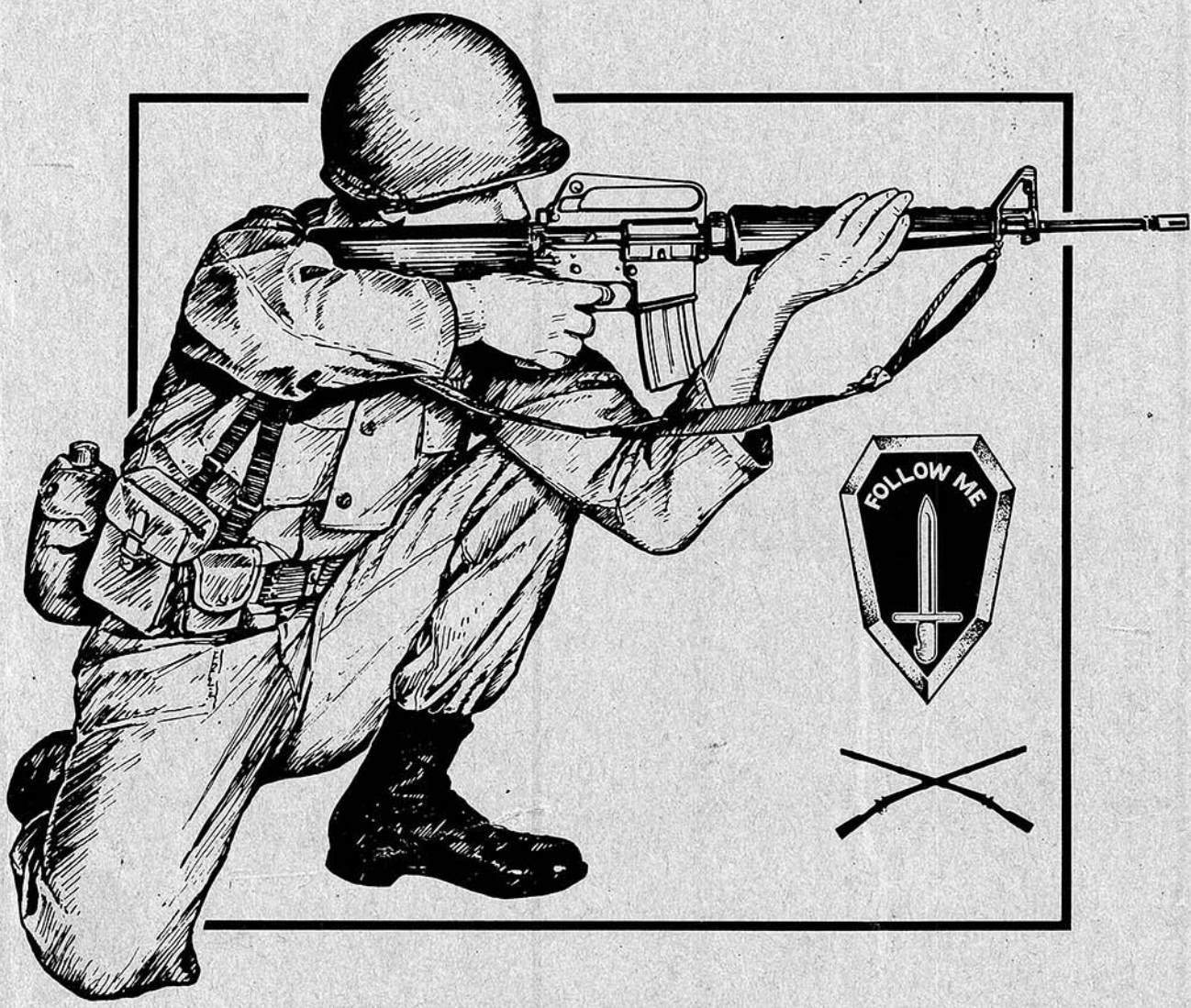


M16A1 RIFLE MARKSMANSHIP TRAINING PROGRAM OF INSTRUCTION



DIRECTORATE
OF
TRAINING DEVELOPMENTS
US ARMY INFANTRY SCHOOL
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This sheet is to be posted in the front of each M16A1 Rifle Marksmanship Training Program of Instruction.

