

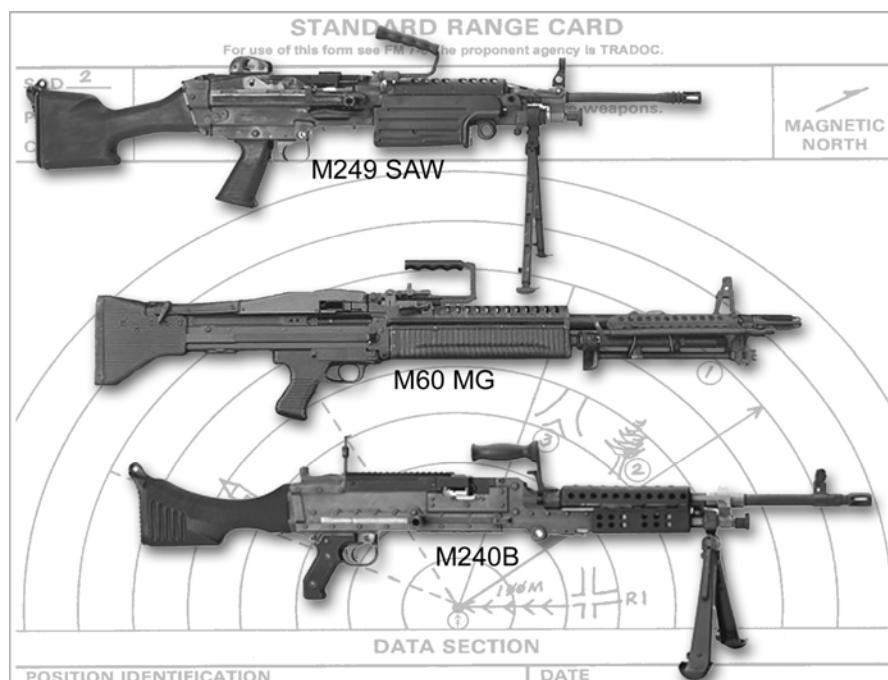
**FM 3-22.68**

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## **Crew-Served Machine Guns**

### **5.56-mm and 7.62-mm**

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**JULY 2006**

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Field Manual  
No. 3-22.68

Headquarters  
Department of the Army  
Washington, DC, 21 July 2006

# Crew-Served Machine Guns

## 5.56-mm and 7.62-mm

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\*This publication supersedes FM 3-22.68, 31 January 2003.

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**DA Form 7304-R, Scorecard for M249 AR**

**DA Form 7476-R, 10-Meter Boresight Target**

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## Preface

This manual provides a single source of technical information, training techniques, guidance for using, and integration into combat operations of three crew-served machine guns, the 5.56-mm and 7.62-mm M60, M240B, and M249. For quick reference, this publication includes an appendix with all of the firing tables collocated. Trainers must ensure that everyone observes safety procedures at all times. Leaders, trainers, and Soldiers must remember: safety is everyone's full-time responsibility. They must conduct all training as though each weapon is fully loaded. In training, safety is always more important than speed or accuracy.

This publication applies to the Active Army, the Army National Guard (ARNG)/Army National Guard of the United States (ARNGUS), and the U.S. Army Reserve (USAR) unless otherwise stated..

This publication prescribes--

- DA Form 85-R, *Scorecard for M249, M60, and M240B Machine Guns*, which supersedes DA Form 85-R, October 2002.
- DA Form 7304-R, which supersedes DA Form 7304-R, *Scorecard for M249 AR*, February 1994.
- DA Form 7476-R, *10-Meter Boresight Target*, which supersedes DA Form 7476-R, October 2002.

The proponent for this publication is the U.S. Army Training and Doctrine Command. The preparing agency is the US Army Infantry School. You may send comments and recommendations by any means, US mail, e-mail, fax, or telephone, as long as you use or follow the format of DA Form 2028, *Recommended Changes to Publications and Blank Forms*. You may also phone for more information.

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Some of the uniforms shown in this manual have been drawn without camouflage for clarity of the illustration.

Unless this publication states otherwise, masculine nouns and pronouns may refer to either men or women.

