Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals
071-SAWE02 / Version 1.0
Effective Date 08 Mar 2013

SECTION I. ADMINISTRATIVE DATA

All Courses Including This Lesson

Course Number	Version	Course Title
None		

Task(s) Taught(*) or Supported

Task Number	Task Title
Individual	
071-025-0021 (*)	Zero an AN/PAS-13 Thermal Weapon Sight (TWS) to an M240B Machine Gun
071-025-0022 (*)	Engage Targets with an M240B Machine Gun Using an AN/PAS-13 Thermal Weapon Sight
071-025-0037 (*)	Zero an AN/PEQ-15 Aiming Light to an M240B Machine Gun
071-025-0038 (*)	Engage Targets with an M240B Machine Gun using an AN/PEQ-15 Aiming Light
071-025-0005 (*)	Correct Malfunctions of an M240B Machine Gun
071-025-0006 (*)	Zero an M240B Machine Gun
071-025-0007 (*)	Engage Targets with an M240B Machine Gun
Collective	
07-2-1261	Conduct an Attack in an Urban Area (Platoon-Company)
07-2-9010	Conduct an Ambush (Platoon-Company)
07-2-1090	Conduct a Movement to Contact (Platoon-Company)
07-2-1256	Conduct an Attack by Fire (Platoon-Company)
07-2-3000	Conduct Support by Fire (Platoon-Company)
07-2-9001	Conduct an Attack (Platoon-Company)
07-2-9008	Conduct a Raid (Platoon-Company)

Reinforced Task(s)

Task Number	Task Title
071-025-0001	Maintain an M240B Machine Gun
071-025-0015	Mount an M240B Machine Gun on an M122A1 or an M192 Lightweight Ground Mount Tripod
071-025-0016	Dismount an M240B Machine Gun from an M122A1 or an M192 Lightweight Ground Mount Tripod
071-025-0019	Mount an AN/PAS-13 Thermal Weapon Sight on an M240B Machine Gun
071-025-0020	Dismount an AN/PAS-13 Thermal Weapon Sight from an M240B Machine Gun
071-703-0001	Operate M145 Telescope, Straight
071-703-0002	Maintain M145 Telescope, Straight
071-706-0001	Operate Night Vision Device, AN/PVS-14
071-706-0002	Maintain Night Vision Device, AN/PVS-14
071-025-0011	Mount an M240B Machine Gun on a Vehicle
071-025-0012	Dismount an M240B Machine Gun from a Vehicle
071-025-0035	Mount an AN/PEQ-15 Aiming Light to an M240B Machine Gun
071-025-0036	Dismount an AN/PEQ-15 Aiming Light from 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

Knowledge

Knowledge Id	Title	Taught	Required
071-WPN-0002	Demonstrate Knowledge of Boresight Procedures	No	Yes
071-WPN-0003	Demonstrate Knowledge of Ammunition Capabilities	No	Yes
071-WPN-0059	Identity and Location of Parts of Infantry Weapons	No	Yes
071-WPN-0060	Weapons Assembly and Disassembly	No	Yes
071-WPN-0061	Weapons Maintenance	No	Yes
071-WPN-0062	Infantry Weapons Ammunition	No	Yes
071-WPN-0063	Weapons Functions	No	Yes
071-WPN-0064	Target Detection Techniques	No	Yes
071-WPN-0065	Range Estimation Techniques	No	Yes
071-WPN-0066	Theory and Operation of Night Vision Devices	Yes	No
071-WPN-0067	Firing Positions	No	Yes
071-WPN-0068	Firing Techniques	No	Yes
071-WPN-0069	Zeroing Techniques	Yes	No
071-WPN-0070	Functioning of the Traversing & Elevation Mechanism	No	Yes
071-WPN-0072	Mounting Machine Guns Tripods	No	Yes
071-WPN-0073	Orienting the Range Card to the Terrain	No	Yes
071-WPN-0077	Range Cards	No	Yes
071-WPN-0080	Weapon Capabilities	No	Yes
071-WPN-0083	Traversing and Elevation Mechanism	No	Yes
071-WPN-0084	Annotating Required Range Card Data	No	Yes
071-WPN-0085	Methods of Determining Width and Depth of a Target	No	Yes
071-WPN-0091	Weapon Capabilities	No	Yes
071-WPN-0093	Thermal Weapon Sight Capabilities	No	Yes

Skill

Skill Id	Title	Taught	Required
071-WPN-0026	Assume Firing Positions	No	Yes
071-WPN-0029	Maintain Infantry Weapons	No	Yes
071-WPN-0005	Ability to Load and Unload Infantry Weapons	No	Yes
071-WPN-0006	Clear Infantry Weapons	No	Yes
071-WPN-0024	Follow Safety Procedures	No	Yes
071-WPN-0027	Zero Night Vision Devices to Infantry Weapons	Yes	No
071-WPN-0023	Engage Targets with Infantry Weapons	Yes	No
071-WPN-0025	Mount Night Vision Devices to Infantry Weapons	No	Yes
071-WPN-0010	Perform a Function Check on Infantry Weapons	No	Yes
071-WPN-0033	Load and Unload Infantry Weapons	No	Yes
071-WPN-0007	Detect Weapon Malfunctions	No	Yes
071-WPN-0008	Correct Weapons Malfunctions	No	Yes
071-WPN-0009	Zero Infantry Weapons	Yes	No
071-WPN-0022	Detect Targets	No	Yes

Administrative/ Academic Hours

The administrative/academic hours required to teach this lesson are as follows:

Academic	Resident Hours / Methods		
Yes	0 hrs	10 mins	Lecture
Yes	4 hrs	29 mins	Conference/Demonstration
Yes	14 hrs	45 mins	Practical Exercise (Hands-On)
Yes	0 hrs	0 mins	Test Review
Yes	0 hrs	0 mins	Test
Total Hours:	19 hrs	34 mins	

Test Lesson Number

Hours	Lesson Number
None	

Prerequisite Lesson(s)

Lesson Number	Lesson Title
None	

Training Material Classification

Security Level: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Foreign Disclosure Restrictions

FD7. This product/publication has been reviewed by the training/educational developers in coordination with the DOTD, MCoE, Ft Benning, GA 31905 FD authority. This product is NOT releasable to students from foreign countries.

References

Number	Title	Date	Additional Information
FM 3-22.68	Crew-Served Machine Guns, 5.56-MM and 7.62-MM	21 Jul 2006	
TM 11-5855-312-10	PERATOR's MANUAL SIGHT, THERMAL AN/PAS-13B(V)2 (NSN 5855-01-464-3152)	15 Feb 2005	
TM 11-5855-316-10	OPERATOR's MANUAL AN/PAS-13C(V)1 SIGHT, THERMAL (NSN 5855-01-523-7707)	15 Jun 2006	
TM 11-5855-317-10	OPERATOR's MANUAL FOR SIGHT, THERMAL AN/PAS-13D(V)2	15 Feb 2007	
TM 11-5855-324-10	OPERATOR's MANUAL FOR SIGHT, THERMAL AN/PAS-13D(V)1	15 Feb 2007	
TM 9-1005-313-10	OPERATORS MANUAL FOR MACHINE GUN, 7.62MM, M240 (NSN 1005-01-025-8095) M240B (1005-01-412-3129) M240C (1005-01-085-4758) M240D (1005-01-418-6995) M240E1 (1005-01-252-4288) M240G (1005-01-359-2714) M240N (	15 Nov 2002	
TM 9-1005-313-23&P	UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR MACHINE GUN, 7.62MM, M240 (NSN 1005-01-025-8095);MACHINE GUN, 7.62MM. M240B (1005-01-412-3129);MACHINE GUN, 7.62	14 Dec 2007	
TM 9-1240-415-13&P	OPERATOR, UNIT, AND DIRECT SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR TELESCOPE, STRAIGHT: M145 (1240-01-411-6350)	28 Feb 2000	
TM 9-5855-1912-13&P	OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) FOR DUAL BEAM AIMING LASER-ADVANCED2 (DBAL-A2) AN/PEQ-15A (NSN: 5855-01-535-6166) (EIC: N/A)	05 Jul 2008	

TM 9-5855-1914-13&P	OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL	16 Feb 2007	
TM 9-5855-1915-13&P	OPERATOR AND FIELD MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND	31 Aug 2007	

Student Study Assignment

NONE.

Instructor Requirements

Complete a risk management worksheet. It is recommended that you use the ground risk assessment tools provided by the US ARMY COMBAT READINESS/SAFETY CENTER at https://grat.safety.army.mil/ako_auth/grat/default.aspx

Additional Support Personnel Requirements

Name	Student Ratio	Qty	Man Hours
Range Safety Officer	1:32		
Driver	1:16		
OIC	1:32		
Tower Operator	1:32		
Ammunition NCO	1:32		
Combat Lifesaver	1:16		
NCOIC	1:32		

Equipment Required for Instruction

ID - Name	Student Ratio	Instructor Ratio	Spt	Qty	Exp
1005-00-288-3565 - SWAB,SMALL ARMS CLEANING	1:8	0:0	No	0	Yes
1005-00-350-4100 - BRUSH,CLEANING,SMALL ARMS	1:8	0:0	No	0	No
1005-01-044-1026 - BARREL,MACHINE GUN	1:8	0:0	No	0	No
1005-01-412-3129 - MACHINE GUN,7.62 MILLIMETER	0:0	0:0	No	0	
1005-01-412-3129 - MACHINE GUN,7.62 MILLIMETER	0:0	0:0	No	0	
1005-01-412-3129 - MACHINE GUN,7.62 MILLIMETER	0:0	0:0	No	0	
1005-01-412-3129 - MACHINE GUN,7.62 MILLIMETER	1:8	0:0	No	0	No
1005-01-503-0141 - MOUNT,MACHINE GUN	1:8	0:0	No	0	No
1005-01-536-9646 - CASE,BARREL,MACHINE GUN	1:8	0:0	No	0	No
1240-01-411-6350 - TELESCOPE,STRAIGHT	1:8	0:0	No	0	No
1305-00-892-2150 - CARTRIDGE,7.62 MILLIMETER	0:0	0:0	No	0	
2320-01-354-3385 - Truck Cargo: 4x4 LMTV W/E: M1078	1:16	0:0	No	0	No
2330-00-141-8049 - TRAILER,TANK	1:32	0:0	No	0	No
4933-01-033-1503 - TOOL,COMBINATION	1:8	0:0	No	0	No
4933-01-033-1504 - SCRAPER,COMBINATION	1:8	0:0	No	0	No
4933-01-033-1510 - EXTRACTOR,RUPTURED CARTRIDGE CAS	1:8	0:0	No	0	No
4933-01-033-8324 - COMBINATION WRENCH W/BRASS HAMMER M240	1:8	0:0	No	0	No
4933-01-047-3394 - REAMERS,CLEANING	1:8	0:0	No	0	No
5110-01-516-3219 - WEAPONS CLEANING KIT, M60	1:8	0:0	No	0	No
5855-01-228-0937 - Night Vision Goggle AN/PVS-7B	0:0	0:0	No	0	
5855-01-432-0524 - Monocular Night Vision Device: AN/PVS-14	2:8	0:0	No	0	No
5855-01-458-0210 - Medium Weapon Thermal Sight (MWTS): AN/PAS-13A(V)2	1:8	0:0	No	0	No
5855-01-477-8741 - AN/PVS-15a: Binocular Night Vision System (BNVS)	0:0	1:1	No	0	No
5855-01-534-5931 - ILLUMINATOR,INTEGRATED,SMALL ARM	0:0	0:0	No	0	

5855-01-534-5931 - ILLUMINATOR,INTEGRATED,SMALL ARM	1:8	0:0	No	0	No
6130-01-443-0970 - CHARGER,BATTERY	1:32	0:0	No	0	No
6135-00-985-7845 - Battery, Nonrechargeable, AA	4:8	0:0	No	0	No
6135-01-351-1131 - BATTERY,NONRECHARGEABLE	1:8	0:0	No	0	No
6135-01-398-5922 - BATTERY,NONRECHARGEABLE	1:8	0:0	No	0	Yes
6135-01-455-7946 - BATTERY,NONRECHARGEABLE	1:8	0:0	No	0	Yes
6140-01-493-8092 - BATTERY,STORAGE	2:8	0:0	No	0	No
6530-00-783-7510 - LITTER,NONRIGID,POLELESS	1:32	0:0	No	0	No
6530-00-783-7905 - LITTER,FOLDING,RIGID POLE	1:32	0:0	No	0	No
6545-01-254-9551 - MES,COMBAT LIFESAVER-1999	1:16	0:0	No	0	No
6665-01-381-3023 - Wet Bulb-Globe Temperature Kit	1:32	0:0	No	0	No
6730-00-933-4871 - Screen, Projection	1:32	0:0	No	0	No
6850-00-224-6657 - CLEANING COMPOUND,RIFLE BORE	1:8	0:0	No	0	Yes
7022-01-476-5115 - Computer System, Digital: ANPYQ-8(V)	1:32	0:0	No	0	No
8415-01-092-0039 - MITTEN,HEAT PROTECTIVE	1:8	0:0	No	0	No
9150-01-079-6124 - CLEANER,LUBRICANT AND PRESERVATI	1:8	0:0	No	0	Yes
9920-00-292-9946 - CLEANER,TOBACCO PIPE	1:8	0:0	No	0	Yes
B67766 - BINOCULAR, 7X50MM, MODULAR CONSTR, M22	1:8	0:0	No	0	No

(Note: Asterisk before ID indicates a TADSS.)

