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# Machine Guns and Machine Gun Gunnery

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**U.S. Marine Corps**

DEPARTMENT OF THE NAVY  
Headquarters United States Marine Corps  
Washington, D.C. 20380-0001

1 September 1996

Foreword

1. PURPOSE

Marine Corps Warfighting Publication (MCWP) 3-15.1, *Machine Guns and Machine Gun Gunnery*, describes how various machine guns are maintained and employed by the U.S. Marine Corps' machine gun crews. It also provides the principles and techniques for their use in engaging and destroying enemy targets.

2. SCOPE

This reference publication is designed for machine gunners, platoon commanders, platoon sergeants, S-3 officers and chiefs, armorers, and ammunition technicians. It outlines a standardized way to train Marine machine gunners through the use of gunnery tables.

3. SUPERSESSSION

FMFRP 6-15, *Machineguns and Machinegun Gunnery*, dated 17 August 1988.

4. CHANGES

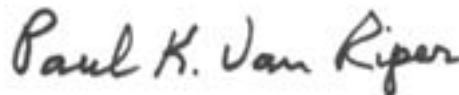
Recommendations for improving this manual are invited from commands as well as directly from individuals. Forward suggestions, using the User Suggestion Form format, to—

Commanding General  
Doctrine Division (C 42)  
Marine Corps Combat Development Command  
3300 Russell Road Suite 318A  
Quantico, Virginia 22134-5021

5. CERTIFICATION

Reviewed and approved this date.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS



PAUL K. VAN RIPER  
Lieutenant General, U.S. Marine Corps  
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Quantico, Virginia

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## User Suggestion Form

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To: Commanding General, Doctrine Division (C 42), Marine Corps Combat Development Command,  
3300 Russell Road Suite 318A, Quantico, Virginia 22134-5021

Subj: RECOMMENDATIONS CONCERNING MCWP 3-15.1, *MACHINE GUNS AND MACHINE GUN  
GUNNERY*

1. In accordance with the foreword to MCWP 3-15.1, which invites individuals to submit suggestions concerning this FMFM directly to the above addressee, the following unclassified recommendation is forwarded:

<u>Page</u>	<u>Article/Paragraph No.</u>	<u>Line No.</u>	<u>Figure/Table No.</u>
Nature of Change:	<input type="checkbox"/> Add		
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## Notes

## Chapter 1

# INTRODUCTION TO MACHINE GUNS

*“For their part the machine-gun units must be on the alert to seize and exploit every opportunity to assist the forward movement of the rifle units, without waiting for specific orders to engage a particular target or locality.”*

—FMFRP 12-2, *Infantry In Battle*<sup>1</sup>

*“Leaders must know what the guns can do before the attack starts, what they can do while the attack is in progress, and what they can do during reorganization and consolidation. They must learn to seek and to recognize opportunities for employing machine guns in every phase of the action. Finally, they must have the aggressiveness to keep everlastingly at the task of getting the guns forward, so that when opportunity does present, they will be able to seize it.”*

—FMFRP 12-2, *Infantry In Battle*<sup>2</sup>



**Desert Storm, Kuwait  
A Marine Machine Gunner Scans the Desert For Targets**

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## Chapter 1

# Introduction to Machine Guns

### 1001. History

Despite their post-Civil War development, modern machine guns didn't begin to exhibit their full potential in battle until World War I. The effects on employment of these new weapons systems altered the doctrinal way of waging war for both Allied and Axis powers. Properly employed machine guns proved to be devastating to massed infantry formations and paved the way for the creation of a whole new methodology of warfighting. The machine gun became the keystone of the infantry defense and a major supplier of organic firepower in the offense. New tactics were being developed by both sides to not only exploit the effects of the machine gun, but to counter the enemy's machine gun employment capabilities.

