

RESTRICTED

The information given in this document is not to be communicated, either directly or indirectly, to the Press or to any person not authorized to receive it.

26/G.S. Publications/627

## SMALL ARMS TRAINING

### Volume 1, Pamphlet No. 18, 1942

#### AMENDMENTS (No. 3)

1. Page ii.—CONTENTS APPENDICES.—*Below* last line *insert* :—  
XIII. 4·2-inch mortar practice... .. 53
2. Page 9.—*Delete* " Vickers M.G. application " and all detail.
3. Appendix I (as promulgated by Amendments (No. 2) notified in A.C.I. 327 of 1944), facing page 12, Serial 3.  
Col. 13.—*Delete* " 105 " and *substitute* " 655 " in each case.  
Col. 14.—*Delete* " 405 " and " 375 " and *substitute* " 955 " and " 925 " respectively.
4. Pages 18 to 22.—*Delete* Appendix V, Parts I and II and *substitute* new Parts I and II (pages 18 to 22) attached hereto.
5. Page 24. Para. 5, sub-para. (h), line 2.—*Delete* from " truck " to " readiness " and *substitute* " carriers at the R.V."  
Sub-para. (i) (i), line 1.—*Delete* " Four " and *substitute* " Five."  
Line 2.—*Delete* " section corporal " and *substitute* " numbers one."
6. Page 28. Para. 11, sub-para. (e).—*Delete* from " and " in line 6 to " trucks " in line 7.
7. Page 30. Appendix VI.  
Serial 1, Col. 4, line 4.—*Delete* " Practice 4 " and *substitute* " Practice 5 (b)".  
Col. 5.—*Delete* 1, 3 & 4 and *substitute* 4 and 5 (a).  
Serial 2, Col. 5.—*Delete* " 2 " and *substitute* " 3 ".

RESTRICTED  
The information given in this document is not to be communicated  
either directly or indirectly to the press or to any person not  
authorized to receive it.

U.S. Government Printing Office

# SMALL ARMS TRAINING

## Volume I, Pamphlet No. 18, 1943

### AMENDMENTS (No. 3)

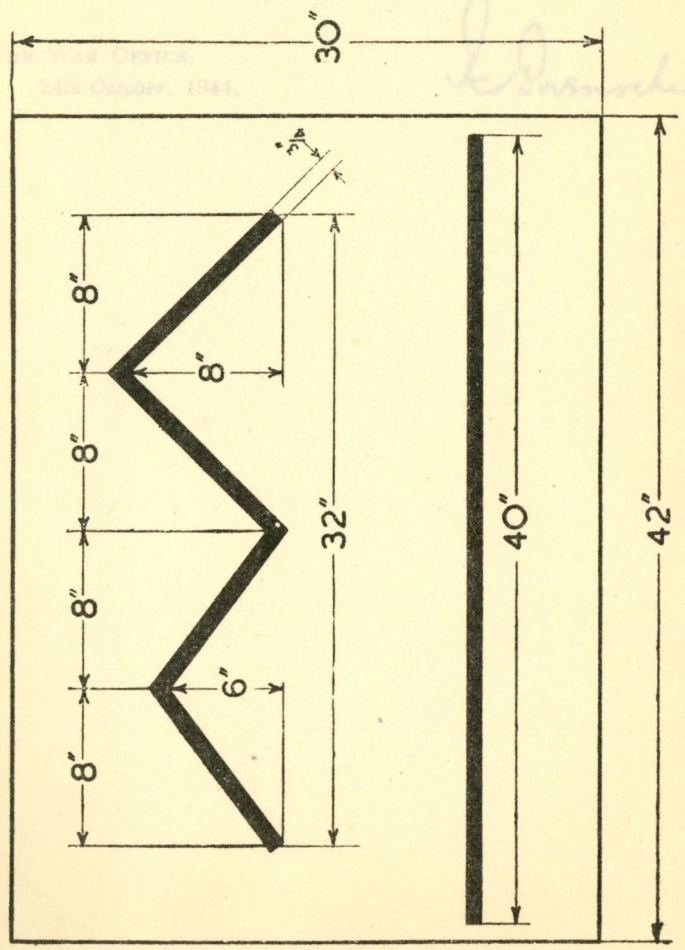
1. Page 11—CONTENTS APPENDICES—Below last line  
insert:—  
XIII 4-2-inch mortar practice ... .. 58
2. Page 9—Delete "Vickers M.G. application" and all detail.
3. Appendix I (as promulgated by Amendments (No. 2) notified in  
A.C.I. 327 of 1941), facing page 12, Serial 3  
Col. 13—Delete "105" and substitute "625" in each case.  
Col. 14—Delete "105" and "375" and substitute "625" and  
"925" respectively.
4. Pages 18 to 22—Delete Appendix V, Parts I and II and  
substitute new Parts I and II (pages 18 to 22) attached hereto.
5. Page 24, Para. 5, sub-para. (a), line 2—Delete from "truck"  
to "readiness" and substitute "carries at the R.V."  
Sub-para. (a) (i), line 1—Delete "Four" and substitute "Five".  
Line 2—Delete "section corporal" and substitute "numbers one".
6. Page 28, Para. 11, sub-para. (e)—Delete from "and" in  
line 6 to "trucks" in line 7.
7. Page 30, Appendix VI  
Serial 1, Col. 4, line 4—Delete "Practice 4" and substitute  
"Practice 5 (b)".  
Col. 5—Delete 1, 2 & 4 and substitute 4 and 5 (a).  
Serial 2, Col. 5—Delete "3" and substitute "3".

