



SLR.25  
1 Oct 99

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

**DETAILED INSTRUCTOR GUIDE**

LESSON TITLE

FIRING WITH THE FIELD PROTECTIVE MASK

COURSE TITLE

SUSTAINMENT LEVEL RIFLE MARKSMANSHIP (PHASE I, II, III)



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Weapons Training Battalion  
Marine Corps Combat Development Command  
Quantico, Virginia 22134-5040

**INSTRUCTOR PREPARATION CHECKLIST**

**ESSENTIAL DATA**

|                         |   |
|-------------------------|---|
| LESSON DESIGNATOR       | SLR.25  |
| LESSON TITLE            | Firing with the Field<br>Protective Mask  |
| DATE PREPARED           | 1 October 1999  |
| TIME                    | 20 min  |
| METHOD                  | Lecture and demonstration   |
| LOCATION                | Indoor/outdoor classroom  |
| INSTRUCTORS REQUIRED    | One Primary Marksmanship<br>Instructor (PMI)  |
| REFERENCE               | MCRP 3-01A  |
| TRAINING AIDS/EQUIPMENT | M16A2 service rifle, sling,<br>cartridge belt, magazines,<br>magazine pouches, flak<br>jacket, helmet, suspenders,<br>and field protective mask |

***INSTRUCTOR'S NOTE:*** A load-bearing vest may be substituted for magazine pouches and suspenders. Gear will be worn in accordance with the MBST Handbook.



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**DETAILED OUTLINE**

**FIRING WITH THE FIELD PROTECTIVE MASK**

**INTRODUCTION**  
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1. **GAIN ATTENTION.** To be effective in combat, a Marine must operate under all battlefield conditions. This includes an NBC (Nuclear, Biological, Chemical) environment. MOPP gear worn under NBC conditions, especially the field protective mask, can greatly affect your firing position and BZO and, therefore, your ability to engage a target. With training, targets can be accurately engaged while wearing the field protective mask.

2. **OVERVIEW.** This lesson will cover establishment of a combat mindset, firing positions, using offset aiming techniques, and applying the fundamentals of marksmanship while wearing the field protective mask.

3. **INTRODUCE LEARNING OBJECTIVES.** The Terminal Learning Objective and Enabling Learning Objectives pertaining to this lesson are as follows:

a. **TERMINAL LEARNING OBJECTIVE.** Given an M16A2 service rifle, sling, cartridge belt, magazines, magazine pouches, flak jacket, helmet, suspenders, ammunition, a target, and field protective mask, without the aid of references, engage targets with the rifle while wearing the field protective mask IAW MCRP 3-01A and to achieve a proficiency level IAW MCO 3574.2\_. (PVTX.11.8)

b. **ENABLING LEARNING OBJECTIVES**

1) Given an M16A2 service rifle, sling, cartridge belt, magazines, magazine pouches, flak jacket, helmet, suspenders, ammunition, a target, and field protective mask, with the field protective mask donned, and without the aid or references, assume a firing position IAW MCRP 3-01A. (PVTX.11.8a)

2) Given an M16A2 service rifle, sling, cartridge belt, magazines, magazine pouches, flak jacket, helmet, suspenders, ammunition, a target, and field protective mask, with the field protective mask donned, and without the aid of references, apply the fundamentals



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of marksmanship IAW MCRP 3-01A. (PVTX.11.8b)



3) Given an M16A2 service rifle, sling, cartridge belt, magazines, magazine pouches, flak jacket, helmet, suspenders, ammunition, a target, and field protective mask, with the field protective mask donned, and without the aid of references, apply offset aiming techniques IAW MCRP 3-01A. (PVTX.11.8c)

4. METHOD. This lesson will be taught in a classroom setting using lecture and demonstration.

5. EVALUATION. Marines will be evaluated via a performance checklist during the Field Firing Live Fire Exercises, SLR.31.

TRANSITION: The additional gear worn in an NBC environment can cause adjustments in firing position and application of the fundamentals. In addition, combat in this type of environment requires a mindset that does not allow your focus to be distracted from firing well-aimed shots.

