

CHAPTER 9

SNIPER SUSTAINMENT TRAINING

Repetitive training in long-range marksmanship and field-craft skills ensures the best probability of effective engagement and the minimum risk of detection. Snipers must sustain basic soldier skills and master and sustain critical mission skills to accomplish their objectives. Both sniper and observer are trained snipers and should be highly skilled in the art of sniping. Sniping skills perish quickly; therefore, sniper teams must sustain and sharpen those skills regularly. To deny the importance and need to sustain sniper training deprives the commander of a valuable asset. This chapter also includes a 5-day sniper sustainment training program.

9-1. BASIC SKILLS SUSTAINMENT

Due to the primary and secondary missions of the sniper, minimum skill sustainment should include observation, range estimation, concealment, concealed movement, and rifle firing. Sustainment of these skills may best be accomplished through sniper training exercises and unit-level live-fire exercises. (DA Pamphlet 350-38 outlines the frequency and ammunition requirements needed to conduct sniper training.) Sniper training exercises provide snipers with practical experience in detecting and engaging realistic targets under field conditions on ranges comparable to a battlefield. This training also provides snipers with a means to practice the various sniper training fundamentals that has been taught previously, often collectively. These exercises may or may not be graded; however, competition is a proven method to obtain the desired results. At the end of the exercises, the trainer critiques each sniper on his performance. These exercises include zeroing and practice fire, field fire (unknown distance), concealment, concealed movement target detection, range estimation, land navigation, memory enhancement

exercise (KIM game), and communications. Each sniper will go through these training exercises.

a. **Zeroing and Practice Fire.** To engage targets effectively during training exercises and in combat, the sniper must have his rifle accurately zeroed. For this reason the zeroing exercises are normally conducted on a measured known-distance range to ensure precise adjustment, recording, and practice under ideal conditions and to eliminate variables that may prevent achieving an effective zero. The sniper rifle is zeroed using both the telescopic and iron sights. A bull's-eye-type target should be used for zeroing. It is important to acquire a point-of-aim, point-of-impact zero at 100 meters using the M24. As the distance increases, the sniper must adjust his telescope to allow for elevation and wind to ensure the rounds stay in the center of the target.

b. **Field Fire.** Practical firing exercises are designed to develop sniper proficiency in the accurate and rapid engagement of various combat-type targets, as well as to provide practical work in other field techniques. Snipers should be given positions on the firing line and areas of the field fire course to observe and make range cards of the area.

(1) After the range cards have been completed, the snipers will be required to fire the course by having one member call the wind and adjust the other member's fire. The ability to call the wind is important as successful engagement of the targets. After one member fires the course, they switch positions and repeat the fire course.

(2) When firing the course, snipers should engage the targets in a sequence that starts with the 200-meter target, then engage each target out to 800 meters, then engage targets back to the 200-meter target. (Targets are engaged twice. Snipers will engage a target with no more than two rounds per target.) The course consists of engaging 20 targets with 30 rounds of ammunition within a 30-minute time limit. The sniper should be scored as follows:

- 10 points for first-round hits.
- 5 points for second-round hits.
- 200 points maximum.
- 140 points needed to pass (70 percent).

(3) To enhance training, snipers should also fire the field fire course during limited visibility with overhead illumination such as parachute flares. This puts stress on the sniper to determine the range and to engage a target in a short amount of time.

(4) To provide the most realistic training environment trainers do not use range commands to commence fire and cease fire in sniper exercises.

The only exception to this is when an unsafe condition exists. The command CEASE FIRE should be given immediately. Snipers must be given a thorough orientation on each exercise (to include safety requirements) before they are permitted to move into position. After the sniper has assumed his firing position in the designated location, he should be allowed to fire without further commands. Therefore, the range must be cleared for firing before the exercise begins. An NCO (assistant trainer) must be with each sniper to keep score and to maintain safety during the exercise. When the sniper completes firing, the NCO ensures the rifle is clear and signals the range officer.

NOTE: A blank copy of the forms that follow are located at the back of this manual for local reproduction.

c. **Concealment.** Concealment exercises develop and test the sniper's ability to conceal himself in an expedient firing position while observing and engaging an observer-instructor. Figure 9-1, page 9-4, is an example of completed DA Form 7325-R, Concealment Exercise Scorecard.

(1) In a cleared area with a wood line about 100 meters away, snipers conceal themselves within 10 minutes in the wood line. After the 10-minute preparation, an observer-instructor 100 meters away visually searches the area for 2 minutes without the aid of optics. After 2 minutes, the observer-instructor searches the wood line (from his position) for 18 minutes, using binoculars and the M49 observation telescope. If there are more than 10 snipers in the exercise, two observer-instructors and two assistant trainers may be needed. After the 20-minute period, an assistant trainer with a radio moves within 10 feet of a sniper, who is ready to fire at an observer-instructor.

(2) The sniper should be able to identify a white 5-inch number that is painted on an 8-inch by 8-inch international orange panel. This panel is held over a vital part of the observer-instructor, and two blanks are fired at him without the sniper being detected. If the target detects the sniper, he radios the assistant trainer and directs him to the sniper. The exercise should be scored on a 10-point system, with 7 points being a passing score. (See Paragraph 9-4, Day 3, to score the concealment exercise.)

CONCEALMENT EXERCISE SCORECARD
Exercise Number _____

For use of this form, see FM 23-10. The poponent agency is TRADOC.
DATA REQUIRED BY PRIVACY ACT OF 1974.

AUTHORITY: 10 USC 3012(g)/Executive Order 1974. **PRINCIPAL PURPOSE(S):** Evaluates individual training. **ROUTINE USE(S):** Evaluates individual proficiency. **SSN** is used for positive identification purposes only. **MANDATORY OR VOLUNTARY:** DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION: Voluntary. Individuals not providing information cannot be rated/scored on a pass basis.

Last name	First	MI	Rank	SSN	Unit
SMITH	JOHN	D	SFC	457-28-1738	DCo 2-29 IN
Date	Weather/visibility		Score		
17 Feb 93	CLEAR 67° UNLIMITED		9		

If the sniper

	Points	Deducted	Total
• Was detected without the aid of optics (first 2 minutes)	. 2	. . . . 0	. . . . 2
• Was detected with the aid of optics (18 minutes)	. . . . 1	. . . . 0	. . . . 3
• Was detected when assistant trainer was within 10 feet of sniper	. . . . 1	. . . . 0	. . . . 4
• Properly identified the number within 30 seconds	. . . . 1	. . . . 0	. . . . 5
• Failed to properly identify the number	. . . . 0	. . . . 3	. . . . 2
• Fired first shot, not detected	. . . . 4	. . . . 0	. . . . 6
• Fired second shot, not detected	. . . . 1	. . . . 0	. . . . 7
• Maintained stable firing position (support)	. . . . 2	. . . . 0	. . . . 9
• Properly adjusted weapon's scope for range and windage	. 1	. . . . 0	. . . . 10

NOTES:

1. If the sniper was caught trying to identify the number, score 4 points.
2. If muzzle blast/flash is detected, deduct 1 point from total score.
3. Failing to comply with training standards and objectives (such as unnecessary movement, premature fire, outside prescribed boundaries) will result in termination of the exercise and a score of zero.

Contrast to background
 Muzzle blast
 Muzzle flash
 Improper movement techniques
 Improper camouflage
 Shine
 Outline
 Sound

Ray B. Quake
 Trainer's signature

 Oper.'s signature

DA FORM 7325-R, JUL 94

Figure 9-1. Example of completed DA Form 7325-R, Concealment Exercise Scorecard.

d. **Concealed Movement.** Concealed movement exercise develops and tests the sniper's ability to move and occupy a firing position undetected. Trainers record scores on DA Form 7326-R, Concealed Movement Exercise Scorecard (Figure 9-2, page 9-6).

(1) This exercise requires the same amount of trainers and equipment as in the concealment exercises. Areas used should be observable for 1,000 meters and have easily recognizable left and right limits. Ideally, snipers should train in a different type of area each time they perform these exercises.

(2) The snipers move 800 to 600 meters toward two observer-instructors, occupy a firing position 100 to 200 meters away, identify in the same manner as the concealment exercise, and fire two blanks at the targets without being detected at any time. If one of the observer-instructors detects a sniper, he radios one of the assistant trainers and directs him to the sniper's position. The sniper is given three hours to complete the exercise. The exercise is scored on a lo-point system, with 7 points being a passing score. (See Paragraph 9-4, Day 4, to score concealed movement exercise.)