- Serial 3, Col. 5.—Delete "5" and substitute "6".
- Serial 4, Col. 5.—Delete "6" and substitute "8".
- Serial 5, Col. 2.—Delete "6 ft" and substitute "4 ft".
- Column 5.—Delete "7" and substitute "7 and 9".

8. Page 31.—Delete diagram and substitute:—

Amdt. 3  
Oct. 1944

\* TARGET FOR PRACTICE 3 M.M.G. COURSE



9. Pages 46 to 48.—*Delete* Appendix X and *substitute* new Appendix X (pages 46 and 47) attached hereto.
10. At the end of pamphlet *insert* new Appendix XIII (pages 53 and 54) attached hereto.

---

*By Command of the Army Council,*

THE WAR OFFICE,  
24th October, 1944.

*I. Darnley.*

**APPENDIX V**  
**M.M.G. COURSE**

Amdt. 3  
Oct. 1944

**PART I**

**TO BE FIRED ON THE 30 YARDS RANGE**

**Note.**—The practices in Part I should be fired practice by practice as the appropriate stage of training is reached.

Practice No.	Practice	Target	Rounds	Detail	Remarks
1	Service bursts	Stop butts	50	<p><i>Object.</i>—To give the firer experience in firing service bursts.</p> <p>(i) Rounds will be spaced in two groups of 25 rounds.</p> <p>(ii) This practice will be fired on conclusion of the 30-yard range characteristics demonstration.</p> <p>(iii) The instructor will load and aim the gun at a point on the stop butts.</p>	It should be explained that this is the normal burst on Service, though such bursts are not fired during Part I.
2	Application of service bursts. (a)	3 coloured plates	75	<p><i>Object.</i>—To give the firer further practice in the application of service bursts, also to give him confidence in himself and the weapon.</p> <p>(i) Rounds will be spaced in three groups of 25 rounds.</p> <p>(ii) Gun will be loaded and sights set at the required elevation to hit the target.</p> <p>(iii) The order "Fire" will be given.</p> <p>(iv) The firer will fire a service burst at each target.</p>	This practice should be carried out as soon as the firer has had practice in Lessons 47, 50 and 51.
	(b)	Landscape target (see S.A.T., Vol. I, Pamphlet No. 1, Appendix III)	75	<p>(i) Harmonization of sights will be carried out before this practice begins.</p> <p>(ii) Rounds will be spaced in three groups of 25 rounds.</p> <p>(iii) Three targets will be indicated to the firer.</p> <p>(iv) The gun will be loaded and sights set at the harmonized range.</p> <p>(v) The firer will fire a service burst at each target.</p>	