BODY  
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**1. (1 MIN) COMBAT MINDSET WHILE WEARING THE FIELD PROTECTIVE MASK**

a. Getting Used to the Gas Mask. When engaging targets in combat, the Marine is under considerable stress caused by a combination of fear, fatigue, unnatural hardship, and the noise of battle. Stress is further aggravated by an even greater fear and uncertainty associated with an NBC threat. The Marine should practice wearing the field protective mask when the NBC threat is not present to help overcome any anxieties that may develop due to the restrictions of the mask. This will allow the Marine to become comfortable with the added bulk and reduced visibility of the mask so he can concentrate on firing well-aimed shots.

b. Developing a Plan of Action. The Marine should have a plan of action when required to wear the field protective mask. This plan should cover such things as the likelihood of enemy contact, how the rifle will be presented to the target, and how long the mask will have to be worn. If you expect to wear the mask for an extended period of time and the possibility of contact is likely, consideration should be given to adjusting the sights of the rifle so that your first rounds are on the target.

Confirm by questions.



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TRANSITION: A good firing position provides balance, control, and stability during firing. While the field protective mask is bulky and may restrict vision to some extent, the Marine must strive to assume as good a firing position as possible while wearing the mask.

**2. (8 MIN) ASSUMING A FIRING POSITION WHILE WEARING THE FIELD PROTECTIVE MASK**

***INSTRUCTOR'S NOTE:*** Explain and demonstrate the following firing position adjustments as they are described.

a. Introduction. The added bulk and restrictions of the field protective mask may cause your firing position to be adjusted slightly. However, the adjustments will be unique to each Marine, depending on his body size and shape and his ability to adapt to the mask. Not everyone will have to make the same adjustments or adjust to the same degree. Adjustments in the firing positions, if required, should be minor.

b. Adjustments to Firing Positions. All firing positions will be affected, to some extent, as follows:

1) Stock Weld. Changing the placement of your cheek on the stock may affect your BZO. Therefore, you should obtain a BZO for your rifle in full MOPP gear should the risk of NBC attack exist. Stock weld will not be as comfortable or feel as solid as it does without the field protective mask donned. The loss of sensitivity between the cheek and the stock, due to the mask, may cause the Marine to press his cheek too firmly against the stock.

a) Pressing the cheek too firmly against the stock can cause the seal of the field protective mask to break. If this occurs, quickly clear your mask and resume your firing position.

b) If you are in a firing position and the lenses of the field protective mask begin to fog up, this is an indication that the mask's seal has been broken. Again, clear the mask and resume your firing position.



2) Eye Relief. Eye relief is the distance between the rear sight aperture and the aiming eye. The added bulk of the field protective mask may force the head farther back along the stock, increasing eye relief. If the eye is too far from the rear sight aperture, it may be difficult to acquire the target and to maintain sight alignment. Strive to achieve a firing position in which eye relief allows the acquisition of sight alignment.

3) Head Position. The shape and bulk of the mask can make sight alignment difficult to achieve. The restrictive vision of the mask may force the Marine to roll or tilt his head over the stock to achieve sight alignment. Attempt to keep the head as erect as possible while maintaining sight alignment.

4) Placement of the Buttstock in the Shoulder. Place-ment of the buttstock in the shoulder pocket may have to be altered slightly due to the added bulk of the mask. If the rifle is canted, it may also require this placement to be adjusted to achieve sight alignment.

5) Canting the Rifle. Holding the rifle straight is always the preferred method to obtain sight alignment. However, if sight alignment cannot be achieved in this position, the hold of the rifle may have to be altered to bring the aiming eye in line with the sights. This is usually done by canting the rifle inboard approximately 45 degrees. Canting the rifle is not the preferred method because it can drastically affect the BZO of the rifle. Therefore, cant the rifle only as much as needed to attain a good stock weld and proper sight alignment. A slightly different grip on the forward handguard may be required due to the canting of the rifle.

Confirm by questions.