Materials Required

Instructor Materials:

FM 3-22.68 Crew Served Weapons

TM 9-1005-344-10 M122 Operators Manual Tripod

TM 9-1005-313-10 Operators Manual M240 Machine Gun

Student Materials:

Note taking material.

Field Uniform.

Classroom, Training Area, and Range Requirements

ID - Name	Quantity	Student Ratio	Setup Mins	Cleanup Mins
17833 Range, Machine Gun, Multipurpose, Automated (MPMG)		1:32	50	50

Ammunition Requirements

DODIC - Name	Exp	Student Ratio	Instruct Ratio	Spt Qty
AB86 - Cartridge, 7.62 Millimeter 4 Ball-1 Tracer Linked, Lead Free	Y	360:1		
XB02 - Cartridge, 7.62 Millimeter Ball, M80	Y	222:1		

Instructional Guidance

NOTE: Before presenting this lesson, instructors must thoroughly prepare by studying this lesson and identified reference material.

Before presenting this lesson:

1. Have on hand identified reference material linked to the lesson plan.
2. Review presentation and develop a list of questions to use during class.
3. Review and prepare conference / discussion material presented.
4. Ensure all equipment listed for this lesson plan (LP) is present, operable, and set up for use before class.
5. Refer to the practical exercise of this lesson plan. When necessary develop additional situations to use during the practical exercise.
6. PowerPoint users: Ensure the SLI file you are using has been called up using Microsoft PowerPoint Viewer and SLI / slide 1 is showing on the screen before class.
7. Whenever noted, slides are available to assist in explanation of task steps. Use slides as needed during class or practical exercise to reinforce training. The instructor may choose to use / not use the LP SLIs as developed, modify the existing SLIs content / order or insert new material as is necessary based on audience analysis to assist in Soldier learning. Changes must be annotated as a pen / ink change on the vault file master LP, VIP LP, and instructor LP. Changes must be approved through Senior Instructor and TDCD 183rd RTI Development Team notified.
8. Whenever necessary, ask leading questions of Soldiers in order to prompt Soldier discussion.
9. Encourage Soldiers to relate their first hand experiences during the activities.
10. Facilitate this lesson using Instructor methodologies.
11. Control group activities using Instructor techniques.

Proponent Lesson Plan Approvals

Name	Rank	Position	Date
Robert Padin	Not available	Approver	08 Mar 2013

SECTION II. INTRODUCTION

Method of Instruction: Lecture
Instr Type(I:S Ratio/Qty): instructor (1:32/0)
Time of Instruction: 5 mins
Instructional Strategy: Large Group Instruction

Motivator

In our current operational environment a Soldiers survivability depends on the profidency, and confidentce in their abilitoy to apply the fundamentals of engaging targets, making a more lethal, and deadly combination during combat.

Terminal Learning Objective

NOTE. Inform the students of the following Terminal Learning Objective requirements.
At the completion of this lesson, you [the student] will:

Action:	Engage Targets with the M240B Machine Gun.
Conditions:	In a field environment wearing all PPE and with an M240B machine gun mounted on the M122 tripod during daylight and hours of limited visibility.
Standards:	Engage targets using the MGO, PEQ-15, and AN/PAS-13 weapon sights.

Safety Requirements

Safety Requirements in a Classroom Setting:
Safety is of the utmost importance in any training environment. During the training process, commanders will utilize the 5-Step Risk Management process to determine the safest and most complete method to train. Every precaution will be taken during the conduct of training.
Safety is everyone's responsibility to recognize, mitigate, and report hazardous conditions.
Instructor note: The instructor will brief the students on the unit/facility SOP for classroom contingencies i.e. what doors will be used to exit the classroom, rally points, severe weather, WBGT/Kestrel set up, etc.

Safety Requirements other than Classroom Settings:
Safety must be paramount in the complex outdoor environment. During the training process, commanders will utilize the 5-Step Risk Management process to determine the safest and most complete method to train. Every precaution will be taken while replicating realistic battlefield conditions.
Safety is everyone's responsibility to recognize, mitigate, and report hazardous conditions.
Instructor note: The instructor will brief the unit/site SOP and Risk Management Worksheet for all potential contingencies encountered during that training period/event i.e. WBGT/Kestrel set up, trail vehicles for PT/foot marches, severe weather, fire, evacuation routes, muzzle awareness, range safety briefs, required medical FLA with driver and medics with emergency equipment, student injury procedures, and rally points etc.

Risk Assessment Level

Moderate - All Army Instructors will conduct a Risk Assessment Worksheet (DA Form 7566, CRM Worksheet, Apr 05) prior to training and brief Soldiers on identified hazards and required controls.
Assessment: The operations officer, in cooperation with the principal instructor, will prepare a risk assessment using the before, during, and after checklist and the risk assessment matrixes

contained in Risk Management FM 5-19.
Controls: See Attached DA Form 7566.
Leader Actions: See Attached DA Form 7566.

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-34.5, Environmental Considerations {MCRP 4-11B}, and ensure students are briefed on hazards and control measures.

Users must comply with all local environmental regulations and guidance while conducting training.

Evaluation

Soldiers will be evaluated by task performance measures.

Instructional Lead-in

Up to this point you have proven you can maintain and operate an M240B machine gun. Today you will zero and fire a record fire qualification both in daylight and in limited visibility. This will build your confidence in your equipment and the ability to engage and destroy the enemy.

SECTION III. PRESENTATION

NOTE: Inform the students of the Enabling Learning Objective requirements.

A. ENABLING LEARNING OBJECTIVE

ACTION:	Perform machine gun crew drills.
CONDITIONS:	In a field environment given all PPE, a machine gun, tripod, T&E, and pintle.
STANDARDS:	Perform individual crew drill actions to place the gun into operation, take the gun out of action, and react to malfunctions as the machine gunner, assistant machine gunner, and ammo bearer for both bipod firing and tripod firing situations.

ELO A - LSA 1. Learning Step / Activity ELO A - LSA 1. Crew Drill Description.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction / Demonstrator
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

A. The machine gun crew drill trains squad and platoon Soldiers in the fundamentals of machine gun operation. It gives them confidence in their individual and collective abilities to put the machine gun into action wit precision and speed. Rotation of duties ensures that each Soldier learns the duties of each crew position. Precision develops from learning and practicing correct procedures correctly. This includes inspecting the machine gun before firing it, and observing all safety procedures. Precision is more important than speed. Only after they achieve precision should they work on speed. The crew drill is conducted with preliminary gunnery and is part of the 10-meter and transitionfiring practice and qualification, concurrently during other courses of fire, or anytime at the discretion of the unit commander. The organization for crew drill described in this section is for training crews in the fundamentals of machine gun operation. However, some tactical situations require a different organization.
To instill realism and relate the crew drill to actual situations, the unit leader should vary his method of instruction. Possible approaches to this method of instruction include--
1. Conduct the crew drill from the prone position.
2. Initiate the crew drill from all types of tactical formations.
3. Perform the crew drill in simulated tactical situations.

The crew drill, as discussed here, involves the leader and one machine gun crew. The machine gun crew has three members (a gunner, assistant gunner, and ammunition bearer).
All commands are given by a leader. This leader may be a team leader, squad leader, or someone placed in charge of the crew. The gunner and assistant gunner repeat all commands. After the machine gun is mounted, the assistant gunner transmits all

signals from the leader to the gunner and from the gunner to the leader.

B. Composition of the Machine Gun Team and common equipment breakdown.
DAY
Leader - Binoculars, M4, compass.

Gunner - Machine gun, compass, MGO, two bandoleers (with dummy ammunition).

Assistant Gunner - Binoculars, M4, spare barrel case (spare barrel and accessories), T&E mechanism, pintle assembly, and three bandoleers (with dummy ammunition).

Ammunition Bearer - Compass, M4, tripod, and four bandoleers (with dummy ammunition).

NIGHT

Leader - AN/PVS-14, M4 with AN/PAQ-15, compass.

Gunner - Machine gun, compass, AN/PVS-14, AN/PEQ-15, or AN/PAS-13, two bandoleers (with dummy ammunition).

Assistant Gunner - AN/PVS-14, , M4, spare barrel case (spare barrel and accessories), T&E mechanism, and three bandoleers (with dummy ammunition).

Ammunition Bearer - AN/PVS-14, M4, compass, tripod, pintle assembly, and four bandoleers (with dummy ammunition).

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO A - LSA 2. Learning Step / Activity ELO A - LSA 2. Initial Crew Drill Formation.

Method of Instruction:	Conference/Demonstration
Instr Type(I:S Ratio/Qty):	instructor(4:32/0)
Time of Instruction:	0 hrs 5 mins
Instructional Strategy:	Large Group Instruction / Demonstrator
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

A. The leader commands, "FORM FOR CREW DRILL".
1. The crew forms in a file, with five steps between each crewmember, in this order: gunner, assistant gunner, and ammunition bearer.
2. The gunner is five steps from and facing the leader.
3. When the crewmembers reach their positions, each assumes the prone position and

is ready for the crew drill.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO A - LSA 3. Learning Step / Activity ELO A - LSA 3. Cross-Training Procedures.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction / Demonstrator
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

A. Duties rotate during the crew drill to train each Soldier in the duties of all crewmembers.

B. The command to rotate duties is, "FALL OUT, GUNNER".

1. At this command, the gunner becomes the ammunition bearer, the assistant gunner becomes the gunner, and the ammunition bearer becomes the assistant gunner.

