

APPENDIX B

INFANTRY PLATOON REFERENCE GUIDE

To succeed in combat, infantrymen must be experts in employing their organic and supporting weapons and in employing mines.

B-1. ORGANIC WEAPONS

Organic weapons are weapons that are assigned to the platoon over which the platoon leader has direct control. All leaders must know how to employ these weapons effectively in all tactical situations (Figure B-1). The infantry platoon routinely uses antiarmor weapons (Figure B-2) and hand grenades and mines (Figure B-3).

	M9 Pistol	M16A2	M249 MG	M203	M60
WEIGHT (lbs)	2.6	8.7	15.5	11	23
LENGTH (in)	8.5	39	41.1	39	43
MAX RANGE (m)	1,800	3,600	3,600	400	3,750
ARMING RANGE (m)	N/A	N/A	N/A	14	N/A
MIN SAFE RANGE (m)	N/A	N/A	N/A	31	N/A
RATE OF FIRE					
CYCLIC (rpm)	N/A	700-800	600	N/A	550
RAPID (m)	N/A	N/A	200'	35	200*
SUSTAINED	60	16	85	35	100
EFFECTIVE RANGE					
AREA (m)	N/A	800	800	350	1,100
POINT	50	580	600	160	600
MOVING (m)	N/A	200	N/A	N/A	N/A
AMMUNITION					
TYPE	BALL	BALL, TRACER, DUMMY, PRACTICE, and BLANK	BALL, TRACER, DUMMY, PRACTICE, and BLANK,	HE, WP CS, TRACER, ILLUM, TP and BUCK- SHOT	BALL, TRACER and BLANK
EXAMPLE LOAD (rds)	30	210	600		
*With barrel change.					

Figure B-1. Organic weapons.

	M72 LAW	M136 AT4	M47 DRAGON
WEIGHT (lbs)	4.7	14.8	68.5
LENIGHT (in)	22/35	40	44
MAX RANGE (m)	1,000	2,100	1,000
ARMING RANGE (m)	10	30	65
MIN SAFE RANGE (m)	30	30	65
EFFECTIVE RANGE			
STATIONARY (m)	200	300	1,000
MOVING (m)	125	300	100
BACKBLAST (m)	50	60	50

Figure B-2. Antiarmor weapons.

	FRAG	WP	THERMITE	CONCUSS
WEIGHT (lbs)	1	2	2	1
RANGE (m)	40	30	25	40
	(Thrown by average soldier)			
PACKING (box)	30	N/A	16	20
BURST RADIUS (m)	15	17		2
		60-sec burn	40-see burn	
	M21 ANTITANK MINE	M14 APERS MINE (Toe Popper)	M16A1 APERS MINE (Bouncing Betty)	MI 8A1 APERS MINE (Claymore)
WEIGHT (lbs)	18	3.6	8.3	3.5
PACKING (box)	4 mines 4 fuzes	90 ea mines and deton	4 fuzes tripwire	6 mines w/accy
BURST RADIUS	1 tank	1 indiv	30 meters	50 meters (eff) 250 meters (max)

Figure B-3. Hand grenades and mines.

B-2. SUPPORTING WEAPONS

Supporting weapons provide the platoon and squad leaders additional fire-power. They must know how to effectively integrate the fires of these weapons with the fires of their organic weapons. See Figures B-4 through B-7.

