

CRM LESSON PLAN REPORT

INTRODUCTION TO RANGE PROCEDURES - BUIS (BCT RM PD 2) (SIMULATOR & LOCAL TRAINING AREA)
071-BT071042 / 5.02 ©

Approved
19 Jul 2021

Effective Date: 19 Jul 2021

SCOPE:

This lesson plan introduces the student to physically applying the functional elements of the shot process in preparation for live-fire range operations. This will be the first time the Trainees will fire (simulated) at a target and receive detailed feedback before live-fire. Basic tasks introduced during weapons immersion must be reinforced when not actively firing (i.e., the last squad or each complete squad). Specifically, the five required RM qualification firing positions introduced in weapons immersion. Perform the integrated act of firing using a Rifle Marksmanship training simulator from the prone position. Target scenarios will be displayed according to RM2 experience levels. The Senior Instructor will ensure all groups fire the same scenarios. Drill Sergeants should instill a natural process of firing that incorporates the functional elements of the shot process. Trainees should develop an understanding of the conduct of range operations and an introduction to grouping.

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Foreign Disclosure: FD2 - This training product has been reviewed by the training developers in coordination with the MCoE G2 foreign disclosure officer. This training product can be used to instruct international military students when the country meets specific criteria. Specify requirement(s) that each country must meet (select all that are appropriate): 1) Must purchase equipment through FMS TBD; 2) Must be a member of a specific group or coalition TBD; 3) Must have an accepted clearance (must be authorized under an identified general security agreement with the US); 4) May not attend FD3 modules TBD; 5) Other TBD.

SECTION I. ADMINISTRATIVE DATA

All Course Masters/POIs Including This Lesson

Courses				
<u>Course Number</u>	<u>Version</u>	<u>Title</u>	<u>Phase</u>	<u>Status</u>
750-BT	11.0	Basic Combat Training	N/A	Analysis

POIs				
<u>POI Number</u>	<u>Version</u>	<u>Title</u>	<u>Phase</u>	<u>Status</u>
31B10-OSUT	21.0 ©	Basic Military Police	0	Analysis
12C10-OSUT	20.0 ©	Bridge Crewmember	0	Analysis
750-BT	11.0 ©	Basic Combat Training	0	Analysis
12C10-OSUT (ST)	20.0 ©	Bridge Crewmember	0	Analysis

Task(s) Taught(*) or Supported

<u>Task Number</u>	<u>Task Title</u>	<u>Status</u>
Individual		
071-705-0016 (*)	Boresight a Sight System on an M16 Series Rifle or M4 Series Carbine	Approved

Reinforced Task(s)

<u>Task Number</u>	<u>Task Title</u>	<u>Status</u>
071-COM-0033	Correct Malfunctions of an M16-Series Rifle/M4-Series Carbine	Approved
071-COM-0029	Perform a Function Check on an M16-Series Rifle/M4-Series Carbine	Approved
071-COM-0032	Maintain an M16-Series Rifle/M4-Series Carbine	Approved
071-COM-0028	Load an M16-Series Rifle/M4-Series Carbine	Approved
071-COM-0027	Unload an M16-Series Rifle/M4-Series Carbine	Approved

Knowledge

<u>Knowledge Id</u>	<u>Title</u>	<u>Taught</u>	<u>Required</u>
071-WPN-0059	Identity and Location of Parts of Infantry Weapons	No	Yes

Skill

<u>Skill Id</u>	<u>Title</u>	<u>Taught</u>	<u>Required</u>
071-WPN-0033	Load and Unload Infantry Weapons	No	Yes

Administrative/Academic Hours

The administrative/academic (50 min) hours required to teach this lesson are as follows:

<u>Academic</u>	<u>Resident Hours / Methods</u>		
Yes	0 hrs	15 mins	Drill and Practice
Yes	7 hrs	25 mins	Practical Exercise (Hands-On/Written)
Yes	0 hrs	10 mins	Discussion (Small or Large Group)
<hr/>			
Total Hours(50 min):	8 hrs	0 mins	

Instructor Action Hours

The instructor action (60 min) hours required to teach this lesson are as follows:

<u>Hours/Actions</u>		
<hr/>		
Total Hours (60 min):	0 hrs	0 mins

Test Lesson(s)

<u>Hours</u>	<u>Lesson Number Version</u>	<u>Lesson Title</u>
None		

Prerequisite Lesson(s)

<u>Hours</u>	<u>Lesson Number Version</u>	<u>Lesson Title</u>
None		

Training Material Classification

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

Foreign Disclosure Restrictions

FD2. This training product has been reviewed by the training developers in coordination with the MCoE G2 foreign disclosure officer. This training product can be used to instruct international military students when the country meets specific criteria. Specify requirement(s) that each country must meet (select all that are appropriate): 1) Must purchase equipment through FMS TBD; 2) Must be a member of a specific group or coalition TBD; 3) Must have an accepted clearance (must be authorized under an identified general security agreement with the US); 4) May not attend FD3 modules TBD; 5) Other TBD.

References

<u>Number</u>	<u>Title</u>	<u>Date</u>
AR 385-10	The Army Safety Program	24 Feb 2017
ATP 3-34.5	Environmental Considerations	10 Aug 2015
ATP 5-19	RISK MANAGEMENT, with change 1 dated 8 Sep 2014	14 Apr 2014
PAM 385-10	ARMY SAFETY PROGRAM (*RAR 003, 01/19/2010)	23 May 2008
PAM 385-30	RISK MANAGEMENT	02 Dec 2014
TC 3-20.40	Training and Qualification - Individual Weapons	01 Jul 2019
TC 3-22.9	Rifle and Carbine	13 May 2016
TM 9-1005-319-10	OPERATOR'S MANUAL FOR RIFLE, 5.56 MM, M16A2 (NSN 1005-01-128-9936), (EIC: 4GM) RIFLE, 5.56 MM, M16A3 (NSN 1005-01-357-5112) RIFLE, 5.56 MM, M16A4 (NSN 1005-01-383-2872) (EIC: 4F9) CARBINE, 5.56 MM, M4 (Change 2 Dated 15 April 2019)	01 Aug 2016
TRADOC REG 350-6	Enlisted Initial Entry Training Policies and Administration http://www.tradoc.army.mil/tpubs/regs/TR350-6.pdf	09 Aug 2019

Student Study Assignment

TRADOC PAM 600-4, *The Soldier's Blue Book*.

Instructor Requirements

All Instructors must be:

- Knowledgeable on TC 3-20.40, Training and Qualification-Individual Weapons and TC 3-22.9, Rifle and Carbine .