CONCEALED MOVEMENT EXERCISE SCORECARD
Exercise Number _____

For use of this form, see FM 23-10. The proponent agency is TRADOC.
DATA REQUIRED BY PRIVACY ACT OF 1974.

AUTHORITY: 10 USC 3012(g)/Executive Order 9397. PRINCIPAL PURPOSE(S): Evaluates individual training. ROUTINE USE(S): Evaluates individual proficiency. SSN is used for positive identification purposes only. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION: Voluntary. Individuals not providing information cannot be rated/scored on a pass basis.

Last name	First	MI	Rank	SSN	Unit
SMITH	JOHN	D	SFC	457-18-038	DCo 2-29 IN
Date	Weather/visibility				
17 FEB 93	CLEAR 50 UNLIMITED				

If the sniper	Points	Deducted	Total
• Was detected moving to FFL	0	0	0
• Was detected moving in FFL	6	0	6
• Fired first round shot, not detected	6	0	12
• Was not detected when assistant trainer is within 10 feet of sniper	2	0	14
• Properly identified number (within 30 seconds)	2	0	16
• Failed to properly identify number	2	0	14
• Was not detected when assistant trainer is within 5 feet of sniper	2	0	16
• Fired second shot, not detected	2	0	18
• Maintained stable firing position (support)	1	0	19
• Properly adjusted weapon's scope for range and windsage	1	0	20

NOTES:

- If muzzle blast/flash is detected, deduct 1 point from total score.
- Failing to comply with training standards and objectives (such as unnecessary movement, premature fire, outside prescribed boundaries) will result in termination of the exercise and a score of zero.

REMARKS: Explain in detail on back the reason for sniper's detection.

Trainer's signature
John D. Smith

Sniper's signature
John D. Smith

DA FORM 7326-R, JUL 94

Figure 9-2. Example of completed DA Form 7326-R, Concealed Movement Exercise Scorecard.

e. **Target Detection.** Target detection exercises sharpen the sniper's eyes by requiring him to detect, describe, and plot objects that cannot be easily seen or described without the skillful use of optics. Scores are recorded on DA Form 7327-R, Target Detection Exercise Scorecard (Figure 9-3, page 9-8).

(1) Areas used for target detection should be partly cleared at least 200 meters in depth and 100 meters in width with easily definable left and right limits. The area should have at least three TRPs that are easily recognized and positioned in different locations throughout the area. Ten military items are placed in the area. These items can be radio antennas, small-scale mock vehicles, batteries, map protractors, or weapons. Items should be placed so that they are undetectable with the naked eye, detectable but indescribable with the binoculars, and describable only by using the M49 observation telescope.

(2) Snipers are given an M49 observations telescope, M22 binoculars, pencil, clip board, and scorecard. Snipers are given 40 minutes to detect, describe, and plot each item in the area. Snipers remain in the prone position throughout the exercise. After 15 minutes, they will move to a different position, left or right of the centerline of observation and remain there for the next 15 minutes. For the last 10 minutes, they can choose a position anywhere along the line. When an object is detected, the sniper gives his location on the line of observation (A or B). Next, the sniper must describe the object using the categories of size, shape, color, condition, and appearance. Snipers receive 1/2 point for correctly plotting a target and 1/2 point for correctly describing it. They must achieve 7 points to receive a GO in this area.

NOTE: The trainer should sanitize the site before the exercise. If the sniper finds additional items to describe he may use the eleventh and twelfth lines of the scorecard. If the trainer allows the sniper can obtain credit for observation and detection skills.

ROSTER #: (11) **TARGET DETECTION EXERCISE SCORECARD** EX #: (222)
 For use of this form, see FM 23-10; the proponent agency is TRADOC

SKETCH NAME: BLDG 1002 **Sketch #** 1 **NAME:** EDISON
GRID COORDINATE: P217003 **Magnetic Azimuth:** -75 **Block Scale:** 1" = 10M **RANK:** SGT
WEATHER: CLEAR 72° **DATE:** 1 APR 93 **TIME:** 1650

#	SIZE	SHAPE	COLOR	CONDITION	APPEARS TO BE	GRID BOX LOC.
1	36" x 4" x 2"		BLACK	SERV	M16A2	F-3 (A)
2	10" x 1" x 4"		GREEN	SERV	RADIO	D-3 (A)
3	3" x 3" x 3"		BLUE	UNSERV	GRENAD	G-4 (A)
4	5" x 2" x 6"		BLACK	SERV	TANK	C-3 (B)
5	4" x 4" x 1/4"		CLEAR	SERV	PROTRACTOR	B-2 (B)
6	1" x 1/8" x 36"		YELLOW	SERV	STRAP	A-3 (B)
7	1/32" x 1/2" x 1/4"		BLACK	SERV	RANK INSIGNIA	C-3 (A)
8	1/2" x 4" x 12"		GREEN	SERV	AMMO BOX	G-1 (B)
9	1" x 1" x 1"		BLACK	SERV	CANTEEN CAP	H-4 (A)
10	1/2" x 1/2" x 1"		SILVER	SERV	PAPER CLIP	D-8 (B)

DA FORM 7327-R, JUL 94

Figure 9-3. Example of completed DA Form 7327-R, Target Detection Exercise Scorecard.

f. **Range Estimation.** Snipers must correctly estimate distance to effectively fire weapons, complete accurate range cards, and give reliable intelligence reports. Range estimation exercises should be conducted in an area that allows unobstructed observation of a human-size target up to 1,000 meters away. Scores are recorded on DA Form 7328-R, Range Estimation Exercise Scorecard (Figure 9-4, page 9-10). Personnel should be placed at various ranges and stages of concealment to give the sniper a challenging and realistic exercise. Snipers should be graded on their ability to estimate range by using the naked eye, M19/M22 binoculars, and the M3A scope. Snipers must correctly estimate the distance to 7 of 10 objects using their eyes (± 15 percent), 7 to 10 objects using the binoculars (± 10 percent), and 7 to 10 objects using the M3A telescope (± 5 percent). They must sketch their assigned sector on the back of the form, page 9-11.

RANGE ESTIMATION EXERCISE SCORECARD
Exercise Number _____

For use of this form, see FM 23-10. The proponent agency is TRADOC.

DATA REQUIRED BY PRIVACY ACT OF 1974.

AUTHORITY: 10 USC 3012(g)/Executive Order 9397. PRINCIPAL PURPOSE(S): Evaluates individual proficiency. SSN is used for positive identification purposes only. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION: Voluntary. Individuals not providing information cannot be rated/scored on a mass basis.

Last name	First	MI	Rank	SSN	Unit
SMITH	JOHN	D	SFC	457-28-038	D Co 2-29 IN
Date	Weather/visibility		Score		
11 FEB 93	CLEAR 60 UNLIMITED		27		

EYE ESTIMATION +- 15%	BINOCULAR ESTIMATION +- 10%	M3A TELESCOPE ESTIMATION +- 5%
1 108 M	1 185 M	1 166 M
2 130	2 X 142	2 127
3 200	3 217	3 215
4 225	4 330	4 X 215
5 275	5 260	5 250
6 300	6 315	6 315
7 350	7 330	7 326
8 400	8 410	8 405
9 X 500	9 420	9 440
10 475	10 405	10 488

1. Within three minutes, the range to the target is estimated at each point, using the naked eye, binoculars, and the M3A telescope. Estimations must be performed in the order listed.
2. Once an estimate is recorded, it cannot be changed; it will be counted as incorrect. However, the M3A telescope estimate may be changed before the next set of estimates are recorded.
3. The use of calculators is encouraged.
4. This is an individual exercise. Any sniper that talks or tries to look at another sniper's scorecard is terminated from the exercise.
5. If there are any questions, the trainer will assist you.

Ray B. Dwyer
Trainer's signature

John D. Smith
Sniper's signature

DA FORM 7328-R, JUL 94

Figure 9-4. Example of completed DA Form 7328-R, Range Estimation Exercise Scorecard (front).

