolated remains to evacuate, a predetermined location to bring remains, GPS, area map, human remains pouch, personal effects bag, litter, and any recovery documentation.

Standards: Evacuate isolated remains in accordance with JP 4-06.

Performance Steps

1. Establish assembly area.
 - a. Record grid coordinates of assembly area using a Global Positioning System (GPS), if available.
 - b. Secure assembly area.
 - c. Move remains feet first to assembly area to await transportation.
 - d. Contact higher headquarters for transportation assets for the evacuation of remains.

Note: The request for transportation for the evacuation of remains should contain the number of remains and location of recovery site. Any available air or ground transportation may be used to evacuate remains.

- e. Guard area to prevent loss of personal effects and equipment, and to keep unauthorized personnel away.
 - f. Mark landing zone if air evacuation is used.
2. Evacuate the remains, portions, and personal effects.
 - a. Secure the remains in a vehicle or an aircraft.

Performance Steps

Note: Remains are carried feet first. When loading remains on vehicles, they will be loaded feet first on trucks and rotary-wing aircraft, and head first on fixed-wing aircraft.

- b. Evacuate remains to the nearest mortuary affairs facility.

Evaluation Preparation: Use a predetermined site and provide the Soldier with required equipment to perform the task. Inform the Soldier a mannequin will be used for training purposes and to treat the mannequin as if it were an actual fatality.

Performance Measures	GO	NO GO
1. Established assembly area.	_____	_____
a. Recorded grid coordinates of assembly area using a GPS, if available.		
b. Secured assembly area.		
c. Moved remains feet first to a central location or assembly area to await transportation.		
d. Contacted higher headquarters for transportation assets for the evacuation of remains.		
e. Guarded the area.		
f. Marked the landing zone if air evacuation was used.		
2. Evacuated the remains, portions, and personal effects.	_____	_____
a. Secured the remains in a vehicle or an aircraft.		
b. Evacuated the remains to the nearest mortuary affairs facility.		

Evaluation Guidance: Score the Soldier a GO if all performance measures are passed. Score the Soldier NO GO if any performance measures are failed. If the Soldier fails any performance measures show him/her what was done wrong and how to do it correctly.

References

Required

JP 4-06

Related

101-515-1999

Recover Isolated Remains

Conditions: In a tactical situation given JP 4-06, DD Form 565, DD Form 567, and DD Form 1074, a recovery site, compass, paper, pen and pencil, GPS, shrouding material or human remains pouch, personal effects bag and/or zip lock bag, litter, a military map, and a vehicle.

Standards: Recover isolated remains in accordance with JP 4-06.

Performance Steps

1. Prepare for movement to the recovery site.
 - a. Obtain briefing from team leader or NCOIC.
 - b. Perform PMCS on vehicle(s) prior to movement.
 - c. Load vehicle according to the load plan.
 - d. Perform a map reconnaissance of the route to the recovery site.
 - e. Determine the azimuth from your location to the recovery site.
 - f. Convert grid azimuth to a magnetic azimuth.
2. Move to the recovery site.
3. Search for and locate remains.
 - a. Search during daylight hours only.
 - b. Question local inhabitants to gain information relevant to the loss using DD Form 1074 or a blank piece of paper.
 - c. Search open areas at double-arm intervals and heavily vegetated areas at close-arm intervals.
 - d. Mark the location of the remains with a stake and cloth streamer.

Performance Steps

- e. Search a 100-meter area around the remains in an attempt to locate additional remains.
4. Recover the remains.
 - a. Check the remains for booby-traps and unexploded ordnance.
 - b. Establish tentative identification of the remains by reviewing identification media found on remains.
 - c. Interview anyone in the area that can visually identify the remains and record information on DD Form 565 or a blank piece of paper.
 - d. Place personal effects and identification media found on the remains in a sealed container and place securely on the remains.
 - e. Record the believed-to-be (BTB) name of the deceased and other pertinent information regarding the recovery site on DD Form 567 or a blank piece of paper.
 - f. Gather all portions of remains, dental appliances, teeth, and loose articles. Place each item in a separate container and write a sequential "P" number for each portion or "E" number for each personal effect on the container.
 - g. Place the remains in a shroud, such as a human remains pouch, poncho, or other suitable material.
 - h. Place all portions, disassociated personal effects, and unloaded weapons in shroud.
 - i. Attach military equipment, to include serially numbered weapons, and compasses to the remains and forward with the remains.
 - j. Notify team leader or NCOIC that remains are ready for evacuation.

Evaluation Preparation: Use a predetermined site and provide the Soldier with required material to perform the task.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Prepared for movement to the recovery site.	_____	_____
a. Obtained briefing from the team leader or NCOIC.		
b. Performed PMCS on vehicle(s) prior to movement.		
c. Loaded vehicle according to the load plan.		
d. Performed a map reconnaissance of the route to the recovery site.		
e. Determined the azimuth from your location to the recovery site.		
f. Converted grid azimuth to a magnetic azimuth.		
2. Moved to recovery site.	_____	_____
3. Searched for and located remains.	_____	_____
a. Searched during daylight hours only.		
b. Questioned local inhabitants to gain information relevant to the loss using DD Form 1074 or a blank piece of paper.		
c. Searched open areas at double-arm intervals and heavily vegetated areas at close-arm intervals.		
d. Located the remains.		
e. Marked the location of the remains with a stake and cloth streamer.		
f. Searched a 100-meter area around the remains in an attempt to locate additional remains.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
4. Recovered the remains.	_____	_____
a. Checked the remains for booby-traps and unexploded ordnance.		
b. Established a tentative identification of the remains by reviewing identification media found on remains.		
c. Interviewed anyone in the area that could visually identify the remains using DD Form 565 or a blank piece of paper.		
d. Placed personal effects and identification media found on the remains in a sealed container and placed securely on the remains.		
e. Recorded the believed-to-be (BTB) name of the deceased and other pertinent information regarding the recovery site on DD Form 567 or a blank sheet of paper.		
f. Gathered all portions of remains, dental appliances, teeth, and loose articles. Placed each item in a separate container and wrote a sequential "P" number for each portion or "E" number for each personal effect on the container.		
g. Placed the remains in a shroud, such as a human remains pouch, poncho, or other suitable material.		
h. Placed all portions, disassociated personal effects, and unloaded weapons in shroud.		
i. Notified the team leader or NCOIC that remains were ready for evacuation.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier fails any performance measures show what was done wrong and how to do it correctly.

References

Required

JP 4-06

Related

FM 3-25.26

SUBJECT AREA 21: DEFENSE MEASURES

052-191-1361

Camouflage Yourself and Your Individual Equipment

Conditions: You are given load-carrying equipment (LCE), an individual weapon, a Kevlar® helmet with camouflage cover, grass, bushes, trees, pieces of the lightweight camouflage screen system (LCSS), skin paint, and charcoal and/or mud. You are wearing a battle dress uniform (BDU).

Note: When this task is performed in a nuclear, biological, and chemical (NBC) environment, there will be no change in standards due to mission-oriented protective posture (MOPP) 4.

Standards: Camouflage yourself and your individual equipment to prevent detection by visual, near-infrared, infrared, ultraviolet, radar, acoustic, and radio sensors.

Performance Steps

1. Identify critical camouflage considerations. Incorporate an analysis of the following considerations:

a. Movement.

Note: Movement draws attention, and darkness does not prevent observation. The naked eye and infrared/radar sensors can detect movement.

(1) Minimize movement.

(2) Move slowly and smoothly when movement is necessary.

b. Shape.

(1) Use natural or artificial materials to break up shapes, outlines, and equipment.

(2) Stay in shadows when moving, if possible.

Performance Steps

(3) Disguise or distort the shape of your helmet and your body with natural or artificial materials, when conducting operations close to the enemy.

c. Light reflection. Cover or remove the following items to eliminate light reflection:

- (1) Mirrors.
- (2) Eye glasses.
- (3) Watch crystals.
- (4) Plastic map cases.
- (5) Starched uniforms.
- (6) Clear-plastic garbage bags.
- (7) Dust goggles worn on top of helmets.
- (8) Cigarettes and pipes.
- (9) Red-filtered flashlights.

Note: Replace all red filters on flashlights with blue-green filters.

d. Color. Blend individual camouflage with the surroundings or, at a minimum, ensure that objects do not contrast with the background (figure 052-191-1361-1).

Note: Change camouflage, as required, when moving from one area to another. What works well in one location may draw fire in another.

Performance Steps

2. Camouflage your exposed skin.

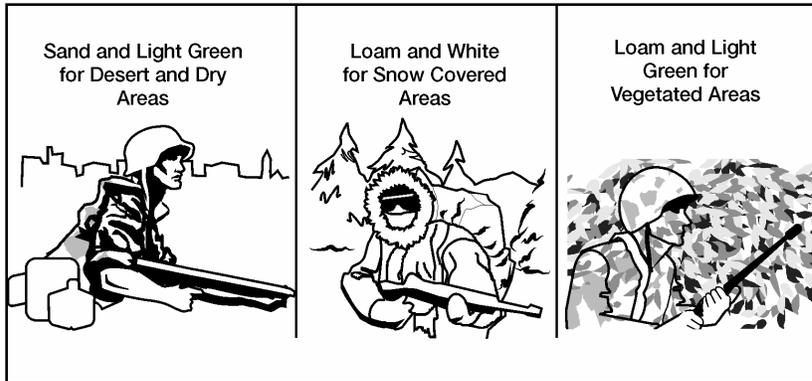


Figure 052-191-1361-1. Colors used for camouflage

Note: Exposed skin reflects light.

a. Cover your skin oils, using paint sticks, even if you have very dark skin.

Notes:

1. Paint sticks cover these oils and provide blending with the background.

2. Do not use oils or insect repellent to soften paint sticks. This defeats the purpose of paint sticks by making the skin shiny. Work in pairs when applying paint, because self-application may leave gaps, such as behind the ears.

b. Use the color chart in table 052-191-1361-1 when applying paint on the face.

Performance Steps

Table 052-191-1361-1. Color chart

Camouflage Material	Skin Color	Shine Areas	Shadow Areas
	Light or Dark	Forehead, Cheekbones, Ears, Nose, and Chin	Around Eyes, Under Nose, and Under Chin
Loam and Light Green Stick	All troops use in areas with green vegetation	Use loam	Use light green
Sand and Light Green Stick	All troops use in areas lacking green vegetation	Use light green	Use sand
Loam and White Stick	All troops use only in snow-covered terrain	Use loam	Use white
Burnt Cork, Bark Charcoal, or Lamp Black	All troops use if camouflage sticks are not available	Use	Do not use
Light-Color Mud	All troops use if camouflage sticks are not available	Do not use	Use

- c. Paint high, shiny areas (forehead, cheekbones, nose, ears, chin) with a dark color.
- d. Paint low, shadow areas with a light color.
- e. Paint exposed skin on the back of the neck, arms, and hands with an irregular pattern.

CAUTION

Mud contains bacteria, some of which is harmful and may cause disease or infection. Mud should be considered as a last resort for field expedient paint.

CAUTION

Expedient paint containing motor oil should be used with extreme caution. Prolonged exposure to motor oil may result in personal injury.

Performance Steps

3. Camouflage your BDU and helmet.
 - a. Roll your sleeves down, and button all buttons.
 - b. Attach leaves, grass, small branches, or pieces of LCSS to your uniform and helmet (figure 052-191-1361-2).

Notes:

1. These items will distort shapes and blend colors with the natural background.
 2. BDUs provide visual and near-infrared camouflage.
 - c. Do not starch BDUs, because starch counters the infrared properties of the dyes.
-

Performance Steps



Figure 052-191-1361-2. Camouflaged helmet

- d. Replace excessively faded and worn BDUs, because camouflage effectiveness is lost.

Performance Steps

- 4. Camouflage your personal equipment.
 - a. Cover or remove shiny items.
 - b. Secure items that rattle or make noise when moved or worn.

Evaluation Preparation: Setup: Ensure that all materials required in the conditions are available to the Soldier. The buddy system should be used when applying paint to the face.

Brief Soldier: Tell the Soldier, in preparation for unit defense, that he/she is to identify critical camouflage considerations, camouflage himself/herself or a buddy's exposed skin with paint sticks, and camouflage his/her individual equipment.

Performance Measures	GO	NO GO
1. Identified critical camouflage considerations.	___	___
2. Camouflaged his/her exposed skin.	___	___
3. Camouflaged his/her uniform and helmet.	___	___
4. Camouflaged his/her personal 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 the Soldier fails any measure, show him/her how to do it correctly.

References

Required

Related

FM 20-3

FM 21-75

052-191-1362

Camouflage Equipment

Conditions: You are given an item of equipment to camouflage, such as a wheeled vehicle (truck or high-mobility multipurpose wheeled vehicle [HMMWV]) or a tracked vehicle (armored personnel carrier [APC] or infantry fighting vehicle), and the lightweight camouflage screen system (LCSS) or natural camouflage material

(such as burlap, sandbags, or cloth strips). You are wearing a battle dress uniform (BDU).

Note: When this task is to be performed in a nuclear, biological, and chemical (NBC) environment, there will be no change in standards due to mission-oriented protective posture (MOPP) 4.

Standards: Camouflage equipment so that all shiny parts are concealed. Cover all remaining parts of the equipment in irregular patterns. Blend equipment outlines with the surrounding predominant terrain. Camouflage equipment to prevent detection by visual, near-infrared, infrared, ultraviolet, radar, acoustic, or radio sensors.

Performance Steps

1. Hide equipment by positioning it—
 - a. Under natural cover (concealed by existing vegetation), when possible.
 - b. Within natural shadows, when possible.
 - c. In natural or constructed depressions in the ground, when possible.
 2. Use the LCSS or natural camouflage materials to break up the shape and outline of the equipment so that it blends in with the surrounding area (figure 052-191-1362-1).
-

Performance Steps

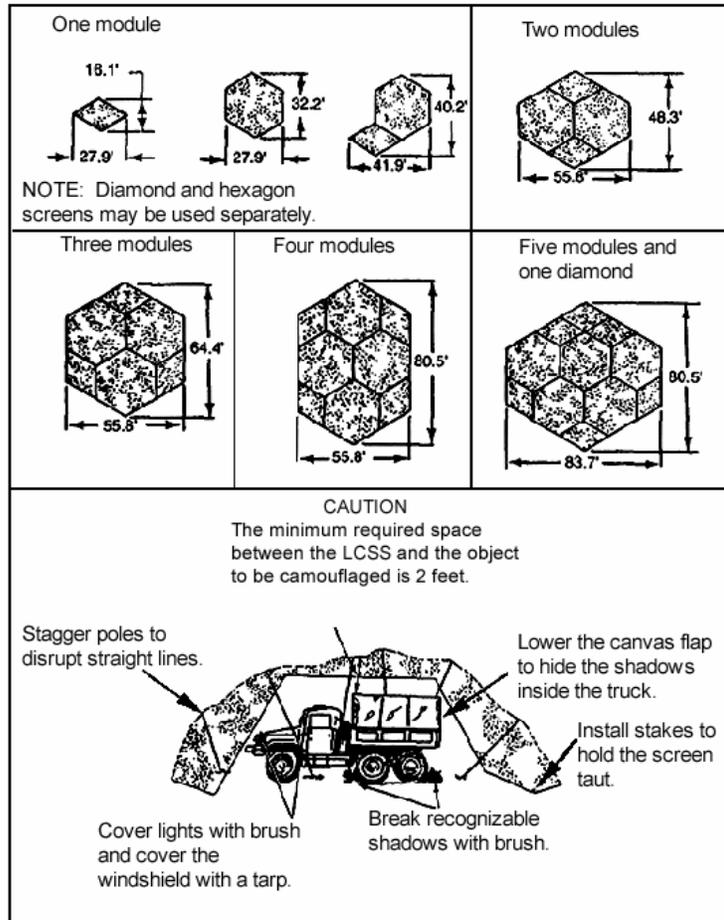


Figure 052-191-1362-1. Camouflage nets

3. Cover all shiny areas of the equipment, such as headlights, reflectors, mirrors, and windshields.
4. Cover or brush out obvious tracks that lead to the equipment.

Evaluation Preparation: Setup: Provide the Soldier with equipment to be camouflaged, as stated in the conditions.

Brief Soldier: Tell the Soldier to camouflage the equipment in preparation for unit defense.

Performance Measures	GO	NO GO
1. Hid equipment by positioning it—	___	___
a. Under natural cover (concealed by existing vegetation), when possible.	___	___
b. Within natural shadows, when possible.	___	___
c. In natural or constructed depressions in the ground, when possible.	___	___
2. Used the LCCS or natural camouflage materials to break up the shape and outline of the equipment so that it blended in with the surrounding area.	___	___
3. Covered all shiny areas of the equipment, such as headlights, reflectors, mirrors, and windshields.	___	___
4. Covered or brushed out obvious tracks that led to the 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 the Soldier fails any measure, show him/her how to do it correctly.

References

Required

Related

FM 20-3

FM 21-75

191-376-4114

Control Entry to and Exit From a Restricted Area

Conditions: You are assigned to control entry to, and exit from, a restricted area. You are given special orders, identification cards or badges, local standing operating procedures (SOPs), access rosters,

communications equipment, locally produced forms, and the current duress code.

Standards: Prevent unauthorized personnel, packages, and/or vehicles from entering or leaving the restricted area.

Performance Steps

1. Identify personnel before allowing them to enter or exit the restricted area.
 - a. Ensure that only one individual is processed in or out at any given time.
 - b. Verify the person's identity by comparing the person's face with the photograph on the identification card.
 - c. Ensure that the name of the person attempting to enter is on the access roster. The site commander or custodian must authenticate the roster.
 - d. Obtain authority to enter, if applicable, for personnel whose names are not on the access roster. Call the sergeant of the guards, the security officer, or the vouching officer.
 - e. Ensure that personnel entering the facility know the most direct route to their destination.
2. Use the following card and badge systems:
 - a. Single card or badge system. Permission to enter is shown on the card or badge by letters, numerals, or colors.
 - b. Card or badge exchange system.
 - (1) The individual entering the area presents the badge or card to the guard and the guard exchanges it with the card or badge kept at the entrance.
 - (2) The individual again exchanges the card or badge when leaving the area.

Note: Always keep the second card or badge in the area.

Performance Steps

c. Multiple card or badge system.

(1) Exchange the card or badge at the entrance to each security area within the installation.

(2) Keep cards and badges at each area only for those personnel who have the appropriate card or badge.

(3) Brief the badge holder that the badge must be displayed at all times when in the controlled or restricted area.

Note: For comparison purposes, card and badge data are identical.

3. Obtain an escort for visitors with authority to enter the restricted area according to special orders.

4. Use challenges, passwords, and code words in tactical areas.

5. Use a duress code.

6. Check the authorization for vehicle entry and exit.

a. Log all vehicles entering or leaving the area. Include in the log the description of the vehicle, the identity of the driver, the purpose of the visit, and the destination.

b. Arrange an escort for all vehicles entering the area according to special orders.

7. Prohibit entry (into the restricted area) of harmful materials, such as matches, cameras, and any other items prohibited by the special orders.

a. Be alert for the wrongful appropriation, pilferage, or compromise of materials or recorded information.

b. Make periodic spot checks of personnel.

c. Search all packages.

d. Search vehicles before allowing them to enter or exit.

Performance Steps

8. Take the appropriate actions in the event of a security violation.
 - a. Detain the suspect until help arrives.
 - b. Report a discovery of security violations.
 - c. Apprehend the suspect.
 - d. Prepare a detailed, written report.

Evaluation Preparation: Setup: Create scenarios using the various control techniques and provide the materials and equipment necessary for each. Have other Soldiers role play the part of authorized and unauthorized personnel.

Brief Soldier: Tell the Soldier being evaluated the challenge word, password, code word, or duress code to be used.

Performance Measures	GO	NO GO
1. Identified personnel before allowing them to enter or exit the restricted area.	___	___
2. Used the card and badge systems.	___	___
3. Obtained an escort for visitors with authority to enter the restricted area according to special orders.	___	___
4. Used challenges, passwords, and code words in tactical areas.	___	___
5. Used a duress code.	___	___
6. Checked the authorization for vehicle entry and exit.	___	___
7. Prohibited entry (into the restricted area) of harmful materials, such as matches, cameras, and any other items prohibited by the special orders.	___	___
8. Took the appropriate actions in the event of a security violation.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed (P). Score the Soldier NO GO if any

performance measure is failed (F). If the Soldier fails any performance measure, show him how to do it correctly.

References

Required

Related

AR 50-5

FM 3-21.6

TC 19-138

191-377-4254

Search a Detainee

Conditions: Given your individual equipment, assigned weapon, detainee, disposable restraints, a guard, an interpreter (if available), DA Form 4002 (*Evidence/Property Tag*), DA Form 4137 (*Evidence/Property Custody Document*), Department of Defense (DD) Form 2745 (*Enemy Prisoner of War [EPW] Capture Tag*), and materials to mark and bundle evidence and property.

Standards: Search and restrain the detainee sequentially according to the performance steps, locate and confiscate all weapons, contraband and items of intelligence value, and prepare DD Form 2745 and DA Form 4137 without error.

Performance Steps

1. Position the detainee.

Caution

Stay out of the reach of the detainee.

- a. Direct the detainee to stand and face you.

Note: If an interpreter is not available, you may have to demonstrate the desired movement to the detainee to overcome a language barrier.

- b. Direct him to raise his arms above his head, to lock his elbows, and to spread his fingers, palms facing you.

- c. Visually check the detainee's hands for weapons or contraband.

- d. Order the detainee to turn around and drop to his knees.

Performance Steps

- e. Search the back of the detainee's hands for weapons or contraband.
- f. Direct the detainee to lie on his stomach, extend his arms straight out to the sides with the palms up, and place his forehead on the ground.
- g. Tell the detainee to spread his legs as far apart as possible, turn his feet outward, and keep his heels in contact with the ground.
- h. Ensure that the guard remains in front of and at an oblique angle to the detainee (opposite the side being searched).

2. Restrain the detainee.

Note: The situation may also dictate using of a blindfold, ear plugs, or a muffle (an item to prevent speech or outcry without causing injury, such as cloth) as deemed appropriate or directed by your supervisor.

a. Approach the front of the detainee at about a 45-degree angle from the side opposite of the guard and focus the search on the side of the detainee closest to you.

b. Squat and put the knee that is nearest the detainee on the detainee's lower back.

Note: This is done to ensure control, not to inflict pain or discomfort.

c. Direct the detainee to put the arm that is nearest the searcher behind the detainee's back with the palm facing up.

d. Maintain positive control of that arm.

e. Grasp the detainee's other hand in a handshake hold, pull it across the top of the hand already under control, apply disposable restraints, and tighten them.

