Victory Starts Here

A 35-year History of the US Army Training and Doctrine Command

Combat Studies Institute Press
US Army Combined Arms Center
Fort Leavenworth, Kansas

Cover photo is a US Army photo of military operations in urban terrain (MOUT) at Fort Benning, Georgia.

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by

Benjamin King

Foreword by

General Martin E. Dempsey

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Foreword

US Army Training and Doctrine Command (TRADOC) is one of the most unique organizations in the Army. For 35 years, it has functioned as originally intended and over that time has carried out its original mission. However, TRADOC has never stood still. It has adapted to changes in the strategic environment, technology, and the pressures of war, all while continuing to train Soldiers and leaders and develop doctrine. The history of TRADOC is worth the study, and I am pleased to introduce this survey of what the command has accomplished in those three and a half decades.

General William E. DePuy, TRADOC's first commander, envisioned an organization dedicated to providing training excellence, guidance on how to fight the country's wars, and insights into the organization and materiel necessary to support the Soldier and execute doctrine. From the beginning, General Depuy made sure that the Soldier was the centerpiece of TRADOC's efforts. Technology and doctrine existed to assist, not replace, the Soldier. This policy has carried through to the present day and has been a prime reason for America's success on the battlefields of the late 20th and early 21st centuries.

At the 35-year mark, TRADOC continues to train the individual Soldier, develop the Army's leaders, support training, evolve doctrine, establish standards, and build the future Army. It is, therefore, important to take into account the lessons of the past 35 years in order to best accomplish our current work of establishing the standards and requirements for training and developments for the Army, and of developing competent and adaptive leaders while ensuring that our doctrine keeps pace with a changing world.

Throughout its history, TRADOC has remained an adaptable, innovative organization. We are part of a joint team that helps define the contribution of land forces to the joint and coalition battle and serves as the Army's component for joint developments in training, doctrine, concept formulation, and experimentation.

Thirty-five years ago, TRADOC began developing the future Army. That future Army proved itself in the Gulf War of 1990–91, but nothing remains the same. That victorious Army had to become lighter and more deployable. That next future Army is being developed now, and then TRADOC will develop yet another "future Army."

I would like to thank the Soldiers and civilians, together the bedrock of our Army and TRADOC, that have served with intelligence, creativity,

initiative, insight, and loyalty. I'm honored to stand at the forefront of not only the dedicated men and women serving in 2008 but also all of those that have contributed for the past 35 years. May future Soldiers and civilians of TRADOC learn from the challenges and successes chronicled in these pages.

Martin E. Dempsey
General, US Army
Commanding

Preface

Victory Starts Here is the history of the US Army Training and Doctrine Command's (TRADOC's) 35 years as the architect of the Army's future. During the first years of the 21st century, "Transformation" became a new buzzword for the Army changing from the Cold War era to a new continental United States (CONUS) based rapidly deployable Army. TRADOC, however, has been transforming the Army and itself since its establishment in July 1973. Created to solve the cumbersome command and control problems of the Continental Army Command (CONARC), TRADOC's mission charter was to oversee Army schools, training, doctrine, and combat developments. Through time those missions evolved and TRADOC also became responsible for preparing the Army for war and being the Army's "architect of the future." TRADOC's first commander, General William E. DePuy, understood that the Army required sound training, coherent organization, modern weapons systems, and relevant doctrine. His successors built on that foundation and addressed the need for future planning.

This brief history provides an overview of the first 35 years of TRADOC's service to the Army and to the nation. *Victory Starts Here* continues with the condensed format of the 30-year history. Nevertheless, we owe a considerable debt to the 1993, 1998, and 2003 editions that commemorated the command's 20th, 25th, and 30th anniversaries. Mr. John L. Romjue, Dr. Susan Canedy, Dr. Anne W. Chapman, Dr. James T. Stensvaag, and others who contributed to those editions deserve continuing thanks. The TRADOC Military History Office accepts all responsibility for errors and will gratefully accept corrections.

Readers will discover that TRADOC's story is generally one of success. Army operations since 1973 provide the historical evidence on which this conclusion is based. As noted in the preface to *Prepare the Army for War*, TRADOC's 20-year history, the Army's hierarchical nature focuses any study on its leaders, and this overview is no different. All of the elements that have constituted TRADOC through the years have reflected the intent of its commanding generals. This fact notwithstanding, it remains for the soldiers and civilians making up the command to shape and execute the commander's intent. Therefore, the first dedication of this overview rightly belongs to General DePuy. His command produced the single most far-reaching transformation of the Army until the efforts at the beginning of the 21st century. But, because neither he nor his successors who have

served up until the time of this writing could accomplish their intent alone, we have also dedicated *Victory Starts Here* to the multitude of anonymous laborers who have made the vision work.

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2008

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Chapter I

TRADOC: A Historical Summary

Established in 1955, the Continental Army Command (CONARC) was responsible for all the active units and armies in the continental United States (CONUS) as well as training centers, schools, and doctrine development. The only activity for which it was not responsible was combat developments—the purview of the Combat Developments Command (CDC), which was established in 1962. By the early 1970s, it was evident that the span of control for CONARC was too large for a single headquarters. The Chief of Staff of the Army, General Creighton W. Abrams Jr., initiated Operation STEADFAST, which was carried out by his

FM 100-5, *Operations,* 1976. TRADOC's Premier Doctrinal Manual.

Assistant Vice Chief of Staff, Lieutenant General William E. DePuy. As a result of Operation STEADFAST, CONARC was inactivated, and on 1 July 1973, two new organizations were activated in its place: the United States (US) Army Forces Command (FORSCOM) assumed control of the Active Duty armies and units in CONUS and the US Army Training and Doctrine Command (TRADOC) assumed control of training centers, Army schools, and doctrine development. In addition, CDC was inactivated and TRADOC also assumed the mission of combat developments. Each command maintained its own installations until the US Army Installation Management Agency (later US Army Installation Management Command) assumed responsibility for all Army installations in 2002. The establishment of TRADOC was something revolutionary in the US Army. For the first time in its history, basic and advanced individual training, Army branch schools and Army colleges, Reserve Officers' Training Corps (ROTC), analysis, doctrine development, and combat developments were all the responsibility of a single headquarters. That TRADOC was a major command (MACOM) under the leadership of a full general indicated its importance in the new scheme of things.

TRADOC put combat developments back into the schools and focused the development of the Army's tactical organizations, weapons and equipment, doctrine, and the training of soldiers in that doctrine. It also needed to reorient the Army's thinking toward the Soviet Union's dangerous and growing strategic threat to the North Atlantic alliance. The situation was exacerbated by what military observers in the United States and Europe described as a lost decade of weapons development by the US Army, stemming from a 10-year concentration on fighting and equipping for the Vietnam conflict. TRADOC came into existence during the American defense policy reorientation from Vietnam to North Atlantic Treaty Organization (NATO) Europe and the challenge of the Warsaw Pact buildup. Those efforts fundamentally transformed the Army into a modernized, trained, and ready force—a significant component of the successful political-military challenge against which Communist power shattered and the Cold War ended in 1989–91. It was the highly trained, professional Army of Excellence (AOE) whose combat units helped restore democratic government to Panama in Operation JUST CAUSE in 1989–90 and later expelled the armies of Iraq from Kuwait in Operation DESERT STORM in 1991. This same Army increasingly provided peace operations and humanitarian relief in places such as Somalia, Bosnia-Herzegovina, Haiti, and Rwanda; and aided victims following natural disasters and the terrorist attack on the Pentagon and the World Trade Center in September 2001.

Early in the 1970s, the United States found itself in a strategic situation in which a shift of power in favor of the political dynamic of revolutionary socialism was advancing worldwide. The United States' strategic reversal in Southeast Asia seemed to question the continued validity of its long and hard-contested policy of Communist containment, with the bitter past and recent sacrifices of that historic effort. The gains of the worldwide Communist revolution in the 1970s, funded and supplied by the Soviet Union, and, to a lesser degree, by China, were dramatic and alarming. Revolutionary power seizures and military coups in Africa, South and Southwest Asia, and Latin America went forward largely uncontested by American policy makers of the middle and late decade.

The stunning reversal and sudden termination of that revolutionary impulse in the world-changing events from 1989 to 1991 created a new strategic world. By the early 1990s, the collapse of communism and the disintegration of the Soviet Union had ushered in a new world of power. The United States remained as the single superpower in an international order in which it could act with greater freedom to support national independence and democratic and free-market institutions. The imperatives of

US Army Photo

Artillery training at Fort Sill.

that situation seemed to dictate a smaller Army, one whose readiness was assured by the transit of new technological thresholds. In the mid-1990s, TRADOC institutionalized these new directions as the mid-future Army XXI, which included Force XXI, the TRADOC-led effort to determine future force structure based on digitally equipped forces.

Beginning in late 1999, a number of major Department of the Army initiatives—collectively termed "Transformation"—looked to the weapons, force structure, training, and doctrine of the Army well into the 21st century. TRADOC was in the vanguard of that effort. The advances in technology indicated an evolution to a battlefield on which time, distance, movement, and firepower existed in relationships arising from the evidence of the extended reach and pinpoint accuracy of weapons brought to effect by near-real-time intelligence, detection, target acquisition, and communications technology. This advent of a new strategic world and the emergence of a higher level of technological warfare took place in the context of a US military establishment sharply drawing down in the wake of the retrenchment of Soviet power. Against this background of radically altered strategic assumptions came the attack on the United States on 11 September 2001 and the Global War on Terrorism (GWOT).

Once again, TRADOC was challenged to develop doctrine and train soldiers for a type of warfare very different from that of the Cold War or the first Gulf War of 1990–91. TRADOC's 35th anniversary was observed by further challenges to deal with ongoing asymmetric warfare and the continued development of future conventional weapons and doctrine in an uncertain strategic environment. What follows is a concise historical overview of TRADOC's role and contribution to a significant era in US Army institutional and developmental history.

Chapter II

TRADOC Leadership

During its 35-year history, TRADOC has had 12 commanders and each made a unique contribution.

General William E. DePuy

General William E. DePuy served as TRADOC's first commander from 1973 to 1977. He initially addressed TRADOC's mission to get the Army ready to fight the next war, and his primary concerns were improvements in individual training, better support for training in units, new training doctrine, and a new emphasis and direction for combat developments activities. To correct the training difficulties that resulted from the Vietnam War, DePuy adopted a "back to basics" approach. Officer training courses were to prepare officers for their next assignment, the physical aspects of basic combat training (BCT) were toughened, and advanced individual training (AIT) was made more performance oriented. Another of DePuy's major projects was the production of "how to fight" manuals and films that set forth Army doctrine in simple language. In addition, the Army Training and Evaluation Program (ARTEP) brought standardization to Army training.

DePuy and the TRADOC staff also made combat developments a prime concern. The process had to be harnessed to the present and near future. Heavily influenced by the 1973 Yom Kippur War with its increased lethality, especially in armored warfare, DePuy adjusted his emphasis from training the Army to win battles to specifically winning the first battle of the next war. This was because the initial battle of the Yom Kippur War was so critical. Due to the small size of the headquarters staff, the functional centers and schools undertook a major portion of the combat developments mission and the systems acquisition process.

DePuy instituted the installation contract system as a major innovation for improving management of the TRADOC structure and its installations. That document provided a medium for agreement between each installation

commander and the TRADOC commander, specifying the tasks to be performed and the resources provided. Believing that doctrine should emanate from the highest levels of leadership, DePuy created a Tactical Doctrine Office separate from both combat developments and training functions that reported directly to him. During his tenure, the capstone document, Field Manual (FM) 100-5, *Operations*, was significantly revised to provide the basis for the aforementioned "how to fight" series and came to play a more central role in defining Army doctrine.

General Donn A. Starry

General Donn A. Starry assumed command of TRADOC from General DePuy in July 1977. The key concept for internal affairs during his tenure was "decentralization." Accordingly, he began a pronounced decentralization of major projects to the integrating centers and schools. Also in line with that approach was his decision to move the three-star TRADOC deputy commander position from TRADOC headquarters to Fort Leavenworth, Kansas.

With regard to doctrine, Starry sought to answer what had come to be a substantial discussion and controversy over the Active Defense concept of the 1976 version of FM 100-5. He brought to TRADOC the idea of an integrated and extended battlefield—the Central Battle—to engage the enemy not only at the point of attack but also in depth. Another revision of FM 100-5 began almost immediately. The concept required extension of the combat developments period out 8 to 10 years, departing from DePuy's focus on near-term problems. Following this approach, Starry hoped to harness the combat power of the oncoming generation of weapons and other modernization efforts.

Starry inherited from DePuy a process already underway to restructure divisions. Accordingly, he redefined division restructuring within a larger context that resulted in the first Battle Development Plan in 1978. Conceptualization of what came to be termed "Division 86" and subsequent studies of corps and echelons above corps defined "Army 86," which was the framework for force development that replaced the DePuy division

restructuring. The doctrinal premises grounding the studies became known as AirLand Battle.

In addition, Starry assumed and expanded DePuy's initiatives on training in a program dubbed Army 1990. Of special concern was TRADOC's promotion of the need for a Combined Arms and Services Staff School (CAS3) for captains. Subsequently, the findings of a panel known as the Review of Education and Training for Officers (RETO) revolutionized both organization and execution in TRADOC schools.