PREFACE

This new guidance for rifle marksmanship training, provided in the form of a revised training program, was developed from a test of three rifle marksmanship proposals using the current program, Army Subject Schedule (ASUBJSCD) 23-72, as the baseline. The results of this test verify the notion that significant reductions in training time and ammunition expenditures associated with rifle marksmanship training can be achieved while maintaining current levels of proficiency. This new program is the most economical program currently available and it is applicable to both Active Army and Reserve Component units.

Of significant interest is the use of the caliber .22 Rimfire Adapter (RFA) Conversion Kit being fielded during 1978 to Training Aids Support Offices (TASO's). The RFA may be used during periods two, three and four (25 meter firing) in lieu of 5.56mm service ammunition (See paragraphs 1d, 4b(2)(d), 4c(2)(d), and 4d(2)(d)). It should also be noted that the 3.0 centimeter circle for establishing battlesight zero in period four has been replaced by the 5.2 centimeter circle, which more closely matches the capabilities of the weapon (See paragraph 4d(1)(d)).

This new training program is a product of the Infantry Center's cost and training effectiveness analysis for the M16A1 rifle; however, it is not a final product. The long term efforts are directed toward the development of a totally new concept to defeat the modern battlefield threat. As new technological and training progressions become available, this program of instruction will be revised and subsequent training techniques will be forwarded for integration into this program.

The training program has been approved for implementation Army-wide for use in upgrading marksmanship training in all units. Further, assistance may be obtained by writing the US Army Infantry School, ATTN: ATSH-I-V-A-S, Fort Benning, Georgia 31905 or telephone (AUTOVON) 835-7257 or 3981.

M16A1 RIFLE MARKSMANSHIP TRAINING

PROGRAM OF INSTRUCTION

Hours - 37

Rounds (5.56-mm) Fired Per Soldier - 334

1. TRAINING GOALS: To instill, develop, and maintain in the soldier the confidence and ability to detect and successfully engage, either as an individual or as a member of a unit, enemy targets within the range and capabilities of his weapon.
2. INFORMATION OBJECTIVE: Provide the soldier with the maximum practical range of the M16A1 rifle, the weight of the M16A1 rifle, the type of ammunition available for the M16A1 rifle, the names for all parts of the M16A1 rifle, and the eight steps in the functioning of the M16A1 rifle.

Trainer's Note: a. Qualification scores for rifle marksmanship are based on a possible 40 points. Every effort will be made to insure that scoring is accurate and opportunities for error are minimized. Qualification scores and ratings are:

Expert ----- 28-40
Sharpshooter- 24-27)
Marksman ---- 17-23
Unqualified - 16 and below

- b. If after firing record fire an individual has not attained the specified minimum qualification score (17), he should be provided intensive remedial training.
- c. Night Record Fire is evaluated on a GO/NO GO system. To be a GO, soldiers must attain 20 hits.
- d. Rimfire adapter may be substituted at ranges of less than 50 meters in those periods identified by an asterisk.
- e. The training program should be spaced over a period of 10 training days.

3. TRAINING OBJECTIVES:

TASK #1: Clear, disassemble, and assemble the M16A1 rifle and conduct function check.

CONDITIONS: Indoors or outdoors, given an M16A1 rifle and a dummy cartridge or similar pointed object.

STANDARD: Within 3 minutes, and in accordance with FM 23-9, para 2-3, 2-4, 2-5, 2-6, and 2-7. When assembled the weapon functions. NOTE: Weapon is disassembled to degree authorized for the user.

TASK #2: Disassemble, clean, and assemble the M16A1 rifle magazine.

CONDITIONS: Indoors or outdoors, given an M16A1 rifle magazine, a dummy cartridge or similar pointed object, and cleaning materials.

STANDARD: In accordance with FM 23-9, para 2-9, 2-10, and 2-11. After cleaning, it is free from rust and grit which would prevent functioning and when assembled, the magazine functions.

TASK #3: Load and unload the magazine and M16A1 rifle.

CONDITIONS: Indoors or outdoors, given an M16A1 rifle, magazine, and ammunition.

STANDARD: Magazine is loaded and unloaded without damage to the magazine or rounds IAW FM 23-9, para 2-12.

TASK #4: Perform immediate action on an M16A1 rifle with a stoppage.

CONDITIONS: Indoors or outdoors, given an M16A1 rifle and magazine.