2. When crewmembers have assumed their new positions, they call out their new duties in order:

a. AMMUNITION BEARER.

b. ASSISTANT GUNNER.

c. GUNNER.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO A - LSA 4. Learning Step / Activity ELO A - LSA 4. Bipod Fire Drills.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 15 mins
Instructional Strategy: Large Group Instruction / Demonstrator
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

A. INSPECTION FOR BIPOD FIRE

1. An inspection of equipment is made at the beginning of each exercise.

B. LEADER

1. After the crew forms up for crew drill, the leader commands, "INSPECT EQUIPMENT BEFORE FIRING, BIPOD".

2, On hearing this command, each crewmember inspects his equipment:

C. GUNNER

1. Every night, the gunner checks the NVD, but every time he inspects, he must--

a. Check the ammunition first, and ensure that the ammunition is properly linked and free of dirt and corrosion, and that the double link is up (ready for loading).
b. Place the cloth slings over his shoulder (except for one bandoleer, which he prepares for loading).
c. Inspect the machine gun.
d. Take his position parallel to the machine gun, with his head on-line with the feed tray.
e. Hold the machine gun with his left hand, use his right hand to lower the bipod legs and then rest the machine gun on the bipod.
f. Attach the bandoleer to the machine gun.
g. Place the safety on "F," pull the cocking handle to the rear, place the safety on "S," returns the cocking handle to the forward position, raise the cover assembly.
h. Call for the cleaning rod and receive it from the assistant gunner.
i. Crawl forward, and then run the cleaning rod through the barrel to ensure it is clear.
j. Check the flash suppressor for cracks.
k. Check the front sight for tightness and for damage to the blade.
l. Check the carrying handle to ensure that it can be positioned so it will out of the way during aiming and firing.
m. Ensure that the barrel is securely locked to the receiver.
n. Return the cleaning rod to the assistant gunner.
o. Move to the rear of the machine gun and check the moving parts in the feed cover.
p. Ensure that the feed cam is clean and properly lubricated.
q. Push back and forth on the feed cam to check for freedom of movement.
r. Push on the belt feed pawl to ensure that it has spring tension.
s. Push on the cartridge guides to ensure that they a have spring tension.
t. Push the belt-holding pawl to ensure that it has spring tension.
u. Lower and latch the cover (without inserting the belt).
v. Pull the trigger to check the functioning of the safety.
w. Place the safety on "F," pull the cocking handle to the rear, pull the trigger, ease the bolt forward manually with the cocking handle.
x. Check the rear sight.
D. ASSISTANT GUNNER
1. Remaining in a prone position, the assistant gunner begins by inspecting his ammunition. He takes the cleaning rod from the carrying case and assembles the cleaning rod, and then he must--
a. Take the T&E mechanism from the case and prepare it as follows:
1. Rotate the elevating handwheel, exposing 1 1/2 inches or the width of two fingers) of threads above the elevating handwheel.
2. Rotate the traversing slide sleeve, exposing 1 1/2 inches or the width of two fingers) of threads below the elevating handwheel.
3. Center the traversing mechanism.
4. Check to ensure that the locking mechanism that attaches to the machine gun is present and in working order.
5. Replace the T&E mechanism in on the case.

b. Remove the spare barrel from the spare barrel case.
1. Check the barrel.
2. Check the flash suppressor for cracks.
3. Check the front sight for tightness and for damage to the blade.
4. Check the pintle assembly for proper functioning.
5. Place the spare barrel its case.
c. After the gunner returns the cleaning rod, the assistant gunner disassembles the cleaning rod and returns it to the accessory pocket. Then, he checks the other items in the case including the ruptured cartridge extractor, bore brush, chamber brush, receiver brush, and heat-protective mitten for serviceability.
d. Finally, he checks his night vision.
E. AMMUNITION BEARER
1. Remaining in a prone position, the ammunition bearer inspects his ammunition as described above for gunner and assistant gunner. He then inspects the tripod and the pintle assembly. Night personnel also check their NVDs.
a. Ensure that the front leg will unfold properly and the rear legs unfold and lock securely in place with the sleeve latch.
b. Check the sleeve latch to ensure that it has spring tension and will function.
c. Check the pintle assembly to ensure that it locks into the pintle bushing and that the pintle rotates freely within the bushing.
d. Check to ensure that the T&E mechanism will lock on the traversing bar and move freely when unlocked for major changes in direction.
e. Unlock the pintle and T&E mechanism from the tripod and return to the assistant gunner.
f. Fold the rear legs by unlocking the sleeve latch and fold the front leg so that the tripod is in the carrying position.
F. INSPECTION REPORT
1. When crewmembers have finished inspecting the equipment, they call out their reports, without command, starting from the rear.
a. "Ammunition bearer correct" (or reports deficiencies).
b. "Ammunition bearer and assistant gunner correct" (or reports deficiencies).
c. "Gunner all correct" (or reports deficiencies).

PLACEMENT INTO ACTION (BIPOD)
A. To place the machine gun into action, the Soldiers do the following:
1. The leader must--
a. Point where he wants the machine gun mounted and command, "MOUNT MACHINE GUN HERE".
b. Point in the direction of fire and add, "FRONT".
c. Raise his fist to shoulder level, thrusts it several times in the direction of the selected position, and command, "ACTION".
1. At the command "ACTION", the gunner must--
a. Stand and grasp the carrying handle with his left hand
b. Grasp the top of the stock with his right hand

c. Raise the machine gun to a carrying position (muzzle to the front).
d. Move to the selected position.
e. Place the machine gun on the ground and assume a prone position to the rear of it.
f. Position the carrying handle so that it will be out of the way during aiming and firing.
g. Align the machine gun in the direction of fire and set the rear sight.
h. Place the safety on "F," pulls the bolt to the rear, then return the safety to "S."
i. Return the cocking handle to the forward position.
j. Raise the feed cover, place the first round of ammunition in the cartridge feed tray groove, and close the feed cover, ensuring that the round remains in the cartridge feed tray groove.
k. Pull the machine gun into his shoulder and put the safety on "F."

WARNING: BOLT POSITION, In tactical situations, where noise discipline is critical to mission success, carry the M240B with the bolt locked to the rear. Only trained gun crews may load the M240B, and then only on
command. In training situations , load and carry the M240B with the bolt forward.

l. The assistant gunner times his movements so that he arrives at the position as the gunner is assuming the prone position. Then, the assistant gunner must--
1. Lie prone on his left hip, feet to the rear, and on the left side of the gunner.
2. Place the spare barrel case parallel to the gun with the zippered side towards the machine gun.
3. Open the case and remove the spare barrel. Place the spare barrel on the case, muzzle to the front and even with the muzzle of the machine gun.
4. The ammunition bearer times his movements so that he arrives at the position as the assistant gunner is assuming the prone position. The ammunition bearer must--
a. Place the folded tripod one step to the left of the muzzle of the machine gun and on line with the machine gun.
b. Unsling his bandoleers and place them next to the folded tripod legs.
c. Lie prone 10 meters to the left and on line with the position, provide security, and prepare to fire into the target area with his rifle.
5. When ready to fire, the gunner must put the safety lever on "F" and report "Up." The assistant gunner must signal "Ready" to the leader.

BARREL-CHANGING PROCEDURES (BIPOD).
A. To ensure proficiency and speed in changing barrels, the barrel changing process is included in crew drill.
1. When the gunner has reported "Up" and the assistant gunner has signaled "Ready," the leader commands, "CHANGE BARRELS".
2. The gunner ensures that the bolt is to the rear, puts the safety on "S," and puts the stock on the ground. Next, he moves his left hand to the top of the stock to ensure the weapon stays parallel to the ground. He puts his right hand under the handguard and forearm assembly. This helps to support the machine gun while the assistant gunner removes the barrel.

3. The assistant gunner (wearing the heat-protective mitten) unlocks the barrel locking lever, removes the barrel, and places the barrel on the spare barrel case. He holds the spare barrel inserts it into the machine gun.
4. The gunner ensures that the barrel is locked and secured in the receiver of the machine gun. He moves the safety lever to "F," assumes the correct firing position, and reports "Up." The assistant gunner signals "Ready" to the squad leader.

REMOVAL FROM ACTION (BIPOD)
A. To take the machine gun out of action, the leader commands and signals, "OUT OF ACTION". The gunner and assistant gunner repeat the command.
1. As soon as he hears the command or sees the signal for "OUT OF ACTION", the ammunition bearer slings his rifle and moves to the position. Once there, he finds and slings the bandoleers that he left earlier. He picks up the tripod and moves 15 steps to the rear of the machine gun. There, he lies prone, facing the position with the tripod in front of him.
2. The assistant gunner places the spare barrel and the heat-protective mitten in the spare barrel case. Before standing, he closes the spare barrel case just enough to hold the spare barrel and the T&E mechanism. He moves 10 steps to the rear of the position and lies prone, facing the position. At this time, he fully closes the spare barrel case.
3. The gunner must--
a. Place the stock on the ground and ensure that the bolt is to the rear
b. Place the safety on "S" and raise the feed cover.
c. Remove the ammunition from the tray, puts it into the bandoleer, and close the bandoleer.
d. Examine the chamber to ensure that it is clear
e. Close the feed cover and pull the cocking handle to the rear.
f. Put the safety on "F" and pull the trigger slowly, while gently easing the bolt forward.
g. Stand and pivots on his right foot
h. Without turning the machine gun, raise it to his left hip and move five steps to the rear.
i. Look to ensure that the ammunition bearer and assistant gunner are in their positions.
j. Lie prone, facing the position with the machine gun on your right.
k. Fold the bipod legs alongside the barrel and report "Up" to the squad leader.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO A - LSA 5. Learning Step / Activity ELO A - LSA 5. Tripod Fire Drills.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)

Time of Instruction:	0 hrs 15 mins
Instructional Strategy:	Large Group Instruction / Demonstrator
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

A. INSPECTION FOR TRIPOD FIRE

1. Inspecting equipment for tripod training is the same as for bipod training, except the command that the leader's command is, "INSPECT EQUIPMENT BEFORE FIRING TRIPOD".

a. The gunner inspects the tripod legs, and then folds them to their position alongside the barrel.

PLACEMENT INTO ACTION (TRIPOD)

A. The leader commands and signals, "MACHINE GUN TO BE MOUNTED HERE, FRONT, ACTION".

B. Placement of machine gun into action.

1. Upon the command "ACTION", the ammunition bearer stands, holds the tripod with his right hand, and moves forward to the position. He kneels on his right knee and rests the shoes of the rear tripod legs on the ground, with the mount in a vertical position. Steadying the mount with his right hand near the tripod head, he raises the front leg with his left hand. He grasps his right shoe with his right hand and his left shoe with his left hand. Then, he uses his body to raise the tripod chest high. He separates the tripod legs with a quick jerk. Ensuring that the sleeve latch engages the sleeve, he places the tripod on the ground with its front leg pointing in the direction of fire. He rises to his feet and stamps the rear tripod shoes into the ground. He then unslings his bandoleers and places them on line with the front leg of the tripod, one step to the left. He moves 10 meters to the left of the position, unslings his rifle, lies prone, provides security, and prepares to fire into the target area.

2. The assistant gunner times his movements so that he arrives at the position just as the ammunition bearer leaves. The assistant gunner places the spare barrel case (with zippered side facing the tripod) parallel to and on line with the spot where the muzzle of the machine gun is when it is mounted. He lies on his left side, with his hip near the left tripod shoe. He unzips the spare barrel case and removes the spare barrel and the equipment needed to mount the machine gun. He places the spare barrel on the spare barrel case with the muzzle forward.

3. The gunner also times his movements, arriving at the position just as the assistant gunner assumes the prone position. The gunner stands, holds the carrying handle in his left hand and the stock in his right, and raises the gun to the carrying position (muzzle to the front). He mounts the machine gun on the tripod. He then positions the carrying handle to the right to keep it from interfering with aim and fire. Then, he raises the rear sight assembly and lies prone.

4. The assistant gunner helps the gunner mount the machine gun to the tripod. They secure the pintle and T&E mechanism are securely locked in place and working properly.

5. The gunner places the safety on "F," pulls the bolt to the rear, places the safety on "S," and returns the cocking handle to the forward position.

WARNING- BOLT POSITION- In tactical situations, where noise discipline is critical to mission success, carry the M240B with the bolt locked to the rear. Only trained gun crews may load the M240B, and then only on command. In training situations , load and carry the M240B with the bolt forward.

6. The assistant gunner places the first round of ammunition in the tray groove and supports the belt.
7. The gunner closes the cover, takes the correct position and grip, places the safety on "F," and reports "Up."
8. The assistant gunner signals "Ready" to the squad leader.

BARREL-CHANGING PROCEDURES (TRIPOD)
A. When the gunner has reported "Up" and the assistant gunner has signaled "Ready," the leader commands, "CHANGE BARRELS".
1. The gunner ensures that the bolt is to the rear and puts the safety on "S." He also helps the assistant gunner change the barrel, if needed.
2. The assistant gunner (wearing the heat-protective mitten) unlocks the barrel locking lever, removes the barrel, and places the barrel on the spare barrel case. He secures the spare barrel and inserts it into the machine gun. To ensure that it locks to the receiver, he rotates the carrying handle to the right (M240B).
3. The gunner ensures that the barrel is locked and secured in the receiver of the machine gun. He moves the safety lever to "F," assumes the correct firing position, and reports "Up." The assistant gunner signals "Ready" to the squad leader.

