

APPENDIX A

SAFETY

This appendix provides safety procedures for both training and combat.

A-1. TRAINING SAFETY

Training safety for light antiarmor weapons applies to all types of ranges and training sites.

a. **Backblast.** Light antiarmor weapons have little or no recoil, because the propellant gasses escape to the rear of the weapon. This backblast can damage equipment or seriously injure personnel who are too close to the rear of the launcher. When operating temperatures fall below freezing (0°C or 32°F), all backblast areas and safety zones double.

(1) **M72-series LAW.** This is an open-chambered weapon, so it has no recoil. The launcher's total backblast area extends 40 meters (44 yards) to the rear (Figure A-1) and is divided into two zones. During training, both should be marked off limits:

(a) **Danger zone.** All personnel, equipment, and flammable material must be clear of this area.

(b) **Caution zone.** The weapon's backblast may throw loose objects to the rear. Therefore, personnel must also stay clear of this area.

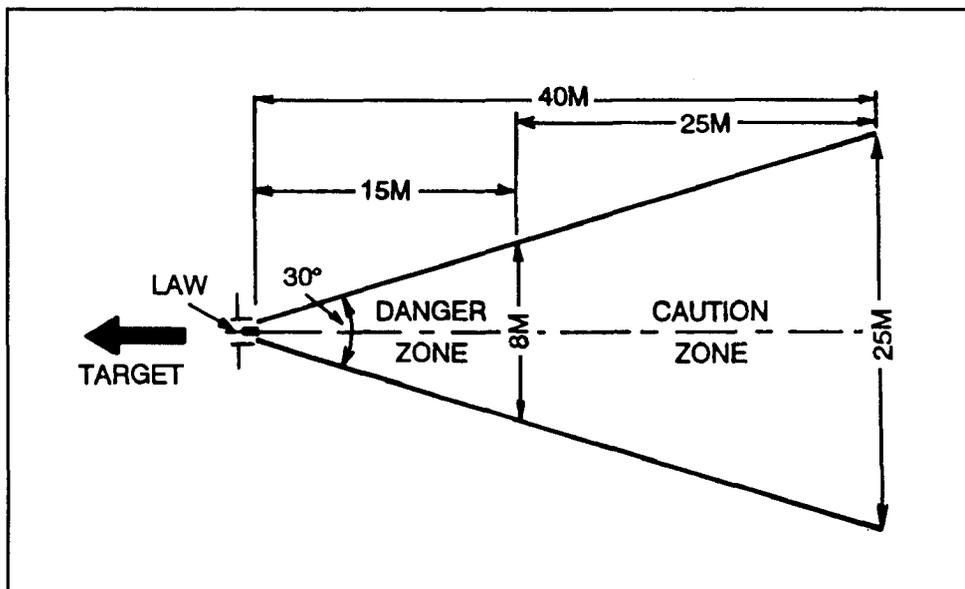


Figure A-1. M72-series LAW backblast area.

(2) **M136 AT4.** Because the AT4 has a closed chamber, it has a slight recoil. When the weapon is fired, pressure builds up in the chamber and ruptures the baseplate. Once the baseplate ruptures, gasses exit from the back of the weapon, forming the backblast. The total backblast area extends 100 meters to the rear of the launcher in a 90-degree fan (Figure A-2). During training, the *entire* backblast area should be marked off limits and kept clear of personnel and equipment. In combat, personnel may remain to the rear of the weapon, but *only* if they are in protected positions. Backblast heat or flying debris could injure the firer and other soldiers anywhere in the backblast area. *This weapon must not be fired from an enclosure or in front of a barrier* (TM 9-1315-886-12). It may be fired from an enclosure in combat only *when* no other tactical option exists.