STANDARD: In accordance with FM 23-9, para 2-16 and 2-17.

TASK #5: Perform preventive maintenance on the M16A1 rifle.

CONDITIONS: Indoors or outdoors, given an M16A1 rifle and maintenance equipment.

STANDARD: In accordance with FM 23-9, para 2-14 and 2-15.

TASK #6: Apply rifle sighting techniques.

CONDITIONS: Outdoors, given an M16A1 rifle and a target.

STANDARD: Sight alinement and picture IAW FM 23-9, para 3-3a.

TASK #7: Utilize the steady-hold factors.

CONDITIONS: From memory, outdoors, given an M16A1 rifle.

STANDARD: In accordance with FM 23-9, para 3-3b.

TASK #8: Assume the following firing positions:

- a. Prone (supported and unsupported).
- b. Kneeling (supported and unsupported).
- c. Foxhole.

CONDITIONS: Outdoors, given an M16A1 rifle and proper supports.

STANDARD: Position is IAW FM 23-9, para 3-4, within limits of individual body conformation.

TASK #9: Analyze shot group

CONDITIONS: On 25-meter range, given a rifle shot group analysis card (GTA 21-1-4), an M16A1 rifle, and adequate live firing.

STANDARD: In accordance with FM 23-9, para 3-8, and well enough to identify and correct errors in applying the integrated act of shooting.

TASK #10: Apply the integrated act of shooting and make sight changes.

CONDITIONS: On a 25-meter range, given an M16A1 rifle and adequate live firing.

STANDARD: Well enough to obtain a battlesight zero IAW FM 23-9, para 4-8 through 4-10.

TASK #11: Engage single and multiple E and F-type targets at ranges out to 300 meters.

CONDITIONS: On field firing range, using the various firing positions, given an M16A1 rifle and adequate firing.

STANDARD: In accordance with FM 23-9, chap 5, and well enough to indicate mastery of the integrated act of shooting by confirming 25-meter battlesight zero at 250 meters, center-of-target method of engagement, rapid reloading, and firing from the various firing positions.

TASK #12: Locate, mark, and determine range to single and multiple stationary and moving targets.

CONDITIONS: Using sight and sound on "target detection" and "crack-and-thump target detection" ranges.

STANDARD: In accordance with FM 23-9, chap 6, sec III and IV.

TASK #13: Apply the integrated act of shooting, center-of-target method of engagement, rapid reloading, and techniques of target detection.

CONDITIONS: While engaging single and multiple E and F-type targets at ranges from 50 to 300 meters on the record fire range, using various firing positions, given an M16A1 rifle and 40 rounds of ball ammunition.

STANDARD: In accordance with FM 23-9, chap 9, sec I and II, and well enough to receive a qualifying score.

TASK #14: Apply the integrated act of automatic rifle shooting using the automatic firing position.

CONDITIONS: On the 25-meter and standard automatic rifle or modified field fire ranges, given an M16A1 rifle, magazines, and adequate live firing.

STANDARD: In accordance with FM 23-9, para 7-8.

TASK #15: Apply night fire techniques.

CONDITIONS: While engaging E-type targets at ranges of 25 and 50 meters on night record fire range, given an M16A1 rifle and adequate ball and tracer ammunition.

STANDARD: In accordance with FM 23-9, chap 9, sec III, and well enough to obtain a GO on night fire.

4. SUGGESTED SEQUENCE OF EVENTS AND TIMES:

a. First Period. Orientation and Mechanical Training(4 hrs)

(1) Lesson Outline:

(a) Organize the class into eight-man or 10-man groups; check for clearance of weapons. Introduce the subject by outlining the scope of rifle marksmanship training.

(b) Point out the exterior nomenclature of the rifle.

(c) Explain, demonstrate, and conduct a practical exercise on clearing and disassembly.

(d) Discuss nomenclature by conference.

(e) Explain, demonstrate, and conduct practical work on assembly of the rifle and function check.

(f) Discuss functioning.

(g) Explain, demonstrate, and conduct practical work on disassembly and assembly of the magazine.

(h) Demonstrate and conduct practical exercise on loading and unloading the magazine.

(i) Demonstrate and conduct practical exercise on loading and unloading the rifle.

(j) Discuss stoppages, immediate action, and remedial action and conduct immediate

action practical exercise.