## Chapter 1

# M249 Machine Gun

The 5.56-mm M249 machine gun supports the Soldier in both the offense and defense. The M249 provides a medium volume of close and continuous fire. The Soldier needs this to accomplish the mission. The M249 lets units engage the enemy with controlled and accurate fire from individual weapons. The medium-range, close defensive, and final protective fires delivered by the M249 MG form an integral part of a unit's defensive fires. This chapter also describes the weapon and the types of ammunition in detail and provides a table of general data. Although this chapter discusses employment of the M249 in the machine gun role, Soldiers also use this weapon in the automatic rifle role (Chapter 4, Section V; see also Appendix A).

### SECTION I. DESCRIPTION AND COMPONENTS

This section describes the M249 machine gun, its components, and their purposes. It also discusses the types of ammunition used, installation of the blank firing adapter, and care of the gun while using the blank firing adapter.

### DESCRIPTION AND DATA

1-1. The M249 machine gun is a gas-operated, air-cooled, belt- or magazine-fed, automatic weapon that fires from the open-bolt position (Figure 1-1). Its maximum rate of fire is 850 rounds per minute. Ammunition feeds into the weapon from a 200-round ammunition box containing a disintegrating, metallic, split-link belt. Only in emergencies do M249 gunners use a 20- or 30-round M16 rifle magazine, in part because this increases the chance of stoppages. The gunner can fire the versatile M249 machine gun from the shoulder, hip, or underarm; with a bipod; or with a tripod. Table 1-1 provides general data.

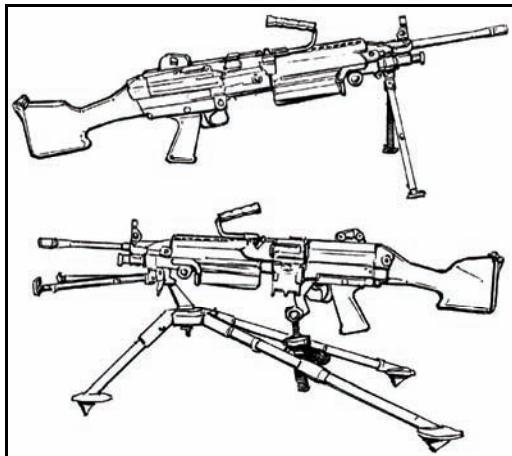


Figure 1-1. M249 machine gun, bipod and tripod mounted.

## Chapter 1

Length of Weapon.....	40.87	inches
Height of Weapon (on Tripod).....	16.00	inches
Weight:		
M249.....	16.41	pounds
M122 Tripod Mount with T&E, pintle .....	16.00	pounds
Ammunition.....	5.56-mm ball and tracer (4:1 mix) ammunition-delivered in 200-round drums, each of which weighs 6.92 pounds. Separate ball, tracer, blank, and dummy ammunition also available	
Rates of Fire:		
Sustained.....	50 rounds a minute in 3- to 5-round bursts, with 4 to 5 seconds between bursts (barrel change every 10 minutes).	
Rapid .....	100 rounds per minute, fired in 8- to 10-round bursts, 2 to 3 seconds between bursts (barrel change every 2 minutes).	
Cyclic .....	650 to 850 rounds per minute, continuous burst, barrel changed every minute.	
Basic load .....	1,000 rounds in five 200-round drums	
Tracer burnout .....	900 meters (+)	
Ranges:		
Maximum .....	3,600 meters	
Maximum effective .....	1,000 meters with the tripod and T&E	
Maximum for grazing fire over..... uniformly sloping terrain	600 meters	
Area Target:		
On tripod .....	1,000 meters	
On bipod .....	800 meters	
Point Target:		
On tripod .....	800 meters	
On bipod .....	600 meters	
Suppressive Fire .....	1,000 meters	
Depression:		
On tripod .....	-200 mils	
On bipod .....	-445 mils	
Elevation:		
On tripod .....	+200 mils	
On bipod .....	+445 mils	
Traverse, with T&E mechanism .....	100 mils	
Normal sector of fire, with tripod.....	875 mils	

Table 1-1. General data for gun with M122 tripod.

## COMPONENTS

1-2. Table 1-2 lists M249 components and their purposes, and Figure 1-2 shows them. The item numbers in the table correspond to the callout numbers in the figure.