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AMERICAN ARMY DOCTRINE FOR THE POST-COLD WAR

John L. Romjue

MILITARY HISTORY OFFICE
UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND

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AMERICAN ARMY DOCTRINE FOR THE POST-COLD WAR

By John L. Romjue

Military History Office
United States Army Training and Doctrine Command
Fort Monroe, Virginia
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U.S. ARMY TRAINING AND DOCTRINE COMMAND

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James T. Stensvaag and John L. Romjue, General Editors

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Cover illustration, *Brigade in the Attack,* Persian Gulf, Mario Acevedo, 1991, courtesy U.S. Army Center of Military History

FOREWORD

Americans who look back on the 20th century's record of war, conflict, and uneasy peace will not dismiss lightly the need for a vigilant defense and a strong Army. For those who share responsibility for the future preparedness of the United States Army, it is vital that we constantly modernize our doctrine, organizations, training, leader development, materiel, and soldier capabilities.

In the early-1990s, the Army and its Training and Doctrine Command were acutely aware of the geopolitical shift that, in 1989-1991, ended the Cold War and introduced a new strategic era. Responding to the consequences of that change, TRADOC developed a new military operational doctrine, published in June 1993 as the Army's first doctrine for the post-Cold War. Spanning the requirement for a leading-edge, cohesive framework to guide how we think about tactics, operational art, and the strategic challenge, the 1993 doctrine established the intellectual basis and battle dynamics of the smaller force-projection Army that was to be the primary land component of American joint forces in the 1990s.

Doctrine is at the heart of everything we do as an Army. How we formulated that doctrine is of central concern. TRADOC historian John Romjue's study of the development of the U.S. Army's post-Cold War doctrine provides a documented record of that significant thinking and planning process. I urge our Army, joint-service, and allied friends to read it for the American Army perspective it offers. And I urge TRADOC readers, as the Army's educators, trainers, and doctrine and

combat developers, to use it as a documentary aid in support of the evolving vital doctrine we will need to prepare us for warfighting in the 21st century.

WILLIAM W. HARTZOG
General, United States Army
Commanding

Fort Monroe, Virginia , April 1996

PREFACE

This historical study treats the development of the Army's first doctrine for the post-Cold War. Raised to new prominence in the modernization and reform of the United States Army of the 1970s-1980s, Army operational doctrine was rendered obsolescent in the early 1990s by the Cold War's end and by the advanced military-technological capabilities demonstrated in the Persian Gulf War. The new doctrine formulated under General Frederick Franks, Commanding General of the Army Training and Doctrine Command, sprang from the assumptions of a new strategic era. In the process of rethinking war fighting, a new dynamics of battle emerged, and a new operational doctrine was formulated. This study is intended to present a critical documented record of that important event in late-20th century American Army history. Treated are: its historical antecedents, strategic context, study and formulation, finished results, propagation, and the mechanics of the effort. This monograph is additionally intended to provide, in its ideational detail, a case-study of the intellectual and institutional processes involved, for use by future doctrine planners.

I would like to thank General Frederick M. Franks, Jr., U.S. Army, Ret., principal author of the 1993 doctrine, and Colonel James R. McDonough, former director of the School of Advanced Military Studies, his chief doctrine writer, for the full interviews and document assistance with which they both were more than generous. This study could hardly have been completed without the further interviews granted and documents furnished by numerous other key individuals, who included Maj. Gen. Wesley K. Clark, General Franks' combat developments deputy; Brig. Gen. Timothy J. Grogan and Brig. Gen. Lon E. Maggart, the TRADOC doctrine

deputies; Colonel Ricky Rowlett who headed the FM 100-5 writing team; Colonel Fred Berry, Army doctrine director; and Lt. Col. Bobby McCarter, the chief action officer in the doctrine office throughout the period, and his assistant Capt. Michael Whetston. My thanks as well to Ms. Fran Doyle, Headquarters TRADOC Librarian, and Ms. Karen Lewis and Ms. Judith McKimmey of the library for their valuable assistance. The skilled design, layout, and camera-ready preparation of this book all owe to the highly professional talents of Mr. Robert Beaman of the Fort Monroe Multimedia Services Division. My thanks also to the chief of that division, Mr. Will Moffett, for his support, and to Mrs. Diane Johnson of the Directorate of Information Management for her most efficient publication processing.

In the Military History Office, I wish especially to thank the former TRADOC Chief Historian, Dr. Henry O. Malone, Jr., who fully supported the assignment and development of this study. My thanks also to his successor, Dr. James T. Stensvaag for schedule adjustments permitting the history's completion, and to my colleagues Dr. Susan Canedy whose efficient processing made important documents accessible, Dr. Charles H. Cureton for illustrations advice, and Dr. Anne W. Chapman for bearing many office research burdens while I was completing the manuscript. It has been my special privilege to prepare this record of the Army's post-Cold War doctrinal shift, for the armed service with which I have been associated most of my professional life and whose post-Vietnam reform and resolute readiness were an important factor in the winning of the Cold War. I wish also to thank my wife, Inge, for her full support. The author assumes all responsibility for what appears in the following pages, including any errors of omission or commission.

JOHN L. ROMJUE
Fort Monroe, Virginia, April 1996

General Frederick M. Franks, Jr.

INTRODUCTION

A new order of power was evolving in the early 1990s that forced Army planners to a basic doctrinal reformulation.

Between August 1991 and June 1993, the United States Army formulated and published a fighting doctrine recast to fit the power demands of a new strategic world. The Army's earlier "AirLand Battle" doctrine, first issued in 1982, had provided a central element of the NATO deterrent through the 1980s against the threat posed by the Soviet-dominated Warsaw Pact. That doctrine had also furnished the war-winning operational maneuver in the Gulf War of January-February 1991. A new order of power was evolving, however, in the early 1990s that forced Army planners to a basic doctrinal reformulation.

The new power-order arose from the world-changing historical events of 1989-1991. In rapid succession in those years occurred the Revolution of 1989 in Eastern Europe and the fall of the Iron Curtain, the ensuing collapse of communism, the treaty reduction of military conventional force levels in Europe, and the end of the Warsaw Pact. Thereon followed

the political disintegration of the Soviet Union and, with it, the termination of Soviet Russian sponsorship of worldwide socialist revolution. Accompanying that historic train of events was the U.S.-led defeat by United Nations forces of the hegemonic move of Iraq upon the emirate of Kuwait that had threatened the globe-dependent Persian Gulf oil supply. Profoundly altering the bipolar world in place since the first power moves by the Soviet Union at the close of the Second World War, the events of 1989-1991 spelled the end of the Cold War.

The strategic ramifications of the new power constellation were of first-order consequence. The collapse of the Soviet Union led to the reduction and withdrawal of significant U.S. and former-Soviet forces from Central Europe. A smaller U.S. Army emerged in the early 1990s, structured primarily as a United States-based power projection force newly focused to support national military policy throughout the globe. In addition, out of the 1990-1991 Gulf War came the suggestion of a new technological face of war. Resting on radically altered security assumptions, those developments signified a new strategic world which demanded, for the Army, a revised and broader doctrine by which American land forces could respond to the global and diverse military tasks assigned to them.

The task of revising Army doctrine, together with much of the Army component of joint-service doctrine, was the mission responsibility of the Training and Doctrine Command, or TRADOC, the major command headquarters established at Fort Monroe, Virginia in 1973 as the Army's trainer and overall developer for doctrine, force design, and weapon requirements. How TRADOC developed the Army's first post-Cold War doctrine is the subject of this study.

In a profound sense, the effort to define fundamental Army doctrine for the new strategic world was the redefining of the Army itself. That

was the conscious aim of Army Chief of Staff General Gordon R. Sullivan, who assumed the Army's leadership post in June 1991. Sullivan's early directive to TRADOC was to develop doctrine as the "engine of change" in an effort that would be both "process and product." Sullivan charged TRADOC to lead the Army through the intellectual change required in the altered circumstances of the early 1990s.

For the new chief of staff, the Army was doctrine-based, and Sullivan hand-picked as TRADOC commander the Army general he wanted to carry out the task, Lt. Gen. Frederick M. Franks, Jr., commander of the VII Corps in the Persian Gulf War. Franks assumed TRADOC command in August 1991. The primary author of the distinctive ideas of the new doctrine published in June 1993, Franks made the project his premier concern, producing a new fundamental body of doctrine that situated the U.S. Army firmly in the changed strategic world.

What were the questions and issues revolving around the rapid replacement, less than two years after its resounding success in the desert war, of the Army's recognized and successful fighting doctrine—the well known AirLand Battle? Why was a new doctrine needed, and what was its focus in the new international world?

Many other questions posed themselves. What were the germane lessons and indications of the Gulf War and recent U.S. and United Nations operations at political and ethnic flashpoints around the globe? In the cumulative doctrinal experience of the American Army, what was permanent and what was changing? Further, what was the mechanism of the process itself? How did the Army at large view the need to revise, and how did it view the result?

Still other important questions may be asked. Did the new doctrine issued in 1993 decisively shape the U.S. Army of the 1990s as intended,

and how was it implemented? To what extent was it the yeast of further significant change? We will examine these several questions after turning briefly to a discussion of the roots of American Army doctrine and the antecedent developments leading to the U.S. Army's recasting of its key battle doctrine to fit the realities of the post-Cold War world.

CHAPTER I

ARMY DOCTRINE AND THE STRATEGIC SHIFT

Not only the history and heritage of the United States Army but its way of fighting bound it together as an institution and profession. In the maxim of British military theorist J.F.C. Fuller, doctrine was the "central idea" that at a given time, as affected by strategic circumstance, actuated an army.

Though oriented to a new strategic world, the 1993 doctrine of the United States Army had roots in the doctrinal past. Its direct and close antecedent was the 1980s AirLand Battle doctrine so recently and successfully demonstrated in Operation Desert Storm. But it also traced back to earlier military principles and experience. The 1993 doctrine grew in addition out of the greatly altered strategic position and assumptions of the United States that followed from the political events of 1989-1991. Those unfolding changes had inspired a preliminary start on a revision in the summer of 1990 under General Franks' predecessor at TRADOC headquarters, General John W. Foss. General Foss had at the same time pressed his staff to the development of a mid-future AirLand Operations concept. While TRADOC supporting actions to the U.S. and United Nations force buildup to counter the August 1990 Iraqi seizure of Kuwait forced the interruption of the the FM 100-5 revision, coordination of the mid-future concept went forward. The 1991 Persian Gulf War would significantly alter U.S. Army doctrinal thinking. We will briefly examine in this chapter the structure of doctrine and its American evolution, together with the doctrinal background and late influencing events and studies that led first to a preliminary start and then to a reactivated project during 1991-1993 to revise the Army's key war fighting doctrine.

Doctrine and Its Levels

Any study of war demonstrates that while there is in warfare no one system—there is indisputably system. Truisms of military experience tell us that although every battle is unique, warfare is governed always by select methods and principles. Yet warfare in any age is various and constantly subject to change. System and enduring principles—but also variety and new concepts—characterize the agreed body of thought about military operations that at any given time in an army is called doctrine.

Not "doctrine," but strategy and tactics, were traditionally the nomenclature and focus familiar to military commanders. Divisible into three parts, strategy since Napoleonic times had commonly been seen to consist, in its first element, of grand strategy—integrating political objectives with military means to determine broad war plans. Below that level, strategy proper denoted the concentration and movement of armies and navies. Lastly, grand tactics described the maneuver of armies to create the conditions for battle.[1] However, strategy—though it was an important element of the instruction of senior officers at higher levels—lay beyond the usual reach of U.S. Army war fighting instruction in the branch schools and at the Army's Command and General Staff College at Fort Leavenworth, Kansas. The common purview of most Army doctrinal teaching and writing was tactics and their derivative techniques and procedures. Tactics were the focus of the Army's key doctrinal text, *Operations,* in its successive field service regulations and field manual editions down to the final two decades of the 20th century.

Missing from broad Army doctrine during most of the century was the grand-tactical or operational level—the planning and execution of campaigns by which to move and concentrate large units to create the conditions of battle. American Army Expeditionary Forces in World War I were locked in a largely immobile front until the end of hostilities and had scarce occasion to employ a concept of operational campaign. Command and general staff instruction in the 1920s and 1930s did treat large-unit operations in some degree. The Leavenworth school instruction recognized three levels: conduct of war (today's strategy), strategy (today's operations), and tactics. The Leavenworth teaching of the operational level mirrored the doctrine work at the Army War College of Lt. Col. Charles Andrew Willoughby, whose text, *Maneuver in War,* appeared in 1935 and 1939.

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1. As presented in Archer Jones, *The Art of War in the Western World* (Urbana and Chicago: University of Chicago Press, 1987), pp. 54-55.

Willoughby would serve as a general officer on the staff of General Douglas MacArthur in the Pacific.[2] World War II in its global reach was replete with examples of large-unit operational maneuver and campaign, from MacArthur's island-hopping to General George Patton's eastward dispositions into the heart of Europe.

However, large-unit operational experience together with any integrated teaching of it would fade after 1945. Partially responsible was the segmenting of service roles that resulted from the 1947 National Security Act's establishment of separate service departments, followed by establishment of a new Department of Defense in 1949. At the same time, the Unified Command Plan of 1948 and its subsequent editions placed the conduct of theater operations by land, naval, and air forces under regional unified commanders. For the Army, the effect of those changes was to focus it away from planning and conducting campaigns—activities subsequently termed officially, the operational level of war—to a tactical orientation. In the American wars of the 1950s and 1960s, national strategy and theater topography foreclosed most open warfare and operational maneuver. The Korean and Vietnam Wars were fought, with notable exceptions including the Inchon landing and the 1970 incursion into Cambodia, almost wholly at the tactical level.[3] The tactical ceiling for broad Army doctrine prevailed in NATO Europe as well. NATO defensive linear strategy, resting upon insistent West German disinclination to trade land for maneuver, imposed a tactical doctrine without a vision of large-unit operational campaign. That was the case until the final period of the Cold War. What was needed was a re-recognition of, and focus upon, the critical level of operational art.

In 1982, that re-recognition took place in the edition of *Operations* written by TRADOC and published that year. The 1982 edition added, to the tactical focus, war's operational level. Tactical doctrine acquired thereby a wider and deeper visualization for reader-commanders of *Operations.* Echoing traditional grand tactics and already recognized in 20th century German and Soviet Army doctrine, the operational level was for the first

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2. *The Principles of Strategy for an Independent Corps or Army in a Theater of Operations,* Command and General Staff School, 1935-1936 (reprint by the Art of War Colloquium, Army War College, July 1983). (2) Charles Andrew Willoughby, Lt Col, USA, *Maneuver in War* (Harrisburg, Pa.: The Military Service Publishing Co., 1939), reprint by the Art of War Colloquium, Army War College, November 1983.

3. Lt Col Clayton R. Newell, U.S. Army Ret., "On Operational Art," in *On Operational Art,* Newell and Michael D. Krause, general editors (Washington, D.C.: Center of Military History, U.S. Army 1994), pp. 10-13.

time named in the key doctrinal manual of the U.S. Army.[4] In addition, the manual of 1982 and the 1976 edition immediately preceding it stirred a new and wide Army interest in doctrine, raising it to a new level of prominence.[5]

Because of its new prominence and broader vision, doctrine in the U.S. Army had thus acquired by the early 1980s a connotation beyond its encompassing generic meaning. Army doctrine connoted, at its heart and center, the operational level and vision of war—the operational art. That expansion of its *Operations* doctrine by the U.S. Army into the realm of corps and larger units lifted the vision of commanders from the tactical battle alone to the battle's context and larger purpose: the campaign. In 1993, fundamental Army doctrine was further broadened when it was extended and linked to the strategic level of war.

Army doctrine in the late 20th century additionally extended in lateral directions. Cooperative Army, Air Force, and Marine Corps study-ventures produced multiservice doctrinal manuals and other publications that presented single-volume, agreed doctrine in relatable fields such as low intensity conflict.[6] Beginning in the mid-1980s and as a result of concerted joint-service doctrinal and other developmental efforts arising from passage of the Goldwater-Nichols Defense Reorganization Act of 1986, a program to produce a series of joint doctrine manuals additionally began. In that program, TRADOC and its subordinate centers and schools were assigned authorship of many of the manuals for which the Army had responsibility. Thus, while Department of the Army, TRADOC-written

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4. The operational level was added in the 1982 doctrinal manual by General Glenn K. Otis, then TRADOC commander, as advocated by Brig. Gen. Donald R. Morelli, the TRADOC Deputy Chief of Staff for Doctrine. (1) John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982* (TRADOC Historical Monograph Series), hereafter *AirLand Battle* (Ft. Monroe, Va.: Historical Office, Headquarters TRADOC, 1984), p. 61. (2) Interview of Brig. Gen. Donald R. Morelli by John L. Romjue, Historical Office, HQ TRADOC, 12 Jan 83. See the several essays in *On Operational Art*, Newell and Krause, gen. eds., for discussions of aspects of the operational level of war. In that volume, Professor James J. Schneider, "Theoretical Implications of Operational Art," offers an interesting distinction between Napoleonic concentrated maneuver and "distributed free maneuver" introduced into the new warfare of the industrial age in the American Civil War by the greatly expanded military requirement to protect national economic resources. Colonel Richard M. Swain, "Reading About. Operational Art," provides an annotated bibliography on the subject.

5. See Paul H. Herbert, *Deciding What Has To Be Done: General William E. DePuy and the 1976 Edition of FM 100-5* (Leavenworth Papers No. 10), hereafter: *DePuy* (Ft. Leavenworth, Kan.: USACGSC Combat Studies Institute, 1988) for a discussion of the development of that manual. Romjue, *AirLand Battle* describes the doctrinal debate of the period and the formulation of the Army's 1980s AirLand Battle doctrine.

6. FM 100-20/AF Pam 3-20, *Military Operations in Low Intensity Conflict* (Washington, D.C.: Headquarters Departments of the Army and Air Foce, 5 Dec 90).

Army field manuals (with FM 100-5, *Operations,* as the keystone) remained the basis of Army doctrine, selected multiservice doctrinal manuals were in use, together with a burgeoning, comprehensive body of joint doctrinal texts, the first of which were appearing by the early 1990s.[7]

Beyond the multiservice and joint doctrinal programs stood the related individual doctrine-writing programs of the other armed services. Each of the services fielded, in the mid-1990s, an *Operations* equivalent, oriented to its respective physical purview—air, sea, and littoral. The successive editions of Air Force Manual 1-1, *Basic Aerospace Doctrine for the United States Air Force,* stressed technological preeminence and dominant airpower in its basic missions of strategic power projection, counterair and counterspace operations, and close air support of ground forces.[8]

By contrast, the Navy had not formally stated its operational doctrine in recent years and traditionally had no such doctrine as commonly understood.[9] U.S. Navy orientation through the end of the Cold War was to the strategic maritime role and the applicable tactics of sea battle. But with the demise of the Soviet Union and Soviet naval threat came a fundamental shift of U.S. Naval strategy from open-ocean war fighting on the sea toward naval operations conducted *from* the sea in support of land forces. Naval Doctrine Publication 1, *Naval Warfare,* published in March 1994, stated and symbolized a new orientation to the joint doctrinal realm of sea-air-land force action.[10]

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7. For a brief summary of Army doctrinal activities in the joint-service realm, see John L. Romjue, Susan Canedy, and Anne W. Chapman, *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command, 1973-1993* (Ft. Monroe, Va.: Office of the Command Historian, Headquarters TRADOC, 1993), pp. 65-73.

8. AFM 1-1, *Basic Aerospace Doctrine for the United States Air Force* (Washington, D.C.: Headquarters U.S. Air Force, March 1992). The four Air Force categories spelled out in AFM 1-1 were: *aerospace control* (counterair and counterspace operations); *force application* (strategic attack, interdiction, and close air support); *force enhancement* (airlift air refueling, electronic combat, surveillance, and reconnaissance); and *force support* (base operability and logistics). Air Force doctrine in the early 1990s was strongly influenced by a strategic planning framework published in June 1990, *Global Reach-Global Power.*

9. Colonel Harry G. Summers, Jr., USA Ret., *The New World Strategy: A Military Policy for America's Future* (New York: Touchstone, 1995), p. 115.

10. (1) Naval Doctrine Publication 1, *Naval Warfare* (Washington, D.C.: Office of the Chief of Naval Operations and Headquarters United States Marine Corps, 28 March 1994). The term "doctrine" was bannered prominently on the flyleaf. (2) Lt Cdr William J. Toti, "Sea- Air-Land Doctrine," *Naval Institute Proceedings,* September 1992, pp. 70-74. Informing the Navy's post-Cold War doctrinal shift was the Navy-Marine Corps September 1992 White Paper, *From the Sea: Preparing the Naval Services for the 21st Century.* In March 1993 the Navy established a new Naval Doctrine Command at its Norfolk, Va. naval base, expressly choosing that location for its proximity to the Army Training and Doctrine Command. (Information from marginal note by General Frederick M. Franks, Jr. on review ms.)

Naval Warfare was a co-publication of the Navy and the U.S. Marine Corps and, as such, the co-doctrine of the sea services. But the Marine Corps as an amphibious land force had been active earlier in the doctrine realm. Cooperative Army-Marine Corps efforts between TRADOC and the Marine Corps Combat Development Command in Quantico, Virginia had produced multiservice doctrine manuals and other products. In land operations doctrine and in much of its armament, the Marine Corps followed the Army lead. Fleet Marine Field Manual 1, *Warfighting*, provided Marine fundamental service doctrine.[11]

Doctrine and the American Army

Not only the history and heritage of the United States Army but its way of fighting bound it together as an institution and profession. In the maxim of British military theorist J.F.C. Fuller, doctrine was the "central idea" that at a given time, as affected by strategic circumstance, actuated an army. Doctrine provided guides, methods, and agreed-on concepts. It furnished a framework of combat and a common language and understanding. Doctrine was also what was officially approved for instruction. It additionally influenced the design of organizations and forces and the development of weapons.

The historical evolution of American Army doctrine in the broad reach of its tactical elements is beyond the scope of this discussion. We may only note that evolution here in brief summary. Army tactical doctrine had developed early on as the adaptation of European war fighting tactics and methods to the vastly different and varied physical conditions of the North American continent. The specific requirements and conditions of each of the wars in which the Americans were involved additionally shaped evolving Army tactical doctrine. So, too, did the rapid technological and weapon developments of the industrial age.

Doctrine would be further influenced from the close of the 19th century on by the historical forces of the international world. Dominant were the political currents of alliance and threat that the United States would encounter and, as a world power, increasingly direct and confront in the 20th century. From the tactics of moving and maneuvering organized bodies of infantry supported by cavalry and artillery, doctrine was revolutionized by the new universals of warfare, which this section can only touch upon. Foremost among them were the developments in mechanized, armored,

11. FMFM 1, *Warfighting* (Washington, D.C.: Headquarters U.S. Marine Corps, 6 March 1989).

artillery, aerial, airmobile, communications, and information technology.[12]

We will note here briefly how basic American doctrine was promulgated historically. Army doctrine texts traced their first American origins to the Blue Book of General George Washington's Prussian volunteer aide and inspector general, Friedrich Wilhelm von Steuben, the professional trainer of the Continental Army. Von Steuben's *Regulations for the Order and Discipline of the Troops of the United States* prepared American troops to face British regulars and remained in force into the early 19th century.

No official doctrine literature system in the modern sense existed until the early 20th century. For the American Army, the dominant influence on 19th century tactical thinking came from writings derived from the experience of the Napoleonic Wars. Primary in influence were the writings of Major General Antoine Henri Jomini, whose *Precis de l'Art de la Guerre* was published in 1838. Jomini's intent was a systematic search for principles in Napoleon's mastery of battle and campaign. Jomini's work not only became the chief French interpretation of Napoleonic warfare. It also inspired the school of 19th century American military literature. The influence of the preeminent doctrinal theorist Carl von Clausewitz did not reach the American Army until late in the 19th century, when his work, *Vom Kriege* was first translated into English in 1873.[13] *On War* was to have renewed impact on U.S. Army doctrine one hundred years later.

Influential for Civil War tactics, North and South, was a translator of Jomini, Henry W. Halleck, later general in chief and chief of staff of the Union armies. Halleck's *Elements of Military Art and Science,* published in 1846 and thence further updated, was the first comprehensive study of the military art by an American author.[14] Strongly influenced by Jomini was West Point professor Dennis Hart Mahan, the author of a comprehensive work on tactics and strategy first published in 1847. Mahan's *An Elementary*

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12. For discussions of U.S. Army tactical developments, see Russell F. Weigley, *A History of the United States Army* (enlarged edition) (Bloomington, Ind.: Indiana University Press, 1984). The same author's *The American Way of War: a History of United States Military Strategy and Policy* (New York: Macmillan Publishing Co., Inc., 1973) treats the evolution of American strategic thought. Doughty, *The Evolution of US Army Tactical Doctrine, 1946-1976* provides a cogent overview of changes in tactical doctrine from the end of World War II to the advent of the renaissance in doctrine introduced by promulgation of the Active Defense doctrine of 1976. That development and its paternity are described in Herbert, *DePuy.* The doctrinal debate and development of AirLand Battle doctrine are discussed in Romjue, *From Active Defense to AirLand Battle.*

13. (1) Weigley, *History of the United States Army,* pp. 148, 273. (2) Weigley, *The American Way of War,* pp. 210-11.

14. *Dictionary of American Military Biography,* ed. Roger J. Spiller (Westport, Conn.: Greenwood Press, 1984), Vol. II, pp. 421-25.

Treatise etc. together with Halleck's work laid the foundation of American professional military literature.[15] The primary tactical manual of the Civil War was *Rifle and Light Infantry Tactics,* published in the 1850s by William Joseph Hardee, later a commander of cadets at West Point and Confederate general. Another manual, *Infantry Tactics,* was prepared by Union Brig. Gen. Silas Casey in 1862 to avoid the embarassment of having to use Hardee's book, but raising the tactical scope from battalion to brigade-level and higher.[16]

Other privately authored textbooks followed in the late 19th century, the work of proteges of William Tecumseh Sherman, commanding general between 1869-1883. Developer of the General Service and Staff College at Fort Leavenworth and a founder of the Army War College, Arthur L. Wagner published a tactics study, *Organization and Tactics,* in 1895. John Bigelow's textbook, *Principles of Strategy,* and his campaign writings were influential.[17] Branch journals came to prominence in the 1880s and 1890s, their contributions acting to cross-fertilize the tactical ideas and studies of the rising Army school system. Emory Upton, Civil War tactician and the most prominent and influential military intellectual of the late 19th century American Army, developed tactical concepts from his studies, including innovative skirmish tactics, but was best known for his reform treatise, *The Military Policy of the United States.* Upton's work fathered the ideas of a modern general staff and a system of military schools.[18]

An important departure was a set of three tactical manuals, for infantry, cavalry, and artillery, developed by a Fort Leavenworth board, which were authorized by Secretary of War William C. Endicott and approved by Commanding General of the Army Maj. Gen. John M. Schofield in 1891. The Leavenworth manuals were the Army's first official and true manuals

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15. *Ibid.*, pp. 714-17. Mahan's 1847 work, his most important, was *An Elementary Treatise on Advanced Guard, Out-Post, and Detachment Service of Troops, and the Manner of Posting and Handling Them in Presence of an Enemy, With a Historical Sketch of the Rise and Progress of Tactics, etc.*

16. *Ibid.*, pp. 441-44; Vol. I, pp. 160-64.

17. Weigley, *History of the United States Army,* p. 274.

18. *Ibid.*, pp. 275-80. It is interesting to note that Upton did much of his theoretical writing while serving at Fort Monroe, Virginia as Artillery School superintendent between 1877-1880. He completed his famous trip report for General Sherman, *The Armies of Asia and Europe,* published in 1878, and a major portion of *The Military Policy of the United States,* published posthumously by the War Department in 1904. Richard P. Weinert, Jr. and Colonel Robert Arthur, *Defender of the Chesapeake: The Story of Fort Monroe* (Shippensburg, Pa.: White Mane Publishing Co., Inc., 1989), pp. 166, 168.

of tactics that transcended drill and the movement of formations to actually instruct troops how to fight. *Infantry Drill Regulations* of 1891 introduced extended-order tactics and new organizations below the level of company, including platoons and squads.[19]

Emory Upton's ideas were carried out under Secretary of War Elihu Root during 1901-1903, establishing the first high-level coordinating agency—the War Department staff—for creation, development, and control of doctrine. The Root reforms also established a coherent system for the Army's service schools, thereafter primary sources of branch and applied tactical doctrine. The first *Field Service Regulations*—the first official manual of general doctrine—was published by the War Department in 1905, appearing in frequent successive editions to incorporate the lessons of the Great War of 1914-1918, and continuing into the 1920s.[20]

Significant also was the first listing and elaboration of "Principles of War," which appeared in War Department Training Regulations No. 10-5 of 1921. The nine-item list included all the current Principles—Objective, Offensive, Mass, Economy of Force, Security, Surprise, and Simplicity, with Movement and Cooperation as forerunners of the current Maneuver and Unity of Command, respectively. The Principles came from the work of British Major General and 20th century theoretician J.F.C. Fuller, who had developed them during World War I.[21] Influential in the interwar period was Colonel George C. Marshall's handbook of World War case studies, *Infantry in Battle,* published in the 1930s. That work disparaged the idea of rigid system in doctrine, stating "The art of war has no traffic with rules....in battle, each situation is unique." But Marshall's examples did admit of Principles, illustrating among others, simplicity and surprise.[22]

The Army's key manual of tactical doctrine was retitled in 1930 *Manual for Commanders of Large Units (Provisional), Vol I, Operations.* In 1939, *Tentative Field Service Regulations, Operations, FM 100-5,* followed. Further editions of Field Service Regulations: FM 100-5 appeared

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19. Perry D. Jamieson, *Crossing the Deadly Ground: United States Army Tactics, 1865-1899* (Tuscaloosa and London: The University of Alabama Press, 1994), pp. 99-112.

20. (1) Weigley, *History of the United States Army,* pp. 313-25. (2) Military History Institute, Reference Bibliography, US Army Basic Operational Doctrine, 1821-1986.

21. Weigley, *The American Way of War,* p. 213.

22. *Infantry in Battle* (Washington, D.C.: The Infantry Journal, Inc., 2d edition, 1939), reprinted by USACGSC, p. 1.

in 1941 and 1944, embodying tactical lessons of the ongoing Second World War. The succeeding 1949 *Field Service Regulations* codified the primary tactical lesson of World War II: the requirement for integrated combined arms operations. Subsequent editions of 1954, with changes, and 1962 reflected the firepower-heavy experience of the Korean War, the concepts of the theoretical pentomic battlefield of the late 1950s, and the advent of the flexible new ROAD divisions of the early 1960s. In 1968, the Field Service Regulations designator was dropped from FM 100-5 *Operations* beginning with the edition of that year, *Operations of Army Forces in the Field,* which wrote into broad doctrine the airmobile, unconventional warfare, and other tactical experience of the Vietnam conflict.[23]

Each of the post-World War II editions of *Operations* updated the previous doctrinal exposition with wartime lessons or with revisions based on changes wrought by the introduction of new weapons and weapon systems, new war fighting concepts, or new strategic concerns. Though changes in national security policy always underlay the changes in doctrine, *Operations* was almost wholly tactically focused until the advent of the AirLand Battle editions of the 1980s. In the postwar series, the 1976 manual, succeeding that of 1968, stood out, both for its inauguration of an Army-wide debate of doctrine but also for its explicit orientation to the critical major theater, NATO Europe.[24] The ensuing doctrinal debate of the late 1970s and early 1980s led to the more flexible and initiative-oriented, deep attack doctrine of AirLand Battle, to be discussed below.

Issuing from the Army colleges and service schools and the War Department General Staff, doctrine fell to the major responsibility of major subordinate headquarters when the War Department first established functional major commands in 1942. Headquarters Army Ground Forces, organized in March of that year, was assigned doctrinal responsibilities, which it retained upon relocation from Washington, D.C. to Fort Monroe, Virginia in 1946. That mission continued when the Army Ground Forces was redesignated Office, Chief of Army Field Forces (OCAFF) in March

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23. (1) See Doughty, *Evolution of US Army Tactical Doctrine* for discussions of post-World War II tactical thinking and developments. (2) Military History Institute Reference Bibliography, US Army Basic Operational Doctrine, 1921-1986.

24. See Herbert, *DePuy,* for an account of the formulation of the NATO-centered Active Defense doctrine. See also William E. DePuy, *Changing an Army: An Oral History of General William E. DePuy, U.S. Army, Retired,* interview by Lt Col Romie L. Brownlee and Lt Col William J. Mullen III (Carlisle Barracks, Pa.: U.S. Army Military History Institute); and *Selected Papers of General William E. DePuy,* compiled by Colonel Richard M. Swain, edited by Donald L. Gilmore and Carolyn D. Conway (Ft. Leavenworth, Kan.: Combat Studies Institute, USACGSC, 1994).

Fort Monroe, Virginia, Headquarters Army Training and Doctrine Command

1948. When OCAFF was in turn reorganized to command the numbered Army regions in the United States and redesignated Headquarters Continental Army Command (CONARC) in February 1955, doctrine responsibilities passed to that headquarters, as retitled U.S. Continental Army Command in January 1957. The development of doctrine merged increasingly into the Army's new mission of combat developments under OCAFF and CONARC in the 1950s. Doctrine fell to the province of a new major headquarters, the Combat Developments Command, situated at Fort Belvoir, Virginia, between 1962-1973. But in July 1973, that command and CONARC were disestablished, and TRADOC was organized to reunite again the Army's combat developments-doctrine and individual training missions, which had been bureaucratically split between CONARC and the Combat Developments Command in the preceding 11-year interim with problematic results. Established with TRADOC in 1973 was the new Forces Command, which assumed the CONARC mission of command and readiness of corps and divisions in the continental United States.[25]

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25. See Jean R. Moenk, *A History of Command and Control of Army Forces in the Continental United States, 1919-1972* (Fort Monroe, Va.: Historical Office, Headquarters CONARC, 1972), pp. 22-55, for a summary of major Army command missions from the close of World War II to the 1973 major Army headquarters reorganization.

AirLand Battle Doctrine

The broad doctrine in force between 1982 and 1993, AirLand Battle was the American Army doctrine of the final period of the Cold War. One of the most significant intellectual developments in the history of the U.S. Army, AirLand Battle had provided, to a dispirited profession returning from the United States' strategic defeat in Southeast Asia, a credible and initiative-oriented war winning doctrine to confront a menacing Soviet threat to the Western Alliance.[26] With that recast doctrine, the Army reassumed an explicitly offense-oriented readiness posture that compelled Soviet political and military leaders to the realization that, should they move on NATO, their armies could and would be attacked at great depth by Air Force and Army systems. The historic, generational modernization of U.S. Army weaponry that took place in the late-1970s to mid-1980s was an earnest of that doctrinal intent.[27]

AirLand Battle had grown out of a vigorous debate and rethinking of fundamental Army doctrine between 1977-1981. The debate focused on the Europe-centered 1976 *Operations* manual and the so-called "Active Defense" doctrine it presented, the work of TRADOC commander General William E. DePuy. Recognizing the advent in the 1970s of a new order of weapon lethality, that doctrine emphasized heavy firepower, concentration tactics, and exacting training to enable U.S. units to wear down the numerically superior Warsaw Pact echelons. Critics, however, soon appeared. Asserting that the 1976 doctrine overemphasized firepower and the defense, allowed for inadequate reserves, and slighted maneuver, they found that the Active Defense was far too dependent on high-risk concentration tactics and too closely tied to the single Soviet operational maneuver of massive breakthrough on a narrow front. Those criticisms stirred an internal and external debate that led to new thinking. Out of the debate came the distinguishing ideas of a new operational view and tactics of battle tagged AirLand Battle in the FM 100-5 of August 1982.[28] The

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26. This theme is developed in Romjue, *AirLand Battle*.

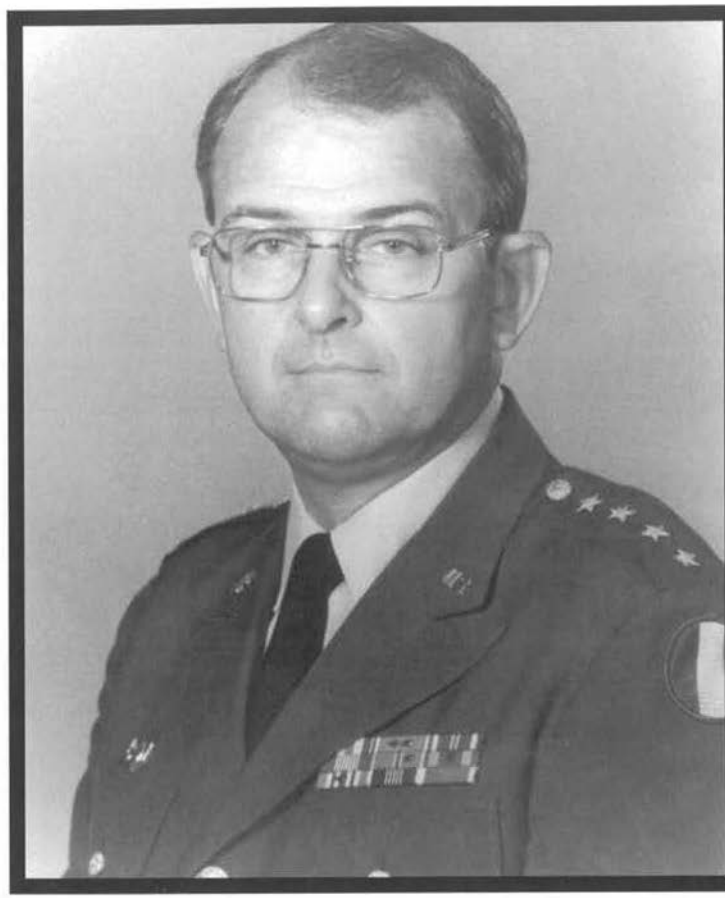
27. The deterrent effect of AirLand Battle was noted by former TRADOC commander and a principal developer of the 1982 doctrine, General (Ret) William R. Richardson: Interview, Richardson by John L. Romjue, Office of the Command Historian, Bethesda, Md., 24 Feb 93. Concerning the "decade of modernization and reform," see Romjue, *The Army of Excellence: The Development of the 1980s Army (hereafter: Army of Excellence* (Fort Monroe, Va.: Office of the Command Historian, HQ TRADOC, 1993), pp. 2-4, 126-27.