Support Personnel Requirements**Additional Support Personnel Requirements**

<u>Name</u>	<u>Student Ratio</u>	<u>Qty</u>	<u>Man Hours</u>
Instructor/Operator (EST2000 Facility) Remarks:	1:50		8.0
Combat Lifesaver Qualified Individual Remarks:	0:0	1	8.0
Bus Driver Remarks:	1:44		4.0
Driver, HMMWV Remarks:	0:0	1	4.0
Driver, LMTV Remarks:	0:0	1	4.0

**Equipment
Required
for Instruction**

<u>ID - Name</u>	<u>Student Ratio</u>	<u>Instructor Ratio</u>	<u>Spt</u>	<u>Qty</u>	<u>Exp</u>
* 07-129 - Engagement Skills Trainer II (EST II) Remarks:	3:50				No
* 07-131 - Laser Marksmanship Training System (LMTS), Initial Entry Training (IET) Battalion Set Remarks:	1:50				No
* T 07-086 - Target Box Paddle Remarks:	0:0		20		No
* T 07-087 - Riddle Sighting Device Remarks:	0:0		20		No
* T 07-088 - Chamber Safety Flag Remarks:	1:1				No
1005-01-382-0953 - Carbine, 5.56 Millimeter: M4A1 Remarks:	1:1	0:0	No	0	No
1005-01-630-9508 - 30 Round Magazine Assembly Remarks:	7:1	0:0	No	0	No
1240-01-411-1265 - Sight, Reflex Collimator: XM68 Remarks:	1:1	0:0	No	0	No
2310-01-090-7709 - Bus Transit 44 Passenger Remarks:	1:44	0:0	No	0	No
2320-01-540-2017 - Truck Utility Expanded Capacity Enhanced 4x4: M1165A1 Remarks:	0:0	0:0	Yes	1	No
2320-01-549-8577 - Truck Cargo: without Winch M1078A1P2 Remarks:	0:0	0:0	Yes	1	No
2330-01-108-7367 - Trailer Water: M149A2 Remarks:	0:0	0:0	No	0	
2540-00-490-0769 - CHOCK,BLOCK Remarks:	0:0	0:0	Yes	8	No
4110-01-485-3626 - Chest, Ice Storage, White, 48 Quart Capacity 2S Remarks:	0:0	0:0	Yes	4	No
5120-00-889-1796 - Tacker, Hand Actuated, Gun Style, 1/2 Inch Wide Staple Remarks:	0:0	0:0	No	0	
6515-01-363-4495 - THERMOMETER,CLINICAL,HUMAN Remarks:	0:0	0:0	Yes	4	No
6530-01-260-1222 - Rescue and Transport System, Patient Remarks:	0:0	0:0	Yes	4	No
6545-01-532-3674 - Medical Equipment Set, Combat Lifesaver, Version 2005, UA 245A Remarks:	0:0	0:0	Yes	4	No
6665-01-381-3023 - Wet Bulb-Globe Temperature Kit Remarks:	0:0	0:0	Yes	1	No
6920-01-253-4005 - Target, Silhouette Remarks:	0:0	0:0	Yes	200	No
7210-00-081-1417 - Sheet, Bed, Cotton-Polyester, White, 104 X 72 Inches, Solid, Plain, Flat Remarks:	0:0	0:0	Yes	8	No
8960-01-430-4378 - Ice, 8 Pounds Remarks:	1:10	0:0	Yes	8	No

(Note: Asterisk before ID indicates a TADSS.)

Materials Required

Instructor Materials:

This lesson plan (RM 2) and concurrent training material.

Student Materials:

TRADOC PAM 600-4, *The Soldier's Blue Book*.

Classroom, Training Area, and Range Requirements

<u>ID - Name</u>	<u>Quantity</u>	<u>Student Ratio</u>	<u>Setup Mins</u>	<u>Cleanup Mins</u>
17211-5000 Simulator Building (Non-Motion-Based), 5000 Square Foot Remarks:		1:50	10	10

Ammunition Requirements

<u>DODIC - Name</u>	<u>Exp</u>	<u>Student Ratio</u>	<u>Instruct Ratio</u>	<u>Spt Qty</u>
None				

Instructional Guidance/Conduct of Lesson

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

Purpose of Rifle Marksmanship Period 2- Develop a basic proficiency in the functional elements of the shot process – specifically the five RM qualification firing positions and how to perform the integrated act of firing using a Rifle Marksmanship training simulator. Drill Sergeants begin to instill a natural process of firing that incorporates the functional elements of the shot process. Trainees develop an understanding of range operations, the individual conduct on ranges, and an Introduction to Grouping in the simulator.

Firers shoot six 5 round groups until they group and display sound fundamentals. Use the embedded simulator feedback tools (view shot placement, replay of how the muzzle movement prior to firing, and trigger pressure applied) provided by the Simulation Operator. Ensure the Trainees last experience before moving off the simulator firing line is successful.

Initial Unit Coordination: Ensure the Simulator Training facility operator is aware of the weapon system used by the unit to reserve the correct training bay(s). The Trainees will fire the same weapon system used during subsequent periods of rifle marksmanship.

Proponent Lesson Plan Approvals

<u>Name</u>	<u>Rank</u>	<u>Position</u>	<u>Date</u>
Joseph Hiner	Not available	Approver	19 Jul 2021

SECTION II. INTRODUCTION

Method of Instruction: Discussion (Small or Large Group)
 Mode of Delivery: Resident Instruction
 Instr Type (I:S Ratio): Military - NON-ICH (1:50)
 Time of Instruction: 5 mins

Motivator

During combat, you may be placed into a situation where your life or the lives of your fellow Soldiers depend on your ability to engage and defeat the enemy with your weapon. Your ability to fire consistent, tight shot groups will ensure you hit the intended target!

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:	Apply the Functional Elements of the Shot Process
Conditions:	Given a covered training area, a mock range or non firing range, and RM Simulator; a simulated M4 weapon; 30 rounds of simulated 5.56mm ammunition/compressed air; a RM simulator scenario brief; an M4-Series Carbine; BUIS; one magazine; two 5.56mm dummy rounds; and wearing the prescribed uniform.
Standards:	Each Trainee performs the following IAW applicable publications: <ol style="list-style-type: none"> a. Adherence to proper range procedures and tower commands b. The four Elements of the Shot Process c. The required Marksmanship firing positions d. Peer coaching techniques e. The consistent aiming exercise f. The dime/washer exercise g. Integrated act of firing in the simulator from a prone supported firing position. Fire six 5 round shot groups with 4 of 5 rounds from each shot group striking inside a 4 cm circle.
Learning Domain - Level:	Psychomotor - Manipulation
No JPME Learning Areas Supported:	None

Safety Requirements

Safety must be paramount in the complex outdoor environment. During the training process, leaders 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 hazards.

INSTRUCTOR NOTE: The Instructor will brief the unit/site SOP and Risk Management Worksheet for all potential contingencies encountered during the training period/event (i.e., severe weather, fire, evacuation routes, and rally points etc.).

Risk Assessment Level

Low - - Risk Assessment to be produced locally IAW ATP 5-19, April 2014.

Assessment: None

Controls: None

Leader Actions: None

Low - Heat/ Cold Weather Injuries.

Assessment: Ensure to check local weather reports prior to the execution of training. Drill Sergeants must conduct layouts prior to training to ensure all required clothing and equipment is present.

Controls: Drill Sergeants will monitor Trainees to ensure adequate hydration and nutrition. Drill Sergeants will ensure Trainees are wearing the appropriate clothing and protective gear for the local weather.

Leader Actions: Ensure DD Form 2977 is updated with the appropriate controls. Make sure every Drill Sergeant is aware of Controls prior to execution of training so they can take appropriate action.

Low - Hyponatremia.

Assessment: Review the symptoms of Hyponatremia.

Controls: Drill Sergeants will monitor Trainee water consumption. Ensure the safety brief includes the symptoms of Hyponatremia.

Leader Actions: Ensure DD 2977 is updated with appropriate controls. Ensure Drill Sergeants have the appropriate information prior to the safety brief

Low - Tripping over Simulator equipment, furniture, items on the ground.

Assessment: Prepare Simulator prior to the execution of training. Ensure floor is clear of obstructions that could lead to injuries.

Controls: The Drill Sergeants will ensure an orderly entrance and exit from the Simulator.