	M2 (.50 CAL)	MK 19	M202 FLASH	M3 RAAWS
WEIGHT (lbs)	64	76	26.7	22
LENGTH (in)	66	43	34.7	42.6
MAX RANGE (m)	6,765	2,212	N/A	
ARMING RANGE (m)	N/A	18	N/A	
MIN SAFE RANGE (m)	N/A	28	20	50 (HEAT) 500 (illum) 250 (HE) 50 (SMOKE) 50 (TNG)
RATE OF FIRE				
CYCLIC (rpm)	500	375	N/A	
RAPID (rpm)	40*	60	N/A	
SUSTAINED (rpm)	40*	40	N/A	6
EFFECTIVE RANGE				
AREA (m)	1,830	2,212	750	
POINT (m)	1,200	1,500	200	
STATIONARY (m)	N/A	N/A	N/A	700 (HEAT)
MOVING (m)	N/A	N/A	N/A	250
BACKBAST (m)			50	60
BURST RADIUS (m)			20	
AMMUNITION				
TYPE	BALL, AP TRACER, API API-T, INCEN and BLANK	HEDP HE TP, and BUCKSHOT		HEAT, ILLUM HE, SMOKE, TNG
*With barrel change				

Figure B-4. Supporting weapons.

WEAPON	AMMUNITION		METERS		RATE OF FIRE
			MIN RANGE	MAX RANGE***	
M224 60-mm	M720/M888	HE	70	3,500*	30 rounds per minute
	M722	WP	70	3,500	for 4 minutes**, then
	M721	ILLUM	200	3,200	20 rounds per minute,
	M302A1	WP	33	1,625	sustained.
	M63A3	ILLUM	725	950	
	M49A4	HE	45	1,925	
M29A1 81-mm	M374A2	HE	70	4,600	12 rounds per minute
	M374A3	HE	73	4,725	for 2 minutes, then
	M375A2	WP	73	4,775	5 rounds per minute,
	M301A3	ILLUM	100	2,950	sustained
M252 81-mm	M821/M889	HE	83	5,600	30 rounds per minute
	M374A3	HE	73	4,775	for 2 minutes, then
	M819	RED P	300	4,875	15 rounds per minute,
	M375A3	WP	73	4,775	sustained.
	M853A1	ILLUM	300	5,050	
	M301A1	ILLUM	100	2,950	
M30 107-mm	M329A2	HE	770	6,850	18 rounds per minute
	M328A1	WP	720	5,650	for 1 minute, then
	M335A2	ILLUM	400	5,500	9 rounds per minute for 5 minutes, then 3 rounds per minute, sustained
M120 120-mm	M57	HE	200	7,200	15 rounds per minute
	M68	SMOKE	200	7,200	for 1 minute, then
	M91	ILLUM	200	7,100	4 rounds per minute, sustained
*Biped mounted, charge 4 maximum range handheld is 1,300 meters.					
**Charge 2 and above, 30 rounds per minute can be sustained with charge 0 or 1.					
***Rounded to nearest 25 meters.					

Figure B-5. Type and characteristics of mortars.

	M102	M119	M198
CALIBER	105-mm	105-mm	155-mm
MAX RANGE (For HE) (m)	11,500	14,000	18,100
LANNING RANGE (m)	11,500	11,500	14,600
MIN RANGE (m)	DIRECT FIRE	DIRECT FIRE	DIRECT FIRE
DANGER CLOSE RANGE	600	600	800
RATE OF FIRE			
MAXIMUM (rpm)	10	10	4
USTAINED (rpm)	3	3	2
PROJECTILE			
TYPE	HE, WP, ILLUM, HEP-T, APICM, CHEM, APERS, RAP	HE, M760, ILLUM, HEP-T, APICM, CHEM, RAP	HE, WP, ILLUM, SMOKE, CHEM, NUC, RAP, FASCAM, CPHD AP/DPICM
FUZES			
TYPE	PD, VT MT, MTSQ, CP, DELAY	PD, VT, MT, MTSQ, CP, DELAY	PD, VT, CP, MT, MTSQ, DELAY
LEGEND:			
AP —Armor-piercing	HEP-T —High-Explosive Plastic Tracer		
APERS —Antipersonnel	ILLUM —Illumination		
APICM —Antipersonnel Improved	MT —Mechanical Time		
Conventional Munitions	MTSQ —Mechanical Time Super Quick		
CHEM —Chemical	NUC —Nuclear		
CP —Concrete Piercing	PD —Point Detonating		
CPHD —Copperhead	RAP —Rocket Assisted Projectile		
DPICM —Dual Purpose Improved	VT —Variable Time		
Conventional Munitions	WP —White Phosphorus		
FASCAM —Family of scatterable Mines			

Figure B-6. Types and characteristics of field artillery.