General Glenn K. Otis

General Glenn K. Otis followed General Starry as TRADOC commander in August 1981. Internal to the command were his "3Ms"—management goals of mobilization planning, maintaining the force, and modernization of the force. In all three areas, training stood first in his list of priorities. Mobilization planning involved development of programs of instruction, training base expansion capacity, and equipment requirements. Maintenance of the force concentrated on training and maintaining the momentum of the previous command. The challenges of force modernization included managing the phase-in of interim and new organizations and the development of support packages for training (spare parts, maintenance, and field manuals). Given the recommendations of the RETO Study, ongoing changes in enlisted training, and the implications of AirLand Battle doctrine, Otis tended to look ahead for approximately 10 years. At his last TRADOC Commanders Conference in the fall of 1982, Otis added a "fourth M"—military history.

Over the course of 1982, TRADOC headquarters, at General Otis' behest, developed a set of command goals in line with the recently promulgated seven Army goals. The purpose was to identify clearly each of the roles TRADOC would play in support of the Army goals. The seven Army goals addressed the areas of readiness, the human element, leadership, materiel, future development, strategic deployment, and management. With TRADOC's declared purpose to prepare the Army for war, its

attendant missions as stated were to develop doctrine, to conduct and guide Army combat developments, to develop and maintain the Army training system, and to command installations and organizations. The development of a specific set of goals for TRADOC prioritized activities and served as a tool for the application of resources, a touchstone for defining future roles of the command, a resource for the development of a formal document that would come out during his successor's tenure, and a measure for progress. The new version of FM 100-5 codifying AirLand Battle, begun under Starry, was published 1982.

Many substantial initiatives came to the fore during Otis' 18-month term as commander of TRADOC. Late in 1981, Otis determined that the time had come to step back and evaluate what had been accomplished in the area of training and to plan for what would take place in the following decade. That initiative developed into the Army Training 1990 concept. In addition, a much greater use of simulators and simulations quickly developed. Significant also was the establishment of the School of Advanced Military Studies (SAMS), a postgraduate extension of the Command and General Staff College (CGSC) at Fort Leavenworth, Kansas, focusing on the operational level of war. In the force design arena, "light versus heavy" debates intensified as the Army established a High Technology Test Bed (HTTB) at Fort Lewis, Washington, to experiment with lightening the infantry Division 86.

General William R. Richardson

General William R. Richardson followed General Otis as TRADOC commander in March 1983. In accordance with Secretary of the Army John O. Marsh Jr.'s "Year of Excellence," Richardson introduced the watchword for his tenure, "Excellence Starts Here." Early in his command, he spelled out his priorities: better training, implementation of new doctrine, force modernization and integration, and mobilization of the Reserve Component. With regard to training, he expected to spend much time tying up the loose ends of Army 1990 and overseeing a new initiative

termed "School Model 86." The former focused on performance-oriented training while the latter was an effort to give back to the director of training and the academic departments of the TRADOC schools the importance to resident instruction and doctrine writing he believed had been usurped over time.

Richardson was commander at a time when much of the work of his predecessors was coming to fruition across the Army. FM 100-5 had been written and promulgated, and the derivative manuals were being written in the schools; the training program was solidly emplaced; the development of the organizational design of the Army of Excellence (AOE) was undertaken; and weapons systems were coming on line. One of the biggest challenges Richardson noted for TRADOC was the recruitment and retention of good people within the command. Perhaps his first priority was to change the attitudes of officers and soldiers who considered assignment to TRADOC a dead end. Richardson was responsible for the establishment of several new agencies and departments at Fort Leavenworth, Kansas. Believing the heart of the Army was TRADOC, and the heart of TRADOC was Fort Leavenworth, he continued development of SAMS, created the School for Professional Development, the Center for Army Leadership, the Combined Arms Training Activity, the Center for Army Lessons Learned, and the Combined Arms Operational Research Activity. A final significant reorganization was the transformation of the Deputy Chief of Staff for the Reserve Officers' Training Corps (ROTC) into the ROTC Cadet Command as a major subordinate command of TRADOC.

General Carl E. Vuono

General Carl E. Vuono succeeded General Richardson in June 1986. He announced that his mission focus would have two aspects. Taking a somewhat more restricted view of the concept of preparing the Army for war than had Richardson, Vuono stressed that TRADOC had to not only prepare the Army for war in the present, but it must look farther ahead in time as the architect of the future. He stressed that TRADOC must consider the whole spectrum of war, and while addressing current challenges, not neglect the

design of the force 10 to 15 years out. He reoriented the 10 TRADOC goals into 6 major imperatives: doctrine, organization, training, leader development, materiel, and soldiers (DOTLMS). TRADOC's responsibility was to ensure understanding of what the Army must be to win on the future battlefield. That understanding would provide vision and direction for the Army.

Vuono instituted guidelines for doctrinal development and derived the concept of the advanced collective training facilities, which led to the opening of the Joint Readiness Training Center at Fort Chaffee, Arkansas, and the Combat Maneuver Training Center at Hohenfels, Germany, and the initiation of the Battle Command Training Program at Fort Leavenworth, Kansas. Efforts in force modernization concentrated on improved application of the Concept Based Requirements System and a new emphasis on a system of systems approach to equipment modernization. Leader development was concentrated in the development of small group instruction and the invigoration of the Noncommissioned Officer Education System (NCOES). His program of "leading and caring" stressed excellence both in individuals and in installations of which they were a vital part. The TRADOC Long-Range Plan, published in May 1987, was perhaps Vuono's most ambitious effort. Designed to support TRADOC's mission as the architect of the future, the plan constructed a vision of the command 10 years out based on Army long-term planning, the program objective memorandum (POM), and TRADOC goals.

General Maxwell R. Thurman

General Maxwell R. Thurman replaced General Vuono as TRADOC commander in June 1987 and stressed the command's role as the key player in shaping the "azimuth for the Army of the future." As set forth in a program known as "Vision 91," Thurman's stated objective was to serve the Army in the field. That would be accomplished by writing the doctrine by which it would fight, testing that doctrine for soundness, designing well-balanced and capable forces, articulating the equipment requirements of the commanders in

the field, providing combat-ready soldiers to units around the world, and developing future leaders.

Vision 91 examined the central question of how the command should position itself to meet the challenges of 1991 and beyond. That period would be a time of substantial manpower and funding constraints. Vision 91 sought to address the evolution of doctrine, especially in the joint arena; a more focused force design; a system-of-systems approach to materiel development; full-service leader development; tough, realistic training; and well-developed mission support capability.

While Vision 91 addressed the immediate period, Thurman developed a 30-year TRADOC Long-Range Planning Vision, which solicited the thoughts of the subordinate commanders toward the further development of a new long-range plan.

General John W. Foss

General John W. Foss assumed the leadership of TRADOC in August 1989, as the Army began a period of downsizing and strategic reorientation. A variety of factors—international, national, political, and economic—had combined to compel the Army to change into a more flexible, smaller force. The concept of the three TRADOC integrating centers, which had traditionally been part of the organization, gave way in 1990 to two major subordinate commands: the Combined Arms Command (CAC) and the Combined Arms Support Command (CASCOM). Also in October 1990, TRADOC eliminated the installation contract by which the TRADOC commander had managed the outlays of the installations since the mid-1970s.

As the effects of geopolitical change were felt during the 1990s, the primary focus of the Army began to shift to the projection of land combat power from CONUS, as well as from forward-deployed forces where possible. That had implications across the force, from warfighting doctrine to organizational structure to equipment to training.

Foss addressed doctrinal challenges and changes through AirLand Battle-Future studies, doctrinal discussions, and map exercises, focusing on the nonlinear battlefield and the doctrine, organization, and logistics it would require. AirLand Battle-Future, later termed AirLand Operations, became the driving concept for TRADOC. Further, Foss directed the beginning of a revision of FM 100-5 to expand the doctrine into the strategic realm, although Operations DESERT SHIELD and DESERT STORM in 1990–91 interrupted the effort.

General Frederick M. Franks Jr.

General Frederick M. Franks Jr. became the eighth TRADOC commander in August 1991. Franks set down his ideas regarding TRADOC's future in five points: lead the Army through intellectual change, sustain excellence and relevance in training and leader development, propose modernization alternatives to maintain the technological edge for soldiers on future battlefields, foster organizational excellence, and focus on soldiers. The new TRADOC commander began anew the doctrinal revision of FM 100-5. Convinced that doctrine was the basis of change and had to be a centerpiece of TRADOC activity, revision of FM 100-5 became a top priority to lead the Army through the intellectual readjustment from the Cold War to the post-Cold War Army. In addition, Franks instituted battle laboratories as a means to develop the capabilities for a force projection Army. The battle laboratories focused on the areas where the battle appeared to be changing and encouraged experimentation using simulations, prototypes, real soldiers, and real units to make the best use of technology and new requirements.

In his long-range planning guide for TRADOC, Franks interpreted TRADOC's missions specifically. They were to set training standards and run the Army schoolhouse, provide modernization alternatives while representing the user to allow the Army to retain the battlefield edge, help the Army look to the future in warfighting, and foster organizational excellence.

General William W. Hartzog

General William W. Hartzog became the ninth commanding general of TRADOC in October 1994. Like Franks, Hartzog's efforts to meet the challenges of being the TRADOC commander took place against a background of a new global reality in which the primary concern was no longer a classic European air and ground war, but rather the possibility of many small operations. Further, the dramatic downsizing of forces to levels not seen since the pre-World War II era also shaped Hartzog's and the command's thinking and policy. Another factor that he had to consider in shaping the force of the future was the Army's increasing involvement in peace operations, nation-building, and humanitarian relief.

Hartzog's thinking about the 21st century Army was set down in the Force XXI Operational Concept. The key to the developmental work on Force XXI was a digitized Experimental Force (EXFOR) that stood up at Fort Hood, Texas, in 1994. Central to the shape of future forces was a series of advanced warfighting experiments (AWE) beginning in April 1994, prior to Hartzog's arrival at TRADOC, and continuing through March 1998. Looking even further into the future was an Army After Next project that sought to establish criteria for the Army by 2020.

Hartzog's tenure saw the publication of two versions of TRADOC Pamphlet 525-5, *Force XXI Operations,* based on the Force XXI concept and leading to the publication of a new FM 100-5, *Operations*. The concept also guided the development of tactics, techniques, and procedures (TTP) to be employed by the EXFOR in executing the various AWE. In turn, TTP supported further doctrine development for the execution of operations across the seven battlefield operating systems and at each echelon of operations.

General John N. Abrams

General John N. Abrams began his 4-year command of TRADOC in September 1998. His vision for the command was to prepare the Army for decisive victory in the full range of required joint and combined operations. This focus meant providing soldiers and leaders with disciplined training based on fully developed doctrine, leader development, organizations, and materiel. It also meant providing a readiness infrastructure for training and projecting Army forces. Coupling that determination with the requirement to transform the Army's education and training, Abrams led the Army's effort to rethink the entire leader development process, including resident training, advanced distance learning, and individual study.

During Abrams' command, two forces of change were propelling the Army in new directions: the ongoing efforts to make the Army more deployable and the revolution in computer and communications technology that had the potential of increasing battlefield awareness at all levels. In an address on 12 October 1999, Chief of Staff of the Army General Eric K. Shinseki made the case for transformation of the Army, specifying the need for both doctrinal and materiel change. A large portion of the challenges posed fell on TRADOC as the Army's architect of the future. Responsibility of a brigade coordination cell for designing two Interim Brigade Combat Teams (IBCTs) at Fort Lewis, Washington, also fell to TRADOC.

To further the understanding of possible future warfare, Abrams instituted a series of Seminar War Games (SWG) beginning in July 2001. The SWG simulated the long-range deployment of an interim force and looked to define the objective force of the future and the Future Combat System (FCS). Transformation also called for a revision of the Army's capstone doctrine, FM 100-5, *Operations*. A new version, renamed and carrying the joint Services number of FM 3-0, was published in the summer of 2001. The new doctrine was clearly cognizant of the changes in the nation's geostrategic position and addressed the problems of deployment,

asymmetric warfare, and the need for joint operations from major theaters of war to humanitarian relief.

Effective 15 February 2002, the US Army Accessions Command was established as a subordinate command of TRADOC. The new command included the US Army Cadet Command, the US Army Recruiting Command, and the US Army Training Center, Fort Jackson, South Carolina. The purpose of establishing the command was to combine accessions and initial entry training (IET) under a single headquarters.

General Kevin P. Byrnes

General Kevin P. Byrnes assumed command of TRADOC in November 2002 and was the first TRADOC commander whose entire tenure occurred during wartime. Reassessing the command's missions, he strongly reaffirmed that training and leader development would be TRADOC's number one priority, especially at the IET and NCOES levels. Quality instructors and exported training, to reach soldiers wherever they served, would also be important. In addition, Byrnes stressed innovation, jointness, accession and recruiting, development of the future force, and people. As part of the development of the future force, Byrnes emphasized a sense of urgency in helping the Army accelerate the transformation process and in enhancing the credibility of current Transformation initiatives, especially by soliciting ideas and proposals from industry. Perhaps even more important was the necessity to demonstrate the links between Army transformation and Department of Defense joint initiatives, to include joint exercises. Byrnes planned for TRADOC to become a futures command that would serve the Army well on the fielding of the Objective Force and be a link to Joint Forces Command and the other Services.

