
Supporting Arms Observer, Spotter and Controller



U.S. Marine Corps

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FOREWORD

1. PURPOSE

Marine Corps Warfighting Publication (MCWP) 3-16.6, *Supporting Arms Observer, Spotter, and Controller*, provides the techniques and procedures for requesting and adjusting supporting arms.

2. SCOPE

This publication provides techniques and procedures for requesting, adjusting, and controlling mortars, artillery, naval gunfire, and close air support. It is intended as a field reference for supporting arms observers (mortar and artillery forward observers, naval gunfire spotters, and forward air controllers) and as a study guide and field reference for personnel seeking information on supporting arms procedures.

3. SUPERSESSION

Fleet Marine Force Manual (FMFM) 6-8, *Supporting Arms Observer, Spotter, and Controller*, dated 24 June 1994.

4. CERTIFICATION

Reviewed and approved this date.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS

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To Our Readers

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Introduction

The technology and organizations for providing supporting arms today are products of our training and operational experience over the past 100 years. Initial techniques for controlling fires of artillery and naval rifles were limited to direct fire, where the crew of the weapon had to see the target. This was primarily because of the lack of a long-range observation and communications capability. These crude measures for controlling fires could prove hazardous to friendly as well as enemy forces, as the Marines found out during operations in Cuba during the Spanish-American War.

On June 14 [1898] Captain George F. Elliott led two infantry companies and a detachment of fifty Cuban scouts on a circular six-mile march toward Cuzco Well [location of a Spanish camp]. Although the Marines did not surprise the Spanish garrison of battalion strength, they won the foot race to the hill that dominated the Spanish camp and caught the enemy in the valley. At ranges up to 1,000 yards the Marines peppered the Spaniards with rifle and machine gun fire. During the fighting another Marine platoon on outpost duty on its own initiative closed off the head of the valley and caught the enemy in a crossfire, while the dispatch ship Dolphin added its shells to the general firing. The Dolphin's shells, fired without much direction, also drove the Marine platoon from its position until the shelling was stopped by a wigwag message from Sergeant John H. Quick.¹

Experiences in the first World War exposed Marines to the realities of trench warfare with modern weapons. Potent fire support was crucial to advancing against an enemy who was firmly entrenched in

supporting defensive positions. This support was provided by U.S. Army and allied artillery because Marine artillery units did not deploy to France.² Although techniques for controlling indirect fire had progressed, their responsiveness and flexibility in changing situations were still hampered by a lack of portable, reliable communications. This deficiency would eventually be overcome by the introduction of tactical radios.

Marine aviation began in 1913 when 1stLt Alfred A. Cunningham was designated as naval aviator number 5. Marine aviation's first involvement in combat occurred in the latter part of World War I during which it conducted aerial observation and bombing missions as part of the Allied air effort. Marine aviation's first independent mission was flown in 1918 against a German-held railyard in Belgium.³ Marine aircraft were used for a variety of missions from resupplying remote patrols and outposts to providing close air support (CAS) to ground units in the "Banana Wars" during the 1920s. Communications between ground forces and aircraft, although generally effective against the guerrillas, were anything but sophisticated.

Although Marine aircraft were equipped with radio, the prohibitive weight of early sets, coupled with the poor transmission characteristics amid the terrain of Nicaragua meant that most were removed from planes to permit carrying more fuel and weapons. "Communication with ground troops," then-Captain Mathew B. Ridgeway, an Army observer in Nicaragua, reported, "has been almost entirely by Very Pistol, pick-up and drop messages, and panels."⁴

The lessons learned from using aircraft to attack ground targets and the need for close coordination between the Marine in the air and the Marine on the ground during these actions were reflected in the Marine Corps *Small Wars Manual* of 1940.

In order to secure the full measure of cooperation between the air and ground forces, it is necessary that each understands the problems of the other. The aviator must know something of the tactics of the ground patrol, and he must be ready and willing to assume any justified risk to assist the ground commander. On the other hand, the ground commander should understand the hazards and limitations imposed on aviation operating over difficult terrain, and should not expect the impossible.⁵

This sense of teamwork and the initial procedures for controlling CAS developed between the World Wars would be put to the test during operations in the Pacific during World War II.

