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## CHAPTER 6

### Machine Gun Employment Techniques

#### M249 and M60

The M249 and M60 can engage area or point targets out to 900 meters. This is maximum effective range (tracer burnout). When using the M249 and M60, the gunner should—

- Lay on target center of mass (point targets and area targets).
- Fire bursts of 20 to 30 rounds (4 to 6 tracers).

#### M2 HB Caliber .50

The M2 can engage area and point targets out to 1,830 meters, its maximum effective range. The short-halt technique is recommended to engage targets effectively while on the move.

- Lay the weapon and estimate the range.
- Place the appropriate range line on target.
- Fire bursts of 5 to 7 rounds (1 to 2 tracers).

#### MK19

The MK 19 can engage point targets out to 1,500 meters and area targets out to 2,200 meters, its maximum effective range. The short-halt technique is recommended to engage targets effectively while on the move.

- Lay the weapon and estimate the range.
- Place the appropriate range line on target.
- Fire in 3- to 5-round bursts.

#### Area Target Engagements

The pattern of fire used to engage an area target should be dictated by the size and shape of the target and the engagement technique to be used. Engage area targets with a killing burst (the initial burst on target, designed to kill as many as possible before the enemy goes to the ground). Sweep through the forward edge of the target area with a killing burst, then switch to suppressive fires using intermittent bursts (20 to 30 rounds for light machine guns, 5 to 7 rounds for heavy machine guns, and 3 to 5 rounds for MK 19) to suppress the target.

## Point Target Engagements

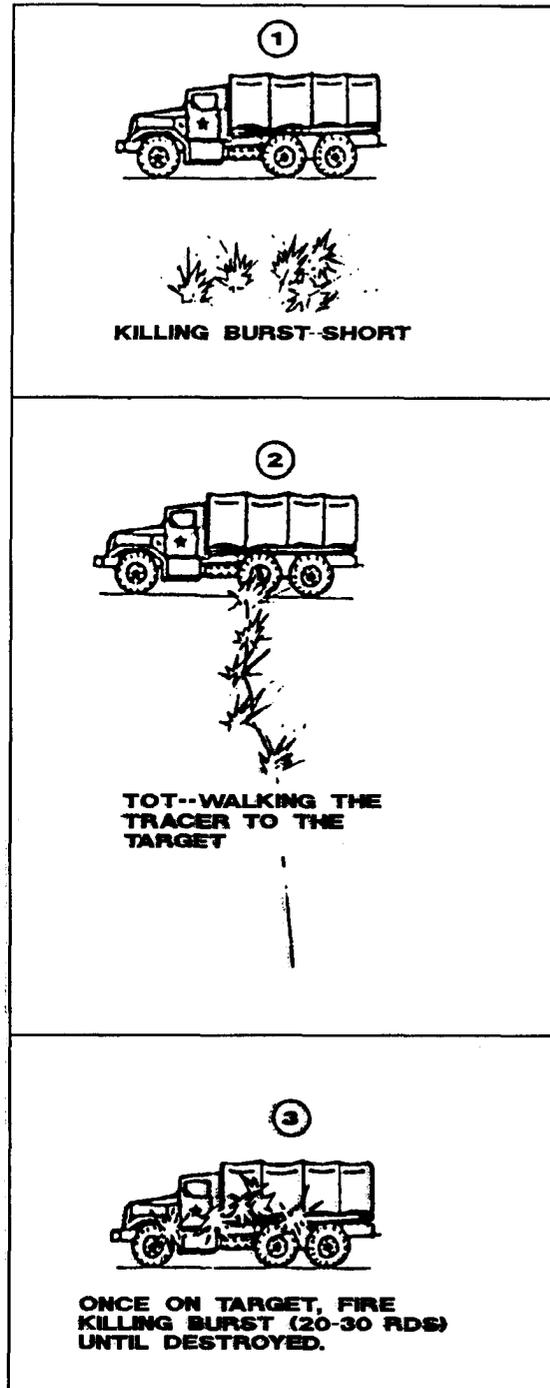
It is more difficult to engage point targets on the move; therefore, when the tactical situation will allow, stationary or moving point targets should be engaged from a short halt.

Targets such as jeeps, trucks, RPG teams, and ATGM teams may be engaged from either a moving or stationary vehicle. For personnel consolidated in a small area (1 to 10 meters), use the point target engagement technique.

To engage a point target, the gunner makes a precise lay on target, and fires a killing burst of 20 to 30 rounds (5 to 7 rounds for M2 HB, 3 to 5 rounds for MK 19). A killing burst kills as many enemy targets as possible with the initial burst of fire. The gunner fires additional bursts until the target is destroyed.