(k) Explain proper care, cleaning, and lubrication of the rifle to include the magazine.

(l) Discuss the various types of ammunition used.

(2) Administrative Requirements:

(a) References: FM 23-9.

(b) Facilities: Classroom.

(c) Training aids and equipment: GTA 7-1-22 or 9-6-34; 1 M16A1 rifle disassembly mat per soldier and per trainer; 1 M16A1 cleaning kit per soldier and per trainer; 1 table and chair per soldier and per trainer; 1 PA set; 1 M16A1 rifle w/magazine and bipod w/carrier per soldier and per trainer; 5 ctg 5.56-mm dummy rounds per soldier and per trainer.

(d) Ammunition: None.

b. Second Period. Preparatory Marksmanship Training..... (3 hrs)

(1) Lesson Outline:

(a) Discuss aiming to include sight alinement, placement of the aiming point, focus of the eye, and the importance of sight alinement.

(b) Discuss the steady-hold factors.

(c) Explain and demonstrate the foxhole firing position to include application of the steady-hold factors.

(d) Explain and demonstrate follow-through.

(e) Discuss the shot group analysis card and explain its practical application to training.

(f) Discuss safety requirements for live firing.

(g) Conduct a practical exercise firing nine rounds in three-round groups from the foxhole position.

(h) Review effects of errors. Critique sample shot groups, use of the firing data card, and shot group analysis.

(2) Administrative Requirements:

(a) References: AR 385-63; FM 23-9.

(b) Facilities: 25-meter range.

(c) Training aids and equipment: 1 chart of eight steady-hold factors; 1 sight picture model; 1 rifle shot group analysis chart (GTA 21-1-4) per soldier and per trainer; 1 shot group template per trainer; 1 safety paddle per safety NCO; 1 PA set; 1 M16A1 rifle per demonstrator; 1 25-meter target (NSN 6920-00-906-0169) w/sufficient E-type silhouettes and target frames per soldier; 1 M16A1 rifle w/1 magazine per soldier.

*(d) Ammunition: (See para 2d, page 1)

Ctg 5.56-mm - 9 per soldier, 20 per company demonstration.

Ctg tracer 5.56-mm - 20 per company demonstration.

c. Third Period. Preparatory Marksmanship Training..... (3 hrs)

(1) Lesson Outline:

(a) Review all factors of aiming to include the importance of good sight alinement.

(b) Explain and demonstrate the target box/transposition exercise.

(c) Conduct target box/transposition exercise.

(d) Discuss principles of sight adjustment and effects of sight changes.

(e) Discuss safety requirements for live firing.

(f) Conduct a practical exercise firing nine rounds in three-round shot groups from the foxhole position. If trainee has consistent three-round shot groups in a 5.2-centimeter circle, he will be allowed to make sight changes under cadre supervision.

(g) Concurrently with (f) above, explain, demonstrate, and conduct a practical exercise in assuming and applying the steady-hold factors in the prone unsupported and supported positions.

(2) Administrative Requirements:

(a) References: AR 385-63; FM 23-9.

(b) Facilities: 25-meter range, and concurrent training area suitable for practicing the prone unsupported and supported positions.

(c) Training aids and equipment: 1 target box/transposition device and disk per 2 soldiers; 1 shot group template per trainer; 1 shot group analysis card (GTA 21-1-4) per soldier and per trainer; 1 safety paddle per safety NCO; 1 PA set; 1 25-meter target (NSN 6920-00-906-0169) w/sufficient E-type silhouettes and target frames per soldier; 1 M16A1 rifle w/1 magazine per soldier.

*(d) Ammunition: Ctg ball 5.56-mm - 9 per soldier.

d. Fourth Period. Twenty-Five Meter Firing..... (4 hrs)

(1) Lesson outline:

(a) Review sight adjustments and effects of sight changes.

(b) Explain the principles of battlesight zeroing.

(c) Discuss safety requirements for live firing.

(d) Conduct battlesight zero firing (18 rounds from the foxhole position). (Weapon is zeroed when the three-round shot group is either touching, on, or within a 5.2-centimeter circle centered around the lower "X" of the Canadian Bull).

(e) Concurrently with (d) above, explain, demonstrate, and conduct a practical exercise in magazine changing and assuming and applying the steady-hold factors in the kneeling unsupported and supported firing positions.

