

ANTI-AIR WARFARE



U.S. Marine Corps

23 June 2000

PCN 143 000065 00

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DEPARTMENT OF THE NAVY
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Washington, D.C. 20380-1775

23 June 2000

FOREWORD

Antiair warfare within the U. S. Marine Corps was forged in combat primarily during World War II when Marine aircraft and antiaircraft artillery were stationed throughout the Pacific basin. Campaigns for Guadalcanal and the Marshall Islands and other operations shaped today's concepts. Marine defense battalions employed ground-based air defense assets. Congressional Medal of Honor recipients Lieutenant Colonel Gregory "Pappy" Boyington, Captain Joe Foss, and other Marine aviators flew fighter sweep, combat air patrol, escort, and assorted offensive antiair warfare missions. They were among the first aviators to perform multirole antiair warfare tasks designed to protect friendly forces and gain air superiority.

Today's Marine air-ground task force (MAGTF) has a unique antiair warfare capability. Multimission-capable aircraft, a ground-based short air defense missile system, and a robust Marine air command and control system (MACCS) are tremendous force multipliers for MAGTF and joint force commanders.

Marine Corps Warfighting Publication (MCWP) 3-22, *Antiair Warfare*, focuses on the tactics, techniques, and procedures of antiair warfare operations. It details how the MAGTF accomplishes antiair warfare tasks at the operational and tactical levels of war and how antiair warfare capabilities tie into the joint force architecture and operations. From this publication Marines of all ranks and military occupational specialties will understand how antiair warfare operations are conducted and how they impact on MAGTF operations. Further, they will comprehend their role in antiair warfare operations and grasp the nature and contributions of antiair warfare to combined arms operations.

This publication supersedes Fleet Marine Force Manual (FMFM) 5-50, *Antiair Warfare*, 22 June 1994.

Reviewed and approved this date.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS

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DISTRIBUTION: 143 000065 00

Antiair Warfare

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CHAPTER 1. FUNDAMENTALS

Antiair warfare is a U.S. Navy/U.S. Marine Corps term used to indicate that action required to destroy or reduce to an acceptable level the enemy air and missile threat. (Joint Pub [JP] 1-02, *Department of Defense Dictionary of Military and Associated Terms*) Antiair warfare (AAW) integrates all offensive and defensive actions against enemy aircraft, surface-to-air weapons, and theater missiles into a singular, indivisible set of operations. AAW, along with assault support, offensive air support, air reconnaissance, electronic warfare, and control of aircraft and missiles, is one of the six functions of Marine aviation. AAW is sometimes incorrectly considered an exclusive responsibility of the Marine air-ground task force's (MAGTF's) aviation combat element (ACE). Each member of the MAGTF participates directly or indirectly.

AAW serves two purposes: force protection and air superiority. Force protection is those actions taken to guard friendly forces from attack or disruption by enemy forces. In AAW, it concerns those actions taken to defend the MAGTF against enemy air and missile attacks. Air superiority is that degree of dominance in the air battle of one force over another which permits the conduct of operations by the former and its related land, sea, and air forces at a given time and place without prohibitive interference by the opposing force. (JP 1-02)

Force protection and air superiority are complementary goals of antiair warfare. They provide the MAGTF with defense against enemy air and missile attacks and a reasonable level of confidence so maneuver can be conducted without interference from the enemy's air and missile capabilities.

Force protection and air superiority actions form a cycle. A strong defense against enemy air attack achieves air superiority. Forces are reasonably protected from enemy air and missile attack. What truly separates force protection from air superiority is how the outcome is achieved.

TYPES OF ANTI-AIR WARFARE OPERATIONS

In *Joint Vision 2010*, the Chairman, Joint Chiefs of Staff, highlights full-dimensional protection as one of the four new operational concepts for future joint

forces. With the aim of defending forces, *Joint Vision 2010* states that this concept will be proactive, incorporating both offensive and defensive actions that may extend well into areas of enemy operations.

Applying this concept to AAW, we see that the intent of AAW is to protect and defend the MAGTF and its battlespace from enemy air and missile attack and take the fight to the enemy. AAW is an enabler for other MAGTF ground, combat service support, and aviation operations. The MAGTF conducts two types of antiair warfare operations: offensive antiair warfare and air defense.

Offensive Antiair Warfare

Offensive antiair warfare (OAAW) is those operations conducted against enemy air assets and air defense systems before they can be launched or assume an attacking role. OAAW operations in or near the objective area consist mainly of air attacks to destroy or neutralize hostile aircraft, airfields, radars, air defense systems, and supporting areas. Examples of the enemy's air and missile threat include aircraft, surface-to-air weapons, and theater missiles. To destroy or neutralize the enemy's air and missile threat, OAAW operations target enemy air capabilities and infrastructure, which include not only the weapons themselves, but launch platforms, airfields, air defense systems, command and control nodes, and support facilities. As OAAW takes the fight to the enemy, it also takes the initiative to gain air superiority while providing robust force protection. See chapter 2.

Air Defense

Air defense operations include all defensive measures designed to destroy attacking enemy aircraft or missiles in the Earth's envelope of atmosphere or to nullify or reduce the effectiveness of such attack. (JP 1-02) Air defense consists of active and passive measures to protect our forces against attack from enemy aircraft and missiles.

Active air defense is direct defensive action taken to destroy, nullify, or reduce the effectiveness of hostile air and missile threats against friendly forces and assets. It includes the use of aircraft, air defense weapons, electronic warfare, and other available weapons. (JP 1-02)