



SLR.13
1 Oct 99

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

DETAILED INSTRUCTOR GUIDE

LESSON TITLE

PREPARATORY TRAINING DRY FIRE/SIMULATION EXERCISES FOR KD COURSE

COURSE TITLE

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



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Weapons Training Battalion
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INSTRUCTOR PREPARATION CHECKLIST

ESSENTIAL DATA

LESSON DESIGNATOR	SLR.13
LESSON TITLE	Preparatory Training Dry Fire/Simulation Exercises for KD Course
DATE PREPARED	1 October 1999
TIME	2 hrs (1 hr dry fire/ 1 hr ISMT)
METHOD	Practical application
LOCATION	Outdoor range and/or ISMT facility
INSTRUCTORS REQUIRED	Primary Marksmanship Instructors (PMI)/Range Coaches as needed
REFERENCES	MCRP 3-01A and MCO 3574.2_
TRAINING AIDS/EQUIPMENT	Dummy ammunition



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DETAILED OUTLINE

PREPARATORY TRAINING DRY FIRE/SIMULATION TRAINING FOR KD COURSE

INSTRUCTOR'S NOTE: *This practical application consists of dry fire exercises followed by ISMT exercises. If you do not have an ISMT facility, only conduct the dry fire exercises.*

1. TRAINING OBJECTIVE

a. Intent. This exercise will enable Marines to practice the skills learned during Phase I training and will familiarize them with the Known Distance (KD) Course of Fire.

b. Learning Objectives. The Terminal Learning Objective and Enabling Learning Objectives pertaining to this lesson are as follows:

1) Terminal Learning Objective. Given an M16A2 service rifle, sling, cartridge belt, magazines, magazine pouches, ammunition, data book, and targets, without the aid of references, engage stationary targets IAW MCRP 3-01A and to achieve a qualifying score IAW MCO 3574.2_. (PVTX.11.5)

2) Enabling Learning Objectives

a) Given an M16A2 service rifle, sling, cartridge belt, magazines, magazine pouches, and a target, without the aid of references, adjust the hasty sling to a shooting position IAW MCRP 3-01A. (PVTX.11.5a)

b) Given an M16A2 service rifle, hasty sling, cartridge belt, magazines, magazine pouches, and a target, without the aid of references, assume a sitting position IAW MCRP 3-01A and MCO 3574.2_. (PVTX.11.5b)



c) Given an M16A2 service rifle, hasty sling, cartridge belt, magazines, magazine pouches, and a target, without the aid of references, assume a kneeling position IAW MCRP 3-01A and MCO 3574.2_. (PVTX.11.5c)

d) Given an M16A2 service rifle, hasty sling, cartridge belt, magazines, magazine pouches, and a target, without the aid of references, assume the standing position IAW MCRP 3-01A and MCO 3574.2_. (PVTX.11.5d)

e) Given an M16A2 service rifle, sling, cartridge belt, magazines, and magazine pouches, without the aid of references, adjust the loop sling to the prone position IAW MCRP 3-01A. (PVTX.11.5e)

INSTRUCTOR'S NOTE: A load-bearing vest may be substituted for magazine pouches.

2. (1 HR) PRACTICAL APPLICATION FOR PREPARATORY DRY FIRE

a. Introduction. Preparatory dry fire of the KD Course of Fire can be used to enhance marksmanship training and prepare Marines for annual requalification firing. Dry fire training must be conducted by a qualified marksmanship instructor (MOS 8531 Primary Marksmanship Instructor, 8530 Range Coach, or MOS 9925 Range Officer). The marksmanship instructor must provide instruction and feedback and analyze and correct shooting performance. Proper weapons handling procedures must be enforced throughout dry fire training.

b. Focus. The following points will be emphasized in the practical application.

- 1) Weapons handling procedures.
- 2) Three elements of a rifle shooting position (loop sling).
- 3) Seven factors common to all shooting positions.
- 4) The crossed ankle, crossed leg, and open leg variations of the sitting position.