(f) Review the prone unsupported position. Conduct a practical exercise with soldiers firing three rounds from the kneeling supported position and three rounds from the prone unsupported position.

(2) Administrative Requirements:

(a) References: AR 385-63; FM 23-9.

(b) Facilities: 25-meter range, and concurrent training area suitable for practicing the kneeling unsupported, kneeling supported, and prone unsupported firing positions.

(c) Training aids and equipment: 1 chart, principles of battlesight zeroing; 1 shot group template per trainer; 1 firing data card (DA Form 3016) per soldier; 1 shot group analysis card (GTA 21-1-4) per soldier and trainer; 1 safety paddle per safety NCO; 1 PA set; five 25-meter targets (NSN 690-00-906-0169) w/sufficient E-type silhouettes and target frames per soldier; 1 M16A1 rifle w/2 magazines per soldier.

*(d) Ammunition:

Ctg ball 5.56-mm - 24 per soldier.

Ctg ball 5.56-mm - 18 per soldier (limited to 10 percent of the company for remedial firing).

e. Fifth Period. Introduction to Field Firing..... (4 hrs)

(1) Lesson Outline:

(a) Explain range procedures and safety precautions to include a detailed explanation of target exposure times and the use of audible signal devices. Stress that, although time of target exposure is considered important, the practice of basic concepts cannot be overlooked. Corrections and critique between target exposures are essential.

(b) Explain and demonstrate the center-of-target technique of aiming. An explanation of the flat trajectory of the M16A1 rifle must be given while discussing the center-of-target technique of aiming.

(c) Discuss the optimum-time-to-fire concept.

(d) Conduct a practical exercise from the prone supported position firing six rounds at the 175-meter target to confirm the firer's 250-meter battlesight zero. This exercise should be performed at the range of 250 meters when targets are available at that range.

(e) Conduct a practical exercise in field firing from the foxhole, prone, and kneeling supported and unsupported positions using the center-of-target technique of aiming. An audible signal device should be used to notify firers when they have exceeded the time limit; however, the targets will remain up until each target has been engaged to allow maximum practice value.

(f) Concurrently with (d) and (e) above, 25-meter firing will be conducted for those individuals who have not yet obtained satisfactory three-round shot groups or who have not battlesight zeroed their weapon. Ammunition for remedial training on the 25-meter range is limited to 5 per cent of the company and 18 rounds per soldier.

(2) Administrative Requirements:

(a) References: AR 385-63; FM 23-9.

(b) Facilities: One field fire range, with a 25-meter range for corrective firing.

(c) Training aids and equipment: 1 shot group template per trainer on 25-meter corrective firing; 1 shot group analysis card (GTA 21-1-4) per trainer on 25-meter corrective firing; 1 Field Fire I Scorecard (Figure 1) per soldier; 1 safety paddle per safety NCO; 3 PA sets; 1 M16A1 rifle w/6 magazines per soldier; 25-meter targets (NSN 6920-00-906-0169) as needed for corrective firing; 1 M16A1 rifle per demonstrator; 1 M31A1 automatic target device; 1 E-type silhouette; 1 F-type silhouette.

(d) Ammunition:

Ctg ball 5.56-mm - 42 per soldier.

*Ctg ball 5.56-mm - 18 per soldier (limited to 5 percent of the company for remedial firing).

Ctg tracer 5.56-mm - 20 per company demonstration.

f. Sixth Period. Field Firing..... (4 hrs)

(1) Lesson Outline:

(a) Explain range procedures, safety, and organization of firers.

(b) Explain and demonstrate methods of engaging multiple targets.

(c) Conduct a practical exercise engaging single and multiple targets, practicing rapid reloading, and applying immediate action from the foxhole, prone supported, and kneeling unsupported positions.