REMOVAL FROM ACTION (TRIPOD)
A. At the command, "OUT OF ACTION", the gunner ensures that the bolt is to the rear, places the safety on "S," and raises the cover. The assistant gunner removes the ammunition from the tray, returns it to the bandoleer, and closes the bandoleer. The gunner inspects the chamber to ensure that it is clear; closes the cover; pulls the cocking handle to the rear; puts the safety on "F"; pulls the trigger, easing the bolt forward. The gunner unlocks the rear of the machine gun from the tripod.
1. The assistant gunner helps the gunner in dismounting the rear of the machine gun. He puts the spare barrel and heat-protective mitten into the case and closes it enough to hold the contents. He stands, moves 10 steps to the rear of the position, and lies prone, facing to the front. After receiving all mounting equipment from the ammunition bearer, he puts it in the spare barrel case and fully closes the spare barrel case.
2. After the assistant gunner leaves, the gunner stands, lowers the rear sight, and holds the carrying handle with his left hand. With his right hand, he dismounts the front of the machine gun from the tripod. Holding the stock with his right hand, he pivots to his right as he raises the machine gun to the carrying position. He then moves five steps to the rear of the position and lies prone, facing to the front.

3. The ammunition bearer rises, slings his rifle, moves to the machine gun, and secures his bandoleers, timing his arrival so that the gunner and assistant gunner is clear of the tripod. He grasps the tripod with his left hand and moves five steps to the rear of the position. He turns, facing the front, and kneels on his right knee. He places the tripod in a vertical position with the rear shoes on the ground and supports it with his right hand near the head of the tripod. At this time, he hands the assistant gunner all mounting equipment. He reaches up with his right hand down the right leg, and releases the sleeve latch. He then grasps the shoes and closes the tripod legs. He lowers the tripod to the ground, head to the left, lies prone behind it, and reports, "UP."

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO A - LSA 6. Learning Step / Activity ELO A - LSA 6. Training in the Prone Position.

Method of Instruction:	Conference/Demonstration
Instr Type(I:S Ratio/Qty):	instructor(4:32/0)
Time of Instruction:	0 hrs 5 mins
Instructional Strategy:	Large Group Instruction / Demonstrator
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

A. PRONE POSITION

1. Machine gun crew drill, as previously described, is an excellent training vehicle. This paragraph discusses the second phase of the crew drill. Train the prone position only to add realism to training.

B. INSPECTING EQUIPMENT BEFORE FIRING

1. The inspection of equipment for crew drill from the prone position is the same as that for bipod training and tripod training.

C. PLACING THE MACHINE GUN INTO ACTION

1. The leader commands and signals the following, just as he does for bipod training. With one exception, training with the bipod is the same crewmembers stay off their feet.

2. They use the low crawl.

3. Once in position, they do everything from the prone position. The command is, "MOUNT THE MACHINE GUN HERE, FRONT, ACTION".

B. TRAINING WITH THE TRIPOD

1. Upon the command, "ACTION".

a. The ammunition bearer crawls forward to the designated position.

b. Extends the front leg of the tripod.

c. Grasping the rear legs firmly, he emplaces the front leg. Applying downward

pressure, he emplaces the rear legs. He then crawls to a position about 10-meters to the left of the machine gun and gets into a good firing position with his rifle.
d. The assistant gunner crawls forward, timing his movement to arrive as the ammunition bearer leaves.
e. Positioning himself on the left side and facing the tripod.
f. He places the spare barrel case alongside the tripod, unzips the case, and removes the spare barrel and mounting equipment.
2. The procedures for mounting the machine gun on the tripod remain the same except all are performed in a prone position and all movements are in the low crawl.

C. TAKING THE MACHINE GUN OUT OF ACTION
1. The procedures for taking the machine gun out of action are performed in a prone position and all movements are in the low crawl.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO A - LSA 7. Learning Step / Activity ELO A - LSA 7. Correct Malfunctions.

Method of Instruction:	Conference/Demonstration
Instr Type(I:S Ratio/Qty):	Instructor(4:32/0)
Time of Instruction:	0 hrs 15 mins
Instructional Strategy:	Large Group Instruction / Demonstrator
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

A. Malfunctions occur when a mechanical failure causes the weapon to fire improperly. Defective ammunition or improper operation by the gunner is not considered a malfunction. Sluggish operation and uncontrolled fire are the most common malfunction. If cleaning and lubricating the weapon fails to fix the problem, then the gunner turns it in to the unit armorer. Table 3-6 shows malfunctions, their probable causes, and the corrective actions.

B. Uncontrolled Fire (Runaway Gun)
1. Uncontrolled fire (the weapon continues to fire after the gunner releases the trigger). This is usually caused by the gunner’s failure to pull and hold the trigger all the way to the rear. The following are immediate actions for uncontrolled fire:
a. The gunner holds the weapon on target and fires the remaining ammunition.
b. The assistant gunner stops the weapon from firing by breaking the belt of ammunition.
c. The gunner as a last resort pulls the cocking handle to the rear thus, locking the bolt to the rear of the receiver.

C. Stoppages

1. A stoppage is any interruption in the cycle of functioning caused by faulty action of the weapon or faulty ammunition. Stoppages are classified by their relationship to the cycle of functioning.

D. Immediate Action

1. The gunner takes immediate action to reduce a stoppage without seeking the cause. For example, the gunner conducts immediate action when a misfire or cook off occurs. The gunner keeps the weapon on his shoulder while performing immediate action procedures.

2. Definitions:

a. A misfire is the failure of a chambered round to fire. Such failure can be due to an ammunition defect or faulty firing mechanism.

b. A cook off is the firing of a round due to the heat of a hot barrel and not to the firing mechanism. Cook offs can be avoided by applying immediate action within 10 seconds of a failure to fire.

E. Immediate Action Drill

1. Grasp the cocking handle (palm up) and pull it to the rear.

2. Look at the ejection port to see if a cartridge case, belt link, or round is ejected.

a. If nothing is ejected:

1. Lock the bolt to the rear.

2. Return the cocking handle forward.

3. Place the safety to "S" and proceed to step 2 or 3 to take remedial action.

b. If a cartridge or round is ejected:

1. Return the cocking handle to the forward position.

2. Aim and fire the weapon at the target.

3. If the weapon does not fire, place the weapon on "S" and proceed to step 2 or 3 to take remedial action.

F. Remedial Action

1. Remedial action is any action taken to determine the cause of a stoppage and to restore the weapon to an operational condition. Do this only if immediate action fails to fix the problem.

G. Remedial Action Drill for a cold weapon (one that has fired less than 200 rounds in two minutes).

1. Ensure cocking handle is forward and weapon is on safe.

2. Keep weapon oriented on target area.

3. Ensure your face is not directly over the feed cover.

4. Raise the feed cover.

5. Remove the belt of ammunition.

6. Inspect for rounds in the chamber.

a. If there are no rounds in the chamber--

1. Reload and attempt to fire at the target.

Note: If the weapon fires, the stoppage has been corrected.

2. If the weapon fails to fire take immediate action (step 1).
3. If the weapons still fails to fire, clear the weapon.
4. Disassemble and inspect the weapon.
5. Clean, lubricate, and replace damaged or missing parts, as required.
b. If a cartridge is in the chamber:
1. Close the cover.
2. Attempt to fire.
3. If the weapon fires, reload and continue mission.
4. If the weapon does not fire, continue to next step.
5. Lock bolt to the rear.
6. Remove the barrel and remove the cartridge from the chamber using a cleaning rod.
7. Insert the cleaning rod through muzzle end of barrel and gently tap out cartridge.
8. Clear the weapon.
9. Disassemble and inspect the weapon and ammunition.
10. Clean, lubricate, and replace damaged or missing parts, as required.
11. Load and attempt to fire.
12. If weapon fails to fire, turn in for maintenance.

H. Take remedial action on a hot weapon (one that has fired more than 200 rounds in two minutes).
1. If nothing was ejected when you applied immediate action--
a. Ensure cocking handle is forward and weapon is on safe.
WARNING - During training, wait 15 minutes before applying remedial action. During combat, wait 5 seconds before applying remedial action because of the possibility of a "hang fire" or "cookoff". You can also change barrels, reload, and continue firing.
b. Keep weapon oriented on target area WITH COVER CLOSED.
c. Wait 15 minutes.
d. Clear the weapon and perform remedial action for cold gun (step 2).
2. If a cartridge or round is ejected--
a. Return the cocking handle to the forward position.
b. Aim and fire the weapon at the target.
c. If the weapon does not fire--
1. Clear the weapon.
2. Disassemble and inspect the weapon.
3. Clean, lubricate, and replace damaged or missing parts, as required.
4. Load and attempt to fire.
5. If weapon fails to fire, turn it in for maintenance.
I. Sluggish Operations
1. Sluggish operation is due to excessive friction caused by carbon build-up, improper lubrication, or burred parts.
2. Corrective action includes:

a. Cleaning

b. Lubricating

c. Inspecting

e. Replacing worn parts

3. The gunner may adjust the gas regulator to maintain the rate of fire until he has a chance to clean the machine gun.

J. Stuck Barrel

1. Stuck barrel is the result of the machine gun crew not properly cleaning the gas cylinder and gas regulator plug. During training or range firing, clear, disassemble, and clean the M240B immediately. In combat, clean it as soon as possible. If they cannot properly clean the weapon in these situations, then the gun crew must:

a. Pull the cocking handle to the rear, locking the bolt. Return the cocking handle and place the safety on “S.”

b. Place the weapon on the ground or away from his face and open the cover, and then perform the four-point safety check.

c. (Gunner only) ensure that the barrel is still locked to the receiver with the carrying handle to the right.

d. (Assistant gunner only) place the heat protective mitten on your right hand and remove the gas regulator collar from the barrel, which is secured to the receiver.

e. With the gas regulator collar removed, remove the barrel (Section II).

f. (Assistant gunner only) After removing the barrel, remove the gas regulator collar and gas regulator plug from the spare barrel.

g. Insert the barrel into the socket of the receiver. Ensure that the gas regulator plug is going into the gas hole bushing.

h. (Assistant gunner only) Once the barrel is secured to the receiver, secure the gas regulator collar on the gas regulator plug.

i. (Gunner only) After ensuring the barrel is secured to the receiver (2 to 7 clicks) and the collar is secure, reload and continue firing.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

CHECK ON LEARNING (ELO A): Conduct a check on learning ask students questions and correct misunderstandings.

REVIEW SUMMARY(ELO A): Conduct a review and summarize the ELO.

B. ENABLING LEARNING OBJECTIVE

ACTION:	Zero an M240B Machine Gun.
CONDITIONS:	You are assigned an M240B machine gun and have been directed to zero the weapon. You have loose or linked 7.62-mm ammunition and a basic machine gun target located 10 meters from the firing position or a target located 300 to 700 meters from the firing position. The M240B is mounted on a tripod.

STANDARDS:	Zero the M240B using the 10 meter or field zero technique.

ELO B - LSA 1. Learning Step / Activity ELO B - LSA 1. Zero the M240B using the 10-meter zero technique.

Method of Instruction:	Conference/Demonstration
Instr Type(I:S Ratio/Qty):	instructor(2:32/0)
Time of Instruction:	0 hrs 15 mins
Instructional Strategy:	Large Group Instruction / Demonstrator
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

1. Zero the M240B using the 10-meter zero technique.

Note: 10-meter zero applies only to firing at the 10-meter basic machine gun target. Zeroing for combat is done at 300- to 700-meter range.

a. Set elevation scale at 500 meters.

b. Assume a firing position.

c. Establish a shot group.

(1) Load the M240B.

(2) Fire three single rounds (one round at a time) at the center base of the aiming point on the basic machine gun target.