TRANSITION: Wearing the field protective mask can have an effect on your BZO due to canting or rotating the weapon to accommodate the mask. The difference between shot placement under normal conditions and while wearing the mask can be compensated for by adjusting your sights or using offset aiming techniques.





### **3. (2 MIN) OFFSET AIMING TECHNIQUE - KNOWN STRIKE OF THE ROUND**

In battle there may not always be time to adjust the rifle sights to compensate for the differences in aim caused by wearing the field protective mask. The method for correcting the point of aim to place rounds accurately on target is to apply offset aiming.

a. Some Marines may have to cant the rifle to establish sight picture. If the rifle is canted, the point of impact may not coincide with the point of aim. For example, when wearing the mask, a right-handed Marine's point of impact is usually high and to the left of center mass (for left-handed Marines, high and to the right of center mass).

b. Offset aiming involves shifting the aiming point (sight picture), rather than adjusting the rifle sights, to engage a target. This technique is used when firing with the field protective mask. It involves shifting the aiming point to compensate for rounds striking off target center. To engage a target using this technique, the Marine aims an equal distance from center mass opposite the known strike of the round. For example, if the round strikes high and left, aim an equal and opposite distance low and right.

Confirm by questions.

TRANSITION: In addition to adjustments made to firing positions and using offset aiming techniques, wearing the field protective mask may affect your application of marksmanship fundamentals.

### **4. (4 MIN) APPLYING THE FUNDAMENTALS OF MARKSMANSHIP WHILE WEARING THE FIELD PROTECTIVE MASK**

#### **a. Aiming**

1) Wearing the field protective mask will affect your aiming process, as well as your ability to locate targets. As previously discussed, an adjustment in stock weld, eye relief, head position, placement of the buttstock, and hold on the rifle can affect sight alignment. You must continue to strive for correct sight alignment and sight picture to remain an effective force on the battlefield.



2) Glasses should be removed to don the field protective mask. If glasses are worn with the field protective mask, the mask may not seal. Those who wear glasses are issued a set of corrective inserts for the mask. Make sure they are properly installed in the mask prior to assuming a firing position.

b. Breath Control. Wearing the field protective mask may affect breath control, but with training, the mask should have minimal effect.

1) With the mask on, the Marine will hear himself breathing but should not let this distract him from proper breath control or the application of the other fundamentals of marksmanship.

2) Temporary fogging of the lenses may be experienced when exhaling in the gas mask. If this occurs, fire while holding a full breath of air; inhaling will clear the fog.

c. Trigger Control. Neither the mechanical nor the mental process of controlling the trigger will be affected by wearing the field protective mask. Concentrate on controlling the trigger in the same way as without the mask donned.

Confirm by questions.

TRANSITION: The application of the fundamentals of marksmanship is essential to accurate firing. While an NBC environment can produce added stress and the additional gear is cumbersome, marksmanship training with the field protective mask will enable the Marine to become an effective marksman in this environment.

OPPORTUNITY FOR QUESTIONS:  
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1. Respond to questions from class.
2. Prompt Marines with questions to the class.

a. QUESTION: Why is it necessary to adjust your firing position when wearing the mask?

ANSWER: To compensate for the mask's added bulk.



b. QUESTION: What is the preferred method for adjusting the point of aim to place rounds on target while wearing the field protective mask?

ANSWER: Known strike of the round offset aiming technique.

c. QUESTION: What can you do to fire a shot if the lens of your mask temporarily fogs up when you exhale?

ANSWER: Fire while holding a full breath of air; inhaling clears the fog.

***INSTRUCTOR'S NOTE:*** Ask Marines as many questions as necessary to ensure they fully understand the material presented in this lesson.

SUMMARY:  
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Wearing the field protective mask will affect a Marine's shooting; however, in combat the Marine must be prepared to engage targets under all conditions. The techniques and methods discussed in this class such as establishing a combat mindset, adjusting your firing position, using an offset aiming technique, and applying the fundamentals will enable successful engagement of targets while wearing the mask.