(d) Concurrently with (c) above:

1. Introduce and explain the target detection requirement of rifle marksmanship training.

2. Explain and demonstrate target indications.

3. Discuss selection of an observation position and the method of search.

4. Discuss factors for marking and determining range(s) to single and multiple, stationary and moving targets.

FIELD FIRE I SCORECARD

Last Name, FI, MI	SSAN	Unit	Date	Time
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TABLE 1. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss
1	175	5		
2	175	5		
3	175	5		
4	175	5		
5	175	5		
6	175	5		
TOTAL				

TABLE 2. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss
1	75	5		
2	300	10		
3	175	5		
4	75	5		
5	300	10		
6	175	5		
TOTAL				

TABLE 3. KNEELING POSITION

RD	Range (M)	Time (Sec)	Hit	Miss
1	175	5		
2	75	5		
3	300	10		
4	175	5		
5	300	10		
6	75	5		
TOTAL				

TABLE 4. PRONE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss
1	75	5		
2	175	5		
3	300	10		
4	175	5		
5	75	5		
6	300	10		
TOTAL				

TABLE 5. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss
1	300	10		
2	175	5		
3	75	5		
4	300	10		
5	75	5		
6	175	5		
TOTAL				

TABLE 6. PRONE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss
1	175	5		
2	75	5		
3	300	10		
4	75	5		
5	300	10		
6	175	5		
TOTAL				

TABLE 7. KNEELING SUPPORTED

RD	Range (M)	Time (Sec)	Hit	Miss
1	300	10		
2	75	5		
3	175	5		
4	75	5		
5	300	10		
6	175	5		
TOTAL				

TABLE	HIT	MISS
1		
2		
3		
4		
5		
6		
7		
TOTAL		

SCORER'S SIGNATURE & LANE NO

Figure 1

5. Conduct practical exercise in locating, marking, and determining range(s) to single and multiple, stationary and moving targets.

(2) Administrative Requirements:

(a) References: AR 385-63; FM 23-9.

(b) Facilities: Field firing range, target detection range.

(c) Training aids and equipment: 1 target detection chart; aiming devices per range requirements; 1 Field Fire II Scorecard (Figure 2) per soldier; 1 safety paddle per safety NCO; 2 PA sets; 1 M16A1 rifle w/6 magazines per soldier; 1 M16A1 rifle per demonstrator; 1 blank firing adapter per target detection demonstrator.

(d) Ammunition:

Ctg ball 5.56-mm - 36 per soldier and company demonstration.
Ctg blank 5.56-mm - 60 per company.

g. Seventh Period. Practice Record Fire..... (4 hrs)

(1) Lesson Outline:

(a) Orient soldiers on the conduct of practice record fire.

(b) Explain range procedures and safety procedures.

(c) Review center-of-target technique of aiming and techniques for engaging multiple targets.

(d) Conduct practice record fire.

(e) Concurrently with (d) above:

1. Explain the crack-and-thump technique of determining the location of and the range to a concealed target.

2. Conduct a crack-and-thump practical exercise on a crack-and-thump target detection range similar to the one outlined in FM 23-9, para 6-15.

(2) Administrative Requirements:

(a) References: AR 385-63; FM 23-9.

(b) Facilities: Record fire range and crack-and-thump target detection range.

(c) Training aids and equipment: 1 Practice Record Fire Scorecard (Figure 3) per soldier; 1 chart, outline of course; 1 safety paddle per safety NCO; 2 PA sets; 1 M16A1 rifle w/4 magazines per soldier.

(d) Ammunition:

Ctg ball 5.56-mm - 40 per soldier.
Ctg ball 5.56-mm - 50 per company.
Ctg ball 7.62-mm MLB - 500 per company.

h. Eighth Period. Record Fire..... (5 hrs)

(1) Lesson Outline:

(a) Orient soldiers on the conduct of record fire.

(b) Explain range procedures and safety precautions.

(c) Conduct record fire.

(d) Concurrently with (c) above:

1. Discuss advantages and disadvantages of automatic fire.

FIELD FIRE II SCORECARD

Last Name, FI, MI	SSAN	Unit	Date	Time
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TABLE 1. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss
1	75	10		
2	175			
3	175	15		
4	300			
5	300	10		
6	175	15		
7	300			
8	300	10		
TOTAL				

TABLE 2. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss
1	75	10		
2	175			
3	175	15		
4	300			
5	300	10		
6	175	15		
7	300			
8	75	5		
TOTAL				

TABLE 3.