28. Romjue, *AirLand Battle*, pp. 13-21, presents a documented digest of the debate.

General William E. DePuy

1982 doctrine introduced a deeper view of the battlefield.[29] It aimed not only at hitting the enemy's attacking force but also simultaneously striking his follow-on echelons to delay and disrupt their arrival into the main battle. AirLand Battle thus confronted the central operational dilemma the NATO armies faced: a numerically far superior and technologically advanced

29. The deep-battlefield thinking of the TRADOC commander, General Donn A. Starry, had important origins in Starry's consultations in 1977 with Mr. Joe Braddock of the U.S. defense firm Braddock, Dunn, and McDonald, whose nuclear deep-targeting studies for the Defense Nuclear Agency suggested similar conventional application, once properly-ranged conventional weaponry became available. Closely associated with BDM in an advisory capacity was the British historian of Red Army and Soviet Army operations, Prof. John Erickson, whose studies of Soviet deep battle and operational penetration theory influenced this U.S. Army doctrinal development. (1) Interview of General Donn A. Starry by John L. Romjue, 19 Mar 93, Fairfax Station, Va. (2) Memorandum for Record ATMH, TRADOC Military History Office, 1 Apr 96, subj: Deep Battle/AirLand Battle.



General Donn A. Starry

Soviet/Warsaw Pact front. Though focused on Central Europe, AirLand Battle doctrine took cognizance of U.S. global contingencies.

Related deep battle studies worked out the requirements of operations on an integrated conventional-nuclear-chemical battlefield, and it integrated air-land operations. A broader vision was constructed that extended beyond the physical dimension of battle to the human and moral dimensions of combat. Emphasizing maneuver and the fundamentals of war, TRADOC doctrine writers under DePuy's successor General Donn A. Starry and his deputy commander at the U.S. Army Combined Arms Center at Fort Leavenworth, Lieutenant General William R. Richardson, distilled fundamentals into tenets of depth, initiative, agility, and synchronization as the heart of AirLand Battle doctrine. The basic idea, applicable to offense

General William R. Richardson

and defense, was to throw the enemy off balance with a powerful blow from an unexpected direction and to seize and retain the initiative and exercise it aggressively to defeat the enemy force.

Other significant ideas included adoption of the German Army concept of *Auftragstaktik:* the inculcation in battle leaders of the ability to act independently as exigency required based on thorough training and a clear understanding of their commander's intent. Also of highest importance was AirLand Battle's new delineation of the levels of war—the inclusion of the operational level between the strategic and tactical. That inclusion clarified, for tactical and operational commanders alike, the campaign aim to which the tactical battles were keyed.

While embedded in operational doctrine by the 1982 and 1986

"keystone" manuals, operational art in practice required a full joint-service commitment and was conditional on a theater's specific strategic circumstances and service structure. AirLand Battle and its NATO reflection "Follow-on Forces Attack" presented a new operational vision in theater terms. At the same time, U.S. Army corps in Europe were the elements of a multinational force that necessarily was oriented to a strategic-linear defensive vis-a-vis a very powerful Warsaw Pact adversary throughout most of the 1980s. Within the multi-echeloned NATO structure, the Europe-based corps were operationally oriented but tactically disposed, with joint-service interaction not fully exploited at that level. Where a corps was contingency-focused, as was the Stateside-based XVIII Airborne Corps, a stronger joint, campaign-plan environment might prevail. In the 1980s, practical experience at the operational level lagged behind the theoretical.[30]

While correcting the deficiencies of the Active Defense doctrine preceding, AirLand Battle retained its training strengths. It placed new emphasis on the fundamentals and imperatives of combat and restored the role of strong reserves. Significant was the stronger fusing of air and land battle into closely concerted operations of air power and ground forces. In 1986, AirLand Battle was adjusted by General Richardson, by then TRADOC commander, in a new FM 100-5 edition. The refinement expanded the idea of the operational level of war, put in better balance the offense and defense, and highlighted the synchronization of the close-deep-rear battles of the deep, extended battlefield.

Unlike the Active Defense doctrine of 1976, which had been written at Fort Monroe by General DePuy and selected commandants and staff, AirLand Battle doctrine was written by a team in the Department of Tactics at the Command and General Staff College at Fort Leavenworth working intimately with Starry and Richardson to translate and develop their ideas. As noted, AirLand Battle was an element of the restoration of American strategic perspective in the early 1980s. It provided the conceptual basis for the force of the 1980s to mid-1990s, the "Army of Excellence" built upon organizational designs developed during 1983-1984. Thus, it was the Army doctrine of the final period of the Cold War and the actuating basis

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30 These views draw upon observations of General John W. Foss, U.S. Army (Ret.) in a letter to the author, 8 Apr 96. Maj Gen L.D. Holder, Commanding General, 3d Infantry Division (Mechanized) in 1993, and earlier an AirLand Battle doctrine writer, noted in 1993 that officer instruction in the operational art had remained general and ill-defined in detail. Holder recommended theater campaign exercises and the re-creation of large-scale theater exercises in command post scenarios employing well thought out, improved simulation. (Holder, "Education and Training for Theater Warfare," *On Operational Art* (Washington, D.C.: Center of Military History, United States Army, 1993), pp. 171-87.

for the highly successful U.S. military operations carried out in Panama and the Persian Gulf during 1989-1991.[31]

Revolution and War, 1989-1991

A watershed in modern history, the events of 1989-1991 in Eastern Europe and the Soviet Union transformed the political and military power constellation of the world and ushered in a new strategic era. Within that period, the United States fought a major regional war in the Persian Gulf. U.S. Army doctrine, tied directly to American policy and military strategy, underwent a significant shift as a result of those combined events. What was the sequence and meaning of those occurrences, and why did they trigger an important revision of doctrine?

In brief, the decline and collapse of Soviet power that ended the Cold War owed to a combination of long range factors and more immediate causes.[32] The Soviet satellites' desire for national independence, the appeal of the free market and democratic institutions, the information revolution, and Western policies of containment and deterrence all were factors acting to meet and precipitate the historic change. The Polish free-union Solidarity movement, the 1980s U.S. military buildup and matching of Soviet intermediate range SS-20 missile deployments, together with the challenge of the Strategic Defense Initiative and an economic decline and crisis that brought to the Soviet leadership a more flexible and reform-minded president, Mikhail Gorbachev, were the immediate causes. Those events and policies created and set in motion a new Soviet openness to arms accommodation, resulting in agreement in 1987 to eliminate U.S. and Soviet intermediate range nuclear missiles in Europe, and in 1989 to the opening of talks to reduce conventional forces.

Against the stream of shifting political and ideological currents, the persevering Solidarity movement forced the first free elections in Poland in June 1989, bringing to power a noncommunist government. The defection of Poland from communism was soon followed by a growing mass exodus of East German refugees to the West, toppling the communist

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31. See Romjue, Canedy, and Chapman, *Prepare the Army for War*, pp. 51-57 for a short digest of the "doctrinal renaissance," which this account follows. Romjue, *AirLand Battle*, pp. 23-66 gives a documented description of the evolution of AirLand Battle under General Starry's guidance by Headquarters TRADOC and Combined Arms Center analysts and writers. The same author's *Army of Excellence* documents the design and development of the organizations of the 1980s Army. Lieutenant Colonels Huba Wass de Czege and L.D. Holder, assisted by Lt Col Richmond Henriques, were the primary doctrine writers of the 1982 manual.

32. See Romjue, Canedy, and Chapman, *Prepare the Army for War*, pp. 115-23, for a summary of events.

regime of the East German state and, in November, opening the Berlin Wall and intra-German border. Actions by democratizing forces in Hungary, Czechoslovakia, Rumania, and Bulgaria ended communist rule in those Soviet satellites by the end of December 1989. The breakup of communism in the six Warsaw Pact satellites led to the effective dissolution of the pact (formalized in 1991), and the beginning dismantlement of the strategic force line-up in Central Europe.

In 1990 followed further democratic parliamentary victories in the Eastern European nations, the reunification of Germany under the free West in October, and the signing of a Conventional Forces in Europe (CFE) Treaty in November, reducing and equalizing east-west forces. During 1990-1991, democratic and free market reforms and mass demonstrations in the Soviet Union led to the dismantlement and deconstitution of communist party authority and popular elections. In December 1991, the Soviet state structure itself splintered into the autonomous nations of a Commonwealth of Independent States.

The collapse of communism and the breakup of the totalitarian superpower that was the ideological and military sponsor of worldwide revolution was a momentous turning point in 20th century history that recast the world strategic picture. Withdrawal of Soviet troops from Eastern Europe permitted reductions in NATO, leading to a one-third cut of U.S. Army troop strength both in Europe and the United States, ultimately to a level of under 500,000 by the mid-1990s. The geopolitical change impelled American policymakers to a shift in strategic orientatation for the Army—from forward deployment and forward defense in Europe to a smaller Army projecting land power primarily from the continental United States. Secondary was the maintenance of a forward presence in smaller contingents of forward deployed forces in Europe, Korea, and elsewhere. The focus of the new U.S. strategic outlook was no longer an overriding Soviet threat, but a range of less ominous regional security threats and problems.

In the major strategic shift precipitated by the events of 1989-1991, significant implications for Army doctrine and force structure were apparent. Down the road lay the prospect of force design changes as well, changes that had further implications for training and equipment requirements.[33]

In the midst of the democratic revolution and power shift in Eastern Europe and the Soviet Union occurred crises in Panama and the Persian Gulf. Both those conflicts would significantly affect the development of Army doctrine. Operation Just Cause, involving U.S. Southern Command

33. Ibid.

and military units deployed from the United States, secured the overthrow and capture of the Panamanian dictator Manuel Noriega and installment of a legally elected government. That action of December 1989-January 1990 had particular influence on subsequent joint service war fighting and simultaneous-attack doctrinal notions.

Operation Desert Shield followed from the invasion and annexation by Iraq of Kuwait in August 1990 and the major regional security threat to world oil supply that that aggression portended. The subsequent U.S. and United Nations buildup eventuated in Operation Desert Storm of January-February 1991. In that operation, prepared by an intensive and destructive air force and naval air campaign, 2 U.S. Army corps and 7 divisions and 2 Marine divisions transported from the United States and Germany, together with NATO, Arab, and other U.N. allies, defeated and expelled Iraqi forces from Kuwait. The major deployment and conflict would have profound impact on subsequent doctrinal thinking.[34]

AirLand Operations

Conceptual work by TRADOC toward a doctrine for the mid-1990s had preceded the revolutionary events of 1989-1991. As the architect by mission of the Army's future, planners in TRADOC were of necessity focused on concepts and ideas for future doctrine, weapon needs, and force design. The periodic revision of doctrine drew on that evolving body of conceptual work, which continued after new doctrine was published. Thus, much conceptual activity preceded the formulation and writing of the Army's post-Cold War doctrine.

Since the beginning of the 1980s, TRADOC planners had worked with an overall concept for future doctrine. In 1986 they had settled on an "architecture of the future" approach, the main element of which was an evolutionary concept looking to a mid-future point 15 years ahead. The

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34. For documented surveys of U.S. Army actions in the Persian Gulf War, see: (1) Brig Gen Robert H. Scales, Jr., Lt Col Terry L. Johnson, and Maj Thomas P. Odom, *Certain Victory: United States Army in the Gulf War* (Washington, D.C.: Office Chief of Staff, U.S. Army, 1993). (2) Richard M. Swain, *"Lucky War": Third Army in Desert Storm* (Fort Leavenworth, Kan.: U.S. Army Command and General Staff College Press, n.d. [1995]. (3) Susan Canedy et. al., *TRADOC Support to Operations Desert Shield and Desert Storm: A Preliminary Study* (Fort Monroe, Va.: Office of the Command Historian, Headquarters TRADOC, 1992) offers a sketch of TRADOC's role. See pp. 1-9 for a brief description of the invasion and response. (4) For a strategic and operational analysis of the Gulf War, see Col Harry Summers, Jr., U.S. Army Retired, *On Strategy II: A Critical Analysis of the Gulf War* (New York: Dell, 1992). Colonel Summers' study also dealt with the psychological recovery and doctrinal renaissance of the military services following Vietnam, through their respective development of new strategic and operational doctrine.

thrust of the project was a set of continuing studies titled AirLand Battle-Future. Begun in 1987, those studies had subsequently divided into two parallel efforts. One was an "umbrella" concept applicable worldwide. The other was a "heavy" concept focused on NATO Europe.[35]

The strategic and political changes of 1989 and the ensuing period significantly altered the future doctrine and force structure picture. The reduction of NATO and Warsaw Pact forces signalled the end of the continuous operational-strategic front presented by the NATO armies against the long standing eastern threat. With the thinning-out and eventual disappearance of the strong-echeloned attack-ready Warsaw Pact armies opposite, the doctrinal stance shifted upon the assumption of an open, nonlinear front. Though the heavy concept of AirLand Battle-Future was rendered obsolete by that change, the umbrella concept, approved by the Chief of Staff of the Army, General Carl E. Vuono, in August 1989, provided a fortuitous future plan. Focused on destroying the enemy force rather than holding land, it fit the strategic forecast for Europe and, generically, for worldwide application.

In TRADOC workshops, map exercises, and other meetings sponsored by the TRADOC commander General John W. Foss during 1990 and early 1991, futures planning centered on the requirements of a nonlinear battlefield featuring greater mobility and employing farther-ranging weapon and intelligence systems. Those systems included two potentially revolutionary capabilities that were entering the Army's doctrinal inventory. The first of those was the ability to know, through intelligence means, where the enemy was almost all the time. The second was the capability to engage him with ground-based systems at long range with very accurate and lethal fires. Such late-1980s generational breakthroughs as the Joint Surveillance Target Attack Radar System, or JSTARS, and the Army Tactical Missile System, or ATACMS, thus extended the battlefield to much deeper dimensions. The advent of those systems would permit initial attack of enemy formations by long range fires, followed by rapidly moving combined arms teams.

Many tactical, logistical, and organizational ideas followed from the AirLand Battle-Future concepts. They included divisions "unweighted" by the shift of their support elements to brigade and corps, and anticipatory rather than reactive logistics. The concept both informed and was endorsed

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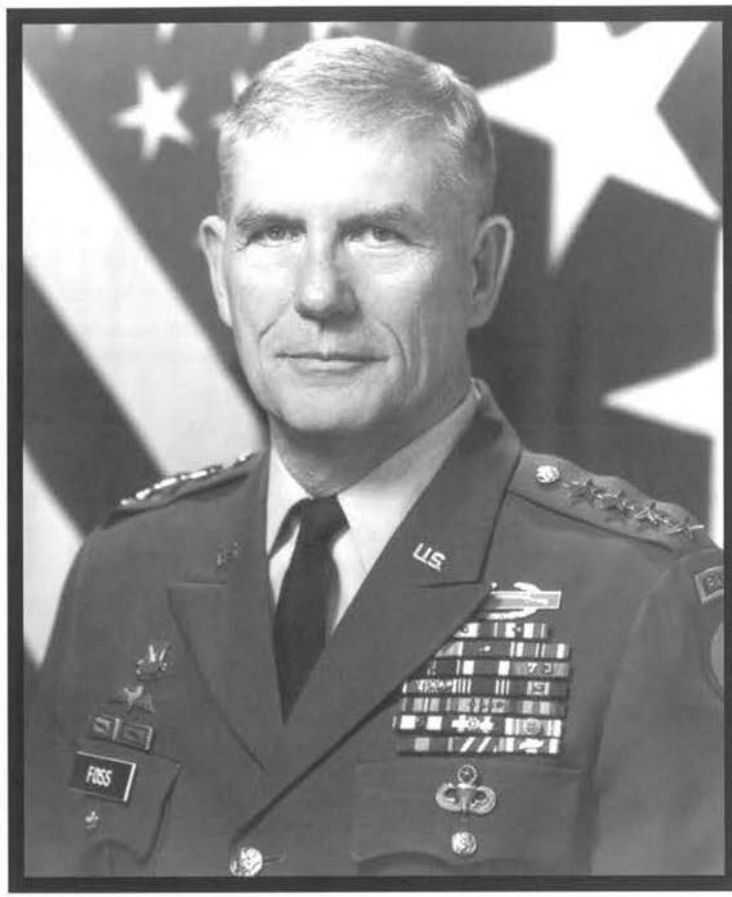
35. This section is based on documented accounts in TRADOC Annual Command Histories (ACH), FY 90, pp. 27-36; FY 91, pp. 54- 60. See also paper, The AirLand Operations Process, Vol. I—Overview and Chronology, The Road to AirLand Operations, 1986-1991, by Robert L. Keller, Director, Force Design Directorate, CAC-CD, Ft. Leavenworth, Kan. n.d.



General John W. Foss

by a White Paper issued by the Chief of Staff of the Army, General Carl E. Vuono, in January 1990. "The US Army: A Strategic Force" declared the future Army to be a strategic force with a strategic view. As envisioned, the force would in the 1990s shift to operate across the operational continuum of war, conflict, and peacetime competition.[36] Thus, the AirLand Battle-Future concept acted to join the operational level of war to the strategic realm, an unprecedented departure in Army concept development.

A four-part cycle of detection characterized the concept. Detection, primarily by advanced sensor technology, was followed by long-range fires

36. Chief of Staff of the Army White Paper, The US Army: A Strategic Force for the 1990s and Beyond, Carl E. Vuono, General, U.S. Army, Chief of Staff, January 1990.

and aviation attack to set conditions for decisive operations. Those operations featuring maneuver ensued, terminating in redispersal and reconstitution. TRADOC planners believed AirLand Battle-Future had worldwide application. They saw it as germane both to the more open European battlefield theorized in the wake of the Warsaw Pact collapse, and to the whole contingency world.

Late in 1990, as the force buildup was reaching its peak in the Persian Gulf, TRADOC became fully occupied with the training of reserve component brigades, operating troop replacement centers, and activation and training of individual ready reservists. With work on FM 100-5 revision set aside, the command continued to brief the mid-future concept to commanders-in-chief in Korea, Hawaii, and Europe. In February 1991, General Foss held extensive discussions with the Air Force Chief of Staff. Those interchanges flowed into the mid-future concept thinking, as well as into conceptual work with the U.S. Air Force Tactical Air Command.[37]

In March 1991, General Vuono endorsed a go-ahead with the concept as a vehicle to properly shape Army doctrine. But he noted the influence that Operation Desert Storm, the battles of which had ended just weeks earlier, could be expected to have. Vuono ordered incorporation into the concept of the Gulf War lessons and implications. Wide review by the Army, its sister services, and U.S. allies led to adding into the concept an increased emphasis on force projection and operations short of war. The concept was published on 1 August 1991 as TRADOC Pam 525-5, *AirLand Operations: A Concept for the Evolution of AirLand Battle for the Strategic Army of the 1990s and Beyond.*[38]

AirLand Operations presented the overarching idea of how Army forces would operate in the future as a land component of air, land, and sea power in joint, combined, and interagency operations. Co-signed by the commander of the U.S. Air Force Tactical Air Command, it furnished a basis for development of joint operational procedures and doctrine. As its subtitle signalled, the concept was seen as a basis for continuation of AirLand Battle doctrine, though oriented to several new things. Those new focuses were the full operational continuum, power projection on short notice, decisive U.S. technological advantage, a versatility to tailor force packages

37. Ltr, Foss to author, 8 Apr 96.

38. (1) Msg, HQ DA (General Vuono, CSA) to distr, 111237Z Mar 91, subj: Shaping the Army and AirLand Battle-Future. (2) TRADOC Pam 525-5, *AirLand Operations: A Concept for the Evolution of AirLand Battle and the Strategic Army of the 1990s and Beyond,* 1 Aug 91. The publication repeated the number of the significant and influential TRADOC Pam 525-5, *The AirLand Battle and Corps 86,* 25 Mar 81, which had served as a major basis of the Army's AirLand Battle doctrine published in 1982.

appropriate to the emerging situation, high lethality and quick action with minimal casualties, and force expansibility. *AirLand Operations* envisioned all Army action as part of a joint U.S. force and sometimes as part of a combined command.

Preliminary Revision

As we have seen, the year 1989 introduced a new period of doctrinal ferment. The advancing concept of AirLand Battle-Future posited a battle characterized by early, destructive deep fires on the enemy. The prospect of smaller armies and nonlinear combat opened up by the Conventional Forces in Europe talks and the political Revolution of 1989 in Eastern Europe, together with widening U.S. Army roles in the global contingency sphere—all were developments of first-order significance with major doctrinal implications. Assuming command of TRADOC in August 1989, General Foss had soon set about studies of nonlinearity as part of the ongoing AirLand Battle-Future project. In January 1990, the Army Chief of Staff had enunciated, as we have seen, the Army's role as a strategic force.

In the spring of 1990, those events and concerns moved Foss and his doctrinal planners at Headquarters TRADOC and in the School of Advanced Military Studies, or SAMS, in the Command and General Staff College to put thought to the revision of key Army doctrine. Discussions by General Foss with General Vuono about the scope of the next FM 100-5 edition brought agreement that it should focus, more strongly than before, on the operational level of war as the level at which campaigns were designed and executed by a joint force of air, land, and sea commanders—the chief interaction being air-land. The Chief of Staff supported doctrine's proper linking to the strategic level, and affirmed the requirement to maintain close operational-tactical ties.[39]

A major preliminary issue was apparent. In the radically shifting doctrinal picture, how much change should the revision attempt to embrace? Just how far ahead should new doctrine try to reach? Headquarters planners supported continuing the basic thrust of AirLand Battle, but they believed it needed expansion in several areas. Those areas were: joint, contingency, and heavy-light-special forces operations and the operational continuum of peacetime competition, conflict, and war. Planners believed the revision

39. Ltr, Foss to author, 8 Apr 96.

should reach toward, but not encompass, the AirLand Battle-Future concept.[40]

In June 1990, General Foss directed the doctrine be written primarily at the Combined Arms Center, or CAC (the parent command of the Command and General Staff College and SAMS). The TRADOC commander would be the doctrinal "driver." Following discussions with General Vuono, he issued in mid-July further basic instructions. AirLand Battle was sound, and its tenets held up. However, it needed more operational overtones as well as more joint and combined overtones. It needed more nonlinear development, more depth in contingency operations, and further work on low intensity conflict (LIC). Foss also instructed that LIC doctrine would be subsumed under the overarching FM 100-5 *Operations*. He assigned the project formally to CAC commander Lt. Gen. Leonard P. Wishart III on 27 August 1990, specifying Headquarters TRADOC as the review and approving authority, with its Assistant Deputy Chief of Staff for Concepts and Doctrine to define guidance. Lt. Col. Thomas Mitchell in the SAMS organization was named at this time as primary author.[41]

General Foss told his staff principals that doctrinally the time had come for a fundamental shift. The new "base case" for U.S. military action would resemble Operations Just Cause and Desert Shield (and soon, Desert Storm), rather than a campaign to reinforce forward-deployed forces having a good logistics base. Deployability had a greatly increased importance. The TRADOC commander also stressed the need for and difficulty of accommodating low intensity conflict, with its many variables, force requirements, and political implications.[42]

Foss also had a distinct view of command. Only strong command fostered initiative in subordinates, acceptance of risk, and rapid seizure of opportunities on the battlefield. Strong command was based on the commander's *intent* and his subordinates' freedom of action in exercise of

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40. Paper, ODCSDOC, no subj [point paper to determine optional location for proponency of FM 100-5], n.d. [10 Apr 90].

41. (1) Msg, Cdr TRADOC to Cdr USACAC (General Foss to Lt Gen Wishart), 032000Z Aug 90, subj: FM 100-5 Revision Study, RC CAC/LVN, SG CGSC, SAMS 002/016. (2) Briefing slides, ODCSDOC Dir Army Doctrine for DCSDOC, Brig Gen Grogan, 6 Sep 90, subj: FM 100-5, Operations 1991 Revision. (3) Memorandum for Record, John L. Romjue, Office Command Historian, 30 Aug 90, subj: FM 100-5 Revision. (4) Msg, Cdr TRADOC to Cdr CAC, 271312Z Aug 90, subj: FM 100-5 Revision. (5) Msg, Cdr USACAC to Cdr TRADOC, 311349Z Aug 90, SAB.

42. Briefing slides, ODCSDOC Dir Army Doc for DCSDOC, Brig Gen Grogan, 6 Sep 90, subj: FM 100-5, Operations 1991 Revision.

mission tactics that were cognizant of that intent and that fully grasped the priority of the main effort. By contrast, Foss regarded the *control* path fostered by technology and electronic devices, as dangerous. Control, communications, and computers—the other three "C's" of the fused C4 acronym—were subordinate to and supported command. For Foss, command was personal, face-to-face and voice-to-voice, and not through the staff. Command meant not only responsibility. It meant authority, and it extended only one level down, thus promoting subordinate initiative.[43]

In the fall of 1990, many of the assumptions that would underlie the 1993 doctrine had been initially drawn by Army doctrinal planners. Those assumptions included reorientation to a primarily contingency force; the challenge of deployment to "immature" theaters; and the requirement to treat more fully combined operations and campaigns and theater operations. They also included the AirLand Battle-Future concept and close-deep-rear battlefield framework as bases, with a countervailing appreciation that neither would always be applicable to future operations. Assumptions further included the prospective inclusion of the full operational continuum, joint operations, and strategic-operational-tactical balance.

Not only those assumptions regarding a new doctrine, but some leading ideas of the 1993 doctrine were also present. Important were the centrality of command and the view that the C4 composite slighted the critical command function per se. Also present was the notion of flexibility—a flexible adaptation to changing operational circumstances—as a new, fifth tenet.[44]

During September-October 1990, TRADOC headquarters solicited the Army schools for general views about the upcoming project. Most responded positively that some changes were indeed needed. Suggestions included the melding of FM 100-5 and low intensity conflict doctrine in one manual. There was a general recognition that the manual needed to go beyond the operational level of war to engage operations short of war and the strategic level.[45]

In September 1990, TRADOC planners also met with Headquarters Tactical Air Command (TAC) to signal the start-up. TAC at that point urged a detailed setting-out of Air Force doctrine in the new FM 100-5.

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43. (1) General John W. Foss, "Command," *Military Review*, May 1990, pp. 2-8. (2) Memo ATCD-A, Maj J.M. Ritter, Doctrine Staff Officer, ODCSDOC through Col Stephenson to Brig Gen Grogan, 12 Sep 90, subj: Visit by Lt Col Mitchell, Principal Author FM 100-5.

44. Memo ATCD-A, Maj J.M. Ritter, Doctrine Staff Officer through Col Dillon to Brig Gen Grogan, 12 Sep 90, subj: Visit by Lt Col Mitchell, Principal Author FM 100-5, w/attached slides on revision guidance.

45. Ltr ATZL-SWV, Col William H. Janes, Dir SAMS [individually to school commandants], 7 Sep 90, subj: FM 100-5 *Operations* Revision. RC CAC/LVN, SG CGSC 91, SAMS 002/018.

TAC also wanted to set clear the roles of the joint force commander and the commander's campaign. Such clarity was imperative to balancing the two services' respective ground and air roles. For the Army, the balance problem meant the need for air support as a first priority. The meeting thus pointed up the perennial dilemma of the need for fully synchronized AirLand Battle, but the difficulty of securing it. In any case, planners agreed that the manual had to present an accurate picture of joint operations in general and in detail.[46]

Headquarters TRADOC guidance went to the CAC commander in October 1990. A principal guideline was to link the Army's strategic role, as laid out both in FM 100-1, *The Army,* and in the Chief of Staff's White Paper, with the operational and tactical levels of war. Other directives were to underscore the Army's dual mission to deter war and to fight and win when deterrence failed, and to build on the 1986 doctrine. Instructions were to retain the tenets, review the imperatives, and examine the role of flexibility. The new doctrine was to lay the foundation for operational art and tactics, expand the discussion of campaign planning, describe the Army's role in joint actions, discuss considerations governing actions across the operational continuum, and treat operations in developed and undeveloped theaters. CAC was directed to synchronize the doctrine with joint, combined, and other Army doctrine and with the AirLand Operations concept. TRADOC wanted the incorporation of a strong command philosophy, while maintaining the human dimension of doctrine. The manual revision additionally was to describe integrated heavy, light, and special operations forces, address mine warfare, and be oriented to maneuver.[47]

Early work plunged the project directly into the strategic realm and the peacetime end of the continuum of operations. Difficulties and dilemmas were evident. How did AirLand Battle tenets, imperatives, dynamics of combat power, battle dimensions, and command and control apply or not apply in the realm of non-war fighting or "deterrence" operations? How to treat those operations discretely and not lose the unity of war fighting doctrine? The extension of basic Army doctrine to the strategic level and into the full panoply of Army operations presented difficult tasks of doctrinal definition, delineation, and organization. Briefed on the project in December 1990, General Foss affirmed that the new manual would be refocused from the NATO mid-intensity, linear battlefield to global operations across the whole continuum and to nonlinear warfare. Foss affirmed the 525-5

46. Memo ATACD-A, Maj J. Murray Ritter to Lt Col Mitchell, 17 Sep 90, subj: Air Force Role in FM 100-5, Operations.

47. Memo ATCD-A, Brig Gen Timothy J. Grogan, ADCSCDD to Cdr CAC, 12 Oct 90, subj: Guidance for Revision of FM 100-5, *Operations.* RC CAC/LVN, SG CGSC 91, SAMS 002/020.

battlefield framework noted earlier. Further, FM 100-5 would absorb low intensity conflict operations. The new doctrine would advance Air Force-Army cooperation into true joint force operations. It would examine closely the measurably different tenets and considerations of deterrence operations.[48]

The SAMS effort led by Lt. Col. Mitchell looked toward writing and completing the doctrine by late 1991. That timetable was soon to be interrupted by the advent of the Persian Gulf War, many of the events and lessons of which were being viewed by television watchers worldwide during January-February 1991. Reviewing the project in mid-February, General Foss scrapped the notion of deterrence operations in favor of "military operations short of war" to conceptualize the expanded area of the manual. Foss also advised inclusion of the 4-part AirLand Operations concept and elimination of the segmented close-deep-rear structure of combat operations.

Not only the war's interruption of the project but the quick, successful outcome of Operation Desert Storm, acted to slow doctrine revision temporarily. Among the Gulf War commanders, Army school commandants, and the Department of the Army Staff and leadership, the conviction was strong that revision would not fit well with a great victory by proven doctrine and that, in any case, the Army's performance might act to stop, even reverse, the interrupted force downsizing. The immediate consequence was a slowing of the revision effort, with ideas for change placed into the mid-future concept document, TRADOC Pamphlet 525-5. Even so, it was General Foss's belief, stated soon to the incoming Chief of Staff, General Gordon R. Sullivan, that a new FM 100-5 edition would be needed by 1992.[49]

By late March, SAMS had completed the draft of a key chapter, "Army Doctrine for Operations." It presented the dynamics of combat and operations short of war, the Principles of War, precepts for both operations and operations short of war, the AirLand Battle tenets, the dimensions of operations based on the 4-part AirLand Operations schematic, and command and control considerations.[50]

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48. (1) MFR ATMH, John L. Romjue, Office Command Historian, 30 Oct 90, subj: FM 100-5 Working Conference, 23-24 Oct 90, Ft Leavenworth, Kan., w/encl. (2) HQ TRADOC Form 30, ADCSCD, 3 Dec 90, subj: Readahead for 10 Dec Briefing [on FM 100-5]. (3) MFR, Dr. Daniel J. Hughes, CAC Historian, 15 Dec 90, subj: SAMS Briefing to TRADOC Commander, 14 Dec 90, on FM 100-5.

49. Ltr, Foss to author, 8 Apr 96.

50. (1) Memo, Lt Col Thomas E. Mitchell, SAMS through DC CGSC to Cdr CAC, 22 Feb 91, subj: FM 100-5 Brief to General Foss, 1430- 1730, 19 Feb 91. (2) CAC Routing Sheet, ATZL-SWV, Lt Col Mitchell to Asst Dep Comdt and Dep Comdt CGSC, 28 Mar 91, w/encl draft Chapter III. (3) Draft Chapter III, 5 Apr 91. (4) Memo, Col William J. Shuegrue, Dir Army and Combined Doc, ODCSDOC to General Foss, subj: FM 100-5 IPR (2 Apr 91). RC CAC/LVN, SG CGSC 91, SAMS 002/020, 002/019, 002/024, 002/034.

On 2 April 1991, General Foss and the TAC commander, General John M. Loh met to discuss issues relative to the AirLand Operations concept that both would sign in August. It was recognized that the place where the air and land campaigns came together on the battlefield was the primary point of emphasis for Army-Air Force tactics, techniques, and procedures, and that that matter needed TAC and TRADOC priority treatment. The two commanders agreed that TAC needed to develop a tactical air doctrine that complemented AirLand Operations, leading to complementary tactics, techniques, and procedures. Also emphasized was the retention of current Air Force apportionment and allocation procedures and the Air Force necessity to establish air superiority in offensive and defensive counter-air operations. The Joint Surveillance Target Attack Radar System (JSTARS) was reviewed as a central future doctrinal element, based on its productive performance in providing near real-time intelligence in Desert Storm. Forced entry was another agreed focus. Battlefield targeting in joint operations was understood as a critical need, for which the right tactics, techniques, and procedures still were required. This meeting touched the critical points of the needed Air Force-Army synchronization of operations, a major area that would see continuing attention.[51]

The interrupted preliminary FM 100-5 effort thus laid important groundwork. It proceeded from a full appreciation of the strategic and operational ramifications of the fundamentally altered power situation in Europe and the freer U.S. contingency role in a world in which the retreat of Soviet power permitted more open opportunities to respond militarily to regional crises. Doctrinal planners in 1990 had laid down the basic implications that would reshape the project revived in the summer of 1991. Foremost was the concept of a greater strategic role for the Army across the entire continuum of Army operations. Just as important was the reorientation to a smaller force primarily projectable from North America, with overseas U.S. elements constituting a smaller forward presence. Adapting AirLand Battle to a nonlinear, more open battlefield, doctrinal planners at Headquarters TRADOC and in SAMS viewed the mission as dual: war and operations short of war. Also adapted, as earlier noted, was the deeper vision and four-part schematic for action of the AirLand Battle-Future/ AirLand Operations concept.[52]

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51. MFR, General John W. Foss, Cdr TRADOC, and General John M. Loh, Cdr TAC, n.d., subj: Four Star Meeting Between General Foss and General Loh, 2 April 1991.

52. TRADOC ACH, CY 91, p. 65.

CHAPTER II

RETHINKING WAR FIGHTING

The current doctrine was not deficient—the issue was accommodating change. While AirLand Battle had worked well, "gaping holes" in FM 100-5 were becoming evident in light of the new strategic situation. Power projection would dominate the new strategy, freeing FM 100-5 onto broader terrain intellectually.

The sense that the Gulf War, one of the major regional wars of the late-twentieth century was—in its stepped-up battle tempo and the lethal reach of its weaponry—rewriting doctrinal formulas, had effectively sidelined Army doctrine revision in the early months of 1991. Though the effort continued in the School of Advanced Military Studies, the new SAMS director Col. James McDonough, reporting in the early wake of the desert war, believed that undue haste to complete the doctrine during 1991 would not serve the purpose well.[1] The Chief of Staff of the Army General Carl Vuono's instruction in March 1991 that the futures concept, *AirLand Operations,* should encompass the Gulf War lessons, stated and reflected a general consensus in that same view. Indeed, *AirLand Operations* and not the doctrinal manual was, as we have seen, the focus of the TRADOC commander General John Foss's work in the final period of his command, which terminated on his retirement in late August. As it happened, both TRADOC command and, in June, the senior Army billet saw scheduled turnover in the summer of 1991. Those changes brought into their key

1. Interview with Col James R. McDonough, Director SAMS, by John L. Romjue, 22-23 Nov 93, Ft Leavenworth, Kan.

General Gordon R. Sullivan

roles the individual whose decisive stamp the 1993 doctrine would bear, General Frederick M. Franks, Jr., and the Army chief of staff General Gordon Sullivan, who selected him and who would see doctrine as the engine of change for the Army in the new era emerging.

The revision of FM 100-5, *Operations,* undertaken to formulate a doctrine for the new post-Cold War era, proceeded over the next two years. As a body of doctrine decisively altered from preceding notions, it owed paternity chiefly to the doctrinal decisions of the commander of the agency responsible for Army doctrine revision and promulgation. Franks contributed and sharpened many of its leading ideas. His decisions molded the heart of the doctrine and its new and old principles and concepts into a convincing framework valid for the changed conditions of the new era.

But the paternity of the body of ideas brought to completion by early 1993 was broadly shared. That process of contribution proceeded out of Franks' own method of soliciting and gaining wide internal-Army participation and debate. It also owed to his use of the resources of a select writing team of high intellectual quality in the School of Advanced Military Studies.

Directive for Change

General Sullivan's view of the doctrinal and institutional way ahead was stated in a memorandum he gave to Lt. Gen. Franks on 29 July 1991, almost a month before the latter arrived at Fort Monroe. The Chief of Staff's memo was both visionary and direct. Charged with the maintenance and growth of the fundamental programs upon which the Army rested, the new TRADOC commander would, Sullivan said, set the course for the Army that would endure for the next generation. Sullivan believed that more than anything else, Franks shared with him the responsibility of maintaining Army momentum and continuity while accommodating change. The project he expected General Franks to undertake with Sullivan's own support and involvement had "the potential to be a major turning point...[and]...enduring legacy" for the Army.

Sullivan saw the Army at a watershed comparable to that which Ulysses Grant viewed in 1864 as architect of the first American Army campaign of the industrial age. The Chief of Staff similarly saw the Gulf War as the first major conflict of the post-industrial era. Warfare in the early 1990s was at a point at which raw industrial might and manpower-intensive armies were neither necessary nor supportable and had been displaced by the effects of computer technology. Needed was doctrine that retained the winning principles and fundamentals but that accommodated change, "a doctrine for today and tomorrow." Sullivan noted the high state the U.S. Army had reached following the modernization and reform begun at TRADOC headquarters fifteen years earlier by the "Boathouse Gang."[2] Franks' challenge was to create a similar intellectual environment. The new doctrine TRADOC wrote would be the foundation and drive for the Army's organizational design, training focus, leader development, and combat developments and acquisition process. "The writing of this doctrine

2. The Boathouse Gang was a group of young staff officers employed by General William E. DePuy at Fort Monroe during the mid-to-late 1970s to assist in the development of the 1976 FM 100-5 and related doctrinal and organizational concepts. Their workrooms occupied the second floor of the Fort Monroe boathouse adjacent to the headquarters buildings. See Herbert, *DePuy*, pp. 85-88.

is to be an informed process which in its most ultimate sense is our Army thinking and codifying itself," Sullivan believed, and the TRADOC commander was "the catalyst." General Sullivan looked forward to a "vigorous and informed discussion amongst seasoned professionals." The Chief of Staff believed that, in the new era and with remarkable successes behind it, the Army was at an historic juncture as it faced its simple and straightforward mission to defend the Constitution of the Republic. The task was "to put down in writing how we think we will accomplish this mission to standard."[3]

Sullivan's belief that reformulation of the key operations doctrine would itself be an engine of change had two important implications. Externally, the new doctrine would affect defense strategy and the defense budget. It would define the Army role in the national security structure and how the Army would carry out security aims. And Army operations doctrine would influence doctrinal developments in the joint field. Internally, Sullivan believed, the impact of the new doctrine would be fundamental. It would be the motor of force design, materiel development, training, and leader development for the whole or "Total Army." The revised doctrine would clearly communicate both method and intent to the institution. It would refine and expand operational art and campaign planning. It would weave into the doctrinal body four fundamental war fighting qualities: the Army's deployability, lethality, expansibility, and versatility.[4]

General Sullivan's vigorous support of doctrine as the basis for the Army in the new strategic era laid the foundation for doctrinal change. In the shrinking American defense establishment of the post-Cold War, much was at stake. In the change of political administrations following the elections of 1992, even deeper reductions would be made. Was doctrine the right basis for the Army, which so well understood its unchanged role and responsibility in the undefined era just beginning? A clear vision, both of warfare's new strategic assumptions and the Army's right disposition and role was critically needed, rather than budgetary campaigns for shrinking defense dollars or ungrounded weapon or force decisions without a solid doctrinal framework for the new era at hand. Doctrine was the ground. Sullivan's judgement would be borne out in the ensuing period.