Caution

The disposable restraints should be tight enough to secure the detainee's hands, but loose enough to allow one finger between the disposable restraints and the detainee's wrist to ensure that the disposable restraints do not restrict the detainee's circulation.

Performance Steps

3. Search the detainee.

Note: The body search is the prone frisk search. It is used to quickly detect contraband or weapons that could be used to cause injury or death.

a. Use the bending and crushing technique, remove items as items are discovered, and set them aside.

Note: Conduct same-gender searches when possible. If mixed-gender searches are necessary for speed and security, conduct them in a respectful manner and in the presence of an additional witness to address false claims of misconduct. Further, consider your location at the time of the search and try to use any cover or protective barrier when possible.

(1) Bend the seams to determine if razor blades or similar devices are hidden.

(2) Grasp loose clothing, pull it away from the skin, and squeeze it to detect objects hidden under or within clothing.

(3) Cover each area by repeating the crushing technique until you are sure there are no hidden objects.

b. If you find a weapon at any point during the search, loudly announce the weapon found so that the guard and interpreter can clearly hear (for example, gun, knife, or razor).

(1) Alert the guard.

(2) Remain in firm contact with the detainee as you remove the weapon from its hiding place.

(3) Stand up with the weapon, being careful not to walk between the guard and the detainee, and place the weapon a safe distance away within the view of the guard.

(4) Return to the detainee and continue searching.

c. Hold the disposable restraints between detainee's hands and lift the his arms slightly. Search the area in the small of the back.

d. Release the disposable restraints and stand.

Performance Steps

- e. Move to the area of the detainee's waist and face the detainee's head, squat (but do not rest your knee on the ground or on the detainee), and pivot (if required) to conduct the rest of search.
- f. Remove the detainee's headgear (if not already removed).
 - (1) Bend the seams, before crushing, to determine if razor blades or similar devices are hidden.
 - (2) Place the headgear on the floor or ground.
- g. Search the detainee's head and hair.
- h. Search the detainee from fingers to shoulders.
 - (1) Search the collar and neck area (pull dog tags or necklace to the detainee's back).
 - (2) Remove anything that could be used as a weapon.
- i. Search the detainee's back from shoulder to waist on the side nearest the searcher.
 - (1) Grasp the inside of the detainee's closest elbow.
 - (2) Pull the detainee upward onto his or her side just high enough to search the front (shoulder to waist) without placing the detainee completely on his or her side.

Note: When searching a female detainee at chest level, the searcher searches down the middle of the bra; around the breast, below the bra, and along the connecting point on the bra and the back, if the clasp is not there, for contraband.
- j. Switch hands while controlling the detainee's elbow without changing position.
- k. Search the detainee from waist to knee, including the crotch. It is critical that you not be timid while searching the detainee's crotch area. Experience has proven that this is a prime location for hiding weapons and contraband. Check it thoroughly.

Note: It is critical that you not be timid while searching the detainee's crotch area. Experience has proven that this is a prime location for hiding weapons and contraband. Check it thoroughly.

Performance Steps

- l.** Return the detainee to the face down position, release the elbow and remind him to keep his feet spread and his heels on the ground.
- m.** Direct the detainee to raise his leg by bending his knee.
- n.** Grasp the detainee's foot and search from his knee up to his foot. check the footwear edges and soles.
 - (1)** Check the top of the footwear by inserting a finger in the top edge and feeling for weapons.
 - (2)** Check the footwear edges and soles.
- o.** Direct the detainee to put his foot back down.
- p.** Stand and move to the detainee's unsearched side. Move around the detainee's head, but do not walk between the detainee and guard.
- q.** Ensure that the guard rotates to the other side of the detainee (the side opposite the side to be searched) while maintaining a 45 degree angle from the detainee's head.
- r.** Squat beside the detainee with your body facing the same direction as the detainee's head and search the other side in the same manner as the first.

CAUTION

When preparing to turn the detainee over, he may attempt to spit or bite at the searcher. Anticipate this and move as appropriate to avoid such an act.

Note: The search is now complete and you have confiscated all material found on the detainee.

- s.** Assist the detainee to stand.
 - (1)** Turn detainee onto his side facing away from you.
 - (2)** Direct the detainee to bring his knees to his chest.
 - (3)** Grasp his arms at the shoulder area and assist him to his knees.
 - (4)** Pull back on his arms to help him rise to his feet.
 - (5)** Ensure that the guard remains focused on the detainee and gathers information as to the detainee's demeanor.

Performance Steps

Note: The DD Form 2745 and DA Form 4137 should be completed at the point of capture. However, when you are in imminent danger, these two steps can be completed once you and the detainee are in a safe location.

4. Complete a *DD Form 2745*.

Note: The DD Form 2745 is a perforated three-part form that is individually serial-numbered. If you run out of DD Forms 2745, use a field-expedient method to tag.

a. Ensure that the following minimum information is recorded:

- (1) Date and time of capture.
- (2) Name (if known).

Note: Use the DD Form 2745 number as the detainee's name to account for those that are unable or unwilling to provide this information (for example, those who are sick or injured and/or those who do not speak English if an interpreters is not available).

- (3) Location of capture (grid coordinates).
- (4) Capturing unit.

(5) Circumstances of capture, (for example how was he captured, did he resistance, and did he surrender). Record the following minimum information:

Note: Due to the limited space on the DD Form 2745, you may need or be required to document the circumstances of capture on a separate sheet of paper or another form, such as the DA Form 2823.

(a) Circumstances of capture.

Note: Circumstances of capture are essential to determining individual detainee status, making subsequent decisions to release or detain, and collecting and documenting items of intelligence and evidentiary value for custody transfer decisions or future judicial proceedings.

(b) Various groups, locations, and activities from which the individual detained was operating.

(c) Physical condition of detainee.

(d) The weapons the detainee had, if applicable.

Performance Steps

b. Tag the detainee and his equipment. (If you are using a field-expedient method, ensure you make 3 copies to represent parts A, B, and C of the form.) Distribute tag as follows:

- (1) Ensure that part A is attached to the detainee.
- (2) Retain part B for yourself and/or the unit.
- (3) Ensure that part C is attached to confiscated property (an individual item or attached to a bag or bundle).

5. Document property/evidence.

a. Mark all confiscated items with the detainee's *DD Form 2745* number using one of the following methods if time permits and materials are available:

(1) Place the *DD Form 2745* number in the "MPR/CIR Sequence Number" field of *DA Form 4002* and annotate the item number from the *DA Form 4137* and a short description in the remarks block.

Note: This is the preferred method for large items because it does not damage them.

(2) Place in a resealable bag and mark the outside of the bag with a permanent marker.

Note: This is the preferred method for small items.

(3) Write the number directly on the property with a permanent marker.

(4) Etch the number in using a sharp object.

Note: Give careful consideration to how and where identification marks are placed on items. Unnecessary damage or destruction of items of personal property or valuable items that may ultimately be returned to the detainee or suspect is unwarranted. To avoid defacing or damaging items, identification markings should be as inconspicuous as possible. Otherwise, place the item in a container that can be sealed and marked.

Performance Steps

b. Prepare DA Form 4137.

(1) Annotate the *DD Form 2745* number in the "MPR/CID sequence number" block.

(2) Insert the name of your unit in the "Receiving Activity" block.

(3) Place an accurate description of the location your organization is currently based in the "location" block (for example, the installation, state, and zip code or the deployed base camp and/or operating base).

(4) Enter the "name, grade, and title (if known) of person who owned or possessed the confiscated items in the block labeled, "Name, Grade, and Title of Person from Whom Received."

(5) Check the "Owner" box if the person or detainee owns the property that you confiscated during the search with their first name, middle initial, last name, rank, and title.

(6) Check the "Other" box if ownership is unknown. For example, a weapon is discovered by another individual or turned in by another unit at the point of capture.

(7) Enter "N/A" if the property does not come from a specific person (for example, the item is found at a certain location or is collected during a search).

c. Enter the address of the person from whom you received the items in the "Address" block, if known. If it did not come from a person (if it came from a crime scene or point of capture), enter "N/A."

d. Fill in the "location from where obtained" block. If evidence and/or property was obtained from:

(1) A person. Enter "person of" and then enter their grade and last name and the location where the evidence and/or property was collected. Describe where the item was found on the person (for example, removed from left front pant pocket).

(2) A location. Annotate the exact location if the property was found in the area that the detainee was captured; for example, a description might read, "two-story house next to Exxon station on MSR Tampa IVO Baghdad."

Performance Steps

e. Enter the reason for confiscation in the "reason obtained" block (for example, confiscated during search of the detainee).

f. Record the date-time group of confiscation or item discovery (1400 hrs/15 Apr 05). Indicate the time span when they were collected (1400 hrs-1500 hrs/15 Apr 05) if several items were confiscated. Note the first time when the first item was taken and note the last time when the last item was confiscated.

g. Enter Item Number. List items consecutively.

h. List the quantity of each item in the "quantity" column. (Like items may be listed as a group. For example, 20 pills found in a container may be entered as one entry.)

i. Describe each item in the "Description of Articles" block. Describe each item by what can be observed. Use plain bond paper to record the continuation if necessary.

(1) Specify where and how you marked the items for identification (for example, "Marked for ID, 0090829 on barrel").

(2) List the color, size, and shape.

Note: Never list or estimate the value of articles or describe the type of metal or stone in items. For example, describe an item that looks like gold as gold-colored metal.

(3) List serial numbers or identifying marks if available.

(4) Place continuous slashes (///) from the left border of the block to the right border of the block to indicate the end of the list.

j. Complete the "Chain of Custody" portion of the form to transfer items from the owner or individual from which the item is obtained to the person receiving custody of the items.

(1) Write "1 through 3" in the "Item Number" column if three items are listed in the "Description of Articles" block. The "Chain of Custody" portion of the form is also used to transfer items from one person to another. If only certain items are released, list only those items (for example, "Item 1 and 3")

(2) Enter date of custody transfer in the "Date" block.

Performance Steps

(3) Fill in the "released by" column as follows:

(a) Enter the full name in the "Name, Grade, or Title" block if the property is confiscated from an individual. Have the person sign in the "Signature" block. Enter the words "Refused to Sign" or "Unable to Sign" in the Signature block if the person refuses or is unable to. There is no legal requirement for the form to be witnessed if the individual refuses to sign.

(b) Enter "N/A" in the signature block if the property does not come from a specific person (for example, if it is obtained from the capture scene).

(4) Fill in the "Received By" column (for example, enter the name, grade, or title of the person taking custody).

(5) Enter the reason for the custody transfer in the "Purpose of Change of Custody" column (for example, "Confiscated from Detainee," "Detainee Transferred to Holding Area," or "Detainee transferred to local authorities.").

k. Bundle all property (if necessary) and place it in a secure location away from the search area when the search is completed and you have confiscated all the material found on the detainee (allow detainee to keep their helmet, clothing and any NBC protective equipment once they have been searched thoroughly).

Note: Any material or method may be used to bundle property, as long as it is secure, will protect the property, and can be marked in such a way that it can be tracked with the detainees DD Form 2745 number.

Evaluation Preparation: Provide the Soldier with role players as a guard and detainee. Provide the detainee role player with props (a knife, handgun, and/or intelligence papers) to hide on his person.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Positioned the detainee.	___	___
2. Restrained the detainee.	___	___
3. Searched the detainee.	___	___

Performance Measures	<u>GO</u>	<u>NO GO</u>
4. Completed <i>DD Form 2745</i> .	_____	_____
5. Documented property/evidence.	_____	_____

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 4002
DA FORM 4137
DD FORM 2745

Related

191-377-4256

Guard Detainees

Conditions: Given your individual equipment, assigned weapon, an interpreter (when available), the rules of engagement (ROE) or rules for the use of force (RUF), cloth.

Standards: Maintain accountability and control of the detainees. Ensure that detainees remain silent and segregated. Protect detainees from abuse and harm. Follow the ROE/RUF during escape attempts. Correct and report inappropriate treatment and detainee noncompliance to your supervisor.

Performance Steps

Note: Always maintain positive control and accountability of the detainees.

1. Ensure that your weapons are functional, loaded, and prepared for use, if needed.
2. Position yourself and stay alert.

Note: If a detainee has not already been searched and restrained, notify your supervisor.

- a. Remain close enough to maintain positive control, but far enough away to allow defensive reaction time.

Performance Steps

- b.** Face the detainees, observe everything in their line of sight, and report all incidents the supervisor.
 - c.** Ensure that you understand mutually-supported sectors of fire, communications, and battle drills when positioned with others. If you do not, ask your supervisor for clarification.
 - d.** Observe and report detainee behavior. For example—
 - (1)** Detainee speaks fluent English during a medical exam, but feigns no knowledge of English whatsoever during interrogation.
 - (2)** Detainee demonstrates leadership by providing instructions to other detainees.
- Note:** This passive intelligence collection is critical during law enforcement, medical, and intelligence processing.
- 3.** Ensure that detainees remain silent.
 - a.** Do not speak to detainees unless providing orders and/or instructions. Use an interpreter if available. Answer necessary questions, but do not answer personal questions or questions that may compromise or hinder the mission.
 - b.** Attempt to stop unauthorized communication with other detainees using language (an interpreter) and/or and signals if a detainee attempts it.
 - c.** Report the individual to your supervisor if he continues and segregate or muffle him as appropriate according to unit SOPs and your supervisor's instructions.
 - (1)** Muffle the detainee using a soft, clean cloth stretched across the mouth and around the back of the head.
 - (2)** Do not place items in his mouth, hood him, or use tape or other adhesives.
 - (3)** Do not harm the detainee or affect his ability to breathe.
 - (4)** Check the detainee periodically to ensure that he is not harmed.
 - (5)** Muffle the detainee only for as long as needed.

Performance Steps

4. Ensure that detainees remain segregated. If a detainee attempts to move out of a designated area or advances on a guard—

a. Attempt to use language (an interpreter) or hand signals to stop the behavior.

b. React according to published ROE/RUF and notify your supervisor if the detainee continues.

5. Safeguard the detainees.

a. Correct, report, and document incidents of inhumane treatment, abuse, or inappropriate conditions.

Note: Acts and or omissions that constitute inhumane treatment are violations of the law of armed conflict, and as such must be corrected immediately. Simply reporting violations is insufficient. If a violation is ongoing, every Soldier has an obligation to stop the violation as well as report it.

b. Document allegations of abuse and other incidents in DA Form 1594 by providing information to your supervisor.

c. Protect detainees from combat hazards and conflict with each other. Protect detainees from the civilian populace, public curiosity, improper treatment or care, and any emergency situation according to unit SOPs.

d. Protect women and children from any form of sexual abuse or harassment.

e. Do not videotape or photograph detainees except for administrative purposes (for example, documenting in personnel, intelligence, investigative, or medical files).

Performance Steps

6. Respond to escape attempts.

a. React to an escape according to rehearsed battle drills and SOPs.

(1) Allow the Soldiers and/or guards closest to the escapee to recover the detainee.

(2) Remain focused on the detainees if you are not involved in the recovery of the escape.

CAUTION

Remaining detainees will attempt to exploit an escape, as they will any disruption.

b. Adhere to local ROE/RUF.

c. Maintain situational awareness.

d. Apply the minimum level of force to regain control of detainees. Do not fire on detainees still contained within the wire.

e. Segregate those who attempt escape to prevent reoccurrence and their ability to influence other detainees.

f. Assess escapes thoroughly to prevent future occurrences.

g. Follow the ROE/rules for the use of force (normally the following). Use an interpreter, if available.

(1) Order detainee to halt in his native language, when possible. Repeat the order twice (for a total of three "Halt" commands) if the detainee does not stop after the first order.

(2) If detainee stops by the third order:

(a) Allow Soldiers closest to the escapee to recover the detainee.

(b) Maintain security.

Performance Steps

(3) If the detainee does not stop:

(a) Use minimum force necessary to prevent escape or recapture an escapee. Use of individual weapon is a last resort.

(b) Allow Soldiers closest to the escapee to recover the escapee and maintain security.

CAUTION

If a detainee is shot or wounded ensure that proper medical attention is provided.

Evaluation Preparation: Provide the Soldier with three or more personnel to act as detainees.

Performance Measures	GO	NO GO
1. Ensured that your weapon was functional, loaded, and prepared.	___	___
2. Positioned yourself and stayed alert.	___	___
3. Ensured that detainees remained silent.	___	___
4. Ensured that detainees remained segregated.	___	___
5. Safeguarded the detainees.	___	___
6. Responded to escape attempts.	___	___

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier a 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 3-19.40

301-371-1000

Report Intelligence Information

Conditions: You have observed enemy activity, significant terrain and weather features and must immediately report the activity to your chain of command via radio, wire, cable, or messenger.

3-696

301-371-1000

11 October 2005

STP 21-1-SMCT

Standards: Observations submitted in a spot report, using the SALUTE format, to your chain of command, within five minutes of observing enemy activity. Identified in the report were the size, activity, location, unit, time, and equipment observed.

Performance Steps

1. Use the SALUTE format to ensure essential information is reported. If unable to make determination, report activity as unknown.
 - a. **S** Size. Report the number of personnel, vehicles, aircraft, or size of an object. Make an estimate if necessary.
 - b. **A** Activity. Report detailed account of actions, i.e., direction of movement, troops digging in, artillery fire, type of attack, NBC activity, etc.
 - c. **L** Location. Report where you saw the activity. Include grid coordinates or reference from a known point including the distance and direction from the known point.
 - d. **U** Unit. Report the enemy's unit. If the unit is unknown, report any distinctive features, such as uniforms, patches or colored tabs, headgear, vehicle identification markings, etc.
 - e. **T** Time. Report the time and date the activity was observed, not the time you report it. Always report local or Zulu time.
 - f. **E** Equipment. Report all equipment associated with the activity, such as weapons, vehicles, tools. If unable to identify the equipment, provide as much detail as you can so an identification can be made by higher headquarters.
 - g. **Remarks.** Include any information not included in the SALUTE format.
2. Provide spot report to appropriate authority / chain of command using available commo.

Evaluation Preparation: Position two to four personnel (dressed in aggressor uniforms if available) where they are observable with the naked eye (or binoculars if available). Direct the aggressors to perform some type of activity such as setting up camp, cleaning weapons, working on a vehicle, or studying maps. Provide the Soldier with a 1:50,000 scale topographic map of the test area. If you

require the Soldier to write the report, provide paper and a pen or pencil. If you require the Soldier to radio the report to someone else, provide two radios and an SOI.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Record observations of enemy activity in a spot report which includes:	_____	_____
a. Size.		
b. Activity.		
c. Location.		
d. Unit.		
e. Time.		
f. Equipment.		
2. Report all information to the appropriate authority / chain of command within five minutes of observation.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed within 5 minutes. Score the Soldier NO GO if any performance measure is failed. If a Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required
FM 21-75

Related

301-371-1050

Implement Operations Security (OPSEC) Measures

Conditions: You have received a unit OPSEC plan, which includes essential elements of friendly information, indicators, vulnerabilities, OPSEC measures, and AR 530-1.

Standards: Implement OPSEC measures based on unit indicators and vulnerabilities; protect unit's essential elements of friendly information against threat collection efforts and prevent compromise.

Performance Steps

1. Define OPSEC.

a. OPSEC is a process of analyzing friendly actions pursuant to military operations and other activities to—

(1) Identify those friendly actions that can be observed by the threat.

(2) Determine indicators which the threat might obtain that could be interpreted or pieced together to derive critical information in time to be useful.

(3) Select and execute measures that eliminate or reduce to an acceptable level the vulnerabilities of friendly actions to the threat exploitation.

b. OPSEC maintains essential secrecy, which is the condition achieved by the denial of critical information to the threat. Threat possession of critical information can prevent friendly mission accomplishment. Thus, essential secrecy is a necessary prerequisite for effective operations. Essential secrecy depends on the combination of two conditions:

(1) Provide traditional security programs that deny the threat classified information.

(2) Provide operational security to deny the threat critical information, which is always sensitive and often unclassified.

2. Define Indicators.

a. Indicators are data derived from open sources or from detectable actions that the threat can piece together or interpret to reach conclusions or official estimates concerning friendly intentions, capabilities or activities. They are also activities that result from military operations. Indicators contribute to the determination of friendly courses of action. Their identification and interpretation are critical tasks of the threat operations. Indicators can be used in many ways. For example, if the commander wants the threat to think one way but, in reality plans on doing something entirely different, he may give him a false indicator (i.e., massing a smaller force to disguise a larger objective).

Performance Steps

b. There are three types of indicators:

(1) Profile indicators show how activities are normally conducted. Profiles are developed by looking at all aspects of friendly operations from the viewpoint of the threat. The friendly profile must include all of those things, which if detected by the threat, could provide him with information concerning our capabilities, vulnerabilities, and intentions.

(a) Patterns are stereotyped actions which so habitually occur that they can cue an observer to either the type of military unit or activity, its identity, capabilities, or intent. In the Army we tend to do things in the same way (SOPs). This causes patterns which the threat looks for so he can predict our intentions.

(b) Signatures result from the presence of a unit or activity on the battlefield. Signatures are detected because different units have different types of equipment, are of different sizes, emit different electronic signals, and have different noises associated with them.

(2) Deviation indicators provide contrasts to normal activity, which help the threat gain appreciation about intentions, preparations, time, and place.

(3) Tip-off indicators highlight information that otherwise might pass unnoticed. These are most significant when they warn the threat of impending activity. This allows him to pay closer attention and to task additional collection assets.

3. Identify Threat Capabilities.

a. The threat consists of multiple and overlapping collection efforts targeted against all sources of Army information. The threat devote significant resources to monitor U.S. military operations and activities on a daily basis. The threat can produce reliable information on the U.S. military establishment and our capabilities, intentions, and vulnerabilities. The threat is also shifting the emphasis in targeting. Foreign targeting of American technology is increasing for economic as well as military reasons. Technology transfer will continue to remain a major concern in the future.

b. The major threat collection capabilities fall in four areas:

Performance Steps

(1) Human intelligence (HUMINT) includes all information derived through human sources not accessible to other collection assets. HUMINT employs overt, covert, and clandestine operations to achieve world wide collection objectives.

(2) Imagery intelligence (IMINT). The threat can obtain IMINT from land, sea, air, and space platforms (radar, photographic, infrared, and electro-optic imagery). At the tactical level, airborne collection possesses the greatest IMINT threat.

(3) Signals intelligence (SIGINT) is the products resulting from the collection, evaluation, analysis, integration, and interpretation of information derived from intercepted electromagnetic emissions.

(4) Measurement and signature intelligence (MASINT) is scientific and technical intelligence obtained by quantitative and qualitative analysis of data derived from technical sensors for the purpose of identifying any distinctive features associated with the source, emitter, or sender and to facilitate subsequent identification or measurement.

c. Two additional areas of concern are:

(1) Technology transfer, which has led to significant enhancement of military-industrial capabilities at the expense of the U.S.