RD	Range (M)	POSITION	Time (Sec)	Hit	Miss
1	75	KNEELING	10		
2	175				
3	175	PRONE SUPPORTED	15		
4	300				
5	75	KNEELING	5		
6	175	PRONE	15		
7	300				
8	300	PRONE	10		
9	75	KNEELING	10		
10	175				
11	175	PRONE SUPPORTED	15		
12	300				
13	300	PRONE SUPPORTED	10		
14	75	KNEELING	5		
15	75	KNEELING	10		
16	175				
17	75	PRONE	20		
18	175				
19	300				
20	300	PRONE	10		
TOTAL					

TABLE	HIT	MISS
1		
2		
3		
TOTAL		

SCORER'S SIGNATURE AND LANE NO

PRACTICE RECORD FIRE SCORECARD

Last Name, FI, MI	SSAN	Unit	Date	Time
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TABLE 1. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss	No Fire
1	200	5			
2	150	5			
3	250	10			
4	300	10			
5	50	5			
6	150	5			
7	100	5			
8	250	10			
9	200	5			
10	100	5			
TOTAL					

TABLE 2. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss	No Fire
1	100	15			
2	250				
3	50	15			
4	300				
5	100	10			
6	150				
7	50	20			
8	150				
9	250	5			
10	200				
TOTAL					

TABLE 3. PRONE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss	No Fire
1	50	5			
2	200	5			
3	100	5			
4	150	5			
5	300	10			
6	250	10			
7	50	5			
8	200	5			
9	150	5			
10	250	10			
TOTAL					

TABLE 4. PRONE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss	No Fire
1	100	15			
2	250				
3	300	10			
4	50	10			
5	200				
6	150	15			
7	300				
8	50	10			
9	200				
10	100	5			
TOTAL					

TABLE	HIT	MISS	NO FIRE
1			
2			
3			
4			
TOTAL			

SCORER'S SIGNATURE AND LANE NO

Figure 3
10

2. Discuss and demonstrate the eight automatic fire steady-hold factors as they apply to the soldier in the bipod supported prone position and the pointing technique used for night firing.

3. Review rapid magazine changing.

4. Conduct practical exercise on rapid magazine changing and assuming automatic firing position.

(2) Administrative Requirements:

(a) References: AR 385-63; FM 23-9.

(b) Facilities: Record fire range with concurrent training area suitable for practice in assuming the bipod supported prone position.

(c) Training aids and equipment: 1 Record Fire Scorecard (Figure 4) per soldier; 1 chart, outline of course; 1 safety paddle per safety NCO; 1 PA set; 1 M16A1 rifle w/4 magazines per soldier.

(d) Ammunition:

Ctg ball 5.56-mm - 40 per soldier.

Ctg ball 5.56-mm - 40 per soldier (limited to 8 percent of company for remedial firing).

i. Ninth Period. Twenty-five Meter Automatic Firing..... (3 hrs)

(1) Lesson Outline:

(a) Explain advantages and disadvantages of automatic fire.

(b) Conduct a comparison test using five soldiers firing one magazine, 20 rounds each, in the automatic and semiautomatic modes at 25 meters.

Trainer's Note: The test is conducted with E-type silhouette targets on a 25-meter range. Soldiers will fire automatic fire using a 20-round burst and then semiautomatic fire at a new target (same type and range). Targets will be shown to the entire unit so soldiers can make their own comparison of the effectiveness of semiautomatic versus automatic fire.

(c) Explain the eight automatic rifle steady-hold factors as they apply to a soldier in the bipod supported prone position.

(d) Review aiming and trigger control.

(e) Orient soldiers on the conduct of live fire exercise.

(f) Explain range procedures and safety precautions.

(g) Conduct a practical exercise firing the M16A1 rifle in the automatic mode at 25-meter targets.

1. Soldiers fire three three-round magazines using a three-round burst at standard 25-meter zero targets. Shot group templates should be used to check the groupings to confirm battlesight zero from the automatic fire position.

2. Soldiers fire three six-round magazines using three-round bursts at configuration B and C on the 25-meter automatic fire target. Templates are again used to check groupings.

3. Soldiers fire an 18-round magazine using three-round bursts at configuration E on the automatic fire target.

(2) Administrative Requirements:

(a) References: AR 385-63; FM 23-9.

(b) Facilities: 25-meter range.