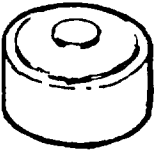
ANTIPERSONNEL	SYSTEM	CASUALTY RADIUS	ACTUATION
	GEMSS GATOR MOPMS VOLCANO	10-15 meters	Tripwire (20-40 feet)
	ADAM	6-10 meters	Tripwire
ANTITANK	SYSTEM	TYPE OF KILL	ACTUATION
	GEMSS GATOR MOPMS VOLCANO RAAMS	Crew Kill	Magnetic Influence
LEGEND: RAAMS —Remote Antiarmor Mine System ADAM —Artillery-Delivered Antipersonnel Mine GEMSS —Ground-Emplaced Mine Scattering System GATOR —Aircraft-Delivered System MOPMS —Modular Packed Mine System			

Figure B-7. Family of scatterable mines.

WARNING

Scatterable mines are above ground and have delay as well as immediate fuzes. Soldiers and leaders must treat scatterable mines as active mines. Scatterable mines should not be moved, gathered, or tampered with in any way.

B-3. MINES

B-3. MINES

Mines are one of the most effective tank and personnel killers on the battlefield, especially in the close-in battle. Mines not only have the capability to disrupt the enemy but also to destroy him. Mines are especially useful when combined with direct and indirect fires. (Figures B-8 and B-9.)