World War II provided Marines with the opportunity to make major developments in the techniques for controlling supporting arms. It was an evolutionary process. Marine artillery expanded from the organic regiments of each division to include heavy artillery assigned to the amphibious corps. Marine artillery was used to provide direct fire on enemy bunkers throughout the war, and forward observers (FOs) called for and adjusted indirect fire in support of maneuver units.

Recognizing the need to improve the employment of naval gunfire (NGF) in support of Marine ground forces, LtGen Holland Smith organized an NGF section at V Amphibious Corps in late 1943.

...the Naval Gunfire Section turned Kahoolawe Island, Hawaii, into a ship gunnery school and eventually supervised the qualification firing for 532 Pacific Fleet warships. The training exercises dramatized the need for intelligent gunfire spotting. The NGF Section first stressed putting trained Marine ground officers into spotting aircraft but then shifted to training Navy and Marine officer spotting teams for ground employment.⁶

In October of 1944, LtGen Smith formed the Marine Air Support Control Unit, which was commanded by Col Vernon Megee. The unit provided CAS training and expanded the ability of landing force commanders to plan and direct airstrikes.

The final step in improving close air support—actually directing the strikes from the front lines against targets close to friendly troops—also originated with Megee's command. Equipped with improved jeep-mounted radios, Marine air controllers argued, they could direct strikes against ground targets within hundreds (rather than thousands) of yards of American troops by communicating directly with the aircraft. This technique, which ran counter to Navy and Army doctrine, required air strike controllers well versed in ground tactics and aircraft capabilities. At first the forward air controllers were air-indoctrinated ground officers, but the Air Liaison Parties (ALPs) soon became the instrument of pilots-turned-infantrymen. This reform proved successful for the Army in the Philippines and the Marine Corps on Okinawa.⁷

These techniques for effectively coordinating and controlling the fires from various fire support agencies (mortars, artillery, NGF, and CAS) reflected the lessons learned from three years of intense combat across the Pacific and formed the basis for the Marine

Corps' current procedures for controlling supporting arms. Although they would continue to be refined, the basic concepts have remained valid to this day. Although the use of semaphore has given way to data burst transmissions, the requirement for a Marine who is capable of controlling the fires of supporting arms remains crucial to success in combined-arms operations.

This publication contains the techniques and procedures used by artillery and mortar FOs, NGF spotters, and forward air controllers (FACs) to request, adjust, and control supporting arms. It is no accident that the techniques for these three supporting arms are covered in the same publication. The doctrine of combined arms requires the full integration of arms. We take advantage of the complementary capabilities of different types of supporting arms to enhance mobility and firepower. To avoid the effects of one arm, the enemy makes himself vulnerable to another. Achieving proficiency in combined arms requires a building-block approach to training that progresses from individual skills to unit skills and culminates at the Marine air-ground task force (MAGTF) level. Supporting arms observers, spotters, and controllers should be cross-trained in the techniques contained in this publication (i.e., the FOs should be trained to control CAS just as FACs should be capable of calling for and adjusting artillery and NGF). The techniques explained in this publication are fundamental for employing Marine Corps fire support. The most detailed and thorough fire support plans are useless without Marines who are skilled in the techniques and procedures for bringing the effects of firepower down on the enemy.

Supporting Arms Observer, Spotter, and Controller

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Chapter 1

Supporting Arms Observers, Spotters, and Controllers

The Marine Corps has four organizations that provide a maneuver company with observers, spotters, and controllers who are specifically trained to plan, call for, adjust, and control supporting arms. They are the artillery FO team, 81-mm mortar FO, NGF spot team, and forward air control party (FACP). Whether a company has one organization or all four attached for an operation (or phase of an operation) depends on the situation and mission.

Section I. Artillery Forward Observer Team

Each firing battery of the artillery battalion has three FO teams. One of these teams is provided to each company-sized unit/element of the supported force. The number of FO teams may vary with the composition of the force and structure limitations. The FO team is led by a Marine lieutenant who is trained in fire support coordination and advises the company commander on the employment of fire support assets. The FO team plans and coordinates artillery fires with the fires of other supporting arms at the company level. It is trained to adjust artillery, rockets, mortars, and NGF, as well as report battlespace information. The FO team can operate within a maneuver element or from an artillery observation post (OP).