(2) Non-traditional threats. Past and present allies are potential intelligence threats. They can engage in intelligence collection activities to gain economic or political advantage, which is not in the best interest of the U.S.

4. Define OPSEC measures. OPSEC measures are methods and means to gain and maintain essential secrecy about critical information.

a. Action control eliminates indicators. Select what action to undertake, decide whether or not to execute actions, or impose restraints on actions. (Specify who, when, where, and how?)

b. Countermeasures attack the threat collection system by using:

(1) Diversions.

(2) Camouflage.

(3) Concealment.

Performance Steps

(4) Jamming.

(5) Deception.

5. Implement the OPSEC Process. OPSEC has five steps, which apply to any plan, operation, program, project, or activity. They provide a framework for the systematic process necessary to identify, analyze, and protect information for essential secrecy. The process is continuous. It considers the changing nature of the threat and friendly vulnerabilities throughout the operation. It uses the following steps, but it does not have to follow them in a particular sequence.

a. Identify critical information. Critical information consists of specific facts about friendly intentions, capabilities, and activities vitally needed by the threat for them to plan effectively and to guarantee failure or unacceptable consequences for friendly mission accomplishment.

(1) Determine what needs protection.

(2) Identify key questions that threat officials are likely to ask about friendly intentions, capabilities, and activities, so they can obtain answers critical to their operational effectiveness. To determine sensitive aspects of our operations, the following question is asked: If known by the threat, what information and what actions could compromise friendly operations or identify us?

(3) Identify friendly force profile. The G3 and the G2 are responsible for developing friendly force profiles.

(4) Avoid setting patterns.

b. Conduct an analysis of threats.

(1) Identify OPSEC vulnerabilities. It is absolutely necessary that you know the THREAT. This information will be important in order to determine vulnerabilities to the threat and it will become even more important when the time comes to implement countermeasures or deception measures.

(2) Examine each part of the operation to find OPSEC indicators. Compare those indicators with the threat collection capabilities. A vulnerability exists when the threat can collect an indicator, correctly analyze the information, make a decision, and take timely action to degrade friendly operations.

Performance Steps

c. Conduct an analysis of vulnerabilities.

- (1) Identify possible OPSEC measures for each vulnerability.
- (2) Select at least one OPSEC measure for each vulnerability.
- (3) Assess the sufficiency of routine security measures (personnel, physical, cryptographic, document, special access, and automated information systems). This will provide OPSEC measures for some vulnerabilities.

d. Perform risk assessment. The purpose of this step is to select OPSEC measures for implementation. This step is designed to determine if a risk to an operation's success exists should the threat detect friendly indicators, patterns, or signatures. Only the commander responsible for the mission can make this decision. He must balance the risk of operational failure against the cost of OPSEC measures.

- (1) Consider the impact of an OPSEC measure on operational efficiency.
- (2) Consider the probable risk to mission success (effectiveness) if the unit does not implement an OPSEC measure.
- (3) Consider the probable risk to mission success if an OPSEC measure does not work.
- (4) Decide which, if any, OPSEC measures to implement and when to do so.
- (5) Check the interaction of OPSEC measures. Ensure that a measure to protect a specific piece of critical information does not unwittingly provide an indicator of another.
- (6) Coordinate OPSEC measures with the other elements of C2W.

e. Apply appropriate countermeasures to deny THREAT information of specific friendly intentions, capabilities, and activities.

- (1) Implement those measures that require immediate action. This applies to current operations as well as planning and preparation for future ones.
- (2) Document or task OPSEC measures by using an OPSEC Annex to the OPLAN/OPORD.
- (3) Brief OPSEC requirements to planners, participants, and support personnel.

Performance Steps

Note: OPSEC measures are command-directed actions executed by individuals, who must be aware of their responsibilities.

(4) Monitor OPSEC measures during execution. Monitoring is a continuous process of evaluating intelligence and counterintelligence. It is necessary to monitor countermeasures for effectiveness because unevaluated countermeasures can lead to a false and dangerous sense of security.

(5) Make adjustments to improve the effectiveness of existing measures. This will be necessary to obtain the best protection for our military operations.

6. Define OPSEC review, assessment and survey.

a. OPSEC review is an evaluation of a document to ensure protection of sensitive or critical information.

b. OPSEC assessment is an analysis of an operation, activity, exercise, or support function to determine the overall OPSEC posture and to evaluate the degree of compliance of subordinate organizations with the published OPSEC plan or OPSEC program.

c. OPSEC survey is a method to determine if there is adequate protection of critical information during planning, preparations, execution, and post-execution phases of any operation or activity. It analyzes all associated functions to identify sources of information, what they disclose, and what can be derived from the information.

Evaluation Preparation: Provide the Soldier with the materials listed in the conditions statement. Tell the Soldier to maintain OPSEC procedures to protect critical aspects of operations from exploitation by threat intelligence.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Defined OPSEC.	___	___
2. Defined indicators.	___	___
3. Identified threat capabilities.	___	___
4. Identified OPSEC measures.	___	___

Performance Measures	<u>GO</u>	<u>NO GO</u>
5. Implemented OPSEC measures.	_____	_____
a. Identified critical information.		
(1) Determined what protection is needed.		
(2) Identified key questions the threat are likely to ask about friendly intentions, capabilities, and activities.		
(3) Identified friendly force profile.		
(4) Avoided setting patterns.		
b. Conducted analysis of threats.		
(1) Identified OPSEC vulnerabilities.		
(2) Found OPSEC indicators.		
c. Conducted an analysis of vulnerabilities.		
(1) Identified OPSEC measures for each vulnerability.		
(2) Selected OPSEC measure for each vulnerability.		
(3) Assessed the sufficiency of routine security measures.		
d. Performed risk assessment.		
(1) Considered the impact of an OPSEC measure on operational efficiency.		
(2) Considered the probable risk to mission success if the unit does not implement an OPSEC measure.		
(3) Considered the probable risk to mission success if an OPSEC measure does not work.		
(4) Decided which OPSEC measures to implement.		
(5) Checked the interaction of OPSEC measures.		
(6) Coordinated OPSEC measures with the other elements of C2W.		

Performance Measures	<u>GO</u>	<u>NO GO</u>
e. Applied appropriate countermeasures to deny threat friendly information.		
(1) Implemented measures that require immediate action.		
(2) Tasked OPSEC measures using OPSEC Annex.		
(3) Briefed OPSEC requirements to planners, participants, and support personnel.		
(4) Monitored OPSEC measures during execution.		
(5) Made adjustments to improve the effectiveness of existing measures.		
6. Defined OPSEC review, assessment, and survey.	—	—
a. Defined OPSEC review.		
b. Defined OPSEC assessment.		
c. Defined OPSEC survey.		

Evaluation Guidance: Failure to achieve a GO for this task will result in retraining of the failed areas and retesting. A second NO GO will result in retraining of the entire task and retesting.

References

Required

AR 530-1

Related

FM 2-0

FM 3-0

FM 34-60

Chapter 4

Warrior Tasks and Battle Drills Trainer's Guide

General Peter Schoomaker, Army Chief of Staff, directed the Task Force Soldier Study (September to November 2003) that was conducted at Fort Benning, Georgia. This study designated 39 warrior tasks and 9 battle drills to provide more relevance and rigor into initial entry training and ensure Soldiers leaving the training base were prepared for combat. These warrior tasks and battle drills are geared toward the contemporary operating environment (COE) and lessons learned.

TRADOC incorporates these warrior tasks and battle drills into all training. This provides an azimuth for the noncommissioned officers to train Soldiers in both individual and technical skills. They are also incorporated into common task training to better prepare units to execute their mission.

The 39 warrior tasks and 9 battle drills list is dynamic and changes based on the needs of the force. As it changes, TRADOC will change its instructions.

Command Sergeant Major
Training and Doctrine Command
Fort Monroe, VA 23651

Table 4-1. Warrior Task Crosswalk

Supporting Task Number	Description
1: Qualify With Assigned Weapon	
Training Objective	Soldier qualifies with assigned weapon system, which may include one of the following: M9 pistol, M16-series weapon, M203 grenade launcher, and M136-AT4.
071-004-0001	Maintain an M9 Pistol
071-004-0002	Perform a Functions Check on a M9 Pistol
071-004-0003	Load an M9 Pistol
071-004-0004	Unload an M9 Pistol
071-004-0006	Engage Targets With an M9 Pistol

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
071-311-2006	Construct Field-Expedient Firing Aids for an M16A1/A2 Rifle
071-311-2025	Maintain an M16-Series Rifle
071-311-2026	Perform a Function Check on an M16-Series Rifle
071-311-2027	Load an M16-Series Rifle
071-311-2028	Unload an M16-Series Rifle
071-311-2007	Engage Targets With an M16-Series Rifle
071-100-0003	Engage Targets With an M4/M4A1 Carbine
071-311-2125	Maintain an M203 Grenade Launcher
071-311-2126	Perform a Function Check on an M203 Grenade Launcher
071-311-2127	Load an M203 Grenade Launcher
071-311-2128	Unload an M203 Grenade Launcher
071-311-2130	Engage Targets With an M203 Grenade Launcher
071-054-0001	Prepare an M136 Launcher for Firing
071-054-0002	Restore an M136 Launcher to Carrying Configuration
071-054-0004	Engage Targets With an M136 Launcher
References	STP 21-1-SMCT FM 3-22.9 FM 3-23.35 FM 3-23.25 FM 3-23.30
2: Correct Malfunctions With Assigned Weapon	
Training Objective	Correct malfunctions with assigned weapon including M9 pistol, M16-series weapon, M203 grenade launcher, and M136- AT4.
071-004-0005	Correct Malfunctions of an M9 Pistol
071-311-2029	Correct Malfunctions of an M16-Series Rifle
071-311-2129	Correct Malfunctions of an M203 Grenade Launcher
071-054-0003	Perform Misfire Procedures on an M136 Launcher

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
References	STP 21-1-SMCT STP 17-19D1-SM FM 3-22.9 FM 3-23.35 FM 3-23.25 TM 9-1005-319-10
3: Engage Targets With M240B Machine Gun	
Training Objective	Perform functions check, load, unload, reduce stoppage and engage targets with the M240B machine gun
071-025-0001	Maintain an M240B Machine Gun
071-025-0002	Perform a Function Check on an M240B Machine Gun
071-025-0003	Load an M240B Machine Gun
071-025-0004	Unload an M240B Machine Gun
071-025-0008	Construct a Fighting Position for an M240B Machine Gun
071-025-0009	Lay an M240B Machine Gun Using Field Expedients
071-025-0010	Prepare a Range Card for an M240B Machine Gun
071-025-0015	Mount an M240B Machine Gun on an M122A1 Tripod
071-025-0016	Dismount an M240B Machine Gun From an M122A1 Tripod
071-025-0006	Zero an M240B Machine Gun
071-025-0007	Engage Targets With an M240B Machine Gun
References	STP 21-1-SMCT STP 17-19D1-SM FM 3-22.68 TM 9-1005-313-10

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
4: Engage Targets With M249 Squad Automatic Weapon	
Training Objective	Perform function check, load, unload, reduce stoppage and engage targets with the M249 squad automatic weapon
071-312-4025	Maintain an M249 Machine Gun
071-312-4026	Perform a Function Check on an M249 Machine Gun
071-312-4027	Load an M249 Machine Gun
071-312-4028	Unload an M249 Machine Gun
071-312-4004	Lay an M249 Machine Gun Using Field Expedients
071-312-4030	Zero an M249 Machine Gun
071-010-0006	Engage Targets With a M249 Machine Gun
References	STP 21-1-SMCT STP 17-19D1-SM FM 3-22.68 TM 9-1005-201-10
5: Engage Targets With M2 Caliber .50 Machine Gun	
Training Objective	Perform function check, load, unload, reduce stoppage, and engage targets with the M2 caliber .50 machine gun
071-022-0001	Maintain a Caliber .50 M2 Machine Gun
071-313-3452	Zero a Caliber .50 M2 Machine Gun
071-313-3455	Set Headspace and Timing on a Caliber .50 M2 Machine Gun
071-022-0003	Load a Caliber .50 M2 Machine Gun
071-022-0004	Unload a Caliber .50 M2 Machine Gun
071-313-3454	Engage Targets With a Caliber .50 M2 Machine Gun
References	STP 21-1-SMCT STP 17-19D1-SM FM 3-22.65

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
6: Engage Targets With MK 19 40-mm Machine Gun	
Training Objective	Perform functions check, load, unload, reduce stoppage, and engage targets with the MK 19 machine gun
071-030-0001	Maintain a MK 19 Machine Gun
071-030-0007	Perform a Function Check on an MK 19 Machine Gun
071-030-0005	Load an MK 19 Machine Gun
071-030-0006	Unload an MK 19 Machine Gun
071-030-0004	Engage Targets With a MK 19 Machine Gun
071-030-0010	Dismount a MK 19 Machine Gun From a Vehicle
071-030-4004	Lay a MK 19 Machine Gun Using Field Expedients
References	STP 21-1-SMCT STP 17-19D1-SM FM 3-22.27
7: Correct Malfunctions of a M2 Caliber .50 Machine Gun	
Training Objective	Correct malfunctions of a M2 caliber .50 machine gun
071-022-0005	Correct Malfunctions of a Caliber .50 M2 Machine Gun
References	STP 17-19D1-SM FM 3-22.65
8: Correct Malfunctions of a M240B Machine Gun	
Training Objective	Correct malfunctions of a M240B machine gun
071-025-0005	Correct Malfunctions of an M240B Machine Gun
References	STP 17-19D1-SM FM 3-22.68

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
9: Correct Malfunctions of a M249 Squad Automatic Weapon	
Training Objective	Correct malfunctions of a M249 squad automatic weapon
071-312-4029	Correct Malfunctions of an M249 Machine Gun
References	STP 17-19D1-SM FM 3-22.68
10: Correct Malfunctions of a MK-19 40-mm Machine Gun	
Training Objective	Correct malfunctions of a MK 19 40-mm machine gun
071-030-0008	Correct Malfunctions of an MK 19 Machine Gun
References	STP 17-19D1-SM FM 3-22.27
11: Engage Targets With Weapon Using a Night Vision Sight AN/PVS-4	
Training Objective	Engage targets with a weapon using a night vision sight AN/PVS-4. Use either M16-series weapon, M203, M240B, or M249 squad automatic weapon
071-315-0003	Operate a Night Vision Sight AN/PVS-4
071-315-2307	Zero a Night Vision Sight AN/PVS-4 to an M16-Series Rifle
071-315-2308	Engage Targets With an M16-Series Rifle Using a Night Vision Sight AN/PVS-4
071-100-0012	Engage Targets With an M4/M4A1 Carbine Using a Night Vision Sight AN/PVS-4
071-032-0001	Mount a Night Vision Sight AN/PVS-4 on an M203 Grenade Launcher
071-032-0002	Dismount a Night Vision Sight AN/PVS-4 From an M203 Grenade Launcher
071-315-2352	Engage targets With an M203 Grenade Launcher Using a Night Vision Sight AN/PVS-4

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
071-025-0013	Mount a Night Vision Sight AN/PVS-4 on an M240B Machine Gun
071-025-0014	Dismount a Night Vision Sight AN/PVS-4 From an M240B Machine Gun
071-025-0017	Zero a Night Vision Sight AN/PVS-4 to an M240B Machine Gun
071-025-0018	Engage targets With an M240B Machine Gun Using a Night Vision Sight AN/PVS-4
071-010-0002	Mount a Night Vision Sight AN/PVS-4 on an M249 Squad Automatic Weapon
071-010-0003	Dismount a Night Vision Sight AN/PVS-4 From an M249 Squad Automatic Weapon
071-010-0001	Zero a Night Vision Sight AN/PVS-4 to an M249 Squad Automatic Weapon
071-010-0007	Engage targets With an M249 Squad Automatic Weapon Using a Night Vision Sight AN/PVS-4
References	STP 21-1-SMCT STP 17-19D1-SM FM 3-22.9 TM 11-5855-306-10 TM 11-5855-261-10
12: Engage Targets With Weapon Using a Night Vision Sight AN/PAS-13	
Training Objective	Engage targets with weapon using a night vision sight AN/PAS-13 (medium). Use either M16-series weapon, M240B, or M249 squad automatic weapon. Familiarizing means operating, mounting, dismounting and engaging targets with the AN/PAS-13
NTN	Operate a Night Vision Sight AN/PAS-13
NTN	Zero a Night Vision Sight AN/PAS-13 to an M16-Series Rifle
071-008-0007	Engage Targets With an M16-Series Rifle Using a Night Vision Sight AN/PAS-13

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
NTN	Mount a Night Vision Sight AN/PAS-13 on an M203 Grenade Launcher
NTN	Dismount a Night Vision Sight AN/PAS-13 From an M203 Grenade Launcher
NTN	Engage Targets With an M203 Grenade Launcher Using a Night Vision Sight AN/PAS-13
NTN	Mount a Night Vision Sight AN/PAS-13 on an M240B Machine Gun
NTN	Dismount a Night Vision Sight AN/PAS-13 From an M240B Machine Gun
NTN	Zero a Night Vision Sight AN/PAS-13 to an M240B Machine Gun
071-025-0022	Engage Targets With an M240B Machine Gun Using a Night Vision Sight AN/PAS-13
NTN	Mount a Night Vision Sight AN/PAS-13 on an M249 Squad Automatic Weapon
NTN	Dismount a Night Vision Sight AN/PAS-13 From an M249 Squad Automatic Weapon
NTN	Zero a Night Vision Sight AN/PAS-13 to an M249 Squad Automatic Weapon
071-010-0011	Engage Targets With an M249 Squad Automatic Weapon Using a Night Vision Sight AN/PAS-13
References	STP 17-19D1-SM FM 3-22.9 FM 3-22.68 TM 11-5855-302-12&P

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
13: Engage Targets With Weapon Using a Night Vision Sight AN/TVS-5	
Training Objective	Engage targets with a M2 caliber .50 machine gun or a MK 19 machine gun using a night vision sight AN/TVS-5 or AN/PAS-13 (heavy), if it replaces the AN/TVS-5. Familiarizing means operating, mounting, dismounting and engaging targets with the AN/TVS-5
NTN	Operate a Night Vision Sight AN/PAS-13
071-022-0008	Mount a Night Vision Sight AN/TVS-5 on an M2 Caliber .50 Machine Gun
071-022-0009	Dismount a Night Vision Sight AN/TVS-5 From an M2 Caliber .50 Machine Gun
071-315-0056	Engage Targets With an M2 Caliber .50 Machine Gun Using a Night Vision Sight AN/TVS-5
071-022-0017	Mount a Night Vision Sight AN/PAS-13 (Heavy) on an M2 Caliber .50 Machine Gun
071-022-0018	Dismount a Night Vision Sight AN/PAS-13 (Heavy) From an M2 Caliber .50 Machine Gun
071-315-0020	Engage Targets With an M2 Caliber .50 Machine Gun Using a Night Vision Sight AN/PAS-13 (Heavy)
071-030-0016	Mount a Night Vision Sight AN/TVS-5 on an MK-19 Machine Gun
071-030-0017	Dismount a Night Vision Sight AN/TVS-5 From an MK 19 Machine Gun
071-030-0019	Engage Targets With an MK 19 Machine Gun Using a Night Vision Sight AN/TVS-5
References	STP 17-19D1-SM TM 11-5855-214-10

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
14: Engage Targets Using an Aiming Light AN/PEQ-2A	
Training Objective	Engage targets with a M16-series weapon and a night vision device (such as AN/PVS-5B or AN/PVS-14) using a AN/PEQ-2A target pointer/illuminator/aiming light.
071-702-0001	Operate the Infrared Illuminator, AN/PEQ-2A
071-706-0001	Operate Night Vision Device, AN/PVS-14
071-710-0008	Operate Night Vision Goggles, AN/PVS-7B
References	STP 17-19D1-SM FM 3-22.9 TM 11-5855-308-12&P TM 11-5855-262-10 TM 11-5855-306-10
15: Engage Targets Using an Infrared Aiming Light AN/PAQ-4	
Training Objective	Engage targets with either an M16-series weapon or an M249 squad automatic weapon using a night vision device (such as AN/PVS-5B or AN/PVS-14), while using an AN/PAQ-4 infrared aiming light
071-706-0001	Operate Night Vision Device, AN/PVS-14
071-710-0008	Operate Night Vision Goggles, AN/PVS-7B
071-008-0011	Engage Targets With an M16-Series Rifle Using an AN/PAQ-4-Series Aiming Light
071-010-0015	Engage Targets With an M249 Machine Gun Using an AN/PAQ-4-Series Aiming Light
References	STP 17-19D1-SM FM 3-22.9 TM 11-5855-301-12&P TM 11-5855-261-10

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
16: Employ Mines and Hand Grenades	
Training Objective	Employ and recover a practice M18A1 claymore mine. Perform safety checks on hand grenades, negotiate a hand grenade qualification course, and employ a live fragmentation grenade
071-325-4401	Perform Safety Checks on Hand Grenades
071-325-4407	Employ Hand Grenades
071-325-4425	Employ an M18A1 Claymore Mine
071-325-4426	Recover an M18A1 Claymore Mine
References	STP 21-1-SMCT STP 17-19D1-SM FM 23-23 FM 3-23.30
17: Perform Voice Communications SITREP/SPOTREP	
Training Objective	Perform voice communications by passing one report (SITREP/SPOTREP) using any type of radio
113-571-1022	Perform Voice Communications
113-587-1064	Prepare SINCGARS (MANPACK) for Operation
113-587-2070	Operate SINCGARS Single-Channel (SC)
071-331-0803	Report Enemy Information
301-348-1050	Report Information of Potential Intelligence Value
References	STP 21-1-SMCT STP 17-19D1-SM FM 24-18 FM 24-24 TM 11-5820-890-10-1
18: Perform Voice Communications—Call for Fire	
Training Objective	Perform voice communications by sending a call for fire (adjust fire) message
113-571-1022	Perform Voice Communications
113-587-1064	Prepare SINCGARS (MANPACK) for Operation

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
113-587-2070	Operate SINGARS Single-Channel (SC)
NTN	Adjust Indirect Fire is correct
References	STP 21-24-SMCT STP 17-19D1-SM FM 24-18 TM 11-5820-890-10-1 FM 6-30,
19: Perform Voice Communications MEDEVAC	
Training Objective	Perform voice communications by requesting a medical evacuation
113-571-1022	Perform Voice Communications
113-587-1064	Prepare SINGARS (MANPACK) for Operation
113-587-2070	Operate SINGARS Single-Channel (SC)
081-831-0101	Request Medical Evacuation
References	STP 21-24-SMCT STP 17-19D1-SM FM 24-18 TM 11-5820-890-10-1
20: Use Visual Signaling Techniques	
Training Objective	Perform visual signaling techniques using hand and arm signals and flags.
071-326-0608	Use Visual Signaling Techniques
071-326-0608	Use Visual Signaling Techniques While Dismounted
References	STP 21-24-SMCT STP 17-19D1-SM FM 21-60