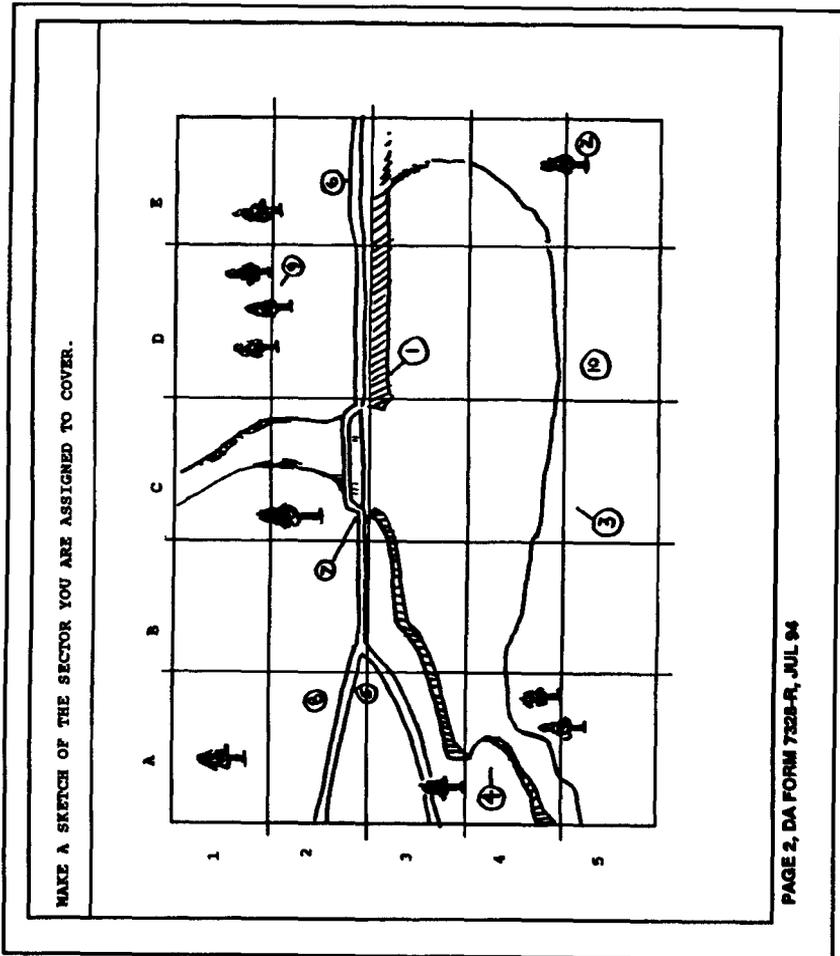


Figure 9-4. Example of completed DA Form 7328-R, Range Estimation Exercise Scorecard (back) (continued).

g. **Land Navigation.** This exercise develops the snipers' proficiency in specific field techniques such as movement, land navigation, and radiotelephone procedure. Snipers must move from a starting point to a specific location and then report. During this exercise, snipers should be fully equipped. (See Chapter 2.) To provide training under varied conditions, this exercise should be conducted at least twice, once during daylight and once during limited visibility.

(1) This exercise can be held at the same time as the firing exercises. Half of the training class or group could conduct the land navigation exercise, while the other half conducts the firing exercise. When they finish, they change over.

(2) Snipers are assembled at the starting point and instructed on the mission objective, the observation positions, and the radio call signs. Trainers conduct an equipment check and an exercise briefing. This exercise requires snipers to move from the starting point to the designated location in less than two hours. They are instructed to avoid the observation positions, which represent the enemy. They must report their location every 15 minutes and their arrival at the destination site. A team starts the exercise with 100 points. The following point deductions are made for errors:

(a) Take 1 point off for each minute over the authorized two hours.

(b) Take 3 points off for every 5 meters that the sniper misses the designated destination.

(c) Take 5 points off for each instance of improper radio procedure or reporting.

(d) Take 10 points off for each time the sniper is seen by someone in the observation positions.

(e) Take 100 points off for being lost and failing to complete the exercise.

(3) At the end of this exercise, the trainer critiques the snipers' performance.

h. **Memory Enhancement Exercise (KIM Game).** A KIM game exercise consists of 10 variable military items on a table, covered with a blanket poncho, or anything suitable. Snipers observe the objects when uncovered but cannot touch the items or talk during the exercise. (Figure 9-5 is an example of a locally fabricated KIM game exercise scoresheet format.)

(1) After a prescribed time, the items are covered, and the snipers write their observations on a score sheet. They write the details that accurately describe the object, omitting unnecessary words. There are many variations that can be incorporated into a KIM game, such as PT, an extended amount of time between observing and recording, distractions

while observing and recording, or the use of different methods to display items. For example instead of a blanket uses towel or slides. At the end of the time limit, snipers turn in the score sheets, and trainers identify each item. Snipers describe each object in the following categories:

(a) *Size*: The sniper describes the object by giving the rough dimensions in a known unit of measure or in relation to a known object.

(b) *Shape*: The sniper describes the object by giving the shape such as round, square, or oblong.

(c) *Color*: The sniper records the color of the object.

(d) *Condition*: The sniper describes the object by giving the general or unusual condition of the object such as new, worn, or dented.

(e) *Appears to be*: The sniper describes what the object appears to be such as an AK-47 round or radio handset.

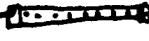
KIM GAME EXERCISE					
NAME: <u>BAILEY, WILLIAM</u>			DATE <u>7 APR 93</u>		
ROS # <u>06</u>			SCORE _____		
TEAM # <u>A</u>					
KIMS GAME # <u>G-1</u>					
	SIZE	SHAPE	COLOR	CONDITION	APPEARS TO BE
1	1" x 8" x 1"		BLACK/ GRAY	SERV	STAPLER
2	1/2" x 2" x 1/2"		GOLD	SERV	MINI-SPECIAL BALL
3	4" x 8" x 5"		CAMO	SERV	BDU CAP
4	10" x 3" x 9"		BLACK	SERV	JUNGLE BOOT
5	2" x 12" x 4"		BLACK	SERV	PVS-4
6	1/8" x 1" x 1/8"		BLACK	UNSERV	E-5 PINON
7	1/4" x 1" x 1"		TAN	SERV	EARPLUG CASE
8	2" x 2" x 6"		GREEN	UNSERV	COMPASS
9	3" x 2" x 8"		GREEN	SERV	AMMO POUCH
10	3" x 1/4" x 50"		GREEN	UNSERV	PISTOL BELT

Figure 9-5. Example of suggested format for KIM game exercise score sheet.

(2) Snipers receive 1/2 point for indicating that there was an item with some sort of description and the other 1/2 point for either exactly naming the item or giving a sufficiently detailed description using the categories listed above. The description must satisfy the trainer to the extent that the sniper had never seen the object before. The total possible score is 10 points. Experience in the exercise, time restraints, and complexity of the exercise determines a passing score. This is the trainer's judgment based on his own experience in KIM games (Figure 9-6). The first few games should be strictly graded, emphasizing details. When the snipers are familiar with the game pattern, the trainer may make changes. The last game of the training should be identical to the first. In this way, the sniper can see if he improved.

KIM GAME SCHEDULE			
NO.	OBSERVE (minutes)	RECORD (minutes)	REMARKS
1	2:00	3:00	NO DISTRACTIONS
2	2:00	3:00	NOISE DURING RECORDING
3	1:50	2:50	FIRE BLANK WHILE RECORDING
4	1:50	2:50	PT BETWEEN OBSERVE/RECORD
5	1:30	2:30	2-HOUR DELAY BETWEEN OBSERVE/RECORD
6	REPEAT GAME NO. 1		

Figure 9-6. Example of suggested KIM game schedule.

i. **Communications.** Snipers must be highly trained in using the SOI and proper communication procedures. Maintaining communication is a primary factor in mission success. Areas of emphasis should include the following:

- Operation and maintenance of radios.
- Entering the net.
- Authentication.

- Encoding/decoding.
- Encrypting/decrypting.
- Antenna repair.
- Field-expedient antennas.

9-2. ADDITIONAL SKILLS SUSTAINMENT

Other than basic skills, the trainer must include additional skills into the sniper sustainment training program. Once mastered, these skills enhance the sniper's chance of surviving and accomplishing the mission.

a. **Call for Fire.** With advanced camouflage and movement techniques, snipers can move about the battlefield undetected. Snipers that have a working knowledge in the use and application of artillery, NGF, and CAS will be an asset to the commander. (See FM 6-30.)