Leader Actions: Ensure DD 2977 is updated with appropriate controls. Ensure Drill Sergeants have the appropriate information prior to the execution of training.

Environmental Considerations

NOTE: Instructor should conduct a risk assessment to include environmental considerations IAW the current environmental considerations publication, and ensure students are briefed on hazards and control measures.

INSTRUCTOR NOTE: Units and installations will prepare an environmental risk assessment using the before, during, and after checklist found in ATP 3-34.5, Appendix K. The checklist should supplement local and state environmental regulations applicable to your area.

Instructional Lead-in

During this lesson, each of you will learn and apply the functional elements of the shot process while firing from the prone supported position in the Rifle Marksmanship simulator. You will be given a demonstration, an explanation, and practice time. You will also practice range and safety procedures on a non-firing range while integrating the elements of the shot process as you conduct dry fire exercises and other RM drills.

SECTION III. PRESENTATION

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

A. ENABLING LEARNING OBJECTIVE

ACTION:	Perform Range Procedures
CONDITIONS:	Given a mock range or suitable area, a range safety briefing, an M4-Series Carbine rifle and wearing the prescribed uniform.
STANDARDS:	Perform proper range procedures and tower commands.
LEARNING DOMAIN - LEVEL:	Cognitive - Understanding
No JPME LEARNING AREAS SUPPORTED:	None

ELO A - LSA 1. Learning Step / Activity ELO A - LSA 1. Conduct Range Safety Procedures

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

INSTRUCTOR NOTE: This list can be modified locally to cover any subjects/details not mentioned below.

1. The basic range Safety rules are:
 - a. Stay alert at all times
 - b. Follow all range commands
 - c. Hearing and eye protection are required
 - d. Everyone on the range is responsible for safety

2. More specific Range Safety Procedures include:
 - a. Weapons safety
 - b. Unsafe acts
 - c. Cease fire procedures
 - d. Tower commands
 - e. Hand and arm signal for cease fire
 - f. Ammunition handling and procedures
 - g. Entering and exiting the firing line
 - h. Environmental safety procedures
 - i. Safety procedures for animals and insects
 - j. Ear plugs
 - k. Hot/Cold weather considerations

Check on Learning:

Continue to Check on Learning throughout the lesson.

Review Summary:

Conduct a Summary Review.

ELO A - LSA 2. Learning Step / Activity ELO A - LSA 2. Perform Range Operation Procedures

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

Range Operation Procedures

Brief the unit on range operations in accordance with the unit commanders guidance.

Tell Students:

Following this briefing,

you will rotate in groups through the Mock Range where you will be trained on the following subjects:

- Primary carrying positions
- How to change magazines
- Muzzle awareness
- How to clear weapons on the range

INSTRUCTOR NOTE: An example of the range operation procedures are below.

Before beginning a live-fire exercise, all personnel must receive an orientation on range operations. The orientation should outline the procedures for conducting the exercise to include the duties of the non-firing orders.

To provide a safe and efficient range operation and effective instruction, the following is an example of personnel and duties that may be required.

OIC

The OIC is responsible for the overall operation of the range before, during, and after live firing.

Range Safety Officer

The Range Safety Officer (RSO) is responsible for the safe operation of the range to include conducting a safety orientation before each scheduled live-fire exercise. The RSO ensures that a brass and ammunition check is made before the unit leaves the range. The RSO ensures that all personnel comply with the safety regulations and procedures prescribed for the conduct of a live-fire exercise. The RSO ensures that a dry-fire exercise is conducted and the weapon is clear before a firer leaves the firing line. The RSO ensures that all left-handed firers use left-handed firing devices and positions. The RSO is not assigned any other duties while engaging in RSO duties.

NCOIC

The NCOIC assists the OIC and safety officer, as required, by supervising other personnel supporting this training.

Maintenance Detail

This detail should be composed of two segments: one to conduct small-arms repair and one to perform minor maintenance on the target-holding mechanisms.

Ammunition Detail

This detail is composed of one or more ammunition handlers whose responsibilities are to break down, issue, receive, account for, and safeguard live ammunition. The detail also collects expended ammunition casings and other residue.

Unit Armorer

The unit armorer repairs the rifles to include replacing parts, as required.

Medical Personnel

They provide medical support as required by regulations governing live-fire exercises.

Range Proofing NCO

This NCO is selected by the NCOIC/OIC to proof **any range** target function (simulated or live) prior to the Trainee's arrival to training. This includes proper scenarios, proper target operation and function, and target type and distance. The Range Proofing NCO saves valuable time.

Control Tower Operators

These operators raise and lower the targets, input target exposure times, sound the audible signals, and provide fire commands. If possible, two men should be chosen to perform these functions.

Assistant Instructor

One assistant instructor (AI) is assigned for each one to ten firing points. Each assistant ensures that all firers observe safety regulations and procedures, and the AI assists firers having problems.

Firing order

After the range cadre have given the safety and range briefings they will then assemble the Trainee's in firing orders in correlation with the number of firing points on that range. After the firing order has been determined, firers will move to the firing line where they will proceed to their assigned firing points keeping their weapons in the low ready.

Tower commands

Simple, standard fire commands are required to avoid confusion and misunderstanding during live-fire exercises.

INSTRUCTOR NOTE: Follow the guidance prescribed in TC 3-20.40, Training and Qualification - Individual Weapons and TC 3-22.9, Rifle and Carbine.

Check on Learning:

Continue to Check on Learning throughout the lesson.

Review Summary:

Conduct a Summary Review.

CHECK ON LEARNING (ELO A):

Conduct a check on learning and summarize the ELO.

REVIEW SUMMARY(ELO A):

Conduct a Summary Review.

B. ENABLING LEARNING OBJECTIVE

ACTION:	Perform Firing Positions required in Rifle Marksmanship
CONDITIONS:	Given a suitable training area, RM barricades, sandbags, an M4 Series Carbine, and wearing the prescribed uniform.
STANDARDS:	Perform the five required RM firing positions IAW TC 3-22.9.
LEARNING DOMAIN - LEVEL:	Psychomotor - Manipulation
No JPME LEARNING AREAS SUPPORTED:	None

ELO B - LSA 1. Learning Step / Activity ELO B - LSA 1. Brief Overview

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

OVERVIEW

Five firing positions are used in the RM qualification – the standing unsupported, the prone unsupported, the prone supported, the kneeling supported, and the standing supported firing position.

Continue to reinforce the details of these positions until students can naturally apply without thinking.

Check on Learning:

Continue to Check on Learning throughout the lesson.

Review Summary:

Conduct a Summary Review.

ELO B - LSA 2. Learning Step / Activity ELO B - LSA 2. Perform the Standing Unsupported Firing Position

Method of Instruction: Drill and Practice

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH, (1:50)

Time of Instruction: 5 mins

Media Type: Unassigned

Other Media: Unassigned

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

Note: Marked as (*) is derived from the parent learning object

Leg Position -Standing firm, feet shoulder-width apart. **Stance** -Aggressive lean forward toward the target.

Firing Elbow - tucked toward the shooter's side. **Non-Firing Elbow** - Slightly outward. **Firing hand** - Grasping pistol grip, finger off the trigger until ready to fire. **Non-Firing Hand** - extended as forward as possible, for aid in recoil and transitioning. **Butt Plate** -highest point of shoulder to absorb recoil impulse. **Stock Weld** -firm stock weld. **Shooter-Gun Angle** - Shooter body is approximately 45 degrees to the gun-target line.