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
21: Perform Movement Techniques During an Urban Operation	
Training Objective	Operate as a member of a fire team in an urban environment training for offensive and defensive maneuvers using urban movement techniques
071-326-0501	Move as a Member of a Fire Team
071-326-0541	Perform Movement Techniques During an Urban Operation
071-326-0542	Enter a Building During an Urban Operation
071-326-0550	Prepare Positions for Individual and Crew-Served Weapons During an Urban Operation
071-326-0557	Select Hasty Firing Positions During an Urban Operation
071-440-0031	Employ Hand Grenades During Urban Operations
References	STP 17-19D1-SM FM 3-06 TC 90-1
22: Engage Targets During an Urban Operation	
Training Objective	Engage threat targets while clearing a room. Training scenario will include both civilian (non-threat) and enemy (threat) targets.
071-326-0557	Select Hasty Firing Positions During an Urban Operation
Battle Drill 07-4-D9109: Enter a Building and Clear a Room	
071-705-0001	Maintain an M68 Sight
071-705-0002	Operate an M68 Sight
071-705-0003	Zero an M68 Sight
071-300-0004	React to a Potential Civilian Disturbance
171-300-0011	Employ Progressive Levels of Individual Force When Confronting Civilians

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
References	STP 21-1-SMCT STP 17-19D1-SM TC 90-1 FM 3-06 FM 3-06.11 FM 3-22.9,
23: Enter a Building During an Urban Operation	
Training Objective	Enter a building and clear a room
Battle Drill 07-4-D9109: Enter a Building and Clear a Room	
071-326-0501	Move as a Member of a Fire Team
071-326-0541	Perform Movement Techniques During an Urban Operation
071-326-0542	Enter a Building During an Urban Operation
References	STP 17-19D1-SM TC 90-1 FM 3-06 FM 3-06.11 FM 3-22.9,
24: Determine Location on Ground (Terrain Association, Map and GPS)	
Training Objective	Determine the location on the ground by using terrain association and a map. Confirm the location by using a GPS
071-329-1002	Determine the Grid Coordinates of a Point on a Military Map
071-329-1005	Determine a Location on the Ground by Terrain Association
071-510-0001	Determine Azimuths Using a Protractor
071-329-1004	Determine the Elevation of a Point on the Ground Using a Map
071-329-1000	Identify Topographic Symbols on a Military Map

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
071-329-1008	Measure Distance on a Map
071-329-1009	Convert Azimuths
071-329-1012	Orient a Map to the Ground by Map-Terrain Association
071-329-1015	Locate an Unknown Point on a Map and on the Ground by Resection
071-329-1001	Identify Terrain Features on a Map
071-329-7018	Prepare an AN/PSN-11 PLGR for Operation
References	STP 21-1-SMCT STP 17-19D1-SM BCT POI 071-D-2330/Land Navigation 4 (Operate the Precision Lightweight Global Positioning System (PLGR)) FM 3-25.26 TB 11-5825-291-10 TM 11-5820-890-10-7
25: Navigate From One Point to Another (Dismounted)	
Training Objective	Navigate dismounted from one point to another using a lensatic compass and a map
071-329-1003	Determine a Magnetic Azimuth Using a Lensatic Compass
071-329-1006	Navigate From One Point on the Ground to Another Point While Dismounted
References	STP 21-1-SMCT STP 17-19D1-SM
26: Move Over, Through, or Around Obstacles (Except Minefields)	
Training Objective	Move over, through, or around obstacles. The training does not include bypassing or breaching minefields
071-326-0503	Move Over, Through, or Around Obstacles (Except Minefields)
References	STP 21-1-SMCT

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
27: Prepare a Vehicle in a Convoy	
Training Objective	Prepare a vehicle for tactical operations by hardening the vehicle
551-721-2357	Prepare a Vehicle for Tactical Operations (SL2)
References	STP 55-88M14-SM-TG FM 55-30
28: Move Under Direct Fire	
Training Objective	Move under direct fire in a tactical environment
071-326-0502	Move Under Direct Fire
References	STP 21-1-SMCT STP 17-19D1-SM
29: React to Indirect Fire (Dismounted and Mounted)	
Training Objective	React to indirect fire in a tactical environment, while mounted and dismounted
071-326-0510	React to Indirect Fire While Dismounted
071-326-3002	React to Indirect Fire While Mounted
References	STP 21-1-SMCT STP 17-19D1-SM
30: React to Direct Fire (Dismounted and Mounted)	
Training Objective	React to direct fire in a tactical environment, while mounted and dismounted
071-410-0002	React to Direct Fire While Mounted
071-326-0502	Move Under Direct Fire
References	STP 21-1-SMCT

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
31: React to Unexploded Ordnance Hazard	
Training Objective	React to unexploded ordnance hazard
093-401-5040	React to Unexploded Ordnance Hazards
References	STP 21-1-SMCT
32: React to Man-To-Man Contact (Combatives)	
Training Objective	<p>Train in combatives gaining the knowledge of hand-to-hand fighting techniques so the Soldier can close with, and destroy, the enemy. Training includes the following combatives tasks:</p> <ul style="list-style-type: none"> • Stand up in base • Execute the fighter stance • Demonstrate dominant body position • Escape the mount (trap and roll) • Pass the guard and achieve the mount • Employ the arm push and roll to the rear mount • Employ the rear naked choke • Employ the cross collar choke • Employ the bent-arm bar • Employ the straight-arm bar from the mount and the guard <p>Employ the front takedown to the mount. Training must also include hand-to-hand fighting techniques using hand-to hand bouts</p>
NTN	Combatives
References	FM 3.25.150 FM 21-20 BCT POI TSP 071-D-2391

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
33: React to Chemical or Biological Attack/Hazard	
Training Objective	React to a chemical or biological hazard
031-503-1019	React to Chemical or Biological Hazard/Attack
031-503-1018	React to Nuclear Hazard/Attack
031-503-1025	Protect Yourself From Chemical and Biological Injury/Contamination Using Your M-40-Series Protective Mask With Hood.
031-503-1015	Protect Yourself From Chemical, Biological, Radiological, or Nuclear (CBRN) Injury/Contamination With Mission-Oriented Protective Posture (MOPP) Gear
031-503-1035	Protect Yourself From Chemical/Biological Contamination Using Your Assigned Protective Mask
References	STP 21-1-SMCT FM 3-7 FM 3-11.4 FM 3-3
34: Decontaminate Yourself and Your Individual Equipment Using Chemical Decontamination Kits	
Training Objective	Decontaminate self and individual equipment using chemical decontamination kits
031-503-1037	Detect Chemical Agents Using M8 or M9 Detector Paper
031-503-1033	Decontaminate Your Skin Using the M291 Skin Decontamination Kit
031-503-1034	Decontaminate Your Individual Equipment Using the M295 Individual Equipment Decontamination Kit
References	STP 21-1-SMCT FM 3-5 FM 3-7 FM 3-11.4 FM 3-3

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
35: Maintain Equipment	
Training Objective	Maintain unit and individual equipment in accordance with Army standards
NTN	Maintain Equipment in Accordance With Army Standards
031-503-1036	Maintain Your Assigned Protective Mask
031-503-1026	Maintain Your M40-Series Protective Mask With Hood
171-123-1004	Maintain Accountability of TOE Equipment
555-721-1352	Perform Preventive Maintenance Checks
171-123-1090	Perform Preventive Maintenance on Basic Issue Items (BII)
References	STP 21-1-SMCT STP 17-19D1-SM STP 55-88M14-SM-TG TM 3-4240-346-10
36: Evaluate a Casualty	
Training Objective	Evaluate a casualty for injuries
081-831-1001	Evaluate a Casualty (Tactical Combat Casualty Care)
References	STP 21-1-SMCT STP 17-19D1-SM STP 3-55B1-SM FM 4-25.11
37: Perform First Aid for Open Wound (Abdominal, Chest, and Head)	
Training Objective	Perform first aid on abdominal, chest, and head wounds
081-831-1025	Perform First Aid for an Open Abdominal Wound
081-831-1026	Perform First Aid for an Open Chest Wound
081-831-1033	Perform First Aid for an Open Head Wound

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
081-831-1003	Perform First Aid to Clear an Object Stuck in the Throat of a Conscious Casualty
081-831-1005	Perform First Aid to Prevent or Control Shock
081-831-1034	Perform First Aid for a Suspected Fracture
081-831-1023	Perform First Aid to Restore Breathing and/or Pulse
081-831-1044	Perform First Aid for Nerve Agent Injury
081-831-1046	Transport a Casualty
References	STP 21-1-SMCT FM 4-25.11
38: Perform First Aid for Bleeding of Extremity	
Training Objective	Perform first aid for a bleeding extremity
081-831-1032	Perform First Aid for a Bleeding and/or Severed Extremity
References	STP 21-1-SMCT FM 4-25.11
39: Select Temporary Fighting Position	
Training Objective	Select a temporary fighting position
071-326-0513	Select Temporary Fighting Positions
References	STP 21-1-SMCT
BATTLE DRILLS	
1: React to Contact (Visual, IED, Direct Fire [Includes RPG])	
Training Objective	React to enemy contact. The iterations will include visual contact, improvised explosive device, direct fire and RPG
Battle Drill 07-3-D9103: React to Contact	
093-401-5040	React to Unexploded Ordnance Hazards
071-410-0002	React to Direct Fire While Mounted

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
071-326-0502	Move Under Direct Fire
References	STP 21-1-SMCT ARTEP 7-8, TC 63-1
2: React to Ambush (Blocked)	
Training Objective	React to ambush where bypass is not possible
Battle Drill 07-3-D9105: React to Ambush	
References	STP 21-1-SMCT ARTEP 7-8, TC 63-1
3: React to Ambush (Unblocked)	
Training Objective	React to ambush where bypass is possible
Battle Drill 07-3-D9105: React to Ambush	
References	STP 21-1-SMCT ARTEP 7-8 TC 63-1
4: React to Indirect Fire	
Training Objective	React to indirect fire as part of a squad (either mounted or dismounted)
Battle Drill 07-4-D9203: React to Indirect Fire (Squad)	
References	STP 21-1-SMCT ARTEP 7-8
5: React to Chemical Attack	
Training Objective	React to a chemical attack
Battle Drill 07-3-D9282: React to a Chemical Attack	
References	STP 21-1-SMCT ARTEP 7-8 ARTEP 7-7J-Drill

Table 4-1. Warrior Task Crosswalk	
Supporting Task Number	Description
6: Break Contact	
Training Objective	Break contact from a direct fire engagement to reorient fire on the battlefield
Battle Drill 07-3-D9104: Break Contact (Dismounted)	
References	STP 21-1-SMCT ARTEP 7-8 ARTEP 7-7J-Drill
7: Dismount a Vehicle	
Training Objective	Dismount a vehicle upon being attacked; a ground attack is required
Crew Drill 07-3-D9233: Dismount the Vehicle (Platoon/Squad)	
071-410-0002	React to Direct Fire While Mounted
References	ARTEP 7-8 FM 3-21.71 STP 21-1-SMCT
8: Evacuate Injured Personnel From Vehicle	
Training Objective	Evacuate injured personnel from vehicle
17-5-5030.	17DCRW: Conduct an Evacuation Drill on a Tactical Vehicle
References	ARTEP 17-57-11-MTP
9: Secure at a Halt	
Training Objective	Secure a vehicle at the halt
Crew Drill 07-3-D9236: Secure at a Halt (Platoon) (Mounted)	
References	FM 3-21.71 ARTEP 7-7J Drill

Appendix A

Proponent School or Agency Codes

The first three digits of the task number identify the proponent school or agency responsible for the task. Record any comments or questions regarding the task summaries contained in this manual on a DA Form 2028 (*Recommended Changes to Publications and Blank Forms*) and send it to the proponent school with an information copy to: Commander, U.S. Army Training Support Center, ATTN: ATIC-ITSC-CM, Fort Eustis, VA 23604-5166.

Table A-1. Proponent School or Agency Codes	
School Code	Command
MANSCEN CM 031 EN 052 MP 191	MANSCEN, Directorate of Training Development U.S. Army Engineer Center and Fort Leonard Wood 320 Engineer Loop, Suite 220 Fort Leonard Wood, MO 65473-8929
IN 071	Commandant, U.S. Army Infantry School ATTN: ATSH-OTDD Fort Benning, GA 31905-5700
AHS 081	USAAHS, Dean, AHS ATTN: MCCS-HTI Fort Sam Houston, TX 78234-6122
SIG 113	Commander, USA Signal Center and School ATTN: ATZH-DTM-U Fort Gordon, GA 30905-5074
JAG 181	Commandant, Judge Advocate General School ATTN: JAGS-TDD 600 Massie Road Charlottesville, VA 22903-1781

Table A-1. Proponent School or Agency Codes	
School Code	Command
APAC 224	Director, Army Public Affairs Center 6 ACR Road, Bldg 8607 ATTN: SAPA-PA Fort Meade, MD 20755-5650
MI 301	Commander, USA Intelligence Center and Fort Huachuca ATTN: ATZS-FDR-TA Fort Huachuca, AZ 85613-6000
JFK 331	Commander USA John F Kennedy Special Warfare Center and School ATTN: AOJK-DT-DMO Fort Bragg, NC 28310-5000
CASCOM 093 101 551	U.S. Army Combined Arms Support Command (CASCOM) Training Directorate USACASCOM, ATTN: ATCL-A 401 First St., Suite 227 Fort Lee, VA 23801-1511
SSI 805C	Commander, USA Soldier Support Institute ATTN: ATSG-TD-HRD Fort Jackson, SC 29207-7065

Appendix B
GUIDE TO FORMS

This appendix contains a list of forms pertinent to SMCT and CTT evaluations and administration. In the electronic, online version of this manual, hot links will, where indicated, provide downloadable and reproducible copies of the forms. The user can also visit the CTT site in the Reimer Digital Library where access to the **CTT Manual** and **CTT Notice** (Bulletin) provide additional helpful information and links. Some of these forms may be available in your unit.

DA Form 5164-R (*Hands On Evaluation*), used by CTT scorer to record GO/NO GO for each performance measure in a given task. Refer to the CTT Manual for the current FY (in the Reimer Digital Library) for links to DA Forms 5164-R that are overprinted with the performance measures for each task on the current CTT.

CTT Performance Sheet used by the CTT scorer to compile all GO/NO GO scores to produce an overall GO or NO GO for the Soldier's common task test. As with the Hands On Evaluation form above, the CTT Performance Sheet is different for each fiscal year; it is overprinted with the tasks from the current CTT and linked from the CTT Manual (in the Reimer Digital Library) for the current fiscal year.

DA Form 5165-R (*Field Expedient Squad Book*), used to record task proficiency for groups of Soldiers in a squad. This squad book should be especially beneficial for recording training results gathered during MTP, field exercises, or individual training sessions. Once training is completed, trainers may transfer information from DA Form 5165-R to the leader book (FM 7-10).

CTT Roll Up for SL 1-2 and SL 3-4, used by trainers and administrators to record performances for larger, unit-size groups of Soldiers. This form allows you to see and report the overall ratio of Soldiers passing the CTT to the total of those tested.

DA Form 2028 (*Recommended Changes to Publications and Blank Forms*), used by Soldiers and trainers to record any comments or questions regarding the task summaries contained in this manual. Use the task proponent address for the appropriate proponent code given in appendix A (first three digits of the task number).

Appendix C
Land Navigation Tasks

071-326-0515

Select a Movement Route Using a Map

Conditions: Given an operation or fragmentary order, a 1:50,000 scale military map and a compass.

Standards: Selected a route with the following characteristics:

1. Took advantage of maximum cover and concealment.
2. Ensured observation and fields of fire for overwatch or fire support elements.
3. Allowed positive control of all elements.
4. Accomplished the mission quickly without unnecessary or prolonged exposure to enemy fire.

Performance Steps

1. Select the route that makes the best use of terrain. Use terrain to your best advantage. Take advantage of the terrain to:
 - a. Cover and conceal to protect the platoon during movement.
 - b. Provide maximum effectiveness of the platoon's weapons.
 2. Use the military aspects of terrain and apply them to any given situation, whether it be a defense, a delay or a road march behind the forward edge of the battle area (FEBA). Consider the following essential elements:
 - a. Use cover and concealment for any type of movement on the battlefield.
-

Performance Steps

(1) Use cover to shield from the effects of weapon fire, especially direct fire. Take advantage of every ravine or depression in the ground to protect and cover the force, especially if forward of the FEBA. Evaluate the terrain, the capabilities of the enemy's weapons systems, and the position of known or suspected enemy emplacements. Visualize a cross section of the terrain and determine where the enemy cannot place effective direct fire on your proposed route.

(2) Conceal or disguises the force. Consider concealment from both air and ground observation. Consider that exhaust smoke or dust can reveal your unit to the enemy.

b. Ensure that your proposed route can be covered by fire from overwatch or fire support positions when moving in an area where contact with the enemy is expected.

(1) Consider direct fire weapons must have good observation to fire known or suspected enemy positions along the movement route. Control the maneuver of your elements, if they make contact. Consider the effects of smoke and dust from friendly and enemy fire.

(2) Select a route that gives your unit the best field of fire. They must be in a position to provide suppressive fires immediately. Use crew-served weapons to overwatch movement. Ensure the overwatch element is able to observe the moving element and provide fire support all the way to the objective. Select overwatch positions that have unobstructed fields of fire to the next overwatch position.

3. Ensures that the route can be covered by fire from overwatch or fire support positions. Select the route that provides the most favorable tactical advantage and meets the mission requirements. If enemy air is active or enemy ground forces are in the area of the route, take maximum advantage of cover and concealment. If speed of movement is critical, select the route with the most easily negotiable terrain, avoiding difficult obstacles. Chose the route that provides movement from one easily distinguishable terrain feature to another. Check the terrain, based on the above considerations, selected the quickest and safest route.

Performance Steps

- 4. Use special purpose maps and aerial photographs when a planning a route. If those aids are available, they provide the most current information.
- 5. Reconnoiter the route if time is available and the tactical situation permits it.

Evaluation Preparation: Setup: In a field environment, provide the Soldier with a 1:50,000-scale military map of the area and a compass, and issue him an oral or written operation order.

Brief Soldier: Tell the Soldier to select a route of movement between two given points (marked on the map) where the likelihood of enemy contact is unknown. The Soldier must select a route that offers the best cover and concealment, ensure the best observation and fields of fire for support elements, allow positive control of elements, and accomplish the mission without unnecessary or prolonged exposure to enemy fire.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Made a map reconnaissance of the area that must be moved over.	___	___
2. Selected a route that offers:	___	___
a. Maximum cover.		
b. Maximum concealment.		
c. Good observation to fire at known or suspected enemy positions along movement route.		
d. Best fields of fire.		
e. Most favorable tactical advantage.		
f. Positive control of all elements.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 7-7

FM 7-8

Related

071-329-1000

Identify Topographic Symbols on a Military Map

Conditions: Given a standard 1:50,000-scale military map.

Standards: Identify topographic symbols, colors, and marginal information on a military map with 100 percent accuracy.

Performance Steps

1. Identify the colors on a military map.

Note: Ideally, every feature on the part of the earth mapped could be shown on the map in its true shape and size. Unfortunately, that is impossible. The amount of detail shown on a map increases or decreases depending on its scale; for example, a map with a scale of 1:250,000. Details are shown by topographic symbols. These symbols are shown using six basic colors as shown in table 071-329-1000-1.

2. Identify the symbols on the map that represent physical features, such as physical surroundings or objects, as shown in table 071-329-1000-2.

Performance Steps

Table 071-329-1000-2. Features on topographic maps.

FEATURES	COLORS	DESCRIPTION
Drainage	Blue	These symbols include lakes, streams, rivers, marshes, swamps, and coastal waters.
Relief	Brown	These features are normally shown by contour lines, intermediate contour lines, and form lines. In addition to contour lines, there are relief symbols to show cuts, levees, sand, sand dunes, ice fields, strip mines, and glaciers.
Vegetation	Green	These symbols include woods, scrub, orchards, vineyards, tropical grass, mangrove and marshy areas, or tundra.
Roads	Red, Black, or Red-brown	These symbols show hard-surface, heavy-duty roads; hard surface, medium-duty roads; improved light-duty roads; unimproved dirt roads; and trails. On foreign road maps, symbols may differ slightly; check the map legend for proper identification of roads.
Railroads	Black	These symbols show single-track railroads in operation; single-track railroads not in operation; double- or multiple-track railroads.
Buildings	Black, Yellow, Red, or Pink	These symbols show built-up areas, schools, churches, ruins, lighthouses, windmills, and cemeteries.

- a. Identify each object by its shape on the map. For example, a black, solid square represents a building or a house; a round or irregular blue item is a lake or pond.

Performance Steps

b. Use logic and color to identify each map feature. For example, blue represents water. If you see a symbol that is blue and has clumps of grass, this would be a swamp.

c. The size of the symbol shows the relative size of the object. Most symbols are enlarged 6 to 10 times so that you can see them under dim light.

d. Use the legend, which should identify most of the symbols used on the map.

3. Identify the marginal information found in the legend.

a. Top of map sheet:

(1) Top left corner—the geographic location covered by the map and the scale of the map.

(2) Top center—the name of the map sheet.

(3) Top right corner—the map edition, the map series, and the map sheet number.

b. Bottom of map sheet:

(1) Lower left corner—the legend, the name of the agency that prepared the map, the map sheet number, and the map sheet name.

(2) Bottom center—the bar scales in meters, yards, miles, and nautical miles; the contour interval of the contour lines; the grid reference box; the declination diagram; and the G-M angle (mils or degrees).

(3) Lower right corner—the elevation guide, the adjoining map sheet diagram, and the boundaries box, which shows any boundaries that might be on the map.

Evaluation Preparation: Setup: On a 1:50,000-scale military map, circle each item of marginal information found on the map. Randomly letter the circled items A through J. Circle an item or feature shown on the map by color. Randomly number each colored item 1 through 10. The items are listed in the Evaluation Guide/Performance Measures. For each Soldier tested, provide a sheet of paper, two pencils, and a duplicate map.

Brief Soldier: Tell the Soldier to letter the paper A through J, and then 1 through 10. Tell the Soldier to write the name of the item contained in each lettered and numbered circle on the map.