(1) **Artillery fire.** Artillery fire is the secondary weapon of the sniper. Each sniper should master call-for-fire procedures (Figure 9-7, page 9-16), target location methods (Figure 9-8, page 9-17), and indirect-weapon system capabilities (Table 9-1, page 9-19). Separate radio stations may be set up with one being a simulated FDC. After the FDC receives the call for fire, it determines how the target will be attacked. That decision is announced to the FO as a message to the observer, which consists of three elements as follows:

- Unit to fire for effect.
- Any changes to requests in the call for fire.
- Method of fire (number of rounds to be fired).

Snipers can simulate calls for fire using the example format in Figure 9-7, page 9-16.

(2) **Naval gunfire and close air support.** In today's battlefield of "high-tech" munitions and delivery systems, a working knowledge of acquiring NGF and CAS (helicopter and fixed-wing) enables snipers to inflict heavy damage on enemy forces.

1. OBSERVER IDENTIFICATION
2. WARNING ORDER
 - a. Type of Mission.
 - (1) Adjust fire.
 - (2) Fire for effect.
 - (3) Suppress.
 - b. Size of Element to Fire.
 - c. Method of Target Location.
 - (1) Grid.
 - (2) Polar.
 - (3) Shift from a known point.
3. TARGET LOCATION
 - a. Grid. Six-digit grid coordinates.
 - b. Polar. Direction and distance from the FO to the target.
 - c. Shift. Direction to the target.
 - (1) Lateral shift L/R
 - (2) Range shift ±
 - (3) Vertical shift U/D
4. TARGET DESCRIPTION
5. METHOD OF ENGAGEMENT
 - a. Type of Adjustment.
 - (1) Area fire.*
 - Bracketing.*
 - Creeping (DANGER CLOSE).
 - (2) Precision fire.
 - b. Trajectory.*
 - c. Ammunition.
 - (1) Projectile.*
 - (2) Fuze.*
 - (3) Volume of fire.*
 - d. Distribution.*

Figure 9-7. Call-for-fire-format.

6. METHOD OF FIRE AND CONTROL

a. Method of Fire.

- (1) Center platoon/center section.
- (2) Battery/platoon right (left).
- (3) Time interval.

b. Method of Control.

- (1) Fire when ready.*
- (2) At my command.
- (3) Cannot observe.
- (4) Time on target.

*Standard

Figure 9-7. Call-for-fire-format (continued).

1. GRID
 - (a) Determine a six-digit grid coordinate to the designated target.
 - (b) Determine the grid direction (observer-target) to the target, and ensure that the O-T direction is sent to the FDC after the call for fire is completed before the first correction.
2. POLAR
 - (a) Determine the O-T direction to the target from the FO's position.
 - (b) Determine the distance from the FO's position to the target.
3. SHIFT
 - (a) Determine the O-T direction to the target.
 - (b) Determine the lateral shift from the known point to the target.

$$W = R \times M \text{ (mil relation).}$$

$$W = \text{Width of lateral shift in meters.}$$

Figure 9-8. Target location methods.

R = Distance to the known point divided by 1,000. When shifting from a known point, the R is rounded to the nearest tenth.

M = Measured angle in mils between the known point and the target.

Example: $\frac{2,800}{1,000}$ (distance to known point) = 2.8 = R

M = 130 mils (measured angle from the known point to the target).

Therefore: $W = R (2.8) \times M (130)$

W = 364 or LEFT 360 (nearest 10 mils)

(c) Determine the range shift from the known point to the target.

Example: $\frac{2,800}{-1,700}$ (distance to the known point)
(distance to the target)

1,100 meters or DROP 1,100 meters
(nearest 100 meters)

Figure 9-8. Target location methods (continued).

WEAPON	MAXIMUM RANGE (METERS)	MINIMUM RANGE (METERS)	MAXIMUM RATE (ROUNDS PER MINUTE FIRST MINUTE)	SUSTAINED RATE (ROUNDS PER MINUTE)
FIELD ARTILLERY				
105-mm HOWITZER M101A1, TOWED	11,000 14,500 (RAP)	0	10	3
105-mm HOWITZER M102, TOWED	11,500 14,500 (RAP)	0	10	3
155-mm HOWITZER M114A1, TOWED	14,600 14,600	0	4	1
155-mm HOWITZER M114A2, TOWED	14,900 19,400 (RAP)	0	4	1
155-mm HOWITZER M198, TOWED	24,000 30,000 (RAP)	0	4	TEMPERATURE DEPENDENT
155-mm HOWITZER M109, SP	14,900	0	4	1
155-mm HOWITZER M109A1/A2/A3, SP	18,100 23,500 (RAP)	0	4	1*
175-mm GUN M107, SP	32,900	0	1.5	0.5
203-mm HOWITZER M115, TOWED	16,900	0	1.5	0.5
203-mm HOWITZER M110, SP	16,900	0	1.5	0.5
203-mm HOWITZER M110A1, SP	20,900	0	1.5	0.5
203-mm HOWITZER M110A2, SP	22,900	0	1.5	0.5
MORTARS				
60-mm MORTAR	3,490 (HE) 1,472 (WP) 931 (ILLUM)	70 (HE) 33 (WP) 725 (ILLUM)	30	20
81-mm MORTAR	4,595 (HE) 4,850 (HE), track 4,737 (WP)	72 (HE) 70 (WP) 100 (ILLUM)	30 30	20 FOR 2 MINUTES, THEN 8 MINUTES
107-mm MORTAR	6,840 (HE) 5,850 (WP) 5,490 (ILLUM)	770 (HE) 820 (WP) 400 (ILLUM)	18	9 FOR 5 MINUTES, THEN 3 MINUTES
* CHG: ONE ROUND PER MINUTE FOR 60 MINUTES, THEN ONE ROUND EVERY 3 MINUTES THEREAFTER.				

Table 9-1. Indirect-weapon systems capabilities.

WEAPON	MAXIMUM RANGE (METERS)	MINIMUM RANGE (METERS)	MAXIMUM RATE (ROUNDS PER MINUTE FIRST MINUTE)	SUSTAINED RATE (ROUNDS PER MINUTE)
NAVAL GUNFIRE				
5-inch/38	15,000	0	20	15
5-inch/54	22,500	0	30	20
16-inch/50	37,000	0	1	1
WEAPON	TRAVERSE LIMITS (mile)	SHELL/FUZE COMBINATIONS**		
FIELD ARTILLERY				
105-mm HOWITZER	408R/400L	APICM, HE/PD, HE/DELAY, HE TRAINING INERT, HE/VT, HE/CP, RAP/PD, RAP/DELAY, WP/PD, WP/DELAY, WP/TRAINING INERT, SMOKE, ILLUM		
105-mm HOWITZER M102, TOWED	6400	SAME AS ABOVE		
155-mm HOWITZER M114A1, TOWED	448R/418L	CLGP, APICM, HE/PD, HE/DELAY, HE/TRAINING INERT, HE/VT, HE/CP, WP/PD, WP/DELAY, WP/TRAINING INERT, SMOKE, COLORED SMOKE, ILLUM		
155-mm HOWITZER M114A2, TOWED	SAME AS ABOVE	CLGP, DPICM, RAAMS, ADAM, APICM, HE/PD, HE/DELAY, HE/TRAINING INERT, HE/VT, HE/CP, RAP/PD, RAP/DELAY, WP/PD, WP/DELAY, WP/TRAINING INERT, SMOKE, COLORED SMOKE, ILLUM		
155-mm HOWITZER M108, TOWED	400R/400L 6400 SPEED	SAME AS ABOVE		
155-mm HOWITZER M108, SP	6400	SAME AS ABOVE		
155-mm HOWITZER M108A1/2/3, SP	6400	SAME AS ABOVE		
175-mm GUN M107, SP	553R/533L	HE/PD, HE/DELAY, HE/TRAINING INERT, HE/VT		
203-mm HOWITZER M115, TOWED	SAME AS ABOVE	APICM, HE/PD, HE/DELAY, HE/TRAINING INERT, HE/VT, HE/CP		
203-mm HOWITZER M110, SP	SAME AS ABOVE	SAME AS ABOVE		
203-mm HOWITZER M110A1, SP	SAME AS ABOVE	DPICM, APICM, HE/PD, HE/DELAY, HE/TRAINING INERT, HE/VT, RAP/PD, RAP/DELAY		
203-mm HOWITZER M110A2, SP	SAME AS ABOVE	SAME AS ABOVE		
** THESE REFLECT ONLY THOSE SHELL/FUZE COMBINATIONS THE OBSERVER MAY REQUEST—NOT ALL THOSE AVAILABLE.				