In line with Byrnes' goals, TRADOC headquarters was reorganized, and a Futures Center was established in October 2003. The center realigned functions and resources from the TRADOC staff and the objective force task force to develop and integrate into a joint warfighting environment,

all aspects of the future force from concepts to capability. It was tasked to develop and integrate joint and Army concepts, architectures, and doctrine, organizations, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) capabilities.

General William S. Wallace

General William S. Wallace assumed command of TRADOC in October 2005. Like his predecessor, he was a wartime commander. Wallace's view was that TRADOC was the architect of the Army to shape both today's Army and the future combat force. The mission of TRADOC was to recruit, train, and educate the Army's soldiers; develop its leaders; support training in units; develop doctrine; establish standards; and build the future Army. General Wallace also believed that TRADOC thought for the Army. As such, it had to meet the demands of a nation at war while simultaneously anticipating solutions to the challenges of tomorrow. To do this required changes in the way TRADOC viewed its mission. All activities were directed to provide input that reflected and assisted with the Contemporary Operating Environment (COE). Basic and advanced training were conducted to reflect the wartime challenges faced by soldiers in the field. Because much of the military operations occurred in cities in Iraq, military operations in urban terrain (MOUT) became part of training as did training in dealing with different cultures. Stability operations became the key to success, and doctrine needed to reflect this. When General Wallace assumed command, the existing edition of FM 3-0 was already 4 years old and had been published prior to the attacks on the World Trade Center and the Pentagon on 11 September 2001. The 2008 version of FM 3-0 was evolutionary but had four revolutionary aspects. It stressed the importance of stability operations with a "whole government approach," it acknowledged the critical nature and influence of information operations, it forged an operational concept that drove initiative and embraced risk to create opportunities, and it emphasized the central role

of the commander in full spectrum operations. To accomplish TRADOC's missions, Wallace set the command's priorities as safety; supporting our nation at war; recruiting and training quality warriors; developing adaptive, innovative leaders; and designing the Army's modular force. He also coined the motto "Victory Starts Here."

There were three significant reorganizations of TRADOC during General Wallace's tenure as commander. Under Wallace, TRADOC continued to design the current Army modular force and the future combat force. The Futures Center established under General Byrnes grew and became the Army Capabilities Integration Center (ARCIC) in 2006. In 2007, the TRADOC staff was reorganized to more closely align the command's responsibilities with those of the Army Staff. The numerous changes made TRADOC more responsive to Army missions. The third change occurred near the end of Wallace's tenure when the US Army Accessions Command became directly subordinate to the Department of the Army in October 2008.

Chapter III

Force Design and Weapons Development

TRADOC designed the "TOE Army," which meant more than 1,200-odd tables of organization and equipment (TOE) for "type" units from platoon through corps and above. This was a continuous process because organizations changed with new weapons, equipment, and doctrine. Since TRADOC's establishment in 1973, the command designed and implemented the major division reorganization known as the Army of Excellence (AOE) and began to define the nature of the force 20 or more years into the 21st century. This "objective force" and a weapons and equipment "system of systems" known as the Future Combat System (FCS) were major components of a larger set of Department of the Army (DA) initiatives called Transformation. By the early 21st century, TRADOC was attempting to design rapidly deployable modular forces capable of deployment anywhere in the world on short notice.

Army of Excellence

The TRADOC-designed Army of Excellence (AOE), implemented by the Department of the Army (DA) from 1984 to 1986, was the first major reorganization of the tactical army since the Reorganization Objective, Army Divisions (ROAD) of the early 1960s. The TOE of the AOE supported AirLand Battle doctrine and the generation of weapons introduced in the 1970s and 1980s. The AOE owed much to the Division Restructuring Study (DRS) of 1976 as well as the Division 86 project and the Army 86 studies that followed. Both studies were influenced by the lessons of the Yom Kippur War of 1973 and focused on heavy armor and mechanized infantry divisions. DA approved neither, and General Donn A. Starry began anew, because the heavy division was critical to operations in Europe during the Cold War. Studies of Division 86 (nonmechanized), Corps 86, and Echelons Above Corps 86 were completed in 1980. After crises in Afghanistan and Iran in the same period, Army 86 planners began studies of rapidly deployable units, because US Army forces also had to be prepared to meet contingencies in the non-NATO world.

In 1980, the Chief of Staff of the Army established a High Technology Test Bed (HTTB) in the 9th Infantry Division at Fort Lewis, Washington, to test concepts toward development of a lighter "high technology light division." TRADOC and the Army Materiel Command (AMC) cooperated with the division's parent commands, I Corps and the Army Forces Command, in this effort. Although valuable ideas emerged from the test

bed, no high-technology light division was fielded because of a lack of funding. This was a major dilemma. Heavy divisions were needed to meet the mechanized threat posed by the Warsaw Pact, and the Army had a fixed end strength of 780,000 personnel. The problem ended in June 1983 when Chief of Staff of the Army General John A. Wickham Jr. directed the TRADOC commander, General William R. Richardson, to design a new, strategically deployable light infantry division with a strength of approximately 10,000 personnel that was globally deployable in approximately 500 airlift sorties. To achieve this end, Wickham gave Richardson the authority to review and redesign the entire TOE Army. Undertaken by the Combined Arms Center (CAC) with support from the TRADOC branch schools, the AOE effort developed and put in place the force designs of the 1980's Army. All elements of the tactical Army were reexamined. The AOE organizations modified but did not replace Army 86 designs. The notable exception was the new light infantry division, which was a three-brigade organization with a strength of 10,800 men. It was designed to operate in cities, forests, and mountain areas where heavy forces were at a disadvantage, and to buy time for heavy forces that deployed more slowly. The design was certified by the 7th Infantry Division (Light) at Fort Ord, California, and supported by the TRADOC test organizations from 1984 to 1986.

In AOE, TRADOC force designers reduced the heavy divisions to approximately 17,000 personnel. Significant transfers from division to corps in field artillery, air defense artillery, and combat aviation left the divisions smaller and with less organic combat power. The redesigned corps thus provided a more powerful fighting organization at the operational level of war. The AOE design of heavy divisions and corps moved Army tactical organizations more fully into consonance with doctrine at the most significant level of organization. There was criticism that AOE had overemphasized combat power at the expense of support units, was too light, and lacked tactical mobility, but it met the challenge of deterring the Soviet threat in the Cold War. It also began the development of lighter, more rapidly deployable forces.

Force XXI

The search for a successor to AOE began on 8 March 1994 when Army Chief of Staff General Gordon R. Sullivan directed the start of a major campaign effort to lead to the future Army in the early years of the next century. The Force XXI redesign was supposed to be the last of the major operational Army reorganizations of the 20th century. That

initiative, however, would give way to the Transformation effort directed by Army Chief of Staff General Eric K. Shinseki beginning in late 1999.

The Force XXI project was a significant departure from previous efforts. It was the first force redesign effort in which newly emergent, computer-driven, constructive, and virtual simulation methods, equipment, and software were joined to live field simulations to test and analyze military unit designs. In addition, the multiyear Force XXI design effort was the first to invent and embody in those heavy fighting units a linked, instantaneous, and common situational awareness of the battlefield and the three dimensions affecting it. "Digitization" was the rubric given this revolutionary emerging capability. In support of Force XXI, TRADOC began several major projects. First, the capstone "how to fight" doctrine was brought up to date in 1993 in FM 100-5, *Operations*. A year later, the command published TRADOC Pamphlet 525-5, *Force XXI Operations*, a concept for the Army of the 21st century. Also in 1994, TRADOC accepted a project known as "Joint Venture," and proceeded to redesign the operational Army on a new information-or-knowledge basis. Concurrently, a modern Louisiana Maneuvers (LAM) task force, begun in 1992, developed scenarios for the Army of the future.

From 1993 to 1995, TRADOC developed the concept for a key development vehicle for Force XXI, a division-sized Experimental Force (EXFOR). Late in 1994, the Army established the 4th Infantry Division, Mechanized, at Fort Hood, Texas, as a test bed for Force XXI. Beginning in 1994 and continuing into 1998, TRADOC fielded several advanced warfighting experiments (AWE) to carry through a sequence of experiments and simulations to examine the emerging digitization concept. Bearing names such as Desert Hammer VI, Roving Sands, Prairie Warrior, Mobile Strike Force, Focused Dispatch, and Warrior Focus, these exercises and experiments from platoon to theater levels were variously directed by TRADOC's battle laboratories and CAC's National Simulation Center.

Transformation

As TRADOC looked forward to the 21st century, the Force XXI operational concept was not a finished product. The developmental work to lead an Army capable of executing Force XXI concepts remained to be completed. Then, 12 days into fiscal year 2000, the new Army Chief of Staff led the Service in a radically different direction. As noted above, Army Chief of Staff General Eric K. Shinseki announced on 12 October 1999 his plans for "Transformation" or for an Army transformed into one that was more "responsive, deployable, agile, versatile, lethal, survivable, and

sustainable." Transformation was seen as a sweeping program to enhance the Army's capabilities and change how it would fight in the post-Cold War world. Combat-ready brigades in the target Army would be deployable anywhere in the world in 96 hours.

The transformed Army would be comprised of three key elements: the legacy force, the interim force, and the objective force. The legacy force centered on the major weapons systems that the Army currently had in its inventory. The interim force would provide crossover capabilities between the legacy force and the objective force during the development of the latter. The objective force was envisioned as a totally revamped Army with regard to equipment, organization, and training. The backbone of the interim force would be six to eight Interim Brigade Combat Teams (IBCT), the first two of which were established at Fort Lewis, Washington, beginning in 2000. These experimental units operated under the direction of TRADOC's Deputy Commanding General for Transformation and a brigade coordination cell at Fort Lewis.

The FCS would be the primary weapons and troop carrying platform for the objective force. The FCS was envisioned as a "system of systems" employing a common vehicle platform. For the IBCT in the interim period, the Army chose a wheeled light armored vehicle known as the LAV III, later renamed Stryker. In July 2001, to help design a force projection Army that was decisive across the full spectrum of conflict in the 21st century, TRADOC commander General John N. Abrams established Seminar War Games (SWG) at the headquarters. Those fora brought together senior leaders, representing all the Army's functions and responsibilities, to play out scenarios. To operate in a nonstandard environment they created "units of action" and "units of employment" that were significantly different from the "companies," "battalions," and "brigades" with which many participants were familiar. This allowed the creation of new types of units without ties to organizations of the past. Transformation initiatives represented an all-encompassing effort to accomplish the Army's vision and to change the way the Army thought, trained, and fought.

Weapons and Equipment

A major mission assigned to TRADOC on 1 July 1973 was combat developments—the systematic development of new and improved organization, equipment, weaponry, and doctrine. Combat developments had come to TRADOC from the former Combat Developments Command. The merger of combat developments with the training mission in one command guided the 1973 Army reorganization to reorient combat

developments to the present and near future, and to apply new and improved materiel, organization, and doctrine to field units quickly. The reorganization decentralized the combat developments mission to the Army's branch and service schools and placed the function with training.

Four basic elements constituted the TRADOC combat developments structure—the Deputy Chief of Staff for Combat Developments at the headquarters, the functional centers (renamed integrating centers in 1976), the schools, and the test and evaluation agencies. TRADOC directed its combat developments responsibilities through the Deputy Chief of Staff for Combat Developments, which was established as the focal point for assigning projects and allocating and accounting for resources. Until 1990, the three functional centers directly subordinate and reporting to TRADOC headquarters—the Combined Arms Center at Fort Leavenworth, the Logistics Center at Fort Lee, and the Soldier Support Center at Fort Benjamin Harrison—directed, coordinated, and integrated the combat developments work of the Army schools with which each was functionally associated. At the next level were the branch and specialist schools where the commandants had responsibility for both combat developments and the training and education missions. The fourth aspect of the combat developments system within TRADOC was a series of agencies designed to provide data and reports from tests and experiments keyed to specific concepts and projects. Two of the most influential were the Combat Developments Experimentation Command (CDEC) at Fort Ord, California, and the Modern Army Selected Systems Test Evaluation and Review (MASSTER), an agency at Fort Hood, Texas.

The three major combat developments concerns were materiel, organization, and doctrine. Materiel development was a joint effort of TRADOC as the primary combat developer and AMC as the primary materiel developer. TRADOC played three essential parts in the effort. The first was to formulate and document requirements for specific materiel. The second was to monitor AMC development continuously, undertaking operational tests and analyses at critical points. The third role was to redraw organizations and refashion tactics as necessary to accommodate the new item. The combat developer determined a weapon's need and operational specifications, monitored its development, and determined its ultimate issue to and use by the Army in the field.

The Middle East War of October 1973 was significant to the decision of where to place the combat developments function, and the Operation STEADFAST reorganization placed it in TRADOC. Members of TRADOC studied the war intensively, paying particular attention to

the tremendous attrition of materiel and unparalleled lethality of modern weaponry. Those lessons greatly shaped the vision of modern war. Crucial to reform of the tactical force was recognition that modern armies in the 1970s were crossing a technological threshold. The lethality of fire, the tempo of battle, and the immense attrition of the Middle East War had demonstrated a quantum leap in weapons technology.