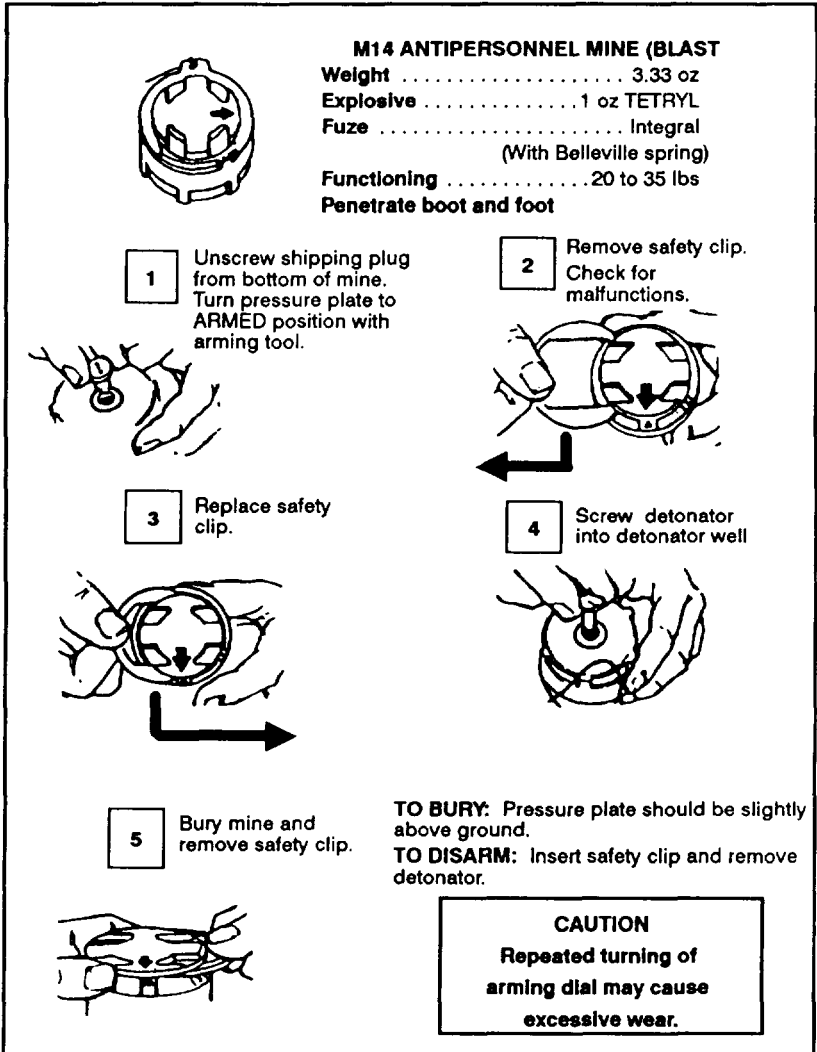


Figure B-8. Antipersonnel mines.

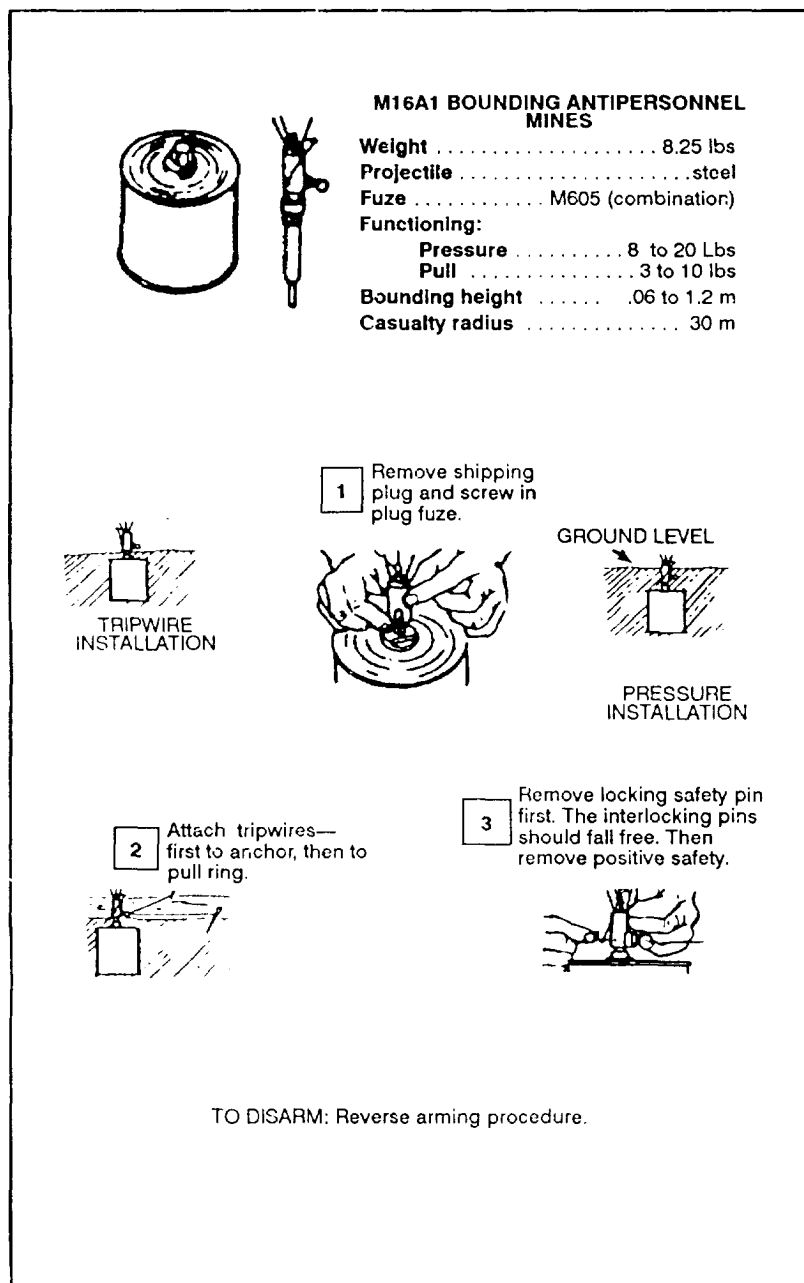


Figure B-8. Antipersonnel mines (continued).