Performance Measures	GO	NO GO
1. Identify the sheet name.	_____	_____
2. Identify the sheet number.	_____	_____
3. Identify the contour interval.	_____	_____
4. Identify the G-M angle (mils or degrees).	_____	_____
5. Identify the legend.	_____	_____
6. Identify the bar scales.	_____	_____
7. Identify the declination diagram.	_____	_____
8. Identify the grid reference box.	_____	_____
9. Identify the adjoining map sheets diagram.	_____	_____
10. Identify the elevation guide.	_____	_____
11. Identify 2 of 2 specific man-made features (shown in black on the map).	_____	_____
12. Identify 2 of 2 water features (blue on the map).	_____	_____
13. Identify 2 of 2 vegetation features (green on the map).	_____	_____
14. Identify 2 of 2 man-made features, for example, main roads or built-up areas (brown or red-brown on the map).	_____	_____
15. Identify 2 of 2 contour lines (brown or red-brown on the map).	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 21-31

FM 3-25.26

Related

071-329-1001

Identify Terrain Features on a Map

Conditions: Given a standard 1:50,000-scale military map.

Standards: Identify the five major and three minor features on the map.

Performance Steps

1. Identify terrain features in table 071-329-1001-1 the same way on all maps, regardless of the contour interval. Keep in mind that a hill in the Rocky Mountains will be much bigger than the one in South Florida. You must be able to recognize all the terrain features to locate a point on the ground or to navigate from one point to another (figures 071-329-1001-1 through 071-329-1001-10).

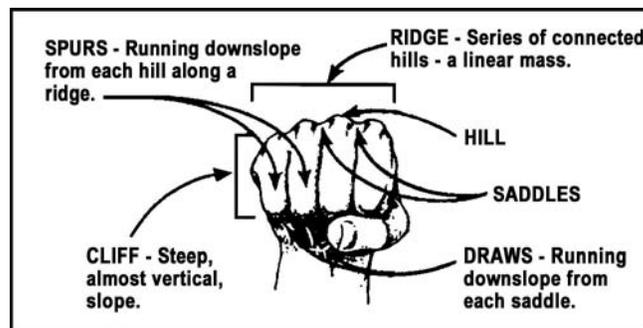


Figure 071-329-1001-1. Using fist to explain terrain feature

Performance Steps

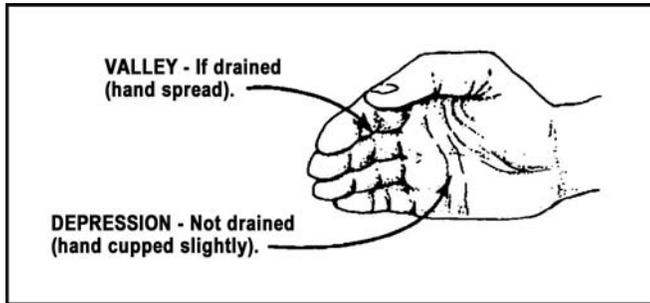


Figure 071-329-1001-2. Using hand to explain terrain feature.

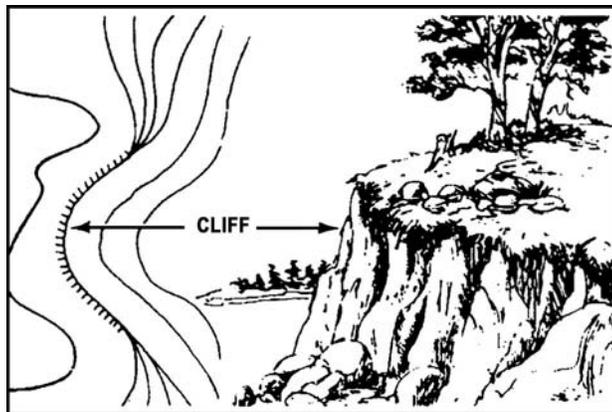


Figure 071-329-1001-3. A cliff

Performance Steps

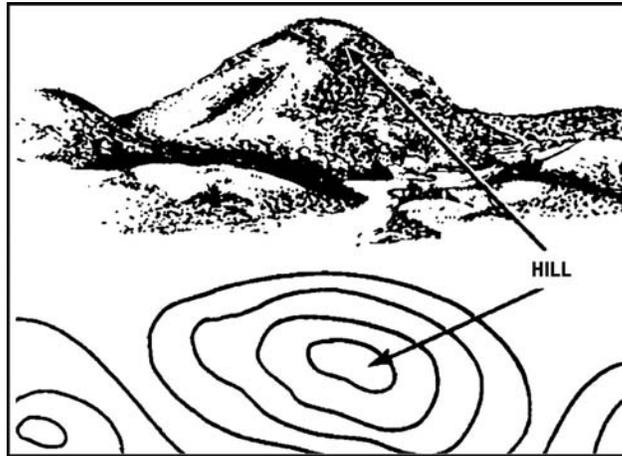


Figure 071-329-1001-4. A hill

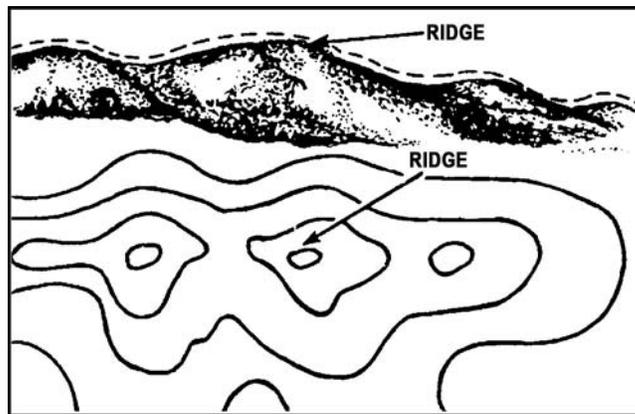


Figure 071-329-1001-5. A ridge

Performance Steps

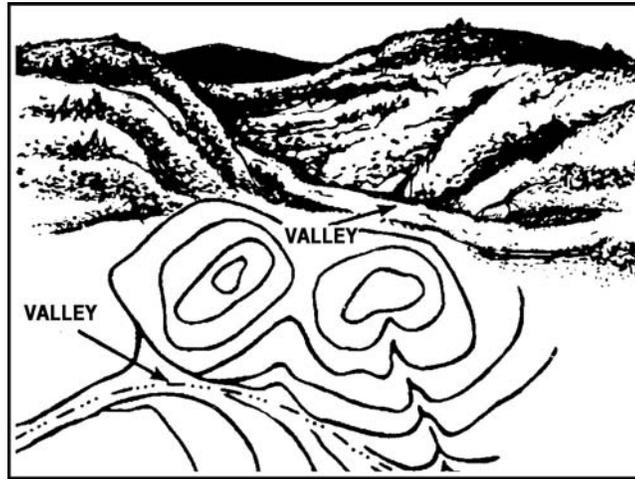


Figure 071-329-1001-6. A valley

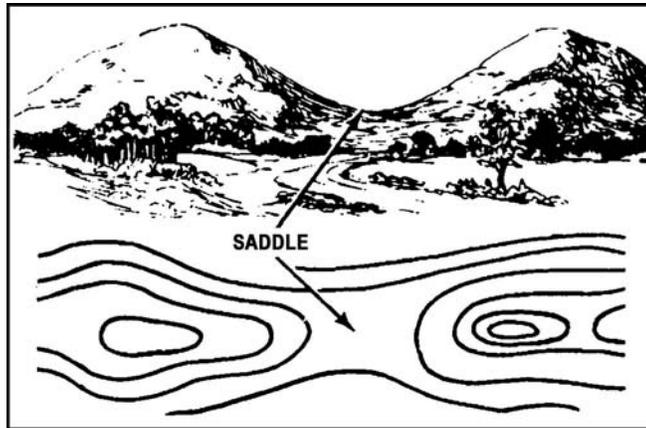


Figure 071-329-1001-7. A saddle

Performance Steps

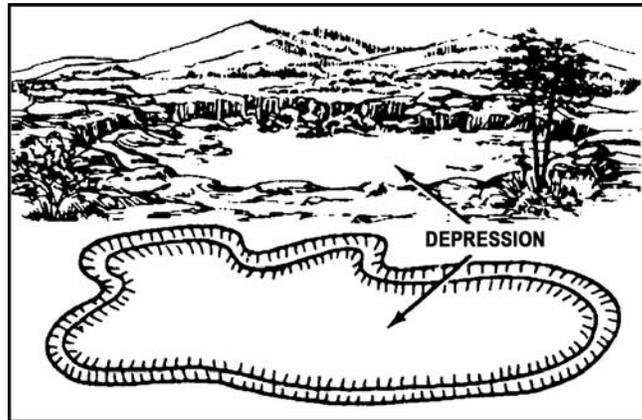


Figure 071-329-1001-8. A depression

Performance Steps

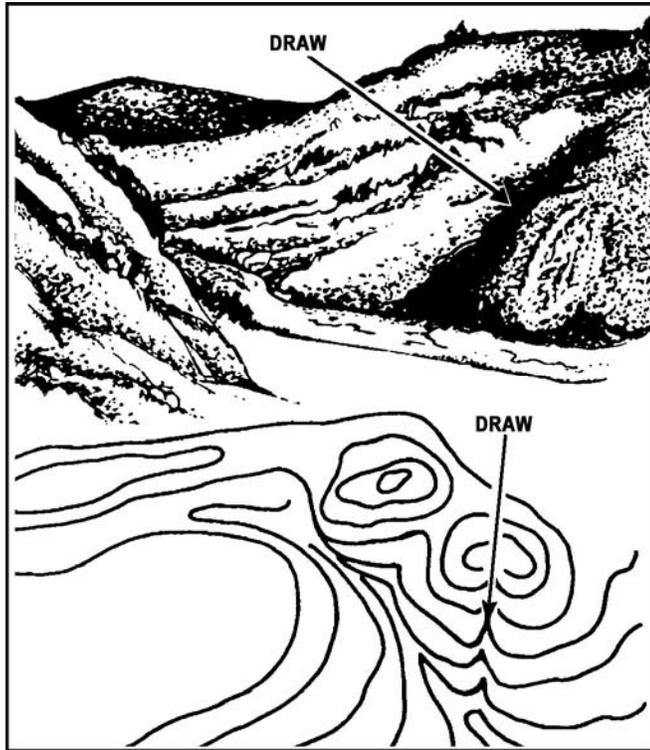


Figure 071-329-1001-9. A draw

Performance Steps

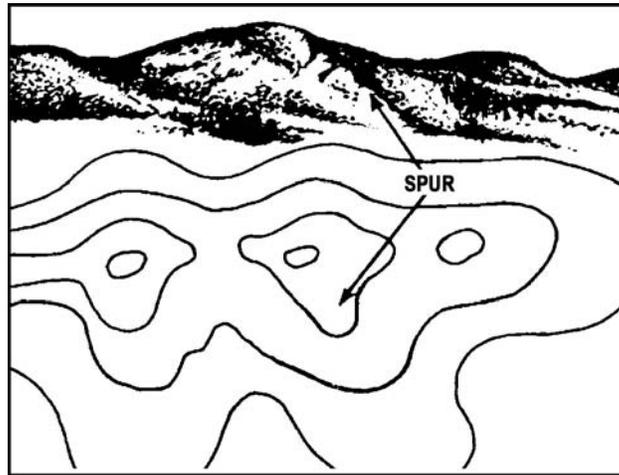


Figure 071-329-1001-10. A spur

Table 071-329-1001-1. Major and minor terrain features

FEATURE	CHARACTERISTICS	MAP SYMBOL
Spur Figure 9 Minor	Short, continuously sloping line of higher ground jutting out the side of a ridge. Often formed by parallel streams cutting draws down a ridge.	Contour lines depict a spur with the U or V pointing away from high ground.
Cliff Figure 10 Minor	A vertical or near vertical slope.	Contour lines are close together or a ticked or "carrying" contour line (ticks point to lower ground).

Performance Steps

Table 1. Major and minor terrain features (continued).

FEATURE	CHARACTERISTICS	MAP SYMBOL
Hill Figure 3 Major	A point or small area of high ground from which the ground slopes down in all directions.	Contour lines forming concentric circles.
Ridge Figure 4 Major	A line of high ground with height variations along its crest.	Contour lines forming a U or V; closed end points away from high ground.
Valley Figure 5 Major	Reasonably level ground bordered on the sides by higher ground. Generally has maneuver room. Contains a stream.	Contour lines form U. Lines tend to parallel stream before crossing. Contour line crossing a stream always points upstream.
Saddle Figure 6 Major	A dip/low point along a ridge crest; either lower ground between two hill tops or a break in the level crest.	A saddle is normally represented as an hourglass.
Depression Figure 7 Major	Low point or hole in the ground with higher ground on sides.	Closed contour lines that have tick marks pointing toward low ground.
Draw Figure 8 Minor	Like a valley, but normally has less developed stream course. No level ground and little or no maneuver room. Ground slopes upward on the sides and toward the head of the draw.	Contour lines are V-shaped with the point of the V toward the head of the draw (high ground).

Evaluation Preparation: Setup: Use a 1:50,000-scale military map. Circle one example of each major terrain feature and one example of each minor terrain feature. Randomly number the circled terrain

features 1 through 8. Provide each Soldier being tested with duplicate sets of the map, paper, and two pencils.

Brief Soldier: Tell the Soldier to number the paper 1 through 8. Tell the Soldier to write down the terrain feature that corresponds to each circled area on the map.

During instruction, demonstrate to the Soldiers how they can learn terrain features using the fist and hand (figures 071-329-1001-1 and 071-329-1001-2). Use these to show what each terrain feature would look like on the ground.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Identify the following.	_____	_____
a. Hilltop.		
b. Ridge.		
c. Valley.		
d. Saddle.		
e. Depression.		
f. Draw.		
g. Spur.		
h. Cliff.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-21.71

Related

071-329-1002

Determine the Grid Coordinates of a Point on a Military Map

Conditions: Given a standard 1:50,000-scale military map in a field location, a 1:50,000 grid coordinate scale, a pencil, paper, and a point on the map.

Standards: Determine the six-digit grid coordinates for the point on the map with a 100-meter tolerance. Record the grid coordinates with the correct two-letter 100,000-meter-square identifier.

Performance Steps

Notes:

1. A military map can help you spot your location accurately. The map has vertical lines (top to bottom) and horizontal lines (left to right). These lines form small squares 1,000 meters on each side called grid squares.
 2. The lines that form grid squares are numbered along the outside edge of the map picture. No two grid squares will have the same number.
 3. The precision of a point location is shown by the number of digits in the coordinates; the more digits, the more precise the location. For example, "1996" is a 1,000-meter grid square, that is, it identifies a location to the nearest 1,000 meters. "192961" is a 100-meter grid square, that is, it identifies the location to the nearest 100 meters.
1. Look at figure 071-329-1002-1. Your address is grid square 1181. To determine your address, start from the left and read right until you come to 11, the first half of your address. Then read up to 81, the other half. Your address is somewhere in grid square 1181.

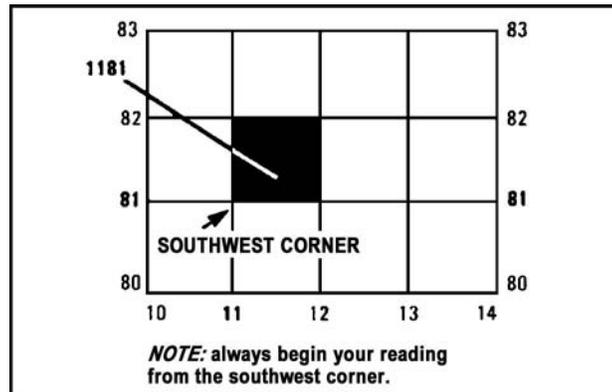


Figure 071-329-1002-1. Grid square 1181

Performance Steps

2. Determine your address to the nearest 100 meters. Grid square 1181 gives your general neighborhood, but there is a lot of ground inside that grid square. To make your address more accurate, just add another number to the first half and another number to the other half so your address has six numbers instead of four.

a. To get these extra numbers, suppose that each grid square has 10 lines inside it running north and south, and another 10 running east and west. This makes 100 smaller squares. You can estimate where these imaginary lines are (figure 071-329-1002-2).

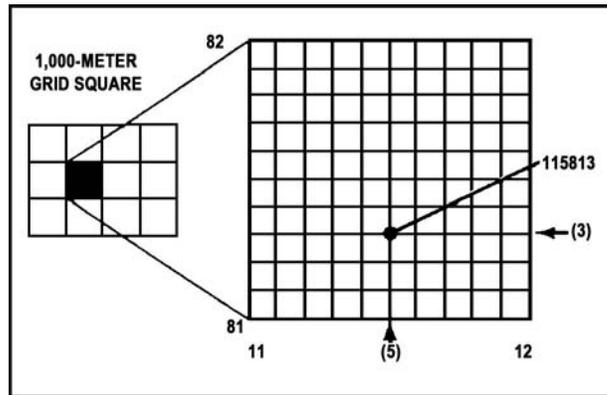


Figure 071-329-1002-2. Grid square 1181 divided

b. Suppose you are halfway between grid line 11 and grid line 12. Then the next number is 5 and the first half of your address is 115. Now suppose you are also 3/10 of the way between grid line 81 and grid line 82. Then the second half of your address is 813. Your address would be 115813 (figure 071-329-1002-2). (If you are exactly on line 81, the second half would be 810.)

Performance Steps

3. Use a coordinate scale. The most accurate way to determine the coordinates of a point on a map is with a coordinate scale. You need not imagine lines, because you can find the exact coordinates using the coordinate scale, protractor (GTA 5-2-12, figure 071-329-1002-3), or the plotting scale (figure 071-329-1002-4). Each device actually includes two coordinate scales, 1:25,000 and 1:50,000 meters. Make sure that, regardless which device you use, you choose the correct scale.

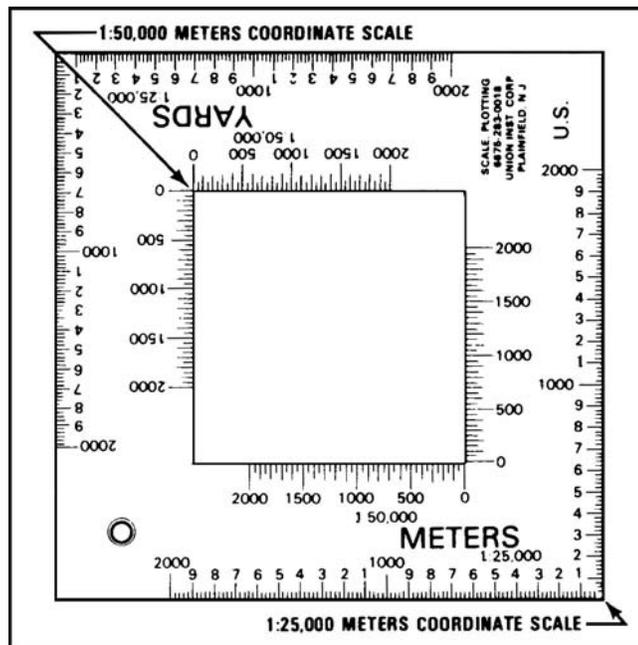


Figure 071-329-1002-3. Coordinate scale and protractor

Performance Steps

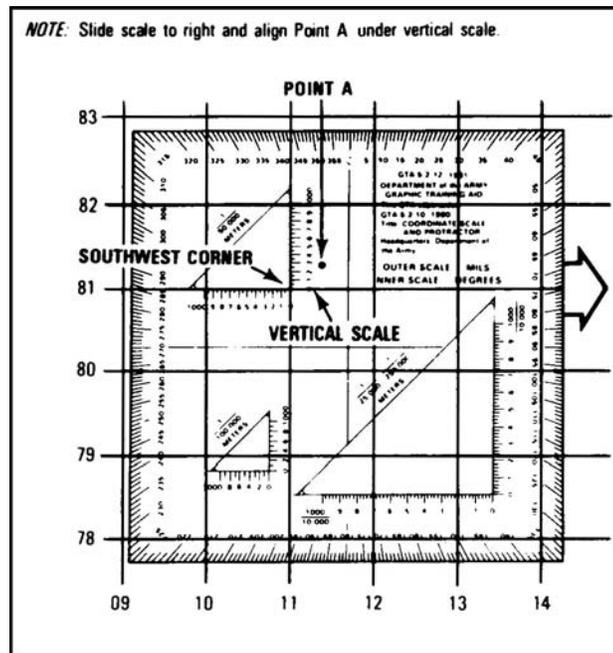


Figure 071-329-1002-5. Placement of the coordinate scale

- b.** The number of the vertical grid line on the left (west) side of the grid square gives the first and second digits of the coordinate.
- c.** The number of the horizontal grid line on the bottom (south) side of the grid square gives the fourth and fifth digits of the coordinate.
- d.** Place a coordinate scale on the bottom horizontal grid line of the grid square containing Point A to determine the third and sixth digits of the coordinate.
- e.** Check to see that the zeros of the coordinate scale are in the lower left-hand (southwest) corner of the grid square where Point A is located (figure 071-329-1002-5).

Performance Steps

f. Slide the scale to the right, keeping the bottom of the scale on the bottom grid line until Point A is under the vertical (right-hand) scale (figures 071-329-1002-6 and 071-329-1002-7). To determine the six-digit coordinate, look at the 100-meter mark on the bottom scale, which is nearest the vertical grid line. This mark is the third digit of the number 115. The 100-meter mark on the vertical scale nearest to Point A gives you the sixth digit of the number 813. Putting these together, you have 115813.

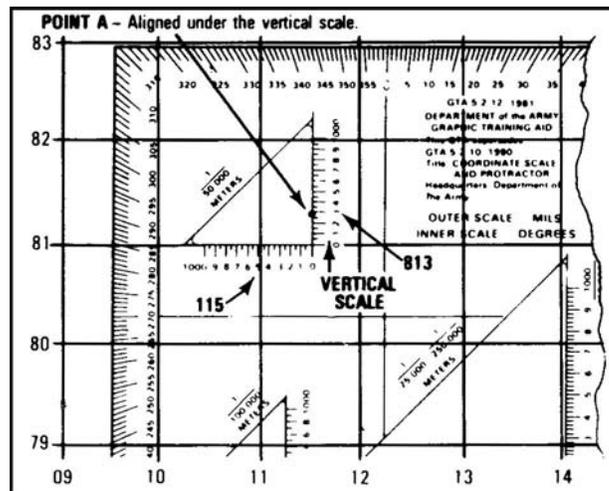


Figure 071-329-1002-6. Aligning the coordinate scale

Performance Steps

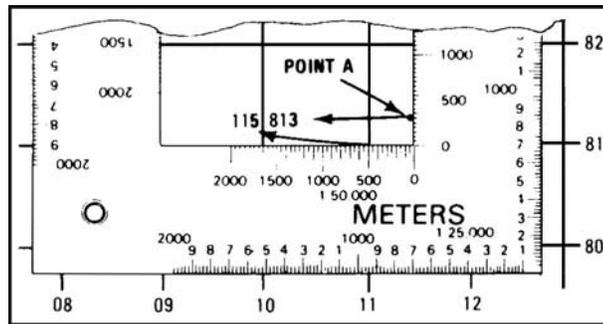


Figure 071-329-1002-7. Aligning the plotting scale

- g.** To determine the correct two-letter 100,000-meter-square identifier, look at the grid reference box in the margin of the map (figure 071-329-1002-8).