TRADOC took a total systems approach to weapons development, bringing trainers, logisticians, and personnel managers into the process early. The total systems methodology spawned the concept of the TRADOC System Managers (TSM), formally approved in March 1977. The TSM represented all major weapon and materiel systems in development and functioned with the power and authority comparable to the project managers of AMC. The TSM was charged with integrating and organizing the development process. Introduction of a new Concepts-Based Requirements System (CBRS) in 1980 provided a development schematic, the goal of which was to place fighting concepts at the beginning of all TRADOC's products across the board—doctrine, materiel requirements, organizations, and training developments.

As management techniques and strategies were devised and emplaced, the 1970s and 1980s witnessed the launching of one of the most massive modernization programs in the history of the Army. The "Big Five" systems of greatly increased combat power included the M-1 Abrams

US Army Photo

M-1 Abrams Tank, One of the "Big Five."

main battle tank, the M-2 and M-3 Bradley Fighting Vehicles, the Black Hawk and Apache helicopters, and the Patriot air defense missile. The Multiple Launch Rocket System (MLRS) was also developed and fielded, as were individual equipment and electronic warfare protection devices. Anticipating a smaller force after the Vietnam drawdown, the ability to catch and keep the technological edge in weapons and equipment was imperative.

The modernization wave that began in the immediate post-Vietnam era crested in 1983. From that point, development was slower and more sporadic. By the late 1980s, modernization planning was less dramatic and aimed more at a coordinated effort, reduced budgets, and available resources. For instance, in 1986, the Department of the Army commissioned the Armored Family of Vehicles Task Force to examine the next phase of modernization. The emerging concept was that of an armored family of vehicles to be built around two common chassis. A total, phased replacement of the tracked and wheeled fleet would ensure compatibility, commonality, and survivability. Simultaneously, block improvements were projected for the Abrams main battle tank and the Bradley Fighting Vehicle. Upgrades were also planned for the AH-64 Apache.

The success of the total modernization effort was demonstrated in Operations DESERT SHIELD/STORM in 1990 and 1991. All of the "Big Five" systems were deployed and performed beyond expectations. The Apache attack helicopter, the Black Hawk transport and utility helicopter, the Abrams main battle tank, the Bradley Fighting Vehicle, and the Patriot missile system validated the combat developments process and products. The Army Helicopter Improvement Program (AHIP) had resulted in the OH-58D armed Kiowa Warrior, which flew close reconnaissance and attack support for the Apache. Likewise deployed and successful were the Army Tactical Missile System (ATACMS), the longest-range surface-to-surface missile in the Army inventory, along with its companion the MLRS. Additionally, unmanned aerial vehicles, the Joint Surveillance and Target Acquisition Radar System (JSTARS), and the XM40 series protective mask were success stories of Operation DESERT STORM.

In TRADOC's first two decades of combat developments, the command witnessed a massive modernization program for large end-items that was justified by a serious security threat. Adequate resourcing and enlightened leadership resulted in the Abrams M-1 Tank and the Bradley Fighting Vehicle, which were still in service nearly three decades later. With the collapse of the Soviet Union, the need for weapons designed to fight a major heavily-armed adversary waned. The Army downsized and

evolved from a forward-based force to a force projection one. In the new strategic environment, where asymmetrical warfare was the predominant type of conflict and heavy weapons such as the Crusader 155-mm howitzer and the Comanche helicopter were canceled, weapons like the Stryker light armored vehicle developed. As costs rose and numbers of weapons declined, technology had to be harnessed to ensure the new generations of weapons were more accurate and lethal than their predecessors.

With decreased funding levels, equipment requirements shifted to focus on long-term development and acquisition. Weapons systems had to provide broad coverage in low-, mid-, and high-intensity conflicts as well as contingency and special operations. The Department of the Army proposed four principles to guide modernization decisions: key future modernization programs would be protected, some current major weapons systems would be terminated, investment in product improvements and systems modifications would be restricted, and new technologies would be advanced.

On the management side, the concept of battle laboratories located at key centers and schools evolved during late 1991 and early 1992 as TRADOC reassessed requirements for the post-Cold War Army. Without a clear external threat driving requirements, concepts of warfare and the associated equipment needed to be reevaluated. The battle laboratories were designed to be the institutional means to determine, develop, and experiment with equipment and technology, organizational design, and training. The trend in combat developments, with battle laboratories assisting, would be for fewer starts and dollars, higher technology, better integration, and more focus on joint efforts.

As TRADOC reached its 25th anniversary in 1998, the US Army's modernization objectives were to project, sustain, and protect the force; win the information war; conduct precision strikes; and dominate the maneuver battle. Those objectives were formally set forth in the Army Modernization Plan update published in May 1994. The Modernization Plan and the Force XXI process were designed to move the Service to Army XXI, beginning with a conceptual base and continuing forward to post-fielding improvements. Declining defense resources and downsizing of the force made it necessary for the Army to analyze future warfighting capabilities with an eye to development and fielding of battlefield systems that best supported the Army envisioned in the next century. TRADOC, as the architect of the future Army, continued to fulfill that role. But as the command reached its 30th year, the road to the Army of the 21st century

had taken some sharp turns as the Transformation initiatives looked to a lighter, more deployable force by 2020.

The Transformation effort did not displace all of the tenets of Force XXI. Indeed, it built on many of them. The importance of projection and sustainment of the force could not be overstated. The Army of the 21st century had to be a smaller, continental United States (CONUS)-based force that required the ability to project and sustain its power anywhere in the world. To realize that objective, Army systems had to be light, lethal, and modular, so more capability could be achieved with fewer resources. The Army also needed to have sufficient strategic and tactical lift assets to move its forces around the globe. The Army had to project forces efficiently by taking advantage of new technologies to move only what was absolutely necessary. Improved logistical information systems and a new emphasis on split-based operations were designed to allow the Army to sustain its forces while projecting fewer support elements. In addition, there were new missions to be taken into consideration such as humanitarian relief. Modernization for the Army of the 21st century included denying information to the enemy through secure communications and direct attack against enemy command, control, communications, computers, and intelligence (C4I) assets. Joint efforts to expand their own C4I assets were designed to give US forces a complete picture of the battlefield that could be transmitted to all units. The Army Battle Command System with its many components would link commanders at all echelons. Global Positioning System (GPS) receivers provided precise targeting and navigation data. A new information architecture also included communications systems to securely and rapidly move data from point to point.

A number of weapons and equipment projects underway promised to support the transforming Army deep into the 21st century. Of special importance was a vehicle for the interim force and an FCS that would provide an integrated "system of systems" for the soldier of the future. On 15 April 2002, the Army accepted early editions of its new interim armored vehicle for the IBCTs. Known as the LAV (light armored vehicle) III, it was earlier renamed "Stryker" in February 2002. The Stryker was a 19-ton eight-wheel armored vehicle that would provide the Army with 10 different variations from infantry carrier vehicles to reconnaissance and medical evacuation vehicles. The new vehicles had robust armor protection, could travel at speeds of about 60 mph, and possessed common parts and a self-recovery capability. The Stryker also was designed to be deployed by C-130 aircraft and to be combat-capable on arrival in any contingency area.

The FCS program was a collaborative Defense Advanced Research Projects Agency (DARPA)/US Army project to design and demonstrate combat systems that could be the centerpiece of the Army's future objective force. TRADOC's role as the Army's combat developer placed the command at the forefront of defining what was needed and how systems should be integrated. Transformation planners envisioned FCS as a networked force consisting of separate robotic direct fire, indirect fire, and sensor platforms controlled by a manned command-and-control platform. The FCS was intended to involve both ground and air systems, connected through a sophisticated sensor and communications network.

US Army Photo

Soldier prepares to launch UAV in Iraq.

Also under development for the objective force was the RAH-66 Comanche helicopter. More than 20 years in development, the Comanche was expected to operate either as a stealthy reconnaissance system or as a highly lethal attack platform. Concurrently, the Army was testing a tactical unmanned aerial vehicle (TUAV), known as "Shadow," which was meant to accompany initial-entry ground forces to transmit pictures of a battlefield back to a ground station. Resembling a radio-controlled aircraft, the newest TUAV had a 13-foot wingspan and could stay aloft over a target for 5 to 6 hours. Also being tested were prototypes of a High

Mobility Artillery Rocket System (HIMARS), the Army's new light artillery system. Transportable in a C-130 aircraft, the early-entry artillery platform could launch the entire family of MLRS and ATACMS munitions to a range of 300 kilometers. HIMARS was designed to engage tube and rocket artillery, air defense concentrations, trucks, and light-armor personnel carriers.

The Global War on Terrorism

In addition to developing doctrine and materiel for the future, TRADOC was also concerned with developing the same for the Global War on Terrorism (GWOT), which began after the terrorist attacks on 11 September 2001. The challenges ranged from the application of conventional doctrine during the initial stages of the invasion of Iraq to supporting asymmetrical operations in both Iraq and Afghanistan. Material developments included the development of systems very different from the tanks, fighting vehicles, and rocket launchers of the 1980s. Examples are the Enhanced Logistic Off-Road Vehicle (ELSORV), under test in Afghanistan, and the Counter Radio-Controlled IED Electronic Warfare (CREW), a device for jamming the signals that detonate improvised explosive devices (IEDs). The Giraffe Radar, which was primarily an air-defense radar, could be linked with a sensor system to aid the ground battle. The Battlefield Target Identification Device (BTID) is a combat identification system that increases combat effectiveness by minimizing false targeting errors, thereby reducing fratricide or friendly fire combat losses. The Tactical Ground Reporting System combines a database of information about the war along with maps, which allows junior officers to study the terrain in light of past incidents and share information about conditions on the ground. Troops were shown a prototype by DARPA in late 2006, and the current version was introduced in 2007. During this period, unmanned aerial vehicles (UAVs) have been under constant development and have been used for reconnaissance and attack. However, not all developments were new, as the need for convoy defense saw a renewed interest in the same type of gun trucks used for convoy escort during the Vietnam War.

Chapter IV

Doctrine

The year TRADOC came into existence saw the end of the US Army's involvement in the Vietnam War and the end of the Arab–Israeli War. Vietnam focused the Army's attention on counterinsurgency warfare against an elusive foe. Conversely, the Arab–Israeli War was a conflict unprecedented in tempo, lethality, and consumption of resources. Significant in themselves, these events occurred against a background of concerns over increasing Soviet power across the globe. It was obvious to General William E. DePuy, first Commanding General of TRADOC, that existing Army doctrine had to be revised. Thus, in 1974, DePuy began the process of change by sending letters to some of the TRADOC school commandants and by initiating a series of conferences to discuss the Middle East War and changes in Soviet doctrine. Not satisfied with the long process of developing new Army doctrine, TRADOC schools developed circulars on "how to fight." Traditionally, the Combined Arms Center (CAC) at Fort Leavenworth, Kansas, was the agency assigned to write "capstone" doctrine such as field manuals (FM), but after several conferences concerning the issue, the task of writing a new FM on operations was transferred from CAC to the Concepts Branch of Headquarters, TRADOC, in 1975. The new FM 100-5, *Operations*, was published in June 1976.

The new FM 100-5 principally focused on potential conflict against the Soviets in Europe. It recognized the reality of the modern battlefield with its increased operational tempo and its increased lethality and that US forces needed to "fight outnumbered and win." There was also emphasis on winning the first battle. The perception was that the United States had seldom won the first battle, because of the defeat at Kasserine Pass in World War II and Task Force *Smith* in Korea. The overall doctrine was called Active Defense. Despite its acknowledgment of a new strategic situation and the enhanced lethality of the modern battlefield, the 1976 edition of FM 100-5 created considerable controversy. Broadly, the criticism centered on three issues. First, the doctrine was defensive in nature and perceived by some to be an all or nothing defense without a substantial reserve. Second, the preoccupation with the first battle seemed to be a commitment to fight that battle without consideration of subsequent operations. Third, and perhaps most significant, the Active Defense was seen as tied too specifically to one Soviet operational maneuver that called for a massive armored breakthrough that was typical of World War II.

Soviet doctrine, however, had also changed and called for multipronged attacks across the front seeking to exploit a weak point. As published, the 1976 FM 100-5 was a tactical manual of limited focus. While it addressed the Soviet threat to NATO, it did not address US responsibilities in other parts of the world nor did it address joint operations or counterinsurgency warfare.