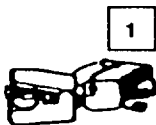
**M18A1 ANTIPERSONNEL MINE
(FRAGMENTATION)**



Weight 3.5 lbs
Explosive 1.5 lbs C4
Projectile 700 steel balls
Fuze Electrical cap
 (with 30 m firing wire)

AIMING

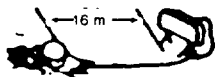
When using the slit type peep sight, aim the mine at an individual's head when standing 45 m from the mine. When using the knife edge sight, aim the mine at an individual's feet when standing 50 m from the mine.



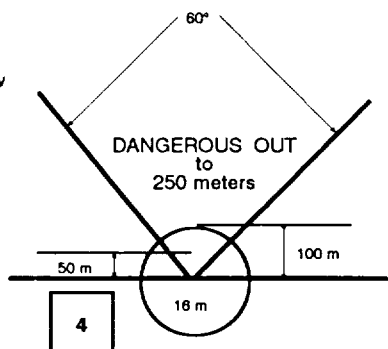
TEST CIRCUIT:
Mate firing
device, circuit
tester, and
blasting cap.
Depress handle.
Light should show
in window.
Separate test
components.



2 Remove shipping plug-priming adapter. Insert blasting cap and screw into either cap well.



3 Unroll the firing wire and connect directly to the firing device with safety engaged.



FIRING POSITION: A minimum of 16 m from the rear of the mine to the fighting position. Friendly troops at side or rear should be under cover at a minimum of 100 meters.

TO FIRE: Disengage safety bail and depress handle.

TO DISARM: Reverse arming procedure.

Figure B-8. Antipersonnel mines (continued).