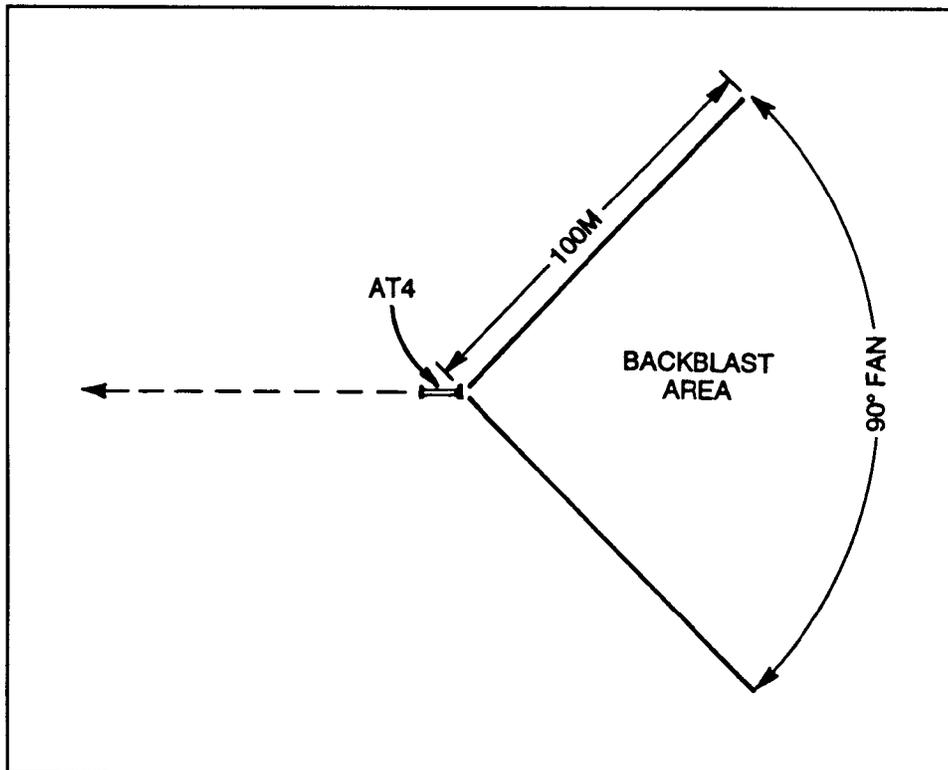


Figure A-2. M136 AT4 backblast area.

b. **Firing Limitations.** Trainers and soldiers must observe the backblast danger zones as well as other firing limitations. A light antiarmor weapon may be fired from the standard infantry fighting position. However, if this position is chosen, other factors must be considered which increase accuracy and reduce the danger to friendly soldiers: The rear of the launcher must extend beyond the back wall of the position, no overhead cover may extend into the backblast area, and there must be at least 1/2 meter (18 inches) clearance around the weapon.

c. **Range Procedures.** For all the light antiarmor weapons discussed in this manual, these procedures must be followed:

(1) The whole backblast area must be well marked and must be clear of all personnel, equipment, and flammable materials.

(2) No one enters the area behind the firing line or forward of the rear safety line without permission from the range OIC or safety NCO.

(3) Weapons are stored to prevent exposure to the sun or extreme temperatures.

d. **Additional Range Procedures for the M136 AT4.** The extreme overpressure and noise created when this weapon is fired require special precautions during training. Not only must firers and others present wear earplugs, but they may only use the approved brand - no other brand provides sufficient protection. To reduce these hazards, the range firing limitations shown in Table A-1 must be followed.

<p>Within a 24-hour period, a soldier may only fire, observe fire, or act as safety NCO for the M136 AT4 one to three times, depending upon the firing position used.</p>	<p>3 times (total) if the AT4 is fired from either the standing or kneeling position</p>
	<p>OR</p> <p>2 times if the AT4 is fired from the sitting position</p>
	<p>OR</p> <p>1 time (total) if the AT4 is fired from either the prone or the fighting position</p>

Table A-1. M136 AT4 firing limitations during training.

DANGER
DURING TRAINING, DO NOT FIRE LIGHT ANTIARMOR WEAPONS
FROM ANY ENCLOSURE OR FROM BEHIND ANY BARRIER.

A-2. COMBAT SAFETY

Combat safety rules and procedures include all those that apply to training plus the following:

a. **Fighting Position.** Both the M72-series LAW and the M136 AT4 can be fired from the standard infantry fighting position. However, to increase accuracy and reduce the danger to friendly soldiers, the area to the rear of the firing position must have no walls, large trees, or other obstructions within 5 meters (5 1/2 yards) to deflect the backblast onto the firer or into the position.

DANGER
ENSURE THE AREA TO THE REAR OF THE FIRING POSITION HAS NO WALLS, LARGE TREES, OR OTHER OBSTRUCTIONS WITHIN 5 METERS (5 1/2 YARDS). OBSTRUCTIONS DEFLECT BACKBLAST ONTO THE FIRER OR INTO THE POSITION, INJURING OR KILLING THE FIRER AND ANY OTHER SOLDIER OCCUPYING THE FIRING POSITION.

(1) In the *individual infantry fighting position*, the soldier must lean against the rear wall and ensure that the venturi or the rear of the weapon protrudes past the rear of the position. The firer's elbows are not supported.

(2) In the *two-soldier infantry fighting position*, the nonfiring soldier must remain clear of the backblast area. These positions should be constructed and sited so that none are located in another's backblast danger zone.

(3) A *modified firing position* may be constructed to the side of the two-soldier fighting position. Firing from a modified position reduces the possibility of injury to the firer or another soldier in the fighting position, but it offers the firer some protection from enemy return fire.

b. **Temperature Limitations.** No light antiarmor weapon should be fired when its temperature exceeds operating limits. When a weapon temperature is below freezing (0°C or 32°F), overpressure increases and prevents some of the propellant from burning. Then, as the projectile leaves the launch tube, portions of the remaining propellant could be directed onto the firer's face or upper body. Consequently, in cold weather, the firer should wear a protective mask. On the other hand, when the weapon temperature is above 60°C (140°F), propellants and warhead compounds can destabilize, so, whether they are located at training sites or fighting positions, weapons should be stored in a shaded area in hot weather. Finally, weapons must not be fired when their temperatures exceed safe operating limits: -40° to 60°C (-40° to + 140°F).

c. **Minimum Target Engagement Ranges.** In combat, no targets will be engaged within the 10-meter minimum arming range. During training, no targets will be engaged within 30 meters.

d. **Overhead Fire.** Light antiarmor weapons must not be fired over the heads of friendly soldiers, unless the soldiers have adequate protection against direct impact or other hazards.