Check on Learning: Continue to Check on Learning throughout the lesson.

Review Summary: Conduct a summary review.

ELO B - LSA 3. Learning Step / Activity ELO B - LSA 3. Perform Prone Unsupported Firing Position

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

PRONE UNSUPPORTED FIRING POSITION

Demonstrate and discuss this position in accordance with the TC 3-22.9. Additionally, discuss "wobble area" and how to cope with trigger squeeze and wobble. No part of the weapon or the shooter's non-firing hand touches the ground or support while firing from this position.

After learning the basic prone unsupported position, most Trainees quickly realize that you can obtain a more stable position by lowering the weapon until the magazine is on the ground.

INSTRUCTOR NOTE: Ensure the student is aware of the short term goal of mastering firing positions to qualify expert, but ultimately, to engage and defeat the enemy in combat.

Check on Learning: Continue to Check on Learning throughout the lesson.

Review Summary: Conduct a Summary Review

ELO B - LSA 4. Learning Step / Activity ELO B - LSA 4. Perform Prone Supported Firing Position

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

PRONE SUPPORTED FIRING POSITION

This is an excellent position that provides a stable firing platform (sandbag). The Non-firing hand and arm- the handguard should rest in a "V" formed by the thumb and forefinger of the non-firing

hand, and lie across the heel of the hand. The handguard should not be gripped. The non-firing hand is used to maintain control of the weapon and assist in the rapid engagement of subsequent targets. The forward weight of the rifle must be fully supported. The non-firing hand and sandbag should carry this weight. The elbows are placed to provide additional stability, and the body is laying in a relaxed and comfortable prone position. Additional stability can be applied by spreading the legs a comfortable distance apart, with the heels in contact with the ground.

Check on Learning: Continue to Check on Learning throughout the lesson.

Review Summary: Conduct a Summary Review

ELO B - LSA 5. Learning Step / Activity ELO B - LSA 5. Perform Kneeling Supported Firing Position

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

KNEELING SUPPORTED FIRING POSITION

This position is assumed quickly. The Trainee is high enough to see over the first tier of the barricade, and provides a stable firing position. The non-firing elbow should be pushed forward so the upper arm is resting on the barricade to provide stability. The firing elbow is tucked toward the shooter's side with the elbow resting on the knee for additional support. The trailing foot should be placed in a comfortable position.

Check on Learning: Continue to Check on Learning throughout the lesson.

Review Summary: Conduct a Summary Review.

ELO B - LSA 6. Learning Step / Activity ELO B - LSA 6. Perform the Standing Supported firing position

Method of Instruction: Drill and Practice

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH, (1:50)

Time of Instruction: 10 mins

Media Type: Unassigned

Other Media: Unassigned

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

Note: Marked as (*) is derived from the parent learning object

STANDING SUPPORTED FIRING POSITION

The weapon is supported using a barricade type structure, bipod, or equipment. Leg position - standing firm, feet shoulder-width apart. **Stance** - aggressively lean forward toward the target. **Firing elbow** - tuck elbow toward the shooter's side. **Non-Firing Elbow** - extend to provide non-firing hand support. **Firing hand** - grasp the pistol grip, finger off the trigger until ready to fire. **Non-firing hand** - firm grasp on the handguard, push against the artificial support. **Butt plate** - highest point of shoulder to absorb recoil impulse. **Stock Weld** - hold firm. **Shooter Gun Angle** - position body 45 degrees to the gun-target line.

Check on Learning: Continue to Check on Learning throughout the lesson.

Review Summary: Conduct a Summary Review.

CHECK ON LEARNING (ELO B): Conduct a check on learning and summarize the ELO.

REVIEW SUMMARY(ELO B): Conduct a Summary Review.

C. ENABLING LEARNING OBJECTIVE

ACTION:	Apply the Four Elements of the Shot Process
CONDITIONS:	Given a suitable training area, an M4-Series Carbine, appropriate training aids, and wearing the prescribed uniform.
STANDARDS:	Apply the four functional elements of the shot process IAW TC 3-22.9. 1. Proper Stability 2. Proper Aim 3. Proper Control 4. Proper Movement
LEARNING DOMAIN - LEVEL:	None assigned
No JPME LEARNING AREAS SUPPORTED:	None

ELO C - LSA 1. Learning Step / Activity ELO C - LSA 1. Brief Overview

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

You will learn the four elements of the shot process with a demonstration and practice.

The Four Elements of the Shot Process are:

1. Proper Stability
2. Proper Aim
3. Proper Control
4. Proper Movement

Check on Learning: Discuss the purpose of each element of the shot process to facilitate student understanding.

Review Summary: Conduct a Summary Review.

ELO C - LSA 2. Learning Step / Activity ELO C - LSA 2. Display Proper Stability

Method of Instruction: Practical Exercise (Hands-On/Written)
Mode of Delivery: Resident Instruction
Instr Type (I:S Ratio): Military - NON-ICH (1:50)
Time of Instruction: 5 mins
Media Type: Actual Equipment
Other Media: Unassigned
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Perform Proper Stability IAW TC 3-22.9

Explain Support, Muscle Relaxation, Natural Point of Aim, Recoil Management, Shooter Gun-Angle, Field of View, Carry Positions, Stabilized Firing, and Firing Positions.

Check on Learning: Identify and correct improper elements of the shot process throughout the lesson.

Review Summary: Conduct a Summary Review.

ELO C - LSA 3. Learning Step / Activity ELO C - LSA 3. Apply Proper Aim

Method of Instruction: Practical Exercise (Hands-On/Written)
Mode of Delivery: Resident Instruction
Instr Type (I:S Ratio): Military - NON-ICH (1:50)
Time of Instruction: 5 mins
Media Type: Actual Equipment
Other Media: Unassigned
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Perform Proper Aim IAW TC 3-22.9

Common Engagements, Common Aiming Errors, Complex Engagements, Target Conditions, and Environmental Conditions.

Check on Learning: Identify and correct improper elements of the shot process throughout the lesson.

Review Summary: Conduct a Summary Review.

ELO C - LSA 4. Learning Step / Activity ELO C - LSA 4. Apply Proper Control

Method of Instruction: Practical Exercise (Hands-On/Written)
Mode of Delivery: Resident Instruction
Instr Type (I:S Ratio): Military - NON-ICH (1:50)
Time of Instruction: 5 mins
Media Type: Actual Equipment
Other Media: Unassigned
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Apply Proper Control IAW TC 3-22.9

Trigger Control, Breathing Control, Workspace Management, Calling the Shot, Rate of Fire, Follow-through, and Malfunctions.



Figure 1
Proper Finger Placement



Figure 2
Wobble Zone

Check on Learning:

Discuss the purpose of Proper Control.

Review Summary: Conduct a Summary Review.

ELO C - LSA 5. Learning Step / Activity ELO C - LSA 5. Perform Proper Movement

Method of Instruction: Practical Exercise (Hands-On/Written)
 Mode of Delivery: Resident Instruction
 Instr Type (I:S Ratio): Military - NON-ICH (1:50)
 Time of Instruction: 5 mins
 Media Type: Actual Equipment
 Other Media: Unassigned
 Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Perform Proper Movements IAW TC 3-22.9

Movement techniques

Forward movement

Retrograde movement

Lateral Movement

Turning Movement

Check on Learning: Identify and correct improper movement techniques throughout the lesson.

Review Summary: Conduct a Summary Review.

CHECK ON LEARNING (ELO C): Conduct a check on learning and summarize the ELO.