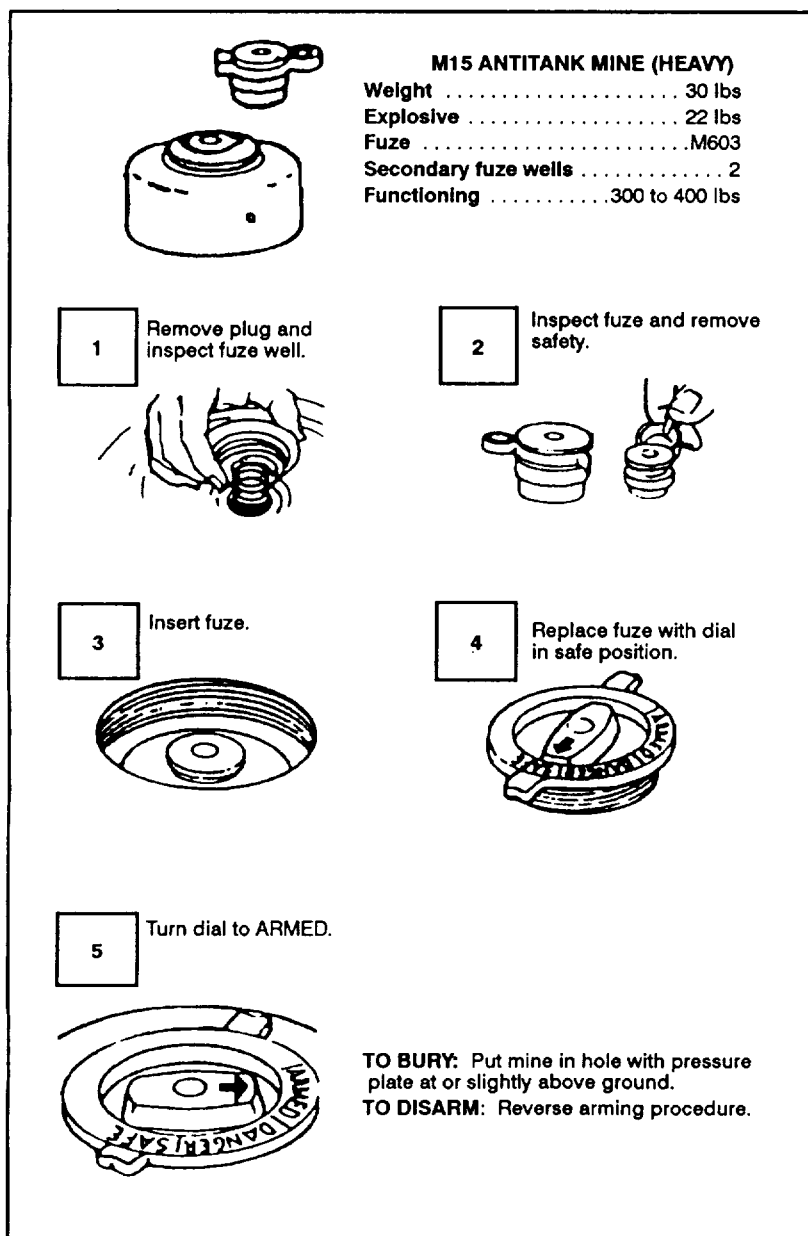


Figure B-9. Antitank mines.

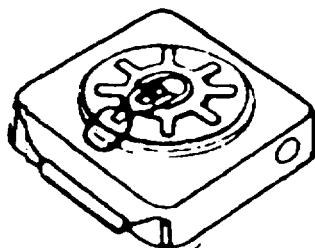
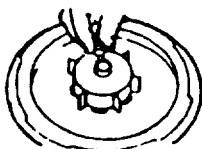
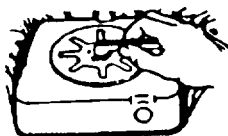
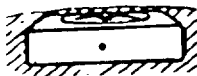
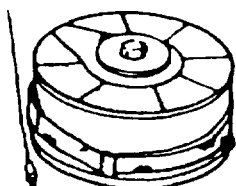
**M19 PLASTIC ANTITANK MINE (HEAVY)****Weight** 28 lbs**Explosive** 21 lbs**Fuze** M606 Integral
(with pressure plate)**Secondary fuze wells** 2**Functioning** 350 to 500 lbs**1****Remove pressure plate fuze.****2****Remove shipping plug; check position of striker (offset). Remove safety fork, turn dial to ARMED position. Check position of striker (center). turn to SAFE and replace safety fork.****3****Screw threaded detonator into detonator well.****4****Place mine in hole, remove safety fork; turn dial to ARMED.****5****Complete camouflage.****TO BURY:** Put mine in hole with pressure plate at or slightly above ground level.**TO DISARM:** Reverse arming procedure.

Figure B-9. Antitank mines (continued).



M21 METALLIC ANTITANK MINE (KILLER)

Weight 18 lbs
 Explosive 10.5 lbs
 Fuze M607
 Functioning 290 lbs
 (Pressure on pressure ring or
 20-degree deflection of tilt rod).

1

Remove closing plug, insert
 M120 booster in bottom, and
 replace closing plug.



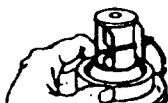
2

Remove closure
 assembly from fuze.



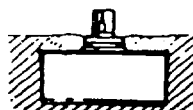
3

Remove shipping plug
 from mine and screw in tilt
 rod extension.



4

Bury mine.



5

Remove safety (pull-ring
 assembly) and complete
 camouflage.



TO BURY:

—For pressure type mines, bury with fuze
 cap flush with ground surface.

—Tilt-rod mines should be seated firmly
 in a snug-fitting hole. Most effective in
 tall brush or grass.

TO DISARM: Reverse arming
 procedure.

Figure B-9. Antitank mines (continued).