Note: The same sight alignment and sight picture must be used for each round fired. Do not adjust sights until all three rounds are fired. The shot group should be within a 4-centimeter circle or smaller to establish the center of the shot group in relation to the center base of the aiming post.

d. Adjust sights if necessary.

(1) Correct for windage if the center of the shot group is to the left or right of the point of aim.

(a) Unlock the front sight retaining strap and rotate it up.

(b) Turn the adjusting screws on the front sight assembly in the direction of the desired change.

Note: At 10-meter range, 10 clicks on the adjusting screw of the front sight assembly in either direction moves the strike of the round left or right 1 centimeter.

(2) Correct for elevation if the center of the shot group is above or below the point of aim.

(a) Unlock the front sight retaining strap and rotate it up.

(b) Turn the front sight post in the direction (up or down) of the desired change.

Note: At 10-meter range, one complete turn on the front sight blade moves the strike of the round up or down 1 centimeter.

e. Fire another three-shot group.

(1) If shot group is centered on point of aim, weapon system is zeroed.

(2) If shot group is not centered on point of aim contiunue zero procedures starting with step 1d.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO B - LSA 2. Learning Step / Activity ELO B - LSA 2. Field zero (combat zero) the weapon at 300 to 700 meters.

Method of Instruction:	Conference/Demonstration
Instr Type(I:S Ratio/Qty):	instructor(2:32/0)
Time of Instruction:	0 hrs 10 mins
Instructional Strategy:	Large Group Instruction / Demonstrator
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

2. Field zero (combat zero) the weapon at 300 to 700 meters.

a. Select a target at a range between 300 and 700 meters.

b. Adjust rear sight elevation to match target range.

c. Assume a firing position.

d. Fire a five to seven-round burst at the center base of the target.

e. Observe impact of rounds.

f. Adjust sights to move center of beaten zone to point of aim on the target.

(1) Correct for windage if the center of the shot group is to the left or right of the point of aim.

Note: One click or 1-mil adjustment at 1,000 meters moves the point of aim 1 meter. For example, if the center of the beaten zone is 1 meter to the left of a 500-meter target, the windage knob should be turned two clicks to the right.

(a) Unlock the front sight retaining strap and rotate it up.

(b) Turn the adjusting screws on the front sight assembly in the direction of the desired change.

(2) Correct for windage if the center of the shot group is to the left or right of the point of aim.

(a) Unlock the front sight retaining strap and rotate it up.

(b) Turn the front sight post in the direction (up or down) of the desired change.

g. Fire a five to seven-round burst.

(1) If shot group is centered on point of aim, weapon system is zeroed.

(2) If shot group is not centered on point of aim continue zeroing procedures starting with step 2f.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

CHECK ON LEARNING (ELO B): Conduct a check on learning ask students questions and correct misunderstandings.

REVIEW SUMMARY(ELO B): Conduct a review and summarize the ELO.

C. ENABLING LEARNING OBJECTIVE

ACTION:	Engage Targets with an M240B Machine Gun
CONDITIONS:	Given an M240B machine gun, linked 7.62-mm ammunition, targets in your 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. Use correct M240B machine gun target engagement techniques so that you hit each target.

ELO C - LSA 1. Learning Step / Activity ELO C - LSA 1. Assume a suitable firing position.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(2:32/0)
Time of Instruction: 0 hrs 10 mins
Instructional Strategy: Large Group Instruction / Demonstrator
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

1. Assume a suitable firing position.

Note: The fighting position should allow you to observe and engage targets yet minimize your exposure to enemy fire.

a. Tripod firing.

Note: 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.

Note: Prone supported position and bipod-supported fighting position are the best positions for delivering effective fire on targets and should be used 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.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO C - LSA 2. Learning Step / Activity ELO C - LSA 2. Identify targets in your designated sector of fire.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(1:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Identify targets in your designated sector of fire.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO C - LSA 3. Learning Step / Activity ELO C - LSA 3. Align the sights on the target.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(2:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction / Demonstrator
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

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.

Check on Learning: Conduct a check on learning ask students questions and correct misunderstandings.

Review Summary: Conduct a review and summarize the learning step.

ELO C - LSA 4. Learning Step / Activity ELO C - LSA 4. Engage targets using correct M240B firing techniques.

Method of Instruction:	Conference/Demonstration
Instr Type(I:S Ratio/Qty):	instructor(2:32/0)
Time of Instruction:	0 hrs 15 mins
Instructional Strategy:	Large Group Instruction / Demonstrator
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

4. 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).

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, you can 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 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.

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 and 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.

Check on Learning:	Conduct a check on learning ask students questions and correct misunderstandings.
Review Summary:	Conduct a review and summarize the learning step.

CHECK ON LEARNING (ELO C): Conduct a check on learning ask students questions and correct misunderstandings.

REVIEW SUMMARY(ELO C): Conduct a review and summarize the ELO.

D. ENABLING LEARNING OBJECTIVE

ACTION:	Zero an AN/PAS-13 Thermal Weapon Sight (TWS) to an M240B Machine Gun
CONDITIONS:	You have just mounted an AN/PAS 13, Thermal Weapons Sight (TWS), to your assigned M240B machine gun and must zero it prior to use. You have a designated firing point and been issued 18 rounds of 7.62 ammunition.
STANDARDS:	Fire the weapon and adjust the TWS so that two out of three rounds strike within the 4-centimeter designated strike zone using 18 rounds or less.

ELO D - LSA 1. Learning Step / Activity ELO D - LSA 1. Prepare the zero target.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

1. Prepare the zero target.

a. Cut out a hole six squares wide by six squares high from the center of the 25-meter zeroing target.

b. Cut a piece of corrugated cardboard the same size as the 25-meter zeroing target.

c. Measure one inch from each side of the corrugated cardboard and cut out a rectangle.

d. Tape the cardboard frame to the back of the 25-meter zeroing target.

e. Affix the target to a standard E-type silhouette or E-type thermal silhouette located 25-meters from firing position.

f. Mark the 25m zero offset on the target (Based on weapon type and mounting location).

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO D - LSA 2. Learning Step / Activity ELO D - LSA 2. Prepare the Sight.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

2. Prepare the Sight.

a. Turn TWS on.

b. Identify zero target.

c. Set the field of view (FOV) ring to WIDE position.

d. Press the RETICLE SELECT switch inward and hold for 5 seconds.

e. Select the M240B reticle by pressing and releasing the RETICLE SELECT switch to cycle through the available reticles.

f. Use RETICLE ADJUST switch to set azimuth and elevation indicators to zero (000L and 000D).

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO D - LSA 3. Learning Step / Activity ELO D - LSA 3. Prepare to Fire

Method of Instruction:	Conference/Demonstration
Instr Type(I:S Ratio/Qty):	instructor(4:32/0)
Time of Instruction:	0 hrs 5 mins
Instructional Strategy:	Large Group Instruction
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

3. Prepare to Fire

a. Assume a prone firing position 25 meters from the zero target.

b. Align the zeroing (0 to 250 meters) aiming point of the sight reticle to the point of aim on the target.

c. Obtain a good sight picture.

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO D - LSA 4. Learning Step / Activity ELO D - LSA 4. Establish a tight shot group.

Method of Instruction:	Conference/Demonstration
Instr Type(I:S Ratio/Qty):	instructor(4:32/0)
Time of Instruction:	0 hrs 5 mins
Instructional Strategy:	Large Group Instruction
Media Type:	Actual Equipment
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

4. Establish a tight shot group.

a. Fire a three-round shot group.

b. Retighten torque knob until two clicks are heard.

c. Identify the size of the shot group.

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO D - LSA 5. Learning Step / Activity ELO D - LSA 5. Adjust sight to obtain a zero.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Hands-On Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

5. Adjust sight to obtain a zero.

a. Identify the center of the last fired three round shot group.

b. Determine the adjustment to move this point to the center of the strike zone (zero offset).

c. Adjust the sight, as necessary, by moving the azimuth and elevation control knobs to move the next shot group to the center of the zero offset strike zone.

Note: At 25-meter range, each increment (one click) of azimuth or elevation moves the strike of the round 1.5 centimeters for the MWTS WFOV and .5 centimeter for MWTS NFOV and ¾ centimeters for HWTS WFOV. However, when calculating for adjustments, use one click of azimuth or elevation to move strike of round one square on the 25-meter zero target.

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO D - LSA 6. Learning Step / Activity ELO D - LSA 6. Establish a zero.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

6. Establish a zero.

a. Fire a three-round shot group at the target.

b. Identify the location of the shot group on the target.

(1) Return to step 5, if 2 of 3 rounds do not strike within the strike zone (zero offset).

(2) Proceed to step 7, if 2 of 3 rounds strike within the strike zone (zero offset).

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO D - LSA 7. Learning Step / Activity ELO D - LSA 7. Confirm the zero.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

7. Confirm the zero.

a. Fire a three-round shot group at the target.

b. Identify the location of the shot group on the target.

(1) Return to step 5, if 2 of 3 rounds do not strike within the strike zone (zero offset).

(2) Cease Fire (zero is confirmed), if 2 of 3 rounds strike within the strike zone (zero offset).

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO D - LSA 8. Learning Step / Activity ELO D - LSA 8. Record setting of azimuth and elevation indicators.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

8. Record setting of azimuth and elevation indicators.

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO D - LSA 9. Learning Step / Activity ELO D - LSA 9. Set FOV ring to NARROW position and repeat steps 3 through 8.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction

Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

9. Set FOV ring to NARROW position and repeat steps 3 through 8.

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

CHECK ON LEARNING (ELO D): Conduct a check on learning and correct any student misunderstandings.

REVIEW SUMMARY(ELO D): Summarize the learning objective.

E. ENABLING LEARNING OBJECTIVE

ACTION:	Engage Targets with an M240B Machine Gun Using an AN/PAS-13 Thermal Weapon Sight
CONDITIONS:	Given a loaded M240B machine gun (tripod-, bipod-, or vehicular-mounted) with a mounted and zeroed AN/PAS-13 thermal weapon sight (TWS), linked 7.62-mm ammunition and an assigned sector of fire.
STANDARDS:	Detect, identify as threat and engage targets in assigned sector of fire. Apply correct marksmanship fundamentals and target engagement techniques so that each target is hit or suppressed.

ELO E - LSA 1. Learning Step / Activity ELO E - LSA 1. Engage targets using the correct M240B machine gun firing techniques.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 15 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

1. Ensure the AN/PAS-13 display has the proper sighting reticle.
2. Detect targets.

Note: Detection of targets depends on your position, your skill in scanning, and your ability to observe the area and recognize target indicators.

3. Select Position based on the situation.

Note: Select a physical position and assume an appropriate firing position based on the situation. Your position should protect you from enemy fire and observation, yet allow you to place effective fire on targets in your sector of fire. Your position may vary from a fixed location to a temporary location during movement.

4. Determine range to targets.

Note: The vertical line of a crosshair reflects the height of a 5-foot man at the specified range. The horizontal line of a crosshair reflects the width of a 10-foot tank at the

specified range.

5. Identify targets as threat or non-threat targets.

6. Engage targets using the correct M240B machine gun firing techniques.

Note: Gunners engage targets throughout their respective sectors through the application of machine gun fire onto the target. Gunners apply fire to the target after determining (or after their leaders determine) the class of fire and the rate of fire that is best for the type of target. These factors are often determined simultaneously and often change during the course of fire.

a. Sight the TWS using the correct range mark

b. Fire the weapon when the range is determined to the target using 5 to 7 round bursts.

c. Adjust machinegun fire based on observation of fire and type of target.

d. Fire on targets until they are destroyed, suppressed or upon the receipt of an order to cease fire.

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

CHECK ON LEARNING (ELO E): Conduct a check on learning and correct any student misunderstandings.

REVIEW SUMMARY(ELO E): Summarize the learning objective.