As early as 1976–77, there were efforts underway to redefine the battlefield of the near future. Lieutenant General Donn A. Starry spearheaded these efforts while he was V Corps commander in Europe. Earlier as Chief of Armor, he had contributed greatly to the 1976 edition of FM 100-5 and its Active Defense approach. As V Corps commander, however, Starry had gained a new appreciation of up-to-date Soviet doctrine and capabilities. In V Corps, the aspects of what Starry referred to as the Central Battle, such as the ranges and numbers involved, were fully analyzed. He realized that the commander's view of the battlefield had to be wider and deeper than previously indicated by Active Defense. When Starry became TRADOC commander, these considerations became paramount in revising FM 100-5. During the same period, General Edward C. Meyer, Chief of Staff of the Army, recognized a need for the Service to be more responsive to global needs, hence more deployable. There was also the need to revise doctrine to reflect the more current Soviet threat. A major influence on Starry's concept of the Central Battle was a study at the Field Artillery School, Fort Sill, Oklahoma, begun at his request. The study suggested interdicting targets deep in the enemy rear to disrupt the Soviet second echelon during an assault. That study also projected cooperation with the US Air Force, which led to the need for an integrated battle across a wider, deeper battlefield. By 1980, the Central Battle idea became known as AirLand Battle and the draft of a new FM 100-5 had begun. In addition to the recognized principles and fundamentals of war, AirLand Battle called for depth, agility, and synchronization, as well as an insistence on initiative on the part of leaders at all levels. Published in August 1982, the new FM 100-5 became the cornerstone of US Army doctrine. It was revised in 1986, and AirLand Battle remained doctrine through the Gulf War of 1990–91. The 1982 and 1986 editions of FM 100-5 were improvements over the 1976 edition in that they briefly addressed joint operations and contingency operations; however, they remained Eurocentric and did not address counterinsurgency warfare.

With the demise of the Soviet Union, the strategic position of the United States changed drastically. Although in 1991 US and allied divisions smashed Iraqi military power using AirLand Battle doctrine, a philosophy that centered on fighting a major land power on the continent

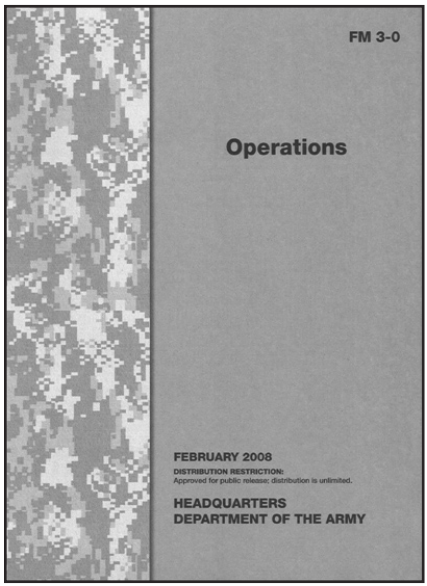
of Europe was no longer relevant. At the end of the Cold War, the United States emerged as a truly global power with the means to project its influence. Unfortunately, that did not mean peace. In the last decade of the 20th century, nearly half the countries in the world faced some sort of armed conflict, which included ethnic strife, political insurgencies, terrorism from political or transnational entities, or criminal elements that often masqueraded as political movements. The fall of the Soviet Union revealed challenges that were far more complex than were evident during the Cold War. The danger of facing a potential adversary in a land war that might turn nuclear was lessened, only to reveal multiple threats to the United States that did not originate in Moscow. This complex situation became known as asymmetric warfare, which included threats from diverse sources such as conventional forces, terrorists, and criminals. TRADOC commander General John W. Foss began the revision of Army doctrine in 1989. The Gulf War, however, delayed further developments.

On taking command of TRADOC in August 1991, General Frederick M. Franks Jr. set as his primary goal the revision of FM 100-5 and its publication by early 1993. In addition, he envisioned Army doctrine moving in a different direction than had his predecessor. Thus, the writing team at Fort Leavenworth, Kansas, was changed and the new team worked to produce a manual that was less a tactical treatise than the two preceding versions and more a statement of the Army's position in a world that required deployment from CONUS rather than a forward-based Army. It stressed the numerous missions the Army faced in the current strategic environment and took a realistic view of joint requirements in future operations. General Franks was careful to ensure Army-wide consensus prior to publication and that the other US Services were privy to the elements of the new FM 100-5. In this way, it was a public document from its early stages and most of the criticism had been met prior to publication. FM 100-5, released in June 1993, scrapped the designation AirLand Battle. Because Franks did not want to focus attention solely on Army–Air Force cooperation, he did not select a single term to replace AirLand Battle. However, in the introduction to the 1993 FM 100-5, Franks insisted that AirLand Battle evolved into a variety of choices for a battlefield framework and a wider inter-Service arena that allowed for the increasing incidence of combined operations.

During his tenure as TRADOC commander, Franks worked closely with Chief of Staff of the Army General Gordon R. Sullivan to change doctrine. In Exercise *Desert Hammer*, new versions of the M1 tank were tested at the National Training Center (NTC) in what would come to be considered the first advanced warfighting experiments (AWE). Franks also

looked for a way to test the concept of Army XXI. Another aspect of the change in doctrine was the effort of the battle laboratories to explore the various aspects of the future battlefield. Their focus included maneuver, maneuver support, fire support, combat service support, and the new electronics aspects that included computers as well as more traditional electronic equipment on the battlefield. All of these fell loosely under the auspices of General Sullivan's concept referred to as the modern Louisiana Maneuvers (LAM), a reference to the Army's famous training maneuvers in 1940 that led to significant reorganization. The modern LAM concept was a process that brainstormed new ideas. Although a Department of the Army initiative, the LAM task force was headquartered at Fort Monroe, Virginia, in part because of Sullivan's heavy reliance on the TRADOC commander, General Franks.

For the next decade, the changing international situation demonstrated the need for another update of FM 100-5. The plan for a modified version of the manual tentatively scheduled for 1996, however, was put on hold. In 1999, Chief of Staff of the Army General Eric K. Shinseki made the case for both doctrinal and materiel changes in the Army, initiatives known collectively as Transformation. A large portion of the challenges posed fell on TRADOC as the Army's architect of the future. At the same time, TRADOC was undergoing serious reductions in resources and personnel that affected both training and doctrinal development capabilities.

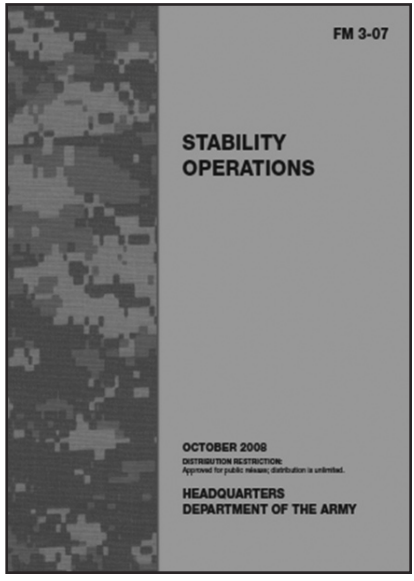


To further the understanding of possible future warfare, General John N. Abrams instituted a series of Seminar War Games (SWG) in July 2001 and revitalized a class of planning documents referred to as "O&O" for organization and operations. The SWG enabled the review process for O&O and simulated long-range planning for an interim and then an objective force. The initial purpose of the SWG was to help design a force projection army that was decisive across the full spectrum of conflict on the 21st century battlefield. The SWG particularly addressed the challenges raised by the revolution in computer and graphics technology. A TRADOC

brigade cell at Fort Lewis, Washington, tracked and analyzed two Interim Brigade Combat Teams (IBCTs), which were also located there, and they tried new concepts for the future battlefield. Their idea resulted in a complete revision of the 1993 FM 100-5. To emphasize the break with the past, the joint numbering system of FM 3-0 was adopted for the new manual, which was cognizant of the changes in the nation's geostrategic position. It clearly addressed the problems of deployment and asymmetric warfare and the need for joint operations in nearly every aspect of operations, from major theaters of war to humanitarian relief. The "Transformation" FM 3-0 was published in June 2001.

After the terrorist attacks of 11 September 2001, TRADOC also had to support the war on terrorism. The command produced O&O for the Army on force protection and assessed the impact on the changed world situation on all other aspects of doctrine development. Especially critical was the development of joint doctrine that in the past had proceeded slowly and without the desired integration. As the Army became involved in Iraq and Afghanistan in both conventional and counterinsurgency situations, the need for an improved FM 3-0 became evident. The new manual, published in February 2008, was a significant improvement over its predecessor. It addressed the current realities of an unstable world in which the threat was constantly changing. In addition to emphasizing information warfare in conjunction with conventional and counterinsurgency warfare, it gave full weight to stability or civil support operations as part of the full spectrum of warfare.

Another important doctrinal publication was the update of FM 3-07, *Stability Operations,* in October 2008, which represented a milestone in Army doctrine. Unlike previous editions, it was designed as a roadmap from conflict to peace. It institutionalized the hard-won lessons of the past while charting a path for the future. The manual focused on achieving unity of effort through a comprehensive approach to stability operations and remained consistent with a broader "whole of government" approach to those same operations.



Chapter V

Training and Leader Development

With the establishment of TRADOC, the Army's training system began a major transformation. While many changes were evolutionary, they resulted in a revolutionary departure from the Vietnam era. The architects of this revolution were General William E. DePuy and his Deputy Chief of Staff for Training, Major General Paul F. Gorman. The latter was an advocate of performance-oriented training, which meant setting training objectives by carefully determining the tasks to be trained. After the objectives were set, the conditions under which the training was to take place were determined and the standards were established. Gorman and his "apostles and disciples" as DePuy later called them, also brought to training development an appreciation of rapidly advancing technology and an understanding of how it could be applied to training. In 1973, soldiers and officers were trained in accordance with the Army Training Program (ATP), which had been in use since World War I. The ATP prescribed the hours devoted to each subject and task. It was based on a conscript Army that had sufficient time to raise, equip, and train a combat force prior to its commitment to combat. With the beginning of the all-volunteer force in 1973, planners could no longer depend on an influx of draftees to meet their manpower needs. Other factors TRADOC had to consider in building a new training system were the post-Vietnam downsizing of the Army and the shrinking defense budgets of the 1970s. The Army needed better training that was more efficient and cost effective.

The lethality and ranges of the weapons used in the 1973 Arab–Israeli War brought home to DePuy and Gorman the tremendous importance of well-trained crews and tactical commanders. They agreed that the Army needed a "train-evaluate-train" program that required soldiers to perform to established standards. The program had to be progressive and sequential so that each level provided a foundation for the next higher one. They also believed that individual training in units was neglected and focused TRADOC's effort there. Gorman's idea was to reorient the TRADOC school system so it had a larger training intent than an educational one. Finally, both men believed a solid link had to be established between doctrine and training. Thus, the revision of FM 100-5, *Operations*, in 1976 recognized the Service schools as the "Army's source of combat developments and doctrine."

Basic to the process of change was the adoption of a systems approach to training (SAT). The SAT consisted of five interrelated phases: analysis,

design, development, implementation, and evaluation. All issues involved in systems training, unit training, individual training, and training support were studied following the SAT model. In the face of decreasing budgets, it was obvious to TRADOC's leaders that much individual training would have to be conducted in units. As a result, training developers began to create and field several programs to bring the training to the soldier. The Army Training and Evaluation Program (ARTEP) was a new performance-oriented program for collective training that placed responsibility for training directly on the unit. New skill qualification tests (SQTs) were designed to provide an indicator of a soldier's proficiency in his military occupational specialty (MOS). The self-development test, a follow-on program to the SQT, was eliminated in 1995. An updated and revised training and doctrinal literature program included soldiers' manuals that set forth what the Army expected a soldier to know and be able to perform at each skill level. The new program also included commanders' manuals, field manuals, "how to fight" manuals, technical manuals, and training circulars. To meet increasing manpower shortages, DePuy and Gorman greatly expanded a training extension course program, begun under CONARC, designed to export training to the field.

DePuy and Gorman also initiated changes in the initial entry training (IET) program and the Noncommissioned Officer Education System (NCOES). In July 1974, a new basic combat training (BCT) program was

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Basic training.

implemented that stressed discipline, decentralization to the lowest possible level, and the teaching of basic combat skills. TRADOC also made a major change in the structure of BCT. A new one-station unit training (OSUT) plan integrated some BCT and advanced individual training (AIT) into cohesive programs. That action meant fewer soldiers undergoing IET would have to take the two phases at two different locations, which saved travel costs. TRADOC also established a progressive and sequential NCOES in line with the Officer Education System (OES). Generals DePuy and Gorman left TRADOC headquarters in June 1977, but their reforms provided the foundation for a continuing training revolution. Their programs were revised, increased, and in some cases deleted; nevertheless, the changes from 1977 to 2008 did not undo their work.

During TRADOC's first 35 years, it employed a number of school models and long-range training plans to guide the command in fulfilling its mission to train the Army's soldiers and officers. School Model 76, TRADOC's first, replaced the one operated by CONARC before Operation STEADFAST. It clearly demonstrated DePuy's interest in training as opposed to education and Gorman's interest in advanced technology. General DePuy directed his staff to develop new organizational concepts that would modernize and bring greater efficiency to the schools. School Model 76 was based on the premise that the commandants were responsible for the interface between combat developments and training developments. The combat developments function of the school created new weapons requirements, tactics, and tactical and support organizations, all based on approved doctrine. Training development personnel were responsible for resident training, extension training, simulation devices and simulators, and training literature to ensure the optimum employment of combat developers' products. DePuy wanted the schools to be less instructor intensive and to take advantage of existing technologies.

Another initiative that affected the TRADOC schools was the establishment in 1982 of a military history education program, designed by the new Combat Studies Institute at Fort Leavenworth, Kansas. TRADOC Regulation 350-13, *Military History Education Program (MHEP),* first published in January 1982, formally established the effort and vested proponency for MHEP with the TRADOC chief of staff, and established command policy for the study of military history in the TRADOC Service schools and in senior ROTC detachments. The TRADOC MHEP was intended to foster a sense of historical mindedness in the Army community, resulting in sensitivity to the intellectual and functional values of military history as a necessary component of professional education and development.