Table 9-1. Indirect-weapon systems capabilities (continued).

WEAPON	TRAVERSE LIMITS (mile)	SHELL/FUZE COMBINATIONS**
MORTARS		
60-mm MORTAR	250R/250L	HE/PD, HE/DELAY, HE/VT, WP/PD, WP/DELAY, WP/TRAINING INERT, ILLUM
81-mm MORTAR	95R/95L 6400 TRACK	HE/PD, HE/DELAY, HE/VT, WP/PD, WP/DELAY, ILLUM
107-mm MORTAR	125R/125L 6400 TRACK	HE/PD, HE/DELAY, HE/TRAINING INERT, HE/VT, WP/PD, WP/DELAY, ILLUM
120-mm MORTAR		
NAVAL GUNFIRE		
5-inch/38	6400***	HE/PD, HE/TRAINING INERT, HE/VT, HE/CP, AP/DELAY, WP/PD, WP/TRAINING INERT, ILLUM
5-inch/54	6400***	SAME AS ABOVE
167-inch/50	6400***	HE/PD, HE/TRAINING INERT, HE/VT, HE/CP, AP/DELAY
<p>* CHG: ONE ROUND PER MINUTE FOR 60 MINUTES, THEN ONE ROUND EVERY 3 MINUTES THEREAFTER.</p> <p>** THESE REFLECT ONLY THOSE SHELL/FUZE COMBINATIONS THE OBSERVER MAY REQUEST—NOT ALL THOSE AVAILABLE.</p> <p>*** WITH INCREASED MINIMUM RANGES WHEN FIRING OVER SHIP'S STRUCTURES.</p>		

Table 9-1. Indirect-weapon systems capabilities (continued).

b. **Insertion/Extraction Techniques.** Practical application of insertion/extraction techniques enables snipers to accomplish its mission and to exfiltrate with confidence. Leaders should tailor these techniques to unit assets; however, a working knowledge of all techniques listed in Chapter 7 is an invaluable tool to the team.

c. **Tracking/Counterattacking.** Footprints found by enemy trackers may indicate that snipers are in the area. A knowledge of countertracking techniques is a valuable tool to snipers not only to remain undetected but also to collect battlefield information. (See Chapter 8.)

d. **Survival Skills.** Survival training, incorporated with evasion and escape training, will better prepare the sniper in contingency planning during exfiltration and, possibly, infiltration. Judging enemy reaction is an impossible task therefore, the sniper may be forced to live off the land until linkup can be established with friendly forces.

e. **First Aid.** Adequate first-aid training can mean the difference between life and death until proper medical attention can be given.

f. **Communications Reporting Procedures.** A lack of timely, detailed reporting of battlefield information can hinder the overall success of maneuvering units. Properly formatted information (Chapter 6), precoordinated with communications personnel, ensures timely and accurate intelligence gathering. Snipers must train to use information reporting formats and procedures.

9-3. TRAINING NOTES

Snipers should be trained IAW DA Pamphlet 350-38. Training includes knowledge of equipment, ammunition, range and terrain requirements, and techniques of training and sustaining the skills of the sniper team.

a. **Equipment.** During all FIXs, each sniper should be equipped as indicated in Chapter 2. Team equipment should be available as needed.

b. **Known Distance Range Requirements.** A standard known-distance range, graduated in 100-meter increments from 100 to 1,000 meters, is required for zeroing and zero confirmation exercises. The target detection range facilities and procedures should permit observation and range determination to 800 meters.

c. **Field Firing Range Requirements.** The ideal field firing range should be on terrain that has been left in its natural state. The range should be a minimum of 800 meters in depth with provisions along the firing line for several sniper positions within each lane to provide a slightly different perspective of the target area (Table 9-2). Where time prevents construction of a separate range, it may be necessary to superimpose this facility over an existing field firing range.

(1) Iron maidens can be made out of 3/4-inch steel plate with a supporting frame. They should be cut out in the form of silhouettes 20 inches wide and 40 inches high. By painting these targets white, the sniper can easily detect where the bullet impacts on the target.

(2) Placing targets inside of window openings gives the sniper experience engaging targets that can be found in an urban environment. This is done by cutting a 15-inch by 15-inch hole in the center of a 36-inch by 48-inch plywood board. Then an E-type silhouette is emplaced on a hit-kill mechanism 2 to 4 meters behind the plywood.

(3) Targets placed inside a bunker-type position allows the sniper to gain experience firing into darkened openings. This position can be built with logs and sandbags with an E-type silhouette on a hit-kill mechanism placed inside.

METERS	TYPE TARGET
200	E-TYPE SILHOUETTE, HIT-KILL MECHANISM.
300	IRON MAIDEN SILHOUETTE; E-TYPE SILHOUETTE, HIT-KILL MECHANISM; MOVING TARGET MECHANISM.
325	E-TYPE SILHOUETTE, HIT-KILL MECHANISM.
375	E-TYPE SILHOUETTE, HIT-KILL MECHANISM, EMPLACED INSIDE A WINDOW.
400	E-TYPE SILHOUETTE, HIT-KILL MECHANISM, EMPLACED INSIDE A BUNKER.
500	IRON MAIDEN SILHOUETTE; MOVING TARGET MECHANISM, TRACKED VEHICLE WITH A HIT-KILL MECHANISM IN THE COMMANDER'S CUPOLA.
600 to 1,000	IRON MAIDEN SILHOUETTES.

Table 9-2. Field firing range requirements.

(4) Moving targets can be used at distances between 300 and 500 meters to give the sniper practical experience and to develop skill in engaging a moving target. Two targets, one moving laterally and one moving at an oblique, present a challenge to the sniper.

(5) Targets should be arranged to provide varying degrees of concealment to show enemy personnel or situations in logical locations (Figure 9-9, page 9-24). The grouping of two or more targets to indicate a crew-served weapon situation or a small unit is acceptable. Such arrangements, provided the targets can be marked, may require selective engagement by the sniper. The automatic target devices provide for efficient range operation and scoring.

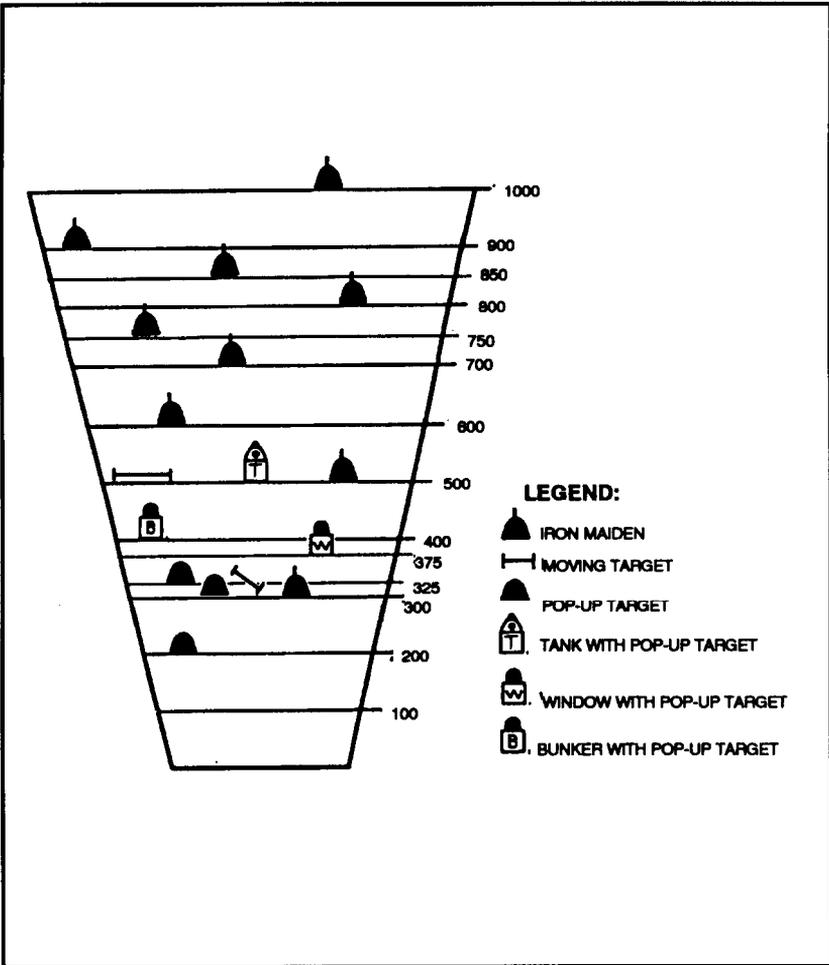


Figure 9-9. Lane layout.