F. ENABLING LEARNING OBJECTIVE

ACTION:	Zero an AN/PEQ-15 Aiming Light to an M240B Machine Gun
CONDITIONS:	As a gunner, given an AN/PEQ-15 Advanced Target Pointer Illuminator Aiming Light (ATPIAL) mounted on an M240B, 18 rounds of 7.62mm ammunition, a target (300 meter zero target preferred) at 25 meters, night vision goggles, sandbags for support. You have been directed to zero the AN/PEQ-15 ATPIAL to the M240B machine gun.
STANDARDS:	Fire the weapon and adjust the AN/PEQ-15 ATPIAL to ensure five out of six rounds strike within the 4-centimeter designated strike zone using 18 rounds or less. Rounds that break the line are accepted.

ELO F - LSA 1. Learning Step / Activity ELO F - LSA 1. Establish a zero.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 15 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

1. Prepare the zeroing target.

a. Choose an appropriate target (M16A2 25m target for a 300m zero is preferred).
b. Cut out the 4 cm center mass aiming circle/square from the target.
c. Mark the 25m zero offset on the target based on weapon type and mounting location.
d. Draw 4 cm strike zone centered on the offset point.
e. Attach the target to a flat surface at a distance of 25 meters.
2. Set the aiming light to the zero preset (Skip step if the AN/PEQ-15 was boresighted).

CAUTION

Do not force the adjusters beyond their end of travel.

a. Rotate both the azimuth and elevation aim laser adjusters to the full counter-clockwise (CCW) end of travel position.
b. Rotate the azimuth and elevation aim laser adjusters back 2.5 turns to align the slotted head in a 12 o'clock / 6 o'clock orientation.
3. Aim the AN/PEQ-15 aiming light at the aiming point.
a. Identify the aiming point on 25-meter zero target.
b. Assume a prone supported firing position.
c. Rotate the mode selector to visible aim laser (VIS-AL).
d. Activate the VIS-AL in continuous mode by double-tapping the activation button.
e. Direct the VIS-AL at the center of the target.
4. Establish a tight shot group.
Note: A tight shot group is 2 of 3 consecutive rounds within a 4 centimeter or less circle/square.
a. Direct the visible aim laser at the center of the target.
b. Fire a three-round shot group at the target.
c. Determine if the shot group is tight by observing the center point and size of the shot group.
d. Perform retightening on the integral rail grabber bracket.
5. Adjust the AN/PEQ-15 to obtain a zero.
a. Observe the center of the new shot group relative to the designated strike point.
b. Determine the necessary sight adjustments by identifying the center of the last fired shot group.
c. Rotate the aim laser adjusters to move the center of the shot group to the designated strike point.
6. Establish a zero.
Note: Adjusters move the aiming beams at the rate of 0.2 mrad per click. Two clicks = 1 box on a standard M16A1/A2 25-meter zeroing target.
a. Fire a three-round shot group at the target.
b. Identify the location of the shot group on the target.
(1) Return to step 5 if 5 of 6 rounds do not strike within the strike zone (zero offset).
(2) Cease Fire (Zero is confirmed) if 5 of 6 rounds strike within the strike zone (zero offset).

Check on Learning: Conduct a check on learning and correct any student

misunderstandings.

Review Summary: Summarize the learning objective.

ELO F - LSA 2. Learning Step / Activity ELO F - LSA 2. Confirm the zero.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

7. Confirm the zero.

a. Fire a five-round shot group at the target.

b. Identify the location of the shot group on the target.

(1) Return to step 5 if 5 of 6 rounds do not strike within the strike zone (zero offset).

(2) Cease Fire (Zero is confirmed) if 5 of 6 rounds strike within the strike zone (zero offset).

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

ELO F - LSA 3. Learning Step / Activity ELO F - LSA 3. Align the illumination and infrared beams.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

8. Align the illumination and infrared beams.

a. Rotate the mode selector to the DL (DUAL LOW) or DH (DUAL HIGH) position.

b. Observe both the infrared red aiming light and illumination beams.

c. Rotate the Illuminator Adjusters to center the illumination beam over the IR aiming beam.

Check on Learning: Conduct a check on learning and correct any student

misunderstandings.

Review Summary: Summarize the learning objective.

ELO F - LSA 4. Learning Step / Activity ELO F - LSA 4. Establish a positive load on each adjuster.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)
Time of Instruction: 0 hrs 5 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

9. Establish a positive load on each adjuster.

a. Select on adjuster.

(1) Turn the adjuster eight clicks CW.

(2) Turn the adjuster CCW to the zero position.

NOTE: Repeat for each of the other three adjusters.

Check on Learning: Conduct a check on learning and correct any student misunderstandings.

Review Summary: Summarize the learning objective.

CHECK ON LEARNING (ELO F): Conduct a check on learning and correct any student misunderstandings.

REVIEW SUMMARY(ELO F): Summarize the learning objective.

G. ENABLING LEARNING OBJECTIVE

ACTION:	Engage Targets with an M240B Machine Gun using an AN/PEQ-15 Aiming Light
CONDITIONS:	As a gunner, given an M240B machine gun with a mounted, zeroed, and operational AN/PEQ-15 aiming light, 7.62mm ammunition, night vision goggles, individual combat equipment, and a sector of fire with engageable targets. You have been directed to engage such targets.
STANDARDS:	Detect, identify, and determine range to targets in assigned sector of fire. Fire the M240B machine gun using the AN/PEQ-15 aiming light, and use appropriate engagement techniques to each hit or suppress each target.

ELO G - LSA 1. Learning Step / Activity ELO G - LSA 1. Engage Targets with an M240B Machine Gun using an PEQ 15 Aiming Light.

Method of Instruction: Conference/Demonstration
Instr Type(I:S Ratio/Qty): instructor(4:32/0)

Time of Instruction: 0 hrs 20 mins
Instructional Strategy: Large Group Instruction
Media Type: Actual Equipment
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

1. Detect targets.

a. Use scanning technique.

b. Use observation techiques.

c. Recognize target indictors.

2. Select position based on the situation.

Note: Select a physical position and assume an appropriate firing position based on the situation. Your position should protect you from enemy fire and observation, yet allow you to place effective fire on targets in your sector of fire. Your position may vary from a fixed location to a temporary location during movement.

3. Determine range to targets.

4. Identify targets by distinguishing between threat and non-threat targets.

5. Determine how to engage the targets.

a. Determine the class of fire.

b. Determine rate of fire that is best for the type of target.

WARNING

Do not stare into the laser beams. Do not look into the laser beams through binoculars or telescopes. Do not point the laser beams at mirror like surfaces. Do not shine the laser beams into other individual's eyes.

6. Fire on targets using the AN/PEQ-15.

a. Ensure the AN/PEQ-15 Mode Selector Switch is set to the appropriate position.

b. Activate AN/PEQ-15 in the desired mode of operation.

(1) Activate momentary operation by pressing and holding the Activation Button (or the remote cable switch).

WARNING

To reduce the risk of detection by an enemy using night vision devices, avoid prolonged activation of the laser.

(2) Activate continuous operation by pressing and holding the activation button (or the remote cable switch) twice in rapid succession (double-tap).

c. Fire the weapon when the AN/PEQ-15 aiming light is on the desired point of impact using 5 to 7 round bursts.

d. Adjust machine gun fire based on observation of fire and type of target.

e. Fire on the targets until they are destroyed, suppressed, or you receive an order to cease fire.

f. Deactivate the AN/PEQ-15.

(1) Deactivate momentary operation by releasing the activation button (or the remote cable switch).

(2) Deactivate continuous operation by pressing the activation button (or the remote

cable switch) a third time.

Check on Learning:	Conduct a check on learning and correct any student misunderstandings.
Review Summary:	Summarize the learning objective.

CHECK ON LEARNING (ELO G):	Conduct a check on learning and correct any student misunderstandings.
REVIEW SUMMARY(ELO G):	Summarize the learning objective.

SECTION IV. SUMMARY

Method of Instruction:	Lecture
Instr Type(I:S Ratio/Qty):	instructor(1:32/0)
Time of Instruction:	5 mins
Instructional Strategy:	Large Group Instruction

Check on Learning

Conduct a check on learning and correct any student misunderstandings.

Review/ Summary

Summarize the learning objective.

SECTION V. STUDENT EVALUATION

Testing Requirements	Soldiers will be evaluated by task performance measures.
Feedback Requirements	Feedback is essential to effective learning. Schedule and provide feedback on the assessment and any information to help answer Soldiers' questions about the training exercise..

Appendix A - Viewgraph Masters

Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals
071-SAWE02 / Version 1.0

Sequence	Media Name	Media Type
None		

Appendix B - Test(s) and Test Solution(s)

PRACTICAL EXERCISE(S)/SOLUTION(S) FOR LESSON 071-SAWE02 Version 1.0

PRACTICAL EXERCISE SHEET 071-SAWE02 PE1

Title

Crew Drill PE.

Lesson Number/Title

071-SAWE02 Version 1.0 / Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

Security Classification

Unclassified

Introduction

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Motivator

Crew drill are the essential base task that must be mastered to ensure the machine gun teams success on the battlefield.

Enabling Learning Objective

NOTE. The instructor should inform the students of the following Enabling Learning Objective covered by this practical exercise. (ELO ELO A)

At the completion of this lesson, you [the student] will:

Action:	Perform machine gun crew drills.
Conditions:	In a field environment given all PPE, a machine gun, tripod, T&E, and pintle.
Standards:	Perform individual crew drill actions to place the gun into operation, take the gun out of action, and react to malfunctions as the machine gunner, assistant machine gunner, and ammo bearer for both bipod firing and tripod firing situations.

Safety Requirements

In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-100.4, Environmental Considerations in Military Operations, Appendix G, and ensure students are briefed on hazards and control measures.

	Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects.
Evaluation	Grade the Soldiers using the task performance measures. Retrain Soldiers who do not receive a GO. Re-test Soldiers until they achieve a GO.
Instructional Lead-in	Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.
Resource Requirements	*Instructor Materials:* See the lesson plan resources. *Student Materials:* See the lesson plan resources.
Special Instructions	Provide the Soldier with the equipment and/or materials described in the conditions statement.
Procedures	Break the students down into 8 man groups, have each group cover down on one machine gun. One Instructor will grade each student individually.
Feedback Requirements	Feedback is essential to effective learning. Schedule and provide feedback on the assessment and any information to help answer Soldiers' questions about the training exercise.

SOLUTION FOR
PRACTICAL EXERCISE 071-SAWE02 PE1

1. Placed the gun into operation for bipod fire.
2. Placed the gun into operation for tripod fire.
3. Took the gun out of operation.
4. Demonstrated immediate action procedures.
5. Demonstrated remedial action procedures.
6. Demonstrated procedures to correct a run away gun.

PRACTICAL EXERCISE SHEET 071-SAWE02 PE2

Title

Zeroed the M240B machine gun using the 10-meter zero technique.

Lesson Number/Title

071-SAWE02 Version 1.0 / Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

Security Classification

Unclassified

Introduction

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Motivator

You must be able to zero the machine gun in order to successfully engage targets.

Enabling Learning Objective

NOTE. The instructor should inform the students of the following Enabling Learning Objective covered by this practical exercise. (ELO ELO B)

At the completion of this lesson, you [the student] will:

Action:	Zero an M240B Machine Gun.
Conditions:	You are assigned an M240B machine gun and have been directed to zero the weapon. You have loose or linked 7.62-mm ammunition and a basic machine gun target located 10 meters from the firing position or a target located 300 to 700 meters from the firing position. The M240B is mounted on a tripod.
Standards:	Zero the M240B using the 10 meter or field zero technique.

Safety Requirements

In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-100.4, Environmental Considerations in Military Operations, Appendix G, and ensure students are briefed on hazards and control measures.

Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects.

Evaluation

Grade the Soldiers using the task performance measures. Retrain Soldiers who do not receive

	a GO. Re-test Soldiers until they achieve a GO.
Instructional Lead-in	Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.
Resource Requirements	*Instructor Materials:* See the lesson plan resources. *Student Materials:* See the lesson plan resources.
Special Instructions	Students will be broken down into 8 man groups and cover down on a machine gun. Students will be graded individually on the weapon.
Procedures	SETUP: Provide the Soldier with the equipment and/or materials described in the conditions statement.
Feedback Requirements	Feedback is essential to effective learning. Schedule and provide feedback on the assessment and any information to help answer Soldiers' questions about the training exercise.