In 1983, proponency for MHEP management shifted to the Combined Arms Center (CAC) commander with executive agency given to the Director, Combat Studies Institute. Also that year, a revised TRADOC Regulation 350-13 placed the requirement for instruction in military history with uniformed officers outside the command history program and made no provision for utilizing civilian branch historians in MHEP. However, as the TRADOC history program grew in the field, commandants used the branch historians to coordinate MHEP in their commands and to serve as adjunct instructors. By 2003, a majority of branch historians served frequently as adjunct instructors of military history. In August 1992, the proponency for TRADOC's military history education program returned to TRADOC headquarters. At 35 years, TRADOC Regulation 350-13 encompassed heritage instruction in BCT as well and was once again being revised to reflect visions of a transforming Army.

By the summer of 1982, problems inherent in School Model 76 were evident. The most notable problem barred instructors in the academic departments from participating in training developments and combat developments. Almost immediately after the model's adoption, the schools requested exceptions to that policy. A working group established by TRADOC Commander General Glenn K. Otis recommended the adoption of a new school model that integrated the future direction of the Army with the school model. By abandoning a reactive approach, TRADOC would be in a posture to participate actively in designing the way it operated in the future. The new model combined combat developments and training developments in the same directorate, thereby bringing training developments and evaluation into the system acquisition process earlier. Thus, evaluation could serve to provide information on the potential successes or failures associated with total system fielding. In 1983, TRADOC Commander General William R. Richardson approved School Model 83, giving back to the schools' directors of training and the academic departments much of the responsibility for training developments they had lost in School Model 76.

In conjunction with a continuing assessment of TRADOC school organization, TRADOC Commander General Carl E. Vuono directed the development of a long-range plan to guide the command for 10 years into the future. TRADOC published its long-range plan in May 1987. Meanwhile, TRADOC training planners began writing "Army Training 1997" in support of that plan. Army Training 1997 was based on an unsuccessful earlier effort known as Army Training 1990. Specific guidance included the integration of Reserve Component training throughout the document under a "Total Army" concept. Additional emphasis was given

to developing joint and combined operations and to the distributed training system. Army Training 1997 was published in September 1987. Major changes included in the final version dealt with leader development, future technology strategy, the connection between training developments and combat developments within the Concepts-Based Requirements System (CBRS), combat training centers, embedded training, and small group instruction. The long-range strategy provided for a new training system for warrant officers and a strong emphasis on civilian leadership training. The plan also included the results of an important study undertaken to draft a set of standards to improve training effectiveness and guide the evolution of IET.

In the fall of 1988, TRADOC Commander General Maxwell R. Thurman called for a reassessment of TRADOC's status and the command's short-term priorities. In a concept termed "Vision 91," he outlined how the command should fulfill its mission through 1991 with regard to doctrine, force design, equipment requirements, leader development, training, and mission support. Training had to be consistent with doctrine, embedded into the development of new equipment, and made an integral part of force modernization. Institutional, unit, and individual training had to focus on teaching warfighting skills in a tactical field environment to produce soldiers who understood the specific tasks of their jobs and could perform them to established standards. According to Vision 91, training plans had to make use of technological advances, especially computer-based teaching and testing and the simulation of force-on-force maneuvers.

Concurrently, an Army Training 21 (not to be confused with Army Training XXI) concept was being developed. That plan laid down the specifics for developing a long-range "umbrella" training strategy for the late 1990s and the first 20 years of the 21st century. It included such training strategies as distributed training, strategies based on the technical requirements of each MOS, civilian vocational and technical training for appropriate MOS, training in colleges and universities, recruiting by ability instead of aptitude, and reconfiguring the TRADOC school system to be more responsive to projected training requirements in the year 2020. For several years, suggested solutions to problems were tried, studied, and revised. In the end, the demands first of Army XXI and then of the various transformation efforts changed many of the parameters of the earlier initiatives.

As Thurman looked at how the command could best meet its responsibilities to 1991, TRADOC's training managers were examining School Model 83 for needed changes. School Model 89 eliminated the "School

Secretary" organizations at TRADOC schools, aligned the threat support office under the assistant commandant, and limited the number of training departments to four. Because of the number of requests for exemptions, which had to be considered on a case-by-case basis, School Model 89 was not implemented until 1990.

Meanwhile, it was clear that the Army needed a new capstone training manual to keep pace with evolving training plans and doctrine. TRADOC's new training philosophy was contained in FM 25-100, *Training the Force*, published in 1988 to take its place alongside FM 100-5, *Operations*, and FM 22-100, *Military Leadership*, as part of a trilogy of "train, fight, lead" manuals. FM 25-100, however, focused primarily on senior Active and Reserve commanders above battalion level. There was also a need for additional guidance to better apply the concepts of FM 25-100 at battalion and company level. Accordingly, FM 25-101, *Battle Focused Training*, published in 1990, was developed to fill the void and serve as a "how to" manual for units in the field. In October 2002, the Army distributed FM 7-0, *Training the Force*, as an update to FM 25-100. This was in line with the adoption of the joint numbering system. Likewise in 2003, FM 7-1, *Battle Focused Training,* superseded the 1990 FM 25-101. The new manual was designed to bring training doctrine more in line with the emerging operational environment.

An important facet of the TRADOC training story was the command's efforts to take advantage of ever more sophisticated technology that could be applied to training. This was increasingly evident in the transformation efforts of the late 20th and early 21st centuries. During the DePuy–Gorman years, several tactical engagement simulation systems were in use to support unit training in the field. One of these was known as squad combat operations exercise, simulated (SCOPES). SCOPES was designed to eliminate the judgment of umpires that was highly subjective, and featured a 6-power telescope mounted on a rifle with numbers affixed to each individual soldier for the identification of casualties. A similar system for training tank crews called REALTRAIN had a 10-power scope. In the early-to-mid-1970s, TRADOC began developing a more sophisticated tactical engagement simulator for use in force-on-force field training exercises. That system, the Multiple Integrated Laser Engagement System (MILES), revolutionized collective training in the Army. The upgraded MILES continued to be the Army's most innovative and effective training device in 2008.

From its inception, TRADOC was responsible for the development of dozens of system and nonsystem training aids and devices. Most were

computer-based and designed to allow training when space, safety, cost, or environmental considerations might have prevented it. Simulators and simulations such as the Simulation Network (SIMNET), which joined more than 200 simulators, allowed units to participate in simulated battles without leaving home station. In the early years of the 21st century, SIMNET technology was applied to the development of a family of Combined Arms Tactical Trainers (CATT). A family of simulations (FAMSIM) allowed for training in command and control from platoon level to echelons above corps. DePuy's and Gorman's faith in the value of advanced technology applied to training, and the imagination and support of their successors placed the Army first among the Services in the field of training technology. It was rapidly advancing technology, too, that allowed for the establishment of the Army's Combat Training Center (CTC) program. In 1976, Major General Gorman began developing a concept for a national training center where heavy armored and mechanized infantry units could train in force-on-force and live-fire exercises and where data could be collected to support doctrine development, combat development, and a lessons-learned system. The first force-on-force maneuvers were conducted at the US Army National Training Center (NTC) at Fort Irwin, California, in January 1982.

The NTC was a joint TRADOC–Forces Command (FORSCOM) project. The major features of the training center were the employment of MILES for casualty assessment and a sophisticated data collection system for exercise control, a TRADOC Operations Group, a superbly trained opposing force (OPFOR), expert exercise observer-controllers, after action reviews of unit performance, and take-home packages designed to aid units in correcting deficiencies while training at home station. The success of the NTC in training heavy mechanized forces led the Army to establish the Joint Readiness Training Center (JRTC) for the training of light forces. In October 1987, the JRTC opened at its temporary home of Fort Chaffee, Arkansas. Like the NTC, it featured a TRADOC Operations Group and an OPFOR. Unlike the NTC, the JRTC was a TRADOC-only endeavor until it moved to a permanent home at Fort Polk, Louisiana, in 1993. At that time, the JRTC also became a TRADOC–FORSCOM effort. In 1988, the Army planned to establish a Combat Maneuver Training Center (CMTC) at Hohenfels, Germany, to provide the same realistic combined arms training exercises for troops in Europe as those at the NTC. Meanwhile in early 1987, the Chief of Staff of the Army approved the concept of the Battle Command Training Program (BCTP) to train Active and Reserve division and corps commanders, their staffs, and major subordinate commanders in warfighting skills.

In May 1987, NTC, JRTC, CMTC, and BCTP were brought under a single training "umbrella" and became known as the Combat Training Center (CTC). Collectively, the CTC projects focused on integrating all elements of combat power and were designed to provide tough, realistic combined arms and services training in accordance with AirLand Battle doctrine for units from squad through corps. The CTC provided the Army the capability to train heavy, light, and special operations forces across the spectrum of conflict. In the summer of 2002, the NTC became the focus of the US Army's participation in Millennium Challenge, the first major joint experiment ever conducted. The Army conducted exercises with the new Stryker interim armored vehicle to test its deployability, especially when airlifted by a C-130 aircraft. The TRADOC battle labs also conducted experiments in satellite communications, intelligence, command and control, and terrain mapping. Lessons learned from Millennium Challenge helped develop a new joint training transformation project known as Joint National Training Capability (JNTC) that focused on the upgrading and certification of training ranges for joint training.

One of General DePuy's requirements in the design of an integrated training system for the Army was that training programs were to be progressive and sequential. He also required that standards of performance be set and met at each level. As TRADOC reached the 30-year mark, the OES and the NCOES met both those criteria. After completing the officer basic and advanced courses, captains were required to attend the Combined Arms and Services Staff School (CAS3) that trained soldiers to function as staff officers with the Army in the field. Because its curriculum overlapped that of the advance course, kept soldiers away from their assignments, and increased travel costs, CAS3 was discontinued in 2004. After attending the Command and General Staff Officer Course, majors and lieutenant colonels could be selected to attend the School of Advanced Military Studies (SAMS).

In the first decade of the 21st century, TRADOC considered transforming the OES to train the leaders who would command the objective force of the future. Many of the initiatives were the result of an Army Training and Leader Development Panel (ATLDP) study, which had revealed a number of weaknesses in the precommissioning through majors' training programs. Changes were also designed to address transformation issues, a doubling in the number of deployments, and a smaller Army. Under consideration was a more integrated, three-level Basic Officer Leader Course (BOLC) for lieutenants, a two-part course for captains that included both staff training and company command. Finally, an Intermediate Level Education (ILE) model prescribed both a core curriculum and electives.

All courses would be timed to officer assignments. BOLC was implemented in fiscal year 2006.

NCOES served as the cornerstone of the "train-the-trainer" emphasis that guided TRADOC's approach to its overall training responsibilities. DePuy's and Gorman's efforts to establish a sequential and progressive educational program for noncommissioned officers had evolved slowly over the 35 years of TRADOC's existence. NCOES featured four vertically integrated levels of training: primary, basic, advanced, and senior. Those levels had, over a period of years, been tied to promotions in accordance with TRADOC's long-range goals. Similar to training for NCOs was that for warrant officers. A Warrant Officer Leader Development Action Plan of February 1992 established a six-level program beginning with the Warrant Officer Candidate Course. In 2002, the ATLDP released a study focused on training and leader development requirements for warrant officers as the Army transformed to what was then known as the objective force. The study was part of the largest self-assessment ever done by the Army and affected warrant officer training from the Warrant Officer Candidate Course to the advanced course and brought it more in line with commissioned officer training. In 2004, the commanding general of TRADOC approved development of a single, two-phased Active Component and Reserve Component Warrant Officer Candidate Course that recognized the education, training, and experience of the majority of warrant officer candidates.

The Army's IET program included BCT; AIT, which trained soldiers in their MOSs; and OSUT, which combined BCT and AIT for some career fields, primarily combat arms. On 1 October 1998, Army BCT had been expanded from 8 weeks to 9 weeks so that new soldiers could be immersed in the Army's heritage and its seven core values: loyalty, duty, respect, selfless service, honor, integrity, and personal courage. The directive for the additional week of BCT had come from the Army Chief of Staff, in the wake of allegations of sexual harassment during IET at several Army installations. The revamped program also included human relations, rape prevention, and financial management. In addition, a 3-day field training exercise reinforced training given during BCT. Values-based training—values, heritage, and tradition—would not end when soldiers graduated from BCT, but would continue into AIT to reinforce the instruction given in basic training and to keep those principles fresh. In 2003, Chief of Staff of the Army General Peter J. Schoomaker created Task Force *Soldier*. One of its tasks was to examine all Initial Military Training (IMT) to ensure it was preparing soldiers for combat. The results were 32 Warrior Tasks and 12 Battle Drills that made training more

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Technical training at the US Army Signal School.

relevant. The tasks fell into areas such as shooting, communicating, urban operations, moving, and fighting. The drills included reactions to combat situations and evacuation of casualties. The tasks and drills were implemented throughout IET in TRADOC in 2004 and a number of drills were included in AIT. In 2007, General William S. Wallace expanded BCT from 9 to 10 weeks without adding additional tasks. The purpose was to determine the effect on training of the additional time. The results are expected in 2009.