9-4. EXAMPLE 5-DAY SNIPER SUSTAINMENT TRAINING PROGRAM

An example of a 5-day sniper sustainment training program is as follows:

DAY 1

TASK 1: Select sniper team routes and positions.

CONDITIONS: Given a review of selection of routes and positions, a situational sniper mission with a target area location that requires a minimum movement of 3,000 meters, a military map, a protractor, a felt-tip pen, an 8-inch-square clear plastic overlay, and one sheet of letter-size paper.

STANDARDS: Select and plot a primary and alternate route, objective rally point, and tentative final firing position that provides the best cover and concealment.

1. Prepare overlay with two grid reference marks; primary and alternate routes with arrows indicating direction of travel; minimum of three checkpoints, numbered in order; ORP; and a tentative final firing position.
2. Prepare a written log of movement. The sniper data book will contain the from-to grid coordinates, magnetic azimuths, distance, checkpoint number, objective rally point, and tentative final firing position.
3. Prepare overlay and written log of movement within 30 minutes.

TASK 2: Move while using individual sniper movement techniques.

CONDITIONS: Given a review of sniper movement techniques, a sniper weapon, a ghillie suit, and a flat, open area that allows trainers to observe movement techniques.

STANDARDS: Move correctly while using the designated movement technique.

1. Sniper low crawl.
2. Medium crawl.
3. High crawl.
4. Hands-and-knee crawl.
5. Walking.

NOTE: Trainers designate movement techniques and critique snipers on their movement.

TASK 3: React to enemy contact while moving as a member of a sniper team.

CONDITIONS: Given a review of sniper team movement techniques and reactions to enemy contact, sniper team's basic equipment and weapons, and an area of varying terrain with at least one danger area.

STANDARDS: React correctly to designated situations or danger areas.

1. Visual contact.
2. Ambush.
3. Indirect fire.
4. Air attack.
5. Danger area (linear and open area).

NOTE: Trainers designate situations and critique sniper teams on movement.

TASK 4: Describe target detection, selection, and observation techniques.

CONDITIONS: Given a review of target detection, selection, and observation techniques.

STANDARDS: Describe, orally or in writing, techniques used to observe, detect, and select targets.

TASK 5: Identify enemy uniforms, equipment, and vehicles.

CONDITIONS: Given a review of pictures or slides of enemy uniforms, equipment, and vehicles.

STANDARDS: Identify 7 of 10 enemy uniforms or rank insignia, 7 of 10 pieces of enemy equipment, and 7 of 10 enemy vehicles.

TASK 6: Describe range estimation techniques.

CONDITIONS: Given a review of range estimation techniques used by snipers.

STANDARDS: Describe, orally or in writing, range estimation techniques used by the sniper.

1. Eye methods.
2. Use of binoculars.
3. Use of M3A scope/M49 observation telescope.

TASK 7: Prepare a sniper range card.

CONDITIONS: Given a review of sniper range cards, a suitable target area, basic sniper equipment, and a sniper range card.

STANDARDS: Prepare a sniper range card complete with—

1. Grid coordinates of position.
2. Target reference point(s) (azimuth, distance, and description).
3. Left/right limits with azimuths.
4. Ranges throughout area.
5. Major terrain features.
6. Method of obtaining range/name.
7. Weather data.

TASK 8: Prepare a military sketch.

CONDITIONS: Given a review of sniper military sketching, a suitable area or object to sketch, and a blank military sketch sheet.

STANDARDS: Prepare a sketch complete with—

1. Grid coordinates of position.
2. Magnetic azimuth through center of sketch.
3. Sketch name and number.
4. Scale of sketch.
5. Remarks section.
6. Name/rank.
7. Date/time.
8. Weather data.

TASK 9: Maintain a sniper data book.

CONDITIONS: Given a review of the sniper data book and 20 blank sheets stapled together as a booklet.

STANDARDS: Maintain a sniper data book with a chronological listing of events that take place during the next three days and containing the following:

1. Grid coordinates of position.
2. Observer's name.

3. Date/time/visibility.
4. Sheet number/number of total sheets.
5. Series number/time and grid coordinate of each event.
6. Event.
7. Action taken.

NOTE: Trainers collect the sniper data books in three days.

DAY 2

TASK 1: Describe the fundamentals of sniper marksmanship.

CONDITIONS: Given a review of sniper marksmanship fundamentals.

STANDARDS: Describe, orally or in writing, the fundamentals of sniper marksmanship.

1. Position.
2. Breath control.
3. Aiming.
4. Trigger control.

TASK 2: Describe the effects of weather on ballistics.

CONDITIONS: Given a review of the effects of weather on ballistics.

STANDARDS: Describe, orally or in writing, the effects of weather on ballistics.

TASK 3: Describe the sniper team method of engaging targets.

CONDITIONS: Given a review of the sniper team method of engaging targets.

STANDARDS: Describe, orally or in writing, the sniper team method of engaging targets.

TASK 4: Describe methods used to engage moving targets.

CONDITIONS: Given a review of methods used to engage moving targets.

STANDARDS: Describe, orally or in writing, methods used to engage moving targets.

TASK 5: Describe methods used to engage targets at various ranges without adjusting the scope's elevation.

CONDITIONS: Given a review of methods used to engage targets at various ranges without adjusting the scope's elevation.

STANDARDS: Describe, orally or in writing, the methods used to engage targets at various ranges without adjusting the scope's elevation.

TASK 6: Zero rifle scope.

CONDITIONS: Given a sniper weapon, an M49 observation telescope, a suitable firing range, and 7 rounds of 7.62-mm special ball (M1 18) ammunition.

STANDARDS: Zero rifle scope within 7 rounds.

DAY 3

TASK 1: Zero iron sights.

CONDITIONS: Given a sniper weapon, a suitable firing range, and 12 rounds of 7.62-mm special ball ammunition.

STANDARDS: Zero iron sights on a sniper weapon within 12 rounds.

TASK 2: Engage moving targets.

CONDITIONS: Given a sniper weapon, an M49 observation telescope, a suitable firing range, and 10 rounds of 7.62-mm special ball (M118) ammunition.

STANDARDS: Engage 10 moving targets, from 300 to 500 meters, achieving a minimum of 7 hits.

TASK 3: Estimate range.

CONDITIONS: Given a sniper weapon system (M24), M19 binoculars, and 10 targets out to 800 meters.

STANDARDS: Correctly estimate range to 7 of the 10 targets using eye estimation (± 15 percent), binoculars (± 10 percent), or the M24 sniper weapon (± 5 percent).

TASK 4: Detect targets.

CONDITIONS: Given a suitable area with 10 military objects, binoculars, M49 observation telescope, and a scorecard.

STANDARDS: Detect, plot, and describe 7 of 10 military objects within 40 minutes.

TASK 5: Participate in a concealment exercise.

CONDITIONS: Given a sniper weapon, ghillie suit, three 7.62-mm blank rounds of ammunition, an area to conceal a sniper position, and 10 minutes to prepare.

STANDARDS: Without being detected, occupy a position, identify, and fire three blank rounds at a target (located 100 to 200 meters away) who is equipped with binoculars and an M49 observation telescope. Must score 7 of 10 points (Figure 9-10).

IF THE SNIPER—	POINTS		
	GIVEN	DEDUCTED	TOTAL
WAS DETECTED WITHOUT THE AID OF OPTICS (FIRST 2 MINUTES)	2	0	2
WAS DETECTED WITH THE AID OF OPTICS (18 MINUTES)	1	0	3
WAS DETECTED WHEN ASSISTANT TRAINER IS WITHIN 10 FEET OF SNIPER	1	0	4
PROPERLY IDENTIFIED THE NUMBER WITHIN 30 SECONDS	1	0	5
FAILED TO PROPERLY IDENTIFY THE NUMBER	0	3	2
FIRED FIRST SHOT, NOT DETECTED	4	0	6
FIRED SECOND SHOT, NOT DETECTED	1	0	7
MAINTAINED STABLE FIRING POSITION (SUPPORT)	2	0	9
PROPERLY ADJUSTED WEAPON'S SCOPE FOR RANGE AND WINDAGE	1	0	10
<p>NOTES:</p> <ol style="list-style-type: none"> 1. IF THE SNIPER IS CAUGHT TRYING TO IDENTIFY THE NUMBER SCORE 4 POINTS. 2. IF MUZZLE BLAST/FLASH IS DETECTED, DEDUCT 1 POINT FROM TOTAL SCORE. 3. FAILING TO COMPLY WITH TRAINING STANDARDS AND OBJECTIVES (SUCH AS UNNECESSARY MOVEMENT, PREMATURE FIRE, OUTSIDE OF PRESCRIBED BOUNDARIES) WILL RESULT IN TERMINATION OF THE EXERCISE AND A SCORE OF ZERO. 			