The machine gun changed the face of modern warfare just as surely as the development of aircraft and precision indirect fire artillery. The impact of this weapon can be seen not only in military writings of that period, but in the principles of employment still in use today. FMFRP 12-2, *Infantry in Battle*, a compilation of lessons learned from World War I, provides a wealth of knowledge concerning the employment of machine guns. These lessons remain applicable and are still studied today, almost 70 years later. The proper employment of machine guns has won many a battle at the company and platoon level, and a well rehearsed, proficient machine gun team can sometimes make the difference between success and failure on the battlefield. Military history is filled with examples of the impact that machine guns and their gunners have had in turning the tide of battle:

*“Machine guns affect the outcome of battle by fire power alone. Guns that have not fired have not attacked, no matter how many times they have been placed in position.”*<sup>3</sup>

*“The machine gun acts by fire alone; movement of this weapon has no other purpose than to secure positions from which more effective fire can be delivered. Maximum usefulness is obtained only when every gun within range of the enemy is firing effectively against him.”*<sup>4</sup>

*“Although machine guns lend themselves more readily to the defense than to the attack, this is no excuse for a failure to exact the utmost from them in support of advancing troops. The handicaps to their effective employment in the attack can be and must be overcome.”*<sup>5</sup>

Though the weapons themselves have changed over the years and will continue to do so, the basic considerations for their employment remain constant. The excerpts from FMFRP 12-2, listed above, serve as reminders of this fact, and the lessons contained in them are just as applicable today as when they were first written.

### 1002. Types of Machine Guns

Machine guns are classified as light, medium, or heavy. Classifications are determined by a combination of weapon caliber, weapon system weight, crew size, and the primary type of intended target.

**a. Light Machine Guns/Automatic Rifles.** The light machine gun (LMG) classification generally includes .22 to .250 caliber (5.45mm to 6mm) automatic weapons. An LMG typically weighs between 15 and 30 pounds, complete. An LMG is normally manned by a crew of one or two individuals depending on the accessories being used. Neither a tripod nor a spare barrel is normally used with an LMG when it is manned by a single individual. Bullet weights for LMGs normally range from 45 to 72 grains. They are optimally employed against exposed and lightly protected personnel at ranges less than 1,000 meters. In

this category, the Marine Corps employs the squad automatic weapon, M249, 5.56mm. Figure 1-1 provides an example of a Marine using an LMG.

**b. Medium Machine Guns.** This medium machine gun (MMG) classification generally includes .264 to .33 caliber (6.5mm to 8mm) automatic weapons. Typical MMG weights are 25 pounds or more when loaded with 50 rounds of ammunition. Remaining ammunition, ground tripod, spare barrel, and other accessories can add another 25 pounds or more to the overall weight of MMG systems. The MMG is generally employed by a crew of three. A MMG generally uses bullets that weigh between 140 and 220 grains. Optimally, they are employed against personnel and light materials ( e.g., motor vehicles) at ranges of 1500 meters or less. In this category, the Marine Corps employs several variants of the 7.62mm, M240G machine gun. Figure 1-2 show Marines training with a MMG.

**c. Heavy Machine Guns.** The heavy machine gun (HMG) classification generally includes .50 caliber or larger (12.7mm to 15mm) automatic weapons. The system weight of a heavy machine gun is substantial. In a ready to fire configuration using a ground tripod, an HMG without ammunition can weigh more than 125 pounds. An HMG is normally manned by a crew of four or more personnel (although a crew of three may be sufficient if motor vehicles or draft animals are employed for transportation over distance). The common bullet weight of an HMG is 700 grains or larger. HMGs are primarily employed against field fortifications, vehicles, and aircraft. They are generally effective against these types of targets at ranges of 1,000 meters or greater. The machine guns from this category currently employed by the Marine Corps are the caliber .50, Browning, M2HB, machine gun and the 40mm, MK-19 MOD 3 machine gun. Figure 1-3 portrays a HMG squadron during Operation Desert Shield.



**Figure 1-1. Marine Automatic Rifleman, Operation Desert Shield.**