SOLUTION FOR
PRACTICAL EXERCISE 071-SAWE02 PE2

Zeroed the M240B machine gun using the 10-meter zero technique.

PRACTICAL EXERCISE SHEET 071-SAWE02 PE3

Title

Zeroed the M240B machine gun using the field zero technique.

Lesson Number/Title

071-SAWE02 Version 1.0 / Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

Security Classification

Unclassified

Introduction

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Motivator

You must be able to zero the thermal sight in order to successfully engage targets.

Enabling Learning Objective

NOTE. The instructor should inform the students of the following Enabling Learning Objective covered by this practical exercise. (ELO ELO B)

At the completion of this lesson, you [the student] will:

Action:	Zero an M240B Machine Gun.
Conditions:	You are assigned an M240B machine gun and have been directed to zero the weapon. You have loose or linked 7.62-mm ammunition and a basic machine gun target located 10 meters from the firing position or a target located 300 to 700 meters from the firing position. The M240B is mounted on a tripod.
Standards:	Zero the M240B using the 10 meter or field zero technique.

Safety Requirements

In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-100.4, Environmental Considerations in Military Operations, Appendix G, and ensure students are briefed on hazards and control measures.

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Evaluation

Grade the Soldiers using the task performance measures. Retrain Soldiers who do not receive

a GO. Re-test Soldiers until they achieve a GO.

Instructional Lead-in

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Resource Requirements

Instructor Materials:
See the lesson plan resources.

Student Materials:
See the lesson plan resources.

Special Instructions

Provide the Soldier with the equipment and/or materials described in the conditions statement.

Procedures

Break the students down into 8 man groups, have each group cover down on one machine gun. One Instructor will grade each student individually.

Feedback Requirements

Feedback is essential to effective learning. Schedule and provide feedback on the assessment and any information to help answer Soldiers' questions about the training exercise.

SOLUTION FOR
PRACTICAL EXERCISE 071-SAWE02 PE3

Zeroed the M240B machine gun using the field zero technique.

PRACTICAL EXERCISE SHEET 071-SAWE02 PE4

Title

Engage Targets with the M240B Machine Gun.

Lesson Number/Title

071-SAWE02 Version 1.0 / Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

Security Classification

Unclassified

Introduction

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Motivator

You must be able to targets in order to provide suppressive fires for maneuvering elements.

Enabling Learning Objective

NOTE. The instructor should inform the students of the following Enabling Learning Objective covered by this practical exercise. (ELO ELO C)

At the completion of this lesson, you [the student] will:

Action:	Engage Targets with an M240B Machine Gun
Conditions:	Given an M240B machine gun, linked 7.62-mm ammunition, targets in your 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. Use correct M240B machine gun target engagement techniques so that you hit each target.

Safety Requirements

In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-100.4, Environmental Considerations in Military Operations, Appendix G, and ensure students are briefed on hazards and control measures.

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Evaluation

Grade the Soldiers using the task performance measures. Retrain Soldiers who do not receive a GO. Re-test Soldiers until they achieve a GO.

Instructional Lead-in	Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.
Resource Requirements	*Instructor Materials:* See the lesson plan resources. *Student Materials:* See the lesson plan resources.
Special Instructions	Provide the Soldier with the equipment and/or materials described in the conditions statement.
Procedures	Break the students down into 8 man groups, have each group cover down on one machine gun. One Instructor will grade each student individually.
Feedback Requirements	Feedback is essential to effective learning. Schedule and provide feedback on the assessment and any information to help answer Soldiers' questions about the training exercise.

SOLUTION FOR
PRACTICAL EXERCISE 071-SAWE02 PE4

1. Assumed a suitable firing position.
2. Identified targets in designated sector of fire.
3. Aligned the sights on the target.
4. Engaged targets using correct M240B firing techniques.

PRACTICAL EXERCISE SHEET 071-SAWE02 PE5

Title

Zero the Weapon Sight.

Lesson Number/Title

071-SAWE02 Version 1.0 / Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

Security Classification

Unclassified

Introduction

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Motivator

You must be able to zero the thermal sight in order to successfully engage targets.

Enabling Learning Objective

NOTE. The instructor should inform the students of the following Enabling Learning Objective covered by this practical exercise. (ELO ELO D)

At the completion of this lesson, you [the student] will:

Action:	Zero an AN/PAS-13 Thermal Weapon Sight (TWS) to an M240B Machine Gun
Conditions:	You have just mounted an AN/PAS 13, Thermal Weapons Sight (TWS), to your assigned M240B machine gun and must zero it prior to use. You have a designated firing point and been issued 18 rounds of 7.62 ammunition.
Standards:	Fire the weapon and adjust the TWS so that two out of three rounds strike within the 4-centimeter designated strike zone using 18 rounds or less.

Safety Requirements

In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. Everyone is responsible for safety. A thorough risk assessment must be completed prior to every mission or operation.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-100.4, Environmental Considerations in Military Operations, Appendix G, and ensure students are briefed on hazards and control measures.

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resources while protecting people and the environment from harmful effects.

Evaluation

Students will be evaluated on their ability to accomplish the task. They will be graded as a "go" or "no-go". Retrain and re-test students until they achieve a "go".

Instructional Lead-in

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Resource Requirements

Instructor Materials:
See the lesson plan resources.

Student Materials:
See the lesson plan resources.

Special Instructions

Provide the Soldier with the equipment and/or materials described in the conditions statement.

Procedures

Break the students down into 8 man groups, have each group cover down on one machine gun. One Instructor will grade each student individually

Feedback Requirements

The students will receive timely feedback from the instructors during all practical exercises, hands-on performance evaluations, and written examinations. The student will be counseled (positive and/or negative) based on their performance on evaluations and classroom participation.

SOLUTION FOR
PRACTICAL EXERCISE 071-SAWE02 PE5

PERFORMANCE MEASURES

1. Prepared a 25-meter zeroing target for TWS zero.
2. Prepared the sight.
3. Prepared to fire.
4. Established a tight shot group.
5. Adjusted sight to obtain a zero.
6. Established a zero.
7. Confirmed the zero.
8. Recorded setting of azimuth and elevation indicators.
9. Set FOV ring to NARROW position and repeat steps 3 through 8.

PRACTICAL EXERCISE SHEET 071-SAWE02 PE6

Title

Engaged targets having used the correct M240B machine gun firing techniques.

Lesson Number/Title

071-SAWE02 Version 1.0 / Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

Security Classification

Unclassified

Introduction

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Motivator

The thermal weapon sight will allow you to engage targets in any environment.

Enabling Learning Objective

NOTE. The instructor should inform the students of the following Enabling Learning Objective covered by this practical exercise. (ELO ELO E)

At the completion of this lesson, you [the student] will:

Action:	Engage Targets with an M240B Machine Gun Using an AN/PAS-13 Thermal Weapon Sight
Conditions:	Given a loaded M240B machine gun (tripod-, bipod-, or vehicular-mounted) with a mounted and zeroed AN/PAS-13 thermal weapon sight (TWS), linked 7.62-mm ammunition and an assigned sector of fire.
Standards:	Detect, identify as threat and engage targets in assigned sector of fire. Apply correct marksmanship fundamentals and target engagement techniques so that each target is hit or suppressed.

Safety Requirements

In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. Everyone is responsible for safety. A thorough risk assessment must be completed prior to every mission or operation.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-100.4, Environmental Considerations in Military Operations, Appendix G, and ensure students are briefed on hazards and control measures.

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	training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects.
Evaluation	Grade the Soldiers using the task performance measures. Retrain Soldiers who do not receive a GO. Re-test Soldiers until they achieve a GO.
Instructional Lead-in	Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.
Resource Requirements	*Instructor Materials:* See the lesson plan resources. *Student Materials:* See the lesson plan resources.
Special Instructions	Provide the Soldier with the equipment and/or materials described in the conditions statement.
Procedures	Break the students down into 8 man groups, have each group cover down on one machine gun. One Instructor will grade each student individually.
Feedback Requirements	The students will receive timely feedback from the instructors during all practical exercises, hands-on performance evaluations, and written examinations. The student will be counseled (positive and/or negative) based on their performance on evaluations and classroom participation.

SOLUTION FOR
PRACTICAL EXERCISE 071-SAWE02 PE6

PERFORMANCE MEASURES

1. Ensured the AN/PAS-13 display has the proper sighting reticle.
2. Detected targets.
3. Selected Position based on the situation.
4. Determined range to targets.
5. Identified targets as threat or non-threat targets.
6. Engaged targets having used the correct M240B machine gun firing techniques.

PRACTICAL EXERCISE SHEET 071-SAWE02 PE7

Title

Zero the PEQ-15.

Lesson Number/Title

071-SAWE02 Version 1.0 / Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

Security Classification

Unclassified

Introduction

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Motivator

You must be able to successfully engage targets using the PEQ 15 in order to provide accurate fires.

Enabling Learning Objective

NOTE. The instructor should inform the students of the following Enabling Learning Objective covered by this practical exercise. (ELO ELO F)

At the completion of this lesson, you [the student] will:

Action:	Zero an AN/PEQ-15 Aiming Light to an M240B Machine Gun
Conditions:	As a gunner, given an AN/PEQ-15 Advanced Target Pointer Illuminator Aiming Light (ATPIAL) mounted on an M240B, 18 rounds of 7.62mm ammunition, a target (300 meter zero target preferred) at 25 meters, night vision goggles, sandbags for support. You have been directed to zero the AN/PEQ-15 ATPIAL to the M240B machine gun.
Standards:	Fire the weapon and adjust the AN/PEQ-15 ATPIAL to ensure five out of six rounds strike within the 4-centimeter designated strike zone using 18 rounds or less. Rounds that break the line are accepted.

Safety Requirements

In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. Everyone is responsible for safety. A thorough risk assessment must be completed prior to every mission or operation.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-100.4, Environmental Considerations in Military Operations, Appendix G, and ensure students are briefed on hazards and control measures.

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Evaluation

Grade the Soldiers using the task performance measures.
Retrain Soldiers who do not receive a GO.
Re-test Soldiers until they achieve a GO.

Instructional Lead-in

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Resource Requirements

Instructor Materials:

See the lesson plan resources.

Student Materials:

See the lesson plan resources.

Special Instructions

Provide the Soldier with the equipment and/or materials described in the conditions statement.

Procedures

Break the students down into 8 man groups, have each group cover down on one machine gun. One Instructor will grade each student individually.

Feedback Requirements

The students will receive timely feedback from the instructors during all practical exercises, hands-on performance evaluations, and written examinations. The student will be counseled (positive and/or negative) based on their performance on evaluations and classroom participation.

SOLUTION FOR
PRACTICAL EXERCISE 071-SAWE02 PE7

PERFORMANCE MEASURES

1. Prepared the zeroing target.
2. Set the aiming light to the preset zero if not boresighted.
3. Aimed the AN/PEQ-15 aiming light at the aiming point.
4. Established a tight shot group.
5. Adjusted the AN/PEQ-15 aiming light.
6. Established a zero.
7. Confirmed the zero.
8. Aligned the illumination and infrared beams.
9. Established a positive load on each adjuster.

PRACTICAL EXERCISE SHEET 071-SAWE02 PE8

Title

Engage Targets with an M240B Machine Gun using an PEQ 15 Aiming Light.

Lesson Number/Title

071-SAWE02 Version 1.0 / Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

Security Classification

Unclassified

Introduction

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Motivator

You must be able to effectively engage targets using the PEQ 15 in order provide accurate fires for your element.