DAY 4

TASK 1: Quality on Qualification Table No. 1.

CONDITIONS: Given a sniper weapon, M49 observation telescope, a suitable firing range, Qualification Table No. 1 scorecard, and 40 rounds of 7.62-mm special ball (M1 18) ammunition.

STANDARDS: Engage targets from 200 to 700 meters, achieving a minimum of 140 points.

TASK 2: Engage targets in MOPP.

CONDITIONS: During daylight, given a sniper weapon, suitable firing range, MOPP suit, complete M25-series protective mask, M49 observation telescope, and 30 rounds of 7.62-mm special ball (M118) ammunition.

STANDARDS: While in MOPP, engage targets at 300 to 800 meters, achieving a minimum of 105 points.

TASK 3: Participate in a concealed movement exercise.

CONDITIONS: Given a sniper weapon, ghillie suit, two 7.62-mm blank rounds of ammunition, and a suitable area 1,000 meters long that is observable.

STANDARDS: Within 4 hours, move 600 to 800 meters; without being detected, occupy a position, identify, and fire two blank rounds at an enemy target who is equipped with binoculars and an M49 observation telescope. Must score 7 of 10 points (Figure 9-11).

IF THE SNIPER—	POINTS		
	GIVEN	DEDUCTED	TOTAL
FAILED TO CROSS THE FFL	0	0	0
CROSSED THE FFL	6	0	6
FIRED FIRST SHOT, NOT DETECTED	2	0	8
WAS NOT DETECTED WHEN ASSISTANT TRAINER IS WITHIN 10 FEET OF SNIPER	2	0	10
PROPERLY IDENTIFIED THE 1ST NUMBER	2	0	12
WAS NOT DETECTED WHEN ASSISTANT TRAINER IS WITHIN 5 FEET OF SNIPER	2	0	14
FIRED SECOND SHOT, NOT DETECTED	2	0	16
PROPERLY IDENTIFIED THE 2D NUMBER	2	0	18
MAINTAINED GOOD CAMOUFLAGE	1	0	19
MAINTAINED STABLE FIRING POSITION (SUPPORT)	1	0	20
<p>NOTES: 1. IF MUZZLE BLAST/FLASH IS DETECTED, DEDUCT 1 POINT FROM THE TOTAL SCORE.</p> <p>2. FAILING TO COMPLY WITH TRAINING STANDARDS AND OBJECTIVES (SUCH AS UNNECESSARY MOVEMENT, PREMATURE FIRE, OUTSIDE OF PRESCRIBED BOUNDARIES) WILL RESULT IN TERMINATION OF THE EXERCISE AND A SCORE OF ZERO.</p>			

Figure 9-11. Scoring for concealed movement exercise.

DAY 5

TASK 1: Qualify on Qualification Table No. 2.

CONDITIONS: Given a sniper weapon, M49 observation telescope, a suitable firing range, Qualification Table No. 2 scorecard, and 40 rounds of 7.62-mm special ball (M18) ammunition.

STANDARDS: Engage targets at 300 to 900 meters, achieving a minimum of 140 points.

TASK 2: Call for fire.

CONDITIONS: Given a review of call-for-fire procedures, two AN/PRC-77 radios, and a fire mission.

STANDARDS: Transmit the fire mission using proper radio procedures and the elements of the call-for-fire mission in sequence:

1. Observer identification.
2. Warning order.
3. Target location.
4. Target description.
5. Method of engagement (optional).
6. Method of fire and control (optional).

TASK 3: Locate target by grid coordinates.

CONDITIONS: Given a review of locating targets using the grid-coordinate method, a map of the target area, binoculars, compass, and a target.

STANDARDS: Determine and announce the six-digit coordinates of the target (within a 250-meter tolerance) within 30 seconds.

TASK 4: Locate a target by polar plot.

CONDITIONS: Given a review of target locating using the polar-plot method, a map of the target area, binoculars, a compass, and a target.

STANDARDS: Locate the target within 250 meters of the actual location. Announce the target location within 30 seconds after identification. Express direction to the nearest 10 roils and within 100 mils of actual direction. Express distance to the nearest 100 meters.

TASK 5: Locate target by shift from a known point.

CONDITIONS: Given a review of locating targets using the shift from a known-point method, a map of the target area, binoculars, a compass, a known point, and a target.

STANDARDS: Locate the target within 250 meters of the actual location and announce the target location within 30 seconds after identification. Express direction to the nearest 10 roils and within 100 roils of the actual direction. Express right or left corrections to the nearest 10 meters and range corrections to the nearest 100 meters.

TASK 6: Participate in a land navigation exercise during daylight.

CONDITIONS: Given a navigation course with at least four legs no less than 800 meters apart.

STANDARDS: Navigate the course without being detected by the observer-instructor. Preparing sketches, range cards, and or logs from the sniper data book can also be incorporated into the exercise.

NIGHT 5

TASK: Participate in a land navigation exercise during nightfall.

CONDITIONS: Given a navigation course (FM 21-26) with at least three legs no less than 500 meters apart. Observer-instructors can be placed on the course to detect any violations of noise and light discipline and deduct points from the sniper's score for violations.

STANDARDS: Navigate the course without being detected.

9-5. EMERGENCY DEPLOYMENT READINESS EXERCISE

Trainers use T&EOs from ARTEP 7-92-MTP: Move Tactically (7-5-1825); Select/Engage Targets (7-5-1869); Select/Occupy Firing Position (7-5-1871); Estimate Range (7-5-1872); and Debrief (7-5-1809) for additional sustainment training. An example of a battalion EDRE follows:

TIME	ACTION
0400	Battalion alerts sniper teams. 1. CQ relays uniform and packing list. 2. Sniper teams have two hours to report to battalion. 3. Sniper team leaders report to SEO when all of the team is accounted for. 4. Sniper team receives FRAGO from the SEO.
0600	Snipers depart battalion area by air, truck, or road march.
0800	Sniper teams arrive at range. 1. Sniper teams receive range/safety briefing. 2. Snipers receive issued ammunition. 3. Snipers zero weapons. 4. Sniper teams field/record fire on a range with targets positioned from 200 to 900 meters.
1100	Sniper teams depart range; move to concealed movement site by truck, road march, or tactical movement by teams.

TIME	ACTION
1200	<p>Sniper teams arrive at conceded movement site.</p> <ol style="list-style-type: none"> 1. Sniper teams receive briefing. 2. Site should be 800 to 1,000 meters long positioned with a observer- instructor as a target at one end with field table, M19 binoculars, M49 observation telescope, 8-inch by 8-inch international orange panels with white 5-inch number (1 to 9) painted on them, and two AN/PRC-77 radios for observer and assistant trainer. 3. Sniper will have four hours to move into his FFP, 50 to 200 meters from observer-instructor, and fire his first shot. 4. Sniper will have 30 seconds in which to identify number. 5. Sniper will fire second shot.

NOTE: All information is to be recorded in the sniper data book.

1600	<ol style="list-style-type: none"> 6. The entire exercise will be conducted without the sniper being detected by the observer-instructor. <p>Sniper teams depart for day/night land navigation exercise.</p> <ol style="list-style-type: none"> 1. Sniper teams start the exercise from a concealed movement site. 2. Sniper teams will be required to move to three different points. At each point they will perform one of the following <ul style="list-style-type: none"> • Draw a militaty sketch. • Draw a range card. • Do a target detection exercise. • Collect information/data. 3. All movement will be performed without being detected.
2000	<p>Night navigation exercise.</p> <ol style="list-style-type: none"> 1. Sniper teams start the exercise from the command post.