Performance Steps

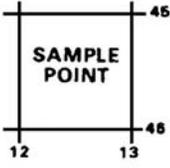
<p>SAMPLE 1,000-METER GRID SQUARE</p> 	<p>100-METER REFERENCE</p> <p>1. READ LARGE NUMBERS LABELING THE VERTICAL GRID LINE LEFT OF POINT AND ESTIMATE TENTHS (100 METERS) FROM GRID LINE TO POINT.</p> <p>2. READ LARGE NUMBERS LABELING THE HORIZONTAL GRID LINE BELOW POINT AND ESTIMATE TENTHS (100 METERS) FROM GRID LINE TO POINT.</p> <p>EXAMPLE: 123456</p>
<p>100,000-METER SQUARE IDENTIFICATION</p> 	<p>WHEN REPORTING ACROSS A 100,000-METER LINE, PREFIX THE 100,000 METER SQUARE IDENTIFICATION IN WHICH THE POINT LIES.</p> <p>EXAMPLE: FL123456</p>
<p>GRID ZONE DESIGNATION</p> <p>16S</p>	<p>WHEN REPORTING OUTSIDE THE GRID ZONE DESIGNATION AREA, PREFIX THE GRID ZONE DESIGNATION.</p> <p>EXAMPLE: 16SFL123456</p>

Figure 071-329-1002-8. Grid reference box

h. Place the 100,000-meter-square identifier in front of the coordinate, GL115813.

Evaluation Preparation: Setup: Give the Soldier a standard 1:50,000-scale military map in a field location, a 1:50,000 grid coordinate scale, a pencil, paper, and a point on a map for which coordinates must be determined.

Brief Soldier: Tell the Soldier to write down the two-letter 100,000-meter-square identifier and the six-digit grid coordinates for one point, along with the two-letter 100,000-meter-square identifier.

Performance Measures	GO	NO GO
1. Determine the 6-digit grid coordinates for the point on the map with a 100-meter tolerance.	_____	_____
2. Record the grid coordinates with the correct 2-letter 100,000-meter-square identifier.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

GTA 05-02-12

Related

071-329-1003

Determine a Magnetic Azimuth Using a Lensatic Compass

Conditions: Given a compass and a designated point on the ground.

Standards: Determined the correct magnetic azimuth to the designated point within 3 degrees using the compass-to-cheek method, and within 10 degrees using the center-hold method.

Performance Steps

1. Read your compass (figure 071-329-1003-1).

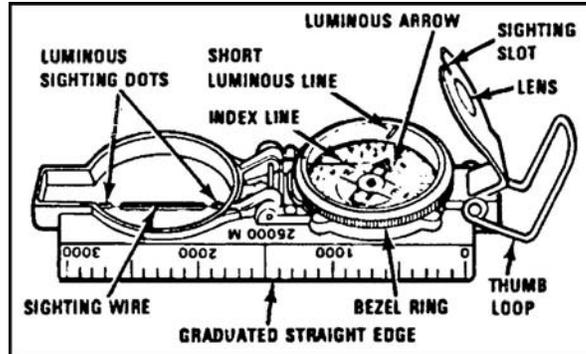


Figure 071-329-1003-1. Lensatic compass

- a. The floating dial is used to determine the direction in which you are pointing your compass.
- b. The outer, black ring of numbers and tick marks are used for finding direction in mils (figure 071-329-1003-2).

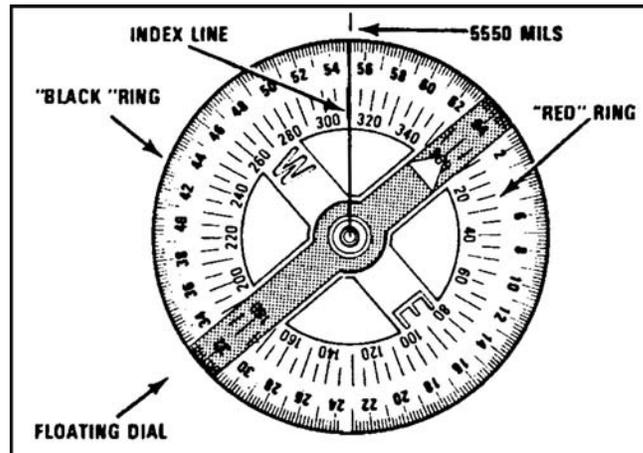


Figure 071-329-1003-2. Lensatic compass floating dial

Performance Steps

c. The inner red ring of numbers and tick marks are used for finding direction in degrees.

(1) There are 360 degrees or 6400 mils in a circle. These are marked with a tick mark every 5 degrees or 20 mils. However, not every tick mark is numbered. You will have to determine the number for these lines using the numbers that are shown.

(2) To read direction, point the compass in the direction you want to go or want to determine.

(3) Look beneath the index line on the outer glass cover and estimate to the nearest degree or 10 mils the position of the index line over the red or black scale.

(4) Be careful to hold the compass still so that the dial remains stationary while you are reading the scale.

(5) If you understand these readings and can apply either of the holding and sighting techniques of shooting an azimuth, you will be proficient in performing this task.

2. Shoot an azimuth.

a. Use your compass to determine or follow an azimuth. The arrow on the compass points toward magnetic north. The arrow is also attracted by any mass of metal; for example, a truck, your rifle, your helmet, and even electrical power lines. Thus, be sure you use your compass away from metal objects so it will not give a wrong reading.

b. The lensatic compass must always be held level and firm when sighting on an object and reading an azimuth.

c. There are two methods of holding the lensatic compass and sighting.

(1) Compass-to-cheek method (figure 071-329-1003-3). To use this method:

(a) Open the cover to a 90-degree angle to the base. Position the eyepiece at a 45-degree angle to the base.

Performance Steps

(b) Place your thumb through the thumb loop, form a steady base with your third and fourth fingers, and extend your index finger along the side of the compass base.

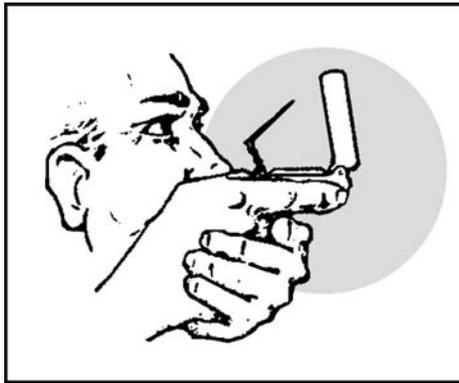


Figure 071-329-1003-3. Compass-to-cheek method

(c) Place the hand holding the compass into the palm of the other hand.

(d) Bring both hands up to your face and position the thumb that is through the thumb loop against the cheekbone.

(e) Look through the lens of the eyepiece. If the dial is not in focus, move the eyepiece up or down until the dial is in focus.

(f) Align the sighting slot of the eyepiece with the sighting wire in the cover on the point for which the azimuth is being determined. Look through the lens of the eyepiece and read the azimuth under the index line.

(2) Center-hold method (figure 071-329-1003-4). Use this method only when you do not need a precise direction:

Performance Steps

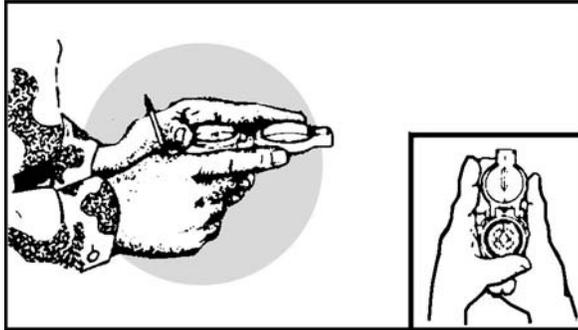


Figure 071-329-1003-4. Center-hold method

(a) Open the compass so that the cover forms a straight edge with the base. The lens of the compass is moved out of the way.

(b) Next, place your thumb through the loop, form a steady base with your third and fourth fingers, and extend your index finger along the side of the compass.

(c) Place the thumb of the other hand between the eyepiece and lens, extend the index finger along the remaining side of the compass, wrap the remaining fingers around the fingers of the other hand, and pull your elbows firmly into your side. This will place the compass between your chin and your belt.

(d) To measure an azimuth, turn your entire body toward the object and point the compass cover directly at the object. Look down and read the azimuth from beneath the fixed black index line. This method can be used at night.

(e) To keep from going in circles when you are land navigating, stop occasionally to check the azimuth along which you are moving. Also, you can move from object to object along your path by shooting an azimuth to each object and then moving to that object. Repeating this process while you navigate should keep you straight.

Evaluation Preparation: Setup: Select a point to use as a target and determine the azimuth to the point using the compass that the Soldier will use.

Brief Soldier: Point out the selected spot to the Soldier. Tell the Soldier to shoot an azimuth to that spot using both the compass-to-cheek method and the center-hold method.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Determine the correct magnetic azimuth to the designated point within 3 degrees using the compass-to-cheek method.	_____	_____
2. Determine the correct magnetic azimuth to the designated point within 10 degrees using the center-hold method.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related

071-329-1004

Determine the Elevation of a Point on the Ground Using a Map

Conditions: Given a standard 1:50,000 scale military map, a pencil, and a designated point on the map.

Standards: Determine the elevation of the designated point to within half the value of the contour interval.

Performance Steps

1. Contour lines and contour intervals.

a. The brown lines on the map are called contour lines. Each line shows the height above sea level. Contour lines never cross one another. Printed at the bottom of the map is the contour interval, which is the difference in height (elevation) between one brown line and the one on either side of it. On a map with a scale of 1:50,000, the contour interval is usually 20 meters. This would make Point A 80 meters higher or lower than Point B (figure 071-329-1004-1).

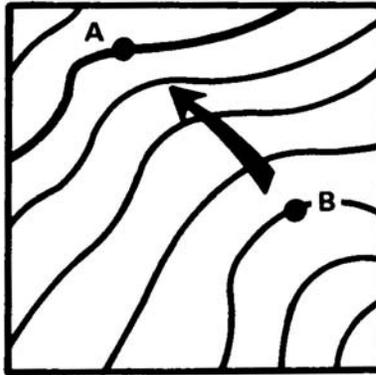


Figure 071-329-1004-1. Contour lines

b. You can easily tell from the brown lines the direction of uphill or downhill, because every fifth line is heavier and has a number that gives its elevation. Suppose the contour interval is 20 meters. Now you can tell that Point B. Also, if you know the distance between A and B, you can get an idea of the steepness of the slope (figure 071-329-1004-2).

Performance Steps

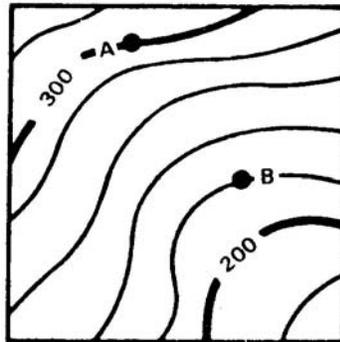


Figure 071-329-1004-2. Contour intervals

c. Widely spaced contour lines show a gentle slope. Close lines indicate a steep slope (figure 071-329-1004-3).

Performance Steps

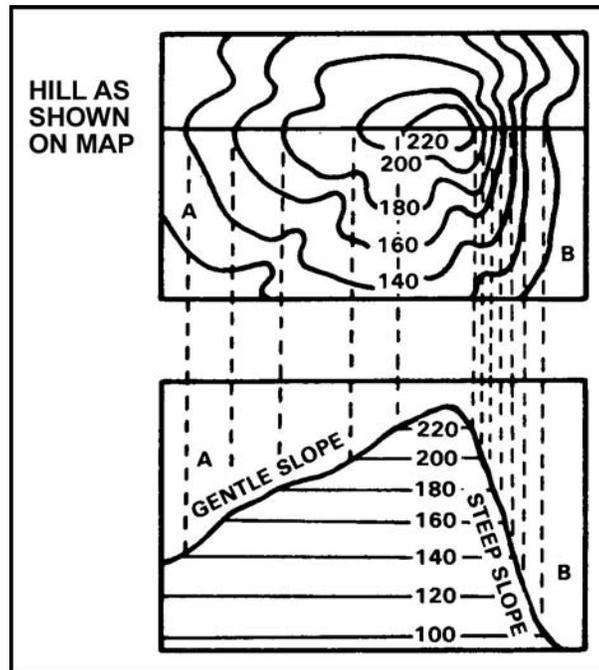


Figure 071-329-1004-3. Slope

- d. Widely spaced contour lines at the top of a hill show a flat hilltop. Close lines indicate a pointed hill (figure 071-329-1004-4).

Performance Steps

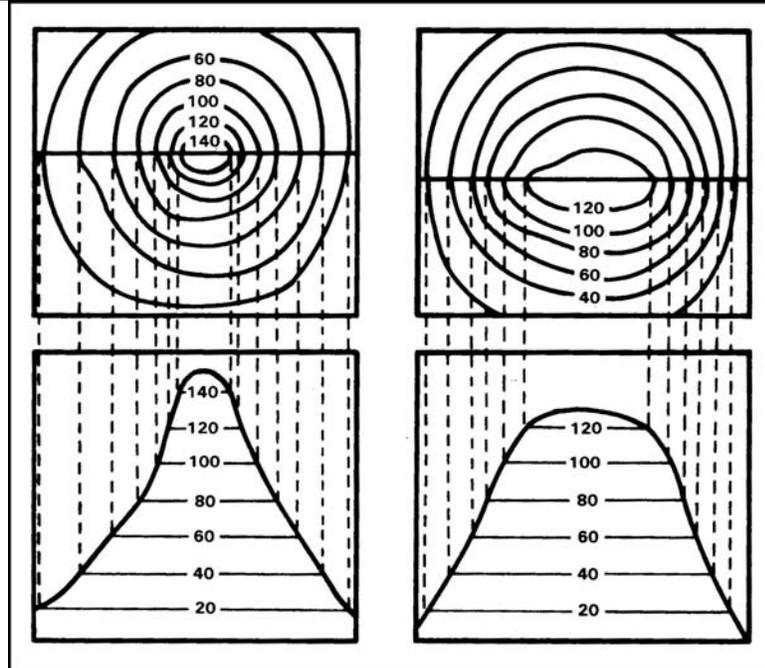


Figure 071-329-1004-4. Elevation

2. Determine elevation.
 - a. Locate the point on the map. (It may already be plotted on the map, or given as eight-digit coordinates).
 - b. Determine the contour interval of the map from the marginal information.
 - c. Locate the index contour line nearest the point for which the elevation is being sought.

Performance Steps

d. Count the number of contour lines, up or down, that must be crossed to go from the numbered lines to the point, and note the direction to the point. If the point is on a contour line, its elevation is that of the contour line. For points between contour lines—

(1) Points less than one-fourth the distance between lines are considered to be the same as the elevation of the nearest line.

(2) Point one-fourth to three-fourths the distance from the lower line are considered to be at an elevation half the contour interval above the lower line.

e. To estimate the elevation of the top of an unmarked hill, add half the contour interval to the elevation of the highest contour line around the hill.

f. To estimate the elevation of the bottom of depression, subtract half the contour interval from the elevation of the lowest contour around the depression.

g. On maps that do not show elevation and relief in as much detail as is needed, use supplementary contour lines. Marginal information indicates the interval. Use the supplementary lines exactly like you would use solid contour lines.

Evaluation Preparation: Setup: Provide the Soldier with a 1:50,000 scale military map, a designated point on the map labeled "A," and a pencil.

Brief Soldier: Tell the Soldier to determine the elevation of the point that is labeled "A" on the map.

Performance Measures	GO	NO GO
1. Determine the correct elevation within half the value of the contour interval.	_____	_____
Noted: If the contour interval of the map is in feet, the answer must be in feet. If the contour interval is in meters, the answer must be in meters.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related

071-329-1005

Determine a Location on the Ground by Terrain Association

Conditions: In the field during daylight, while at an unknown location on the ground, given a standard 1:50,000-scale military map of the area, pencil, paper, a coordinate scale and protractor, and a known point on the ground.

Standards: Within 7 minutes, determine the six-digit coordinate of your location with a 100-meter tolerance.

Performance Steps

1. Determine the type of terrain feature you are located on.
2. Determine what types of terrain features surround your location.
3. Orient the map.
4. Determine the four cardinal directions (North, South, East, and West).
5. Determine your location.
 - a. Relate the terrain features on the ground to those shown on the map.
 - b. After you have determined where the terrain features on the ground and those on the map coincide, determine the coordinates of your location using the coordinate scale and protractor.

Evaluation Preparation: Setup: Select a field site whose terrain features are shown on the map. At the test site, provide a field table, a 1:50,000-scale military map of the area, pencil, paper, and a coordinate scale.

Brief Soldier: Tell the Soldier he or she must determine a six-digits coordinate of his or her location within 7 minutes. Tell the Soldier one of the cardinal directions (North, South, East, or West).

Performance Measures	GO	NO GO
1. Identify the type of terrain feature where you are located.	_____	_____
2. Identify the terrain features around your location.	_____	_____
3. Orient the map.	_____	_____
4. Determine the remaining three cardinal directions.	_____	_____
5. Identify the same terrain features on the map.	_____	_____
6. Determine the six-digit grid coordinate of your own location (the point selected must be within 100 meters of your location).	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related

071-329-1008

Measure Distance on a Map

Conditions: Given a standard 1:50,000-scale military map, a strip of paper with a straight edge, and a pencil.

Standards: 1. Determine the straight-line distance between two points in meters, with no more than 5 percent error.

2. Determine the road (curved line) distance between two points in meters, with no more than 10 percent error.

Performance Steps

1. Identify the scale of the map. The map scale is the ratio (1:50,000) of the distance on map (1 inch) relative to the distance on the ground (usually 50,000 inches).
2. Convert a straight-line map distance to miles, meters, or yards using the map's bar scale (figure 071-329-1008-1).

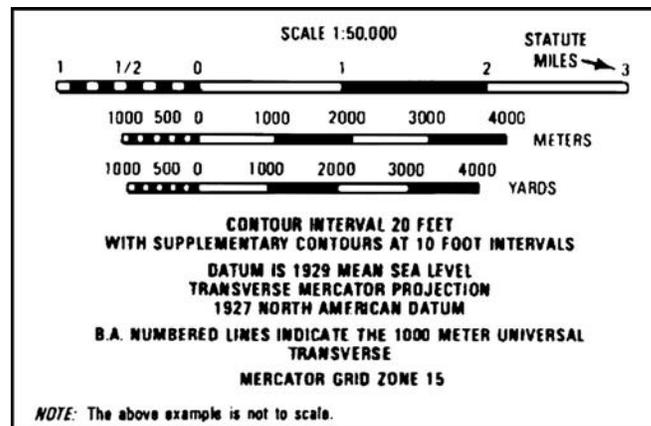


Figure 071-329-1008-1. Bar scales

- a. For map distances equal to or less than one inch—
 - (1) Line up the straight edge of a strip of paper with the beginning and ending points on the map.
 - (2) Mark on the straight edge of the paper the beginning and ending points (figure 071-329-1008-2).

Performance Steps

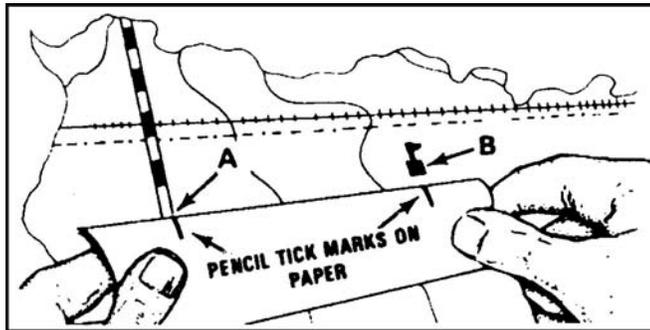


Figure 071-329-1008-2. Measuring distance

(3) Match the marks on the paper with the appropriate bar scale (figure 071-329-1008-3).

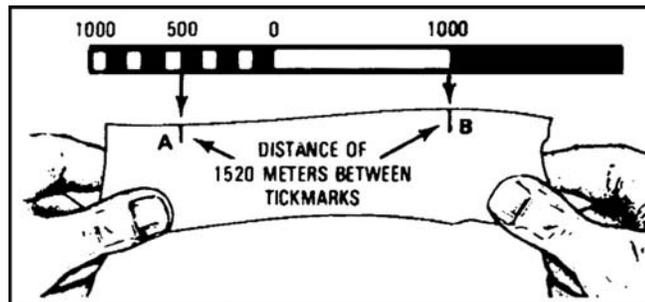


Figure 071-329-1008-3. Determining distance

(4) Determine the distance on the scale that compares to the distance on the paper.

b. For map distances greater than one inch—

(1) Line up the straight edge of a strip of paper with the beginning and ending points on the map.

(2) Mark the beginning and ending points on the straight edge of the paper (figure 071-329-1008-2).

(3) Place the starting point on the paper under the zero on the bar scale.

Evaluation Preparation: Setup: In the field or classroom, give the Soldier a 1:50,000-scale military map, a strip of paper with a straight edge, and a pencil. On the map, plot a straight-line distance of 3,000 to 4,000 meters. Mark this distance points A and B. On a road or trail, plot a curved-line distance of 3,000 to 4,000 meters with at least two changes of direction. Mark this distance points C and D.

Brief Soldier: Tell the Soldier to determine the straight-line distance between points A and B with no more than 5 percent error, and the curved-line distance between points C and D with no more than 10 percent error. The Soldier must either write down the correct answers or state them when asked by the scorer.

Performance Measures	GO	NO GO
1. Identify the scale of the map.	___	___
2. Convert the straight-line map distance to miles, meters or yards using the map's bar scale, with no more than 5 percent error.	___	___
3. Convert the road map distance to miles, meters, or yards using the map's bar scale, with no more than 10 percent error.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related

071-329-1009

Convert Azimuths

Conditions: Given a standard 1:50,000 scale military map with a declination diagram, a pencil, and magnetic and grid azimuths that must be converted

Standards: Convert the given magnetic azimuth to a grid azimuth and the given grid azimuth to a magnetic azimuth without error.

Performance Steps

1. The north-south lines on your map give grid north. The needle of your compass points to magnetic north. Grid north and magnetic north usually differ by a few degrees. Neither points straight to the North Pole (called true North). However, you need not know true North to keep from getting lost in a combat area. The difference in degrees for every map is shown on the bottom of map sheet (figure 071-329-1009-1).