- 5) The high, medium, and low variations of the kneeling position.
- 6) The standing position.
- 7) The straight leg and the cocked leg variations of the prone position.
- 8) Use of the hasty and loop slings.
- 9) Fundamentals of marksmanship.
- 10) Remedial action.
- 11) Dry reload and magazine retention.

c. Exercise Setup

- 1) Ensure there is an open area of sufficient size so Marines do not cover other Marines with their weapons during the exercise.
- 2) Ensure there are sufficient dry fire barrels and targetry ("D"-MOD targets representing 200 and 300 yards; "E" representing 500 yards) to support Marines.
- 3) Each Marine will remove the follower from two magazines to facilitate dry fire and rapid fire drills.

d. Equipment. The following equipment is required for each Marine:

- 1) M16A2 service rifle.
- 2) Sling.
- 3) Cartridge belt.
- 4) Magazines with the followers removed.
- 5) Magazine pouches. (Load-bearing vests may be substituted for magazine pouches.)

e. Commands for the Dry Fire KD Course of Fire. The following commands will be used to conduct the dry fire practical application.



INSTRUCTOR'S NOTE: Assign relays and firing points for all shooters. Ensure that commands are stated clearly and that all Marines follow the commands as directed. Use a stop watch to keep accurate times. Ensure that all shooters adhere to the four safety rules and perform weapons handling procedures.

1) Stage One (200-yard Slow Fire)

"Relay _____ prepare a hasty sling and assume a sitting position. **(Pause)** This is your 200-yard slow fire stage, dry firing 5 rounds sitting, 5 rounds kneeling, and 5 rounds standing in a time limit of 20 minutes. Your one minute preparation period begins when the targets appear."

"Your one minute preparation time begins now."

"Relay _____ your preparation period has ended. With an empty magazine, load, **(Pause)** make ready. **(Pause)** Is the line ready? **(Pause)** The line is ready. You may commence firing when your target appears."

"Targets."

"Cease fire. **(Pause)** Unload."

2) Stage Two (200-yard Rapid Fire Kneeling)

"Relay _____ prepare a hasty sling and assume a kneeling position. **(Pause)** This is your 200-yard rapid fire stage, dry firing two magazines of 5 rounds each, standing to kneeling, in a time limit of 70 seconds. Your one minute preparation period begins when the targets appear."

"Your one minute preparation time begins now."



"Relay _____ your preparation period has ended. Stand. **(Pause)** With an empty magazine, load, **(Pause)** make ready. **(Pause)** Is the line ready? **(Pause)** The line is ready. You may commence firing when your target appears."

"Targets."

"Cease fire. **(Pause)** Unload."

3) Stage Three (300-yard Slow Fire Kneeling)

"Relay _____ prepare a hasty sling and assume a kneeling position. **(Pause)** This is your 300-yard slow fire stage, dry firing 5 rounds kneeling, in a time limit of five minutes. Your one minute preparation time begins when the targets appear."

"Your one minute preparation time begins now."

"Relay _____ your preparation period has ended. With an empty magazine, load, **(Pause)** make ready. **(Pause)** Is the line ready? **(Pause)** The line is ready. You may commence firing when your target appears."

"Targets."

"Cease fire. **(Pause)** Unload."

4) Stage Four (300-yard Rapid Fire Prone)

"Relay _____ prepare a hasty sling and assume a prone position. **(Pause)** This is your 300-yard rapid fire stage, dry firing two magazines of 5 rounds each, standing to prone, in a time limit of 70 seconds. Your one minute preparation period begins when the targets appear."

"Your one minute preparation time begins now."

"Relay _____ your preparation period has ended. Stand. **(Pause)** With an empty magazine, load, **(Pause)** make ready. **(Pause)** Is the line ready? **(Pause)** The line is ready. You may commence firing when your target appears."

"Targets."



"Cease fire. (Pause) Unload."

5) Stage Five (500-yard Slow Fire Prone)

"Relay _____ prepare a loop sling and assume a prone position. (Pause) This is your 500-yard slow fire stage, dry firing 10 rounds prone, in a time limit of ten minutes. Your one minute preparation period begins when the targets appear."

"Your one minute preparation time begins now."

"Relay _____ your preparation period has ended. With an empty magazine, load, (Pause) make ready. (Pause) Is the line ready? (Pause) The line is ready. You may commence firing when your target appears."

"Targets."