TIME	ACTION
	<ol style="list-style-type: none">2. They will move undetected to three different points.3. They will perform a detection exercise with the use of NODS.4. They will record all information in the sniper data book.5. After collecting necessary data, they will move to an extraction point and construct a sniper hide position. They will prepare for target reduction.
0500-0600	<p>Target reduction.</p> <ol style="list-style-type: none">1. Upon target reduction time, the sniper team will prepare for extraction.2. At extraction time, they will return to the battalion area.3. The SEO will debrief the sniper team.4. The SEO will conduct an after-action review.

NOTE: A written test could also be given as part of the EDRE.

9-6. RECORD FIRE TABLES

In accordance with DA Pamphlet 350-38, sniper qualification should occur quarterly. Sniper qualification involves the firing of two field fire tables. Qualification Table No. 1 grades target engagements primarily between 200 and 700 meters. Scores are recorded on DA Form 7329-R, Qualification Table No. 1 Scorecard (Figure 9-12, page 9-38). Qualification Table No. 2 grades on the longer ranges between 300 to 900 meters. Scores are recorded on DA Form 7330-R, Qualification Table No. 2 Scorecard (Figure 9-13, page 9-39). Although the sniper weapon system has an 800-meter maximum effective range, it can effectively hit targets at 1,000 meters. This is a challenge to the sniper and, with successful engagement, is a confidence builder in his ability. To qualify on firing tables No. 1 and No. 2, the sniper must adhere to the following standards:

NOTE: Completion of the DA Forms 7329-R and 7330-R is self-explanatory. Blank copies of these forms are located at the back of this manual for local reproduction.

- Achieve a 70 percent standard of 140 points out of a possible 200 points.

- Fire a first-round hit to equal 10 points.
- Fire a second round if the first round misses the target.
- Receive 5 points if the second round hits the target.
- Receive a score of 0 if the second round misses the target.
- Complete firing within 30 minutes. Total all first-round hits and multiply by 10; total second-round hits and multiply by 5.
- Add first-round and second-round hits for a total firing table score.
- Meet the 70 percent standard (140 points). Trainer checks satisfactory or unsatisfactory.

NOTE: Trainer and sniper sign the scorecard.

QUALIFICATION TABLE NO. 1 SCORECARD
Exercise Number _____

For use of this form, see FM 23-10. The proponent agency is TRADOC.
DATA REQUIRED BY PRIVACY ACT OF 1974.
AUTHORITY: 10 USC 3012(g)/Executive Order 9397. PRINCIPAL PURPOSE(S): Evaluates individual training. ROUTINE USE(S): Evaluates individual proficiency. SSN is used for positive identification purposes only. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION: Voluntary. Individuals not providing information cannot be rated/scored on a mass basis.

(circle one)
Record or practice

Last name	First	MI	Unit	SSN
SMITH	JOHN	D	48T-26-1738	Dec 2-29 IN
Date	Weather/visibility		Score	
0 FEB 93	CLOUDY 6K 3MMAS VISIBILITY		175	

TARGET (meters)	1st Round		2d Round		1st Round	2d Round	Miss	
	X	—	X	—	X	—		
500	X	—	X	—	X	—		
400	X	—	X	—	X	—		
325	X	—	X	—	X	—		
300	X	—	X	—	X	—		
200	X	—	X	—	X	—		
500	X	—	X	—	X	—		
400	X	—	X	—	X	—		
325	X	—	X	—	X	—		
300	X	—	X	—	X	—		
200	X	—	X	—	X	—		
16	X	—	X	—	X	—		
x10							3	x5= 175

ROY B. DUCKER
Trainer's signature

JOHN D. SMITH
Sniper's signature

DA FORM 7329-R, JUL 94

Figure 9-12. Example of completed DA Form 7329-R, Qualification Table No. 1 Scorecard.

QUALIFICATION TABLE NO. 2 SCORECARD
Exercise Number _____

For use of this form, see FM 23-10. The proponent agency is TRADOC.
DATA REQUIRED BY PRIVACY ACT OF 1974.
AUTHORITY: 10 USC 3012(g)/Executive Order 9397. PRINCIPAL PURPOSE(S):
Evaluates individual training. ROUTINE USE(S): Evaluates individual proficiency. SEN is used for positive identification purposes only. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION: Voluntary. Individuals not providing information cannot be rated/scored on a mass basis.

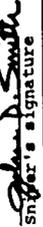
(circle one)

Last name	First	MI	Record or practice	SSN	Unit
SMITH	JIMM	D	SEC	457-28-1738	DSO 2-29 IN
Date	Weather/visibility				
17 FEB 93	CLEAR 60 UNLIMITED				

TARGET (meters)	1st Round		2d Round		Miss	TARGET (meters)	1st Round		2d Round		Miss
	X	—	X	—			X	—	X	—	
200	X	—	—	—	—	900	—	—	X	—	—
300	X	—	—	—	—	850	X	—	—	—	X
325	X	—	—	—	—	800	X	—	—	—	—
375	X	—	—	—	—	750	X	—	—	—	—
600	X	—	—	—	—	700	X	—	—	—	—
500	X	—	—	—	—	900	—	—	X	—	—
600	X	—	—	—	—	500	X	—	—	—	—
700	X	—	—	—	—	400	X	—	—	—	—
750	X	—	—	—	—	325	X	—	—	—	—
800	X	—	—	—	—	300	X	—	—	—	—
850	X	—	—	—	—						

17 x10 = 3 x5 = 185


 Trainee's signature


 Sniper's signature

DA FORM 7330-R, JUL 94

Figure 9-13. Example of completed DA Form 7330-R, Qualification Table No. 2 Scorecard.

9-7. M24 SNIPER MILES TRAINING

MILES training is an invaluable tool to simulate realistic combat training. Other than actual combat, the sniper's best means of displaying effectiveness as a force multiplier is through the use of the M24 sniper weapon system (MILES).

a. **Characteristics of the MILES Transmitter.** The M24 sniper weapon system MILES transmitter is a modified M16 transmitter. A special mounting bracket attaches the laser transmitter to the right side of the barrel (looking from the butt end) of the M24 and places it parallel with the line of bore. The laser beam output has been amplified and tightened to provide precision fire capability out to 1,000 meters. (For component information and instructions on mounting, zeroing, and operation, see TM 9-1265-211-10.)

b. **Training Value.** Using the M24 MILES, the trainer can enhance sustainment training in target engagement.

(1) **Selection of firing positions.** Due to transmitter modifications, the sniper must attain a firing position that affords clear fields of fire. Any obstruction (vegetation, terrain) can prevent a one-shot kill by deflecting or blocking the path of the laser beam. By attaining this type of position, the sniper will improve his observation and firing capabilities.

(2) **Target detection/selection.** Using MILES against multiple/cluster targets requires the sniper to select the target that will have the greatest effect on the enemy. The trainer provides instant feedback on the sniper's performance. Situations may be created such as bunkers, hostage situations, and MOUT firing. The hit-miss indicating aspects of MILES are invaluable in this type of training.

(3) **Range estimation.** The sniper must be highly skilled in range estimation (Chapter 3) to properly use the M24 sniper weapon system. The trainer's evaluation of this ability is as simple as the sniper pulling the trigger. When the range to the target is properly computed and elevation dialed on the M3A, one shot, either hit or miss, indicates a strength or weakness in the sniper's range estimation ability (if the fundamentals of marksmanship were properly applied).

(4) **Marksmanship.** A target hit (kill) with MILES is the same as one with live ammunition. Applying marksmanship fundamentals results in a first-round kill; the training value is self-evident.

c. **MILES Training Limitations.** The concept of MILES is to provide realistic training however, MILES is limited in its capabilities as applied to the sniper's mission of long-range precision fire.

(1) **Lack of external ballistics training.** A laser is a concentrated beam of light emitted by the MILES transmitter. It travels from the sniper's

weapon undisturbed by outside forces such as temperature, humidity, and wind. Lack of these effects may lull the sniper into a false sense of confidence. The trainer should constantly reinforce the importance of these factors. The sniper should make a mental note of changes that should be applied to compensate for these effects.

(2) ***Engagement of moving targets.*** The engagement of moving targets (Chapter 3) requires the sniper to establish a target lead to compensate for flight time of his bullet. Traveling in excess of 186,000 miles per second (speed of light), the MILES laser nullifies the requirement for target lead. Again, the sniper may be lulled into a false sense of confidence. The trainer should enforce the principles of moving target engagement by having the sniper note appropriate target lead for the given situation.