If the initial killing burst is short or long of the target, the gunner adjusts by walking the tracers onto the target. This is called the TOT method of adjustment. Once on target, the gunner continues to fire killing bursts until the target is destroyed or until he is told to cease fire.

*Figure 6-1. TOT Method.*



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## Suppressive Fire Engagements

Suppressive fire is direct fire placed on known or likely enemy locations to degrade one or more of the enemy's basic combat functions—moving, shooting, observing, or communicating. Suppressive fire is most effective when fired at a sustained rate of 20- to 30-round bursts (4 to 6 tracers) every 10 seconds for machine guns, 5 to 7 rounds for M2, and 3 to 5 rounds for the MK 19. No specific pattern or engagement technique is prescribed; however, each burst should strike within 12 meters of the suspected target area. In dense terrain or areas of high enemy troop activity, overmatching vehicles can cover maneuvering vehicles with suppressive fire.

## Reconnaissance by Fire

Use machine guns in reconnaissance by fire to cause a hidden enemy to react. Fire a single burst (20 to 30 rounds with the M249 or M60; 5 to 7 rounds with the M2; or 3 to 5 rounds with the MK 19) while constantly observing for enemy movement, return fire, or the flash of rounds striking metal. Reconnaissance by fire is the least desired method of acquiring targets. It is used when other means of enemy detection have been unsuccessful or are not available. It is best employed with a section. One vehicle can fire on a suspected enemy position or suspicious area to cause the enemy to react and compromise his position. The second vehicle can then engage and destroy the enemy from a different location.

## Aircraft Engagement Techniques

Machine guns can be used to engage aircraft and helicopters, particularly when several vehicles are firing at the aircraft at the same time. It is difficult to track and hit aerial targets; therefore, a volume of fire should be established in front of the aircraft, forcing the aircraft to fly through the rounds.

### ENGAGING HIGH-PERFORMANCE AIRCRAFT

A general rule of thumb is not to engage high-performance aircraft due to—

- Their great speed.
- Limited amounts of machine gun ammunition available to the gunner.
- Brief exposure time of the aircraft within effective machine gun range.

The decision to engage should be made if the aircraft is a direct threat to the crew or unit (actually making an attack run) or mission guidance includes active engagements of high-performance aircraft.

### ENGAGING HELICOPTERS

Criteria for engaging high-performance aircraft also apply to helicopters; however, helicopters exposed on the ground and slow-moving or hovering helicopters are targets of opportunity that should be engaged if within effective machine gun range. Heavily armored attack helicopters (such as the HIND-D) should be engaged with armor-piercing incendiary tracer (API-T).

## METHOD OF ENGAGEMENT

Engage aircraft using a continuous burst. The aiming points for aircraft engagements are—

Type of Aircraft	Aiming Point
Jet aircraft, flank target	2 football fields to front
Jet aircraft, frontal target	slightly above fuselage
Helicopter, flank target	1/2 football field to front
Helicopter, frontal target	slightly above fuselage

## HELIBORNE INFANTRY AND PARATROOPERS

Infantry rappelling from a hovering helicopter should be destroyed by engaging the helicopter first, using volume fire. Airborne troops are more difficult to engage because of their rapid descent (approximately 10 feet per second). When using machine guns, lead the descending troops; the standard lead is two body lengths below their feet.

**Note.** The Geneva Convention of 1949 and our *Rules of War* prohibit engaging crewmen parachuting from a *disabled* aircraft.

## Special Use of Machine Guns

Machine guns are effective weapons that also serve the vehicle crew in different ways. The crew is limited only by their ingenuity in using these weapons. Some special uses are—

- Ranging. Machine guns can be used as ranging guns out to their maximum effective range.
- Designating targets. Machine gun fire can be used effectively by section leaders to designate targets for other tanks, artillery forward observers, or aerial fire support. Limited use of this technique is recommended because it reveals your position.
- Firing through cover. Mounted machine guns can be used effectively to penetrate most cover (such as small trees, hasty barricades, or lightly constructed buildings) used by dismounted personnel.
- Incendiary effects. Machine gun tracers or incendiary ammunition, particularly API-T, can be used to set fire to any readily combustible material such as dry grass, grain, dried brush, or wood. Fire will deny a particular area to enemy use; smoke from a burning field can be used to screen movement.
- Ricochet fire. Use ricochet fire when fighting in built-up areas. Machine gun fire can be directed around comers by bouncing rounds off buildings, walls, or streets. Ricochet fire can also suppress sniper fire. Although not particularly accurate, it can produce a desired psychological effect.