RECORD FIRE SCORECARD

Last Name, FI, MI	SSAN	Unit	Date	Time
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TABLE 1. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss	No Fire
1	50	5			
2	200	5			
3	100	5			
4	150	5			
5	300	10			
6	250	10			
7	50	5			
8	200	5			
9	150	5			
10	250	10			
TOTAL					

TABLE 2. PRONE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss	No Fire
1	100	15			
2	250				
3	300	10			
4	50	10			
5	200				
6	150	15			
7	300				
8	50	10			
9	200				
10	100	5			
TOTAL					

TABLE 3. PRONE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss	No Fire
1	150	5			
2	300	10			
3	100	10			
4	200				
5	150	15			
6	250				
7	100	15			
8	300				
9	200	15			
10	300				
TOTAL					

TABLE 4. FOXHOLE POSITION

RD	Range (M)	Time (Sec)	Hit	Miss	No Fire
1	100	10			
2	200				
3	250	20			
4	300				
5	100	15			
6	250				
7	250	10			
8	300	10			
9	50	10			
10	100				
TOTAL					

TABLE	HIT	MISS
1		
2		
3		
4		
TOTAL		

SCORER'S SIGNATURE & LANE NO _____
 QUALIFICATION SCORES AND RATING:
 POSSIBLE 40
 EXPERT 28-40
 SHARPSHOOTER 24-27
 MARKSMAN 17-23
 UNQUALIFIED 16-BELOW

QUALIFICATION (CIRCLE ONE):
 EXPERT, SHARPSHOOTER, MARKSMAN, UNQUALIFIED

FIRER'S QUALIFICATION SCORE _____

OFFICER'S SIGNATURE _____

(c) Training aids and equipment: 1 chart, fundamentals of automatic rifle marksmanship; 1 shot group template per trainer; 1 safety paddle per safety NCO; 1 25-meter automatic fire target (NSN 6920-00-457-9361) per soldier; 1 M16A1 bipod per soldier; 1 M16A1 rifle w/4 magazines per soldier; 1 PA set; 1 M16A1 rifle w/4 magazines per demonstrator.

(d) Ammunition:
 Ctg ball 5.56-mm - 45 per soldier.
 Ctg ball 5.56-mm - 200 per company demonstration.

j. Tenth Period. Night Record Firing..... (3 hrs)

(1) Lesson Outline:

- (a) Orient soldiers on the conduct of night record fire.
- (b) Explain range procedures and safety precautions.
- (c) Explain the principles of night vision and the night fire pointing technique in both the semiautomatic and automatic modes of firing.
- (d) Conduct a practical exercise firing the night record fire course.
 - 1. Practice fire three rounds at 25 meters using the semiautomatic mode.
 - 2. Record fire ten rounds at 25 meters using the semiautomatic mode.
 - 3. Practice fire three rounds at 25 meters using the automatic mode (one three round burst) in the bipod supported prone position. First round should be tracer.
 - 4. Record fire thirty rounds at 25 meters using the automatic mode (ten three-round bursts) in the bipod supported prone position.
 - 5. Record fire ten rounds at 50 meters using the semiautomatic mode in the prone unsupported position.
 - 6. Practice fire three rounds at 50 meters using the automatic mode (one three-round burst). First round should be tracer.
 - 7. Record fire thirty rounds at 50 meters using the automatic mode (ten three-round bursts).

Trainer's Note: The indicator lights of the M40 devices are placed in cylindrical metal containers (2 inches in diameter and 5 inches long) which are locally fabricated. A 4-inch square piece of reflective material is placed at the center of mass of the standard red light filter issued with the M40 device and even-numbered targets have a blue colored filter. This system assists the soldier in identifying his target. Targets should be a minimum of 5 meters apart. Targets will be exposed only 10 times at each range and for a duration of 20 seconds for each exposure. The soldier must attain 20 hits to be classified as a "GO" on night record fire.

(2) Administrative Requirements:

- (a) References: AR 385-63; FM 23-9.
- (b) Facilities: Night fire range, modified M31A1 target devices w/M40 counting devices.
- (c) Training aids and equipment: Night Record Fire Scoresheets (Figure 5), number depends on unit size; 1 flashlight w/filter per safety NCO; 1 PA set; 1 M16A1 rifle bipod per soldier.

* (d) Ammunition:
 Ctg ball 5.56-mm - 87 per soldier
 Ctg ball 5.56-mm - 87 per soldier (limited to 8 percent of the company for remedial firing).
 Ctg tracer 5.56-mm - 2 per soldier.
 Ctg tracer 5.56-mm - 2 per soldier (limited to 8 percent of the company for remedial firing).

Figure 4 12