From the beginning of the all-volunteer force in 1973 and into the 21st century there were important developments and much controversy concerning the training of men and women recruits together in BCT. In the absence of a pool of draftees, women enlistees were necessary to meet manpower requirements. As a result, the numbers and percentages of women in the enlisted ranks increased dramatically from the late 1970s through the beginning of the 21st century. That situation and the strong feminist movement, beginning in the late 1960s and strengthening until

the early 1980s, came together to indicate that the Army could no longer resist a program to integrate the sexes during BCT. From 1978 to late 1981, men and women were trained together in BCT at company level (for example, a company of three all-male platoons and one all-female platoon). That experiment encountered numerous difficulties, especially with physical training, and was terminated in 1981.

From 1982 to 1994, men and women were trained at separate locations. The Persian Gulf War of 1990–91 changed that arrangement when 41,000 women deployed, some serving on the front lines. As a result, the Secretary of Defense declared that women could fly combat aircraft and serve on combat ships. Faced with such competition in recruiting, the Army once again established a gender-integrated BCT program. This time the companies were totally integrated. The new program had fewer problems and it opened more specialties to women; however, criticism remained and increased in 1996, after allegations of sexual harassment and rape during training at Aberdeen Proving Ground, Maryland, and at other sites. The program remained, but was the object of numerous studies and investigations by Congress and other agencies. As TRADOC observed its 35th anniversary, gender integrated training remained Army policy.

Leader development has always been a concern of the Army. As a result, TRADOC brought that concern into sharper focus and institutionalized leader development programs on several levels. Since 1973, many studies have been conducted to investigate the status of leader development in the Army. In the fall of 1987, General Carl E. Vuono, Army Chief of Staff, tasked Major General Gordon R. Sullivan to conduct a formal study of leader development in the Army and to build an action plan to provide specific recommendations concerning changes needed in the Army leader development process. The action plan, submitted in April 1988, envisioned a program that rested on three doctrinal pillars—institutional training, operational assignments, and self-development.

Another major initiative of the 1990s was the Future Army Schools Twenty-One (FAST) effort. The mission of a FAST task force was to establish an effective and efficient Total Army School System (TASS) of fully accredited and integrated Active Component/National Guard/Reserve Component schools that provided standard individual training and education for the Total Army. One of the task force's recommendations was the establishment of TRADOC as the sole accrediting authority for the schools, effective in January 1993. The major thrust of FAST was the establishment of a regionally-based Reserve Component school system under the auspices of TRADOC headquarters.

Looking to the Army of the 21st century, TRADOC trainers considered their challenge to be maintaining the essence of the Army's education and training system and the utilization of the best combinations of live, virtual, and constructive simulations and simulators. That strategy was designed to unite the many ongoing training efforts into a clear, coherent vision to produce trained and ready units into the next century. To achieve the Army's objectives in Force XXI to transform from an Industrial Age Army into a knowledge and capabilities based power projection Army, TRADOC had to concurrently develop the means and methods to train and sustain the force. To support efforts to have Force XXI reach its maximum potential and to ensure that training was included in every phase of Force XXI development, the TRADOC training community developed Army Training XXI (AT XXI). TRADOC's AT XXI concept incorporated strategic plans for unit training and an integrated plan for the training of battle staff and collective tasks.

In late 1999, the AT XXI concepts were absorbed into a body of initiatives known as Transformation. While the new effort built on many of the ongoing AT XXI concepts and projects, some Transformation training initiatives were new. TRADOC developed both Senior and Tactical Leadership Courses to address the transition from a Cold War focus to a full-spectrum focus for the new IBCT at Fort Lewis, Washington. The Senior Course, for key leaders, was built on an "adaptive thinking methodology" and included a constructive simulation exercise. The Senior Course was held at Fort Lee, Virginia; Fort Huachuca, Arizona; Fort Knox, Kentucky; Fort Benning, Georgia; and Fort Leavenworth, Kansas. The Tactical Leaders Course, held at Fort Lewis, featured training executed relative to the IBCT organization and operational concept and was based on the unique differences of how the IBCT would fight.

At TRADOC's 35th anniversary, the command's training community remained dedicated to the development of competent soldiers, capable leaders, relevant products, and the shaping of future Army training in units and institutions utilizing information-based technology to support the objective force. It also demonstrated its flexibility by providing specialty training for soldiers deployed in the Global War on Terrorism (GWOT).

Chapter VI

TRADOC in the Joint Service Arena

From its beginning, TRADOC has been a participant in the joint service arena. It has cooperated in wartime operations and peacetime planning among US ground, air, and sea services. As the successor to CONARC, TRADOC worked closely with the Air Force Tactical Air Command (TAC) at Langley Air Force Base, Virginia. This was a continuation of efforts begun shortly after World War II. When TAC was disestablished in 1992, TRADOC continued its joint work with Headquarters, Air Combat Command (also at Langley AFB), which was responsible for all Air Force combat forces, both tactical and strategic. During the 1970s, cooperation developed steadily so that the 1980s yielded important procedural and doctrinal results. The command's cooperative work with the US Marine Corps Combat Development Command, begun in the early 1980s, found points of common interest and agreement. In the post-DESERT STORM period, cooperative ventures began with US Navy agencies.

General Creighton W. Abrams Jr., Chief of Staff of the Army, and General George S. Brown, Chief of Staff of the Air Force, promoted the inter-Service cooperation at the operational level that had developed during the Vietnam War. Post-Vietnam force reductions and the need to concentrate on warfighting in central Europe also played a role. General William E. DePuy, at Abrams' request, worked to further Air Force–Army dialogue at his own level. A concurrent TAC initiative helped set up the first meeting of the "TAC–TRADOC dialogue" between DePuy and the TAC commander, General Robert J. Dixon, in October 1973.

Early discussions involved joint working groups centered on airspace management, reconnaissance and surveillance, and electronic warfare. The focus was on procedures to improve joint combat capabilities and to implement existing doctrine, rather than creating new doctrine. The 1973 Middle East War encouraged greater cooperation, because of increased lethality in the air as well as on the ground. In July 1975, TRADOC and TAC established an Air-Land Forces Application Agency (ALFA) dedicated to managing the working groups and mutual projects. In November 1976, a TAC–TRADOC working group produced a joint manual on airspace management, which provided guidance to develop appropriate air control procedures on battlefields that promised to be more lethal and complex in the future.

The NATO doctrine of battlefield air interdiction incorporated the ALFA work. TAC–TRADOC work resulted in a November 1984

agreement on joint procedures for offensive air support. Joint suppression of enemy air defenses (J-SEAD), another significant project in cooperation with US Readiness Command, resulted in a joint concept published in April 1981 that outlined both Army and Air Force responsibilities. In December 1982, the three headquarters published the *Joint Attack of the Second Echelon (J-SAK),* which delineated attack procedures by level of command for the identification of and attack on the enemy follow-on echelons. The project lay at the heart of TAC contributions to the deep attack aspect of the Army's AirLand Battle doctrine published in August 1982. TAC–TRADOC projects expanded in the late 1970s to joint tactical training projects, tests, and evaluations, and led to joint doctrine endeavors invaluable to the development of Army doctrine.

Although these joint agreements were useful, they were not doctrine. Close air support issues were complex and other Air Force missions competed with the Army for air resources. In addition, theater needs and concerns were paramount in any resource decision and took precedence over these agreements. The requirement for a better way to ensure cooperation was demonstrated in 1982 during Operation URGENT FURY when US forces prevented a Communist takeover of Grenada. The various branches observed different priorities and inter-Service communications were inadequate.

In April 1983, General Charles A. Gabriel, Chief of Staff of the Air Force, and General Edward C. Meyer, Chief of Staff of the Army, signed a memorandum of understanding in which both Services agreed to engage in joint training and exercises based on AirLand Battle doctrine and to continue other inter-Service efforts. This led to the inauguration of a major force development process by General Gabriel and General John A. Wickham Jr., Meyer's successor. That program, "The 31 Initiatives," was heralded as a means to design and field the best affordable AirLand combat force.

The 31 Initiatives program, which addressed seven basic areas of AirLand combat, included a number of joint projects already underway. Extending to 1988, the program furnished a high-level forum and focus for the solution of difficult bi-Service issues. An initiative on intratheater airlift led to the establishment in 1984 of the Airlift, Concepts, and Requirements Agency (ACRA) at Scott Air Force Base, Illinois. In January 1986, the two Services established the Army–Air Force Center for Low Intensity Conflict (CLIC), at Langley Air Force Base, Virginia.

The numbered initiatives included a variety of issues, including air defense, rear area operations, and joint suppression of enemy air

defenses. Several initiatives dealt with special operations forces and search and rescue, while others addressed joint munitions development, combat techniques, and procedures for the combined arms battlefield. Air interdiction, joint target assessment, close air support, and the link between air liaison officers and forward air controllers were also important issues. A final group of original initiatives focused on the acquisition of aircraft to meet joint targeting and reconnaissance needs. Among these, the Joint Surveillance and Target Acquisition Radar System (JSTARS) that figured significantly in the Gulf War. There was also an affirmation of Army primacy for rotary wing combat support and Air Force primacy for fixed-wing support. An important program element was the uniformed Service chiefs' agreement to a combined budgetary submission package for priority programs and establishment of a Joint Assessments and Initiatives Office to institutionalize the joint force development process. In June 1986, US Navy representation was added to that office. Ultimately numbering 38, the initiatives were substantially completed by 1987.

TRADOC's work in joint doctrine proceeded along two tracks. The first was the multi-Service doctrinal literature published as field manuals together with one or more of the other Services. The second was publication of multi-Service doctrine. The Goldwater-Nichols Defense Reorganization Act of 1986 assigned to the Chairman of the Joint Chiefs of Staff (JCS) the responsibility to develop doctrine for joint employment of the Armed Forces. The newly established Operational Plans and Interoperability Directorate (J7) was responsible to the chairman of the JCS for the management of the joint doctrine development process. Along with the regional commanders and the Services, the J7 developed a Joint Doctrine Master Plan. TRADOC was a key player in the Army's contribution to the whole JCS development effort.

In 1988, the JCS issued JCS Pub 1-01, *Joint Publication System, Joint Doctrine and Joint Tactics, Techniques, and Procedures Development Program*. This master regulation specified publications in the major categories of reference; intelligence; operations; logistics; plans; and command, control, and communications (C3) systems. Each had a capstone manual that brought together all joint doctrine approved by the three Services.

TRADOC reviewed JP 1, *Joint Warfare of the US Armed Forces*, for the Army, and it was published in November 1990 to aid ongoing operations in the Persian Gulf. This significant manual proceeded from the belief that warfare in the modern era was, in fact, joint warfare. The manual provided the basis for the future joint strategic view in discussions of

American military power. For the warfighting level, TRADOC completed JCS Pub 3-0, *Doctrine for Unified and Joint Operations*, a capstone operational manual issued by the Joint Staff in 1990.

Cooperative work by TAC and TRADOC during 1989–90 produced a White Paper titled "Air Attack on the Modern Battlefield." Approved by the two uniformed Service chiefs, the paper led to a five-part Air Attack Action Plan, which the Army and Air Force chiefs of staff signed to synchronize joint air attack combat planning and procedures. This led to a modernized Air Force tactical air control system–Army air-ground system (TACS–AAGS), which was tested and validated in exercises during 1990.

In 1984, TRADOC undertook important joint work through the ACRA covering multi-Service employment of the C-17 aircraft and its related activities, which were subjects of cooperative doctrinal and procedural effort between TRADOC, the Military Airlift Command, and the Marine Corps Combat Development Command. By the late 1990s, doctrine was increasingly joint, and Army doctrine manuals reflected that reality. Force projection from CONUS, which constituted the prime deployment trend of the post-Cold War, was innately joint. Such operations were indeed the purview of the regional commanders of joint forces.

Low intensity conflict (LIC) was a category of engagement short of all out war and consisted of diverse and unconventional military operations. The 1993 edition of FM 100-5, *Operations*, characterized LIC as operations other than war (OOTW). For most of the 1970s and 1980s, LIC defined the whole realm of operations below high- and mid-intensity conflict. It received considerable attention by TRADOC doctrine developers from the early 1980s on because defense policy became increasingly concerned with that type of military operation. Throughout the decade, LIC emerged as a major concern. In July 1985, TRADOC joined the Air Force and other agencies in the major Joint Low Intensity Conflict Study that was released in 1986. It summarized previous efforts and became a springboard for subsequent Army and joint doctrinal formulation and further work. The study revealed that the definition of LIC was too broad to accurately quantify the problem.

Planners recognized the major categories of insurgency-counterinsurgency, combating terrorism, peacekeeping operations, and peacetime contingency operations, as well as a host of subcategories, such as counterdrug efforts and disaster relief. The crucial question was when the use of force was appropriate and under what circumstances. In 1986, the Office of the Joint Chiefs of Staff promulgated an official

definition of LIC, recognizing its diversity in general terms. But, general definitions were only useful in a limited way for the formulation of such multifaceted doctrine. A bi-Service LIC manual, FM 100-20/AF Pam 3-20, *Military Operations in Low Intensity Conflict*, was published in December 1990. The manual opened the way for effort on the JCS equivalent, JCS Pub 3-07, *Doctrine for Joint Operations in LIC*, which was retitled *Military Operations Short of War*.

