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# Electronic Warfare

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**U.S. Marine Corps**

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FOREWORD

Marine Corps Warfighting Publication (MCWP) 3-40.5, *Electronic Warfare*, provides doctrine for the employment and use of electronic warfare in support of the Marine air-ground task force (MAGTF). Electronic warfare doctrine provides a basis for—

- Effective integration of electronic warfare within the MAGTF.
- Coordination and cooperation with joint force components, particularly for the effective employment of electronic warfare resources.
- Operational, procedural, and technical interoperability at the operational and tactical level.
- The exchange of electronic warfare information and intelligence between United States forces and allied nations or multinational partners.

This publication provides an overview of electronic warfare doctrine and tasks. It also discusses electronic warfare structure within MAGTF, joint, and multinational operations. This publication is intended for any Marine involved in the planning and execution of electronic warfare operations.

MCWP 3-40.5 supersedes Fleet Marine Force Manual (FMFM) 7-12, *Electronic Warfare*, dated 20 May 1991.

Reviewed and approved this date.

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# Electronic Warfare

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## CHAPTER 1

# Overview

As the modern battlespace has become more sophisticated, military operations are executed in an increasingly complex electromagnetic environment. While military forces use the electromagnetic spectrum to detect and identify enemy forces and to perform communications, surveillance, and weapons systems operations, both military forces and civilians use the electromagnetic spectrum for communications, navigation, information gathering, processing, storing, and reporting. This overlapping usage of the electromagnetic spectrum complicates the military's use of its electronic equipment and the military's gathering and security of military information.

Successful military operations now greatly depend on control of the electromagnetic spectrum. The force that can deprive the enemy the use of the electromagnetic spectrum, exploit the enemy's use of the electromagnetic spectrum to obtain information for its own purposes, and control the electromagnetic spectrum will have an important advantage. During a conflict, all commanders attempt to dominate the electromagnetic spectrum by targeting, exploiting, disrupting, degrading, deceiving, damaging, or destroying their opponent's electronic systems that support their military operations. Electronic warfare (EW) includes "any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy." (Joint Publication [JP] 1-02) Electronic warfare is an important part of a military commander's arsenal of weapons. It allows a commander to provide electronic warfare support (ES), electronic attack (EA), and electronic protection (EP).

## **ELECTRONIC WARFARE SUPPORT**

Electronic warfare support (ES) is the "division of electronic warfare involving actions tasked by, or under direct control of, an operational commander to search for, intercept, identify, and locate or localize sources of intentional and unintentional radiated electromagnetic energy for the purpose of immediate threat recognition, targeting, planning and conduct of future operations." (JP 1-02) The ES intelligence collection effort—

- Is used in peace, crisis, and war, which contributes to the building of an EW/intelligence database for planning and operations.