18

Practice No.	Practice	Target	Rounds	Detail	Remarks
3	Traversing	Horizontal and oblique lines on a white screen (see Appendix VI)	100	<p><i>Object.</i>—To practise the firer in the regulation tap for traversing a horizontal and an oblique target.</p> <p>(i) Rounds will be spaced in four groups of 25 rounds.</p> <p>(ii) Bursts of 5 rounds will be fired. The instructor will tap the firer after each burst of 5 rounds.</p> <p>(iii) The firer is ordered to traverse from one end of the line, the order "Stop" being given after 25 rounds have been fired. He is then ordered to traverse from the other end.</p> <p>(iv) The procedure is carried out first on the horizontal and then on the oblique lines.</p>	<p>(i) The firer will test his clamp before the practice.</p> <p>(ii) The M.P.I. of the groups should be 4 inches apart laterally.</p>
4	Indirect Fire Practice	White screen with aiming mark	15	<p><i>Object.</i>—To practise the firer using the dial sight.</p> <p>(i) Rounds to be spaced in three groups of 5 rounds.</p> <p>(ii) The aiming post is put out and the dial sight fixed to the gun.</p> <p>(iii) The firer will be ordered to lay with the tangent sight on the aiming mark.</p> <p>(iv) The aim is checked by the instructor and the tangent sight lowered.</p> <p>(v) The range drum on dial sight will be set at 450 yards and the bubble levelled by means of the angle of sight drum; the collimator will then be aligned on the aiming post.</p> <p>(vi) The orders "Load" and "Fire" will be given.</p> <p>(vii) After firing the first group the firer will be given a switch of not less than 20 minutes and not more than 1<sup>o</sup> 30', in multiples of 10 minutes, Right or Left, before being given the order to fire the second group.</p> <p>(viii) Before firing the final group the firer will be given, in addition to a switch as for second group, a range correction of 400 yards. The bubble must be levelled by means of the elevating wheel before firing this group.</p>	<p>(i) After each correction has been applied the instructor will check the aim before allowing the practice to continue.</p> <p>(ii) The M.P.I. of the second group should be displaced 4 inches each 15 minutes of switch R. or L. of the first group.</p> <p>(iii) The M.P.I. of the final group should be displaced from the second as above, and approximately 8 inches above or below.</p> <p>(iv) The firer will keep the thumbpiece pressed as for service bursts</p>

19

Practice No.	Practice	Target	Rounds	Detail	Remarks
5 (a)	Immediate Action (Day)	White screen with aiming mark	20	<p><i>Object.</i>—To practise immediate action by day.</p> <p>(i) The belt will be prepared beforehand with a series of stoppages.</p> <p>(ii) The gun will be mounted, loaded, and laid on the aiming mark.</p> <p>(iii) The order "Fire" will be given.</p> <p>(iv) The gun will be knocked off its alignment by the instructor as each stoppage occurs.</p>	Accuracy in relaying will be judged from the size of the complete group.
(i)	Immediate Action (Night)	Plain white screen	20	<p><i>Object.</i>—To practise immediate action by night.</p> <p>(i) The belt will be prepared beforehand with a series of stoppages.</p> <p>(ii) The gun will be mounted, dialsight fixed and aiming lamp put out.</p> <p>(iii) The gun will be laid, using the tangent sight, on the centre of the screen which will be illuminated by a lamp.</p> <p>(iv) When the range is clear, the order "Load" will be given.</p> <p>(v) The range drum will be set at 450 yards and the bubble levelled by means of the angle of sight drum; the collimator will be aligned on the aiming lamp.</p> <p>(vi) The order "Fire" will be given.</p> <p>(vii) The gun will be knocked off its alignment by the instructor as each stoppage occurs.</p>	<p>(i) Accuracy in relaying will be judged from the size of the complete group.</p> <p>(ii) This practice must be fired in darkness.</p>
TOTAL, PART I ...			355		

20

## PART II

## TO BE FIRED ON OPEN RANGE AT 600 YARDS

**Notes.**—(1) The practices of this part will be fired consecutively.  
 (2) Although no form of scoring is shown, in practices 7, 8 and 9 the firer should be told how many hits he has obtained on the target.