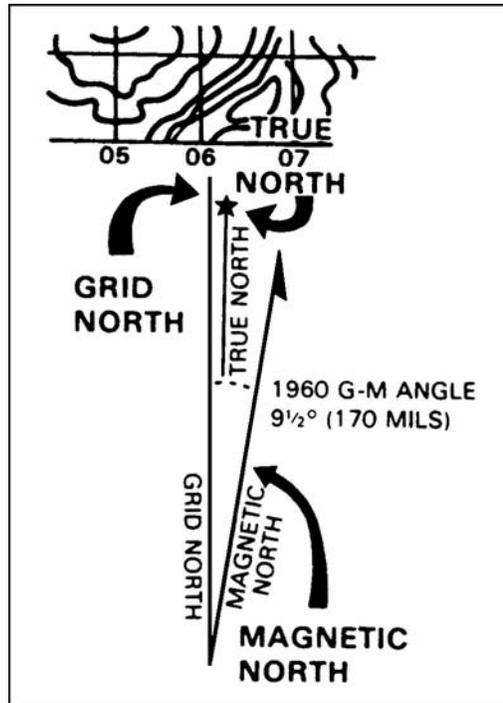


Figure 071-329-1009-1. Declination diagram

2. The difference between grid north and magnetic north is called the grid-magnetic (G-M) angle. The diagram at the bottom of the map tells you how to change grid azimuths to magnetic azimuths and magnetic azimuths to grid azimuths (figure 071-329-1009-2).

Performance Steps

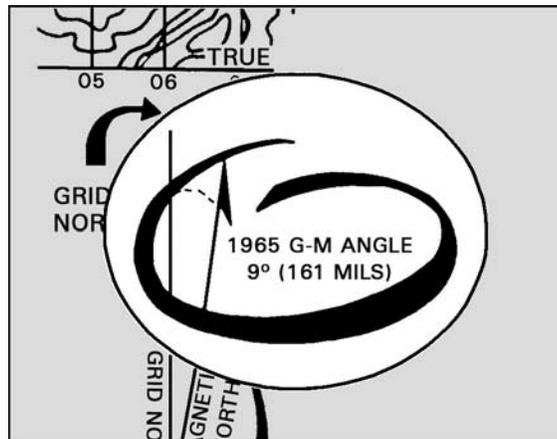


Figure 071-329-1009-2. G-M angle

3. For example, you aim your compass at a distant point. The compass reading you get is 190 degrees, the magnetic azimuth. The diagram on your map (figure 071-329-1009-2) tells you that the G-M angle is 9 degrees, and it also tells you that "to convert a magnetic azimuth to a grid azimuth, add the G-M angle." Therefore add 9 degrees to your compass reading. This gives you $190+9=199$. Your grid azimuth is 199 degrees.
4. The G-M angle depends on where you are in the world.
5. Convert azimuths when given an easterly G-M angle (figure 071-329-1009-3).

Performance Steps

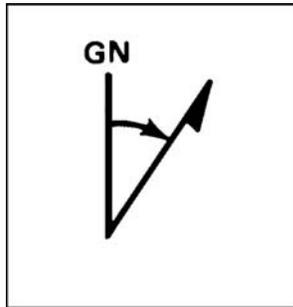


Figure 071-329-1009-3. Converting azimuths with easterly G-M angle

- a. To convert a magnetic azimuth to a grid azimuth, add the value of the G-M angle to the magnetic azimuth.
 - b. To convert a grid azimuth to a magnetic azimuth, subtract the G-M angle from the grid azimuth.
6. Convert azimuths when given a westerly G-M angle (figure 071-329-1009-4).

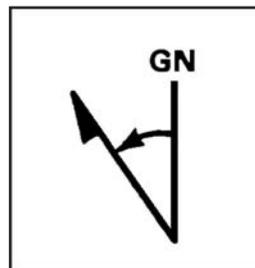


Figure 071-329-1009-4. Converting azimuths with westerly G-M angle

- a. To convert a magnetic azimuth to a grid azimuth, subtract the value of the G-M angle from the magnetic azimuths.
- b. To convert a grid azimuth to a magnetic azimuth, add the value of the G-M angle to the grid azimuth.

Evaluation Preparation: Setup: Give the Soldier a standard 1:50,000 scale military map, a piece of paper, a pencil, and a magnetic and grid azimuth to convert.

Brief Soldier: Tell the Soldier to convert the magnetic azimuth to a grid azimuth and the grid azimuth to a magnetic azimuth.

Performance Measures	GO	NO GO
1. Determine the correct grid azimuth.	_____	_____
2. Determine the correct magnetic azimuth.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related

071-329-1011

Orient a Map Using a Lensatic Compass

Conditions: Given a field table, a standard 1:50,000 scale military map, a protector, a pencil, paper, and a compass in daylight.

Standards: Orient the map to the ground using a compass. The North-seeking arrow of the compass must fall within 3 degrees (20 mils) of the angle shown in the grid-magnetic (G-M) angle on the map's declination diagram.

Performance Steps

1. With the map level, place the compass parallel to a north-south grid line with the cover side of the compass pointing towards the top of the map. This will place the black index line on the dial of the compass parallel to grid north. Since the needle on the compass points to magnetic north, a declination diagram on the face of the compass is formed by the index line and the compass needle.

Performance Steps

2. Rotate map and compass until the directions of the declination diagram formed by the black index line and the compass needle match the direction shown in the declination diagram printed on the margin of the map. Orient the map.
 3. If the magnetic north arrow on the map is to the left of the grid north, the compass reading equals the G-M angle (given the declination diagram). If the magnetic north is the right of the grid north, the compass reading equals 360 degrees (6400 mils) minus the G-M angle.
 4. Remember to point the compass north arrow in the same direction as the magnetic north arrow (2 above). The compass reading (equal to the G-M angle or the 360 degrees [6400 mils] minus the G-M angle) will be apparent.
- Note:** If the G-M angle is less than 3 degrees (50 mils), do not line up the north arrow.
5. Some maps have a built-in protractor consisting of a pivot point "P" on the south neat line of the map and several degrees of arc along the north neat line of the map. The G-M line is obtained by connecting pivot "P" with the appropriate value of the G-M angle (taken from the declination diagram) on the arc. Orient the map by placing the compass parallel on this line. Rotate the map and compass until the needle point aligns with the continuous line formed by the index line and the sighting wire. Orient the map.
 6. An alternate method is to draw a magnetic north line on the map from any N-S and E-W grid line intersection using the protractor. Align the straightedge of the compass along this magnetic north line. Rotate the map and compass together, until the north arrow falls beneath the fixed black index line on the compass.

Evaluation Preparation: Setup: Select an area that is free of magnetic interference (parlance, vehicles). Provide a field table, 1:50,000 scale military map, a protractor, a pencil, paper and compass.

Brief Soldier: Tell the Soldier to orient the map to the ground using the compass. Tell the Soldier to use the G-M angle shown by the declination diagram if it exceeds 3 degrees (50 mils).

Performance Measures	GO	NO GO
1. Determine whether G-M angle exceeds 3 degrees (50 mils)	___	___
2. Align the side of the compass with one of the north-south grid lines.	___	___
3. Position the cover of the compass toward the top of the map.	___	___
4. Orient the map.	___	___
5. Correct the orientations of the map when the G-M angle exceeds 3 degrees (50 mils) using one of the following methods:	___	___
a. Form the G-M angle with the black index line and the needle on the compass.		
b. Use the pivot point "P" on the south neat line and the degrees of arc along the north neat line; place the compass along this line.		
c. Draw a magnetic north line from any N-S and E-W grid the intersection using a protractor and place the compass along this line.		
Note: Steps 5 are only required when the G-M angle is greater than 3 degrees or 50 mils. Step 5b is only tested if the map has the built-in protractor.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related

071-329-1012

Orient a Map to the Ground by Map-Terrain Association

Conditions: Given a standard 1:50,000-scale military map in the field in daylight.

Standards: Orient the map to within 30 degrees of north.

Performance Steps

1. Match terrain features appearing on your map with physical features on the ground (figure 071-329-1012-1).

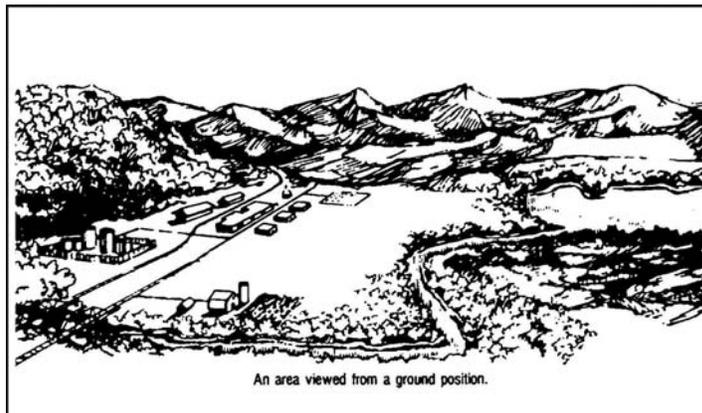


Figure 071-329-1012-1. Features used to orient map

- a. Hold the map in a horizontal position.
 - b. Line up features on the ground with those on the map.
2. Check orientations obtained by this method by placing a compass along one of the North-South grid lines. Do this to keep from orienting the map in the wrong direction, that is, 180 degrees out. Or, check orientations by aligning two or more features. Incorporate the declination constant in determining the 30 degrees.

Evaluation Preparation: Setup: Use an area of terrain with identifiable terrain features, natural, man-made, or both. Provide a field table and a 1:50,000-scale map of the area.

Brief Soldier: Tell the Soldier to use the terrain features and orient the map to within 30 degrees of north.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Matched terrain features by holding map in horizontal position and lining up features on the ground.	_____	_____
2. Checked orientations.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related

071-329-1014

Locate an Unknown Point on a Map and on the Ground by Intersection

Conditions: Given a standard 1:50,000 scale military map of the area, the location of two known points, a compass, a straight edge, a coordinate scale and a protractor (GTA 5-2-12), a pencil, and an object or terrain feature for which you must determine the grid location.

Standards: Determine the 100,000-meter-square identification letters and six-digit coordinates of the object or terrain feature to within 100 meters.

Performance Steps

1. Use the map and compass method (figure 071-329-1014-1).

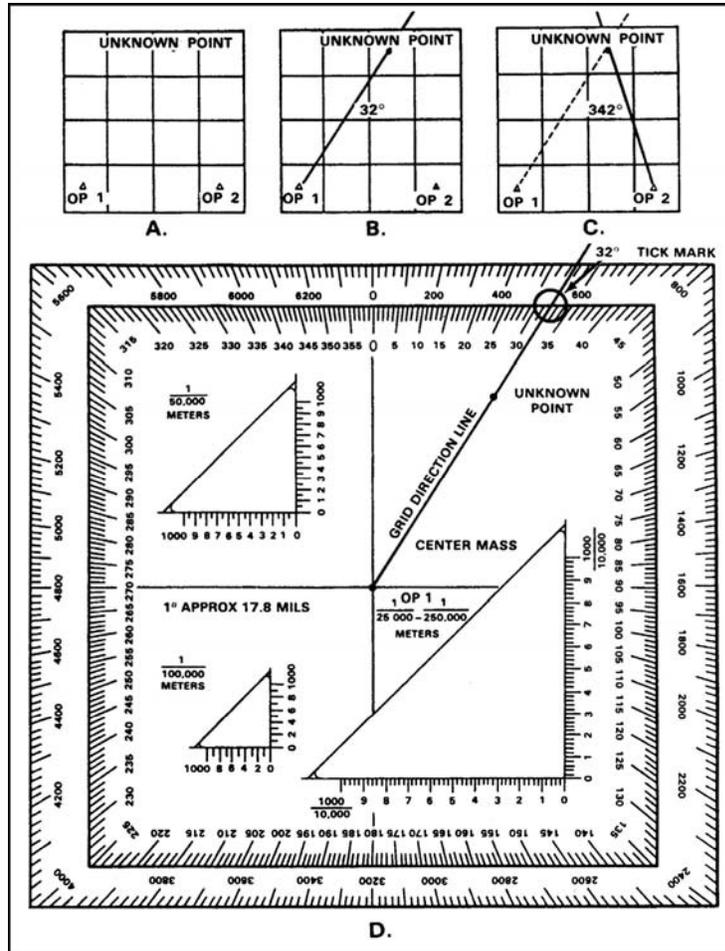


Figure 071-329-1014-1. Location of an unknown point

Note: The example map is not to scale; an easterly G-M angle to 10 degrees is used in the examples.

- a. Determine the G-M angle of the map you are using.

Performance Steps

- b.** Locate and mark your position on the map.
 - c.** Convert the magnetic azimuth to the unknown point (22 degrees); change it to a grid azimuth. In the example, the G-M angle used is 10 degrees easterly, giving a grid azimuth of 32 degrees.
 - d.** Place the protractor on the map, ensuring that the zero-degree indication on the protractor is pointing to the top of the map (North) and the index point is placed center of mass on your location (figure 071-329-1014-1). Place a tick mark at the number of degrees you want to plot. Draw a line on the map from your position on this grid azimuth (32 degrees).
 - e.** Move to or call a second known position from which the unknown point can be seen. Locate this position on the map.
 - f.** Repeat c and d.
 - g.** Where the lines cross is the location of the unknown point.
- 2.** Use the straight edge method (when no compass is available) (figure 071-329-1014-2).
-

Performance Steps

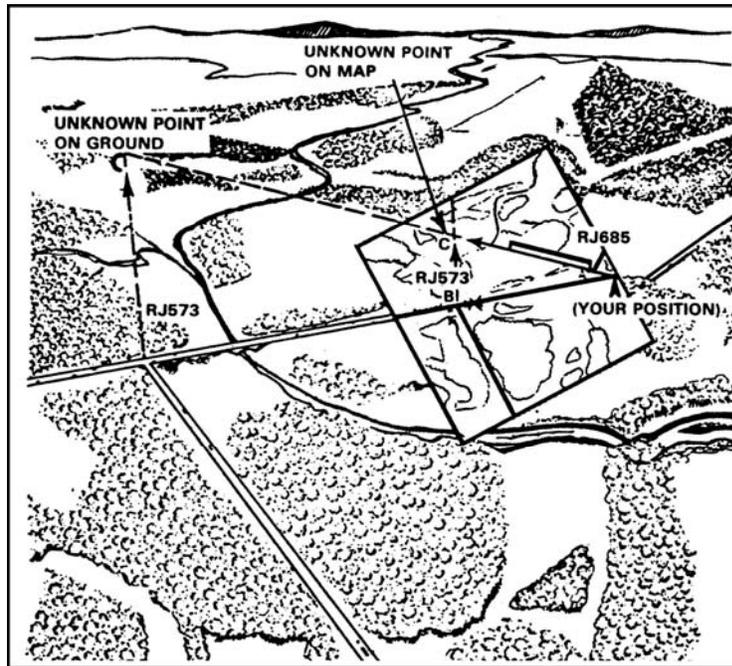


Figure 071-329-1014-2. Intersection without compass

- a. See the task Orient a Map to the Ground by Map Terrain Association, 071-329-1012, in this STP.
- b. Locate and mark your position on the map.
- c. Lay a straight edge on the map with one end at user's position (A) as a pivot point. Rotate the straight edge until the unknown point is sighted along the edge.
- d. Draw a line along the straight edge.
- e. Repeat paragraphs b, c, and d at position (B) and, for check for accuracy, at a third position.
- f. The intersection of the lines is the location of the unknown point (C).

Evaluation Preparation: Setup: In a field location, give the Soldier a standard 1:50,000 scale military map of the area, a compass, a straight edge, a coordinate scale and protractor, a pencil, an unknown point, and two points (at least 400 meters apart) from which to determine azimuths to the unknown point.

Brief Soldier: Tell the Soldier to determine the six-digit grid coordinates of the unknown point.

Performance Measures	GO	NO GO
1. Determine the 6-digit grid coordinates, to include the 100,000 meter square identifier of the unknown point, within 100 meters.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

STP 21-1-SMCT

Related

071-329-1015

Locate an Unknown Point on a Map and on the Ground by Resection

Conditions: Given an unknown location, a standard 1:50,000 scale military map of the area, a compass, a straight edge, a coordinate scale and a protractor (GTA 5-2-12), a pencil, and two terrain features visible from your location and identifiable on the map.

Standards: Determine the 100,000-meter-square identification letters and six-digit coordinates of your location to within 100 meters of the actual grid coordinates.

Performance Steps

1. Use the map and compass method (figure 071-329-1015-1).

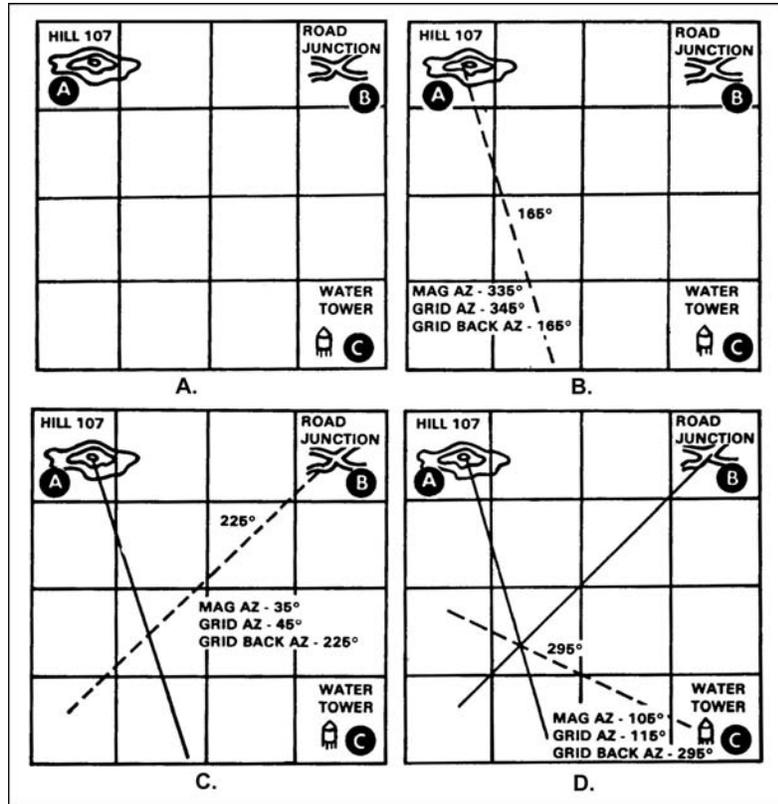


Figure 071-329-1015-1. Using the map and compass

Note: The example map is not to scale. The example uses an easterly G-M angle of 10 degrees.

- a. Determine the G-M angle of the map you are using.
- b. Locate two known positions on the ground and mark them on your map (A, figure 071-329-1015-1).

Performance Steps

c. Using your compass, measure the magnetic azimuth to one of the known locations; change it to a grid azimuth (B, figure 071-329-1015-1.)

(1) If it is a westerly G-M angle, subtract the number of degrees in the G-M angle from your magnetic azimuth.

(2) If it is an easterly G-M angle, add the number of degrees in the G-M angle to your magnetic azimuth.

d. Change this grid azimuth to a back azimuth.

e. Place the protractor on the map, ensuring that the zero-degree indicators on the protractor point to the top of the map (North), and the index point is center mass on this location. Place a tick mark at the number of degrees you want to plot. Remove the protractor from the map and draw a line on the map from this position on the grid back azimuth you found, in the direction of your unknown position.

f. Repeat paragraphs c through e for a second (C, figure 071-329-1015-1) and third (D, figure 071-329-1015-1) known position.

g. Where these lines cross is your location.

Performance Steps

2. Perform resection without a compass (figure 071-329-1015-2).



Figure 071-329-1015-2. Resection without a compass

- a. Orient your map as closely as you can, using one of the ways you've learned for finding direction: compass, sun, watch, or stars. Look for some feature, such a water tower (figure 071-329-1015-2, Point A), that you can also find on the map. Put a ruler or straight edge on the map, and place it next to the water tower symbol (figure 071-329-1015-2), Point B) on the map. Align the straightedge so that it points directly at the real water tower. Draw a line along the straight edge or ruler. The line will cross the symbol for the water tower on your map.

Note: Do not move your map once it is properly oriented.

Performance Steps

b. Find another feature, such a road junction (figure 071-329-1015-3, point C), and do the same. Lay the straightedge on your map and point it at the real road junction, ensure that its edge crosses over the road junction. (figure 071-329-1015-3, Point D) on the map. Draw another line along the ruler until it crosses (interest) the first line. The point where the lines cross in your location. (figure 071-329-1015-3, Point X) if you do the same things with a third line, it may help location your position more accurately.



Figure 071-329-1015-3. Resection without a compass continued

Performance Steps

3. To perform a modified resection you must be located on a linear feature such as a road, stream bank, railroad or ridge. First orient your map, and then find a feature also on the map, such as the water tower in the previous example. Just as before, put a straightedge through the water tower on the map and align the straightedge through so that it points directly at the real water tower. Draw a line along the ruler or straightedge. The point where the line crosses the linear feature, which you know you are on, is your location.

Note: Always orient your map as closely as you can. The compass is the best way to do so. If you don't have a ruler, use your rifle cleaning rod or section of reaction of radio antenna as a straightedge.

Evaluation Preparation: Setup: Give the Soldier a standard 1:50,000 scale military map of the local area, a compass, a coordinate scale and a protractor (GTA 5-2-12), a pencil, a straight edge, and the location of two known points.

Brief Soldier: Tell the Soldier to determine the six-digit coordinates for his location.

Performance Measures	GO	NO GO
1. Determine the 6-digit grid coordinate and the 100,000 meter square identifier of his position (unknown point), within 100 meters.	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related

071-329-1018

Determine Direction Without a Compass

Conditions: During daylight and at night (with a clear view of the Big Dipper), given a wrist watch (not digital), and natural vegetation in a field environment.

C-58

071-329-1018

11 October 2005

STP 21-1-SMCT

Standards: Identify North and East within 15 degrees.

Note: This task uses approximate directions. Use a compass to obtain accurate directions.

Performance Steps

1. Determine direction using the shadow-tip method.
 - a. Place a stick or branch into the ground vertically at a fairly level spot where the sun will cast a distinct shadow. Mark the shadow with a stone, twig, or other means (figure 071-329-1018-1).

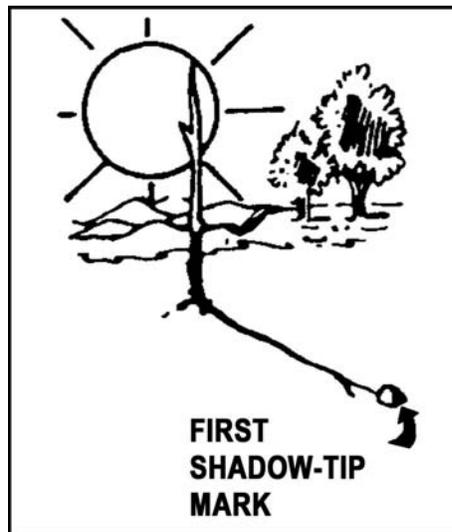


Figure 071-329-1018-1. First shadow-tip mark

- b. Wait 10 or 15 minutes until the shadow tip moves a few inches. Mark the new position of the shadow tip just like the first (figure 071-329-1018-2).