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3. (1) Memo, General Gordon R. Sullivan, Chief of Staff of the Army to Lt.Gen. Frederick M. Franks, Jr., 29 Jul 91, subj: Reshaping Army Doctrine. (2) Interview of General Frederick M. Franks, Jr. by Henry O. Malone, Jr., 2 Jan 92, HQ TRADOC, Fort Monroe, Va.

4. (1) Memo, Sullivan to Franks, 29 Jul 91. (2) Interview of General Frederick M. Franks, Jr., by John L. Romjue, 27 Nov 94, Pentagon, Washington, D.C.

Franks, VII Corps, and the Gulf War

The TRADOC commander to whose responsibility it fell to develop and bring to publication the Army's first doctrine for the post-Cold War, Frederick Franks had done apprenticeship both in related TRADOC positions and high-level command. Franks had worked as combat developments planning group chief during 1980-1981 under General Donn Starry, as executive officer to both Starry and to General Glenn Otis in 1981, and as deputy commandant of the Command and General Staff College during 1985-1987. Like Starry and his own immediate predecessor John Foss, Franks had commanded an Army corps. Corps command was decisive for Franks' thinking, as it had been for that of Starry, the originator of AirLand Battle doctrine. Starry's analysis of the Soviet challenge to the critically placed V Corps had led him to find the key—deep attack—to stop the

Franks directing VII Corps operations, 25 February 1991

juggernaut threat of an echeloned and overwhelming Soviet thrust through the Fulda Gap to the Rhine. Franks' experience with corps command was peacetime—and wartime—and thus twofold. It had encompassed deployment of the U.S. VII Corps from Germany via the North Sea ports to Saudi Arabia between November 1990 and February 1991. Once there, it had been Franks' role to position and maneuver a 5-division command as the strongest corps component of the allied encircling thrust on the Iraqi right flank in the "100 hours" ground war of 24-28 February 1991.

Franks' own Gulf War experience of organization and maneuver on an empty, almost featureless desert, with a force equipped with the most advanced technology from the United States' historic 1980s arms buildup, had profound impact on his views. It influenced his thinking on projection of strategic force, on operational command, on the "blurring" of the levels of war, and on the space and time dimensions of battle. Whereas AirLand Battle—with its stress on depth, maneuver, and the Principles of War—met the test of the conditions of the Gulf conflict, that doctrine's emphases on the simultaneous close-deep-rear fight and on disruption of oncoming echelons were relics of Cold War Europe. Nor did AirLand Battle treat the trans-regional force projection that the deployment of the VII Corps itself represented. Franks saw that experience as an indicator of what the whole Army would have to be able to do.

Secondly, there were for Franks "glimmerings" of significant changes in warfare. An example was the tactic, which the new weapon systems permitted, of simultaneous attack on the enemy in depth. A third immediate lesson for the VII Corps, which began upon its notification to deploy from Germany, related to the need to re-tailor forces with a resultant different task organization that would permit transfer out of one operational environment and placement on the ground into another that was far different. A last lesson was a new requirement that warfare in the 1990s appeared to be imposing on combat leaders: the need for rapid mental and doctrinal adjustment and adaptation to sudden, radically different operational circumstances presented by sudden theater change.[5]

Organizing a Writing Team

Alerted in July 1991 by the new Chief of Staff of the Army to his principal task as TRADOC commander, and fresh from an operational command in a war that demonstrated new facets and rules, General Franks early set about restarting the revision of FM 100-5. He directed that that effort,

5. (1) Franks Interview by Romjue, 17 Nov 94. (2) Franks Interview by Malone, 2 Jan 92.

Colonel James R. McDonough

which would extend over most of the next two years, be accomplished primarily through two TRADOC agencies. Following recent precedent, Franks renewed the writing assignment of the School of Advanced Military Studies in the Command and General Staff College at Fort Leavenworth, Kansas. He charged his own headquarters staff doctrinal deputy and Army Doctrine Directorate to manage the project.

The individual who had been selected for the key SAMS director position in early 1991 by Army Chief of Staff General Carl Vuono was Colonel James R. McDonough, military assistant to the Supreme Allied Commander Europe, General John R. Galvin. McDonough, a credentialed military intellectual, was author of the Vietnam War memoir *Platoon Leader,* a widely read account of day-to-day junior officer

combat leadership.[6] As the designated SAMS director and supervisor of the doctrine writing effort focused on the FM 100-5 revision, McDonough faced the fundamental problem of how to proceed with that interrupted task in the doctrinally turbulent wake of the Gulf War.

Arriving at Fort Leavenworth in early March 1991, the new SAMS director was instructed by the Combined Arms Center commander that a new edition of FM 100-5 was required by July that year. Believing that no Army consensus then existed for the direction U.S. Army doctrine should take, McDonough argued for a more deliberate approach, based on the unfolding lessons of Desert Shield and Desert Storm. McDonough felt that his view accorded with a rising number of voices opposed to a rapid conclusion of the revision. Though his institutional instructions were to continue to press the writing effort earlier begun and continuing under Lt. Col. Thomas Mitchell, McDonough viewed that effort as a conceptual mirror of the 1986 edition. He believed the approach inadequate to accomplish the scope of the doctrine revision needed.

A complicating factor was the complementary progress of the near-to-mid-future conceptual document TRADOC Pamphlet 525-5, *AirLand Operations,* the ideas of which Lt. Col. Mitchell's focal FM 100-5 draft chapter incorporated, as we have seen. Widely briefed by TRADOC in recent months, that document had raised suspicions in the minds of corps and division commanders that it would legitimize a restructuring of combat to the "center," that is, a restructuring to the command echelons above corps and to consequent "stovepiping" arrangements, and away from the operational centrality of corps and divisions.[7] In early June 1991, General Vuono advised that it was not imperative to rapidly produce the revised FM 100-5, but to proceed with the AirLand Operations concept. Foss brought to completion the work on the future mid-range vision, and TRADOC published it on 1 August 1991. As we have seen, the preliminary FM 100-5 action would shortly be superseded by the Sullivan-Franks plan.[8] Although

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6. Well read in military theory and military history, McDonough was also the author, besides *Platoon Leader* (Novato, Calif.: Presidio Press, 1985), of *The Defense of Hill 781: An allegory of Modern Mechanized Combat* (Novato, Calif.: Presidio Press, 1988), an account of unit experience at the simulated-warfare National Training Center at Fort Irwin, Calif. McDonough was also the author of a historical novel, *Limits of Glory,* set in the events of the battle of Waterloo. Except where otherwise noted, this section is based on interview of Colonel James R. McDonough by John L. Romjue, 22-23 Nov 93, Fort Leavenworth, Kan.

7. *Ibid.*

8. Personal journal of Col James R. McDonough relating to FM 100-5 project, THRC (hereafter: McDonough Journal).

the August 1991 document, a composite of many ideas, would influence the 1993 doctrine, it did not do so decisively. Its stages-of- battle framework was discarded, and it was not destined to play a similarly influential role in future doctrine formulation that its AirLand Battle predecessor had in 1981. Instead, an eclectic approach cognizant of the era and its military lessons and not locked to systemized development would mark the formulation of the U.S. Army's 1990s doctrine. Colonel McDonough organized a permanent 6-man FM 100-5 writing team, naming, upon his arrival in June, Lt. Col. Ricky Rowlett as team chief. Work on new draft chapter outlines soon began.[9]

General Franks met with his chief doctrine writers at Fort Leavenworth in early August, shortly before assuming command on 23 August. Colonel McDonough presented the logic train for a deliberate revision to General Franks and, later that month, to the new Army Chief of Staff upon request. As we have noted, General Sullivan's close interest in the doctrine as the Army's engine of change and in a doctrine of structural balance were evident early on. The Chief of Staff indicated his desire for involvement in each step. In late August, the team began work on chapter outlines, a consensus-building plan, and a "precis."[10]

To launch the project conceptually, General Franks chose the vehicle of the precis, a precise digest of ideas laying out the reasons why a new doctrine was needed and suggesting what lines that doctrine should pursue. At meetings at Fort Leavenworth with Lt. Gen. Wilson A. Shoffner, who had taken command of the Combined Arms Center in August 1991; Brig. Gen. William M. Steele, newly arrived in July as deputy commandant of the CGSC under Shoffner; Colonel McDonough; and his own headquarters doctrine staff, Franks told his planners to pursue what had changed in warfare. Mindful of his own experience, Franks focused early on the notion of simultaneity of fire effects, which he himself had witnessed. That notion ran directly counter to the AirLand Operations 4-stage concept, which would soon vanish from doctrinal consideration.[11]

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9. Other members of Rowlett's team, arriving in August and September, were Lieutenant Colonels Ed Thurman, John Reitz, Nate Power, Gary Steele, and Major (later Lt Col) Michael Rampy. Rowlett was promoted to colonel in January 1992. FM 100-5 Chronology of Events, prepared by SAMS (hereafter: SAMS Chronology). Franks had the opportunity personally to select the writing team. He cleared the choices personally with the ARSTAF Deputy Chief of Staff for Personnel, Lt. Gen. William A. Reno, following consultation with the Combined Arms Command commander, Lt. Gen. Leonard P. Wishart III. Franks review ms. marginal note.

10. (1) MFR ATZLI-SWV, Col James R. McDonough, Director SAMS, 20 Aug 91, subj: FM 100-5 Concept Brief to CSA, THRC. (2) SAMS Chronology.

11. (1) McDonough Interview by Romjue. (2) Interview of Brig Gen Timothy J. Grogan, DCSDOC, by John L. Romjue, 22 Jan 93.

General Sullivan seconded the precis approach. It would supply the vehicle to alert and involve the Army's senior leaders. Sullivan urged inclusion of disaster assistance as an Army doctrinal mission, while cautioning against overshadowing the main, operational mission. Sullivan also stressed the Army's values and traditions as the institution's driving force. He stated that doctrine, as the engine of change, was a key to the Army's focus and balance. In the future period, the nation would demand decisive victories, with little patience for protracted conflicts of attrition warfare.[12]

A Consensus-Bulding Campaign

At Headquarters TRADOC, General Franks placed the management of the effort in the hands of his Deputy Chief of Staff for Concepts, Doctrine, and Developments, Maj. Gen. Wesley K. Clark, who arrived to that assignment at Fort Monroe in early October 1991. General Franks personally selected Clark to take the combat developments-doctrine post at this juncture. Though he would depart for division command in July 1992, Clark's involvement was close and significant for the initial development of the battle dynamics of the 1993 doctrine.[13] Clark was aided by Brig. Gen. Timothy J. Grogan, the assistant deputy for concepts and doctrine and, after July 1992, Deputy Chief of Staff for Doctrine.[14] Supervising the headquarters Army Doctrine Directorate under Clark and Grogan were Col. Stephen Cork, who was succeeded in July 1992 by Colonel Fred Berry. The chief action officer for the campaign through the duration of the project was Lt. Col. Bobby McCarter.

Main ideas and issues seen by doctrine planners at Headquarters TRADOC as the effort began were: to expand FM 100-5 to cover the operational continuum, to treat and emphasize contingency operations and power projection, to increase treatment of combined and joint operations,

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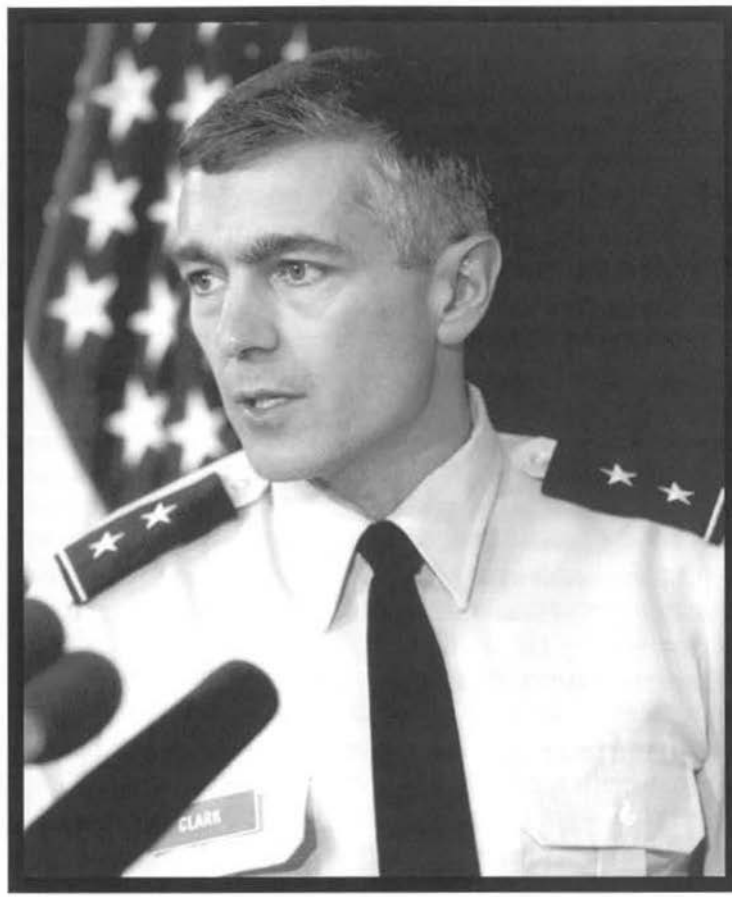
12. MFR ATZL-SWV, Col James R. McDonough, Director SAMS, 20 Aug 91, subj: FM 100-5 Concept Brief to CSA, THRC.

13. (1) Franks Interview by Romjue, 17 Nov 95. Franks obtained Clark's brief 9-month assignment personally from General Sullivan, in the interim immediately prior to Clark's assignment to division command. Notes on discussion with General Franks, 16 Feb 95, Fort Monroe, Va., by John L. Romjue. (2) Interview of Maj Gen Wesley K. Clark, DCSCDD, by Anne W. Chapman and John L. Romjue, 8 Jul 92, HQ TRADOC, Fort Monroe, Va.

14. The separate combat developments and doctrine offices at HQ TRADOC were briefly combined under the DCS for Concepts, Doctrine and Developments between August 1990 and July 1992. Clark departed in the latter month, at which time the reestablished Office of the DCS for Doctrine assumed primary doctrinal responsibilities at the headquarters under the commanding general.



Major General Wesley K. Clark

to increase treatment of operational art and campaign planning, to balance treatment of linear and nonlinear operations, and to keep the focus on the operational level of war.[15] In addition, headquarters planners originally expected the revision to encompass the concepts of *AirLand Operations* as well as the lessons of Operations Desert Shield and Desert Storm.

With a doctrinal precis as a starting point, General Franks' approach was to seek and build Army debate and discussion and ultimately an Army-wide consensus for the doctrine as it developed. He wanted to involve the Army and to gain its considered views, but also in the process to inform the

15. Briefing, HQ TRADOC n.d. [ca. August 1991], subj: Doctrinal and Related Issues, Tab D, Doctrine Briefs, Frederick M. Franks, Jr. Notebook, FM 100-5 Operations, Book 1.

Army in this way about the changed doctrine. Early on, he directed his headquarters staff to set the mechanism for obtaining that consensus, essentially through two recurring forums. The first forum was TRADOC's own commanders conferences, bringing together the Army school commandants and commanders. The second forum consisted of the periodic Army commanders conferences and other Army-wide meetings, at which the developing doctrine was presented and intensively discussed. Franks' approach to "maturing" the ideas he and his planners developed was thus to do so publicly.[16] He employed that involvement and consensus-seeking method throughout the project.

Of significance was the wider-public aspect of the consensus-building effort. The advertisement and wide briefing of AirLand Battle doctrine during 1980-1981 by TRADOC spokesmen, in particular by the doctrine deputy, Maj. Gen. Donald R. Morelli, to defense and congressional circles had been a key factor in its acceptance.[17] The writing team's consensus building plan was developed in September 1991. While FM 100-5 was an applicable change vehicle internally for the Army, the SAMS writers considered and proposed that an extensive effort was needed to explain and draw support with opinion leaders outside the Army for the doctrinal shift. As the National Security Strategy, dated August 1991, stated, a firm grasp of the "extraordinary trends at work today" was required.[18]

The plan focused on five groups influential in shaping national security aims and in bringing change to the Army itself. Those groups were: the reserve and retired Army leadership; defense industry; other military organizations in the Defense Department, including the unified and specified commands; other nations bound by treaty or bilateral relationship; and influential entities and individuals including Congress, influential academics, the media, opinion leaders, think tanks such as RAND and the Center for Strategic and International Studies, and other government agencies, particularly those with a stake in operations short of war. TRADOC planners believed that by the time the media had raised an issue, the media's own viewpoint and agenda was set. The Army needed to fully inform media writers and other opinion makers before uninformed opinions formed and were propagated. The proper course of action instead would be to help

16. Notes on discussion with General Franks, 16 Feb 95, Fort Monroe, Va., by John L. Romjue.

17. Romjue, *AirLand Battle*, p. 66.

18. Briefing slides, SAMS Consensus Building Campaign Briefing for FM 100-5, n.d. [September 1991].

set a responsible issue agenda beforehand. That might be accomplished by analyzing emerging issues from the perspective of the involved groups and identifying divisive issues early. At the same time, the reaching out could draw in valuable ideas and perspectives. TRADOC needed to start dialogues with key congressmen and other opinion makers, rather than wait for things to happen.[19]

General Franks assigned responsibility to carry out the plan to his Army Doctrine Directorate. That agency coordinated the overall effort of building consensus, internally through the series of conferences earlier noted as well as externally. Ambitious, the plan would score general success. Internally, it was smoothly executed. Staffing of the precis, followed by FM 100-5 drafts, and frequent internal TRADOC and wider-Army conferences kept the Army informed and well-involved. Briefings were presented to the other services and allies and formally to Congress. A systematic wider outreach received much less emphasis in the press of time. However, General Franks consulted widely on the many points of doctrine involved and at issue. Such contacts were also pursued extensively by the SAMS director. McDonough contacted the wide net of 100-5 draft reviewers comprehensively, those inside and those outside the Army. Both McDonough and the team and the headquarters doctrine staff reviewed drafts with British Army Staff College officers at Camberley, England, contacted and visited the German Army Staff College, and kept other interested allied armies abreast.[20] The external contacts yielded valuable advice and perspective to General Franks and the writing team.[21] The campaign also included TRADOC-written articles in several publications, including *Army Times, Armed Forces Journal International, Defense News, Military Review, Army, Parameters,* and branch school bulletins.

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19. (1) RC CAC/LVN, SG CGSC 91, SAMS-005: FM 100-5, Consensus Building Campaign, including Folder Note. (2) FM 100-5 Process and Product Chronology, Tab E, Consensus Building Campaign, 18 Sep 91. (3) MFR ATZL-SWZ, Lt Col John W. Reitz, SAMS, 1 Oct 91, subj: Trip Report to DCSCDD, TRADOC, Ft Monroe by Lt Col Reitz and Maj Rampy, 24-26 Sep 91. Lt Col Reitz was author of the comprehensive consensus-building plan, portions of which HQ TRADOC pursued.

20. (1) McDonough Interview by Romjue, 22-23 Nov 93. (2) Grogan Interview by Romjue, 22 Jan 93.

21. (1) McDonough Interview by Romjue. (2) McDonough's links with General RisCassi, Brig Gen Holder, Brig Gen Wass de Czege and, on tactical points, with General Cavazos, were especially close. McDonough also made use of SAMS students to read and comment on drafts. Ltr, McDonough to John L. Romjue, 24 Dec 93.

A *Precis*

Directed by General Franks, the SAMS writing team encapsulated the gist of the revision's rationale and direction in the precis, which went to the TRADOC commander in early September 1991. Franks ordered it revised and shortened to a succinct several-page statement of what had changed external to the Army that affected doctrine, what TRADOC believed had changed doctrinally, and where the Army would use force to achieve national strategic aims as a versatile, lethal, deployable, expansible force.

General Franks presented the precis to the Army's senior leaders at the annual Total Army Analysis conference in Washington, D.C. on 19 September 1991. Franks also presented a three-item outline of the primary doctrinal categories of concern as he saw them. These were: strategic-operational-tactical links and implications; joint, combined, and interagency concerns; and mobilization and deployment. These areas were explored in terms of threat, intelligence, logistics, environment, and technology. Franks argued that the current doctrine was not deficient—the issue was accommodating change. He pointed to the composite nature of the VII Corps in Desert Storm as evidence of doctrine's power to give the Army operational and strategic flexibility. (The Germany-based corps had incorporated State-side divisions as well as the British 1st Armored Division). While AirLand Battle had worked well, "gaping holes" in FM 100-5 were becoming evident in light of the new strategic situation, Franks said. Power projection would dominate the new strategy, freeing FM 100-5 onto broader terrain intellectually.

The aim of the TRADOC precis, titled "The Evolution of Doctrine for the Strategic Army of the 1990s and Beyond," was to open the discussion, clarify key issues, and serve as a means for the Army to decide the doctrinal route ahead. It thus launched the all-important internal coordination process. At the same time, TRADOC printed in *Military Review* companion articles signalling the rationale, basic approach, and initial ideas to the wider military audience.[22] The precis called for building upon the fundamentally sound and battlefield tested AirLand Battle in a revision that faced new international reality, as set forth in the National Military Strategy. Key elements of that early-1990s strategy were a regional strategic orientation, the provision of

22. (1) General Frederick M. Franks, Jr., "Continuity and Change: Discussing Our Evolving Doctrine," *Military Review*, October 1991, p. 1. (2) Colonel James R. McDonough, "Building the New FM 100-5: Process and Product," ibid, pp. 2-12.

more options for decision makers, flexible and adaptable plans, the application of overwhelming force, and a framework of arms control. The shift placed a premium on mobile power projection, strategic agility, crisis response, technological superiority, and force reconstitution.

The precis took *AirLand Operations* as a point of departure. The thrust was a movement of doctrine into the strategic realm. Doctrine pertained not only to the commitment of force in battle. It pertained also to "the use of forces in whatever role they are assigned, whether under conditions of peace, crisis, or war," across the broader operational continuum. Also emphasized was the post-hostilities state. In both Panama and Iraq, U.S. forces had improvised to meet post-conflict needs. But now doctrine was needed to cover such significant outcomes as the need for the no-fly zones established over northern and southern portions of Iraq after hostilities there had ceased.

Franks' precis presentation to the senior leaders outlined the three doctrinal concerns he envisaged. Future operations would have to be fully integrated—joint, combined, and interagency. The U.S. Army needed a strong and executable mobilization and deployment doctrine, as the U.S. military base shifted to the continental United States, and a forced entry capability was a focal concern. Beyond the significant achievement of AirLand Battle, which tied tactics to operational art, the new doctrine needed to link operational art solidly to theater and national strategy.

TRADOC, in its precis of the doctrinal path ahead, judged current tactical and intelligence doctrine to be already well in order, but spelled out new needs and emphases, such as the tailoring of forces and multinational concerns. Needing attention were the great changes observed in battlefield tempo, weapon lethality, and deep operations. The command-control-communications-intelligence or C3I arena required close examination of the right balance between offense and defense and fire and maneuver.

Further focal areas were the changed threat—now regional rather than bipolar; intelligence that expanded into the theater realm and that recognized the evolution of near-real-time target acquisition capabilities; a fully integrated logistics chain; an "environment" of operations that needed to address in a much fuller way the entire diverse spectrum of conflict and operations short of war; and the powerful factor of new technological capabilities, not only American but that which was procurable with increasing ease by potential adversaries.[23]

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23. (1) Precis, "FM 100-5 AirLand Operations," presented for Total Army Analysis Conference of 19 Sep 91, RC CAC/LVN, SG CGSC 91, SAMS 009, FM 100-5, The Precis.

Views of the Army's Senior Leaders

Though the presentations at the Total Army Analysis Conference had elicited little immediate reaction, in subsequent responses solicited by General Franks in late September 1991, the senior leaders endorsed TRADOC's view of a manual both broader to encompass operations other than war, and deeper to integrate joint operations.[24] Agreement was general that the old threat concept had lost its applicability. The commanders also believed that mobilization and deployment had changed from their traditional meaning. They noted war termination as an area of doctrinal deficiency, and logistics-reconstitution and command and control as needing doctrinal exploration.[25] There was additionally a clear signal from the commanders that, with full attention to operations other than war and to joint considerations, FM 100-5 needed to remain a war fighting manual. Operations doctrine should not lose that emphatic and undiluted focus, not "water down the essence," General Crosbie Saint, the commander-in-chief of U.S. Army Europe responded. General Saint also urged attention to command control of extended movements, how to focus fire on the enemy, how to sequence deploying forces, the intelligence downward flow, and other concerns.[26] General Edwin H. Burba, Jr., the commander of Forces Command, seconded Saint's emphasis on retaining an undiluted war fighting doctrine, and urged the steady exploration of the impact of advanced technology on doctrine.[27]

Improving the "closure" of forces upon their military objective was an ongoing Forces Command effort in 1991. FORSCOM saw it as a strategic concern and one that doctrinally involved the reserve components as well. The main idea was: the quicker and more effective the force closure, the shorter the war's duration and the smaller its eventual scope. Airlift and sealift capabilities and legislative improvements to reserve component dispositions and readiness were involved. The keys were well planned force generation models at both the FORSCOM and Department of the Army levels, and in doctrine, the emerging concept of force projection. Marginal improvements could bring disproportionately

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24. (1) Franks Interview by Romjue. (2) McDonough Interview by Romjue. (3) Msg, Cdr TRADOC to senior commanders, 262400Z Sep 91, subj: Input for FM 100-5 Revision.

25. ARSTAF Notes, DACS-ZAA, 20 Sep 91, subj: "TAA-91" Informal SSC, 19 Sep 91.

26. Msg, CINCUSAREUR to Cdr TRADOC, 082130Z Oct 91, subj: Comments on Revising FM 100-5, Operations.

27. Msg, Cdr FORSCOM to Cdr TRADOC, 132100Z Nov 91, subj: FM 100-5 Precis Review.

good consequences.[28]

Saint's and Burba's involvement typified that of other senior leaders as the doctrine progressed. General Robert W. RisCassi, commander-in-chief of Combined Forces Command and U.S. Forces Korea, recommended a primary emphasis on coalition warfare. The Army had to be ready doctrinally and structurally to provide instantaneous unity of operations with the other services and allies, which he considered "a 'mindset' change." RisCassi, a steady contributor to the project as it advanced, also questioned the need for lines of distinction between low, mid, and high-intensity conflict in the operational continuum. He affirmed Franks' belief that the tactical, operational, and strategic levels of war would in the future be blurred. He also cautioned against a doctrinal confusion between operations short of war, and doctrine for prosecuting force. RisCassi suggested that, in the new era, *all* forces would be contingency forces; previous distinctions were erased.[29] Lt. Gen. Jimmy D. Ross, the ARSTAF logistics deputy, and Lt. Gen. Leon P. Salomon, the Combined Arms Support Command commander, urged full attention to logistics concerns, recommending a system providing a logistics continuum from the industrial base to the forward battle and from mobilization to redeployment.[30] General Carl W. Stiner, the commander-in-chief of the Special Operations Command, urged the full integration of special operations forces in all areas of the new manual,[31] while General George A. Joulwan, the commander-in-chief of U.S. Southern Command, made the case for equal doctrinal emphasis on the low end of the conflict spectrum.[32]

The strong reaction to the precis was also a reaction to the mechanistic, operations-by-stages concept of the AirLand Operations pamphlet, with its emphasis on the operational continuum of military actions. That approach had tended to blur the distinction between war fighting and other operations. After reading the pamphlet, Brig. Gen. Don Holder, a former doctrine writer and an advisor of Franks, wrote the TRADOC commander to argue for keeping continuity in the doctrinal principles and tenets. Holder believed that *AirLand Operations* nomenclature was

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28. FORSCOM briefing, Improving Force Closure: A FORSCOM Perspective, Tab T, Franks Papers, Book No. 1.

29. OCH files.

30. Ltr, Lt Gen Leon P. Salomon, Cdr CASCOM to General Frederick M. Franks, Jr., n.d. [Nov 91].

31. Msg, CINCSOC to Cdr TRADOC, 4 Oct 91, subj: Revisions of FM 100-5.

32. Briefing slides, Franks briefing to Fall Army Commanders Conference, 16-19 Oct 91.

misleading and might act to deemphasize the tactics sector of doctrine. Holder also found that August 1991 concept too dependent on lethality at the expense of combat agility and mobility.[33]

In a separate communication, Holder held that doctrine was traditional, not revolutionary. Doctrine was by nature incomplete, yet internally consistent. It was applicable at all levels, in all theaters. It was non-prescriptive, non-formulaic. Operational art had to have a clear relationship to strategic ends. Operations would be joint and usually allied or combined in nature. Operations were dependent on tactical success. Operational art was not sequential; it preceded, accompanied, and followed tactical action.[34]

Franks' doctrinal precis thus served its purpose of stimulating thinking about doctrine in the new era. General Franks' own work in the formulation process was central. His discussions with General Sullivan, Lt. Gen. Wilson A. Shoffner, Maj. Gen. Clark, Colonel McDonough, and others, as well as with retired senior Army commanders including Franks' predecessors at Fort Monroe, drew in fruitful ideas.[35] Franks viewed the manual, more strongly than before, as a document that should reflect the Army's shared professional culture. An early decision was that the new and broader doctrine would drop its AirLand Battle identifier and become simply "operations." In late October 1991, Franks reissued a revised and final precis to senior officers for further review and comment.[36]

On 4 October 1991, General Sullivan communicated to his commanders his view of the way ahead. Agreement was general that the revision should span the operational continuum more broadly and more jointly. The Army Chief of Staff told the commanders he expected them to participate in the substance and process of the enterprise. He wanted their experience and influence in it.[37]

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33. Ltr, Brig Gen L.D. Holder, DCS, Support, CENTAG to General Franks, 27 Sep 91.

34. Holder notes on doctrine and FM 100-5, SG CGSC 91, SAMS 002/003, FM 100-5: Historical File 1986 Version Background of 1992 edition.

35. Former TRADOC commanders Generals Donn A. Starry, Glenn K. Otis, William R. Richardson, Carl E. Vuono, and John W. Foss met with Franks at Fort Monroe on 25 November 1991. Franks met several times with selected former commanders during the ensuing year. MFR, Maj Gen Donald M. Lionetti, CofS, 27 Nov 91, subj: Former TRADOC Commanders Conference, 25 Nov 91.

36. (1) Precis, as revised 23 Oct 91, RC CAC/LVN, SG CGSC 91, SAMS 009, FM 100-5, The Precis, with marginal notes. (2) Precis II, 8 Nov 91, RC CAC/LVN, SG CGSC 91, SAMS 009, FM 100-5, The Precis, with folder notes.

37. Note on msg DACS-ZA, CSA to MACOM cdrs, 042105Z Oct 91, subj: TAA 99, Informal Senior Commanders Conference 19 Sep 91, Tab Mc, Franks Notebook No. 1.

Issues and Planning

As the SAMS writing team set about its expansion of the precis into outlines and early drafts, TRADOC headquarters planners carried through the consensus-building campaign. As earlier noted, it proceeded primarily by vehicle of presentation and discussion at major conferences through the period. At all these meetings, the SAMS team made notes for translation into the drafts.[38] Numerous briefings, both by TRADOC headquarters and the SAMS team, supported the conference methodology. Doctrinal points were further discussed at the Fall Army Commanders Conference in Washington, D.C. on 16-19 October 1991, at an Army-Air Force "4-Star summit" at Fort Leavenworth on 14-15 November, and at a Senior Leaders Warfighting Conference at Fort Leavenworth on 20-21 November 1991.[39] Franks also met regularly with his doctrine assistants and travelled to discuss his ideas with the writing team. These meetings, public and private, assisted in the process of drawing together and grouping key doctrinal concerns and notions in the early months of the effort. By early October, the TRADOC commander was firmly positing the construct of three categories or groupings of thoughts, briefed with the precis and earlier noted, that he saw as critical areas for focus: strategic-operational-tactical links and their ramifications; joint, combined, and interagency doctrinal concerns along the whole operational continuum; and the key functions of mobilization and deployment. Certain major issues were apparent in the fall of 1991.

A central issue was the doctrinal relationship and treatment of war fighting—the Army's raison d'etre and emphasis of all operations doctrine heretofore—and the non-war and short-of-war or low intensity conflict operations in which the Army had often been involved and promised increasingly to be. Here were two distinct if overlapping entities. What was the nature of the balance? In the fall of 1991, TRADOC planners were working with the graphic model introduced by the August AirLand Operations concept. That model dispensed with the old low-medium-high intensity categories in favor of an operational continuum with overlapping elements of peacetime operations, conflict, and war. The 1993 FM 100-5 would be the first keystone operations manual to seriously attempt to encompass

38. Interview of Col Ricky Rowlett by John L. Romjue, 4 and 15 Feb 94, HQ TRADOC, Fort Monroe, Va.

39. Memo ATCG-P, General Frederick M. Franks, Jr. to distr, 23 Sep 91, subj: Future Conferences—Shaping the 100-5 Discussion.

war and operations short of war fully and to integrate the two.

Separate from the major issue of including operations short of war in operations doctrine was the special treatment of the neglected post-conflict period. What were the significant points? A new world of regional power ambiguities and an increased U.S. freedom of action had replaced the historic ideological, superpower contest. What was needed was to define clearly what the Army's role was in the unresolved wake of conflicts, frequently characterized by turmoil: how to arrive at the desired strategic end state.[40] The ambiguous aftermath of the Gulf War offered a ready example of that doctrinal necessity.

Logistics—combat service support—was seen early as a critical doctrinal area in the new time. There were two major questions. How should the logistics system be structured so that it would provide support all the way from initial deployment to the end of the campaign, and from theater to the lowest tactical level? Should the focus change from supply point to unit distribution, and what was the impact? What were the force structure changes needed? Planners saw need for a new flexibility in the corps support command commander: he had not only to know how to improvise, but how to shift to anticipation of combat service support requirements. Logistics had to be flexible, continuous, and fully integrated.

The second major logistics issue was the question of a need to modify the wholesale and retail aspects of the current system. How did the two interact in the force-projection world? Involved here was the question of centralized versus decentralized logistics. Should wholesale logistics be "pulled forward" by the field units while simultaneously a "push system" provided the retail logistics of combat consumables? In any case, planners saw the need for a system that would furnish a continuum from the U.S. production base to the forward line of troops.[41]

Other apparent doctrinal issues were numerous. The mobilization issues of a power projection Army included industrial base startup, call-up mechanisms, and reserve component roles. Deployment issues included the question of the right organization for contingency corps, transportation

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40. A dedicated advocate of the doctrinal point of conflict-termination on the basis of a clearly conceived end-state was Lt Col Michael Rampy of the writing team, who canvassed widely in the Army for viewpoints and support for this important concept in the 1993 doctrine. McDonough Interview by Romjue, 22-23 Nov 93.

41. Briefing slides, "Power Dinner," SAMS presentation to General Franks, 28 Oct 91. A side issue, which continued through the ensuing year, was the contested use of the unifying and encompassing term, logistics, rather than combat service support. Suggestions for separate personnel, medical, etc. chapters were attached to the CSS preference.

requirements, and the sea forces' roles. Intelligence issues focused on the impact of technology and the need to treat theater intelligence.

Battlefield "constructs" were an issue: the AirLand Operations schematic with its battlefield "shaping" area and close battle area vis-a-vis the deep-close-rear notion of AirLand Battle. Also involved was the viability of the concept's 4-part operational cycle. Roles and missions—complementary and competing—between the services were another set of issues; involved here were the extent of Air Force airlift, Air Force close air support, Navy sealift, Marine Corps forced entry, and contingency response missions. The conflict resolution stage following combat operations was an important question involving civil-military operations, prisoners of war, and coalition concerns.

Evolving missions constituted still another set of issues not limited to the peacetime operations of countering contraband drug traffic, disaster relief, nation assistance, peacemaking, and peacekeeping. The evolving role of nuclear weapons in the post-Cold War was an important question to address. Technology—its impact in the Gulf War, maintaining the technological edge, and cybernetics presented a further set of doctrinal questions. Joint, combined, and interagency matters bulked large—the issues of multinational corps, already in formation in Europe, and multiagency organizations, particularly in operations short of war. The doctrinal matter of balance was important—between maneuver and firepower, offense and defense, and linear and nonlinear battle. Key operational concepts to be treated included center of gravity, lines of operations, culmination, decisive points, phasing, branches and sequels.[42]

Another focal issue of the new doctrine was the ultimate decisiveness of landpower. In 1991, that military truism of land warfare was seeing a rechallenge from Gulf War disciples of the Douhet thesis. Landpower decisiveness was a corollary of the strategic doctrine claim of the force projection Army. Had the devastating effectiveness of the air campaign over Iraq changed anything fundamental? Was landpower still ultimately decisive in an era of increasingly precise air-delivered munitions? If so, Franks and his planners asked, why and how?

The SAMS writers noted that 20th century wars had highlighted for the United States the importance of a ready ground force. Only land force could conquer forces, populations, and resources. Only armies could

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42. (1) Memo ATZL-SWZ, Lt Col John W. Reitz, SAMS to Lt Col McCarter, Army Doctrine, ODCSCDD, TRADOC, 4 Oct 91, subj: Senior Fellows Dinner for General Franks, 2 Oct. (2) Briefing slides, SAMS briefing to General Franks, "Power Dinner," 28 Oct 91. (3) Memo for Director SAMS ATZL-SWV, Col James R. McDonough, Dir SAMS, 4 Oct 91, subj: Summary of Senior Fellows Warfighting Forum.

terminate major conflicts successfully. No service could fight a war alone. The U.S. Army had unique capabilities in deterrence, forcible entry, low intensity conflict, theater logistics structure, and security assistance. Massive airpower was not necessarily decisive—as it had not been in the Luftwaffe assault on Britain. Nor for American security interests was seapower decisive by itself.[43]

Army-Air Force concerns thus continued as a set of questions needing strong doctrinal probing. Those concerns were if anything exacerbated by the newly demonstrated longer ranges of Army weapons. On 14-15 November 1991, an Army-Air Force Summit meeting convened at Fort Leavenworth to take up key questions. What were the proper roles of the joint force air component commander (JFACC) and the Army corps commander? Other critical issues included the forward support coordinating line (FSCL), Army air in the theater of operations, control of the Army Tactical Missile System (ATACMS), air defense coordination, close air support during rapid maneuver, the Joint Surveillance and Target Attack Radar System (JSTARS), the new Air Force composite-wing concept, strategic and tactical intratheater airlift, and the Army and Air Force in special operations.

Especially pertinent to the new doctrine was the FSCL question. The nub of the issue was that advances in Army weaponry (the ATACMS with 120 kilometers range and the tank-killing Apache ranging to 150 kilometers) had stretched the ground commander's operational reach and horizon beyond the relatively shallow line bounding the "close" area, beyond which lay the traditional Air Force/Naval air and missile operational sector. Combined with long-range intelligence and electronic warfare equipment including the JSTARS, the new Army systems gave the ground commander the ability to strike deeply beyond the traditional FSCL. The November 1991 Army-Air Force meeting raised but did not resolve this major bi-service issue.[44]

A strong idea discussed by General RisCassi that came out of the important Army-Air Force meeting adapted the battle space concept of naval fleets to the idea of protective "umbrellas" free of enemy missiles under which Army units could move. RisCassi advanced the idea of a moving space of the land-commander's dominance. Another important idea was

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43. Briefing slides, "Power Dinner," SAMS presentation to General Franks, 28 Oct 91.

44. (1) Briefing slides, Franks brief to Fall Army Commanders Conference, 16-19 Oct 91. (2) Grogan Interview by Romjue, 22 Jan 93. (3) John G. Roos, "Army's Future War Fighting Ideas: New Weapons Alter Basic Principles," *Armed Forces Journal International*, June 1992, p. 12.

the mutuality of Army-Air Force dependence: Army ground action also served to support the Air Force.[45]

Significant developments followed on 20-21 November 1991 at the Senior Leaders Warfighting Conference, convened by General Sullivan at Fort Leavenworth. Agreement was achieved on the scope of the manual and the course ahead. Day-long panel discussions on General Franks' three groupings or "baskets" of thoughts preceded plenary presentations and discussions. For doctrinal perspective, presentations included comparative definitions on basic terms such as command and control, strategy and surprise, and friction, from the writings of Clausewitz, Jomini, Sun Tzu, and the current FM 100-5.

The result of this meeting was the Army leaders' consensus on the need for change and how to do it. It was agreed that the Army needed to go beyond the limited scope of battle, while retaining war fighting as its central focus, and to treat the strategic aims of military operations, mobilization and deployment considerations, war termination, and post-hostilities and peacetime operations. Logistics, intelligence, and the changing nature of warfare itself all were explored. An important contribution at the November conference was the FORSCOM commander General Burba's construct for a force projection doctrine that tied the total Army to a contingency based Army that met objectives across the operational continuum. Also important was the USAREUR commander General Saint's promotion of a future dynamics of the battlefield.

Planners posited several idea-sequences as tentative bases for the ongoing work: depth-tempo-lethality; mobilization-deployment-redeployment-demobilization, and precrisis-lodgement-stabilization-restoration-redeployment—the latter, the Burba model. Planners felt prepared to extend Army doctrine all the way across the operational continuum from the strategic to the tactical. The model helped link the strategic theater situation and decisions with the operational campaign. Avoided thereby was a nonproductive, echelon-based debate as to the doctrine's proper focus—corps or echelons above corps. Significant also was the conference's stimulus to exploring fully the changing nature of war, marked by a greater depth, tempo, and lethality that suggested a simultaneity of operations. Planners additionally believed that, through these considerations, low intensity conflict had been successfully integrated into the overall doctrine.[46]

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45. McDonough Interview by Romjue, 17 Nov 93.

46. (1) Briefing slides, FM 100-5, Operations, SAMS brief to SLWC, 20-21 Nov 91. (2) Franks Interview by Romjue. (3) Briefing slides, Panel Briefings to SLWC on Operational Continuum, Strategic-Operational-Tactical, and Mobilization and Deployment, 21 Nov 91, THRC. *(Continued).*

By December 1991, the vehicle of the precis and the reactions it evoked had for General Franks set the basis of the new doctrine. Franks by this time saw the concept contained in the August 1991 *AirLand Operations* as premature, a bold, deductive leap for which the Army was not ready. Instead, he intended to base the revision in great part on the experience of Just Cause and Desert Storm, the lessons of which, however, he believed the Army had not yet internalized. Writing these impressions to the Army Chief of Staff on 5 December, Franks highlighted the three groupings of thoughts in which he believed doctrinal change would be worked out. Doctrine was how to think about military operations. Franks and Sullivan were agreed on the Army's need for versatility in the new strategic environment. They were clear that the revision had foremost to treat force in war, but also operations to deter war. Finally, doctrinal change was needed on the application of force, a larger task, however, that might well extend beyond the 1993 revision.[47]

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46. *(Continued).* (4) Memo, Lt Gen Wilson A. Shoffner, DCG for Combined Arms to General Frederick M. Franks, Jr., n.d. [27 Nov 91], subj: After Action Report (AAR) on SLWC (Doctrine Phase), THRC. (5) SLWC graphic comparing Clausewitz, Jomini, Sun Tzu, FM 100-5 terminology, THRC. (6) Franks Interview by Malone, 2 Dec 92.

47. Letter, General Frederick M. Franks, Jr. to General Gordon R. Sullivan, Chief of Staff of the Army, 5 Dec 91, no subject

CHAPTER III

A NEW DYNAMICS OF BATTLE

At the heart of the right doctrine for force projection in the post-Cold War and post-Gulf War world were the dynamics of battle itself. The desert war of 1991 had revealed new potencies in a strategic world where the rules seemed to have changed. Franks and his doctrine planners needed to distill to their essence the most significant points in the changing dynamic.

During the early months of 1992, General Franks, his staff, and his doctrine writers worked their way toward a new battlefield dynamics. That work, originating in Franks' own thinking, would evolve as the heart of the change presented in the new post-Cold War doctrine. It would also lead to the creation and institutionalization within the Training and Doctrine Command of battle laboratories to develop the dynamics further. The battle dynamics work began in parallel to, but soon merged with, the efforts of Franks' writing team in the School of Advanced Military Studies at Fort Leavenworth.

Digesting Theory and Practice: the Writing Team

The initial approach of Colonel McDonough and the writing team in the School of Advanced Military Studies was to develop the doctrinal manual through "modules". These were tightly written digests of doctrinal topics or "think-pieces" of 8-15 pages to be subsequently fleshed out and fitted into chapters of a first draft of the manual. The idea was to bring an intensity of focus on new doctrinal points and emphases. Thus, they constituted a "pre"-first draft. They consisted of two sections: potential text, and the intellectual background and thought process. About 30 modules

were planned, of which more than 20 were drafted between November 1991 and February 1992.[1]

Early chapter outlines heavily emphasized theater operations and, in keeping with a mainspring of change, placed operations short of war chapters ahead of those for war fighting operations. Designated modules and writing assignments were fitted to the 18 chapters of the early outline.[2] Colonel McDonough additionally solicited, from majors enrolled in the 1991-1992 SAMS program, essays and papers on doctrinal subjects, which the team read and used.[3]

The SAMS modules addressed among other topics the continuum of military operations, conflict termination and post-conflict activities, mobilization and deployment, operational fires, logistics preparation of the theater, the strategic environment, and the American way of war. The team sent individual modules to doctrine planners at the headquarters for review and comment. Maj. Gen. Clark, who at General Franks' behest had assumed an intensive role in the project, did not fully agree with the module approach, thinking it mistaken. Clark issued vigorous criticisms, focused on what he saw in the module packages as excessive political science terminology and a lack of soldier's perspective.[4] Franks responded to the initial think-pieces and their scholarly framework similarly, adding the need for clear vigorous language.[5]

Despite objections to the pre-draft pieces, or to their methodology, the modules approach enforced a deep and exacting informed inquiry by the SAMS writers into doctrinal points and issues and in the end served

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1. (1) Memo, Lt Gen Wilson A. Shoffner to General Frederick M. Franks, Jr., n.d. [27 Nov 91], subj: After Action Rept (AAR) of SLWC (Doctrine Phase), THRC. (2) RC CAC/LVN, SG CGSC 91, SAMS 008: FM 100-5 Calendar, Module Development, incl Note, Rick Rowlett to Seminar Leaders, 2 Dec 91. (3) MFR ATZL-SWV, Colonel James R. McDonough, Dir SAMS, 19 Dec 91, subj: Process Report on FM 100-5. (4) Rowlett Interview by Romjue, 4 and 15 Feb 94.

2. (1) Module Development Plan, Encl A to FM 100-5 Process and Product Chronology, FM 100-5 Writing Team, THRC. (2) RC CAC/LVN, SG CGSC 91, SAMS-004: FM 100-5, Operations Chapter Outline, folder note.

3. McDonough Interview by Romjue, 17 Nov 93. The SAMS director also brought the next year's students into the critiquing process later in 1992.

4. (1) Maj Gen Clark handwritten notes on enclosed slides to Memo, Col Rick Rowlett, SAMS to Col Cork [Dir, Army Doc, HQ TRADOC], 21 Jan 92, subj: FM 100-5 Discussions at TSLC. (2) Memo ATCD-XA, Maj Gen Wesley K. Clark, DCSCD to General Franks, 10 Feb 92, subj: First Chapter FM 100-5. (3) Modules Handbook, Army Doc Dir.

5. Franks handwritten note to [Maj Gen] Wes [Clark], 26 Jan 92, on Form 30, 24 Jan 92, subj: FM 100-5, Operations, Outline Review.

United States Army Command and General Staff College

well General Franks' intent for fullest intellectual engagement of significant doctrinal shifts. In the end, many of the modules did go into the book, some as full chapters.[6]

Such inquiries by both Franks and his doctrine writers had led them by early January to the position that the whole construct of discrete parts of the battlefield—close, deep, and rear—was no longer applicable.[7] General Franks, however, in late January did change the timetable to speed up preparation, advising Lt. Gen. Shoffner in late January that he wanted first-draft chapters to review the next month.[8]

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6. Rowlett Interview by Romjue, 4 and 15 Feb 94.

7. E-mail msg, Lt Col J.T. Goodloe, Ch, Cons Div, CDD, CGSC, 8 Jan 92 w/notes on conversation on warfare, 3 Jan 92 with Col Kempf, Col Baerman, and Col McDonough.

8. SAMS Chronicle.

In late January, the CGSC planners briefed the Army Chief of Staff on the progress of the revision. They described the project's developing potential to go beyond the November 1991 consensus for expanded doctrine and adjustment to accommodate lessons learned, new joint doctrine, and the new strategic situation. Significant war fighting changes engendered by the impact of advanced technologies on linear warfare, disperson, simuntaneity of action, depth, artillery, and versatility, lay on the horizon, capturable in a late-1990s revision. Planners at that point felt that the time was not ripe to exploit that potential for the 1993 edition. General Sullivan momentarily acceded to this argument.[9] Much, however, would change in the course of 1992, as planners at Fort Leavenworth and Fort Monroe further developed central doctrinal points.

While fitting modules to chapters, the writing team developed a 15-chapter outline. It included a 4-chapter discussion of a doctrine for peace, crisis, and war (the Army in the strategic environment, the environment of war, fundamentals of Army operations, and the Army's role in crisis response); six chapters on theater operations (theater structure and control, designing campaigns and major operations, conflict termination, intelligence, logistics, and operations short of war); and five final chapters on wartime operations subjects (theater wartime operations, tactical operations, tactical offense, tactical defense, and retrograde).[10] Two initial draft chapters went to General Franks on 3 March 1992. The TRADOC commander distributed the first three draft chapters (those for the Army in the strategic environment, the Army's role in crisis response, and operations short of war) at the Army Senior Commanders' Conference held at the end of March at Carlisle Barracks, Pennsylvania. All chapters would be drafted by mid-April. Most had been edited by late May 1992.[11]

In the meantime, on 6 March General Franks met with his writers to issue several guidelines, some of them the fruits of the battle dynamics effort, which we will discuss in the next section. Franks told the SAMS team to incorporate the three groupings of thoughts earlier noted: mobilization and deployment, the operational continuum, and strategic-operational-tactical linkage. The TRADOC commander wanted to move

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9. Briefing slides, CGSC briefing to General Gordon R. Sullivan, CSA, FM 100-5 and DC/ADC Program Update, 28 Jan 92, w/CSA's handwritten notations.

10. Chapter Review Plan, Encl I to FM 100-5 P&P Chronology, 21 Jan 92, THRC.

11. (1) Memo, Col Jim McDonough to Maj Gen Wesley K. Clark, 4 Mar 92, subj: Chapters 1 and 2 of FM 100-5, w/encls. (2) Handout to 1992 SSCC, FM 100-5 Operations, The 1993 Revision. (3) Fact Sheet, Lt Col Bobby McCarter, Army Doc Dir, 17 Apr 92, subj: FM 100-5, Operations, Revision. (4) Briefing slides, [FM 100-5 Briefing], ADCSCDD to Lt Gen Peay, 21 May 92.

the manual's focus to the third area. Both current doctrine and recent Army experience would influence that focus. Franks also wanted the manual to give major attention to five elements of discussion in the linkage: early deployment, lethality, and survivability; the notion of increased depth; increased battle space; command and control and tempo; and combat service support. The five "battle dynamics," Franks had come to believe, would be the heart of the manual, and he wanted full dialogue toward capturing their ideas. Not to cut off discussion prematurely, the plan for a first full draft by the spring was postponed to later in 1992.[12] Army reaction to the three early-1992 chapter drafts was strong, due in part to the limited topics they covered, hence to what was not covered. Keeping the war fighting focus of operations doctrine above all, was the principal concern of the responding field commanders, troubled on this point.[13] As it happened, the initial draft would soon be restructured. A significant additional component of the 1993 doctrine was in formulation in early 1992, to which we will now turn.

Franks and the Changing Dynamics of Battle

Along with the reorientation to force projection operations from the continental United States and the requirements of operations short of war, the thrust of the 1993 doctrinal change was its new battle dynamics. The distillation into clear notions of those critical doctrinal areas where significant change was in progress in the early 1990s was the TRADOC commander's outstanding contribution to the doctrinal reordering. Franks' move to focus on what he first saw as "glimmerings" of new battlefield realities came from two sources. First was a deductive grasp of the requirements levied upon the U.S. Army by the advent of the new strategic world. Second were Franks' own observations as commander in a corps campaign in the Gulf War and in his subsequent thinking. Franks regarded these indications as glimmerings of changes in land warfare first seen in Desert Storm. He was convinced that the Army needed to pay attention to those

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12. (1) E-mail msg, Maj Gen Wesley Clark to Maj Gen Lionetti, Brig Gen Steele, Col McDonough, Brig Gen Grogan, Lt Gen Shoffner, Col Cork, 7 Mar 92, subj: FM 100-5 Recap of CG's Guidance at 6 Mar 92 Session at SAMS. (2) SAMS Chronicle. (3) Briefing slides, Franks FM 100-5 briefing to SSCC, Carlisle Barracks, Pa., 31 Mar 92. Additional Franks instructions at this time were for a pocket-size manual, and a reduction of FM 100-5 "lists".

13. As expressed by all three major troop commanders: General Burba, CG FORSCOM; General RisCassi, CINC CFC/USFK; General Saint, CINCUSAREUR. (1) OCH files. (2) Memo, Col Boyd to General Franks, 20 Apr 92, subj: 100-5 Writing team Visit with General Saint Feedback. (3) SAMS Chronology. (4) Memo, Col James R. McDonough through Dep Comdt CGSC to Cdr CAC, 5 May 92, subj: Senior Commanders' Review of FM 100-5.

areas, where warfare was changing. He called them collectively "battle dynamics." In the period from late 1991 to early 1992, these thoughts would jell into hypotheses, then into areas for further concentration after Franks became convinced that they had merit for the whole Army.

Force projection as the new order of the day placed a premium on requirements of early entry into war theaters close and distant.[14] Combat service support, or logistics, did not pose new requirements for the nation that had waged a global war during 1941-1945, but logistics in the Gulf War had revealed a marked transformation arising from the use of new automation and communication technologies. In addition, both for Franks and for other observers, the Gulf War demonstrated a new capability to strike the points of an enemy's defense simultaneously throughout its depth. Franks' further impressions of changed battle dynamics centered on the idea of command and control on the move. That idea was tied to a time dimension that was determined by command decisions, by perceptions of enemy actions, and by a wider more imaginative commander's vision of the larger battle space involved with his operations.[15]

Franks' belief that these "glimmerings" pointed toward new battle concepts led him to address them intensively, even as the doctrine writing team was in the midst of formulating a first draft. However, the TRADOC commander seated the inquiry into these five "baskets" of ideas, as he called them, in his own headquarters combat developments-doctrine staff under Maj. Gen. Clark. As with the revision project in general, Franks' method was to air and develop those baskets at successive TRADOC and Army conferences, focus a working group on them, and analyze them in scenarios. Through these means, the baskets were pared to sharper definition, emerging as the battle dynamics heart of the new doctrine. In that process, both public and private, Franks called fully on the thinking of his planners and the SAMS writers.

In the battle dynamics inquiry, doctrine planners defined dynamics as the interaction of the elements of combat power, as applied at the operational and tactical levels of war. The starting point was to identify those factors that were changing the firepower-maneuver-protection-leadership interaction, and then to set clear the meaning of each such change. What factors were in the formula, and how did they relate? What did the Gulf

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14. The emphasis on early entry was recommended to General Franks by Maj Gen D.W. Christman, commandant of the U.S. Army Engineer Center and Fort Leonard Wood. Clark Interview by Chapman and Romjue, 8 Jul 92.

15. (1) Franks Interview by Romjue. (2) Clark Interview by Chapman and Romjue, 8 Jul 92.

War battlefield reveal about speed, lethality, space, the information age, tempo, time, and other factors?[16]

Drawing the Army school commandants directly into the effort, General Franks prepared and convened a TRADOC senior leaders' conference at Fort Rucker, Alabama on 28-29 January 1992. This conference was the formal genesis of the battle dynamics ideas. In briefings, the Field Artillery School commandant, Maj. Gen. Fred F. Marty, and the Armor School commandant, Maj. Gen. Thomas C. Foley, respectively explored operational and tactical battlefield dynamics, supported by panels. These sessions examined the AirLand Operations concept of maneuver by fires, the new technology, the doctrinal impact of changes in lethality and time, the need for versatile logistics, and other topics.

In the context of a Southwest Asia scenario set at the year 2004, penetrating questions were asked at the Fort Rucker meeting. Did the Gulf War represent a fundamental change in the nature of warfare? Did the new technology alter the principles of war, or merely change their relationship? What was now the nature, for example of the principles of mass and economy of force? Was technology the most significant vector, and what technology offered the most significant gains—target acquisition and engagement? information processing and dissemination? Did the AirLand Battle tenet of synchronization alone define the evidently changed space-time dynamic? What were the ramifications of the allies' demonstrated "decisive overmatch" of combat power? Was versatility a significant new operational requirement?[17]

General Franks originated the notion of versatility early on. Agility as a tenet captured a lot of the requirement, but not all. Franks felt doctrine needed a way to describe the commander's need—in the post-Cold War world—to go easily from one set of strategic circumstances to another quite different, and to be ready for *any* strategic circumstances.[18] In late January 1992, Franks asked Colonel McDonough for a paper on

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16. (1) Discussion slides for General Franks for TSLC, n.d. [Nov 91], HQ TRADOC. (2) Slides, Briefing, HQ TRADOC [Lt Col McCarter] to Lt Gen Peay, n.d. [10 Dec 91], subj: FM 100-5. (3) Msg, Cdr TRADOC to distr, 191450Z Dec 91, subj: TRADOC Senior Leaders Conference I (TSLC I) (4) Briefing slides, Maj Gen Clark briefing, 15 Jan 92, FM 100-5. (6) Grogan Interview by Romjue, 22 Jan 93.

17. (1) MFR ATCG-P, General Frederick M. Franks, Jr., Cdr TRADOC, 29 Jan 92, subj: TRADOC Senior Leaders Conference "Hotwash." (2) Briefing slides, Briefing, Tactical Dynamics in the AirLand Battlefield, presented by Armor Center, TSLC I, 28-29 Jan 92, Ft. Rucker. (3) Briefing slides, briefing conference update, Army Doc Dir to Maj Gen Clark, 4 Feb 92. (4) Franks Interview by Malone, 20 Apr 92.

18. Franks Interview by Romjue, 17 Nov 94.

versatility as a possible fifth tenet of doctrine. Responding, McDonough argued for the importance of a versatile Army, but did not recommend versatility as a central doctrinal tenet per se. The SAMS director did, however, present a convincing metaphor for the notion—that of a decathlon athlete who had to compete in ten disparate events, just as would the U.S. Army with its globe-spanning security responsibilities. McDonough initially viewed versatility as a strategic, not an operational-tactical, concept.[19]

Versatility as a major doctrinal notion significant enough to pose as a fundamental tenet had headquarters support. The existent four tenets were in part undergoing change, in particular depth, as a result of the technological advances of the information age, together with extended weapon ranges, and the potential for simultaneous rather than sequential engagements. Tactical agility, headquarters planners felt, was not enough. The shift to power projection would require tailoring to other aims on short notice, as the sudden mission change in Desert Storm from combat to handling refugees had demonstrated.[20] The arguments would lead to a decision by General Franks to expand the concept as a fifth tenet of Army operations doctrine.

In early February 1992, Franks and Clark were also working with the idea of increasing the commander's "battle space" by applying long-range stand-off fires. Battle space was a term the U.S. Navy employed as it related to surface warfare. Franks, who introduced the idea, was influenced by the notions of the British writer, Paddy Griffith, on the increasingly "empty" battlefield of dispersed units. Franks also called on his earlier experience in concepts work under TRADOC commander Donn Starry. He found applicable Starry's notion of an advantageous battle space between a commander and his opponent, created by the commander's longer-ranged detection and engagement capabilities. Franks corresponded with Starry on the concept in its direct fire context, but he also added to that notion the idea that the commander needed to think of his battle space in terms of all the factors that influenced it—and not just the linear factors.[21]

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19. Note, Col James R. McDonough, Dir SAMS to General Frederick M. Franks, Jr., n.d. [10 Feb 92], w/encl: Paper, "Versatility's Value as an Operational and Tactical Concept."

20. These arguments were made by Maj Mark P. Hertling, a special assistant to Franks, in Memo ATCG-P, Hertling to CG, 2 Mar 92, subj: Thoughts on Versatility as a Doctrinal Tenet.

21. (1) Memo ATCD-ZA, Maj Gen Wesley K. Clark, DCSCDD to Comdts, TRADOC Service Schools, 10 Feb 92, subj: FM 100-5 Battlefield Dynamics (Latest Thinking). (2) Franks Interview by Romjue, 17 Nov 94.

Desert Storm Lessons

On 2-3 March, Franks convened a second significant conference of the early-year. Held at Fort Monroe, and introduced by General Sullivan, the "Desert Storm One-Year Later Conference" was attended widely by many of the principal U.S. Army Gulf War commanders.[22] Franks' purpose was to garner for the doctrine the best experience from the Desert Storm operation. The TRADOC commander focused the meeting on two things: What had the Army learned and what corrective actions were under way? What battle dynamics insights were apparent?

In recapitulation, important U.S. doctrinal shortcomings were revealed. Deficiencies were present in joint fire coordination measures, logistics, intelligence, doctrine for liaison officers, post-conflict measures, mobilization and deployment doctrine, and redeployment and demobilization.[23] What were key Desert Storm lessons? The Gulf War commanders agreed that AirLand Battle had indeed worked. U.S. military technology was a clear-cut advantage. Political imperatives were critical to holding a coalition together—a sensitivity to other cultures, a strong liaison organization, and host nation support. Static defensive positions were susceptible to "top attack" precision munitions, over-the-hill reconnaissance, and nonlinear warfare. The existence of a precision-munitions revolution was evident, and it made forces vulnerable throughout the battlefield. It also indicated that no army could afford to go to war outgunned or outranged. Any firing system in place could be detected, engaged, and destroyed within minutes. It was also clear that the commander with firepower superiority possessed the initiative, and that meant joint fire support. Future artillery systems that could not operate autonomously and move freely between missions would probably be destroyed. Consequently, a trained and ready Army was essential. The U.S. Army had to avoid the weakening of its capabilities and readiness in the build-down occurring. Highly capable and

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22. Attending were the two U.S. corps commanders General Franks (VII) and Lt Gen Gary E. Luck (XVIII Airborne), as well as Lt Gen John J. Yeosock the ARCENT commander, and Lt Gen Gus Pagonis ARCENT Suport Command. Seven division commanders were present: Lt Gen Ronald H. Griffith (1st AD), Lt Gen James H. Johnson, Jr. (82d Airborne), Lt Gen J.H. Binford Peay III (101st Airborne), Maj Gen Paul E. Funk (3d AD), Maj Gen John H. Tilelli, Jr. (1st Cavalry), Maj Gen Thomas G. Rhame (1st ID(Mech), Maj Gen Barry R. McCaffrey (24th ID(Mech). Also attending were Desert Storm command sergeants major, the TRADOC commandants, and others.

23. At the one-year later point, Army and joint field manuals and concepts were in development to deal with those deficiencies: FM 100-7, *Decisive Force: The Army in Theater Operations;* FM 100-16, *Army Operational Support;* FM 100-17, *Mobilization-Deployment- Redeployment-Demobilization;* Joint Pub 3-09, *Joint Fire Coordination Measures.*

available reserve forces were also essential, and early deploying combat support and combat service support units were critical.

TRADOC planners considered that, unlike Iraq, the nation's next opponent in war would likely rise to meet any U.S. forced entry into the theater. Having also learned from the Gulf War, that opponent would better understand tactical ballistic missile operations. He would not allow time for a build-up of force. He would have better air defense and would use more mines, land and sea. He would realize that U.S. space links were vulnerable. He would likely have available at least some elements of the most advanced "world-class" military technology.[24]

At the heart of the right doctrine for force projection in the post-Cold War and post-Gulf War world were the dynamics of battle itself. The desert war of 1991 had revealed new potencies in a strategic world where the rules seemed to have changed. Franks and his doctrine planners needed to distill to their essence the most significant points in the changing dynamic.

The battlefield's "deeper depth," the near-instantaneous effects of information technology, battle tempo, simultaneity of attack, new and pathbreaking military technology—all these and other notions furnished general identifiers as to the changing nature of war. New factors seemed to be apparent in the mix of modern battle. Aided by the Desert Storm conference, planners sought to pinpoint those factors and think through their impact and implications. The JSTARS system, united with unmanned aerial vehicle technology, offered real-time intelligence. The impact was a capability for real-time targeting and for continuous target development. What were the implications? The impacts of the new factor of global "connectivity" through satellite communications, the Global Positioning System, Mobile Subscriber Equipment, and other systems were both good and bad—real-time command and control and a compressed decision cycle on the one hand, data overload on the other. Implications were: streamlined control mechanisms, but also the notion of command separate from control. Planners at the early-March conference set up a number of such sequential "thought-grids" of these types.

Factors could also conjoin. Factors such as global connectivity, jointness, together with new weapon, acquisition, and visualizing capabilities added up to the particularly significant impact of simultaneous operations. Simultaneity created a synergism of effects. How did that affect the

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24. (1) Briefing slides, HQ TRADOC briefing for Desert Storm One-Year Later Conference, 2-3 Mar 92. (2) MFR ATCD-P, Col William T. McCauley, Dir Cons Dir, 11 Mar 92, subj: Desert Storm Conference After Action Report. (3) (3) Briefing slides, "Hotwash" from Desert Storm Conference of 2-3 Mar 92, 3 Mar 92.

decentralized execution of a commander's intent—a centerpiece of the current doctrine? New doctrine would need a new emphasis on mission tactics and orders. While the battlefield was definable and usefully so as "close-deep-rear," was it not also a battlefield bounded in its depth by the capability of simultaneous attack throughout that depth?[25]

Following the Desert Storm conference, comprehensive lessons-learned information was assembled. For doctrinal purposes, it fit into four categories: those things that worked in Desert Storm and that should be kept and sustained; things that worked, to be kept but improved; things requiring further correction; and lastly, Desert Storm-unique lessons.

Assessing the doctrine-implicating lessons following the Desert Storm meeting, planners considered that tactical intelligence and intelligence preparation of the battlefield were excellent. While the JSTARS and Hawkeye systems were highly proficient, improvements were needed toward such capabilities as "seamless" intelligence dissemination. Army aviation performed well, in particular attack helicopters. The helicopter's night capability was a major advantage. The Bradley Fighting Vehicle proved its lethality, reliability, and survivability, though the Improved TOW Vehicle was too slow. The Abrams tank was highly lethal, but air filters and fuel consumption were problems. The SINCGARS radio provided highly reliable communications, but many communications improvements, such as better strategic links and an "eavesdropping" capability for commanders to tap nets were needed. The Multiple Launch Rocket System demonstrated its excellence. The Patriot missile countered the Scud theater missile threat within its design limitations, but air defense at corps and division generally needed modernization.[26]

Altogether, the scores of observations and lessons from Desert Storm pointed to the significant synergistic effects of modern U.S. intelligence, communications, and weapon systems concertedly employed by a well-trained force to produce a higher battle tempo, deep and simultaneous attack capabilities, and the habit of command and control on the move. Still another lesson was evident by its absence. Preparations for the Gulf War had had the luxury of uncontested buildup. Most future operations would not. The art of early entry with force was the lesson/non-lesson.

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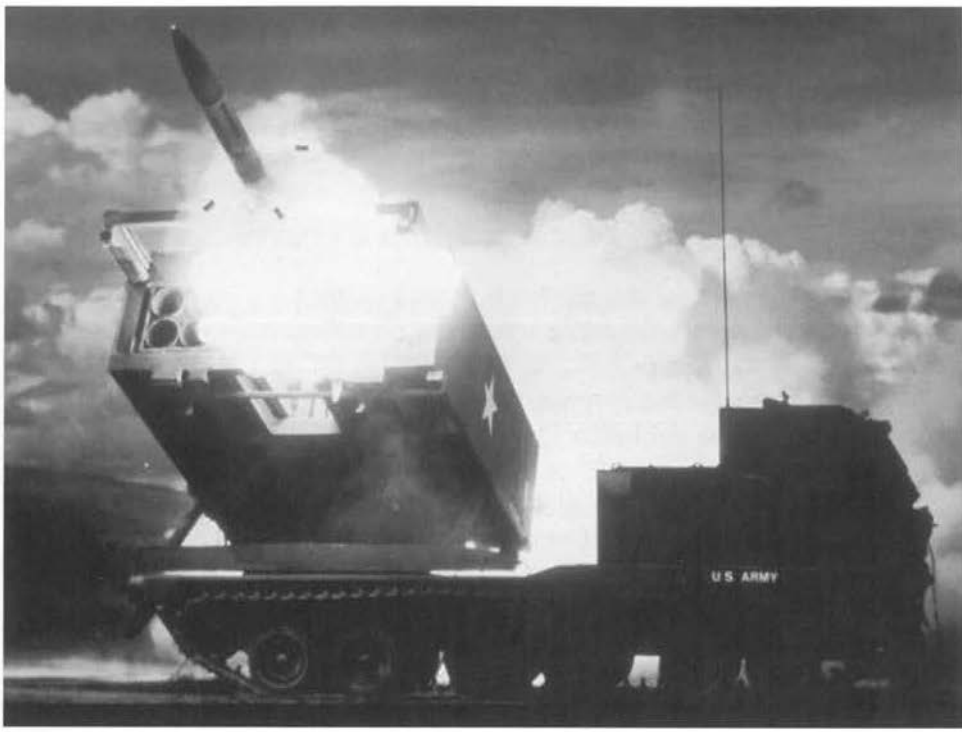
25. Briefing slides, HQ TRADOC briefing for Desert Storm One-Year Later Conference, 2-3 Mar 92. (2) A contributor to the grid-sequence method and to the vision of simultaneous fires in depth, as well as other notions, was Col Robert A. Doughty, Head of the Department of History at West Point. Ltr, Doughty to Maj Gen Wesley K. Clark, 11 Feb 92, no subject, w/encl including factor-impact-implication matrix.

26. Briefing slides, Desert Storm Lessons Learned, HQ TRADOC, n.d. [ca. 10 May 92].

M1 Abrams Tank



Multiple Launch Rocket System

Operation Just Cause, the U.S. invasion in 1989-1990 to restore democratic government to Panama, also would have significant influence on the new doctrine. A short-notice coup-de-main, it nonetheless had important lessons for joint operations and for conflict termination and post-conflict activities. Just Cause with its many concerted actions all at once was an example, too, of the emerging concept of depth and simultaneous attack. The doctrine would include Just Cause illustrations.[27]

At the March 1992 Desert Storm conference, Franks and his planners settled on the five baskets of thoughts as the critical change-points of battle dynamics for the 1993 doctrine. The TRADOC commander regarded the conference as a validation of the five battle-dynamics hypothesis, and he set to work to make them doctrinal realities.[28] Through the spring, these notions were further developed in meetings and discussions. Franks again

27. Rowlett Interview by Romjue, 4 and 15 Feb 94.

28. Franks Interview by Romjue and review ms. marginal note.

drew the commandants into battle dynamic scenario work at a TRADOC commanders' conference on 10-12 March at Fort Lee, Virginia, supplemented by a staff ride to the Chancellorsville battlefield. He updated the Army senior commanders at their spring conference at Carlisle Barracks, Pennsylvania, the end of that month.[29]

Developing Battle Dynamics

Concerned that the battle dynamics needed a more organized approach and more substantive school and commandant involvement, Franks directed Maj. Gen. Clark, on 15 March, to set up a "committee" at the headquarters for that purpose, with CGSC and SAMS participation.[30] Thus to concentrate the battle dynamics work, General Franks assembled a special working group from the branch schools. It met at Fort Monroe in late April-early May and again in late May 1992. A scenario developed by the TRADOC Analysis Command supported this work. The Battle Dynamics Working Group completed, in mid-May, battle dynamics concept papers for early entry and lethality; depth and simultaneous attack, battle space, command and control and tempo, and combat service support. The papers were also pitched to a planned doctrine development seminar to convene at the end of May. Views were at this point mixed on the choice and clarity of the battle dynamics.[31] Maj. Gen. Clark distributed the completed battle dynamics concept papers in mid-June. At his behest, group members also prepared papers on several related topics, including deep operations, versatility, victory, and battle command, which were distributed to planners in July.[32]

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29. (1) MFR ATCD-A, Army Doc Dir, HQ TRADOC, 13 Mar 92, subj: TCC Doctrine After Action Report. (2) Briefing slides, Franks FM 100- 5 briefing to SSCC, Carlisle Barracks, Pa., 31 Mar 92. (3) Franks Interview by Malone, 20 Apr 92.

30. (1) E-mail msg, Maj Gen Wesley Clark to [Lt Gen] Shoffner, 15 Mar 92, subj: Battlefield Dynamics. (2) Interview of Lt Col Bobby McCarter, Army Doctrine Directorate, ODCSDOC, by John L. Romjue, 16 Mar 93, HQ TRADOC, Fort Monroe, Va.

31. (1) E-mail msg, Lt Col Don Stevenson, Armor Cen to [Col] Cork, Dir Army Doc, HQ TRADOC, 15 May 92, subj: Feedback-Battlefield Dynamics Task Force. (2) Paper, Col McDonough, Dir SAMS to Col Cork, (Dir Army Doc),DCSCDD, n.d. [15 May 92], no subj [BDWG]. (3) E-mail msg, Brig Gen Ernst to Maj Gen Clark, 19 May 92, subj: BDWG Project Review.

32. (1) Msg, Cdr TRADOC to distr, 172236Z Apr 92, subj: TRADOC Doctrinal Working Group. (2) Msg, Cdr TRADOC to distr, 172235Z Apr 92, subj: Battle Dynamics Working Group. (3) Fact Sheet ATCD-A, Lt Col Bobby McCarter, Army Doc Dir, 12 May 92, subj: Doctrine Development Seminar (DDS), 28 May 92. (4) Msg, Cdr TRADOC to distr, 211530Z May 92, subj: Doctrine Development Seminar Preparations. *(Continued).*

Because the intensive battle dynamics work at TRADOC headquarters proceeded in parallel with but substantially independently from that of the SAMS writing team at Fort Leavenworth, General Franks revised the group's chartering directive to specify that its work would flow into the work of the team. Franks employed his deputies at Fort Leavenworth and Fort Lee, Lt. Gen. Shoffner and Lt. Gen. Samuel Wakefield, as an oversight group.[33]

Held at Fort Monroe on 27-28 May, the next major meeting, a Doctrine Development Seminar, brought the commandants directly into the formulation of the battle-dynamics heart of the emerging doctrine. Employing the Battle Dynamics Working Group's concepts and a Southwest Asia scenario prepared by the TRADOC Analysis Command, commandant groups, including other service and joint command representatives, evaluated the five battle dynamics. The focus succeeded in advancing several of the concepts, while others needed further work. Franks was now prepared, however, to incorporate them all into the new doctrine.

Early entry was defined as the initial projection of forces or capabilities into a theater, whether opposed or unopposed, in order to gain lodgement and access rapidly to a vital area in the theater. It set the stage for initial and subsequent actions, though in instances it could be forcible and decisive in itself. The TRADOC commandants believed the concept had to be clear about the joint, interagency, and combined components of such operations. Success was linked directly to the intelligence and logistics preparation of the theater. Considerations of task-organizing and tailoring the deploying force packages, depending on their size and echelon, were paramount. Future projected force mix required modular packages of combat forces and tailoring of intelligence and support systems. Key required characteristics were the lethality, survivability, versatility, sustainability, and mobility of the early entry force. Commanders-in-chief needed to understand the desired end-state of any action begun.

Depth and simultaneous attack was, at this juncture, defined as

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32. *(Continued).* (5) E-mail msgs, Capt Whetston, Army Doc Dir to distr, 14 May and 24 Jul 92. (6) Bklt, Generic 1.0 Scenario, TRAC-SC-0592, May 92. (7) Memo ATCD-ZC, Brig Gen Timothy J. Grogan, ADCS Cons and Doc to TSLC II Participants, 21 Jul 92, subj: Doctrine Discussions. Other concept papers covered the following topics: tempo, extending the range at which soldiers exchange direct fire, the Army's umbilical to space, blurring of strategic-operational-tactical levels of war, how deep must the Army fight, victory: a perspective, and versatility. (8) Memo ATCD-ZAD, Maj Gen Wesley K. Clark, DCSCDD, 18 Jun 92, subj: Battle Dynamics Definitions and Concept Papers.

33. Msg, Cdr TRADOC to distr, 172236Z Apr 92, subj: TRADOC Doctrinal Working Group, and this message in draft, with Franks' handwritten emendations.

simultaneous application of combat power against an enemy throughout the depth of the battlefield. Attack needed to be simultaneous and synchronized with joint and combined capabilities. Capabilities now at a commander's disposal had the effect of blurring the levels of war. Further, a difficulty lay in the concept of simultaneous attack in depth, in the consideration of fire and maneuver. Did fires "maneuver"? Still another aspect of simultaneity was the reminder that, despite a capability to disseminate intelligence to increasingly lower levels, Army forces could not assume perfect intelligence of the future battlefield. Planners noted that while Soviet theory had described attack on the enemy's combat order throughout its whole depth, the American notion added the application of emerging technology and the massing of effects to that principle. A parallel idea of the SAMS doctrine writing team at this time was that attack in depth presented the enemy with more situations that he could react to or counter.

Recognized in the logistics, or combat service support, definition at the May 1992 doctrine seminar was that planners had to consider "split-based" logistics. That phrase signified combat service support operations split between the war theater and elsewhere, as information processing technology facilitated that more efficient principle. Doctrine had to address the mobilization of the industrial base in times of crisis, identify what form the logistics system should take, identify civilian contract issues, and determine who would run the strategic base. The concept sought "seamless" distribution-based and "anticipatory" logistics. Multifunctional logistics, integrated automation, "total asset visibility" at any given moment, logistics preparation of the theater, and highly responsive distribution were key ideas. In May 1992, this area had considerable work remaining.

Battle space had not been well formulated by late May. It was initially defined as the range at which combat actions began between opposing combined arms maneuver forces at brigade and below. However, the direction of seminar discussion was that the concept should not be restrictive to any specific echelon. Battle space also dealt with spatial relationships of forces and formations. This concept was related to operational tempo, space communications, and the dramatic increase in target acquisition and engagement ranges. Much work still lay ahead to clarify and distill the engaging and imaginative notion of the commander's battle space.

Command and control, or C2, and tempo, soon to jell into battle command, was defined in late May as the rate or pace of combat activities over time requiring effective command and control. Discussion suggested that C2 and tempo should be separated. Planners considered that command was the art, involving the commander and the *what;* control was the science,

involving the staff and the *how*. Much more work was needed here to examine the relationships of command post concepts, the decision making cycle, command group dynamics, joint-combined-interagency influences, requirements for strategic and theater assets, and command post mobility. This concept drew on a 1992 Army Science Board Study on command and control on the move.[34]

At the doctrine development seminar of late May 1992, General Franks noted the lack of adjustment in infantry tactics during the bloody exchanges of the American Civil War, when the minie ball and the Spencer rifle were available but not exploited. He also noted a document in the Armor School museum of the Bundeswehr: a patent, dated 1888, for a track-laying vehicle. Franks asked how "leaps" to new capabilities occurred when the signs were present but not seen. "It's all around....you don't see it." But a further result of Franks' battle dynamics work was a move to harness such capability leaps, the concept of "Battle Laboratories," which the TRADOC commander announced and which he had taken steps to establish in TRADOC the previous month. The new laboratories would provide a way of looking at the implications of things, "decidedly different than in the past."[35]

Battle Laboratories

At the end of March 1992, General Franks wrote his Combined Arms Command commander and combat arms commandants a significant message related to two of the emerging battle dynamics: battle space and command and control. Franks signalled his belief that the Army was on the verge of a quantum improvement in command and control of battle space at the brigade level and below. He based his conviction on technological improvements to key functions: the tactical commander's situational awareness, and automated target designation and hand-off. The specific technology consisted of the Intervehicular Information System, or IVIS, and the Global Positioning System. Once the concept could be realized, tanks and other attack systems could team against an enemy formation almost

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34. (1) Memo ATCD-A, General Frederick M. Franks, Jr. to Chief of Staff of the Army, n.d. [ca. 29 May 92], subj: Exec Sum of Doc Dev Seminar, THRC. (2) Bklt, Cdrs Confer Battlefield Dynamics SWA Theater, SWA BDG [scenario], developed for TRADOC DCSCDD by TRAC, May 1992. (SECRET—Info used is UNCLASSIFIED) (3) Memo ATACD-A, Col Stephen D. Cork, Dir Army Doc through Brig Gen Grogan to DCSCDD, 1 May 92, subj: Battle Dynamics Working Group (BDWG) Update and Proposed Doctrine Development Seminar Plan, w/Tabs B through F. (4) Memo ATZL-SWD, Brig Gen William M. Steele, Dep Comdt, USACGSC to Brig Gen Grogan, ADCS for Concepts and Doctrine, USATRADOC, n.d. [May 92], subj: Battle Dynamics scenario and draft papers.

35. OCH Notes, John L. Romjue, Doctrine Development Seminar, 28 May 92.

instantaneously and even do so while physically dispersed. Franks charged his subordinates, with the Armor School to lead, to begin work on the doctrine and on an experimentation program to validate it. As early as fall 1991, he had expressed concern to General Sullivan, in an informal meeting in the Chief of Staff's office, that the Army lacked an institutional means to experiment with the changing methods of land warfare, such as the Army had earlier done well in the 1941 Louisiana Maneuvers and the 11th Air Assault tests of 1963-1964.[36]

General Franks laid out his plans for Battle Laboratories at a meeting with his deputy for combined arms and the SAMS director at Fort Leavenworth on 15 April 1992. Discussing plans for structuring the future force with Lt. Gen. Shoffner, he noted the need for TRADOC to do its own experimentation and laboratory work at places where firing ranges, troops, units, and airspace could be combined with the simulation microprocessor to replicate the battlefield. Franks noted that several TRADOC Army schools had those facilities, and he recalled a recent suggestion by General Sullivan that Franks employ the 194th Armored Brigade at Fort Knox, Kentucky, similarly to the formation and use of the 11th Air Assault organization in the 1960s, as a test-bed. "We got to get the dirt, wind, and rain and the troops and units and the real gear out there and the simulations hooked up," Franks said. He thought such institutionalized facilities could do major work for the Army in the post-Cold War period. He saw these school-based agencies, initially termed "task forces," as the way to start. They would furnish a new means, Franks believed, to implement the whole development system, as well as a way for TRADOC to capture the field experimentation leadership and the future battlefield leadership.[37] Franks' primary action officer for the initiative was Colonel William Hubbard, who headed a newly formed Battle Laboratory Integration and Technology Directorate in Maj. Gen. Clark's combat developments office. Clark worked the preliminary battle space command and control and IVIS concept into a video planning conference on 20 April.[38]

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36. (1) Msg, Cdr TRADOC to Cdrs CAC and Armor, Infantry, Aviation, Field Artillery, Engineer, and Air Defense Artillery Centers, 312240Z Mar 92, subj: Battle Space Command and Control. (2) Franks review ms. marginal note.

37. Tape transcript of meeting, General Franks-Lt Gen Shoffner, 15 Apr 92, THRC. TRADOC had lost its test and experimentation organizations in November 1990, when they were transferred to the U.S. Army Operational Test and Evaluation Command as part of a services-wide review aimed at consolidation. Romjue, Canedy, and Chapman, *Prepare the Army for War*, p. 106.

38. Briefing slides, briefing by Maj Gen Wesley Clark, video conference, FM 100-5, New Battlefield Dynamics, 20 Apr 92.

During this mid-April 1992 planning period, Franks advised that TRADOC headquarters would manage the establishment. He wanted six laboratories formed at selected TRADOC posts. A battle space laboratory for mounted combat at the Armor School at Fort Knox, formed in mid-April, was the pilot effort, with a battle space laboratory for dismounted combat at the Infantry School at Fort Benning, Georgia, and one at the Field Artillery School at Fort Sill, Oklahoma, involving notions of depth and simultaneous attack to follow. Associated with the Fort Sill Battle Lab were the Air Defense Artillery School at Fort Bliss, Texas, and the Intelligence School at Fort Huachuca, Arizona. There would be a command and control and battle tempo (later battle command) laboratory at Fort Leavenworth, supported by the Intelligence School and the Signal School at Fort Gordon, Georgia. At Fort Monroe, planners established an early entry, lethality, and survivability laboratory, to work closely with geographically contiguous or nearby service headquarters—U.S. Atlantic Fleet, the Air Force Tactical Air Command (later Air Combat Command), and the Marine Corps Combat Development Command. Later planning added the sixth laboratory, for combat service support, at Fort Lee, Virginia. Franks' immediate guidance to the Armor commandant at Fort Knox was to use advanced technology demonstrations and experimentation as well as theory and tinkering. Franks talked personally with each commandant concerned. He told them to lay out their program to execute. The battle dynamics concepts to be developed by the Battle Dynamics Working Group meeting at Fort Monroe would support the labs. General Franks announced the Battle Labs publicly in an industry leaders conference on 21 April in Atlanta, Georgia.[39]

TRADOC fleshed out the Battle Laboratories rationale and purpose in a White Paper issued in early May 1992.[40] With the Soviet threat absent as the definer of U.S. Army requirements, what was needed was an "organized, institutional way to focus on competing ideas and technologies, experiment with them, and find the best combinations to maintain the technological edge...." The laboratories were based on the idea that technology perpetually changed the nature of warfare and that, in the focused

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39. (1) MFR ATCG-P, General Frederick M. Franks, Jr., 15 Apr 92, subj: Fort Knox and Fort Leavenworth Trip Reports (14-15 April 1992). (2) E-mail msg, Maj Gen Wesley Clark to Lt Gen Shoffner and Maj Gens White, Marty, Foley, 10 Apr 92, subj: Implementation of New Battlefield Dynamics. (3) E-mail msg, Brig Gen Grogan to Col Cork, Dir Army Doc, 21 Apr 92, subj: Battle Labs. (4) Msg, Comdt Armor School to distr, 162300Z Apr 92, subj: Battle Space Battle Lab. (5) McCarter Interview by Romjue, 16 Mar 93. (6) Franks review ms. marginal note (the "Atlanta XVIII" Conference, 21 April 1992).

40. HQ TRADOC White Paper, Battlefield Laboratories: The Road to the Post Cold War Army, 4 May 92.

Battle Labs, that change could be recognized and subjected to immediate test.[41] They would be "a focal point for developing the concepts related to the emerging understanding of battlefield dynamics in...post-industrial warfare." Located at the TRADOC schools, they were situated to experiment quickly and informally with emerging insights toward doctrinal and technological applications.

What was distinctive about Franks' Battle Laboratories was the combination of computer-based simulations with the training areas, ranges, and troop units at branch school locales—the ultimate decentralization of analytical and test capability to the source of branch and cross-branch expertise. The development of computer simulations by the early 1990s permitted battlefield replication with great fidelity as well as the play of a wide variety of factor combinations. Just as important, once a simulation-measured war fighting concept had proved out, was its quick testing in rain, mud, and airspace by real soldiers in troop units.

By concept, all the TRADOC centers and schools provided expertise and support to the Battle Labs, some detailing school staff representatives to those locations. In the technological sector, the laboratories also reached out to the Army Materiel Command, as well as to the Defense Advanced Research Projects Agency and the Assistant Secretary of the Army (Research, Development, and Acquisition) and to industry at the prototypal stage of new equipment development. The Battle Labs drew on the ideas and insights of major exercises and on the work of the Combat Training Centers. Battle Laboratory results were additionally expected to be analyzed by the Chief of Staff of the Army's new Modern Louisiana Maneuvers group, to be noted below.[42]

In the Battle Laboratories, General Franks thus created an entrepreneurial and structured doctrinal tool, one which focused on all the development concerns—doctrine, organization, training, leadership, materiel, and soldiers. Franks saw the laboratories as loosening up the whole Army development system. He believed that that lengthy process

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41. The Battle Laboratory idea had World War II historical precedents. Following the German Army's revolutionary use of close air support in the defeat of France, General George Marshall had directed experimentation with doctrine and technology. Based on a General Headquarters G-3 concept study, experimentation by the 17th Bombardment Wing working with the 4th Motorized Division, 2d Armored Division, and 501st Parachute Battalion, examined tactical combinations of equipment and techniques for support and attack of ground forces. The ultimate product of this peacetime pre-Pearl Harbor experiment was a new Army manual, FM 31-85, Aviation in Support of Ground Forces, which set U.S. close air support doctrine for World War II. HQ TRADOC White Paper.

42. HQ TRADOC White Paper, Battlefield Laboratories. For a discussion of the Modern Louisiana Maneuvers, see below, p.77.

had to be cut down, more agility was needed.

As the commandants set about developing the Battle Laboratories, the TRADOC commander, on 23 May, institutionalized them by establishing a Battle Laboratories Board of Directors, consisting of his three deputies: the commanders of the Combined arms Command and the Combined Arms Support Command, and the Deputy Commanding General/Chief of Staff. The three were to co-chair a Battle Laboratories working group, while the Deputy Chief of Staff for Concepts, Doctrine, and Developments would continue to develop the organization and furnish staff to the board. Franks directed establishment of a charter that would fit into the current Army development and programming systems and make more efficient and reorient the corresponding TRADOC development system.[43] The six Battle Laboratories were established during May and June 1992. The laboratories would, as noted, further support a simultaneous Department of the Army initiative, the Modern Louisiana Maneuvers, an organization established by the Chief of Staff of the Army in March 1992 to assist the Army's transition into the post-Cold War era, employing simulations-based studies and processes.[44]

The Way Ahead

TRADOC's battle dynamics work of the spring of 1992 brought the war fighting component of doctrine to center stage in the revision effort. By late May, those concepts were in full development. As their central ideas and relationships were distilled, the period saw the future doctrine take definite shape. At the same time, the airing by General Franks within

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43. (1) Memo, General Frederick M. Franks, Jr., Cdr TRADOC to Lt Gen William A. Shoffner, Cdr CAC, Lt Gen Samuel N. Wakefield, Cdr CASCOM, and Maj Gen Donald M. Lionetti, DCG TRADOC, 23 May 92, subj: Battle Laboratories Board of Directors. (2) OCH Notes, John L. Romjue, Doctrine Development Seminar, 28 May 92. (3) By design, the Battle Labs would liberate the previous development process (the Concept Based Requirements System), which despite almost constant reform attempts over the previous 20 years, retained built-in, process-fixed slowness. In the Cold War system, Army long-range planning guidance led to annual prioritization of materiel programs by functional area, based on the Soviet threat. Prioritized "1-N" listings resulted, and out of such listings materiel programs began or continued through an elaborate requirements documentation and review process. In the revised system, annual branch conferences followed the Army long-range planning guidance. Branch master plans were developed. The Battle Labs here entered the picture to examine and test ideas. Then followed an Army modernization architecture designed by TRADOC, feeding into a HQ DA Army Modernization Plan and a streamlined requirements process. HQ TRADOC "TRADOC Umbrella Brief," October 1992.

44. For a review of the rationale and establishment of the Modern Louisiana Maneuvers, see TRADOC Annual Command History, 1992, pp. 17-29.

the Army of these as yet unfinished battle dynamics concepts, together with the turn to the strategic sphere and operations short of war, prompted continuing close vigilance by Army leaders concerned that the doctrine in formulation was executable and right for the immediate period ahead—the mid-to-late 1990s.[45]

On 5 June 1992, General Sullivan asked the TRADOC commander to brief him on progress to date. Sullivan noted a mistaken belief in some parts of the Army that the 100-5 effort was changing Army doctrine too much. There was a need to correct that misapprehension. Franks, however, wanted to do some further intensive work before presenting the Chief of Staff a package.[46] He met with Sullivan in early July, and at that time the Chief of Staff outlined guidance for the period ahead. Its thrust was the assurance of a basis of continuity with 1980s doctrinal principles and tenets. Importantly, Sullivan directed adherence to the previous, 1986 FM 100-5 chapter structure, guidance that supported a war fighting emphasis for the manual. In form, he wanted a manual simple in language.[47] In content, he specified acceptable, executable doctrine; minimal new terms; use of historical examples relevant for the current generation; and a manual telling how to think about operations, rather than explanations with details that could better go into supporting field manuals.[48]

Franks' follow-on instructions to the SAMS writers in July were to hold to an evolutionary, not revolutionary approach, and not to "surprise the Army." He told them to turn their focus to conduct of operations, especially the notions of depth, versatility, agility in power projection, and leadership as an element of combat power. They should focus on writing the how, versus the what, and to write clearly. There would be no radical change from the 1986 manual's 12-chapter structure. The "baskets" or battle dynamics would go in.[49]

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45. Franks Interview by Malone, 7 and 12 Jan 93.

46. Msg,DA [General Sullivan] to General Franks, Cdr TRADOC, 051737Z Jun 92, subj: Doctrine Development, w/notes.

47. Franks had printed and distributed to planners copies of the concisely-and well-written 1941 manual. Printing of the 1993 manual included limited issue of a pocket-size edition.

48. Briefing slides, General Frederick M. Franks, Jr., briefing to FM 100-5 Offsite Conference, Fort A.P. Hill, Va., 4-6 Aug 92.

49. (1) MFR ATCD-P, 16 Jul 92, Commanders' Planning Group, subj: FM 100-5 Guidance. (2) Paper, Meeting Notes with General Franks, 1 Jul 92, Col Frederick Berry, 2 Jul 92, subj: Notes from CG Off-Site Conference IPR. (3) McDonough Journal, 31 Jul 92.

CHAPTER IV

CRYSTALLIZING A POST-COLD WAR DOCTRINE

In battle command, Franks refocused thinking on the art of command, the thinking and leadership part of command, as opposed to the organizational-technical focus. Battle command, in its final formulation, was seen as an art, the activity of agile, imaginative leaders exerting an intuitive sense but always subject to the effects of friction and chance.

The period July-December 1992 saw the new doctrine for the post-Cold War take shape, as its outline and elements crystallized for the TRADOC commander, his writing team, and doctrine assistants. Significant in General Franks' conference methodology for soliciting and airing ideas were two major meetings of the period—with the TRADOC commanders and commandants at Fort McClellan, Alabama in July, and with Army senior leaders at Fort Leavenworth in November. The two conferences and "off-site" meetings immediately following served in succession first to jell the new concepts, and second to crystallize the final doctrine. The off-site discussions were important. With his closest advisors and the writing team at the off-sites, Franks worked out the conference results. TRADOC circulated a preliminary draft of the doctrine in August, drawing wide response. A final draft, presented by the SAMS director, Colonel McDonough to General Franks in December, was published in January 1993 and further reviewed. Following further work with his headquarters staff and with McDonough, Franks made decisions on final points through the spring of 1993, and the revised manual was published and presented to the Chief of Staff of the Army in June 1993.

Distilling Ideas

The Fort McClellan TRADOC Senior Leaders Conference held 27-28 July 1992 was an important event for the development of the 1993 doctrine. The battle dynamics concepts were the focus, and General Franks gave the SAMS team the responsibility to present them. By that means, the TRADOC commander unified the SAMS writing effort with the headquarters-engendered battle dynamics project. Revised concept papers coming out of the spring battle dynamics work were part of the basis for discussion.[1] Franks thus focused this critical doctrinal meeting specifically on the conduct of operations. He wanted concrete proposals for FM 100-5 to come out of it.[2] For the upcoming conference, the SAMS director prepared discussion matrices treating critical doctrinal points. In the preceding days, writing team members travelled to pre-brief the commandants.[3] General Franks wanted their involvement and their insights. Five battle dynamics discussion groups, headed by the commandants, were set up and received the SAMS presentations and discussion-matrices.[4]

The Fort McClellan groups focused intensively on the five battle dynamics. In line with the spring 1992 concept for early entry, the commandants saw that notion as a significant change in the way the U.S. Army ought to think about conducting operations. It applied across the whole range or continuum of activity. The role of early entry forces was to deter, win, and buy time.[5] Clear in the discussion of depth and simultaneous attack was the need felt to break the AirLand Battle mindset that linked the deep fight to the close-in fight. Also urged was precision, and a different emphasis on the principle of mass: commanders concentrated forces, but massed effects—the effects both of direct and indirect fires. Fires were

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1. Paper, Meeting Notes with General Franks, 1 July 1992, Colonel Frederick Berry, 2 Jul 92, subj: Notes from CG Off-Site Conference IPR [in process review].

2. TSLC II Planning Papers, Army Doctrine Directorate, AO Notebook 23, Tab M, w/Franks marginal comment.

3. McDonough Journal, 14, 17, and 23 Jul 92.

4. At the 27-28 July TRADOC Senior Leaders Conference, the TRADOC commandants headed the battle dynamics discussion groups as follows: Maj Gen John D. Robinson (Aviation School) early entry, survivability, and lethality; Maj Gen Fred F.Marty (Field Artillery School) depth and simultaneous attack; Maj Gen Robert E. Gray (Signal School) C2 and battle tempo; Maj Gen Jerry A. White (Infantry School) battle space; and Maj Gen Kenneth R. Wykle (Transportation) combat service support.

5. (1) Paper, Lt Col Michael R. Rampy, Deputy Facilitator, on EE Discussion Group at TSLC II, 28 Jul 92. (2) MFR, 30 Jul 92, subj: Notes from TSLC II Videotape.

seen as a decisive dynamic. Depth also meant pushing out the boundaries of the commander's battle space through better reconnaissance.[6]

Battle space was, at this point, understood not as a specific area with boundaries, but as a "visualization of the fight;" as a focus on the commander's area of control, responsibility, and influence; and as the commander's personal and intellectual approach to assist and gain three-dimensional awareness. Related to the emerging battle space concept were the commander's familiar assigned area of operations, area of interest, and the segmented deep-close-rear battlefield of AirLand Battle doctrine. As they grappled with the concept, the group did not see battle space as static; it moved with the commander as he moved and maneuvered, expanding and contracting according to the fighting capabilities he had available, and as affected by the surrounding environment.[7]

Addressing another doctrinal point of change—command and control (C2) and tempo—later to be termed battle command, the commandants endorsed the conceptual view that had begun to separate the function of command from its control mechanisms. Emphasized was that the battlefield commander commanded on the move, from wherever he was positioned, and not necessarily from a command post. Linked to this was the tempo of battle. Tempo meant not merely a speeding-up, but a subtle accommodation to need and circumstance. Fully integrated communications linkages and specifically channelled intelligence were crucial to this battle dynamic.[8]

Regarding combat service support, the TRADOC commandants' consensus in late July was that Army doctrine now required a concept of logistics preparation of the battlefield similar to the effective IPB or intelligence preparation of the battlefield method. Logistics doctrine also needed expansion—to the space role and to full theater and joint and combined concerns as well as to operations short of war.[9]

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6. (1) MFR, 30 Jul 92, subj: Notes form Depth and Simultaneous Attack Discussion Group, 28 Jul 92, no author. (2) MFR, Lt Col Reitz, 29 Jul 92, subj: Notes from Depth and Simultaneous Attack Discussion, 28 Jul, TSLC II. (3) MFR, 30 Jul 92, subj: Notes from TSLC II Videotape.

7. (1) MFR, Col Ricky M. Rowlett, 29 Jul 92, subj: Battle Space Working Group Discussion, TSLC II. (2) MFR [Lt Col] McCarter [Army Doctrine Directorate], 28 Jul 92, subj: Notes from Battle Space Discussion Group, 28 Jul 92. (3) MFR, 30 Jul 92, subj: Notes from TSLC II Videotape. (4) AP Hill After Action Report.

8. Memo ATZL-SWV, Lt Col Edward E. Thurman, FM 100-5 Writing Team, 29 Jul 92, subj: TSLC C2 and Tempo Working Group.

9. (1) MFR, Lt Col Carrick T. Troutman, Jr., 28 Jul 92, subj: Notes from Discussion Group, 28 Jul 92. (2) MFR, 29 Jul 92, subj: Notes from the Logistics Discussion Group, 28 Jul 92, no author.

In July 1992, the issue remained as to which service controlled the air at the operational level in support of ground operations. Air Force control and allocation of sorties neglected the effects: this system required the Army ground units involved to react to the Air Force target-strikes, rather than to employ those strikes in an integrated ground and air campaign. It was the ground element that had to make the maneuver decision beyond such air-ground dividing lines as the forward support coordination line. The nature of military campaigning argued for ground-commander dominance of assets most of the time.[10]

General Franks followed up the late-July commandant seminars at Fort McClellan with a three-day retreat at Fort A.P. Hill, a quiet Army subpost near Fredericksburg, Virginia. There, important decisions on the doctrine resulted.[11] Keeping the meeting small, Franks limited it to McDonough and the writing team; Lt. Gen. Shoffner; Lt. Gen. Samuel Wakefield, the Combined Arms Support Command commander; Brig. Gen. Grogan (who had reassumed the major doctrinal role at the headquarters under Franks upon the mid-July reassignment of Maj. Gen. Clark); Brig. Gen. Steele, the CGSC assistant commandant; Colonel Frederick Berry, director of Army doctrine at the headquarters; and several headquarters staff members.[12]

The A.P. Hill meeting addressed in succession the manual's structure and all three doctrinal focuses: operations short of war; force projection, mobilization, and deployment; and the conduct of operations—the battle dynamics. Franks convened the gathering alternately in plenary and group sessions, with group meetings reporting back. Writing team members led the battle dynamics groups. It was at this meeting that the doctrinal ideas that had been floated, furthered, and discussed in public and private forums since the fall of 1991 came together in basic form. Their relationship was determined, and a new doctrinal framework created. Out of the A.P. Hill deliberations came the preliminary draft of the manual.

At the early-August meeting, planners used visual grids detailing doctrinal issues at the three levels of war as a means to pin down modifications and additions to the 1986 doctrine. Manifest in these discussions was a pronounced sense of the history of military success and failure. Outcomes in war were often conditional on the preceding peacetime

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10. McDonough Journal, 23 Jul 92.

11. Franks' selection of the A.P. Hill site for these culminating deliberations had precedent in recent Army doctrine history. During 1974-1975, the site served a similar purpose in the TRADOC commander's (General William DePuy) formulation of doctrine for the 1976 FM 100-5 edition.

12. FM 100-5 Off-Site, Fort A.P. Hill, 4-6 Aug 92, After Action Report.

Brigadier General Timothy J. Grogan

decisions for innovation or stagnation, safety or risk. The examples of such imaginative thinkers as Heinz Guderian, Billy Mitchell, and Giulio Douhet were reminders. So, too, were the tragedy of French doctrinal unpreparedness in 1940 and the stagnation of the U.S. Army in the years preceding the Korean War.[13]

The advent of the force projection Army put a premium on early theater entry and all that it entailed. In the A.P. Hill discussions, General Franks emphasized that an indispensable inclusion for early entry planning was fullest preparation, including logistics, infrastructure, and advanced

13. A.P. Hill After Action Report.

foreknowledge of the nations and cultures involved. Foreign language skills were imperative. "Early" was a critical part of the concept; it compelled, in commanders, a habit of anticipating, forecasting, and sensitivity to the way things started. Versatility was an important aspect of it. Discussion of this battle dynamic was intensive. Related to early entry was the issue of *forcible* entry. Some planners disputed any significant inclusion of surface forcible entry, among them Lt. Gen. Shoffner and Lt. Gen. Wakefield.[14] Except for its airborne troops, the Army did not have that ready surface capability, as did the Marine Corps. To a degree, TRADOC approval in June of a separate mobilization and deployment doctrinal manual acted to absorb that related issue, but early entry remained a key point of focus for the force projection Army.[15]

The A.P. Hill meeting gave further definition to battle space. Franks believed that without a doctrinal way to view the battlefield in the new world of joint warfare, "we are going to be all over the place." How to describe the space within which ground forces operated? Doctrine had to come to terms with the new geometry of the battlefield. Discussion raised many points. Were diagrams useful in describing an intellectual concept? And should an intellectual concept be doctrine at all? Franks viewed the old standard, and dichotomy, of linear versus nonlinear warfare as a shibboleth, now without meaning. Battle space was a new way to describe the battlefield post-Gulf War. Insofar as it was based on the capabilities in hand, battle space—as discussed earlier—moved as the commander moved or maneuvered his unit, expanding and contracting.[16] Franks thought no graphic was necessary for such a visualization. He noted an idea of General William DePuy regarding the relatedness of the commander's intent, concept of operation, and campaign plan: the land force operated in a given space, sometimes with boundaries, sometimes without. Doctrine was needed that would jolt the Army out of the old geometry of the battlefield.[17]

Doctrinal discussion of the C2-tempo battle dynamic centered on the nature of battle command. At the A.P. Hill meeting, Franks saw that dynamic as having two clear components: operational and tactical decision making, and leadership. He wanted a clear statement of that definition in

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14. Notes on Fort A.P. Hill Meeting, H.O. Malone, TRADOC Historian.

15. MFR ATMH, H.O. Malone, Jr., Chief Historian, 16 Sep 92, subj: FM 100-5 Off-Site Conference, Ft. A.P. Hill, Va., 4-6 August 1992. The referenced manual was FM 100-17, *Mobilization, Deployment, Redeployment, Demobilization*, first published in October 1992.

16. Fort A.P. Hill After Action Report.

17. (1) Transcript of audiotapes, Ft. A.P. Hill Meeting. (2) Malone MFR, 16 Sep 92.

the new doctrine. Franks also directed more articulation of the principle of the commander's intent and the incorporation of the command and staff maxim: "don't run out of options."[18]

It was at the August A.P. Hill meeting that Franks and his advisors reached clear conclusions on the central issue of the doctrinal manual's focus—as affected by the expansion into the strategic sphere. Whereas 1980s Army doctrine was oriented to tactics and operations—that is, to battle itself—Franks and his planners had from the outset, as we have seen, envisaged Army operations doctrine as transcending war and conflict proper to encompass the whole range of peacetime engagement, as well as post conflict activities. On the latter point, doctrine needed to allow for what happened beyond the operational end state of victory, to include the strategic end-state as well. A key to a clear picture of this broad "continuum" of Army operations was the short-of-war category, itself diverse and various and including both peacetime engagement and hostilities short of war. For it, a different set of war principles applied.[19]

Planners considered that the operational continuum model that they had inherited and modified from *AirLand Operations* continued to generate confusion—nor was it universally accepted. A significant shift at the A.P. Hill meeting was Franks' scrapping of the operational continuum mode as complicated and not apt. Though a continuum had to be visualized, a new model was needed. More important than a list of *all* possible such operations was a sufficient statement of principles that would encompass *any* operation. The Army, Franks believed, did two things. First, it fought and won wars. Second was the list of other things—and they were geared to a different set of considerations. The TRADOC commander thought it impossible to categorize that variety. Operations short of war were so different that the subject required a distinct chapter.[20] The new term arrived at

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18. Malone MFR, 16 Sep 92.

19. The range of peacetime engagement operations included: nation assistance, security assistance, humanitarian assistance including disaster relief, support to counter-drug activities, support to domestic civil authority, peacekeeping operations, antiterrorism, support to insurgency/counterinsurgency, and arms control. Hostilities short of war included: attacks and raids, noncombat evacuation, demonstrations and shows of force, security assistance surges, operations to restore order or peacemaking, counterterrorism, support to insurgency/counterinsurgency, and support to domestic civil authority. The ruling principles earlier noted governing operations short of war were: primacy of the political element, adaptability, legitimacy, perseverance, restricted use of force, and unity of effort with other, nonmilitary government agencies. Fort A.P. Hill Meeting After Action Report.

20. (1) Transcript of audiotapes, TRADOC CG's Comments Made During FM 100-5 Off-Site Conference, Fort A.P. Hill, 4-6 Aug 92. (2) Commanders Planning Group Notes, A.P. Hill Off-Site. (3) Franks Interview by Romjue, 17 Nov 94.

by Franks and his chief doctrine writer, Colonel McDonough, was "operations other than war." That term, Franks believed, sliced through the haze surrounding the operational continuum.[21] The TRADOC commander rewrote some of the operations short of war sections of the manual himself at the A.P. Hill meeting.[22] The clear setting-apart of war doctrine from doctrine for operations other than war settled a problematic issue. The Combined Arms Center commander, Lt. Gen. Shoffner, saw adoption of the new dichotomy as the major intellectual shift of the ongoing work.[23]

Other important points were treated at the early August meeting. Discussion of the end state, a significant addition to the 1993 doctrine, owed in part to earlier advice of the Eighth U.S. Army commander. General RisCassi had pressed for the notion that planning a military operation had to allow for the desired end state. Lt. Gen. Shoffner denoted the RisCassi insistence as an illuminating "bolt of lightning."[24] General Franks also directed elimination of the emerging doctrine's "deter war" notion. It was necessary to break the deterrence paradigm of the Cold War.[25]

The key utility of the new force projection watchword for American Army doctrine had become far more evident. Historical events had dissolved the long-reigning dichotomy, enforced by the primary NATO mission, of major operations vis-a-vis contingency operations. As argued by the CGSC assistant commandant, Brig. Gen. Steele, contingency in the new strategic world was basic to all operations. The force projection Army was indeed a contingency-based Army.[26] Franks' planners believed the discussions of force projection highlighted the planning need to avoid, with Moltke, "error in the initial deployment of forces [which would] hardly be corrected during the entire course of the campaign."[27]

Also noteworthy at the A.P. Hill meeting was General Franks' direction that doctrine would no longer address AirLand Battle or AirLand

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21. MFR ATMH, John L. Romjue, Office of the Command Historian, 16 Nov 92, subj: FM 100-5 Fort Story Off-Site Meeting, 5-6 Nov 92.

22. Action Officer Working Papers, Chap V—OOTW, Lt Col Reitz, 6 Aug Rewrite.

23. Notes on Fort A.P. Hill Meeting, H.O. Malone, Jr., TRADOC Historian.

24. Ibid.

25. Ibid.

26. Ibid.

27. Malone MFR, 16 Sep 92.

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Operations, but simply, "Army operations." The TRADOC commander argued that eliminating the 1980s term would help eliminate the named doctrine's narrow Air Force-Army image. In fact, operations were broader and linked to all the services.[28] Discussion also favored elimination of the list of AirLand Battle imperatives that prescribed key operating requirements more specific than the principles of war or the AirLand Battle tenets. Not the ideas, but the mechanical nature of "too many lists," was the objection.

28. Commanders Planning Group Notes, Ft. A.P. Hill Off-Site.

Franks directed the writers to embed rather than list the imperatives.[29]

Another early August determination by the TRADOC commander was to reorganize the key doctrine manual. General Franks eliminated the team's earlier chapter organization and grouping into parts, in favor of a simple chapter sequence akin to that of the current 1986 edition but minus its superstructure. The structure was set at 13 chapters, with the possibility of a separate fourteenth chapter on combined operations.[30]

Emerging Doctrine

The upshot of General Franks' August off-site meeting was a rewrite of the first draft of the new doctrine at Fort Leavenworth between 7-14 August. Edited by Lt. Gen. Shoffner and Brig. Gen. Steele, the draft was taken by Colonel McDonough on 14 August to Fort Monroe, where General Franks, Colonels McDonough and Rowlett, and Brig. Gen. Grogan and the doctrine staff discussed editorial changes. Following subsequent discussion of revisions with his deputy at Fort Leavenworth, Franks presented the preliminary draft in detail to General Sullivan upon the Chief of Staff of the Army's visit to Fort Monroe on 21 August.[31]

Basically formulated at this point, the new doctrine would undergo further important revision and refinement. Major new ideas distinguished the emerging doctrinal bible for the 1990s. Of first importance was the extension of Army doctrine to the strategic level of war, a spelling out of Army roles and missions from a strategic perspective. Not only the battlefield, but projecting force globally to get there, fight, settle post-conflict problems, and redeploy, was an Army concern and second major change. Operations other than war was a third major emphasis, the plethora of non-war activities that the passing of the Cold War had in great part opened up.

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29. Notes on Fort A.P. Hill Off-Site Meeting, H.O. Malone, Jr., TRADOC Historian. The ten AirLand Battle imperatives were: ensure unity of effort; anticipate events on the battlefield; concentrate combat power against enemy vulnerabilities; designate, sustain, and shift the main effort; press the fight; move fast, strike hard, and finish rapidly; use terrain, weather, deception, and operations security; conserve strength for decisive action; combine arms and sister services to complement and reinforce; understand the effects of battle on soldiers, units, and leaders. FM 100-5, Operations, 5 May 86, p. 23.

30. (1) Notes on Fort A.P. Hill Off-Site Meeting, H.O. Malone, Jr., TRADOC Historian. (2) Malone MFR, 16 Sep 92. (3) Paper, Meeting Notes with General Franks 1 Jul 1992, Colonel Frederick Berry, 2 Jul 92, subj: Notes from CG Off-Site Conference IPR.

31. (1) McDonough Journal, 10 and 25 Aug 92. (2) Memo, Jim McDonough to General Franks, 14 Aug 92, subj: FM 100-5, Operations, 1993—1st Draft. (3) Journal, FM 100-5, Operations, Lt Col Dave C. Mock, Sp Asst to General Franks, Aug 1992, THRC.

Command Building, Headquarters TRADOC

A fourth important change was the much stronger commitment to joint and combined operations. As noted, AirLand Battle, connotative of Air Force-Army integrated action against a known enemy quantity, was dropped from usage in favor of "operations" only, which were broadened to encompass the sea services as well as allied forces. All these notions were woven throughout the new doctrine.

For the battlefield itself, most of the doctrinal body of AirLand Battle was carried forward into the 1990s doctrine. But there were important shifts and changes, most notably in the Franks' battle dynamics focus, as we have seen. No longer were deep operations specifically an activity to shape or affect the close battle. Instead, the enemy would be attacked and destroyed simultaneously throughout the depth of operations against him. Of great moment, battle command replaced C2, command and control, and its extensions: C3 (C2 plus communications) and C4-I (C3 plus computers-intelligence) as the framework of what the commander did and how he made decisions and provided leadership. This significant change broke the C2 approach in favor of battle command explicitly as the commander's function, undiverted by control and communications, the functions of his staff. Battle space was introduced as a visualization of the fight and focus

on the area of the commander's control, responsibility, and influence. The new operational design for logistics was an important change. Among the changing dynamics of battle, finally, the emphasis on the early entry stage was crucial to the success of force projection strategy.

Beyond strategic reorientation and new and changed battle dynamics, many new and important general points were going into the key post-Cold War doctrine. Important in the twilight world of international affairs was a forthright notion of an American way of war, rooted in American ethics and values and requiring discipline in its execution. The new doctrine included, in campaign planning, the idea that post-conflict activities were an integral part of achieving the strategic end state desired. The new doctrine expanded the idea of American reliance on its technological superiority, not only for its technology base, but individual and institutional proficiency in quickly integrating and mastering new technology. The impact of the news media upon military operations received much new emphasis in the wake of the CNN-reported war from behind the lines. The doctrine enlarged the treatment of weapons of mass destruction to include the proliferation and potential use by irrational opponents and powers.

Many new and retooled doctrinal ideas applicable to the battlefield were also added, tempo, for example, and the land force's need for space support. To be emphasized was the central wisdom of balance—between attack and defense, fire and maneuver, and dispersion and concentration. The 1990s doctrine would provide for getting intelligence from operational and strategic sources to early-entry units, since those units could not, under early-entry circumstances, furnish their own. The doctrinal necessity of overwhelming force was addressed.

By the late summer of 1992, decisions on other points had also been made, and Franks presented them to General Sullivan. The principle of mass was in modification and would go beyond the critical massing of formations to the massing of effects. The commander's intent was expanded to stress its purpose of focusing subordinate commanders on the desired end state of an operation. Versatility was to be added as a new, fifth tenet—the ability not only to be agile on one battlefield, but to shift easily from one mission to another, both in and out of war, or from one region to another. Meanwhile, the inherited tenets of depth, initiative, agility, and synchronization were in revision to incorporate the ten former AirLand Battle imperatives. The METT-T principles—mission, enemy, troops, terrain-time available—were expanded to make them applicable to both operational and tactical levels of war. The discussion of operational level campaigning was deepened. The new doctrine would expand the notion of anticipation by

the commander—intellectual involvement that kept him ahead of the game.[32] General Franks further briefed the preliminary doctrine at this stage formally to Sullivan, General Dennis J. Reimer the Vice Chief of Staff, and the Army Staff principals on 1 September, noting its "consultative" aspect—the result of the conference methodology. Sullivan approved its staffing to the Army.[33]

The Army Thinks It Over

Distributed widely within the Army and to senior retired commanders, and other service officials, the preliminary doctrine drew wide response.[34] Franks' conference spadework facilitated generally favorable reception. Participants in its development, the TRADOC school commandants gave it a none the less close review, as did most major Army command and unified commanders and retired Army senior leaders. Receiving their views and criticisms, Franks told his doctrine staff to reply to each expeditiously and to assimilate the proffered points.[35] An extensive subject and name indexed record of the critique comments was assembled for use. Both Franks and Colonel McDonough consulted comprehensively with the review critics in efforts to get contested points across and reach consensus.[36]

Most readers found the doctrine, in its preliminary form, balanced and on mark as a guiding body of ideas for force projection in the post-Cold War. They applauded its expansion into operations other than war and its decisive link-up to the national security sphere. General Glenn K. Otis, under whose command at TRADOC AirLand Battle doctrine had been promulgated in 1982, saw the new FM 100-5 to be "a watershed for the

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32. Draft memo, General Frederick M. Franks, Jr. to General Gordon R. Sullivan, CSA, 21 Aug 92, subj: Preliminary Draft, FM 100-5, Operations, THRC.

33. (1) MFR ATCG-P, General Frederick M. Franks, Jr., 1 Sep 92, subj: Briefing of FM 100-5, Operations, (Preliminary Draft) to CSA and ARSTAF, 011430 Sep 92. (2) Memo ATDO-A, Maj Gen Henry M. Hagwood, Jr., CofS to CG TRADOC, 8 Sep 92, subj: FM 100-5, Staffing Action Plan. (3) Briefing, General Frederick M. Franks, Jr. to ARSTAF, 1 Sep 92, subj: FM 100-5 Preliminary Draft, THRC.

34. Memo ATDO-A, Brig Gen Timothy J. Grogan, DCSDOC to distr, 30 Aug 92, subj: FM 100-5, Operations. The preliminary draft was circulated to Army component commanders, army and corps commanders, division commanders, school and college commandants, the Army Staff, retired senior officers (CSAs, CINCs and commanders, TRADOC commanders), and joint agencies (CINCs, Air Combat Command, Atlantic Command, Marine Corps Combat Development Command).

35. Franks' handwritten note on preliminary draft correspondence, 23 Sep 92, OCH files, THRC.

36. McDonough Interview by Romjue, 22-23 Nov 93.

Army."[37] Lt. Gen. Walter E. Boomer, assistant commandant of the U.S. Marine Corps, supported the doctrinal statement for refocusing on the new strategic world—particularly in joint operations, operations other than war, and in its armored-light-special operating forces balance.[38] Writing to General Franks, Admiral H.H. Mauz, Jr., Commander-in-Chief, U.S. Atlantic Fleet, found the emerging doctrine compatible with Navy doctrine and supportive of joint operations. He supported it as a basis for interservice cooperation.[39] Similarly affirmative was the Air Combat Command commander, General John M. Loh, although old differences remained with regard to service sectors in the theater of operations.[40] All in all, the new doctrine overall was sound, with much appropriate new information, two former doctrine writers, Brig. Gen. L.D. Holder and Brig. Gen. Huba Wass de Czege, responded. Wass De Czege and Holder, both primary doctrine writers for the 1982 FM 100-5 that had introduced AirLand Battle, weighed in heavily as influences on Franks and his chief writer, Colonel McDonough.[41] General Edwin H. Burba, Jr., the commander of Forces Command, communicated positive support, as did his U.S. Southern Command counterpart, General George A. Joulwan.[42]

None the less, many of the new notions remained unclear to supporters and readers. Those objections Franks and his doctrine writers worked hard to overcome in the ensuing weeks. The chief interpretive problem was the clarity of the new battle dynamics and other notions. In brief summary, battle space was viewed by most as too vague and its relationship to the doctrinally familiar close-deep-rear battlefield and to the commander's areas of interest and operations unclear. Battle command aroused questions; it seemed to deny the inherent synergism of command and control. Tempo, vis-a-vis speed, was not well understood. Not all readers found a clear enough distinction between agility and the new fifth

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37. Ltr, [General] Glenn Otis [USA Ret] to General Frederick M. Franks, Jr., CG TRADOC, 21 Oct 92.

38. Ltr, General W.I. Boomer, Assistant Commandant of the Marine Corps to General Frederick M. Franks, Jr., 29 Sep 92.

39. Ltr, Adm H.H. Mauz, Jr., CINCLANTFLT to General Frederick M. Franks, Jr., CG TRADOC, 5 Sep 92.

40. Ltr, General John M. Loh, Cdr ACC to General Frederick M. Franks, Jr., CG TRADOC, 21 Sep 92, subj: Comments on FM 100-5, Operations.

41. McDonough Interview by Romjue, 22-23 Nov 93.

42. (1) Notes, GO Review of FM 100-5, THRC. (2) Packet, "GO Comments on Preliminary Draft," Army Doctrine Directorate, THRC.

tenet of versatility. Depth and simultaneous attack was well articulated as a contribution to the deep fight, but the difference between deep operations and interdiction needed clarifying. Readers were very reluctant to abandon the useful and ingrained battlefield operating systems[43] for posited "battle functions." Resistance to dropping "AirLand Battle" from the lexicon was viewed by many as a serious and unnecessary abandonment of a well understood and unifying doctrinal term. The commander's intent discussion appeared to confuse concept with intent, and needed further elucidation. While the emphasis on "quick, decisive victory" was good, readers believed the doctrine shortchanged protracted operations. More clarity was advised on the important idea of the requirements of conflict termination. An explanatory preface was needed.[44]

Major objections were registered by General William R. Richardson, former TRADOC commander and a principal force in the development of AirLand Battle doctrine. Richardson saw the deletion of the widely recognized, identifying doctrinal term, AirLand Battle, as a distinct loss that would weaken the Air Force doctrinal tie. Richardson also believed the critical war fighting flavor was too weak and that operations other than war was overdone. The former TRADOC commander argued for making clear the land commander's responsibility, vis-a-vis the Air Force for deep operations: the land commander had the implementing means in maneuver forces and fires.[45] Echoing Richardson was Maj. Gen. Marvin L. Covault, commander of the 7th Infantry Division (Light). Covault argued to Franks that future operations would not be describable as an "air-land-sea" battle. The Navy fought on the sea, the Marines from the sea and, though there was an important sea-land synchronization, the sea-land linkage did not dominate. Air-land did, and continuously, through the theater.[46]

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43. The battlefield operating systems were: maneuver, fire support, air defense, command and control, intelligence, mobility and survivability, and combat service support.

44. (1) Bfg slides, bfg by Brig Gen Timothy Grogan to Senior Leader Warfighter Conference, 5-6 Nov 92 [FM 100-5 issues]. (2) Memo ATZL-SWJ, USACAC [Brig Gen William M. Steele, Dep Comdt] to DCSDOC, with slides, 23 Oct 92, subj: FM 100-5, *Operations*. (3) Ltr, Brig Gen George A. Fisher, Cdr JRTC, to General Franks, 7 Oct 92. (4) FM 100-5, *Operations* Preliminary Draft,21 Aug 92 ARSTAF Review, n.d. [ca. 21 Oct 92]. (5) Memo DAMO-FD, Maj Gen Jay M. Garner, Asst DCSOPS, Force Dev to DCSDOC, 23 Oct 92, subj: Review of FM 100-5, Operations (Preliminary Draft), w/encl ARSTAF Comments.

45. Ltr, General William R. Richardson to General Frederick M. Franks, Jr., CG TRADOC, 21 Oct 92.

46. Memo AFZW-CG, Maj Gen Marvin L. Covault to Cdr TRADOC, n.d., subj: Comments on Preliminary Draft of FM 100-5.

Another former TRADOC commander, General Glenn Otis, came down on the opposite side of the nomenclature argument. Otis believed that Air Force doctrine had already abrogated AirLand Battle and that the Army had transcended land-air in joint sea-land-air operations. Otis shared with others, however, questions about the clarity of some new battle dynamic concepts.[47]

General Franks' view was that the principles of AirLand Battle—its maneuver and aggressiveness and the operational art—continued to obtain. Franks believed, however, that post-Cold War doctrine could not remain confined to those principles, to the "AirLand Battle box." The segmented close-deep-rear battlefield, the deep battle, the sequential battle, shaping the battle, the linear structure—all had to give way to a different tactical and operational vision. That vision would evolve in the coming months as a battlefield in and upon which U.S. forces should act simultaneous throughout the whole depth.[48]

General RisCassi, Eighth U.S. Army commander and a primary influence on the 1993 doctrine, took issue with a number of points. RisCassi offerred subtle refining ideas to consider regarding operations in joint and strategic spheres and to more clearly lay out the linkage between the Army, the National Military Strategy, deterrence, and war. For RisCassi as for many others, some new notions and their relationships required elucidation and clarity. Battle space was foremost among the new terms not well grasped by the Army at large.[49]

General Franks continued to keep his commandants and fellow commanders close to the process in project updates to the TRADOC Commanders Conference at Fort Bliss, Texas in mid-September and the Fall Army Commanders Conference in Washington, D.C. in mid-October 1992.

Receiving the reactions to the preliminary doctrine through the headquarters' Army Doctrine Directorate, the writing team developed the final draft. In that process, the built-in tension between the Headquarters TRADOC staff and Headquarters Combined Arms Center/Command and General Staff College was manifest. At this time and throughout the 1991-1993 project, Franks maintained the effective authority of his chief doctrine writer, Colonel McDonough, to craft and refine Franks' doctrinal points which the TRADOC commander himself intensively revised and fully edited. Throughout 1991-1992, the work of McDonough and the team was regularly reviewed, with contributing revisions, by the Combined Arms Command commander. Lt. Gen. Shoffner held initially to a stricter command-control

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47. Ltr, [General, USA Ret] Glenn Otis to General Frederick M. Franks, Jr., CG TRADOC, 21 Oct 92.

48. Franks Interview by Romjue, 17 Nov 94.

49. OCH files.

view. Differences were resolved at the conferences and off-site meetings. Franks desired and solicited open debate in close advisors like Shoffner, in his commandants, and in the wider Army circles he contacted.[50] At the same time, Franks wanted the headquarters staff—Brig. Gen. Grogan and the Army Doctrine Directorate—involved. For their own intellectual attachment to, and confident articulation of, the doctrinal ideas, he wanted their "fingerprints on the doctrine" as well.[51] That shared responsibility prevailed after Brig. Gen. Lon E. Maggart replaced Grogan as doctrine chief in early January 1993.

The inter-headquarters tension, repeating the pattern of the AirLand Battle project of the early 1980s,[52] bears brief mention here. On 8 September 1992, TRADOC headquarters advised the subordinate commanders and commandants that, with the successful presentation of the new doctrine to the Army Chief of Staff on 1 September, the Deputy Chief of Staff for Doctrine would lead the ensuing phase, with the Combined Arms Center in support.[53] The deputy commandant of the Command and General Staff College, Brig. Gen. Steele, responded to Brig. Gen. Grogan several days later. He advised that the SAMS team was ready to assist in the remaining tasks, specifically incorporation of review comments into the final draft, as General Franks and results of the upcoming fall conferences would determine. Steele also suggested the team's utility in the education phase—their services to brief the field.[54] General Franks wrote his deputy at the Combined Arms Center, Lt. Gen. Shoffner, in early October that he wanted the writing team to carry out that role—to prepare a full briefing of the manual for the school commandants. Secondly, he wanted them to make an analysis of how the new doctrine would affect all TRADOC's development missions. Lastly, though the team would soon be scattering to other assignments, Franks wanted their continued assistance with the FM 100-5 drafts.[55]

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50. (1) Franks Interview by Romjue, 17 Nov 94. (2) McDonough Interview by Romjue, 22-23 Nov 93.

51. (1) Franks Interview by Romjue, 17 Nov 94. (2) Grogan Interview by Romjue, 22 Jan 93.

52. Memo ATMH, James T. Stensvaag, Chief Historian to Colonel Mike Starry, Dir, Future Battle Directorate, 31 Aug 95, subj: FM 100-5 - 1982 and 1993 Timelines.

53. Msg, Cdr TRADOC (Maj Gen Hagwood, CofS personal for) to distr, 081527Z Sep 92, subj: Preliminary Draft 100-5, Operations.

54. Msg, Comdt USACGSC to Cdr TRADOC (pers Steele to Grogan), 141000Z Sep 92, subj: Plan to Produce the Final Draft of FM 100-5.

55. Memo ATCG, General Frederick M. Franks, Jr. to Lt Gen Wilson A. Shoffner, Cdr CAC, 5 Oct 92, subj: FM 100-5, Operations, The Way Ahead, THRC. (This memo was specifically directed to maintaining the SAMS team involvement. Franks Papers, FM 100-5 (Misc Documents folder).

General Franks cemented that continuing arrangement again with Lt. Gen. Shoffner following his final decisions of early November 1992 after Army senior leaders endorsed the doctrine at the Warfighter Conference at Fort Leavenworth on 3-4 November and the second off-site meeting. Franks wrote Shoffner on 13 November, directing that McDonough and the writing team incorporate the results of the field review and recent conferences, coordinating the work with the doctrine staff. The doctrine deputy, Brig. Gen. Grogan followed up with procedural guidance.[56]

The upshot of the doctrine "ownership" issue just related would be Headquarters TRADOC assumption of editorial responsibilities following the SAMS team's delivery of the final draft to General Franks at Fort Monroe on in mid-December. Subsequent revisions and editorial improvements by Brig. Gen. Maggart and his doctrine director, Colonel Berry, however, were in all cases brought into accord with General Franks' decisions. While hearing out all sides, Franks worked through the manuscript closely, assuring himself that it stated his ideas as he and McDonough and the writing team had crafted them. The Combined Arms Center commander and SAMS writing team, unlike the major players on the doctrine staff at Fort Monroe, were with the two-year doctrine project throughout, and were more solidly grounded in it. Franks employed McDonough to review all the final work.[57]

Crystallizing the Doctrine

Army consensus for the emerging new doctrine, now close to final form, was gained at the Senior Leader Warfighter Conference convened at Fort Leavenworth on 3-4 November 1992. In attendance was the senior Army leadership, including General Sullivan, General Reimer, ARSTAF

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56. Grogan's message to Brig Gen Steele directed a several-step process: CGSC to send revised chapters to DCSDOC for review and return to the team; the team then to forward completed chapters to DCSDOC for editing, return for team review, and return again to DCSDOC; the team to bring the final revised manual to HQ TRADOC for approval session with Franks and Grogan; the headquarters to then staff the manual. All revisions would be accomplished using the preliminary draft. (1) Msg, General Franks to Lt Gen Shoffner, 131238Z Nov 92, subj: FM 100-5. (2) Cdr TRADOC to Comdt CGSC (pers from Brig Gen Grogan to Brig Gen Steele), 131410Z Nov 92, subj: FM 100-5 Revision Process.

57. (1) Franks Interview by Romjue, 17 Nov 94. (2) McDonough Interview by Romjue, 22-23 Nov 93. Newcomers to the FM 100-5 revision often raised, as new, old points earlier settled. An example of the close Franks-McDonough work was Franks' decision, in March 1993, to revoke a DCSDOC revision eliminating operational-level applicability for the center-of-gravity notion. Franks supported McDonough's contention that to deny that applicability was to deny the operational level itself. Final points at issue were resolved in Franks' meeting with McDonough and the DCSDOC staff at Fort Gordon, Georgia in early April 1993.

principals, and major Army command and Army component commanders, along with the TRADOC commanders and commandants. The meeting endorsed the battle dynamic points and other fundamentals, noting clarifications still needed. In their criticisms in point and detail, the senior leaders echoed many of the concerns greeting the preliminary draft. But the meeting also revealed the extent to which they had, by late 1992, internalized the intellectual shift arising from the Army's new stance of force projection.

The wide Army consensus was that the new doctrine had to be consistent with the National Military Strategy and stronger in joint and combined operations. The Army leaders reiterated that 1990s doctrine had to transcend the former Air Force-Army set-piece of central Europe. It had to emphasize war fighting and it had to apply to combat in large land campaigns, as well as to combat in a variety of other situations while acknowledging operations other than war. Principles, not prescription, should be its watchword.[58]

At the early-November Leavenworth conference, Army consensus in the post-Cold War doctrine was achieved. Emphasizing the strategic magnitude of the passing of the Cold War, General Sullivan noted that not in his military lifetime had he witnessed such a period as the Army found itself in in the early 1990s—where such a significant intellectual shift was required in how the Army approached its national obligation. The vehicle for adjustment to that shift, Sullivan said, was the new FM 100-5. The Army was turning the intellectual corner from the Cold War. It was in the acceptance mode of that change. Institutionalization now had to follow.[59]

Most final doctrinal points were settled at the meeting on 5-6 November 1992 at Fort Story, Virginia, on Cape Henry, the outlying subpost of the U.S. Army Transportation Center and Fort Eustis that served as the training site for Army LACV and logistics-over-the-shore.[60]

Franks, his writing team, and his advisors were well aware of the

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58. (1) HQ TRADOC bfg slides [for 3-4 Nov 92 conference] briefed to CG TRADOC 26 Oct 92, FM 100-5 Update. (2) MFR ATACG, General Frederick M. Franks, Jr., 10 Nov 92, subj: Notes, FM 100-5 Off Site Conference, Fort Story, Virginia, 5-6 Nov 92, THRC. (3) Msg, Cdr TRADOC to distr, 181405Z Nov 92, subj: Moving Forward on FM 100-5.

59. (1) MFR ATCG, General Frederick M. Franks, Jr., 10 Nov 92, subj: Note, FM 100-5 Off Site Conference, Fort Story, Va., 5-6 Nov 92, THRC. (2) MFR ATMH, John L. Romjue, 16 Nov 92, subj: FM 100-5 Fort Story Off-Site Meeting, 5-6 Nov 92, THRC. (3) Grogan Interview by Romjue, 22 Jan 93.

60. Franks chose the meeting site on the Capes of the Chesapeake not only for its convenience but for its symbolism for the "joint" quality of the sea-land-air war fighting doctrine. Franks Interview by Romjue, 17 Nov 94.

major intellectual shift which it was their task to articulate. At the Fort Story off-site meeting, the TRADOC commanding general declared that TRADOC was writing "doctrine for a different era." Franks asked whether TRADOC might not indeed have underestimated the magnitude of the shift occurring. The notion that the doctrine being written and acceptable could not hope to encompass the whole measure of change would be pursued further the following year.[61] As it was, the cardinal doctrinal points received final full consideration in discussions that sharpened those points and that brought decisions settling most remaining issues. The writing of a final draft and extensive editing, together with additions and some revisions, would follow, but the Fort Story meeting essentially completed the crystallization of the new doctrine. Conferees took up the digested comments from the field, together with issues discussed and agreed on early in the week at Fort Leavenworth.

Depth and simultaneous attack, the very heart of the new battle dynamics, was the major discussion point. Franks believed that the Army had arrived "on the doctrinal edge" of something new in the vision of simultaneous attack throughout the battlefield depth. The whole notion required the commander to think in space and time—present and future. Yet, simultaneity did not fit all cases—sequential battle sometimes did—and current technology in any case didn't always permit it.

Simultaneity also seemed easy to confuse with synchronization. We have already noted the doctrine writers' grappling with the related visualizing constructs of the familiar close-deep-rear, segmented battlefield, and the commander's area of operations and area of interest. These elements, each clear in itself, were parts of a larger battlefield framework, which Colonel McDonough presented at Fort Story as an organizing idea and which would be written into the doctrine.

While the new FM 100-5 was indeed doctrine for a new time, Franks cautioned that old paradigms could recur, that the United States could be compelled again to fight outnumbered. The 1990s doctrine could not lose sight of that. Yet the Gulf War, Franks reiterated, provided an arresting contrast to the closed and set strategic situation previously prevailing. In Operation Desert Storm, Air Force, Navy carrier, and U.S. Marine air had mounted 1,400 sorties a day into Kuwait and Iraq. There were sensor plat-

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61. This section is based on: (1) MFR ATCG, General Frederick M. Franks, Jr., 10 Nov 92, subj: Notes, FM 100-5 Off-Site Conference, Fort Story, Virginia, 5-6 Nov 92. (2) MFR ATMH, John L. Romjue, OCH, 16 Nov 92, subj: FM 100-5 Fort Story Off-Site Meeting, 5-6 Nov 92, THRC. (3) Memo, Off-site Conference Recap, Col Rowlett [SAMS], 8 Nov 92. (4) Transcript Notes on Fort Story Off-Site Conference, 5-6 Nov 92. (5) Franks Interview by Romjue, 17 Nov 94.

forms. A new range of doctrinal possibilities had opened. In the early 1990s, the Army found itself in the early expression of a new doctrine about how to fight depth and simultaneous attack, and not to be boxed in by an old concept. In the force projection Army, the whole notion of depth changed.

Franks noted the deterring effect a dozen years earlier of deep attack doctrine. Though its application had taken four years to develop after formal introduction in 1982, it had caused the Soviets to react. Depth meant taking the battle to the enemy and increasing the commander's battle space. Battle space, tempo, and logistics all defined the actions of the force projection Army. The commander's depth-vision and simultaneous attack-method needed to be viewed in parallel. In the discussions at Fort Story, there was general endorsement of the notion that simultaneity meant "taking the enemy down" all at once, rather than piece by piece, and that was a new capability. Franks cited the example of VII Corps hitting the Iraqi Guard command and control both "near-deep" and "far-deep." In the new understanding, depth meant not only operational depth but operations in the broadest sense. General Franks wanted that understanding clearly laid out in the final refinement of the doctrine, an element of which was the major effects of technological innovation.

The striking attraction of the new depth and simultaneous attack doctrine, however, did not obviate the need to keep the close-deep-rear construct. That was so at least for the transitional period—current field manuals were oriented to it. Too much of the new could be counterproductive in a time of trauma for the U.S. Army—the ongoing builddown. The idea of tempo helped the transition. Tempo, in blurring and transcending close-deep-rear, was a means and aid to simultaneity.

For Franks, depth and simultaneous attack created a situation of no sanctuary for the enemy. Combat power that was applied throughout the depth of the battle space simultaneously stunned and rapidly defeated the enemy. Franks, as VII Corps commander, had conducted that style of operations across the Iraqi border on 24 February 1991. Characteristic of airborne and air assault operations, it occurred in Iraq by means of deep-reaching, deep-firing ground forces. The coup-de-main of Operation Just Cause, Franks saw as another such example. Depth and simultaneous attack he believed to be "an enormously valuable construct." Strategically, it was a valuable deterrent.

The concept of battle space was now more closely defined, with its major components distinguished. Starting from his general definition of battle space as the commander's visualization of his now wider range of operations, Franks saw it as both spatial and as incorporating a more

aggressive commander's view. These discussions pointed up the fact that battle space as a concept exceeded physical space alone and was not limited by the as-yet undeveloped means to carry it out fully. Just as with AirLand Battle doctrine, there was a deterrent value in stating that U.S. forces would do what they could not yet fully do. In the review of the McDonough battlefield framework, the consensus was that the commander's battle space overarched the areas of operations and interest and that it had two clear dimensions: physical and intellectual. It could vary greatly, by commander and task. It was attached to the commander and shifted with him, thus it was personal. Yet it could be fluid, overlap, and be shared. The idea of battle space, too, Franks believed, forced commanders to think outside of their assigned "box"—to be much more aware of the totality of the circumstances of their *particular* mission.

The intellectual component of battle space now took clearer form. It was the commander's mental picture of his operating space in the broadest sense, transcending but including the physical space component. Franks saw it as an art form, containing the factor of the commander's imagination, his freedom of mind to see the battlefield in all its aspects, potentials, and unfolding possibilities. In the final doctrine, the relationship between battle space, close-deep-rear, and the commander's areas of interest and influence would be clearly related, with joint and technological considerations well tied in. Franks wanted the idea cogently expressed that technology would permit increasingly the concentration of effects without concentrating forces—a new gloss on the principle of mass.

In battle command, Franks refocused thinking on the art of command, the thinking part of command, and the leadership part of command, as opposed to the organizational-technical focus. Battle command, in its final formulation, was seen as an art, the activity of agile, imaginative leaders exerting an intuitive sense but always subject to the effects of friction and chance. Franks saw the leap from a set of principles to their application in circumstances that differed each time as a true art form, similar to the creation of a painting or a musical work. Battle command was "liberating the commander's imagination." For General Franks, "the emotion of the fight" had to have a place in the doctrine—the pain and understanding of the consequences of battle for some of the soldiers, but the courage to act to accomplish the mission at least cost to them.

The Fort Story discussion affirmed the rightness of the battle command focus, the culmination of an evolution since the 1960s-1970s operations-research heyday of accretions to the central idea of command. In Franks' mind, the Army had in the 1980s come to neglect the central notion of command. In the new decade, C2—command and control—was "Cold

War set-battlefield baggage." Control continued, but command overarched. They weren't equal. Franks noted that simulation training, with its control and communications components, gave commanders a false sense of their ability to solve battle problems. The art of command was separate and not part of a matrix. C2 lay with staff and subordinates. Commanding his unit, the commander also commanded the staff in its control. Franks directed an emphasis on command over control.

For Franks, battle command (with battle space) was the single most important contribution of the new doctrine. He saw command as battle command. He chose this term because it emphasized battle, and then command. It conveyed a different sense of commanding soldiers and units in battle. In the course of the project, Franks also drew together and subsequently published a record of commonalities in battle command techniques. The record was built on interviews with Desert Storm and Just Cause commanders at all levels. These side studies affirmed his view that battle command meant being with soldiers, leading from the front, and commanding on the move.[62]

Command posts were a central aspect of the command issue. Franks questioned their retention. Were tactical command posts coming to resemble simulation headquarters? With the oncoming electronic aids for the more interdependent battlefield, did the commander even need the traditional command post? Had it outlived its usefulness—an anachronism from industrial-age warfare? Commanders needed to leverage control and use its mechanisms, but on the more interdependent battlefield that was coming, the commander should select those mechanisms that he needed. Significant issues were present here, which Franks' advisors discussed. "Command on the move" might be coming, and the command post structure might disappear in pursuit actions, but it had not outlived its usefulness: command depended on it. The real problem was how to support the commander during battle. Franks' decision was to maintain battle command as formulated but to examine the need for command posts further: "Our CP mentality is Cold War."

Early entry into a theater encompassed difficulties and complexities bound up in the force projection Army's need to deploy and land early, forcibly or unopposed. As we have earlier noted, the Army's lack of a capability for forcible entry over the shore, except by airborne or airmobile insertion, was one such problem. Not all doctrinal points raised were to be

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62. The studies were published and disseminated in a series, "Leadership and Command on the Battlefield" (TRADOC Pams 525-100), as companion pieces to the new doctrinal manual. They covered the following topics: leadership and command in Just Cause and Desert Storm, battalion and company, NCO corps, and family support. The projects were led by Lt Col Toby W. Martinez of Franks' planning group, assisted by Dr. Susan Canedy of the Office of the Command Historian.

fully resolved or were resolvable in the 1993 doctrine. But doctrine was clearly needed that told how to protect the lodgement the early-entry force established, and how that force transitioned to maneuver. Unknown factors were endemic to every such mission, and Franks advised that the new doctrine would have to state clearly how to think about that. Bad planning decisions could be irreversible and lead to disaster at the entry point. Early-entry operations were concurrent, not necessarily sequential—they were a flow. General Franks directed a doctrinal stress, in the complexity of early entry, on concurrency. The force projection Army needed a doctrine that instructed how to get into a region where the United States had no presence—how to begin a distant operation. The TRADOC commander stressed the need to emphasize that early entry did not imply that force projection ended at the port or airhead. He approved the draft manual's separate treatment of forcible entry.

Logistics, the critical, unsung element of battle, was of coequal concern. The Combined Arms Support Command had developed a concept paper titled "Vision of Combined Arms Support," and General Franks directed its integration into the doctrine. The manual to be published in 1993 noted that operations and logistics became indistinguishable at higher command echelons. Franks directed that that idea be expanded. The logistics for fighting the way into a theater were complex, and needed firming up. Better concepts were needed for logistics in operations other than war. Intermediate logistics bases remained indispensable. The ideal of theater throughput, from the continental United States to the war theater, did not work: there was not enough strategic lift, and the pipeline was immense. For this doctrinal element, physical reality was a powerful determinant. Yet significant improvements were apparent in the 1990s. Notably, they included split-based logistics operations—that is, operating the logistics apparatus, flow, and structure over assured secure communications from split locations in the United States and in the theater. General Franks directed final work on further logistics points: logistical support in operations other than war, embedding logistics discussions in operations chapters, emphatic early statement of the need for versatility and anticipation in logistics, and more discussion of manning and personnel management as part of logistics.[63]

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63. The contribution of Lt Col Nate Power, a forward support battalion commander who also observed logistics in the field in the ongoing Somalia operation, was important. The SAMS team's logistics writer carried out Franks' and McDonough's determination to articulate a clear principles-based doctrine, in the face of logistics planners' understandable desire to articulate concepts in terms of new systems. The 1993 doctrine succeeded in barring inclusion of transitory specific materiel and logistics systems and their doctrine-dating effect. (1) McDonough Interview by Romjue, 22-23 Nov 93. (2) Ltr, McDonough to author, 31 Jan 96.

Operations other than war, the important non-war sector, had been clarified and largely settled at the August 1992 meeting at Fort A.P. Hill. With that clarification, General Franks believed, the Army had achieved something notable. The remaining tasks were to make clear, in the doctrine, the difference in how the principles of war applied to war and non-war operations, and to delineate the additional principles applicable only to the "other" category. Franks believed historical examples were the key to clarifying the differences.

Cancellation of AirLand Battle as the descriptor for operations doctrine was, as noted earlier, a decision of significance beyond mere terminology. Though there had been considerable opposition to discarding a descriptive term widely recognized and identified with successful fighting doctrine, Army senior leaders were in consensus by November 1992 that the label should be jettisoned. Franks affirmed that outcome. Eliminating the descriptor signalled that the Army had a new and broader doctrine that extended beyond air-land to sea and space. "AirLand Battle" had served its purpose well. Most of its tenets and principles continued, but the label had become restrictive.

Numerous other doctrinal points were affirmed by decision at the final wrap-up at Fort Story. Important were insertion of versatility as a fifth doctrinal tenet, inclusion of mission orders as a supporting element of commander actions within the higher commander's intent, and retention of the familiar BOSs—the familiar battlefield operating systems categories. Work remained in the placing, relating, and balancing of doctrinal ideas so that important concepts did not lose efficacy through inadvertent under-or over-statement. The doctrine writers needed to make deception more prominent in the manual, for example, and to "embed" force projection so that it did not dominate the mission.

Balance was an important point. Franks believed that clear distinctions, as in the 1980s manuals' setting-out of the three levels of war and the offense and defense framing, were all-important. But he believed that they had been overemphasized. The levels blurred naturally in practice, and the Gulf War had demonstrated that. Offense and defense complemented one another. In practice, there was a flow between them. Franks encouraged apt new expressions: English was an expansible language. But any new term had to be legitimate, or be dropped.

Stressed at the advent of final formulation was that the new FM 100-5 had to articulate clearly and convincingly—at the very beginning—the reasons for change.[64] Although those factors were being absorbed very rapidly by the

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64. The factors that had required preparation of a new doctrine were: the recession of the Soviet threat and the new strategic environment, the shift to power projection from the continental United States, the need for an Army co-focus on operations other than war, a shift of attention *(Continued)*.

Army, they needed, General Franks emphasized, clear, forceful expression. But cautions were necessary. The Army was measuring the effects of post-industrial warfare. That argued for higher technological investment and probably smaller forces. The technological solution also presented an interservice trap. Further, there might be large land campaigns again. Yet it was clear that a major technologically engendered shift was occurring. Franks believed a doctrinal leap was in motion, with microprocessors constituting a factor as significant as had the advent of radio communications in the 1920s and 1930s. History would judge, Franks said. The U.S. Army had to "come out on the right side of the river," as at Sedan.

The TRADOC commander issued the Fort Story decisions in a guidance memo on 10 November 1992. Looking ahead, he directed completion and delivery to him of revisions by mid-December.[65]

Final Formulation

With the settling of doctrinal points at the Fort Story meeting in early November 1992, the TRADOC commander directed the writing team to put the doctrine in final draft form. Working from Fort Leavenworth, McDonough's team completed the work with General Franks at Fort Monroe, presenting the final draft on 14 December.

In the interim occurred a major Army-Navy doctrinal meeting—an indication of the growing Navy reorientation to support of the land warfare mission in the wake of the Soviet collapse and sharp recession of the maritime threat. The "Army-Navy Board" meeting, held 23-24 November 1992 at Fort Leavenworth, was organized and attended by Army Chief of Staff General Sullivan and Chief of Naval Operations Admiral Frank B. Kelso II to open channels of common concern. Major Naval, Marine Corps, and Army commanders attended, to be briefed by the Army on Army and joint operations doctrine, deep fires, and joint fire coordination, by the Marines on forcible entry, and by the Navy on strategic mobility, air defense and theater missile defense, and Army helicopters aboard Navy ships. Though primarily informational, the high-level meeting was an augery of the Navy's growing doctrinal commitment to the new level of coordinated interservice

64. *(Continued).* away from the primacy of Europe to several world regions, the Goldwater-Nichols initiatives leading to much-strengthened jointness, the new Navy contributions to jointness, technological advances leading to dramatically new battlefield capabilities, declining defense dollars, a smaller force, and the public expectation of rapid low-casualty victory.

65. MFR ATCG, General Frederick M. Franks, Jr., 10 Nov 92, subj: Notes, FM 100-5 Off-Site Conference, Fort Story, Virginia, 5-6 Nov 92.

planning and operations that was emerging in the early 1990s.[66]

Meeting with Colonels McDonough and Rowlett and with his doctrine staff in mid-December, General Franks directed that the writers make sure the central new concepts were specific and concrete in the doctrine, aided where necessary by examples, diagrams, and explanations. Franks also wanted exploration of possible names for the new body of ideas—a doctrinal feature that did not eventuate.[67] Intensively reviewing and reworking portions of the December chapters, Franks released and published the final draft of FM 100-5 on 19 January 1993, again circulating it widely, on 1 February, to selected earlier readers for critical review.

Thus through formal engagement in the succession of conferences held over the preceding eighteen months, and in his personal meetings and communications as well as those of his chief doctrine writer, Franks facilitated deep Army participation in the development of the 1993 doctrine. He called upon replies from many key current and former senior Army commanders and doctrine writers. McDonough's consultative net was also wide. These contributions continued into the early months of 1993 in response to the January final draft, the reaction to which was positive if—by many readers—close and critical.[68] Lingering confusion as to the clarity of the doctrine's battlefield framework remained.[69]

Important perspectives on the 1993 doctrine came from both of the chief AirLand Battle doctrine writers, Brig. Gen. Huba Wass de Czege and Brig. Gen. Don Holder, whose views Franks greatly respected.[70] In

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66. (1) Msg, DA to distr, 241236Z Sep 92, subj: Army/Navy Board, 23-24 Nov 92. (2) Msg, DA to distr, 021320Z Nov 92, subj: Army/Navy Board: Fort Leavenworth, Kan., 23-24 Nov 92. (3) Grogan Interview by Romjue, 22 Jan 93.

67. One choice, "full dimension operations," was ultimately preferred and noted in the June 1993 FM 100-5 by way of general description. other suggested tags were: force projection doctrine, force projection strategy, land power doctrine, joint land power, ground power projection, and multidimensional operations. E-mail msg, Peggy Boone to [Col] Berry [Dir, Army Doc Dir], 18 Dec 92, subj: FM 100-5 Update.

68. Ltr, Col James McDonough to John L. Romjue, HQ TRADOC OCH, 24 Dec 93.

69. Responses critical of the battlefield framework and other issues included: (1) Ltr, Lt Col Rick Gutwald, CSA Staff Group to Col Harper, 31 Jan 93, subj: Thoughts on Final Draft of FM 100-5. (2) Ltr, Maj Gen Jerry A. White, Cdr U.S. Army Infantry Center to Cdr TRADOC, 18 Feb 93, subj: USAIS Review of FM 100-5, Operations. (3) Memo DAMO-FDQ, Col Richard T. Rhoades, Ch, Con and Doc and Force Policy Division, ODCSOPS, HQ DA to DCSDOC TRADOC, n.d. [Feb 93], subj: FM 100-5, Operations (Final Draft).

70. (1) McDonough Interview by Romjue, 22-23 Nov 93. In the development of the 1993 FM 100-5, McDonough ranked, after General Franks, a "big four": Wass de Czege, Lt Gen Shoffner, General RisCassi, and Holder. (2) Franks Interview by Romjue, 17 Nov 94.

conversations and correspondence, both contributed to clarify the battle space concept. In Wass de Czege's advisement, battle space was not an ability but the commander's maintaining orientation, awareness, and control. Wass de Czege saw battle command as a doctrinal step forward, and advised strongly for a chapter-ordering that kept the all-important element of war fighting first in emphasis, no matter the major signficance of the doctrine's needed and valuable expansion into the strategic sphere.[71] In subtle criticisms, Brig. Gen. Holder urged textual shifts in emphasis to avoid inadvertent weakening of the crucial war fighting notions of economy of force, depth and simultaneity, and the ground commander's primary responsibility for the airspace around his force. Holder urged integrating logistics solidly into the planning and execution of operations, to correct combat arms' officers tendency wrongfully to separate logistics from operations. Himself a Desert Storm veteran, he cautioned against too much dependence, in historical example, on that as yet insufficiently analyzed war.[72]

The Eighth U.S. Army commander's review produced valuable insights. General RisCassi found treatment of the enemy's will missing in the drafts; the doctrine writers wrote it in. RisCassi argued early and successfully against the doctrine's inherited overlapping lists of principles, tenets, elements, functions, etc., a criticism that led to better textual distillation and integration. For combined warfare, the combined forces commander in Korea argued for doctrinal points fostering the building of commonalities between alliance partners.[73] Lt. Gen. Shoffner's involvement was active and substantive as the Combined Arms Center commander and CGSC commandant commanding the School of Advanced Military Studies. A close Franks lieutenant and advisor, Shoffner contributed substantively in every major conference and off-site meeting and lent particular understanding and perspective to the progress of depth and simultaneous attack doctrine. Shoffner also brought clear articulation to the doctrinal separation of command and control and to battle command. Lt. Gen. Samuel Wakefield,

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71. (1) Ltr, Brig Gen Huba Wass de Czege, Asst Div Cdr (Maneuver), 1st Inf Div to Brig Gen Lon E. Maggart, 12 Mar 93. (2) FM 100-5 Comments, Brig Gen H. Wass de Czege, ADC(M), Big Red One, n.d. [ca. Feb 93], provided to Cdr TRADOC.

72. Memo ACCT-CG, Brig Gen L.D. Holder to Brig Gen Lon E. Maggart, DCSDOC, 17 Feb 93, subj: FM 100-5 *Operations*, w/enclosed notes on the Jan 93 draft. Such criticisms resulted in direct revisions, as for example, maintaining the main point of economy of force (FM 100-5, 19 Jan 93 draft, p. 2-8; final edition, 14 Jun 93, p. 2-5).

73. (1) McDonough Interview by Romjue, 22-23 Nov 93. (2) TRADOC OCH files.

Franks at a Fort Monroe ceremony

the Combined Arms Support Command commander, oversaw support to logistics issues. [74]

Many voices spoke in the new doctrine. Development of the battle space concept owed much to the work during 1992 of the Infantry and Armor School commandants, Maj. Gen. Jerry A. White and Maj. Gen. Paul Funk, respectively. Funk had commanded the 3d Armored Division in Operation Desert Storm, and White had been a 7th Infantry Division (Light) commander. Both contributed to the thinking on versatility. Their examination and articulation of the new notion of battle space at the July 1992

74. (1) Franks Interview by Romjue, 17 Nov 94. (2) McDonough Interview by Romjue, 22-23 Nov 93. (3) Grogan Interview by Romjue, 22 Jan 93. (4) Ltr, McDonough to author, 31 Jan 96.

TRADOC Senior Leaders Conference at Fort McClellan was convincing to Franks, who directed its inclusion at that juncture in the doctrine.[75] Maj. Gen. Daniel W. Christman, the Engineer School commandant, also helped develop the versatility concept. An important advisor, particularly at the tactical level, was retired General Richard Cavazos, on issues of battle command, reconnaissance, and the mobile defense.[76] An influential figure in the work at Fort Leavenworth was retired Lt. Gen. John H. Cushman, himself a Combined Arms Center commander during 1973-1977, who emphasized the personal nature and responsibility of battle command.[77]

As revealed in the actions documented throughout this study, the primary author of the new post-Cold War doctrine was General Frederick Franks. Self-possessed and introspective with an aggressive and inquiring mind, a perceptive observer and listener, Franks was an intuitive thinker and consensus seeker who was deliberate but decisive on the points of warfare he saw changing. He controlled the formulation and apparatus of the doctrine project throughout. A one-time professor of English at West Point, he recognized the critical nexus of exact language and clear doctrine.[78]

Franks' indisputably central vision was his experience of transregional force-projection of the VII U.S. Army Corps and his conduct of a major heavy-corps maneuver against the Iraqi Army on a battlefield in technological transformation at the watershed of a new strategic era. From his own experience as a battle leader in that major geopolitical event, he shaped the post-Cold War doctrinal definition of the force projection Army for war and non-war operations. Franks named and substantially defined the changed battle dynamics of the technologically altered battlefield.

Early entry and its lethality and survivability requirements, simultaneity of battle throughout the operational depth, and a restructured

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75. Franks Interview by Romjue, 17 Nov 94. See General Funk's later exposition of battle space: Lt Gen Paul E. Funk, "Battle Space: A Commander's Tool on the Future Battlefield," Military Review, December 1993, pp. 36-47.

76. (1) Franks Interview by Romjue, 17 Nov 94. (2) McDonough Interview by Romjue, 22-23 Nov 93. Cavazos had figured importantly in an advisory role in the development of AirLand Battle doctrine (Romjue, *AirLand Battle*, pp. 53, 55).

77. McDonough Interview by Romjue, 22-23 Nov 93. Lt Gen Cushman was also a strong advocate of writing the manual from an expressly joint approach. (1) Fax message, Cushman to Col McDonough, 14 Aug 91, subj: Thoughts on the Revision of FM 100-5. (2) Ltr, John H. Cushman to Lt Gen Wilson A. Shoffner, Commanding General, U.S. Army Combined Arms Center, 9 Dec 91.

78. Franks was, for example, the author of the versatility tenet, an important and expansive doctrinal addition which was clearly distinguished from battlefield agility. McDonough Interview by Romjue, 22-23 Nov 93.

logistics were consequent products. So too were the distinctive twin concepts of battle command and battle space—driven by the commander's imagination on a battlefield of greatly enhanced tempo and technological capability whose traditional strategic-operational-tactical neatness was blurred. Franks' isolation and development of those changed battle dynamics and their placement into the heart of the doctrine—aided in the formative stage by his doctrine deputy, Maj. Gen. Wesley Clark—was his signal contribution.

Franks paid doctrinal homage to two classic military theorists, Sun Tzu and Clausewitz and, as earlier noted, to the contemporary British writer Paddy Griffith. In his study, *Forward Into Battle*, Griffith surveyed the increasing looseness or dispersion, through the 19th and into the 20th century, of military formations due to constant improvements in modern firepower. Griffith observed in his studies a trend to an ever "emptier" battlefield. Franks' concept of the long dimensions of a commander's battle space was also supported by Griffith's suggestion that, if the enemy perceives your ability to reach and outrange him, he is likely or disposed to retreat. It was the willingness of the soldier to close with the enemy that determined the outcome. Franks also felt the heavy debt he owed to his predecessor doctrine authors, Generals William DePuy and Donn Starry.[79] Of major significance was the ground-laying decision for the project and its firm support by the Chief of Staff of the Army, General Gordon Sullivan.

Franks' ideas were articulated and assisted by his chief doctrine writer, Colonel James McDonough, a widely respected military author and forceful doctrinal thinker who, like Franks, saw combat in Vietnam and who the following year would be assigned from the SAMS directorship to brigade command in Italy. Franks considered McDonough a professional soldier of intellectual force and great depth, indispensable to him. In Franks' intensive final editing of FM 100-5, McDonough was his closest collaborator.[80] McDonough drew heavily on the talented six-man writing team headed by Colonel Ricky Rowlett, who wrote the seminal planning and executing operations chapter.[81]

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79. (1) Franks Interview by Romjue, 17 Nov 94. (2) Paddy Griffith, *Forward Into Battle: Fighting Tactics from Waterloo to Vietnam* (Chichester, U.K.: Antony Bird Publications Ltd., 1981), pp. 101 ff., 141.

80. (1) Franks Interview by Romjue, 17 Nov 94. (2) Franks Interview by Malone, 7 Jan 93.

81. McDonough regarded the collective and individual contributions of the writing team highly. Franks considered Colonel Ricky Rowlett, the team chief, and Colonel Ed Thurman, as major contributors. Thurman worked notably in the areas of the strategic link of operations, and in operations other than war. Lt Col Michael Rampy's dedicated focus on the doctrinal significance of war's end-state helped secure Franks' acceptance of it into the doctrine. Lt Col Nate Power drew together *(Continued)*

The project was energetically supported in its all-important consensus-gathering aspect by Franks' doctrine deputy, Brig. Gen. Timothy Grogan and, after January 1993 in its final preparation, by Grogan's successor, Brig. Gen. Bert Maggart. Franks valued the contributions of both. He worked closely with Maggart, his former executive officer, a brigade commander in Desert Storm, and earlier a doctrine writer under General William DePuy, to strengthen and refine the pre-publication drafts. Both Grogan and Maggart were professionally served by the headquarters Army doctrine chief, Colonel Frederick Berry and the primary headquarters action officer, Lt. Col. Bobby McCarter and his assistant, Captain Michael Whetston.

General Franks' personal editorial work was extensive during the early part of 1993, as reviewers responded and as the pre-publication process began. With the final draft out for review in late January, Franks placed editorial responsibility in the hands of his doctrine deputy, Brig. Gen. Maggart and the headquarters Army Doctrine Directorate headed by Colonel Berry. As noted, the manual's chief writer, Colonel McDonough, working closely with the TRADOC commander, reviewed and affected the final text.[82]

Late changes included a broadening and expansion of the battlefield framework discussion in the manual, retaining the battle space concept unchanged but also keeping the useful auxiliary construct of the close-deep-rear battlefield. The discussion of battle command was also broadened. The idea that the strategic end state of a military action had to be spelled out was clarified and expanded, along with how military objectives supported the end state. Editors added emphasis on rules of engagement as an element of operations-other-than-war principles. The commander's intent concept was made more concise and understandable.

Following the manual's first three chapters, treating challenges for the U.S. Army, the foundations of Army operations, and force projection, the joint operations and combined operations chapters were moved up, followed by the key chapter on planning and executing operations. This final chapter-reordering expressly reflected the manual's war fighting and joint

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81. *(Continued).* the manual's logistics concepts. Lt Col John Reitz developed the project plan to obtain consensus in the doctrine by key government, academic, journalist, and industry figures. Lt Col Gary Steele was instrumental in developing the manual's electronic packaging. All team members contributed to the writing process. (1) McDonough Interview by Romjue, 22-23 Nov 93. (2) Franks Interview by Romjue, 17 Nov 94.

82. (1) MFR, John L. Romjue, OCH, 18 Jul 93, subj: Discussion with Colonel Fred Berry, Dir, Army Doc Dir, ODCSDOC, 17 Jul 93, on FM 100-5, Hampton, Va. (2) McDonough Interview by Romjue, 22-23 Nov 93. (3) Franks Interview by Romjue, 17 Nov 94.

Brigadier General Lon E. (Bert) Maggart

and combined emphases. The tactical chapters were also moved up—to the middle of the field manual. Chapters 7 through 11 covered the offense, defense, and retrograde. The final 3 chapters provided, in order, operations doctrine for logistics, operations other than war, and the environment of combat. The headquarters staff added diagrams, historical illustrations, and a preface.[83]

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83. (1) Bfg slides, Bfg-FM 100-5 Update, to Winter Senior Commanders Conference, 3-5 Mar 93, Carlisle Barracks, Pa. (2) Memo ATDO-A, Brig Gen Lon E. Maggart, DCSDOC to Cdr U.S. Army Quartermaster Center and School, 28 Apr 93, subj: FM 100-5, Operations. (3) MFR, John L. Romjue, OCH, 18 Jul 93, subj: Discussion with Colonel Fred Berry, Dir, Army Doc Dir, ODCSDOC, 17 Jul 93 on FM 100-5, Hampton, Va. (4) Interview of Brig Gen Lon E. Maggart, DCSDOC by John L. Romjue and Henry O. Malone, Jr., 30 Sep 93, HQ TRADOC, Fort Monroe, Va.

Historical examples were all drawn—but for one Civil War note—from the post-World War II period. A third of them came from the 1990-1991 Gulf War operations, with another third illustrating operations other than war. In the illustrations as elsewhere, the doctrine writers and editors sought distance from an earlier strategic world.[84]

In early March, the Army's senior leaders convened at the Winter Army Commanders Conference at Carlisle Barracks, Pennsylvania, and reviewed and endorsed the doctrine. General Franks subsequently discussed the final draft, chapter by chapter, with the Army Chief of Staff in Franks' Fort Monroe quarters. In May, senior leaders and school commandants made final reviews. The post-Cold War doctrine was published in a new edition of FM 100- 5, *Operations,* on 14 June 1993, the anniversary date of the Army's establishment in 1775. The manual was formally presented in ceremonies at the Pentagon that day.[85]

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84. General Franks' example-selection was reflected in an interview comment: "Essentially I think World War II ended about 1989 in terms of its major doctrinal influence on United States military operations." Franks Interview by Romjue, 17 Nov 94.

85. (1) Msg, HQ DA (Sullivan sends) to distr, 161456Z Jun 93, subj: Army Birthday Celebration. (2) Franks review ms. marginal note.

CHAPTER V

DOCTRINE FOR A NEW TIME

The 1993 doctrine reflected Army thinking for a new strategic era and reflected the shift to stronger joint operations. It allowed for the increased incidence of combined operations, and activity across the range of military operations. In the new strategic world of force projection, the writers saw their work as a doctrine for "full dimension operations."

Fourth in a noteworthy line of *Operations* manuals since 1976, the 1993 volume, like its predecessors, reflected the renaissance and centrality of doctrine as the actuating spirit of the Army. In a press conference on 14 June 1993, the Chief of Staff of the Army General Sullivan denoted doctrine as "the centerpiece of everything that we do." In a message to Army commands on 16 June, he described the new body of ideas as a significant marker in the Army's "intellectual bridge" to the future.[1]

As the Army doctrine for a new and as yet undefined strategic era, what were that doctrine's assumptions, fundamentals, critical points, and joint-service and combined-force guidelines? What were its strategic implications as a doctrine primarily for war fighting but also more sharply attendant to the challenge of the whole category of operations other than war? What was the new battlefield framework, and what was different in the dynamic and face of war since the mid-1980s? This chapter presents a digest of the key battle doctrine of 1993.

1. Msg, DA to distr, 221755Z Jun 93, subj: CSA-Transcript of CSA Conference. (2) Msg, DA to distr, 161456Z Jun 93, subj: Army Birthday Celebration.

Full-Dimension Operations

General Franks and his doctrine writers made prominent the war-winning purpose of the manual and its necessary focus on all the levels of war. Thus, it treated the strategic context of the application of force, it dealt with operational art as the means by which battle was translated into strategic objectives, and it fixed tactics as the sound basis of all operations. The 1993 doctrine reflected Army thinking for a new strategic era and reflected the shift to stronger joint operations. It allowed for the increased incidence of combined operations, and activity across the range of military operations. In the new strategic world of force projection, the writers saw their work as a doctrine for "full dimension operations," a doctrine to deter the enemy, despite the removal of tactical nuclear weapons from the Army inventory, and as a doctrine that, should deterrence fail, would enable the U.S. Army to win as part of a joint force, globally projectable. The new FM 100-5 was meant to reflect "the collective wisdom of our Army against the background of history," conveying lessons learned from recent experiences and current strategic and technological realities.[2]

The new FM 100-5 specified doctrine as "the statement of how America's Army, as part of a joint team, intends to conduct war and operations other than war... the condensed expression of the Army's fundamental approach to fighting, influencing events in operations other than war, and deterring actions detrimental to national interests."[3] The manual saw doctrine as establishing the Army's shared professional culture and approach to operations, permeating the entire Army structure and setting the direction for modernization and training. Doctrine was versatile to enable forces to deal with the gamut of challenges, including drug-trafficking, disasters, regional conflicts, civil wars, insurgencies, and extremist acts anywhere in the world. Doctrine had to be sufficient to enable a force to shift rapidly between types of commitment. It had to reflect and accommodate the most advanced technology obtainable to give U.S. forces overwhelming and decisive combat power while minimizing risk. The new doctrine placed a premium on quick force projection.[4]

The 1993 doctrine emphasized its roots in "the American way of war" growing out of values stated in the nation's founding documents and dependent on the special relationship between the government, the military,

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2. FM 100-5, Operations, 14 Jun 93, pp. v, vi.

3. Ibid., p. 1-1.

4. Ibid., pp. 1-1 to 1-2.

and the people. Subordinate to the National Command Authority, Army forces had to attend to the reality of the American people's requirement for decisive victory and no unnecessary casualties, and to deal with the media impact on events. The manual kept clear the three levels of war—strategic, operational, and tactical—applicable both in war and operations other than war and vitally linked.

All operations occurred in a strategic context set by current national security strategy. The U.S. military's fundamental obligations were strategic deterrence and defense, forward presence in vital areas, effective response to crises, and retention of a national capacity to reconstitute. Those obligations led to the all-service strategic principles of readiness, collective security, arms control, maritime and aerospace superiority, strategic agility, power projection, technological superiority, and decisive force. Significant was forethought and preparation for operations leading to the desired strategic end-state.

The doctrine emphasized the Army as a strategically decisive force, based on its ability to react promptly and on its strategic staying power. Its requirements in the new era were a capability for full-dimensional operations; its trained readiness as part of a joint, combined, United Nations, or interagency force; its packaged strategic deployability; its rapid expansibility; and its capacity to attain decisive victory. The doctrine repeated an injunction going back to 1976: "On the day of battle, soldiers and units will fight as well or as poorly as they are trained."[5]

Fundamentals of Army Operations

A key chapter laid out the doctrinal fundamentals of Army operations in the ambiguous post-Cold War world. The doctrine defined the range of military operations to include war (both limited and general) and two activities that were operations other than war—conflict, and Army peacetime activities. Conflict comprised strikes and raids, peace enforcement, support to insurgency, antiterrorism, peacekeeping, and noncombatant evacuation operations. Peacetime activities employing or requiring Army forces included counterdrug operations, disaster relief, civil support, peace building, and nation assistance. The states of peacetime, conflict, and war could all exist at once in a theater commander's realm. Noncombat operations might occur during war, and some operations other than war might require combat. Notwithstanding the range of operations, the manual made clear the primary focus of the Army: war fighting.

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5. Ibid., pp. 1-2 to 1-5.

More emphatically than before, the 1993 doctrine stressed that the Army would not operate alone, but as part of a joint, combined, or interagency team. Operations would integrate all Army capabilities: active, reserve, and civilian; and armored, light, and special operations forces.

Balance was a key concept. The components of battle could exist in complex combinations. Elements of the defense were within every offense, and vice-versa. Firepower permitted maneuver; and maneuver, firepower. Forces focused on the enemy, but attended to terrain. Unconventional and conventional warfare could exist side by side. Army forces always sought to increase their options while limiting the enemy's. The manual cited a distinction made by Field Marshal Erwin Rommel. There were options that were risks and options that were gambles. Recovery was possible from a failed risk taken, but not from a gamble that went awry.[6]

The 1993 doctrine carried forward the Sun Tzu maxim that was at the center of AirLand Battle: to throw the enemy off balance by striking blows from unexpected directions. But the new doctrine shaded the maxim to unexpected *dimensions,* including denial of the enemy's reconnaissance and intelligence sensing. The doctrine emphasized as before the combined arms, but now in more dispersed and noncontiguous formations and in a full, synchronized manner overpowering and devastating to the enemy. The new manual noted the U.S. strength in advanced technology of war which, however, required integration with doctrine and required doctrine as the engine to exploit it.[7]

The 1993 doctrine also emphasized the requirement for disciplined operations: mental and physical toughness, close-knit teamwork, adherence to applicable rules of engagement based in international law and in specific condition and circumstance, limiting the collateral damage of combat, and regard for human rights. "How the Army fights is a mark of what it is and what it stands for."[8]

The new doctrine laid out the foundations of Army operations in the nine Principles of War: directing military operations toward a clearly defined, decisive, and obtainable *objective;* seizing, retaining, and exploiting the *initiative; massing* the *effects* of overwhelming combat power at the decisive place and time; *economy of force; maneuver*—placing the enemy at disadvantage through flexible application of combat power; *unity*

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6. Cited in Desmond Young, *Rommel: Desert Fox* (New York: Harper & Row, 1950).

7. Ibid., pp. 2-2 to 2-3.

8. Ibid., pp. 2-3 to 2-4. Quotation from p. 2-3.

of command and effort; *security* and never permitting the enemy an unexpected advantage; *surprise* by striking at the place or in a manner for which the enemy was unprepared; and *simplicity* of plans and orders.[9]

The foundations of operations also included the tenets required for victory. *Initiative* was imperative, with all that it comprised—an offensive spirit, constantly depleting the enemy's options, anticipating events, acting independently within the framework of the higher commander's intent, allowing the enemy no recovery, decentralization of decisions to the lowest practical level. *Agility* was the ability to react faster than the enemy in order to seize and hold the initiative, and it had both mental and physical aspects needed to overcome the inevitable friction of war.

The significant tenet of *depth,* first introduced by AirLand Battle doctrine, meant the extension of operations in time, space, resources, and purpose in order to influence those operations throughout the depth of the battlefield. In an important departure from the 1980s understanding of depth, the doctrine shifted away from attacking deep in order to influence close-in operations, to a new requirement to think in depth, forecast, and anticipate in order to carry through simultaneous attack throughout the depth of the battlefield with full joint capabilities in all modes and dimensions. *Synchronization* was arranging activities in time and space to mass at the decisive point, including massing the *effects* of combat power, jamming enemy communications, suppressing enemy air defenses, shifting reserves, and employing synchronized main and supporting attacks. Synchronization was a paramount necessity for the force projection Army with its complex requirements for distant contingencies, early entry, phased operations, and joint and combined battle.

New in the 1993 doctrine was a fifth tenet—*versatility,* the ability of units to meet the diverse mission requirements of the strategic world of the post-Cold War. Commanders needed to be able to shift power, tailor forces, and move from one role or mission to another rapidly and efficiently and in quick succession, across the full range of military operations.[10]

War fighting was fundamentally about combat power, created by combining the four primary elements of maneuver, firepower, protection, and leadership. Army doctrine in 1993 sought and stressed overwhelming combat power to achieve victory at minimal cost. Maneuver was defined as "the movement of combat forces to gain positional advantage...to deliver—or threaten delivery of—direct and indirect fires." Maneuver and

9. Ibid., pp. 2-4 to 2-6.

10. Ibid., pp. 2-6 to 2-9.

firepower were "inseparable and complementary dynamics of combat." Either maneuver or firepower might dominate, but it was the synchronized effects of both that characterized all operations. Firepower provided the destructive force essential to defeat the enemy, and the greater reach and precision to which it had evolved were significant. Firepower effects applied to and needed to be synchronized for all levels—strategic, operational, and tactical.[11] Protection had four vital components—operations security and deception, soldiers' physical welfare, safety, and fratricide avoidance—the latter a reaffirmed and media-highlighted lesson of the Gulf War.

The "most essential dynamic of combat power" was "competent and confident officer and noncommissioned officer leadership." In development of that critical quality, the doctrine urged the study of leadership's human dimension as well as its tactical and technical sides and recommended the regular study and teaching of military doctrine, theory, history, and biography. It was the moral qualities of soldiers and leaders—duty, courage, loyalty, discipline, combined with stamina and skill-that provided the decisive edge.[12]

Exercise of key combat functions enabled commanders to build and sustain combat power: intelligence, maneuver, fire support, air defense, mobility and survivability, logistics, and battle command. In the concept of battle command, the 1993 doctrine introduced a significant distinction. The relatedness of the functions of command, control, and communications and intelligence—the so-called "C3" and "C3I" agglomerates—had acted over the years to dilute the centrality of command itself as the core focus of the commander in battle. Against the size and complexity of the information flow at a command post in the 1990s, the 1993 doctrine restored and clarified battle command as the commander's central focus. "Commanders command while the headquarters and staff coordinate and make necessary control adjustments consistent with the commander's intent." Command had two vital components—decision making and leadership. Decision making was knowing if, and then when and what, to decide; leadership was taking responsibility for decisions and providing an atmosphere of loyalty, inspiration, teamwork, moral and physical courage, and vision. Command was "more an art than a science...often guided by intuition and feel...." And commanders needed to know the intent of their own commanders two levels above.[13]

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11. Quotes from ibid., p. 2-10.

12. Ibid., pp. 211-12, quotes p. 2-11.

13. Quotes, ibid., pp. 2-14, 2-15.

Weighing heavily in combat power in the 1993 doctrine was its exercise as a part of joint-service operations—the dominating framework of U.S. military actions evolving since the late 1980s. The new doctrine covered significant areas of joint war fighting and other operations. Those included the rapidly expanding area of space operations, already remarkable in Operation Desert Storm, through space-based systems, joint interdiction, the many aspects of air operations including air interdiction and close air support, joint maritime operations, joint surveillance and reconnaissance, the airlift and sealift operations critical to Army forces, and special operations. The doctrine specified the Army tactical unit types that organizationally constituted combat power, and it laid out the functions of the five types of infantry forces—light, airborne, air assault, Ranger, and mechanized—as well as the combat roles and functions of the other Army branches and supporting units.[14]

Force Projection

Prominent in the new doctrine and placed in a front chapter of the manual was force projection, a key element of the U.S. strategic power projection capability. Operations Just Cause and Desert Shield and Desert Storm were vivid recent illustrations of the new force orientation and its execution. In the new power stance, joint operations, rapid deployment, forcible entry, and versatile mixes of types of forces—light, armored, and special operations—loomed large. The doctrine designated contingency-bound units as forward presence, crisis response, initial reinforcement, follow-on reinforcement, and reconstitution organizations.

The doctrine laid out important force-projection considerations, both in war and operations other than war. Immense planning, intelligence, mobilization, deployment, operations, and logistics difficulties were present in the U.S. mission for global force projection to conduct operations whose purpose itself could radically shift quickly. Credible, lethal force had to be introduced early. Commanders had to be mentally anticipative and prepared for deployment to the world regions of focus. Quick force tailoring to the deployment's specific requirements was a necessity. Early arrival of key intelligence units was essential, as was split-based intelligence, that is, not only that tactical intelligence acquired by commanders on the ground, but tactical intelligence provided in a timely way from national and theater sources. Battle command presented major challenges in situations of simultaneous deployment, entry, and combat. Logistics doctrine

14. Ibid., pp. 2-15 to 2-24.

considerations included the need for tailorable flexible logistics dependent on availability or nonavailability of in-theater stockage, host nation support, and port and transportation infrastructure. The concept of split-based logistics was significant in 1993 doctrine, a concept relying on assured communications systems that allowed much of the logistics base to remain in the United States; those elements received and acted on information and sent necessary supplies forward. Training during contingencies needed to be constant and relatable to such problems as separation of soldiers from their full equipment. Force projection would frequently have to attend to the requirements of combined operations with allies. Of great import in modern warfare was the impact, by the media and media war images, on operations at every stage; the requirement was to anticipate and deal with such impact. Post-conflict considerations had to be anticipated at the outset of actions, and the desired strategic end state and the transition to peace had to be planned for.[15] In this point, Army doctrine touched the political realm, but did so of necessity. Versatility—strategic versatility and not only operational and tactical—was central to the 1993 Army vision of its responsibility for the outcome as well as the conduct of operations.

Force projection operations fell into the doctrinal categories of mobilization, predeployment activity, deployment, entry operations, operations, war termination and post-conflict operations, redeployment and reconstitution, and demobilization. The elements of that sequence could well be blending or overlapping. A new doctrinal manual, FM 100-17, *Mobilization, Deployment, Redeployment, Demobilization,* was directed and written during the course of the 100-5 project and published in October 1992 to provide focused guidance.

Joint and Combined Operations

Like force projection, joint operations became a more central element of Army doctrine in 1993, and the new FM 100-5 gave it prominence. Though historically integrated at the strategic level and frequently at the operational level, the military activities of the Army, Navy, Air Force, and Marine Corps had evolved increasingly toward joint operations throughout the theater of war. Army doctrine in 1993 emphasized the joint nature of most warfare and operations other than war in the period ahead. The manual laid out the command relationships of the service elements of joint forces, specifying the two distinct chains of command—one for operations, tracing through unified and specified commands and

15. Ibid., pp. 3-1 to 3-7.

joint task forces; and one for administrative and logistics matters, tracing through the separate service component chain of command. Also detailed were the types of command—unified combatant command, specified combatant command for broad continuing missions, joint task force for limited missions of short duration, and service component commands—as well as the theater structure.[16]

Combined operations also assumed increased importance with the 1993 doctrine. The recent Gulf War experience was a harbinger of that new emphasis. In the realm of allied or combined operations, considerations of military doctrine and training, equipment capabilities, cultural differences, language, teamwork and trust all were important. The doctrine laid out planning and execution guidelines in the areas of command, maneuver, fires, intelligence, logistics, and liaison and combined staffs.[17]

Planning and Executing Operations

At the heart of the 1993 doctrinal manual was a chapter on planning and executing operations. Contained in that chapter was the doctrinal framework not only for the conduct of war at the operational level but, as introduced by the 1993 manual, the strategic link of operations. The manual noted that in Cold War Europe, many strategic, operational, and even tactical choices had already been made before the day of war. In the new era, a more open strategic, operational, and tactical horizon was apparent.

A significant change in the 1993 doctrine was the extension of *Operations* into the strategic realm in keeping with the wide latitude of U.S. military actions permitted by the collapse of the Soviet threat and the new doctrinal emphasis on joint and combined operations and operations other than war. All Army military actions were thus more directly linked to the major U.S. strategic guides—the National Security Strategy, National Military Strategy, Unified Command Plan, and Joint Strategic Capabilities Plan—and to strategic planning and a strategic vision generally. In peacetime, theater commanders and their staffs conducted theater-strategic planning, using the Joint Operation Planning and Execution System, or JOPES, from which a family of theater operations plans were promulgated. Strategic planning and, in wartime, strategic decisions, had direct bearing on the conduct of operations. The 1993 doctrine stressed the importance of conducting operations not in an open-ended manner but with a clear

16. Ibid., pp. 4-1 to 4-6.

17. Ibid., pp. 5-1 to 5-5.

understanding of the desired strategic end state and with a readiness to shift rapidly to other war aims or phases at that time as determined by the National Command Authority.

Likewise a clear grasp of the levels of war and their interlinks placed Army military actions in a clearer framework, as noted earlier. The levels of war helped commanders visualize a logical flow of operations. Military policy and requirements, deriving from strategy, were the starting points of campaign plans. The campaign plan set theater-strategic goals and was the basis for operational-level planning. The operational level was the vital link between national-and theater-strategic plans and the tactical employment of forces on the battlefield. At the operational level, joint and combined forces conducted subordinate campaigns and major operations, and commanders exercised the operational art of weighing ways and means to achieve their larger ends. Tactics was "the art and science of employing available means to win battles and engagements."[18]

Joint operations planning required an appreciation of the simultaneous nature of operations, an awareness of the total mission, teamwork, sequencing operations, deception, rehearsals, and training against the effects of weapons of mass destruction. The doctrine emphasized high-tempo simultaneous operations with actions synchronized at each level of war to destroy, disrupt, and demoralize the enemy. Total mission awareness meant the commander's attendance on the big picture of events around him. The doctrine emphasized the fundamentals for the commander of clear mission, knowing and acting within the higher commander's intent, making and continually updating commanders estimates, and developing a concept of operations.

The doctrine pointed up the importance of will: "War is a contest of wills....when will is lacking, so is combat power; when will is strong, it multiplies the effectiveness of military forces." "Leaders are the main source of will." Fundamentals of planning and conducting operations also included massing effects against the enemy's identified center of gravity—his main source of power, whether a mass of combat units, or an abstract factor such as public opinion. Other important planning and operating concepts were lines of operation, decisive points, culmination points in an attack or defense; the art of attack was to secure the objective before reaching culmination—the point where strength receded.[19]

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18. Quote, ibid., p. 6-3.

19. Quote, ibid., p. 6-7.

The doctrine delineated the commander's need to determine the best sequence of operations through planning and execution phases, branches or contingency plans, and sequels or follow-ups for various outcomes. Rehearsals both at tactical and operational levels, such as that of the VII Corps in Saudi Arabia just prior to Desert Storm, were highly useful. The need to prepare for action in hostile environments of mass destruction weapons was a sobering requirement in doctrine pitched to the uncertain world of the 1990s and beyond, and the manual laid out guidelines.

A significant element of the 1993 doctrine was the delineation of a battlefield framework as a means to help commanders relate their forces to one another and to the enemy in time, space, resources, and purpose. Within a given strategic situation, a commander chose and erected his battlefield framework or visualization according to the dictates of the doctrinal "METT-T"—mission, enemy, terrain and weather, troops, and time available. A major consideration of the battlefield framework was the commander's designated area of operations.

Battle space, another new concept in the 1993 doctrine, was part of the battlefield framework. Battle space was "a physical volume that expands or contracts in relation to the ability to acquire and engage the enemy. It includes the breadth, depth, and height in which the commander positions and moves assets over time." Battle space was in essence the commander's view and vision of the space and means of operation that he could affect. The commander visualized his battle space to organize and arrange his forces and to synchronize deep, close, and rear operations. It was a hallmark of the 1993 doctrine that such operations proceeded, where called for, simultaneously for maximum effect.[20] Recognizing in Operation Desert Storm that a blurring had occurred in the useful three levels of war delineation, when advanced weaponry showed that it could strike the enemy simultaneously at both tactical and operational depths, the 1993 doctrine highlighted that notion in its central chapter.[21] The manual writers employed the examples of Desert Storm for the offense and the Israeli defense of the Golan Heights at the outset of the 1973 Yom Kippur War for the defense. The 1993 manual maintained clearly the offense as the decisive form of war. But it also noted that the defense could be stronger, and laid out the METT-T conditions that necessitated resort to the defense.

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20. Quote, ibid., p. 6-12.

21. The blurring occurred in the *effects* of a specific combat action. The level and scope of responsibility for the combat action—strategic, operational, and tactical— remained unchanged. Comments by General John W. Foss, USA Ret., in letter to author, 8 April 1996.

Offense and Defense

Chapters on the offense and the defense and on planning and conducting those operations and on retrograde carried the strategic-operational doctrine of FM 100-5 more focally into the tactical realm. The 1993 manual continued in the tradition of its predecessors to describe the offense as "the decisive form of war." Seizure and retention of the initiative came with offensive action. The main feature of an offensive battle was outflanking or bypassing the defender, avoiding his main strength, turning him out of his defensive positions, forcing him to fight in an unintended direction over ground he had not prepared, and destroying the coherence of his defense and support.

The doctrinal tenets came together in the violently executed attack—initiative, agility, synchronization, joined by surprise, audacity, and the concentration of power to mass effects without massing large formations, although physical massing would probably still be necessary on occasion. Tempo, a combination of speed and mass, was significant in the attack and was controlled, so as to be either fast or slow according to the dictate of METT- T conditions. Since attack operations were increasingly fluid, an ease in shifting between different forms of offense—movement to contact, attack, exploitation, and pursuit—was critical. As before, the 1993 volume emphasized maneuver, an art in the selection of whatever form—envelopment, turning movement, infiltration, for example—to apply as the commander's vision determined. As noted, depth in the 1993 volume was advanced in meaning to denote offensive operations simultaneously throughout the depth of the battlefield. That sustained and continuous operation required well-synchronized deep, close, and rear operations.[22]

Offensive operations were "characterized by rapid shifts in the main effort to take advantage of opportunities by momentum and by the deepest, most rapid, and simultaneous destruction of enemy defenses possible." Commanders at all levels planned and synchronized joint intelligence and fires with their combat and combat support systems to gain full advantage of their ability to see and strike the enemy simultaneously throughout the depth and space of their area of operations. Brigades and divisions accomplished major offensive tasks as part of corps or joint task force operations. Battalions attacked, delayed, or defended as a function of the larger mission. Unchanged, too, were the concrete considerations, in all actions, of mission, enemy, terrain and weather, troops, and time available.[23]

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22. Ibid., pp. 7-1 to 7-14; quote, p. 7-0.

23. Ibid., pp. 8-1 to 8-3.

An idea unchanged from traditional doctrine was that defensive operations were part of major operations and campaigns and were fought in combination with offensive operations. Military forces defended "only until they gain sufficient strength to attack." The characteristics of the defensive were preparation, including rehearsals and counterattack plans; security; disruption of the integrity of the enemy's attack; massing and concentration during the battle; and flexible planning and agile execution.

American doctrine specified mobile and area defense as the two primary forms. Mobile defense emphasized drawing the enemy into exposed positions for counterattack by a mobile reserve. Area defense focused on retaining terrain from an interlocking series of positions and destroying the enemy largely by fires. A key element of the defense, as the attack, was comprehensive simultaneous operations in depth—close, deep, and rear. At the operational level, both defense forms were normally employed, and the factors of METT-T were ruling factors at tactical and operational levels. Successful operations at all levels depended on successful reconnaissance, which was greatly enhanced by electronic resources, but which was also dependent on unit and special operating forces actions. Reconnaissance of the sector was a prime ingredient of successful offense and defense, and was a strong theme in the 1993 FM 100-5.[24]

Logistics

The 1993 doctrine writers saw unique logistics requirements arising from the advent of the predominantly force projection Army. Not only would future logistics operations be conducted joint and combined; logistics for the American Army would mean global military supply—often to undeveloped or little-developed theaters. U.S. Army logistics thus had strategic as well as operational and tactical venues. The manual discussed each and the links between them. Logistics characteristics included anticipation of requirements and logistical conditions, integration of logistics with operations, all the factors assuring continuity, responsiveness across a great variety of scenarios, and the gift and skill of improvisation. Emphasized in the doctrine also was the concept of "total asset visibility." In addition, logistics doctrine in the 1990s had to attend not only to the great variation in operations, but to operations other than war. For both categories, the logistics system based in the continental United States was transoceanic and global.

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24. Ibid., pp. 9-0 to 9-6, 10-1 to 10-6; quote, p. 9-0.

