

**FIELD MANUAL
NO. 1-100**

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ARMY AVIATION OPERATIONS

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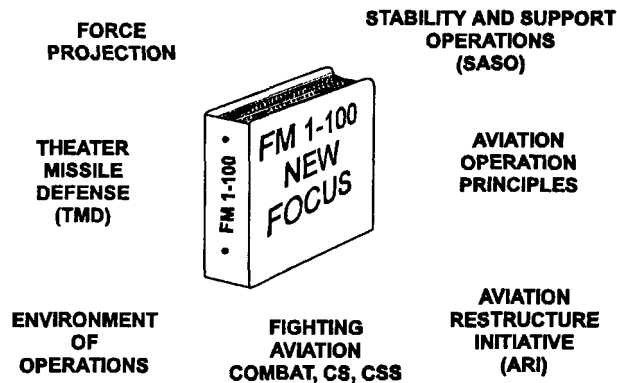
FM 1-100

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PREFACE

Field Manual (FM) 1-100 is Army aviation’s capstone manual. It embodies the doctrinal tenets for the employment of aviation and establishes the basis for understanding aviation as an essential element of combat power. Doctrinally describing Army aviation, the manual serves as the foundation that captures the essence of Army aviation and those principles upon which it is employed. It prescribes doctrine above the level of tactics, techniques, and procedures.

This field manual provides general guidance concerning the employment of Army aviation on the modern battlefield. It forms the basis for understanding Army aviation’s unique contribution to maneuver, combat support, and combat service support missions. It establishes the principles of Army aviation employment for warfighting and other operations, and applies to all echelons of aviation operations.



This manual is intended for use by Aviation commanders, staff officers, and all soldiers within aviation units and theater, corps, division, and brigade commanders and their staffs. It applies to all members of the combined arms team; joint, multinational, and interagency operations; and special operations, or contingency, forces that operate with Army aviation forces.

The proponent of this publication is HQ TRADOC. Submit changes to improve this manual on DA Form 2028 (Recommended Changes to Publications and Blank Forms); forward it through the aviation unit commander to the Commander, US Army Aviation Center and Fort Rucker, ATTN: ATZQ-TDS-D, Fort Rucker, AL 36362-5000.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

This publication has been reviewed for operations security considerations.

FUTURE DOCTRINE

This edition of FM 1–100 is written to carry Army aviation forward to the turn of the century. Our vision lies beyond the turn of the century, however. As this manual is being drafted and staffed, we are concurrently developing the new concepts that will evolve into the doctrinal foundation for the *next century*. This is a dynamic period of innovation and change.

Our leap-ahead reconnaissance and attack aircraft—the RAH-66 Comanche and AH-64 Longbow Apache—are realities. We know their current capabilities, and can envision the future potential they bring to the *future battlefield*. We are developing future doctrine based on those capabilities. At the same time, the research and development community and industry continue to create the enabling technologies—the digital communications and other linkages—we need to fight these systems to their fullest potential. The *future battlespace* will be fluid, high tempo, and nonlinear. The traditional battlefield framework of deep, close, and rear operations will become increasingly convoluted and ambiguous.

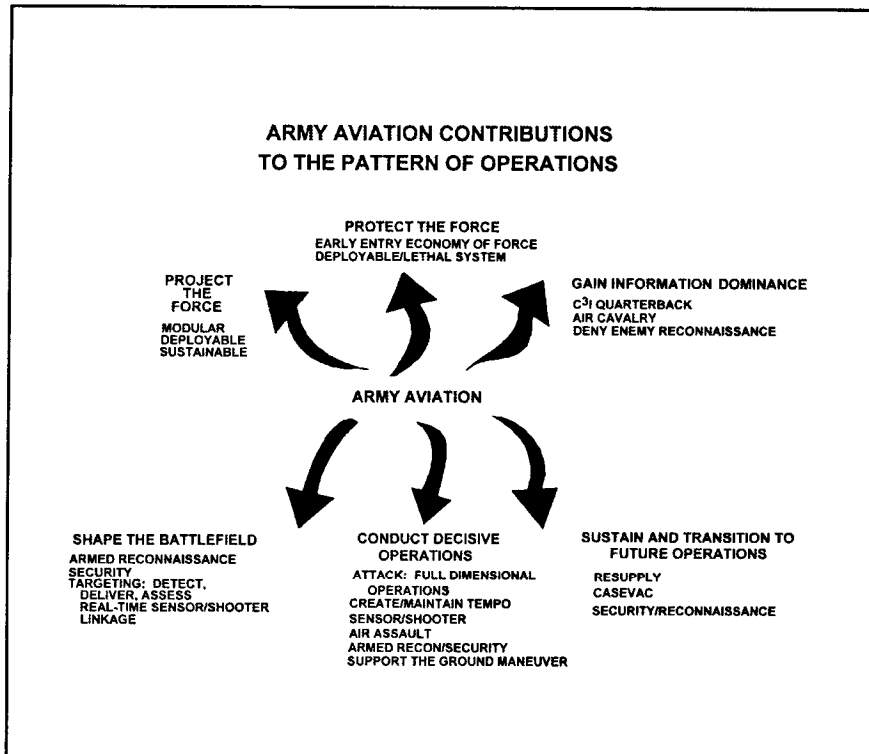
To maintain continuity with other capstone Army doctrine, this edition of FM 1–100 will continue to refer to close, deep, and rear operations; however, in the near future, a more viable framework may be simply close and extended operations. On the *nonlinear/non-contiguous battlefield of the future*, we must be prepared to conduct seamless, simultaneous operations in all directions.