"Cease fire. (Pause) Unload, show clear."



3. (1 HR) PRACTICAL APPLICATION FOR THE INDOOR SIMULATED MARKSMANSHIP TRAINER (ISMT)

a. Introduction. The ISMT can be used to enhance marksmanship training and prepare Marines for annual requalification firing. ISMT training must be conducted by a qualified marksmanship instructor (MOS 8531 Primary Marksmanship Instructor, MOS 8530 Range Coach, or MOS 9925 Range Officer). The marksmanship instructor must provide instruction and feedback and analyze and correct shooting performance. Proper weapons handling procedures must be enforced throughout ISMT training.

b. Focus. The following points will be emphasized in the practical application.

- 1) Weapons handling procedures.
- 2) Three elements of a rifle shooting position (loop sling).
- 3) Seven factors common to all shooting positions.
- 4) The crossed ankle, crossed leg, and open leg variations of the sitting position.
- 5) The high, medium, and low variations of the kneeling position.
- 6) The standing position.
- 7) The straight leg and the cocked leg variations of the prone position.
- 8) Use of the hasty and loop slings.
- 9) Fundamentals of marksmanship.
- 10) Remedial action.
- 11) Dry reload and magazine retention.

c. Exercise Setup

- 1) Assign each Marine a firing point and a rifle.
- 2) Ensure each Marine places the ISMT magazines in his magazine pouch.



- 3) Ensure slings are attached to ISMT rifles.
- 4) Brief all Marines on the procedures for each exercise to be conducted.

d. Equipment. The following equipment is required for each Marine:

- 1) ISMT M16A2 service rifle.
- 2) Standard issue web sling.
- 3) Cartridge belt.
- 4) Magazine pouches. (Load-bearing vests may be substituted for magazine pouches.)

e. ISMT Instructor Guidelines

- 1) Enforce the four safety rules. It is important that Marines establish the proper mindset in the ISMT facility for applying the safety rules, particularly muzzle awareness and treating every weapon as a loaded weapon.
- 2) Enforce weapons handling procedures.
 - a) Ensure the Marine properly seats the magazine on the "Load." An improperly seated magazine may not register as such on the ISMT.
 - b) Ensure the Marine pulls the charging handle fully to the rear on the "Make Ready." 'Short-stroking' the ISMT will still chamber a round.
 - c) Explain to Marines that a chamber check cannot be conducted on the ISMT because the chamber cannot be observed and the ISMT will register that a round has been extracted.
- 3) Use the tracing mode to analyze natural point of aim, stability of hold, trigger control, breath control, and management of recoil.



a) The green tracing line shows muzzle placement on the target 5 seconds before the shot is fired. Analyze the green line to analyze the Marine's natural point of aim, stability of hold, and breath control.

(1) For natural point of aim, the majority of the green line pattern should be on the center of the target. If the majority of the pattern is offset or off the target, natural point of aim must be adjusted.

(2) For ideal stability of hold, the green line should not move off of the target.

(3) Breathing will cause the line to move vertically outside the majority of the pattern.

b) The red tracing line shows muzzle placement for .2 seconds during the time the shot is fired.

c) The blue tracing line shows muzzle placement 1.8 seconds after the shot is fired. Analyze the blue line to analyze the Marine's management of recoil. For ideal management of recoil, the blue line will recover to the Marine's natural point of aim.

4) Analyze shot groups. The ISMT registers shot groups in centimeters. The ISMT does not account for the dispersion of rounds inherent in the rifle's specifications/tolerances. For example, a 7 MOA group in live fire does not equal a 7 MOA group on the ISMT. Therefore, an acceptable sized shot group in live fire is not an acceptable shot group on the ISMT. To be accurate on the live fire range, ensure Marines hold a group size on the ISMT of no more than 3 MOA for prone, 5 MOA for sitting and kneeling, and 7 MOA for standing.

a) 7 MOA shot group = 6.4cm.

b) 5 MOA shot group = 4.57cm.

c) 4 MOA shot group = 3.66cm.

d) 3 MOA shot group = 2.74cm.