REVIEW SUMMARY(ELO C): Conduct a Summary Review.

D. ENABLING LEARNING OBJECTIVE

ACTION:	Perform duties of a Peer Coach
CONDITIONS:	During daylight operations, given a M4-Series Carbine and instructions to assume the duties of peer coach while wearing the prescribed uniform.
STANDARDS:	Provide (peer coach) accurate feedback to the firer on the application of the elements of the shot process.
LEARNING DOMAIN - LEVEL:	Cognitive - Analyzing
No JPME LEARNING AREAS SUPPORTED:	None

ELO D - LSA 1. Learning Step / Activity ELO D - LSA 1. Brief Overview

Method of Instruction: Practical Exercise (Hands-On/Written)
 Mode of Delivery: Resident Instruction
 Instr Type (I:S Ratio): Military - NON-ICH (1:50)
 Time of Instruction: 5 mins
 Media Type: Actual Equipment
 Other Media: Unassigned
 Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Peer Coaching is the act of one Trainee assisting another Trainee by coaching them in the proper application of the elements of the shot process during active engagements. You will first perform as a

firer, then, peer coach, where you will talk your buddy through the basic fundamentals. This reinforces the marksmanship abilities of both.

The coach learns what to look for as he provides guidance to the firer, and the firer has a chance to ask simple questions and to discuss areas that are not understood.

As a coach, your principal focus will be on your buddy - the shooter - observing and critiquing their performance. Peer coaches do not to replace Drill Sergeants or marksmanship training cadre.

Instructor Note: Peer coaching may not be feasible during simulator firing due to the confined space. However, practicing peer coach techniques must occur early in RM.

Check on Learning: Conduct a check on learning and summarize the learning activity.

Review Summary: Conduct a Summary Review. Allow the students to discuss the functional elements of the shot process and display proper techniques.

ELO D - LSA 2. Learning Step / Activity ELO D - LSA 2. Perform duties of the Peer Coach

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

DUTIES OF THE COACH

The peer coach—

- Constantly checks factors that the firer is unable to observe for themselves.**
- Prevents the firer from repeating errors.**
- Assists the firer in applying proper elements of the shot process during firing.**
- Assists the firer in obtaining a good position and in adjusting sandbags.**
- Adds to range safety procedures by helping safety personnel with preliminary rifle checks.**
- Watches the firer—not the target—to ensure that the firer maintains proper position, breathing control, trigger pressure, and trigger squeeze.**

There are times when the peer coach may be required to observe the target area and not the firer.

For example, when targets are being engaged and the firer cannot identify the point of impact.

INSTRUCTOR NOTE: If available, utilize the peer coaching card.

CHECKLIST FOR THE COACH

Coaches follow these procedures to determine and eliminate rifle and firer deficiencies:

The coach checks to see that the—

- Rifle is cleared.**
- Ammunition is clean, and the magazine is properly placed in the pouch.**
- Sights are blackened and rear sight is set correctly for long- or short-range firing.**

The coach observes the firer to see if they—

- Use the correct position and properly applies the steady position elements.
- Properly loads the rifle.
- Obtains the correct sight alignment (with the aid of a sighting device, riddle sighting device, etc.,).
- Holds their breath correctly (by watching their back).
- Applies proper trigger squeeze (determines whether they flinch or jerk by watching their head, shoulders, trigger finger, and firing hand and arm).
- Is tense and nervous. If the firer is nervous, the coach has the firer breathe deeply several times to relax.

INSTRUCTOR NOTE: Supervisory personnel and peer coaches correct errors as they are detected. If many common errors are observed, it is appropriate to call the group together for discussion, demonstration of proper procedures, and feedback.

POSITION OF THE COACH

During an exercise, the coach should be positioned where they can best observe the firer as they assumes the position. Then, he/she moves to various points around the firer (sides and rear) to check the correctness of the firer's position. The coach requires the firer to make adjustments until the firer obtains a correct position.

When the coach is satisfied with the firing position, they assume a coaching position alongside the firer. The coach usually assumes a position like that of the firer on the firing side of the firer. Be aware of hot, ejecting brass.

Check on Learning: Conduct a check on learning and summarize the learning activity.

Review Summary: Conduct a Summary Review

CHECK ON LEARNING (ELO D): Conduct a check on learning and summarize the ELO.

REVIEW SUMMARY(ELO D): Conduct a Summary Review.

E. ENABLING LEARNING OBJECTIVE

ACTION:	Conduct Consistent Aiming Exercises
CONDITIONS:	Given an M4-Series Carbine, M15A1 sighting device, target box, pencil and paper, and target-box paddle; and wearing the prescribed uniform.
STANDARDS:	Each Trainee will acquire a sight picture five consecutive times without error. Each Trainee will dry fire two 5-round shot-groups with 8 of the 10 shots within a 2-centimeter circle.
LEARNING DOMAIN - LEVEL:	None assigned
No JPME LEARNING AREAS SUPPORTED:	None

ELO E - LSA 1. Learning Step / Activity ELO E - LSA 1. Review the Elements of the Shot Process

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

Review the:

- Functional elements of the shot process.
- Firing positions.
- Peer coaching responsibility.

INSTRUCTOR NOTE: Instruct the Trainees on how to determine their dominate eye, use the M15A1, and use the Target Box and Paddle.

Check on Learning: Observe each students' comprehension of the elements of the shot process during execution.

Review Summary: Conduct a Summary Review.

ELO E - LSA 2. Learning Step / Activity ELO E - LSA 2. Conduct Dominant Eye Training

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (1:50)

Time of Instruction: 5 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

Determining your dominate eye. This is done as follows:

- a. Cut a 1-inch circular hole in the center of an 8 by 10-inch piece of material (can be anything from paper to plywood).
- b. The trainer will position themselves approximately 5 feet in front of the Trainee. The trainer closes their non-dominant eye and holds their finger up in front of and just below their dominant eye to provide the Trainee with an aiming point.
- c. The Trainee holds the training aid with both hands at waist level and looks with both eyes open at the trainer's open eye. With both eyes focused on the trainer's open eye and arms fully extended, the Trainee brings the training aid up between himself and the trainer while continuing to look at the trainer's eye through the hole in the training aid. The Trainee's eye observed through the hole in the training aid is the Trainee's dominant eye.

Check on Learning: This step is very important! Ensure the student understand which eye is dominant.

Review Summary: Conduct a Summary Review.

ELO E - LSA 3. Learning Step / Activity ELO E - LSA 3. Manipulate the M15A1 Sighting Devices

Method of Instruction: Practical Exercise (Hands-On/Written)
Mode of Delivery: Resident Instruction
Instr Type (I:S Ratio): Military - NON-ICH (1:50)
Time of Instruction: 15 mins
Media Type: Practical Exercise
Other Media: Unassigned
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

The M15A1 aiming card determines if you understand how to aim at a targets center of mass, how to adjust the point of aim, how to allow for natural gravity, and how to engage a moving target.

To use the aiming card—

- The card is misaligned, the Trainee is instructed to establish the correct point of aim, and a trainer checks it. Each Trainee demonstrates five out of five of the points of aim.
- The Trainee shows the side alignment technique three times—place the front sight post on the left or right edge of the target and bring the front sight post to the targets center of mass.
- The Trainee shows the bottom-up alignment technique—place the front sight post at the bottom of the target and bring the front sight post to targets center of mass.

INSTRUCTOR NOTE: An Instructor must monitor the exercise. The sight/target relationship on the card is the same visual perception that the Trainee should have when they are zeroing on a standard silhouette target. The Instructor should not only observe the Trainee as the rifle is sighted, but must discuss sighting procedures and common sighting errors. Only when the Instructor is satisfied that the Trainee is proficient in sighting should the shooter rotate.

Check on Learning: Ensure all students perform this task to standard. If RM training is conducted properly, your students will surpass the standard!

Review Summary: Conduct a Summary Review.

ELO E - LSA 4. Learning Step / Activity ELO E - LSA 4. Conduct Target Box and Paddle Exercise

Method of Instruction: Practical Exercise (Hands-On/Written)
Mode of Delivery: Resident Instruction
Instr Type (I:S Ratio): Military - NON-ICH (1:50)
Time of Instruction: 10 mins
Media Type: Actual Equipment
Other Media: Unassigned
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

The purpose of the target-box exercise is to teach and to permit you to practice consistency of aiming and placement of five-round shot groups in a dry-fire environment. This exercise requires a target box with an attached plain piece of paper, a paddle on which is printed a scaled silhouette, a pencil, a coach, and a target person.

INSTRUCTOR NOTE: First time firers should be coached by the Drill Sergeant with the coach observing. Additional iterations are observed by peer coaches with a Drill Sergeant supervising. Trainee's are divided into three equal groups: shooter, peer coach, and target person. Each Trainee will perform the exercise until they have demonstrated five out of five of the aim points (pencil

marks) within the plastic target-box paddle's 2 cm template.

To conduct the target box exercise-

- Place the target box 25 meters from the muzzle of the weapon (the scaled silhouettes on the target paddle is scaled to depict a 25-meter E-silhouette target). Alternately, use a 10m distance and flip the paddle to the 10m scale target circle on the opposite end of the paddle).
- Place the rifle firmly in the target box.
- Assume a modified prone firing position behind the rifle.
- The target person places the paddle target flat onto the white paper (vary the placement locations).
- The shooter obtains correct sight picture and motions the target person to move the target in the desired direction so that the scaled silhouette appears in proper position above the front sight post.
- After the shooter has aligned the sights and the target, they give the signal to mark the paper. The target person marks the paper by placing a pencil through the small hole in the paddle and marking the paper. The paddle is then removed and the target person marks the spot #1.
- The paddle is again placed on the sheet of paper, using a different starting point and the exercise is repeated a second time.
- Repeat the exercise a total of five times.
- After the fifth shot, the five points are linked and labeled as shot-group #1. The exercise should be repeated as many times as necessary to achieve five consecutive shots that fit into the same 2-centimeter circle.

INSTRUCTOR NOTE: An Instructor must monitor the exercise. The instructor should not only observe the Trainee as the rifle is sighted, but must discuss shot-group size and placement relative to sighting errors. Only rotate students when the instructor is satisfied that the Trainee is proficient in sighting the weapon. If the groups are scattered, either the weapon or the paper is not secure.

Check on Learning: Ensure proper training occurs during preliminary RM phases.

Review Summary: Conduct a Summary Review.

CHECK ON LEARNING (ELO E): It is important to ensure the student understand the details of all phases of RM. An understanding of the weapon's operation is key to a successful engagement.

REVIEW SUMMARY(ELO E): Conduct a Summary Review.

F. ENABLING LEARNING OBJECTIVE

ACTION:	Conduct the Dime/Washer Exercise
CONDITIONS:	During daylight operations, given an M4-Series Carbine, a dime or washer balanced on the barrel while in the prone-unsupported firing positions, and sighted in on a secured 25-meter zero target while wearing the prescribed uniform.
STANDARDS:	Obtain 5 out of 5 consecutive (Dry-fire) shots during shot grouping without dropping the dime or washer in the prone while following range safety procedures.
LEARNING DOMAIN - LEVEL:	None assigned
No JPME	

LEARNING AREAS SUPPORTED:	None
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ELO F - LSA 1. Learning Step / Activity ELO F - LSA 1. Review preliminary marksmanship actions.

Method of Instruction: Practical Exercise (Hands-On/Written)
 Mode of Delivery: Resident Instruction
 Instr Type (I:S Ratio): Military - NON-ICH (1:50)
 Time of Instruction: 5 mins
 Media Type: Actual Equipment
 Other Media: Unassigned
 Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Review:

- Functional elements of the shot process.
- Prone unsupported firing position.
- Peer coaching responsibility.

The dime or washer exercise is used to improve the integrated act of shooting.

The standard is 5/5 consecutive from prone unsupported firing position.

INSTRUCTOR NOTE: First you will instruct the Trainees on how to conduct the dime/washer exercise, then they will execute it at least once. They will practice this exercise throughout Rifle Marksmanship.

Check on Learning: Ensure each marksmanship element is conducted properly.

Review Summary: Conduct a Summary Review.

ELO F - LSA 2. Learning Step / Activity ELO F - LSA 2. Conduct Dime/Washer Exercise

Method of Instruction: Practical Exercise (Hands-On/Written)
 Mode of Delivery: Resident Instruction
 Instr Type (I:S Ratio): Military - NON-ICH (1:50)
 Time of Instruction: 5 mins
 Media Type: Practical Exercise
 Other Media: Unassigned
 Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

INSTRUCTOR NOTE: The exercise is carried out in buddy teams - a firer and a peer coach. The firer assumes a prone unsupported firing position and is critiqued by the peer coach and instructor. The peer coach assumes a position slightly forward of the muzzle and on the side of the rifle opposite the firer. One target can support multiple firers.

DIME/WASHER EXERCISE

This dry-fire technique is used to teach or evaluate the skill of trigger control and is effective when conducted from an unsupported position. Several repetitions of this exercise must be conducted to determine if a firer has problems with trigger control. You are a GO if you can dry-fire five of five consecutive shots without causing the dime or washer to fall.

To perform this exercise—

- (1) Charge the weapon.
- (2) Assume an unsupported prone firing position.
- (3) Aim at the target. The peer coach places a dime or washer on the rifle's barrel between the flash suppressor and front sight post assembly.
- (4) Squeeze the trigger naturally without causing the dime or washer to fall off.

As a peer coach you will position yourself so that you can watch the firer's eye and trigger finger. Peer coaches instruct the firer to charge the rifle and aim at a designated target. When the firer is on target, the peer coach balances the dime or washer on the modified dime/washer device (or the barrel for other weapons) so that it does not touch the flash suppressor.

The peer coach tells the firer, "Ready", and closely observes the firer during the trigger squeeze. If the washer drops from the barrel during the trigger squeeze, the peer coach informs the firer of the cause. The rifle is then re-charged and the exercise repeated.

INSTRUCTOR NOTE: An Instructor must monitor the exercise. The Instructor should not only observe the Trainee as the trigger is squeezed, but must discuss trigger squeeze procedures and common errors. Only when the Instructor is satisfied that the Trainee is proficient in squeezing the trigger, should the shooter rotate. If the dime or washer is allowed to touch the sight assembly or flash suppressor, it may fall off due to the jolt of the hammer. The strength of the hammer spring on some rifles can make this a difficult exercise to perform.

Check on Learning: Identify and correct trigger control errors throughout RM training.

Review Summary: Conduct a Summary Review.

CHECK ON LEARNING (ELO F): Identify and correct errors throughout the RM process.

REVIEW SUMMARY(ELO F): Conduct a Summary Review.

G. ENABLING LEARNING OBJECTIVE

ACTION:	Boresight Back Up Iron Sights (BUIS) on an M4 Series Carbine
CONDITIONS:	You are a member of a squad preparing to conduct dismounted operations. Given an M4-series carbine, equipped with Back Up Iron Sights (BUIS), an AN/PEM-1 laser borelight system, a 10-meter target, a field expedient method of support (sand bags, rucksack, etc.), and assistant. You have been directed to boresight the BUIS to the weapon.
STANDARDS:	The Trainee will zero the borelight to the weapon then adjust the BUIS to the correct boresight offset mark on a 10-meter target.
LEARNING DOMAIN - LEVEL:	Psychomotor - Precision
No JPME LEARNING AREAS SUPPORTED:	None

ELO G - LSA 1. Learning Step / Activity ELO G - LSA 1. Zero the borelight to the weapon.

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction
Instr Type (I:S Ratio): Military - NON-ICH (3:55)
Time of Instruction: 20 mins
Media Type: Actual Equipment
Other Media: Unassigned
Security Classification: This course/lesson will present information that has a Security Classification of: U - Unclassified.

DANGER

Do not stare into the visible laser beam.

Do not point the visible laser beam at mirror-like surfaces.

Do not shine the visible laser beam into other individuals' eyes.

DANGER

Do not point the laser at Soldiers or reflective material.

CAUTION

Do not over-adjust the laser.

Before using the borelight, ensure that the weapon is clear and on SAFE, and that the bolt is locked in the forward position.

1. Zero the borelight to the weapon.

NOTE: Before boresighting the weapon system, the borelight must first be zeroed to the weapon.

When rotating the borelight to zero it, ensure that the mandrel is turning counterclockwise (from the firer's point of view) to avoid loosening the borelight from the mandrel.

a. Ensure the weapon is clear.

b. Prepare the weapon.

(1) Stabilize the weapon without a cant.

Note: Place the weapon in a rifle box rest or lay two rucksacks side by side with another rucksack on top of the weapon. The weapon does not have to be perfectly level with the ground when boresighting.

(2) Insert the boresight filter to reduce blooming of the laser (optional).

(3) Attach the 5.56-millimeter mandrel to the borelight.

(4) Insert the mandrel into the weapon's muzzle (Figure 1).

Note: The borelight is seated properly when the mandrel cannot be moved any further into the muzzle and the mandrel spins freely.



Figure 1.
Borelight inserted properly (Battery Down).

c. Prepare the target.

NOTE: It is best to use two Trainee's to boresight. The firer zeros the borelight by making adjustments on the optic or aiming laser being used. The target holder matches the beam and zeroing mark, secures the target straight up and down (aligned with the cant of the weapon) 10 meters from the borelight, and directs the firer to make necessary adjustments. Both Trainee's must clearly communicate their actions.

(1) Secure a target that includes the correct boresight offset (Figure 2).

NOTE: If possible, use the established 10-meter boresighting target from TC 3-22.9. If not available, then ensure the target used is properly marked with a laser borelight zero mark and the BUIS boresight offset for the appropriate weapon/mount/position combination (Table 1). Mark the offset by first identifying the correct offset then starting from the center of the borelight zero mark, count the number of squares to the BUIS 10-meter borelight offset and mark the spot.

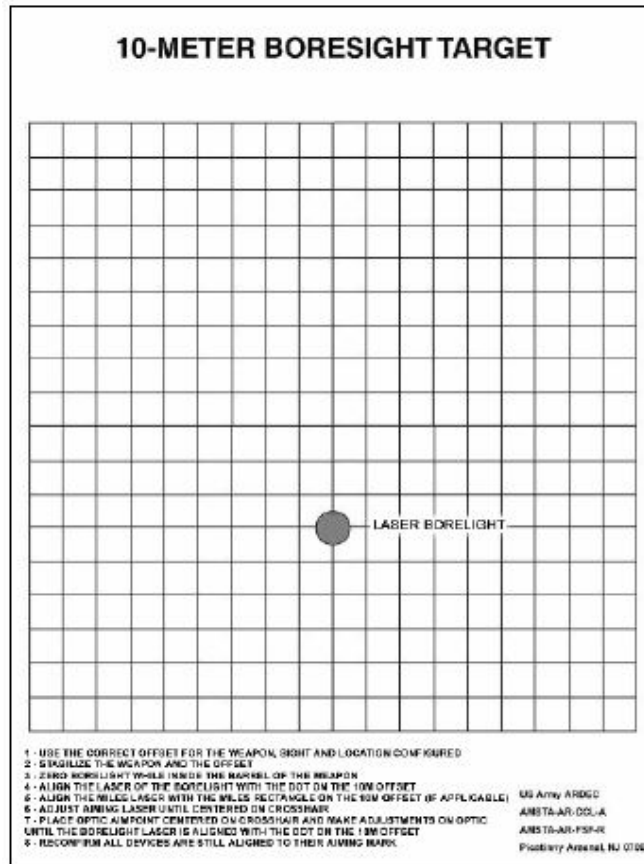


Figure 2.
10-Meter Boresight Target

WEAPON	ACCESSORY	LOCATION	RANGE TO ZERO	ZERO OFFSET	BORESIGHT TARGET	MILES OFFSET
M16A2	Iron sight	N/A	330 m	0.00.0	0.04.2U	2.0L 0.9U
M4/M4A1	BUIS	Upper Receiver	330 m	0.00.0	0.04.01U	2.0L 0.9U
M4/M203	BUIS	Upper Receiver	330 m	0.00.0	0.06.1U	2.0L 0.9U
M4 MWS	BUIS	Upper Receiver	330 m	0.00.0	0.04.1U	2.0L 0.9U
M4 MWS M203	BUIS	Upper Receiver	330 m	0.00.0	0.06.1U	2.0L 0.9U
M16 MWS	BUIS	Upper Receiver	330 m	0.00.0	0.04.1U	2.0L 0.9U
M16 MWS M203	BUIS	Upper Receiver	330 m	0.00.0	0.06.1U	2.0L 0.9U

Table 1.
BUIS Boresight Offset Table

(2) Measure 10 meters.

(3) Turn on the borelight.

(4) Ensure the laser strikes the target.

NOTE: If the visible laser cannot be located on the target or does not remain on the target as it is spun, then boresight at 2 meters instead of 10 meters. When the visible laser is zeroed at 2 meters, restart the procedure at 10 meters.

(5) Place the borelight in the start position by rotating the borelight counter-clockwise (CCW) 180 degrees until the battery compartment is facing upward (Figure 3).

NOTE: When rotating the borelight to zero it, ensure that the mandrel is turning counterclockwise (from the firer's point of view) to avoid loosening the borelight from the mandrel.



Figure 3.
Rotating the Borelight (Start/ Battery Up Position).

(6) Secure the boresighting target with the laser striking the zeroing mark or draw a zeroing mark (small dot) on the target, where the laser strikes the target.

d. Determine the boresighting reference point.

(1) Place the borelight in the half turn position by rotating the borelight CCW 180 degrees until the battery compartment is facing down and the adjusters are on the bottom (Figure 4).



Figure 4.
Rotating the Borelight (Half Turn/ Battery Down Position).

- (2) Identify the point half way between the start point (battery up) and half-turn point (battery down) as the reference point (Figure 5).

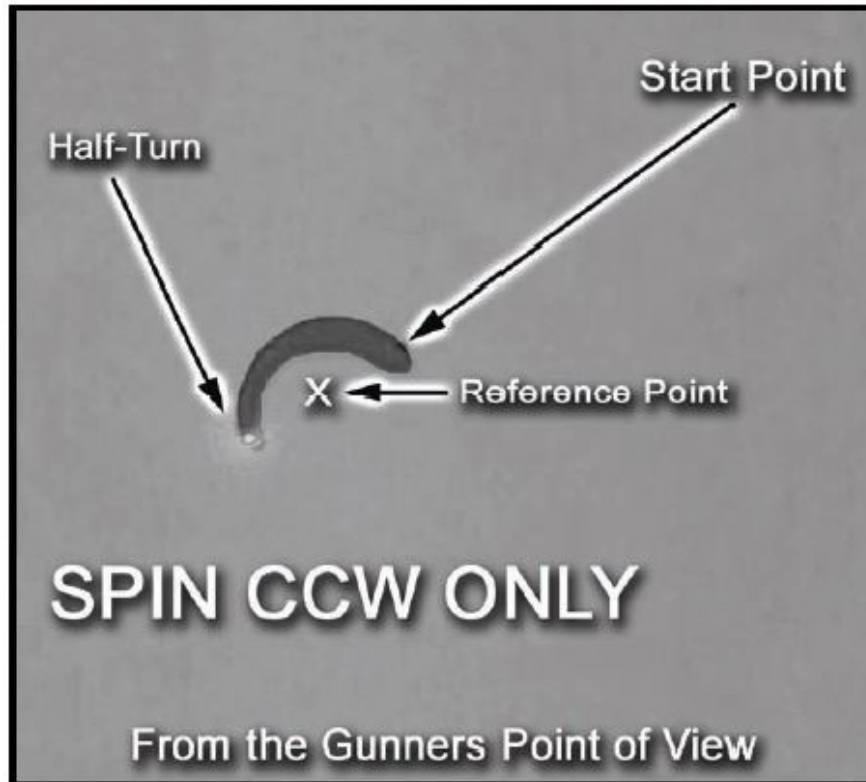


Figure 5.
Establishing the Reference Point.

- e. Determine if the borelight is boresighted (zeroed) to the weapon.
- Note: A 1 cm or less circle means the borelight has been boresighted to the weapon.
- (1) Determine the size of the laser circle by rotating the borelight CCW.
- (2) Proceed to step 2, boresight the BUIS, if the laser dot remains stationary or rotates around the reference point no more than 1 cm.
- (3) Proceed to step 1f, adjust the borelight, if the laser dot rotates in a circle greater than 1 cm.
- f. Adjust the borelight, as required.
- (1) Turn the windage and the elevation adjusters, as required, to move the visible laser to the reference point.

(2) Repeat steps e and f until the visible laser spins a 1 cm or less circle then precede to step 2, boresight the BUIS to the weapon.

Check on Learning: Conduct a check on learning and summarize the LSA.

Review Summary: Complete a review.

ELO G - LSA 2. Learning Step / Activity ELO G - LSA 2. Boresight the BUIS to the weapon.

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (3:55)

Time of Instruction: 30 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

2. Boresight the BUIS to the weapon.

- a. Adjust BUIS elevation to 300-meter mark.
- b. Align the BUIS with the offset mark on the 10-meter boresighting target.
- c. Make adjustments to the windage of the BUIS and elevation of the front sight post until the borelight is centered with the circle on the boresighting target.

Check on Learning: Conduct a check on learning and summarize the LSA.

Review Summary: Complete a review.

ELO G - LSA 3. Learning Step / Activity ELO G - LSA 3. Remove the borelight from the weapon.

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (3:55)

Time of Instruction: 15 mins

Media Type: Actual Equipment

Other Media: Unassigned

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

3. Remove the borelight from the weapon.

- a. Turn the borelight off.
- b. Carefully remove the borelight and mandrel from the muzzle of the weapon.
- c. Remove the borelight from the mandrel.

Check on Learning: Conduct a check on learning and summarize the LSA.

Review Summary: Complete a review.

CHECK ON LEARNING (ELO G): This objective requires precision and accuracy. Identify and correct errors to ensure the highest possible results.

REVIEW SUMMARY(ELO G): Review the ELO.

H. ENABLING LEARNING OBJECTIVE

ACTION:	Apply the functional elements of the shot process using a marksmanship simulator system.
CONDITIONS:	Given an marksmanship simulator, a simulated M4 weapon, BUIS, 30 rounds of simulated 5.56mm ammunition or compressed air magazines, and a simulation scenario brief while wearing the prescribed uniform.
STANDARDS:	The Trainee will achieve 8 out of 10 shots (two consecutive 5 round shot groups) inside a 4 cm circle by correctly applying the four elements of the shot process, while following proper range procedures. Some simulators may vary in completion Standards.
LEARNING DOMAIN - LEVEL:	Psychomotor - Precision
No JPME LEARNING AREAS SUPPORTED:	None

ELO H - LSA 1. Learning Step / Activity ELO H - LSA 1. Perform Grouping Procedures using the available rifle marksmanship simulator.

Method of Instruction: Practical Exercise (Hands-On/Written)

Mode of Delivery: Resident Instruction

Instr Type (I:S Ratio): Military - NON-ICH (3:55)

Time of Instruction: 4 hrs

Media Type: Practical Exercise

Other Media: Unassigned

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

INSTRUCTOR NOTE: The intent is to observe each individual Trainee for their initial firing to ensure they are applying the fundamentals of marksmanship correctly.

You will now perform the integrated act of firing using the rifle marksmanship simulator.

INSTRUCTOR NOTE: In preparation for this event, the Simulator Operator will perform a "Quick Zero" prior to the Trainee's arrival. The Trainee will fire six 5 round shot groups at 25 meters. This scenario may replicate Table IV of the RM standards prescribed in TC 3-20.40.

Once the Drill Sergeant is confident that the Trainee is firing correctly, have them switch positions with the peer coach. This allows each Trainee to have an individual coach while the Drill Sergeant can observe multiple Trainees.

Check on Learning: Continue to Check on Learning throughout the lesson.

Review Summary: Conduct a Summary Review.

CHECK ON LEARNING (ELO H): Conduct a check on learning and summarize the ELO.

REVIEW SUMMARY(ELO H): Conduct a Summary Review.

SECTION IV. SUMMARY

Method of Instruction:	Discussion (Small or Large Group)
Mode of Delivery:	Resident Instruction
Instr Type(I:S Ratio):	Military - NON-ICH (1:50)
Time of Instruction:	5 mins

Check on Learning

Continue to Check on Learning throughout the lesson.

Review/ Summary

INSTRUCTOR NOTE: Determine if the Trainees have learned the lesson by soliciting Trainee questions and providing explanations.

SECTION V. STUDENT EVALUATION

Testing Requirements

NOTE: Describe how the student must demonstrate accomplishment of the TLO. Refer student to the Individual Student Assessment Plan.

Feedback Requirements

NOTE: Feedback is essential to effective learning. Schedule and provide feedback on the evaluation and any information to help answer students' questions about the test. Provide remedial training as needed.

Appendix A - Viewgraph Masters

Introduction to Range Procedures - BUIS (BCT RM Pd 2) (Simulator & Local Training Area)
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Sequence	Media Name	Media Type
None		

Appendix B - Assessment Statement and Assessment Plan

Assessment Statement: None.

Assessment Plan: None.

Appendix C - Practical Exercises and Solutions

PRACTICAL EXERCISE(S)/SOLUTION(S) FOR LESSON 071-BT071042 Version 5.02 ©

Appendix D - Student Handouts

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Sequence	Media Name	Media Type
None		