Army operations will be conducted in the context of an ever-changing world. No longer can we model the force and develop our doctrine against one known threat, or even counter the capabilities of a number of known potential adversaries. Instead, we must develop and retain the warfighting capability to win decisively across the spectrum of operations with minimum friendly casualties. This is domination-based warfare—massing not only our forces, but total lethal and nonlethal effects, throughout the battlespace to dominate any potential adversary. *Army aviation is uniquely suited to these challenges.*

The Apache and Comanche fully exemplify the inextricable linkage between maneuver and fires. With unmanned aerial vehicles (UAVs) to extend their range and coverage—digitally cued by the Joint Surveillance Target Attack Radar System (JSTARS), Army airborne command and control system (A²C²S) UH-60 Black Hawks, and other ground-based command posts—these aircraft provide commanders with real-time intelligence and situational awareness. They maneuver throughout the depth of the battlespace to deliver precision fires with devastating lethality.

Shaping Army aviation for future operations is more than merely delivering lethal fires...it is more than killing enemy tanks and artillery.. it is, instead, creating a new synergy—a total integration into what is termed a *pattern of operations*. (The subsets of the pattern are depicted in italics to indicate that they are *emerging doctrinal terms*.)

Our future Aviation units will be modular and deployable. They will provide joint force commanders with a lethal and flexible force to rapidly deploy from the continental United States (CONUS), or abroad, to any theater. Deployment will be by strategic air or sea lift, self-deployment, with a maritime force aboard aircraft carriers, or by any combination of those means.



No other force can match Army aviation's ability to rapidly *project the force* and build combat power in an immature theater. Once on the ground, we become the principal means to *protect the force* as the other ground forces continue to deploy and flow into the initial lodgement. This is best exemplified by the initial days and weeks of Desert Shield as aviation units quickly deployed to Saudi Arabia and became the principal combat power for the initial covering force.

Throughout the future fight, Army aviation will be at the forefront of *gaining information dominance*. The Comanche and Longbow Apache, coupled with UAVs and the A²C²S UH-60, form a team that becomes, in effect, the command, control, communications, and intelligence (C³I) key facilitator for the *future battlefield*. We can eliminate the enemy's reconnaissance, attack his command and control (C²), and gather intelligence, while providing security for our own intelligence and C² systems. Digitally cued by JSTARS and other airborne and ground sensors, our future aircraft will add a new dimension of precision economy of force. Concurrently, these missions also contribute to Army aviation's key role in *shaping the battlespace*.

By conducting armed reconnaissance and security missions with real-time, sensor-to-shooter linkages, Army aviation can rapidly confirm the enemy's intentions, disrupt his tempo, deny his freedom of action, and get into his decision cycle. The ultimate in shaping the battlespace is to preclude the necessity for conducting decisive operations. We can sustain the tempo of the fight, attacking with depth and simultaneity throughout the battlespace. At a time and place of our choosing, we will initiate decisive operations in conjunction with maneuver ground forces to complete the destruction or defeat of enemy forces.

We will sustain the force and transition to future operations with combat support and combat service support provided by our UH-60 Black Hawk and CH-47 Chinook aircraft, and by air assaulting forward-operating bases from which follow-on combat operations can be conducted. We will also continue to provide the reconnaissance, security, and attack helicopter support to sustain the fight and protect the force as we prepare for follow-on operations.

Army aviation must adapt quickly to the inevitable changes that affect our mission. Our doctrine, tactics, techniques, and procedures must reflect those changes and be responsive to the needs of our units in the field. We encourage your comments and ideas as we develop our collective vision for shaping the future of Army aviation.

CHAPTER 1

INTRODUCTION TO ARMY AVIATION

There is “the enduring reality of the unknown and the uncertain; not just across the Atlantic and Pacific, but in all regions of the world that continue to harbor danger and turmoil; regions where crisis will occur when least expected.” To meet this reality, contingency forces “provide global crisis and contingency response capability across the spectrum of conflict from counterinsurgency to major conventional conflict.”

*General Colin Powell
A Critical Analysis of the Gulf War*

1-1. PURPOSE

The purpose of our capstone doctrine is to capture the essence of Army aviation and those principles upon which it is employed across the range of military operations.

1-2. STRATEGIC REALITIES

a. Recent events have underscored the uncertainty of these times. The post Cold War period has placed unprecedented operational demands on the Army. Civil disturbances, disaster relief, humanitarian and peacekeeping operations, and the threat of lesser regional contingencies punctuate the need for a trained and ready contingency-oriented Army. Amidst these global demands, domestic change and fiscal constraints broaden the challenge.

b. This era also confirms the application of high technology in future warfare. Weapons with the “*effects of massed forces*” are available to any nation possessing hard currency. Precision munitions, digital communications, and position location equipment promise to change the face of future battle.

c. The physical and intellectual dimensions of battlespace urgently demand intuitive and versatile leaders supported by agile battle staffs and well-trained soldiers. Mobility, agility, simultaneity of effort, lethality, increased battle tempo, and space-age logistics must dominate the Army’s restructuring initiatives and investment decisions.

1-3. ARMY’S RESPONSE

a. The Army has responded to this new environment with continental United States (CONUS)-based contingency and reinforcing forces and some forward-deployed units. Total Force initiatives are underway among the Active and Reserve Components to give broadened meaning to the doctrine development of a trained and ready Total Army, capable of decisive victory. Force restructuring initiatives are being implemented to