STANDARD RANGE CARD

For use of this form see FM 7-8. The proponent agency is TRADOC

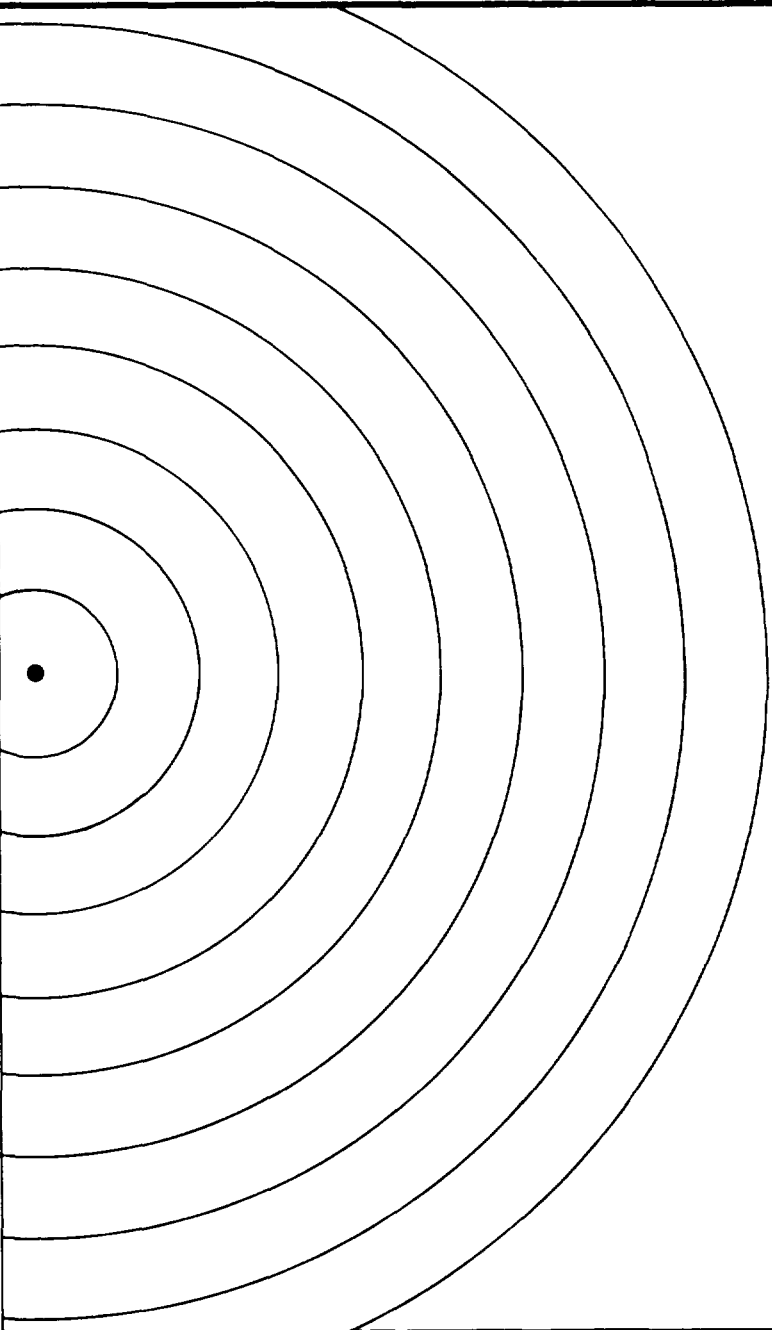
SAD _____

PLT _____

CO —

May be used for all types of direct fire weapons.

**MAGNETIC
NORTH**



DATA SECTION

POSITION IDENTIFICATION

DATE _____

WEAPON

**EACH CIRCLE EQUALS
METERS**

NO.	DIRECTION	DEFLECTION
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
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10	10	10
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100	100	100

ELEVATION

RANGE

AMMO

DESCRIPTION

REMARKS: