

UNITED STATES MARINE CORPS
WEAPONS TRAINING BATTALION
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5040

INSTRUCTOR GUIDE

ENGAGE MOVING THREATS

0300-M16-1017
0300-M16-1017 (REV.)

MODIFIED TABLE 2 POI

INTRODUCTION

(3 MIN)

1. **GAIN ATTENTION**: Nearly a century and a half ago, expert marksmen in the Civil War ruthlessly applied the improving range and accuracy of small arms to a devastating and demoralizing degree. Corporal John Alexander of Mosby's Rangers summarized the value of accuracy in the following statement. "It's one thing to shoot for the purpose of making smoke and noise to shoot at random or automatically in volleys to keep an enemy's head down; it's an awfully different thing to shoot to kill. Believe me, a calm, cool and dead shot behind a Colt's revolver, or a Spencer repeating rifle, has more moral force than a Gatling Gun. The average soldier has an unconquerable prejudice against a rifle that he knows is going to hit someone when it goes off and he just will not go to meet it." Nearly one hundred years later, LtGen Lewis Chesty Puller told his men "...if you can't hit them, you can't hurt them." Today, accuracy with a weapon remains the unquestionable bedrock of combat marksmanship. As marksmen, you must commit yourself to becoming more proficient by learning which positions are best for any given combat situation or circumstance, and knowledge of these positions will make you a more efficient warrior.

Notes: _____

(SLIDE #2)

2. **OVERVIEW**: Good morning, my name is _____. Today's lesson will cover elements of combat marksmanship, identifying threats, presentation of the weapon, methods for engaging moving targets, engagement techniques as well as post fire drills. The purpose of this lesson is to provide you with the knowledge and skills necessary to effectively engage the enemy on the field of battle with your service rifle.

3. **LEARNING OBJECTIVES**:

(SLIDE #3)

a. **TERMINAL LEARNING OBJECTIVE**:

(1) Given a service rifle/Infantry Automatic Rifle (IAR) with primary aiming device, individual field equipment, common weapon sling, magazines, ammunition and moving targets from 125 to 150 meters, eliminate 60% of exposed threats through incapacitation. (0300-M16-1017)

(SLIDE #4)

b. **ENABLING LEARNING OBJECTIVES:**

(1) Given a service rifle/Infantry Automatic Rifle (IAR) with primary aiming device, individual field equipment, common weapon sling, magazines, ammunition and moving targets from 125 to 150 meters, identify threat/s. (0300-M16-1017a)

(SLIDE #5)

(2) Given a service rifle/Infantry Automatic Rifle (IAR) with primary aiming device, individual field equipment, common weapon sling, magazines, ammunition and moving targets from 125 to 150 meters, present the weapon to the target while assuming the combat shooting position. (0300-M16-1017b)

(SLIDE #6)

(3) Given a service rifle/Infantry Automatic Rifle (IAR) with primary aiming device, individual field equipment, common weapon sling, magazines, ammunition and moving targets from 125 to 150 meters, apply moving threat engagement methods. (0300-M16-1017c)

(SLIDE #7)

(4) Given a service rifle/Infantry Automatic Rifle (IAR) with primary aiming device, individual field equipment, common weapon sling, magazines, ammunition and moving targets from 125 to 150 meters, engage threats utilizing engagement techniques. (0300-M16-1017d)

(SLIDE #8)

(5) Given a service rifle/Infantry Automatic Rifle (IAR) with primary aiming device, individual field equipment, common weapon sling, magazines, ammunition and moving targets from 125 to 150 meters, conduct post fire drills. (0300-M16-1017e)

(SLIDE #9)

4. **METHOD/MEDIA:** This period of instruction will be taught

using the informal lecture method, aided by the PowerPoint, practical application and my assistant instructor.

INSTRUCTOR NOTE:

ASSIGN SPECIFIC SHOOTERS TO FILL OUT INSTRUCTIONAL RATING FORMS (IRFS). HAVE THEM SET ASIDE AND FILL THEM OUT AFTER THE COMPLETION OF THE CLASS.

5. **EVALUATION:** You will be evaluated on this period of instruction during your Table 2 Live Fire qualification.

6. **SAFETY/CEASE TRAINING (CT) BRIEF:** As per ORAW.

(SLIDE #10)

TRANSITION: Are there any questions about the learning objectives, the method of instruction, or how you will be evaluated? If not, let's turn our attention to discussing how to the elements of combat marksmanship.

BODY **(45 MIN)**

(SLIDE #11) **(10 MIN)**

1. **THE ELEMENTS OF COMBAT MARKSMANSHIP:** There are five elements of combat marksmanship: platform, grip, aiming, trigger control, and follow through.

(SLIDE #12)

a. **Platform:** You have been taught the BASIC WARRIOR STANCE. Initially, it is taught in regard to hand-to-hand combat. This fighting platform is brought over to the realm of combat shooting because the feet placement and body alignment are similar. Hips, torso and head are all squared off towards the adversary, assuming the aggressive, highly mobile BASIC WARRIOR STANCE. This is imperative to properly control recoil from multiple shots.

(SLIDE #13)

b. **Grip:**

(1) To accomplish a firm grip of the weapon with the firing hand, place the web of your firing hand high on the

pistol grip and wrap all fingers, except the trigger finger, around the pistol grip of the weapon.

(2) The trigger finger lies alongside the lower receiver of the weapon unless up on target with the intention to shoot. The firing thumb is placed on top of the safety selector for positive manipulation and is an integral part of the grip.

INSTRUCTOR NOTE:

FOR LEFT HANDED SHOOTERS THE INDEX FINGER WILL BE PLACED ON THE SAFETY SELECTOR.

(3) The non-firing hand is wrapped around the rail cover/heat shields; white knuckles indicate that your grip is too tight.

(4) The support hand is placed around the rail cover/heat shields in a position dictated by the firing stance. The forward hand also is used to control recoil for multiple shots. The amount of isometric pressure should be more with the firing hand, and less with the support hand.

(5) Do not over-grip the pistol grip. If the weapon is visibly shaking, or if your fingers are turning white, you are probably over-gripping, which could influence your accuracy.

(SLIDE #14)

c. **Aiming:**

(1) Bindon Aiming Concept: Most engagements occur within 200 meters. The RCO is designed for engagements within 200 meters using the "Bindon Aiming Concept". The RCO is designed for shooting with both eyes open for quick target acquisition and engagement. Human vision is based upon a binocular presentation of visual information to the brain - this means that the brain processes what is seen through both eyes. The RCO is designed to present a binocular view of the target. Therefore, the RCO is designed to shoot with both eyes open.

(SLIDE #15)

(2) Sight Alignment: The relationship between the rear ocular lens and the bullet drop compensator is called sight alignment and specifically refers to when the aiming point is centered in the rear ocular lens with no scope shadow.

(3) Sight Picture: When the aiming point is placed on a target or adversary, you have achieved sight picture. This is nothing more than sight alignment properly placed on the shooter's aiming point, i.e., center chest or center brain.

(4) Single Shot: Firing a single shot requires two sight pictures. Acquire sight picture and sight alignment while applying steady trigger control until the shot breaks. After the shot breaks, re-acquire sight picture and sight alignment.

(SLIDE #16)

a) Flash sight picture is a "quick" verification that your aiming point is on the target before the hammer falls. Flash sight picture is one principle that distinguishes combat shooting (time and accuracy) from bulls-eye shooting (accuracy only). Flash sight picture is nothing more than quickly acquiring a hold in order to engage a target in a rapid manner. When a flash sight picture is used properly, the aiming process remains the same, however, the time is compressed.

(SLIDE #17)

d. Trigger Control:

1) Surprise Break: Trigger control is extremely important when shooting. Trigger control is the true secret of becoming deadly with a rifle. To have true trigger control, we want to achieve what is called a surprise break.

a) A surprise break is described as placing equal, gradual pressure on the trigger until the hammer falls and it surprises you. This is correct trigger control and it happens because you do not know when the hammer will drop.

(SLIDE #18)

b) When you fail to achieve this surprise break it is usually because your brain first tells the finger when to shoot, and then anticipates the shot by subconsciously trying to counter the recoil that is about to occur. Normally this causes the round to strike somewhere other than where you intended.

2) A smooth trigger recovery after the shot breaks should be practiced until muscle memory of the trigger finger is achieved. Because of the light trigger press, very little

leverage is required to allow the hammer to fall. One way to train, to recover smoothly is to press the trigger during dry practice, re-set the trigger without removing the finger from the trigger, and press the trigger again. This smooth trigger recovery can be repeated as many times as necessary during dry fire. When done properly, you will hear the audible clunk. This clunk is the same that is heard during the function check for the rifle.

(SLIDE #19)

e. **Follow Through:**

(1) For every shot that is pressed there are two sight pictures:

- a) The sight picture acquired before the shot
- b) The sight picture maintained after the shot.

(2) This second sight picture is known as the "follow through" and is extremely important in regard to combat shooting.

(3) If there is no follow through, then the shooter will have to re-acquire the sight picture on the target in order to fire another shot, thus losing valuable time.

TRANSITION: Now that we have covered the elements of combat marksmanship, are there any questions? I have one for you.

QUESTION: What are the five elements of combat marksmanship?

ANSWER: The five elements of combat marksmanship are platform, grip, aiming, trigger control, and follow through.

Notes: _____

Now that we have covered elements of combat firing lets discuss threat identification.

(8 MIN)

2. **THREAT IDENTIFICATION.**

(SLIDE #20)

a. **Identify Threats:** A threat has been identified. You have locked your vision onto a point on the target you intend to engage. The weapon is moved upwards and toward the target in a rapid movement referred to as "driving the sight to the target" and during this movement you take your weapon off safe. This brings the weapon's sights in line with your line of sight to the target. You then acquire your sights. It is at this point that you place your finger on the trigger. The appropriate method of shot delivery is used to engage the threat. After the shot breaks, follow through is essential.

(SLIDE #21)

b. **Prioritize Threats:** When confronted with multiple adversaries, one of them may be more of a threat than the others. We determine which target is to be engaged first by these factors:

(1) **Threat of Target.** This refers to which target is most potentially damaging. For example, an enemy with an RPG is more of a threat to a vehicle than an enemy with an AK-47 when both are at a range of 50 yards.

(2) **Proximity of Threat.** Generally, the closer a threat is to the shooter, the greater the threat. This is especially critical at 7 meters and closer.

(3) **Target of Opportunity.** This is the target that is the quickest, easiest or the most direct target to engage.

(4) **Prioritizing Process.** Prioritizing targets is an ongoing process. As the engagement proceeds, new targets may appear that are more threatening than those previously identified. Targets that were already prioritized as the most threatening may take cover, temporarily precluding their engagement, or may be incapacitated during the fight. You must remain constantly alert to changes in target threat, proximity, and your opportunity for engagement. Be aware that all targets at 7-50 meters become equal opportunity. These threats must be engaged fluidly and efficiently by engaging all threats sequentially and laterally, from flank to flank, engaging the highest threat first and then begin working laterally.

TRANSITION: We've just covered threat identification, are there any questions? I have one for you.

QUESTION: Some of the considerations for prioritizing targets include the threat of the target, targets of opportunity, and what else?

ANSWER: Some of the considerations for prioritizing targets include the threat of the target, targets of opportunity, and proximity of threat.

Notes: _____

Now that we have covered threat identification, let's move on to presentation.

(SLIDE #22)

(10 MIN)

3. **PRESENTATION:** Presenting is the act of transitioning the rifle from a carry to an engagement. You are in a good shooting platform with your head up and eyes open making sure you maintain situational awareness. The buttstock of the weapon is in your shoulder; you have a good firing grip. The support hand has positive control of the weapon and is ready to engage if necessary.

a. **Combat Shooting Position.**

(SLIDE #23-24)

(1) Combat Standing. You are taught the Basic Warrior Stance. Initially, it was taught in regard to hand-to-hand combat. This fighting stance is now brought over to the realm of combat shooting because the feet placement and body alignment are similar. Feet are approximately shoulder width apart with the weight on the balls of your feet; toes are oriented toward the adversary. Knees are slightly bent to act as shock absorbers. Hips, torso, and head are all squared off toward the target assuming the aggressive, highly mobile Basic Warrior Stance.

(SLIDE #25)

(2) Combat Kneeling.

a. **How to Assume the Combat Kneeling Position:**

Step 1: Assume the basic warrior stance with your rifle at the alert.

Step 2: Step forward with your non-dominant leg while dropping your dominant knee down to the deck, in-line with the body. While your weapon is coming up on target, disengage the safety.

Step 3: Lower the torso and place the supporting elbow on the raised knee.

Step 4: Sight in and fire the appropriate engagement.

Step 5: With your dominant leg, come up and take two steps forward.

(SLIDE #26)

b. **Considerations to Break the Combat Kneeling Position:**

(1) You may need to break your supported position if you are behind a piece of cover that may be too tall to reach while in the supported position. You can then straighten your back and remove your elbow from your knee, raising your line of sight.

(2) You may need to quickly assume a kneeling position due to problems encountered on the battlefield that we discussed previously. When that happens, you will simply drop to both knees and engage. This position also allows better recoil management.

TRANSITION: Now that we have covered the presentation, are there any questions? I have one for you.

QUESTION: What are two combat shooting positions used in Table 2?

ANSWER: The Combat Standing and the Combat Kneeling.

Notes: _____

Let's now transition our focus to discuss moving threat engagement methods.

(8 MIN)

4. **Moving Target Engagement**: Targets move in different ways. Techniques to engage moving targets vary with the type of movement and the situation. We will first cover the types of moving targets.

(SLIDE #27)

a. **Types of Moving Targets**.

(1) Steady Moving Target. This type of target moves in a consistent manner and is in continuous sight as it moves across your field of vision. A walking or running man is an example of this type of target; however, unless the enemy is completely unaware of your presence, this type of target is not likely to present itself.

(2) Stop and Go Target. This type of target will appear and disappear during its movement due to intermittent cover. It will present itself for only a short period of time before reestablishing cover. An enemy moving from one position of cover to another is an example. This enemy target is most vulnerable to your fire at the beginning and end of his rush, as he must first gain momentum; then he must slow to avoid overrunning the cover.

b. **Leads For Moving Targets**.

(1) Definition. When a shot is fired at a moving target, the target continues to move during the time of the bullet's flight. For this reason, the point of aim must be in front of the target; otherwise, the shot will fall behind it. Lead is the distance in advance of the target that is required to engage the target when it is moving.

(SLIDE #28)

(2) Factors Affecting Lead. Factors that affect the amount of lead are the target's range, speed, and angle of movement.

a. Range: There is a time lag from the time a round

is fired until the round impacts on the target. This time of flight could allow a target to move out of the bullet's path if the round were fired directly at the moving target. The time of the flight increases as the range to the target increases. Therefore, the lead must be increased as the distance to the target increases.

b. Speed: A greater lead will be required to engage a running man than a walking man because the running man will move a greater distance during the flight of the bullet.

c. Angle of Movement: The angle of target movement also affects the amount of lead required for target engagement. The angle of movement across your line of sight relative to the flight of the bullet determines the type (amount) of lead.

(SLIDE #29-30)

(3) Point of Aim Technique for Establishing Leads. To engage a moving target, a lead is established using an hold. In the point of aim technique, predetermined points of aim sector the target vertically. Body width is considered to be 11 inches (side view of the target).

a. The tip of the front sight post centered on the leading edge of the target is considered a half lead.

b. An additional lead of six inches or half of one body width in front of the target is considered a full lead.

c. The same units of measure (6 inches) can be applied off the target for holds of additional points of aim.

(4) Applying Point of Aim: To use the point of aim technique to establish a lead on a moving target at various ranges, speeds, and angles of movement, the following guidelines apply. These guidelines do not take into consideration wind or other effects of weather.

(SLIDE #31)

a. Slow Walking Target (approximately 2 mph). For a slow walking target moving directly across your line of sight:

1. 100 yards/meters or less - no lead is required.

2. 200 yards/meters - Half Lead.

3. 300 yards/meters - Full Lead.

b. Fast Walking Target (approximately 4 mph). For a fast walking target moving directly across your line of sight:

1. 100 yards/meters or less - Full Lead.

2. 200 yards/meters - 11 inches/Body width.

3. 300 yards/meters - 18 inches/ 1.5 Body Widths (16.5 Inches).

(SLIDE #32)

c. Jogging Target (approximately 6 mph). For a target running directly across your line of sight:

1. 50 yards/meters or less - half.

2. 100 yards/meters - 1 Body Width(11 Inches).

3. 200 yards/meters - 2 Body Widths (22 Inches).

(SLIDE #33)

d. Running Target (approximately 9 mph). For a target running directly across your line of sight:

1. 50 yards/meters or less - 1 Body Width (11 Inches).

2. 100 yards/meters - 1.5 Body Widths (16.5 Inches).

3. 200 yards/meters - 3 Body Widths (33 Inches).

(SLIDE #34)

(5) Oblique Target: For a target moving at about a 45 degree angle across your line of sight, the lead is one half that required for a target moving directly across your line of sight. Training in moving target engagement will provide the Marine practice in calculating leads so this skill becomes second nature. Equally important are the techniques or methods used to engage moving targets. Moving targets are the most

difficult targets to engage. However, they can be engaged successfully by using either the tracking, ambush method, or a combination of the two methods.

c. **Methods for Engagements.**

(SLIDE #35)

(1) The Tracking Method. In this method, you will "track," or follow the target with the tip of the chevron while maintaining sight alignment and an aiming point on or ahead of the target until the shot is fired.