Practice No.	Practice	Target	Rounds	Detail	Remarks
6	Registration	Prepared patch on stop butts	75	<p><i>Object.</i>—To register the correct range and wind allowance before applying fire.</p> <p>(i) Rounds will be spaced in groups of 25.</p> <p>(ii) The gun will be mounted and loaded. On the order being given for the practice to begin the firer will engage the patch and register the range and wind allowance necessary to hit the centre of it.</p>	If observation of strike is difficult, the position of the M.P.I. of each burst, with reference to the centre of the patch, will be signalled from the butts on a 4-foot target hoisted for this purpose.
7	Obscuration of target	4 feet	25 to be fired in one burst	<p><i>Object.</i>—To test the man in engaging a target using a gun aiming mark.</p> <p>(i) The gun will be mounted and loaded.</p> <p>(ii) The target will be indicated to the firer.</p> <p>(iii) The range and order "Lay" will be given and the firer will set the sights and lay at the aiming mark.</p> <p>(iv) The order "Pick up Gun Aiming Mark" will be given; whereupon the firer will act in accordance with the procedure given in S.A.T., Vol. 1, Pamphlet No. 7, Part II, Lesson 76.</p> <p>(v) The gun will be tapped off slightly and the elevating wheel turned by the supervising N.C.O.</p> <p>(vi) On the command "Fire," the firer will engage the target with the aid of the gun aiming mark.</p> <p>(vii) Time allowed—35 seconds.</p>	

21

Practice No.	Practice	Target	Rounds	Detail	Remarks
8	Tapping Right and Left	Coloured screen (see Appendix VI)	125	<p><b>Object.</b>—To test the practical application of fire on a target of little width which will not be spaced, but bursts of 25 rounds will be fired.</p> <p>(i) Rounds will be spaced, but bursts of 25 rounds will be fired.</p> <p>(ii) The gun will be mounted and loaded but not laid on the screen. "Fire" the firer will engage the target by tapping right and left one tap.</p> <p>(iii) On the order right and left one tap.</p> <p>(iv) He will fire 5 bursts and may check his aim and if necessary relay twice only, immediately before the third and fifth bursts.</p>	
9	Service Application	4-feet	75	<p><b>Object.</b>—To test the firer in mounting his gun in the lowest service position and engaging a fleeting target.</p> <p>(i) Gun and tripod will be laid on the ground about 3 paces in rear of the spot on which the gun is to be mounted. Tripod on the left of the gun, legs to the rear, rear leg set for the sitting position. Sights at zero. Ammunition liner and condenser can will be in a convenient position on the firing point.</p> <p>(ii) The position at which the firer's target will appear will be indicated to him.</p> <p>(iii) On a signal from the firing point the target will be hoisted: the exposure will be timed from the butts.</p> <p>(iv) As soon as the target appears the gun will be brought into action in the lowest service position and fire ordered on the target without further word of command.</p> <p>(v) Time allowed—150 seconds.</p>	
<b>TOTAL</b>			300		

## APPENDIX X

Amdt. 3  
Oct. 1944

## 3-INCH MORTAR PRACTICE

1. The firing of the mortar practice differs from the range practices of other weapons in the infantry battalion in that it cannot be regarded as a range course, nor is it a test for individual members of the mortar platoon. It is designed to practise the fire controllers and their understudies in the engagement of targets with high explosive and in the method of producing a smoke screen, and to exercise all ranks in battle drill and in the handling of live ammunition.

The practices are divided into three parts as enumerated below.

2. **Part 1.**—This is sub-divided into two parts, one with the O.P. on the line mortar—target, the other with the O.P. displaced to a flank.

(a) **Object.**—The engagement of targets by the section, to exercise potential fire controllers and their understudies in the rules of ranging, and mortar numbers in the handling of live ammunition.

(b) **General.**—In all shoots the mortars will be brought into action on a zero line. Control from the O.P. to the mortar position will be by telephone or wireless.

(c) **Conduct.**—The fire controllers to be exercised should be assembled near the O.P. under the instructor, in a position from which they can hear the fire control orders and observe the fire.