In 1993, Army doctrine introduced the split-based logistics concept: the carrying-out of selected logistics management functions from the Stateside base or from the forward-presence location, as the situation dictated. That advance in logistics efficiency and responsiveness was newly practicable because of the major advances in enhanced and secure communications. In the new split-based logistics doctrine, materiel management center cells deployed to an area of operations with the force they supported, electronically linked to the United States-based materiel management centers.[25]

Operations Other Than War

In the new strategic world of the 1990s, operations other than war had assumed new importance. Those operations were not necessarily free of combat. They were, however, operations where factors other than war would be the key elements in achieving mission success. Although the U.S. Army's primary responsibility was to fight and win the nation's wars, the world presented many additional security challenges not classifiable as war. Those noncombat contingencies existed in a considerable array whose components sometimes straddled categories. Operations other than war stood nonetheless apart as a different type of operations. They shared with war operations some common principles and tenets, but they exhibited other principles, too. Operations other than war tended to be longer in duration than wars and conflicts. They involved often complex and sensitive political situations "when victory comes more subtly than in war." They might precede or follow war, or occur simultaneously with it in the same theater. Operations other than war included noncombat operations in the United States. By doctrine, operations other than war were commonly joint operations, and might be combined operations as well. Other U.S. Government agencies were frequently co-involved.

Thus, the prosecution of operations other than war required adherence to the war principles of objective, security, and as modified, unity of effort. But also doctrinally central were three other principles. *Legitimacy* meant sustaining the willing acceptance by the people of the right of the government to govern or of a group or agency to make and carry out decisions. *Perseverance* was preparing for the measured, protracted application of military capability in support of strategic aims. *Restraint* was applying appropriate military capability prudently.

Operations other than war were defined as including noncombat

25. Ibid., pp. 12-1 to 12-9.

evacuation operations, arms control, support to domestic civil authorities, humanitarian assistance and disaster relief, security assistance, nation assistance, support to counterdrug operations, combatting terrorism, peacekeeping operations, peace enforcement, show of force, support for insurgencies and counterinsurgencies, and attacks and raids.[26]

The Combat Environment

Just as had the FM 100-5 editions of 1982 and 1986 embodying AirLand Battle doctrine, the 1993 manual emphasized the human dimension and the physical dimension of the environment of combat. Army doctrine saw soldiers as "the centerpiece of the Army's doctrine and warfighting ability." Soldiers were the most vulnerable and the most valuable part of the war fighting system. Their spirit and perseverance, will to win,

Troops of the 1990s Army

26. Ibid., pp. 13-0 to 13-8; quote, p. 13-1.

dedication, devotion to their fellow soldiers and their unit were the human elements that made the difference between victory and defeat. Operating globally, U.S. Army soldiers faced a physical environment often severe.

Soldiers were "the foundation of the Army's will to win." Leaders had special responsibilities toward them and the physiological, psychological, and ethical challenges they faced. Soldiers had to be physically hardened and healthy. In combat, they needed to be held together in teamwork and mutual support against adversity. Soldiers had to adhere to the highest standards of professional conduct reflecting the ideals of American values—to be "counted on to do what is right even when no one is watching." The 1993 doctrine issued the reminder that "Wars are fought and won by soldiers, not machines," and that the human dimension would be decisive in the campaigns and battles of the future, as in the past.

The doctrine laid out the range and extremes of the global physical environment in which the Army would operate, each presenting a unique set of physical characteristics requiring a unique set of operational and tactical guidelines. Those operations included mountain, jungle, desert, cold-weather, and urban operations. Terrain and weather had immediate impact on every operation, offering both obstacles and opportunities. The infrastructure of varied areas of operations was a paramount reality and planning concern.[27]

Implementing the Doctrine

TRADOC planning to implement the Army's new fundamental doctrine had begun in late 1992, when General Franks directed the writing team to find means by which the commandants could begin the educational process in the schools.[28] The SAMS response was a 35-mm. slide presentation with script introducing the manual—the initial element of a larger FM 100-5 education package assembled by the headquarters during 1993. The package additionally supplied an introductory videotape filmed at the Patton Museum at Fort Knox, Kentucky, a reader's guide furnishing an official interpretation of the doctrine and its concepts, and a compact disc-read only memory or CD-ROM. The CD-ROM presented an executive summary of the manual and included technology permitting access and comparison between the 1986 and 1993 editions. Prepared at the initiative of the Army Training Support Center at Fort Eustis, Virginia, this versatile medium also

27. Ibid. pp. 14-1 to 14-5; quotes, pp. 14-1, 14-2.

28. SAMS briefing slides, Education Plan Concept, 7 Nov 92, THRC.

contained teaching points and new concepts with illustrated historical examples.[29]

In late February 1993, the TRADOC Chief of Staff, Maj. Gen. John P. Herrling, sent out an FM 100-5 educational campaign plan to the Combined Arms Center commander and to the doctrine and public affairs staffs at the headquarters. The plan set up a means to communicate to wide audiences inside and outside the Army the reasons for the doctrinal change and to gain support for the doctrine. Goals were to facilitate integration of the new doctrine into Army operations, educate the force, and gain the support of the other armed services and allies and of government and public-opinion leaders. The plan embraced wide distribution of the education package, briefings, published articles, the planned announcement ceremony, fact sheets and information papers, press releases, interviews, as well as infusion of FM 100-5 concepts into joint doctrine.[30]

With those activities under way, General Franks also told his deputies for training and doctrine, the Combined Arms Center commander, and commandants to develop packages to introduce the new manual into training and leader development. At subsequent TRADOC conferences, Franks had selected commandants brief those plans for introducing the 1993 FM 100-5 into the curricula of their schools.[31]

As early as mid-April 1993, a conference of the TRADOC school tactics directors convened at Fort Leavenworth, hosted by the resident Center for Army Tactics and the Concepts and Doctrine Directorate, to discuss the impact on subordinate Army doctrine and curricula. The aim was to quicken the integration of the new doctrine and develop full, coordinated mechanisms to implement that aim.[32] On 17 May, General Franks directed the

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29. (1) Franks Interview by Romjue, 17 Nov 94. (2) Maggart Interview by Romjue and Malone, 30 Sep 94. (3) SSHR, ODCSDOC, CY 93/II, pp. III-1 to III-2. (4) A.J. Plunkett, "Combat Goes to Computers," (Newport News/Hampton, Va.) *Daily Press*, 23 Jan 94. (5) Ltr, McDonough to author, 31 Jan 96. Mr. Bobby L. Oller of the Multimedia Applications Division headed a four-man technical team that developed the CD-ROM software and prepared the disc, working closely with SAMS writer Lt Col Gary Steele. Steele and Oller's 1993 FM 100-5 CD-ROM pioneered an important new doctrine and training education tool.

30. Memo, Maj Gen John P. Herrling, Chief of Staff TRADOC to Commander Combined Arms Center and TRADOC doctrine and public affairs staff, 25 Feb 93, subj: FM 100-5 Campaign Plan.

31. (1) Franks Interview by Romjue, 17 Nov 94. (2) Memo ATCG-P, General Frederick M. Franks, Jr. to distr, 19 Jul 93, subj: TSLC Fort Monroe, Va., 29- 30 Jun 93. (3) Maggart Interview by Romjue and Malone, 30 Sep 93.

32. Msg, Cdr CAC to distr [TRADOC comdts], 161630Z Mar 93, subj: FM 100-5 Impact Analysis VTC, 18 Mar 93. (2) Msg, Comdt CGSC to distr, 301402Z Apr 93, subj: After Action Report, Tactics Directors Conference (TDC).

commanders and commandants to begin revising their programs of instruction. Some schools had at that point already begun the revisions. The TRADOC commandants were aggressive in implementing the revisions.[33]

By early June, public affairs officers had produced media to publicize the doctrine that would be shortly published. Franks took a personal hand in those activities. The effort included a news release, fact sheets on the new manual and on the history of Army doctrine, and an FM 100-5 executive summary.[34] Franks requested production of journal articles from a number of senior Army leaders, division commanders, commandants, and others. Many of these would appear in the ensuing period.

In the course of the last half of 1993, the new doctrinal ideas of the June 1993 *Operations* came into the curricula of the TRADOC Army schools. Armor School programs, for example, focused initially on force projection and battle command, using the "train the trainer" approach, and that school also began the revision of its key doctrinal manual, FM 71-3, *Armored and Mechanized Infantry Brigade.* At the Infantry School, implementation started in the pre-command course, followed by exposure to the small group instructors.[35]

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33. (1) Msg, Cdr TRADOC to distr [personal Franks to comdts/cdrs], 171615Z May 93, subj: Implementation of FM 100-5. (2) Franks Interview by Romjue, 17 Nov 94.

34. TRADOC Form 30, Transmittal, Action, and Control Sheet, 7 Jun 93, subj: FM 100-5 Press Kit Materials, w/encl and Franks' marginal notes, THRC.

35. (1) Memo ATCG-P, General Frederick M. Franks, Jr. to distr, 19 Jul 73, subj: TSLC Fort Monroe, Va., 29-30 Jun 93. (2) TRADOC Annual Command History, CY 1993, pp. 38-40. See this source for details of implementation at the Armor, Air Defense Artillery, and Transportation Schools.

CHAPTER VI

AN ASSESSMENT

The new body of ideas was a watershed in 20th century American Army doctrine, a vision of a new battle terrain.

Advancing a significantly changed theory of future battle, the U.S. Army's statement of operational doctrine for the post-Cold War was the product of the Training and Doctrine Command's deliberate study and analysis of the nature of war fighting in the new strategic world. Sanctioned as official doctrine in June 1993, it lay the basis for the changing Army of the 1990s. Its ideas also spawned a further process: the Army modernization project for the early 21st century titled Force XXI.

The Ideas of 1993

Evolved from the previous AirLand Battle doctrine and the insights of the new strategic era, the operations doctrine of 1993 joined continuity with change. Reviewing the Army project in September 1993, the TRADOC Deputy Chief of Staff for Doctrine, Brig. Gen. Bert Maggart saw it to be a transition doctrine. The Army's first post-Cold War manual for operations established new basic intellectual constructs for change into the future. Maggart found it much like the Active Defense doctrine of 1976 that had stimulated the thinking that resulted in the historic AirLand Battle doctrine of the 1980s.[1] If transitional,

1. Maggart Interview by Romjue and Malone, 30 Sep 93.

the new body of ideas was none the less a watershed in 20th century American Army doctrine, a vision of a new battle terrain.

The dominating idea and critical change of the 1993 war fighting doctrine was the new vision of depth and simultaneous attack. With that concept, the 1993 ideas added to the three spatial dimensions of battle, time as the predominant dimension of the Army's fighting doctrine. The twin concepts of battle command and battle space clarified the essence and art of command on the technologically-expanded battlefield. In the J.F.C. Fuller triad of basic doctrinal notions—to move, to strike, to protect—U.S. Army doctrine of the 1980s and 1990s presented the mirror of maneuver, firepower, and protection. To that triad, the 1993 doctrine added the integrating element of battle command—decision and leadership. Exemplified by the advanced M1A2 tank firing on the move, maneuver, firepower, and protection were synergized.[2]

It was the central notion of battle space that added, to the commander's extended and flexible physical picture, the vital intellectual-imaginative ingredient. In battle space were present the human elements of prescience and creativity.[3] Battle space and battle command made of the doctrine, a *commander's* doctrine, liberating his imagination to the exercise of the art of war. These three notions—simultaneity, battle command, and battle space—created a new vision of battle doctrine.

The primary author and crystallizer of those ideas, and the actuating spirit of the 1993 doctrine, Frederick Franks merited recognition as an original contributor to the body of 20th century military doctrine. Although the concepts of 1993 exhibited a shared patrimony, which the TRADOC commander invoked and fostered, they bore his stamp. Moved by a vision of warfare's change and an acute and dedicated sense of task, Franks' achievement was remarkable. The cogent, intellectually informed presentation of ideas in the 1993 bible of doctrine owed in major part to Franks' chief doctrine writer and advisor, Colonel James McDonough.

A significant immediate result of the 1993 doctrine was the translation of many of its important ideas into U.S. *joint* operations doctrine. Key FM 100-5 ideas transposed into Joint Publication 3-0, *Doctrine for Joint Operations*, published in September 1993, included the whole idea of depth and simultaneous attack, split-based logistics and intelligence, and operations other than war. The TRADOC commander's involvement in the

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2. The author is indebted for these perspectives to Colonel James McDonough. McDonough Interview by Romjue, 22-23 Nov 93.

3. Ibid.

project along with that of his doctrine writers, was close.[4] Development of both manuals was part of an important period of doctrine writing at Fort Monroe in the early and mid-1990s in which TRADOC published a range of key Army-theater and joint manuals.[5]

Reaction to the 1993 *Operations* was favorable. The new FM 100-5 stirred little of the debate that had followed on the 1976 edition, nor did it appear to dramatically ignite the imagination of the Army as had the 1982 AirLand Battle *Operations.* Both of those doctrinal revisions were key events in the historic reform of the American Army of the 1970s-1980s decades, occurring under the shadow of a resurgent Soviet threat. The 1993 doctrine issued into a less dangerous world. In addition, by 1993, much if not most of the Army leadership had internalized its thrust and ideas—the outcome of General Franks' consensus-seeking method.[6]

Doctrine Writing: the TRADOC Paradigm

Issuance of the 1993 doctrine on 14 June 1993 occurred on the eve of the approaching twentieth anniversary of the major Army command established on 1 July 1973 to unify the Army's doctrine, organizational, training, and materiel development missions.[7] Affirming *doctrine* as the Army's

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4. (1) Franks Interview by Romjue, 17 Nov 94. (2) Maggart Interview by Romjue and Malone, 30 Sep 93. (3) Rowlett Interview by Romjue, 4 and 15 Feb 94. The direct influence of the June 1993 FM 100-5 on JP 3-0 was in part fortuitious. Earlier TRADOC drafts of the joint manual were suspended by the events of 1989-1991 and by the lessons-digestion process. Consequently, TRADOC as the assigned author of the manual was able to develop the Army's own post-Cold War doctrine in advance of the joint doctrine. The principal writer of JP 3-0 was Colonel Ricky Rowlett, head of the FM 100-5 writing team, who was reassigned to TRADOC headquarters in January 1993. See TRADOC Annual Command History, CY 93, pp. 42-44 for a discussion of JP 3-0 and its controversies.

5. For information on the Fort Monroe doctrine activities, see TRADOC Annual Command Histories, CY 1993 and CY 1994 (draft).

6. Numerous interview and expository journal articles by TRADOC planners and others preceded publication of the manual. See for example, Lt Col Michael R. Rampy, "FM 100-5, Operations: A Paradigm for Adaptation," *U.S. Army Aviation Digest,* Jul-Aug 1992, pp. 8-13; Lt Col John W. Reitz, "Managing Intellectual Change: Army's Revision of FM 100-5," *Army,* Sep 1992, pp. 45-47; and Sean D. Naylor, "Special Report: Much Ado About Doctrine," *Army Times,* 19 Oct 92, pp. 12-13. For summaries of the doctrine and its cardinal points, see the December 1993 issue of *Military Review,* especially General Frederick M. Franks, Jr., "Full-Dimensional Operations: A Doctrine for an Era of Change, pp. 5-10; Col James R. McDonough, "Versatility: The Fifth Tenet," pp. 11-14; and Lt Gen H. Hugh Shelton and Maj Kevin C.M. Benson, "Depth and Simultaneity: Half the Battle," pp. 57-63. For a critical endorsement of the published doctrine of 1993, see Maj Gen L.D. Holder, "Offensive Tactical Operations," ibid., December 1993, pp. 48-56.

7. Leadership development and soldier development were added to the overall doctrine-organization-training-materiel missions as emphases in the 1980s.

very foundation and basis, the 1993 *Operations* continued and extended the powerful roles that the key doctrinal corpus had played since the DePuy manual of 1976 in the theory and practice of war fighting and in forming the Army's view of itself. A by-product of the 1993 manual was a further affirmation. The institutional wedding of the training and doctrine missions twenty years earlier in one overall, influential development command that "worked for" the rest of the Army constituted a tried and true paradigm for U.S. Army doctrinal thinking and writing.

As early as the 1980s, the TRADOC mission-union had led to significant imitation by the allied armies, while the U.S. Army's own sister services moved to form new similar doctrinal agencies. By the early 1990s, the armies of the Republic of Korea, Germany, the United Kingdom, and France all had established doctrine command organizations. In March 1993, a new Naval Doctrine Command was formed in Norfolk, Virginia, followed by an Air Force Doctrine Center at nearby Langley Air Force Base in July 1993. A similar Marine Corps agency earlier established at Quantico, Virginia, had been re-formed as the Marine Corps Combat Development Command in November 1987. In July 1993, a new Joint War Fighting Center was reorganized at Norfolk Naval Air Station, and in October 1994 relocated to Fort Monroe.[8] The TRADOC mission attracted wide endorsement as the producing agent of the AirLand Battle ground maneuver of the Gulf War.

The key operations doctrine was internally developed from the early-1980s on as a co-product. It was written from the thinking and guidance of the TRADOC commanding general assisted by a doctrine-writing team based in the Army's traditional center of tactical writing and instruction at Fort Leavenworth, Kansas, the Command and General Staff College, the CGSC. Within the college, the School of Advanced Military Studies had directed the writing team beginning with the key *Operations* doctrine project of 1986. General Franks affirmed the TRADOC commanding general-CGSC writing team nexus that both he and his predecessors, Generals Starry and Richardson, had employed to formulate and revise operations doctrine.

Franks considered the Army's key doctrine to be the province of the generation's senior Army leaders. He believed that it had to be reflective of the entire Army. The TRADOC commander saw key formulative roles to lie in the responsibility of the command's leaders, in particular the commanding general and the Combined Arms Center and deputy CGSC

8. TRADOC actively encouraged these establishments. (Franks Interview by Romjue, 17 Nov 94). In addition, several multiservice developmental and doctrinal agencies were active in the Hampton Roads, Virginia area in the early 1990s. See TRADOC Annual Command History, CY 1993, pp. 4-13, for an account of the emergence of Hampton Roads as a military doctrinal center.

commanders, in close association with the Chief of Staff of the Army. But Franks considered his drawing-in of the Army's leadership by means of the Army and TRADOC commanders conferences as a highly productive method. The leaders' involvement created a broad sense of ownership of the change, while also collecting significant contributive thinking. The process further enabled Franks to gauge how far to go with emerging, sometimes difficult, doctrinal ideas—which to retain and which to leave for the next major revision.

Franks also believed that an owner's sense for fundamental doctrine needed to reside in the Army's senior tactical school—the Command and General Staff College, with its intellectual resources including the School of Advanced Military Studies. At the same time, he believed there needed to be substantive ownership by the TRADOC Deputy Chief of Staff for Doctrine (DCSDOC), who was so intimately involved in the writing of joint doctrine. Franks' preference was for employment of both the Leavenworth school and the Army War College at Carlisle Barracks, Pennsylvania (had the latter been under TRADOC command) in the effort, with both subject to DCSDOC oversight, as the best internal arrangement.[9] Franks affirmed the Commanding General TRADOC-Command and General Staff College doctrinal connection as the right method, with headquarters doctrine staff assistance and participation in substance and process, while recommending a closer relationship with the Army War College.[10]

Doctrine and Strategic Circumstance

Of all impelling influences on the Army's post-Cold War doctrine, none was more dominant than the factor of strategic circumstance. The end of the Cold War and the stunning collapse, between 1989 and 1991, of the revolutionary historical imperative of Soviet communism, re-created for the United States an open strategic vantage and realm of action. To the assumptions of that new political reality, U.S. Army post-Cold War doctrine was crafted as the first war fighting vision of the new historical era.

In its development, the U.S. Army's "central idea" of 1993 followed a mixed line of 20th-century historical precedents. Lessons of the unfolding Blitzkrieg of 1939-1940 were taken to heart by the authors of

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9. The Army War College commandant, Maj Gen William Stofft, had been an important advisor. Stofft had prompted Franks, early in the project, not to close down debate on the emerging battle dynamics prematurely. Franks Interview by Romjue, 17 Nov 94.

10. Ibid.

U.S. Army doctrinal texts and disseminated lessons in World War II. The implications of the Cold War, tardily and inaccurately apprehended by doctrinal thinkers in the 1950s, resulted in the aberrant pentomic doctrine of that decade, and in the inadequate doctrinal provision and preparation for the complexities of a Southeast Asian war in the 1960s.

The U.S. Army doctrinal renaissance of the 1970s and 1980s, which we have noted earlier, confronted directly the advent of changed strategic circumstance, and did so successfully. The lessons of doctrinal preparedness of the previous twenty years were fully felt in the anticipatory doctrinal impulse that, at TRADOC headquarters and in the Command and General Staff College in the early 1990s, led to the new battle-dynamics vision of 1993. Strategic circumstance was a lesson not to be lost for future U.S. Army doctrine formulation.

Toward the 21st Century Force

Redesign of the Army's fighting force—the tables of organization and equipment, or TOE, of the tactical and support units in the field—emerged as a need that was corollary to the post-Cold War doctrine revision. Involved here was revision of the Army of Excellence tables on which the Army had been structured since the early-and mid-1980s. TRADOC had begun a preliminary design effort in January 1993 at General Sullivan's direction. That move, however, was suspended by a Department of the Army order three months later. A consensus had formed that such redesign was premature—given the Army's fiscal and end-strength uncertainties and the lack of a change-mandate from the field. Army leaders believed the Army of Excellence tactical organizations could be successfully accommodated to the doctrinal changes for the short term.[11]

At the same time, General Sullivan and General Franks began to consider the idea of approaching the force redesign eventually needed by putting together an experimental force. That idea had a familiar paternity in earlier divisional tests and experiments outside the traditional combat developments process. The most notable of those were the airmobility tests of the 11th Air Assault Division at Fort Benning, Georgia during 1963-1964, the "tri-capability" division tests at Fort Hood, Texas in the early 1970s, the Division Restructuring Evaluation at the same post at the end of that decade, and the High Technology Light Division and motorized division testing in the 9th Infantry Division at Fort Lewis, Washington during

11. (1) TRADOC Annual Command History, CY 1993, pp. 81-83. (2) Franks Interview by Romjue, 17 Nov 94.

the 1980s. Two things, however, were new in 1993 in the idea of an in-division test. The first was the creation of the TRADOC Battle Laboratories the previous year. The second was the advent of digitization.

In the spring of 1993, Generals Franks and Sullivan believed that the Battle Lab tests under way were already raising questions of such magnitude that they could no longer be answered within the laboratories themselves and that some kind of continuous experimental force was needed. That idea took definite shape in the minds of Battle Lab planners at Headquarters TRADOC during the summer of 1993 and resulted in an experimental force concept.

The main idea of the experimental force initially was to convert existent organizations into a test bed that would test-out and evolve into the desired future force designs. The concept called for converting a TOE brigade and division to that task. In December 1994, the Department of the Army designated the 2d Armored Division (later the 4th Mechanized Infantry Division) at Fort Hood as the Experimental Force, or EXFOR, under TRADOC operational control. Subsequent planning pointed to developing and testing a "digitized" brigade, to be followed by full-divisional testing.[12]

Digitization was a concept that promised a new, perhaps revolutionary military capability. In a word, the term signified the electronic linking by digital circuits, of every weapon in a battle force, permitting shared "situational awareness" by all soldiers and leaders and allowing the commander to synchronize all elements of combat power at a tempo far exceeding the enemy's capability.

In the development of the digitization concept, Franks' early role was important. Inspecting the new M1A2 Abrams tank equipped with the Inter-Vehicular Instrumentation System (IVIS) at Aberdeen Proving Ground, Maryland in December 1991, the TRADOC commander had seen the potential to apply and integrate the tank's IVIS link "horizontally" across the other weapon systems of a combat force. Franks soon arranged shipment of M1A2s to the National Training Center at Fort Irwin, California to lay the basis for a test. At the same time, he directed his Armor School commandant, working with the Mounted Battle Space Battle Lab at Fort Knox, Kentucky, to test out and integrate this capability horizontally across the combined arms team.

The project went forward in a series of tests and simulations during 1992-1993, culminating in a so-called "advanced war fighting experiment"

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12. (1) TRADOC Annual Command History, CY 1993, pp. 83-84. See this source for details of early planning toward the EXFOR. (2) Franks Interview by Romjue, 17 Nov 94. (3) TRADOC Annual Command History, CY 1994 (draft), Chapter IV describes further EXFOR planning.

(AWE) code-named Desert Hammer. Employing a troop training rotation at the National Training Center, No. 94-07, the Desert Hammer experiment of 1-23 April 1994 in effect proved the principle. In simulated instrumented battle against the opposing force, a brigade-level task force composed of units under the 3d Brigade, 24th Infantry Division (Mechanized) was equipped with digitized communications that permitted all forces to receive and use near-real-time information on the National Training Center battlefield. The 94-07 experiment also laid the basis for an ensuing series of advanced war fighting experiments at Fort Irwin and elsewhere to explore related principles.

As worked out during 1992-1994, digitization was attained by inserting integrated computer hardware and software components into combat vehicles, helicopters, and individual soldier equipment. It increased exponentially the information flow, bringing a simultaneous common picture of the battlefield and greatly enhancing the ability of commanders at all levels to see and synchronize the fire, movement, and support of their systems. The digitization principle, when field-proven as a linking network providing common situational awareness, would outfit the Experimental Force to test force designs toward development of the 21st century Army.

General Franks believed the AWE 94-07 Desert Hammer Experiment of April 1994 to have begun a "revolution in the conduct of land warfare" comparable in military significance to the experiments in mechanization of the early part of the century. Information-age, digital technology was to land warfare today, he believed, what the internal combustion engine and wireless radio were to the experiments of the 1920s and 1930s.[13]

The Battle Lab and digitization planning by the Department of the Army and TRADOC—soon joined by the Army Materiel Command, the Under Secretary of the Army for Research, Development, and Acquisition, and other Army agencies—inaugurated the major force structuring effort termed Force XXI. General Sullivan announced that effort in March 1994. This across-the-board plan for fighting-unit redesign from squad to echelons above corps would restructure and replace the 1980s tables and would be organized around information-based battle command.

As the Force XXI project developed, it proceeded along three parallel planning and execution axes, which were set out in a campaign plan by the Department of the Army's Louisiana Maneuvers Task Force in May 1994.

"Joint Venture" was the design effort for the fighting Army. Parallel

13. Franks Interview by Romjue, 17 Nov 94.

was a second axis, the development and acquisition of requisite digitization technology by an Army Digitization Office newly established by General Sullivan. The third axis of the Force XXI campaign plan was the redesign of the institutional Army.

Sullivan approved the Joint Venture segment of the campaign in July 1994. Its overall goal was the fielding of new organizational units by the year 2000. Planners looked toward design of a Force XXI division in 1996, testing of a fully-digitized brigade during 1996-1997, and testing of the experimental division in 1997-1998.[14]

A major TRADOC concept completed in 1994 furnished the Force XXI conceptual basis. In April 1993, General Franks directed his doctrine deputy, Brig. Gen. Bert Maggart to set up a "futures" directorate in the headquarters doctrine office. He wanted those promising doctrinal notions that were not yet ready for current doctrine to go into a new edition of the Army's basic future operational concept, TRADOC Pamphlet 525-5, to be published about a year after the 1993 FM 100-5 edition. To that responsibility, Franks named Colonel Gary B. Griffin, a speechwriter on his staff and former Army War College Advanced Operational Studies Fellow at SAMS.[15] Griffin executed the work under Franks' guidance and direct participation, and was succeeded in the final phase of the task by Colonel Michael Starry in early 1994. The concept pamphlet, *Force XXI Operations,* was published in August 1994.[16]

TRADOC offered the 1994 concept as the conceptual basis and vision for the U.S. Army of the early 21st century and as the means to frame future development. General Sullivan subsequently endorsed the document for the Army, calling it a blueprint for the entire Army, not just for the operational units. The framework presented was both doctrinal and institutional.[17]

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14. See TRADOC Annual Command History, CY 1994 (draft), Chapter IV, for further details of these developments. (1) Msg, HQDA (DACS-ZA) to distr, 081145Z Mar 94, subj: Building the Force for the 21st Century - Force XXI. (2) For further information on the acquisition and digitization axis, see the Battlefield Digitization Issue of *Army RD&A Bulletin*, Nov-Dec 1994. (3) Msg, DA (DACS-ZA) to distr, 8 May 94, subj: Force XXI Campaign Guidance. (4) Msg, Cdr TRADOC to distr, 091649Z May 94, subj: Force XXI Joint Venture Initiation.

15. Franks Interview by Romjue, 17 Nov 94.

16. (1) TRADOC Pam 525-5, *Military Operations: Force XXI Operations, A Concept for the Evolution of Full-Dimension Operations for the Strategic Army of the Early Twenty-First Century* (Ft. Monroe, Va.: HQ TRADOC, 1 Aug 94). (2) Franks review ms. marginal note.

17. *Force XXI Operations*, Preface, Foreword.

Force XXI Operations described an operational environment in which the speeded-up acquisition, processing, and rapid sharing of information would revolutionize the conduct and tempo of battle. The TRADOC planners saw the coming fifteen years as a transition time between a century of pervasive conflict and a 21st century "information age," an unknown era of strategic reordering in which the United States' security challenges would be extremely diverse in type and technology and in which change would be constant. The U.S. Army had to prepare doctrinally for all possibilities, including the actions of non-national armies. Not technology per se, but innovative and imaginative combinations of technology, provided the key to harnessing military change.

A key idea was that in the flow of battle information, hierarchical or command channels would coexist with internetted nonhierarchical processes in combinations that would attain a new and potentially overpowering tempo. General Franks and TRADOC's concept-writers believed, that already in the mid-1990s, a revolution in military operations was evident. They argued that new doctrinal realities which the 1993 doctrine had brought forward were themselves in further, significant evolution. Included were new potentialities of battle command, extended battle space, and simultaneity rather than sequence of attack. Also significant in the changing picture were the effects of international satellite news reporting, and the eroding rules of war.

For future land operations, the 1994 concept spelled out five characteristics. Those were: doctrinal flexibility to meet the diversity ahead; strategic mobility with emphasis on anticipation, pre-positioning, early entry, lightness, lethality, survivability, and investment in strategic lift; tailorability and modularity fitting the particulars of contingency; joint, multinational and interagency connectivity; and, finally, versatility—resting on qualitative edge and decisive power or *over-match*—in war and in operations other than war.

All the battle dynamics of the 1993 doctrine were further developed in the TRADOC *Force XXI Operations* concept of 1994. Battle command signified a further shift from the positioning of forces to the orchestrating of those forces' lethal effects—in which internetting and digitization played critical roles. Battle space extended further the idea of the commander's imaginative vision, unconfined by boundaries and aided by the expanding time and spatial capability of modern and future weaponry and equipment. In the evolving concept of depth and simultaneous attack, Franks and his planners envisioned a possible reassessment of the traditional fire and maneuver relationship in the "seamless" and simultaneous application of lethal power throughout the extended battlefield.

Dramatic change was seen coming in the early entry aspect of operations, resting on pre-training and simulations and enhanced fast strategic lift—air and ship—and skillful pre-positioning of equipment, including "afloat" stocks. Future combat service support rested on the basic idea of a versatile, expansible, tailorable, partly modular, well synchronized system of logistics components. In all, planners saw an evolution from threat-based AirLand Battle through current-capability full-dimension operations, into the knowledge-based operations of Force XXI.

The aim of the new cyclically-structured but simultaneously-executed fighting concept was to "induce massive systemic shock" to the enemy through a seamless, fully synchronized, and multifaceted strike involving all elements of U.S. and coalition power toward the objective of strategic victory and control. Future doctrine was seen as a *living* doctrine based on the fluidity of the strategic world and ongoing military operational experience, changing technology, and simulations and Battle Laboratory experimentation. Doctrine thus remained the engine of change.

In sum, *Force XXI Operations* called for an Army of globally deployable forces unmatched in modern equipment, training, and doctrine, that could succeed in the widest variety of major and minor security challenges. The U.S. Army had to evolve as a learning organization in a time of great change toward its fundamental reorientation as a knowledge-based force in the 21st century.[18]

As all military doctrine, the American Army's post-Cold War doctrine of 1993 was both a culmination of ideas and a point of departure. Its advent was a significant point on the axis of change. Based soundly in current doctrinal realities, it heralded the information age, a future environment of conflict that America's armed forces could ignore at their own peril. To that necessity and the future structure to implement it, the doctrine of 1993 set the cornerstone.

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18. (1) Ibid. (2) TRADOC Annual Command History, CY 1994 (draft), Chapter IV.

LIST OF ACRONYMS

AAR	after-action report
ACH	annual command history
AD	armored division
ADC	assistant division commander
ADC(M)	assistant division commander for maneuver
ADCSCD	Assistant Deputy Chief of Staff for Combat Developments
ADCSCDD	Assistant Deputy Chief of Staff for Concepts, Doctrine, and Developments
AFM	Air Force manual
AO	action officer
ARCENT	Army Central Command
ARSTAF	Army Staff
ATACMS	Army Tactical Missile System
AWE	advanced war fighting experiment
BDWG	Battle Dynamics Working Group
CAC	U.S. Army Combined Arms Command/Center
CAC-CD	Combined Arms Command-Combat Developments
CASCOM	U.S. Army Combined Arms Support Command
CD-ROM	compact disc-read only memory
CENTAG	Central Army Group
CFE	Conventional Forces in Europe (Treaty)
CG	commanding general
CGSC	U.S. Army Command and General Staff College
CINC	commander-in-chief
CINCCFC/USFK	Commander-in-Chief, Combined Forces Command/U.S. Forces Korea
CINCLANTFLT	Commander-in-Chief, U.S. Atlantic Fleet
CINCSOC	Commander-in-Chief, U.S. Special Operations Command
CINCUSAREUR	Commander-in-Chief, U.S. Army Europe
CONARC	U.S. Continental Army Command
CSA	Chief of Staff of the Army
CSS	combat service support

CY	calendar year
C2	command and control
C3	command, control, and communications
C3I	command, control, communications, and intelligence
C4	command, control, communications, and computers
DA	Department of the Army
DC	division commander
DCS	deputy chief of staff
DCSCD	Deputy Chief of Staff for Combat Developments
DCSCDD	Deputy Chief of Staff for Concepts, Doctrine, and Developments
DCSDOC	Deputy Chief of Staff for Doctrine
DCSOPS	Deputy Chief of Staff for Operations and Plans (HQ DA)
FM	field manual
FMFM	fleet marine field manual
FORSCOM	U.S. Forces Command
FSCL	forward support coordinating line
GO	general officer
HQ	headquarters
ID	infantry division
IPR	in-process review
IVIS	Inter-Vehicular Instrumentation System
JOPES	Joint Operation Planning and Execution System
JP	joint publication
JSTARS	Joint Surveillance Target Attack Radar System
LIC	low intensity conflict
MACOM	major Army command
METT-T	mission, enemy, troops, terrain and weather, and time available
MFR	memorandum for record
NATO	North Atlantic Treaty Organization
NCO	noncommissioned officer
OCAFF	Office, Chief of Army Field Forces
OCH	Office of the Command Historian (HQ TRADOC)
ODCSDOC	Office, Deputy Chief of Staff for Doctrine
OOTW	operations other than war
SAMS	School of Advanced Military Studies
SLWC	senior leader warfighter conference
SSCC	spring senior commanders conference
SSHR	semiannual historical report
SWA	Southwest Asia

TAA	Total Army Analysis
TAC	U.S. Air Force Tactical Air Command
TCC	TRADOC commanders conference
TDC	tactics directors conference
THRC	TRADOC Historical Records Collection
TOE	table of organization and equipment
TRADOC	U.S. Army Training and Doctrine Command
TSLC	TRADOC senior leaders conference
USAREUR	U.S. Army Europe
VTC	video teleconference

A NOTE ON SOURCES

This study is based, except in its background portion, on the FM 100-5 *Operations* project documents collected by the Army Doctrine Directorate of the Office, Deputy Chief of Staff for Doctrine, and by the Office of the Commanding General, Headquarters, U.S. Army Training and Doctrine Command, at Fort Monroe, Virginia; and by the 1993 FM 100-5 writing team under the Director, School of Advanced Military Studies (SAMS) in the U.S. Army Command and General Staff College, Fort Leavenworth, Kansas; together with interviews by the author with principals involved in the development of the doctrine, as well as on memoranda and notes made consequent to his attendance at conferences and meetings during the period.

The primary document files at Fort Monroe are the 1993 FM 100-5 *Operations* collection, consisting of the project planning papers, conference briefings, memoranda, and correspondence collected by the Army Doctrine Directorate and now a permanent collection within the TRADOC Historical Records Collection (THRC) in the TRADOC Military History Office; and the personal papers and correspondence, and FM 100-5 drafts of General Frederick M. Franks, Jr., which are in archival processing by the Military History Office for placement into the Army Historical Archives System. The SAMS documents collected by the Combined Arms Center (CAC) Historian at Fort Leavenworth are identified in footnotes by CAC document group and file and are available in the Operational Records Collection of the U.S. Army Combined Arms Research Library of the Command and General Staff College.

Interviews related to the 1993 FM 100-5, all of which were conducted by the author unless otherwise indicated, and which are on file in the THRC, are:

Maj. Gen. Wesley K. Clark, 8 Jul 92, Ft. Monroe, Va.
(author and Dr. Anne W. Chapman)

General Frederick M. Franks, Jr., 2 Jan 92, 20 Apr 92, 7 and 12 Jan 93, Ft. Monroe, Va. (Dr. Henry O. Malone, Jr.)

General Frederick M. Franks, Jr., 17 Nov 94, The Pentagon, Washington, D.C.

Brig. Gen. Timothy J. Grogan, 21 Jan 93, Ft. Monroe, Va.

Brig. Gen. Lon E. Maggart, 30 Sep 93, Ft. Monroe, Va.
(author and Dr. Henry O. Malone, Jr.)

Lt. Col. Bobby McCarter, 16 Mar 93, Ft. Monroe, Va.

Col. James R. McDonough, 22-23 Nov 93, Ft. Leavenworth, Kan.

General Glenn K. Otis, 15 Feb 93, Newport News, Va.

General William R. Richardson, 24 Feb 93, Bethesda, Md.

Col. Ricky Rowlett, 4 and 15 Feb 94, Ft. Monroe, Va.

General Donn A. Starry, 19 Mar 93, Fairfax Station, Va.

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ABOUT THE AUTHOR

John L. Romjue was born in Washington, D.C., served on active Army duty in Germany, and received baccalaureate and master's degrees in history at the University of Missouri. He completed further graduate study in modern European history as a Fulbright Scholar at the University of Heidelberg, and at the University of California, Berkeley. He is the author of books about the development of military doctrine and tactical forces in the American Army of the 1970s-1990s, which include: *From Active Defense to AirLand Battle; A History of Army 86; The Army of Excellence: the Development of the 1980s Army;* and, as co-author, *Prepare the Army for War.* He has in addition published historical monographs in the area of Army field experimentation, and has contributed articles, book reviews, and short fiction to military, public opinion, and literary journals.

Before joining TRADOC in 1974, Mr. Romjue served as a historian with the U.S. Naval Facilities Engineering Command and as the command historian of the U.S. Army Combat Developments Experimentation Command. Since 1985, he has been Chief, Historical Studies and Publication, Military History Office, U.S. Army Training and Doctrine Command.