5) Analyze positions. The location of the air hose cable on the ISMT rifle requires an adjustment of forward hand placement on the handguards. The firing position and the sling may have to be adjusted to accommodate the cable. Work with Marines to ensure any adjustments made to accommodate the cable are as minimal as possible. Ensure Marines incorporate the seven factors common to all shooting positions.

6) Ensure proper sight adjustments are made between the 200-, 300-, and 500-yard lines. When the ISMT rifle is auto zeroed, sight adjustments do not have to be made between yard lines and targets can still be engaged point of aim/point of impact.

f. Commands for ISMT KD Course of Fire. The following commands will be used to conduct the ISMT practical application.

INSTRUCTOR'S NOTE: *Ensure that commands are followed. Use a stop watch to keep accurate times. Ensure that all shooters adhere to the four safety rules and perform weapons handling procedures.*

1) Stage One (200-yard Slow Fire)

"Relay _____ prepare a hasty sling and assume a sitting position. (Pause) This is your 200-yard slow fire stage, firing 5 rounds sitting, 5 rounds kneeling, and 5 rounds standing in a time limit of 20 minutes. Your one minute preparation period begins when the targets appear."

"Relay _____ your preparation period has ended. With a magazine of five rounds, load, (Pause) make ready. (Pause) Is the line ready? (Pause) The line is ready. You may commence firing when your target appears."

"Cease fire. (Pause) Unload."



2) Stage Two (200-yard Rapid Fire Kneeling)

"Relay _____ prepare a hasty sling and assume a kneeling position. **(Pause)** This is your 200-yard rapid fire stage, firing two magazines of five rounds each, standing to kneeling, in a time limit of 70 seconds. Your one minute preparation period begins when the targets appear."

"Relay _____ your preparation period has ended. Stand. **(Pause)** With a magazine of five rounds, load, **(Pause)** make ready. **(Pause)** Is the line ready? **(Pause)** The line is ready. You may commence firing when your target appears."

"Cease fire. **(Pause)** Unload."

3) Stage Three (300-yard Slow Fire Kneeling)

"Relay _____ prepare a hasty sling and assume a kneeling position. **(Pause)** This is your 300-yard slow fire stage, firing 5 rounds kneeling, in a time limit of five minutes. Your one minute preparation time begins when the targets appear."

"Relay _____ your preparation period has ended. With a magazine of 5 rounds, load, **(Pause)** make ready. **(Pause)** Is the line ready? **(Pause)** The line is ready. You may commence firing when your target appears."

"Cease fire. **(Pause)** Unload."

4) Stage Four (300-yard Rapid Fire Prone)

"Relay _____ prepare a hasty sling and assume a prone position. **(Pause)** This is your 300-yard rapid fire stage, firing two magazines of five rounds each, standing to prone, in a time limit of 70 seconds. Your one minute preparation period begins when the targets appear."

"Relay _____ your preparation period has ended. Stand. **(Pause)** With a magazine of five rounds, load, **(Pause)** make ready. **(Pause)** Is the line ready? **(Pause)** The line is ready. You may commence firing when your target appears."



"Cease fire. (Pause) Unload."

5) Stage Five (500-yard Slow Fire Prone)

"Relay _____ prepare a loop sling and assume a prone position. (Pause) This is your 500-yard slow fire stage, firing 10 rounds prone, in a time limit of ten minutes. Your one minute preparation period begins when the targets appear."

"Relay _____ your preparation period has ended. With a magazine of ten rounds, load, (Pause) make ready. (Pause) Is the line ready? (Pause) The line is ready. You may commence firing when your target appears."

"Cease fire. (Pause) Unload, show clear."

4. AFTER EXERCISE PROCEDURES

Upon completion of the exercise, Marines will be critiqued on their performance. The following areas can be addressed when critiquing Marines:

- a. Weapons handling procedures.
- b. Assuming a position.
- c. Three elements of a rifle shooting position (loop sling).
- d. Seven factors common to all shooting positions.
- e. Fundamentals of marksmanship.
- f. Remedial action.
- g. Dry reload and magazine retention.
- h. Engagement of stationary targets.

5. EXERCISE EVALUATION

The Marine must master all performance steps to pass this exercise (100% mastery of learning objectives). Marines failing to achieve mastery will receive remedial instruction.



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