On the completion of the shoot, the instructor will discuss the fire control orders given, and the N.C.O. instructor in charge at the mortar position will comment on the drill and fire discipline.

It is suggested that at least eight bombs per mortar be allotted to each fire controller.

3. **Part II**

(a) **Object.**—The neutralization of targets with high explosive or the screening of areas with smoke, after bringing the detachment or section into action under service conditions.

(b) **General.**—Shoots will normally be controlled by the detachment commanders, who should be exercised both as static and mobile fire controllers.

(c) **Conduct.**—The tactical situation will be given to the fire controller by an officer representing his immediate commander. On the conclusion of each exercise, the instructor will comment on:—

(i) Reconnaissance and occupation.

(ii) Initial line.

(iii) The engagement of the target.

(iv) R.T. procedure.

A senior N.C.O. will watch the work at each mortar and will comment on the drill and fire discipline at the end of the shoot.

Safety problems should be introduced in these exercises.

4. **Part III**

(a) **Object.**—As for Part II, but exercising the whole platoon and introducing the engagement of targets by fire units of more than one section.

(b) **General.**—Shoots will normally be controlled by detachment commanders, as for Part II, but when the fire unit is the platoon, the mortar officer may act as fire controller.

(c) **Conduct.**—The tactical situation will be given to the platoon commander and the fire unit commanders by officers representing their immediate commanders.

Casualties, gas, and safety problems should be introduced during these exercises.

Parts II and III should exercise each fire controller in the use of both H.E. and smoke, and particular attention will be paid to the engagement of emergency targets.

**5. Safety precautions.**—When firing range practices, in view of the possibility of bombs falling short owing to faulty tail units, pre-ignition of secondaries, etc., spectators should not be within the danger limits of the 3-inch mortar template, the dimensions of which are laid down in A.C.I. 660 of 1943. The following additional precautions will be taken :—

- (a) The officer or N.C.O. with the fire controller will :—
- (i) Ensure that bombs are fired within the limits of safety, both for elevation and direction.
  - (ii) Watch for the fall of blinds.
  - (iii) Detail the instructor at the mortar position to see that all bombs are fired within certain specified safety limits, both for elevation and direction.
- (b) The N.C.O. in charge at each base plate position will :—
- (i) Ensure that there is clearance at the mortar position, and that the base plate and bipod positions are prepared, if safety makes this necessary.
  - (ii) Ensure that the mortar is laid safely for elevation and direction and that the correct range is on the sight.
  - (iii) Ensure that bombs are fired with the correct number of secondaries.
  - (iv) During relaying, check to see that the sight has not slipped.
  - (v) Warn the O.P. in the event of pre-ignition, etc., or a broken tail unit.

When additional N.C.Os. are available they may be detailed to be responsible for some of the above points.

- (c) Blinds will be destroyed, or marked with a red flag and their position reported to the appropriate authority.

In no circumstances will a blind be interfered with except for purposes of demolition.

**A bomb that has been fired from the mortar and has failed to explode, will in no circumstances be fired again.**

- (d) For wet weather precautions, see Lesson 4, para. 7.  
 (e) For safety precautions to be carried out before drill periods, see Sec. 5, Instructor's notes.

**NOTE.**—Aircraft flying below 5,000 feet are liable to be endangered by the bombs.

**6. Procedure for destroying blinds.**—If the range is "closed," action will be taken in accordance with the range standing orders.

If the range is "open," the following action must be taken :—

- (a) If not in possession of a demolition set :—
- (i) Mark the blind with a red flag.
  - (ii) Report its location to the authority concerned.
- (b) If in possession of a demolition set, destroy the blind where it fell.

The procedure for destroying blinds is laid down in S. A. T., Vol. I, Pamphlet No. 13, 1942, Lesson 10, with the addition that a 1-lb. slab of guncotton must be used in conjunction with the detonator and primer.

Before the charge can be placed against the bomb, careful excavation will be carried out to expose one side of the bomb without disturbing it.