Performance Steps

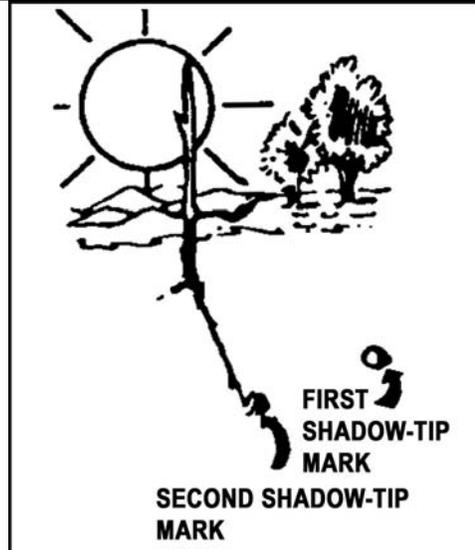


Figure 071-329-1018-2. Second shadow-tip mark

- c. Draw a straight line through the two marks you made on the shadow tips. This line is an East-West line (figure 071-329-1018-3).

Performance Steps

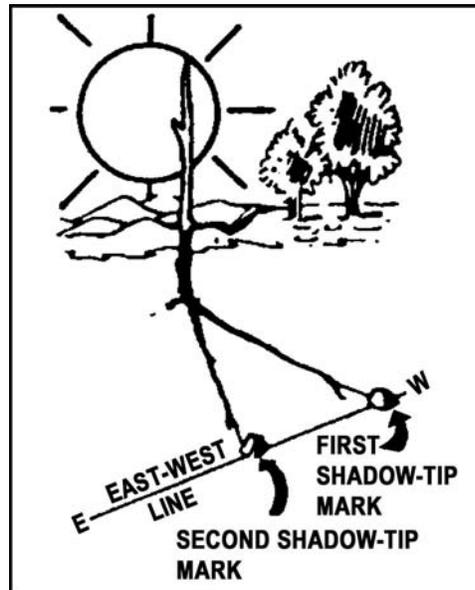


Figure 071-329-1018-3. East-west line

d. Determine which is the East end of the line and which is the West end.

- (1) The sun rises in the East and sets in the West.
- (2) The first shadow tip you mark will always be West, and the second mark will always be East.
- (3) The shadow tip moves in the opposite direction.

e. Determine North and South. Draw a line at a right angle to the East-West line at any point (figure 071-329-1018-4). This is the North-South line.

Performance Steps

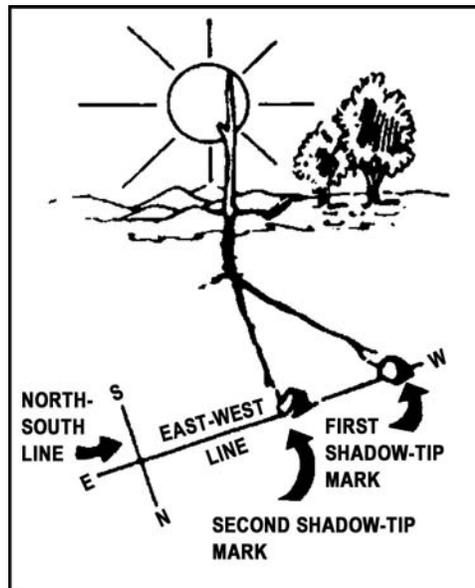


Figure 071-329-1018-4. North-south line

2. Determine direction using the watch method without a compass.
 - a. Point the hour hand at the sun when you are North of the equator. South will be halfway between the hour hand and 12 o'clock (figure 071-329-1018-5).

Performance Steps

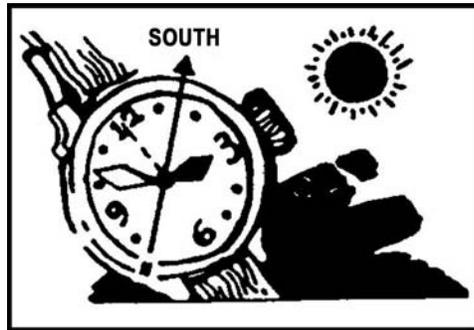


Figure 071-329-1018-5. Watch method

- b. Point 12 o'clock at the sun when you are South of the equator. North will be halfway between the hour hand and 12 o'clock.
- 3. Use the North Star method to determine direction at night. At night, you can locate north by finding the North Star (Polaris). First, find the Big Dipper. The last two stars in the cup point directly at Polaris, which is about five times as far out as the distance between those two stars in the cup. Facing Polaris, you are looking North, with East on your right and West on your left (figure 071-329-1018-6).

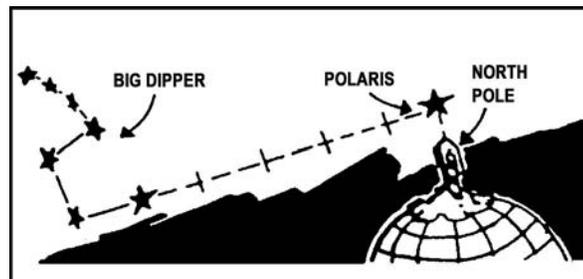


Figure 071-329-1018-6. North Star method

Performance Steps

DURING THE TRAINING SESSION, STRESS THESE FOUR FACTS:

Note 1. The sun rises in the East and sets in the West.

Note 2. When you face North, East is to your right, West is to your left, and South is to your back.

Note 3. The Big Dipper is a pattern of stars that resembles a soup ladle.

Note 4. The Southern Cross is the main constellation used as a guide south of the equator and the above general directions for using North and South stars are reversed.

Evaluation Preparation: Setup: Directionally orient yourself to an area that is unfamiliar to the Soldier to be tested.

Brief Soldier: Accompany the Soldier to the area. Tell the Soldier to use field-expedient methods to locate North and East. Use a compass direction of your choice. The Soldier will not be told how he did on performance measure 1 until he completes performance measure 2.

Note: Before the Soldier is scored a GO for this task, he must display proficiency in all three field-expedient methods of determining direction without a compass. However, performance measure 3 must be tested in a different location.

Performance Measures	<u>GO</u>	<u>NO GO</u>
1. Determine direction using the shadow-tip field-expedient method	___	___
a. Place a stick vertically into the ground at a desired spot.		
b. Mark the tip of the stick's shadow to represent west.		
c. Wait 10 to 15 minutes.		
d. Mark a new position of the tip of the stick's shadow to represent east.		

Performance Measures	GO	NO GO
e. Draw an east-west line through the two shadow-tip marks.		
f. Draw a north-south line at a right angle to the east-west line.		
g. Point in the required direction within 15 degrees.		
2. Determine direction using the watch field-expedient method.	_____	_____
a. In the Northern Hemisphere, point the hour hand of the watch at the sun; in the Southern Hemisphere, point the 12 o'clock position of the watch at the sun.		
b. Point in the required direction within 15 degrees.		
3. Determine direction using the North Star field-expedient method.	_____	_____
a. Locate the Big Dipper.		
b. Locate Polaris, the North Star.		
c. Point in the required direction within 15 degrees.		

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

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FM 3-25.26

Related

071-510-0001

Determine Azimuths Using a Protractor

Conditions: Given a standard 1:50,000 scale military map with two known points plotted on the map, a protractor, a straightedge, and a pencil.

Standards: Determine the grid azimuth (in mils or degrees) from your location, point A, to point B, to within 1 degree or 20 mils.

Performance Steps

- 1.** The direction from one point to another, either on the map or on the ground, is called an azimuth. Azimuths are given in degrees or mils in a clockwise direction from north, and all azimuths taken from a map are grid azimuths.
 - a.** An azimuth in degrees can be any number up to 360, since a circle has 360 degrees. Due East is 90 degrees, due South is 180 degrees, due West is 270 degrees, and due North is 360 degrees or 0 degrees.
 - b.** An azimuth in mils can be any number up to 6400, since a circle has 6400 mils. Due East is 1600 mils, due South is 3200 mils, due West is 4800 mils, and due North is 6400 mils or 0 mils.
 - 2.** The most accurate way to determine an azimuth from a map is to use a protractor. The Army uses two types.
 - a.** The square protractor (GTA 5-2-12) has two scales. The inner scale is a degree scale, and the outer scale is the mil scale.
 - b.** The semicircular protractor might or might not have two scales, an outer one in mils and an inner one in degrees. Each scale has two rows of numbers. On both scales, the outer row is used to determine azimuths to the East of your position; the inner one is used to determine azimuths to the West of your position.
 - 3.** The most accurate way to determine an azimuth from a map is to use a protractor. The Army uses two types:
 - a.** The square protractor (GTA 5-2-12) has two scales. The inner scale is a degree scale, and the outer scale is the mil scale.
-

Performance Steps

b. The semicircular protractor might or might not have two scales, an outer one in mils and an inner one in degrees. Each scale has two rows of numbers. On both scales, the outer row is used to determine azimuths to the East of your position; the inner one is used to determine azimuths to the West of your position.

4. Use the protractor properly.

a. Plot the location of two points on the map.

b. Using a straight edge, draw a straight line (azimuth line) from point A to point B.

c. Place the index of the protractor at the point where the azimuths line crosses one of the vertical (North-South) grid lines. This procedure allows greater accuracy in aligning the index line to a true reading where the azimuth line crosses the protractor scale.

Note 1: The line drawn between the two points must be long enough to cross the scale(s) of the protractor in order to read the azimuth. Should the line between the two points be too short to cross the scale(s), extend the line beyond point B until it crosses the scale(s).

Note 2: Ensure that the 0-degree or 0-mils mark on the protractor is toward the top (North) of the map.

d. Start at the 0-degree or 0-mil mark on the protractor and read to the right (clockwise) until you reach the point where the azimuth line crosses the scale(s) of the protractor.

Note 3: Each tick mark on the degree scale is 1 degree, while each tick mark on the mil scale is 20 mils.

e. Read the azimuth where the azimuths line crosses the scale(s).

(1) 65 degrees.

(2) 65 degrees - 1150 mils.

Note 4: You can read the scale all the way around the square protractor. On the semicircular protractor, point B is to the left (West) of point A. Reverse the protractor so that 0 is toward the bottom of the map (South).

Evaluation Preparation: Setup: Provide the Soldier with a 1:50,000 scale military map, two points plotted and labeled (A) and (B), a protractor, a straightedge, and a pencil.

Brief Soldier: Tell the Soldier to determine the azimuth from point (A) to point (B) within one degree or 20 mils.

Performance Measures	GO	NO GO
1. Determine the correct azimuth (within 1 degree or 20 mils).	___	___

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

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Required

FM 3-25.26

GTA 05-02-12

Related

071-510-0002

Compute Back Azimuths

Conditions: Given azimuths.

Standards: Determine the back azimuth of a given azimuth to the exact degree or mils.

Performance Steps

1. Determine a back azimuth using degrees. Suppose you follow a 65-degree azimuth from point A to point B, and then you want to go back to your original location. To do this, you use a back azimuth. You simply add 180 to the first azimuth. Your back azimuth is $65 + 180 = 245$ degrees.
2. Determine a back azimuth using mils. You move from point A to point B on an azimuth of 1150 mils. Should you wish to return to point A, you would follow a back azimuth. To determine the back azimuth you simply add 3200 mils to 1150. $3200 + 1150 = 4350$ mils.

Performance Steps

Note: Remember this rule:

- 1. For angles less than 180 degrees, add 180 degrees.
- 2. For angles more than 180 degrees, subtract 180 degrees.

Mils:

- 1. For angles less than 3200 mils, add 3200 mils.
- 2. For angles more than 3200 mils, subtract 3200 mils.

Evaluation Preparation: Setup: Provide the Soldier with azimuths, one in degrees and one in mils.

Brief Soldier: Tell the Soldier to compute the exact back azimuths.

Performance Measures	GO	NO GO
1. Compute the exact back azimuth.	_____	_____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO GO if any performance measure is failed. If the Soldier scores NO GO, show the Soldier what was done wrong and how to do it correctly.

References

Required

FM 3-25.26

Related



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Glossary

2 PAM CI	pralidoxime chloride
AC	alternating current
ACE	armored combat earthmover
ACR	armored cavalry regiment
AIDS	acquired immunodeficiency syndrome
AIPD	Army Institute for Professional Development
AIT	advanced individual training
ANCOC	Advanced Noncommissioned Officer Course
APC	armored personnel carrier
AR	Army regulation
ARNG	Army National Guard
ASL	assistant squad leader
ATNAA	antidote treatment nerve agent autoinjector
AUD	audio (panel nomenclature)
AVPU	alert, responds to voice, responds to pain, unresponsive
az	azimuth
ba	battery
BCT	basic combat training
BDO	battle dress overgarment
BDU	battle dress uniform
BFV	Bradley fighting vehicle
BM	benchmark
BNCOC	Basic Noncommissioned Officer Course
BTB	believed-to-be
BVO	black vinyl overboots
C2W	Command and Control Warfare
CA	Civil Affairs
CAM	chemical-agent monitor
CANA	convulsant antidote for nerve agents
CASEVAC	casualty evacuation
C-A-T	combat application tourniquet
CB	chemical and biological

CBRN	chemical, biological, radiological, or nuclear
cGyph	centigray per hour
CL	classification
CLP	cleaner, lubricant, and preservative
clr	clear (panel nomenclature)
cm	centimeters
co	company
COE	common/contemporary operating environment
CPFC	chemical protective footwear cover
CPR	cardiopulmonary resuscitation
CSF	cerebrospinal fluid
CVC	combat vehicle crewman
DA	Department of the Army
DNBI	disease and nonbattle injury
DS	decontaminating solution
DTG	date-time group
DU	depleted uranium
DULLRAM	depleted uranium low-level radiation materials
EMP	electromagnetic pulse
EMR	electromagnetic radiation
EOD	Explosive Ordnance Disposal
ETS	expiration term of service
F	Fahrenheit, fail
FBCB2	Force XXI Battle Command Brigade-and Below
FDC	fire direction center
FEBA	forward edge of the battle area
FM	field manual, frequency modulated
FORSCOM	United States Army Forces Command
FP	Figure 071-326-0502-1
FPL	final protective line
FRAGO	fragmentary order
FTX	field training exercise
G2	Assistant Chief of Staff (Intelligence)
G3	Assistant Chief of Staff (Operations and Plans)

GI	government issue
G-M	grid magnetic
GPS	global positioning system
GTA	graphic training aid
HEPA	high-efficiency particulate air
HIV	human immunodeficiency virus
HMMWV	high-mobility multipurpose wheeled vehicle
HQ	headquarters
hr	hour
HSB	heavy separate brigade
HUMINT	human intelligence
IAW	in accordance with
ID	identification
IED	improvised explosive device
IEDK	individual equipment decontamination kit
IMINT	imagery intelligence
ISO	International Organization for Standardization
IVIS	intervehicular information system
JP	joint publication
JSLIST	joint-Service, lightweight integrated suit technology
LAW	lubricating oil arctic weather
lb	pound
LBE	load-bearing equipment
LCE	load-carrying equipment
LCSS	lightweight camouflage screen system
LSA	lubricating oil semifluid
m	meter
MACOM	major Army command
mag	magnetic
MASINT	measurement and signature intelligence
MCSR	materiel condition status report
MEDEVAC	medical evacuation

METT-TC	mission, enemy, terrain and weather, troops and support available, time available, civil considerations
min	minute
mm	millimeter
MOPP	mission-oriented protective posture
MOS	military occupational specialty
MP	military police
mph	miles per hour
MRE	meal ready to eat
MULO	multipurpose overboots
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological, and chemical
NBCC	nuclear, biological, and chemical center
NCO	noncommissioned officer
NCOIC	noncommissioned officer in charge
NCS	net control station
NL	no limit
NPA	nasopharyngeal airway
NSN	national stock number
OBSINTEL	obstacle intelligence
OEG	operational exposure guidance
OIP	organizational inspection program
OPLAN	operations plan
OPORD	operations order
OPREP	operations report
OSUT	one-station unit training
OT	observer-target
P	pass
PAC	personnel actions center
PASGT	personnel armor system ground troop
PATI	protection assessment test instrument
PATS	protection assessment test system
PCS	permanent change of station

PDF	principal direction of fire
PLDC	Primary Leadership Development Course
plt	platoon
PMCS	preventive maintenance checks and services
PMM	preventive medicine measure
POL	petroleum, oils, and lubricants
pwr	power (panel nomenclature)
qt	quart/quarterly
RBC	rifle bore cleaner
ROE	rules of engagement
ROI	rules of interaction
RP	reference point
RPG	rocket propelled grenade
RSTA	reconnaissance, surveillance, and target acquisition
RT	radio transmission
RYE	retirement year ending
S-1	personnel staff officer
SA	semiannually
SALUTE	size, activity, location, unit, time, and equipment
SANDI	stop, assess, note, draw back, inform
SD	self development
SIB	separate infantry brigade
SITREP	situation report
SL	skill level, squad leader
SM	Soldier's manual
SMCT	Soldier's manual of common tasks
SME	subject matter expert
SOI	signal operation instructions
SOP	standing operating procedure
SP	start point
SPOTREP	spot report
sqd	squad
SSN	social security number

STB	super tropical bleach
STD	sexually transmitted disease
STP	Soldier's training publication
T&E	traversing and elevation
TACSOP	tactical standing operating procedure
TC	training circular
TCCC	tactical combat casualty care
TM	technical manual
TOC	tactical operations center
TOE	table of organization and equipment
TSC	training support center
TSOP	tactical standing operating procedures
TT	tactical telephone
TW	target width
TWS	thermal weapon sight
U.S.	United States
UIC	unit identifier code
ULLS-G	unit level logistics system-ground
UN	United Nations
USAR	United States Army Reserve
UXO	unexploded ordnance
WBGT	wet bulb globe temperature
WO	warning order

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11 October 2005**

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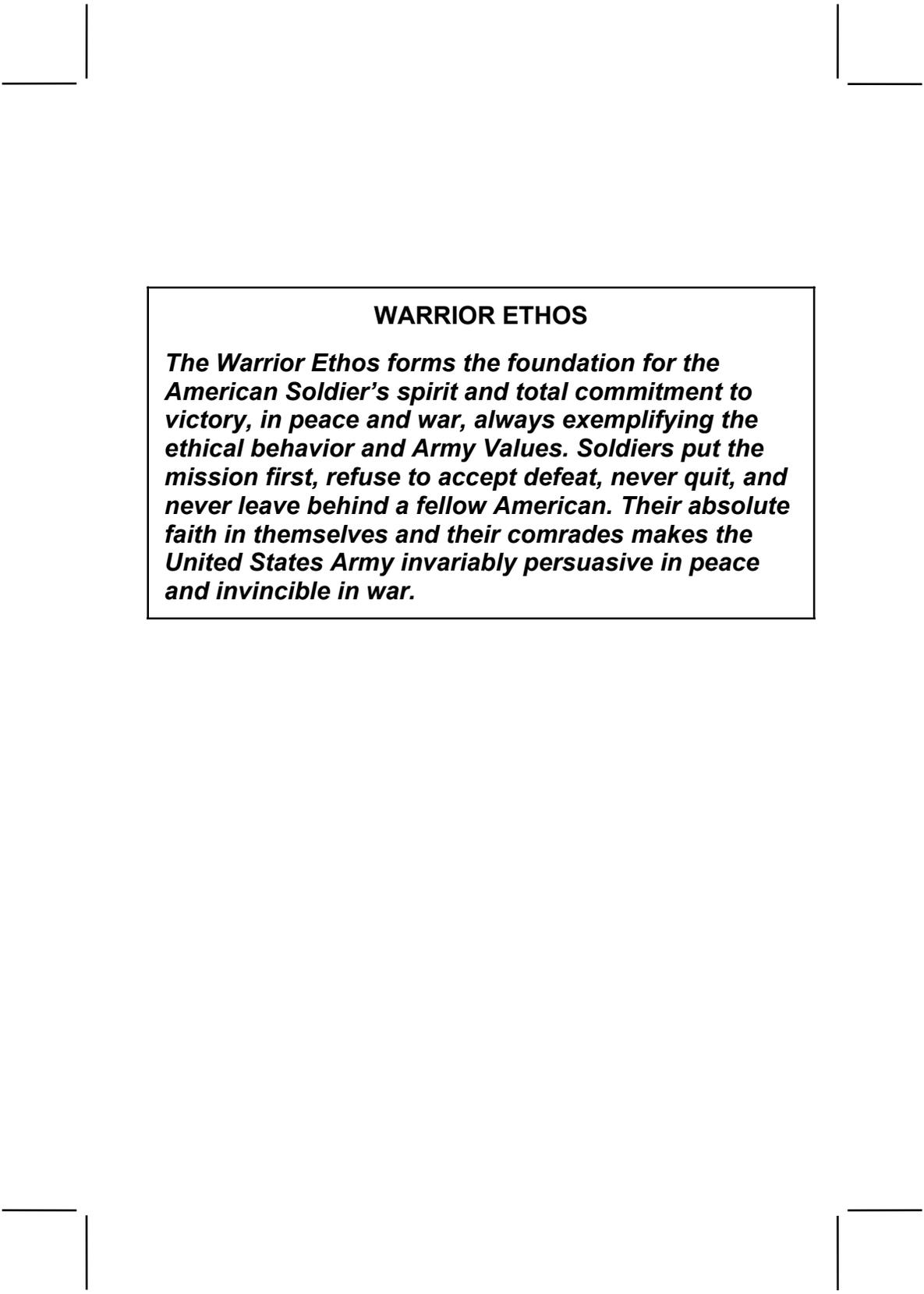
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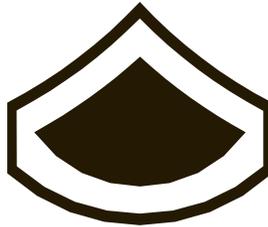
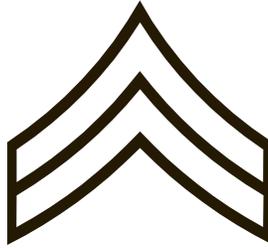
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WARRIOR ETHOS

The Warrior Ethos forms the foundation for the American Soldier's spirit and total commitment to victory, in peace and war, always exemplifying the ethical behavior and Army Values. Soldiers put the mission first, refuse to accept defeat, never quit, and never leave behind a fellow American. Their absolute faith in themselves and their comrades makes the United States Army invariably persuasive in peace and invincible in war.



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