Enabling Learning Objective

NOTE. The instructor should inform the students of the following Enabling Learning Objective covered by this practical exercise. (ELO ELO G)

At the completion of this lesson, you [the student] will:

Action:	Engage Targets with an M240B Machine Gun using an AN/PEQ-15 Aiming Light
Conditions:	As a gunner, given an M240B machine gun with a mounted, zeroed, and operational AN/PEQ-15 aiming light, 7.62mm ammunition, night vision goggles, individual combat equipment, and a sector of fire with engageable targets. You have been directed to engage such targets.
Standards:	Detect, identify, and determine range to targets in assigned sector of fire. Fire the M240B machine gun using the AN/PEQ-15 aiming light, and use appropriate engagement techniques to each hit or suppress each target.

Safety Requirements

In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. Everyone is responsible for safety. A thorough risk assessment must be completed prior to every mission or operation.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a Risk Assessment to include Environmental Considerations IAW FM 3-100.4, Environmental Considerations in Military Operations, Appendix G, and ensure students are briefed on hazards and control measures.

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and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects.

Evaluation

Grade the Soldiers using the task performance measures. Retrain Soldiers who do not receive a GO. Re-test Soldiers until they achieve a GO.

Instructional Lead-in

Tell the Soldier what is expected of him by reviewing the task standards. Stress to the Soldier the importance of observing all cautions, warnings, and dangers to avoid injury to personnel and, if applicable, damage to equipment.

Resource Requirements

Instructor Materials:
See the lesson plan resources.

Student Materials:
See the lesson plan resources.

Special Instructions

Provide the Soldier with the equipment and/or materials described in the conditions statement.

Procedures

Break the students down into 8 man groups, have each group cover down on one machine gun. One Instructor will grade each student individually.

Feedback Requirements

The students will receive timely feedback from the instructors during all practical exercises, hands-on performance evaluations, and written examinations. The student will be counseled (positive and/or negative) based on their performance on evaluations and classroom participation.

SOLUTION FOR
PRACTICAL EXERCISE 071-SAWE02 PE8

PERFORMANCE MEASURES

1. Detected targets.
2. Selected position based on the situation.
3. Determined the range to targets.
4. Identified targets as threat and non threat targets.
5. Determined how to engage the targets.
6. Fired on targets using the AN/PEQ-15.

Appendix D - Student Handouts

Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals
071-SAWE02 / Version 1.0

Sequence	Media Name	Media Type
None		

Engage Targets with the M240B Machine Gun while using Optics, Aiming Lasers, and Thermals

071-SAWE02 / Version 1.0

Effective Date: 08 March 2013

1. The importance of this lesson: (Why)

Engage Targets with the M240B Machine Gun.

2. What we want our Soldiers to Achieve: (Outcomes/Standard)

Engage targets using the MGO, PEQ-15, and AN/PAS-13 weapon sights.

3. Tasks to be taught

Task Number	Task Title	Task Type
071-025-0001	Maintain an M240B Machine Gun	Individual REINFORCED
071-025-0015	Mount an M240B Machine Gun on an M122A1 or an M192 Lightweight Ground Mount Tripod	Individual REINFORCED
071-025-0016	Dismount an M240B Machine Gun from an M122A1 or an M192 Lightweight Ground Mount Tripod	Individual REINFORCED
071-025-0019	Mount an AN/PAS-13 Thermal Weapon Sight on an M240B Machine Gun	Individual REINFORCED
071-025-0020	Dismount an AN/PAS-13 Thermal Weapon Sight from an M240B Machine Gun	Individual REINFORCED
071-025-0021	Zero an AN/PAS-13 Thermal Weapon Sight (TWS) to an M240B Machine Gun	Individual TAUGHT
071-025-0022	Engage Targets with an M240B Machine Gun Using an AN/PAS-13 Thermal Weapon Sight	Individual TAUGHT
071-703-0001	Operate M145 Telescope, Straight	Individual REINFORCED
071-703-0002	Maintain M145 Telescope, Straight	Individual REINFORCED
071-706-0001	Operate Night Vision Device, AN/PVS-14	Individual REINFORCED
071-706-0002	Maintain Night Vision Device, AN/PVS-14	Individual REINFORCED
071-025-0011	Mount an M240B Machine Gun on a Vehicle	Individual REINFORCED
071-025-0012	Dismount an M240B Machine Gun from a Vehicle	Individual REINFORCED
071-025-0035	Mount an AN/PEQ-15 Aiming Light to an M240B Machine Gun	Individual REINFORCED
071-025-0036	Dismount an AN/PEQ-15 Aiming Light from an M240B Machine Gun	Individual REINFORCED
071-025-0037	Zero an AN/PEQ-15 Aiming Light to an M240B Machine Gun	Individual TAUGHT
071-025-0038	Engage Targets with an M240B Machine Gun using an AN/PEQ-15 Aiming Light	Individual TAUGHT
071-025-0002	Perform a Function Check on an M240B Machine Gun	Individual REINFORCED
071-025-0003	Load an M240B Machine Gun	Individual REINFORCED
071-025-0004	Unload an M240B Machine Gun	Individual REINFORCED
071-025-0005	Correct Malfunctions of an M240B Machine Gun	Individual TAUGHT
071-025-0006	Zero an M240B Machine Gun	Individual TAUGHT
071-025-0007	Engage Targets with an M240B Machine Gun	Individual TAUGHT
07-2-1261	Conduct an Attack in an Urban Area (Platoon-Company)	Collective SUPPORTED
07-2-9010	Conduct an Ambush (Platoon-Company)	Collective SUPPORTED
07-2-1090	Conduct a Movement to Contact (Platoon-Company)	Collective SUPPORTED
07-2-1256	Conduct an Attack by Fire (Platoon-Company)	Collective SUPPORTED
07-2-3000	Conduct Support by Fire (Platoon-Company)	Collective SUPPORTED
07-2-9001	Conduct an Attack (Platoon-Company)	Collective SUPPORTED
07-2-9008	Conduct a Raid (Platoon-Company)	Collective SUPPORTED

Additional Non-Standard Tasks

None

4. References:

Reference Number	Reference Title	Date
FM 3-22.68	Crew-Served Machine Guns, 5.56-MM and 7.62-MM	21 Jul 2006
TM 11-5855-312-10	PERATOR's MANUAL SIGHT, THERMAL AN/PAS-13B(V)2 (NSN 5855-01-464-3152)	15 Feb 2005
TM 11-5855-316-10	OPERATOR's MANUAL AN/PAS-13C(V)1 SIGHT, THERMAL (NSN 5855-01-523-7707)	15 Jun 2006
TM 11-5855-317-10	OPERATOR's MANUAL FOR SIGHT, THERMAL AN/PAS-13D(V)2	15 Feb 2007
TM 11-5855-324-10	OPERATOR's MANUAL FOR SIGHT, THERMAL AN/PAS-13D(V)1	15 Feb 2007
TM 9-1005-313-10	OPERATORS MANUAL FOR MACHINE GUN, 7.62MM, M240 (NSN 1005-01-025-8095) M240B (1005-01-412-3129) M240C (1005-01-085-4758) M240D (1005-01-418-6995) M240E1 (1005-01-252-4288) M240G (1005-01-359-2714) M240N (	15 Nov 2002
TM 9-1005-313-23&P	UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR MACHINE GUN, 7.62MM, M240 (NSN 1005-01-025-8095);MACHINE GUN, 7.62MM. M240B (1005-01-412-3129);MACHINE GUN, 7.62	14 Dec 2007
TM 9-1240-415-13&P	OPERATOR, UNIT, AND DIRECT SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR TELESCOPE, STRAIGHT: M145 (1240-01-411-6350)	28 Feb 2000
TM 9-5855-1912-13&P	OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) FOR DUAL BEAM AIMING LASER-ADVANCED2 (DBAL-A2) AN/PEQ-15A (NSN: 5855-01-535-6166) (EIC: N/A)	05 Jul 2008
TM 9-5855-1914-13&P	OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL	16 Feb 2007
TM 9-5855-1915-13&P	OPERATOR AND FIELD MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND	31 Aug 2007

Additional Non-Standard References

Unit Markanmanship SOPs.

5. Resources

TIME: Time of Instruction (Time not specified)

LAND: Classroom, Training Area, and Range Requirements

Id	Name
17833	Range, Machine Gun, Multipurpose, Automated (MPMG)

AMMO: Ammunition Requirements

DODIC	Name
AB86	Cartridge, 7.62 Millimeter 4 Ball-1 Tracer Linked, Lead Free
XB02	Cartridge, 7.62 Millimeter Ball, M80

MISC: Materiel Items and TADSS Requirements

Id	Name
1005-00-288-3565	SWAB,SMALL ARMS CLEANING
1005-00-350-4100	BRUSH,CLEANING,SMALL ARMS
1005-01-044-1026	BARREL,MACHINE GUN
1005-01-412-3129	MACHINE GUN,7.62 MILLIMETER
1005-01-412-3129	MACHINE GUN,7.62 MILLIMETER
1005-01-412-3129	MACHINE GUN,7.62 MILLIMETER
1005-01-412-3129	MACHINE GUN,7.62 MILLIMETER
1005-01-503-0141	MOUNT,MACHINE GUN
1005-01-536-9646	CASE,BARREL,MACHINE GUN
1240-01-411-6350	TELESCOPE,STRAIGHT
1305-00-892-2150	CARTRIDGE,7.62 MILLIMETER
2320-01-354-3385	Truck Cargo: 4x4 LMTV W/E: M1078
2330-00-141-8049	TRAILER,TANK
4933-01-033-1503	TOOL,COMBINATION
4933-01-033-1504	SCRAPER,COMBINATION
4933-01-033-1510	EXTRACTOR,RUPTURED CARTRIDGE CAS
4933-01-033-8324	COMBINATION WRENCH W/BRASS HAMMER M240
4933-01-047-3394	REAMERS,CLEANING
5110-01-516-3219	WEAPONS CLEANING KIT, M60
5855-01-228-0937	Night Vision Goggle AN/PVS-7B
5855-01-432-0524	Monocular Night Vision Device: AN/PVS-14
5855-01-458-0210	Medium Weapon Thermal Sight (MWTS): AN/PAS-13A(V)2
5855-01-477-8741	AN/PVS-15a: Binocular Night Vision System (BNVS)
5855-01-534-5931	ILLUMINATOR,INTEGRATED,SMALL ARM
5855-01-534-5931	ILLUMINATOR,INTEGRATED,SMALL ARM
6130-01-443-0970	CHARGER,BATTERY
6135-00-985-7845	Battery, Nonrechargeable, AA
6135-01-351-1131	BATTERY,NONRECHARGEABLE
6135-01-398-5922	BATTERY,NONRECHARGEABLE
6135-01-455-7946	BATTERY,NONRECHARGEABLE
6140-01-493-8092	BATTERY,STORAGE
6530-00-783-7510	LITTER,NONRIGID,POLELESS
6530-00-783-7905	LITTER,FOLDING,RIGID POLE
6545-01-254-9551	MES,COMBAT LIFESAVER-1999
6665-01-381-3023	Wet Bulb-Globe Temperature Kit
6730-00-933-4871	Screen, Projection
6850-00-224-6657	CLEANING COMPOUND,RIFLE BORE
7022-01-476-5115	Computer System, Digital: ANPYQ-8(V)
8415-01-092-0039	MITTEN,HEAT PROTECTIVE
9150-01-079-6124	CLEANER,LUBRICANT AND PRESERVATI
9920-00-292-9946	CLEANER,TOBACCO PIPE
B67766	BINOCULAR, 7X50MM, MODULAR CONSTR, M22

(Note: Asterisk before ID indicates a TADSS.)

Additional Non-Standard Resources

None

6. A possible technique to achieve the outcome:

Maximise hands on training time to allow the students to achieve task mastery.
Grade the Soldiers using the task performance measures.
Retrain Soldiers who do not receive a GO.
Re-test Soldiers until they achieve a GO.

7. Conduct AAR with Soldier and Cadre.

AAR's are essential to ensure the quality of the instruction and the efficiency of the course.
Schedule AAR's with Instructors to solicit feedback on the techniques and procedures in use.
Schedule AAR's with the Student's to solicit feedback on Instructional techniques, information being presented, and efficiency of the course.

NOTE: Before presenting this lesson, Instructors must be thoroughly prepared by studying the appropriate lesson plan and identified reference material.