## APPENDIX XIII

Amdt. 3  
Oct. 1944

### 4-2-INCH MORTAR PRACTICE

1. These practices are designed to practise the fire controllers and their understudies in the engagement of targets with H.E., and in the method of producing a smoke screen, and to exercise all ranks in the handling of live ammunition.

The practices are divided into three parts as enumerated below.

**2. Part I—Object.**—To teach :—

- (a) Fire control with live ammunition.
- (b) Fire discipline.
- (c) Control of fire by wireless.

A series of Part I practices should be carried out to include the following :—

- (a) The engagement of targets from an undisplaced O.P.
- (b) The engagement of targets from a displaced O.P.
- (c) The laying of smoke screens.
- (d) The registration of an arc.

**Conduct.**—The fire controllers to be exercised should be assembled at the O.P. under the instructor, in a position from which they can hear the fire control orders and observe the fire. On completion of each shoot the instructor at the O.P. will discuss the fire control orders given, and the instructor at the mortar position will comment on the drill and fire discipline.

**3. Part II—Object.**—This is a platoon training exercise with live ammunition, the object of which is to practise the engagement of areas with H.E., or the screening of areas with smoke, after bringing the platoon into action under service conditions.

**Conduct.**—Orders will be issued to the platoon commander by an officer representing his immediate commander and, so far as the safety of the ranges permit, the exercise should be allowed to proceed normally.

Exercises should be held to cover all phases of war and all battle drills.

The fire controller should be exercised in the use of both H.E. and smoke, and particular attention should be paid to rapid engagement targets and safety problems.

Predicted shooting should also be practised.

At the conclusion of an exercise the instructors will comment on :—

- (a) The orders and O.P. duties of the platoon commander.
- (b) The reconnaissance and occupation of the mortar position.
- (c) The engagement of the targets.
- (d) The drill and fire discipline at each mortar.
- (e) The handling of the vehicles.
- (f) Concealment.

**4. Part III—Object.**—This is a company exercise with live ammunition, culminating in a combined shoot of two or more platoons engaging targets in a co-ordinated fire plan.

**Conduct.**—As for Part II.

**5. Safety precautions.**—In view of the possibility of bombs falling short owing to faulty tail units, pre-ignition of secondaries, etc., spectators should not be within the limits of the template, the dimensions of which are laid down in A.C.I. 35 of 1943.

The following additional precautions will be taken :—

- (a) The instructor at the O.P. will :—
- (i) Ensure that bombs are fired within the limits of safety, both for elevation and direction.
  - (ii) Watch for the fall of blinds.
  - (iii) Detail the instructor at the mortar position to see that all bombs are fired within certain specified safety limits, both for elevation and direction.
- (b) The instructor in charge of the mortar position and at each baseplate position will :—
- (i) Ensure that there is overhead clearance at the baseplate position.
  - (ii) Ensure that the baseplate position is properly prepared and that the detachment keep clear of the baseplate until it is firmly bedded in.
  - (iii) Ensure that the mortar is laid safely for elevation and direction and that the correct range is on the sight.
  - (iv) Ensure that bombs are fired with the correct number of secondaries.
  - (v) During relaying, check to see that the sight has not slipped.
  - (vi) Warn the O.P. in the event of pre-ignition, etc., or a broken tail unit.
  - (vii) Ensure that wet weather precautions are properly carried out.
  - (viii) Should a bomb become stuck in the barrel and it is not found possible to clear it by use of tool No. 179, no further attempt should be made to remove it. The barrel should be left on the firing site and cleared as soon as possible, by an I.O.O.
- (c) Blinds will be destroyed, or marked with a red flag and their position reported to the appropriate authority.

In no circumstances will a blind be interfered with except for the purposes of demolition.

The procedure for destroying blinds is laid down in S.A.T. Volume I., Pamphlet No. 13, 1942, with the addition that a 1-lb. slab of guncotton must be used in conjunction with the detonator and primer.

Before the charge can be placed against the bomb, careful excavation will be carried out to expose one side of the bomb without disturbing it.

- (d) **A bomb that has been fired from a mortar and has failed to explode will in no circumstances be fired again.**

NOTE.—Aircraft flying below 7,000 feet are liable to be endangered by the bombs.