(SLIDE #36)

(2) The Ambush Method: The ambush method is used when it is difficult to track the target with the rifle, as in the prone, sitting, or any supported position.

TRANSITION: We've just covered moving target engagement, are there any questions? I have one for you.

QUESTION: What are the two types of moving targets?

Answer: Steady moving target and stop and go targets.

NOTES: _____

Now that we have covered moving target engagement, let's move on to engagement techniques.

(SLIDE #37)

(8 MIN)

5. **ENGAGEMENT TECHNIQUES:** There are different types of engagement techniques used to engage targets.

(SLIDE #38)

a. Controlled Pair: A controlled pair requires two well-aimed "controlled" shots, paired with three sight pictures. Before and after each shot, sight picture is required to facilitate proper shot delivery as well as follow through.

(SLIDE #39)

b. Hammer pair: The hammer pair technique is employed at ranges of 15 yards and closer. At this range, the Marine must deliver rounds as rapidly as possible to incapacitate the target. A hammer pair is two shots fired in rapid succession with the first shot employing sight picture and the second shot picking up just the front sight on the target.

(SLIDE #40)

c. Controlled Burst: A controlled burst is three rapid shots in rapid succession utilized at close range with one sight picture. A controlled burst would be best used when time is more prevalent than accuracy. Situation will dictate the use of a controlled burst. To assume a good position for utilizing the controlled burst:

(1) Start with the Basic Warrior Stance.

(2) Transition weight forward as to stabilize the service rifles sights and allow the management of recoil to recover on target.

(3) Adjust footing as needed to assist in recoil management.

TRANSITION: We've just covered engagement techniques, are there any questions? I have one for you.

QUESTION: What are two of the engagement techniques?

Answer: Controlled pairs and Hammer Pairs are two of the techniques.

NOTES: _____

Now that we have covered engagement techniques, let's move on to post fire drills.

(5 MIN)

6. **POST FIRE DRILLS:** Post fire drills will be conducted following all engagements to ensure that the enemy is

incapacitated or immobilized as well as, insuring your weapon is in the best condition possible.

(SLIDE #41-42)

a. **Search and Assess**: Immediately after a target has been effectively engaged, while keeping the buttstock in your firing shoulder, lower the muzzle of the rifle slightly to look over the RCO. Place your trigger finger straight along the receiver and observe the bolt to ensure that you have not run dry. You then search the area for additional targets or for cover, assess the situation to determine if you need to re-engage the target, engage a new target, take cover, assume a more stable position, cease engagement. Search and assess procedures are conducted after each target engagement. Searching and assessing enables you to avoid the tunnel vision that can restrict focus so much that indications of other targets are overlooked.

(1) Search and asses the threat by rotating the head and eyes left and right to observe the immediate area. The rifle remains oriented down range until a secondary threat is observed or the engagement is over.

(SLIDE #43)

b. **Maintain the weapon**: When the threat has been eliminated and the search and assess has been conducted, check the condition of your weapon by observing the bolt. At this time, remove the magazine to establish a known round count. This is the opportune time to get your weapon in the best condition possible.

TRANSITION: Now that we have covered the Post Fire Drills, are there any questions? I have one for you.

QUESTION: When is the best time to ensure your weapon is in the best possible condition?

ANSWER: Following the Search and Assess procedures.

PRACTICAL APPLICATION: (60 MINS) Shooters will practice presentation drills, combat shooting positions, as well as post fire drills.

PRACTICE: The shooters will be oriented outside in an L column, in a safe direction. The shooters will practice transitioning from the alert carry to the ready carry, assuming the combat shooting positions, and conducting post fire drills.

PROVIDE HELP: The tower will have the portable loud speakers and will announce all commands for the shooters. Unit CMTs and Coaches will assist in on the spot corrections.

1. **Safety Brief:** Brief the shooters per the ORAW associated with this lesson.
2. **Supervision and Guidance:** The Combat Marksmanship Trainer will ensure that the four safety rules are followed at all times during the practical application.
3. **Debrief:** The Combat Marksmanship Trainer will answer any questions, provide overall feedback, and review the learning points of the practical application.

Let's summarize.

(SLIDE #44)

SUMMARY

(3 MIN)

During this period of instruction we have covered identifying threats, presentation of the weapon, methods for engaging moving targets, engagement techniques as well as post fire drills. I now feel fully confident that every shooter can go down range and successfully engage moving threats.