Army oversight of the CLIC resided with Headquarters, TRADOC until 1990, when it was transferred to the Department of the Army Deputy Chief of Staff for Operations and Plans. TRADOC, however, retained a close relationship with the CLIC for assistance in LIC concepts, doctrine, and training matters. In 1996, the CLIC was inactivated and its missions dispersed. Air Force and Army planners believed that LIC had been a predominant form of engagement for US forces since World War II and that the trend was likely to continue. The 1990 LIC doctrine spelled out critical differences between LIC and other conventional operations in activities such as foreign assistance and also provided an analysis of insurgencies. In the ambiguous environment of LIC, the contribution of military force to achieving the strategic aim was supportive and indirect. Political, economic, and psychological objectives shaped the way such operations were executed. What was important was understanding that military force had to be closely coordinated with other responses. One of the most perplexing issues was joint counterdrug operations. Doctrine, procedures, and training to assist the interdiction of the illegal drug flow into the United States were some of the many challenges and projects in which TRADOC, the joint agencies, and subordinate elements of the command were active.

The Mobility Concepts Agency (MCA), located at Fort Monroe, Virginia, since 1994, drew together doctrine and other developments for airlift and joint mobility for all the Services including a C-17 multi-Service employment concept, a study of early-entry deployability, and a study of joint theater airlift capabilities. Other studies of the period dealt with mobile offshore basing and the deployment sequence of joint reception, staging, onward movement, and integration.

The Commander in Chiefs (CINCs) Support Program, dating from August 1991, was a tool by which TRADOC-led teams annually visited the headquarters of the regional CINCs to determine their pressing developmental demands. The program responded comprehensively to the CINCs in all military development areas. In January 1996, the CINC, US

Central Command, requested that TRADOC shift the program's emphasis from specifically Army areas of interest to one more joint in nature. Other unified headquarters concurred. Consequently, TRADOC restructured the program, redesignating it the CINC Joint Warfighting Support Program. On 1 October 1996, the program was transferred to the Joint Warfighting Center at Fort Monroe, Virginia.

In October 1999, Atlantic Command, established in 1993 as a regional command with joint authority, was re-designated Joint Forces Command (JFCOM). In addition to its other responsibilities, JFCOM was given the mission of joint training and transformation as outlined in the Department of Defense's Unified Command Plan. As the Army's trainer, TRADOC coordinated closely with JFCOM. In 1999, JFCOM absorbed the Joint

US Army Photo

Unified Quest 2006, Exercise with Joint Forces Command.

Warfighting Center into its Joint Training Center at Suffolk, Virginia. In 2002, TRADOC participated in Millennium Challenge, the US military's largest joint peacetime exercise to date, which JFCOM controlled. TRADOC had the Army lead for Millennium Challenge 02 and coordinated with JFCOM to provide management oversight for the overall experiment and to achieve both joint and Army objectives. TRADOC was also the lead for Army Transformation Experiment 02 in which the Stryker armored vehicle was tested at the National Training Center (NTC).

US Air Force Photo

Joint Forces Command Exercise.

The emphasis on joint operations called for a substantial revision of US Army doctrine in the form of FM 100-5, *Operations*. In a clear break with the past, the Army manual numbering system was dropped and the joint numbering system was adopted in 2001 when the manual became FM 3-0. The new manual recognized the changes in the nation's geostrategic position since the end of the Cold War. It clearly addressed the problems of deployment and asymmetric warfare as well as the need for joint cooperation in nearly every aspect of operations, from major theaters of war to humanitarian relief. FM 3-0 was further revised in 2008 and placed even greater emphasis on joint interdependence.

In 2003, General Kevin P. Byrnes established a special relationship with the JFCOM because he believed the Army was built to support a joint

forces commander. TRADOC, he believed, should operate as the Army's component command with JFCOM. In addition, JFCOM would be a cosponsor of the annual transformation war game to be held at the Army War College in April 2003. That war game was followed by JFCOM's war game Pinnacle Impact and by joint exercise Unified Quest. Byrnes emphasized that TRADOC had to increase the command's insistence on joint exercises in the future and, in October 2003, established the TRADOC Futures Center, which became the core for development of joint doctrine in TRADOC. In 2006, the center evolved into the Army Capabilities Integration Center (ARCIC), which continued as the center of joint doctrine development. Five divisions in the Concept Development and Experiment Directorate were dedicated to joint issues.

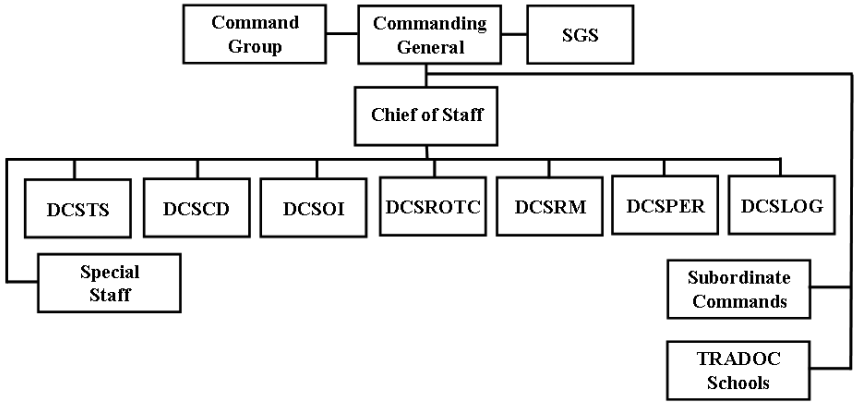
Unlike previous decades when joint meant agreements with other Services on practices and procedures, the new joint environment focuses on multi-Service cooperation from inception. For example, Army FM 3-24, *Counterinsurgency,* published in 2006 was also Marine Corps Warfighting Publication 3-33.5, *Counterinsurgency*. The joint publications to which TRADOC contributed in 2007 included topics as varied as joint terminology, joint intelligence, joint operations, join amphibious operations, and space operations and logistics. In the area of materiel development, TRADOC contributed to weapons developments, joint heavy lift, aerial sensors, and improvised explosive device (IED) detectors. In the 35 years of its existence, TRADOC has helped lead the Army from the era of joint memorandums of understanding to the era of joint development.

Chapter VII

Organizational Structure

In 1973, TRADOC consisted of a headquarters, 3 major subordinate commands, 16 branch schools, 8 military schools and colleges, 4 specialist schools, and a variety of special activities. Support agreements (intra-Army, inter-Service, and interagency), together with memorandums of understanding internal and external to TRADOC, helped smooth the complex administrative, logistical, and funding relationships. On its activation, TRADOC headquarters commanded, separately, its own installations, certain TRADOC tenants on those installations, and TRADOC tenants on non-TRADOC installations. Initially it directly commanded 20 major installations through the commanders of the centers resident on 18 of the installations and through the post commanders of Fort Monroe and Carlisle Barracks, which were not centers. In 2003, the Installation Management Agency (IMA) (later raised to a command) assumed direction of all Army installations.

TRADOC 1973



Initial Subordinate Organization

Initially organized on Operation STEADFAST principles of centralized management and decentralized operations, TRADOC executed its individual training mission through its Army training centers; service schools; Reserve Officers' Training Corps (ROTC) regions and subordinate detachments; and US Army Reserve schools, training divisions, and brigades under its operational control. The STEADFAST reorganization

had divided and assigned the parts of the Army field establishment in the United States not by geography but by function. In 1973, TRADOC also monitored individual training in Army-operated Department of Defense schools, the Army War College, logistics-related schools operated by the Army Materiel Command (AMC), and other non-TRADOC schools and training centers. The headquarters accomplished its combat developments mission in 1973 through three mid-level functional centers, later designated integrating centers, as well as through the Service schools and other combat developments activities.

The 18 installations with centers were actually of three different types. Three functional centers—the Combined Arms Center and Fort Leavenworth, the Administration Center and Fort Benjamin Harrison, and the Logistics Center at Fort Lee—drew together the training and combat developments tasks in their respective functional areas of combat and combat support, personnel administration, and logistics or combat service support. Two of the three functional center headquarters oversaw separate school and combat developments activities. The Combined Arms Center commanded the Command and General Staff College, the Combined Arms Combat Developments Activity, and the installation garrison. The Administration Center commanded the Institute of Administration, the Personnel and Administration Combat Developments Activity, and the garrison. The third functional center, the Logistics Center, was initially a combat developments-oriented organization, operating as a tenant on Fort Lee.

Ten more of the initial 18 center-type installations of TRADOC were Army branch or specialist school centers: the Engineer Center and Fort Belvoir, the Infantry Center and Fort Benning, the Air Defense Center and Fort Bliss, the Transportation Center and Fort Eustis, the Signal Center and Fort Gordon, the Armor Center and Fort Knox, the Quartermaster Center and Fort Lee, the Aviation Center and Fort Rucker, the Field Artillery Center and Fort Sill, and the Primary Helicopter Center and School and Fort Wolters.

The six remaining TRADOC center installations were training centers devoted primarily to basic combat and advanced individual training or, at Fort McClellan, to Women's Army Corps basic training. These were the Training Center and Fort Dix; the Training Center and Fort Jackson; the Training Center and Fort Ord; the Training Center, Engineer and Fort Leonard Wood; the School/Training Center and Fort McClellan; and the Training Center, Infantry and Fort Polk. The commander of the Armor Center and Fort Knox also administered basic combat training.

Eight schools—the Air Defense, Armor, Engineer, Field Artillery, Infantry, Quartermaster, Southeast Signal, and Transportation Schools—were components of their respective branch centers, at which they were located. Three other branch schools were situated on TRADOC installations. The Institute of Administration was subordinate to the Administration Center and Fort Benjamin Harrison and commanded the resident Army Finance School and Army Adjutant General School; the Women's Army Corps Center and School was subordinate to the School/Training Center and Fort McClellan; and, the Military Police School was subordinate to the Signal Center and Fort Gordon. The five remaining TRADOC branch schools were tenants on non-TRADOC posts—the Chaplain Center and School at Fort Hamilton, New York; the Intelligence Center and School at Fort Huachuca, Arizonia; the Missile and Munitions Center and School at Redstone Arsenal, Alabama; the Ordnance Center and School at Aberdeen Proving Ground, Maryland; and the Signal School at Fort Monmouth, New Jersey.

In addition to the 16 branch schools, in 1973 TRADOC commanded four specialist schools: the Aviation School, part of the Aviation Center and Fort Rucker; the Primary Helicopter School and Fort Wolters; the US Army Element, School of Music, Norfolk, Virginia; and the US Army Institute for Military Assistance at Fort Bragg, North Carolina. TRADOC also commanded, through the installations involved, the Command and General Staff College at Fort Leavenworth, Kansas, and the US Army Sergeants Major Academy at Fort Bliss, Texas. Department of Defense schools operated by TRADOC were the Defense Information School at Fort Benjamin Harrison, Indiana, and the Defense Language Institute at the Presidio of Monterey, California. Initially, TRADOC administered the Army ROTC program through four ROTC regions established under the STEADFAST reorganization.

Headquarters Organization and Reorganizations

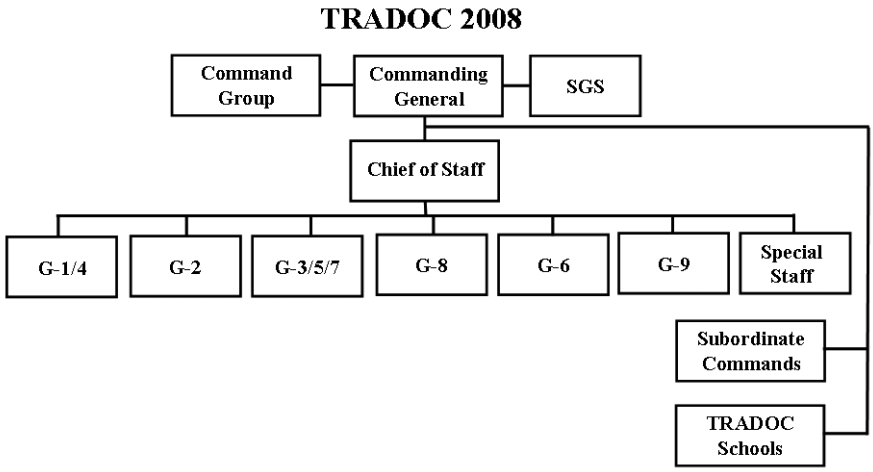
Command of TRADOC resided with the commanding general, assisted at his headquarters at Fort Monroe, Virginia, initially by a single deputy commander, a chief of staff, and general and special staffs. The general staff consisted of seven deputy chiefs of staff (DCSs) who managed the major elements of the headquarters and exercised staff responsibility for the commanding general to the installations, centers, schools, and other subordinate elements. The seven DCSs established in Headquarters, TRADOC in 1973 were responsible for Training and Schools, ROTC, Combat Developments, Resource Management,

Personnel, Logistics, and Operations and Intelligence. In January 1974, the last named general staff agency was restructured as DCS for Operations, Readiness, and Intelligence. In 1974, "schools" was dropped from the title, but not from the purview of the DCS for Training.

There have been four major reorganizations of TRADOC headquarters since 1973. These occurred in 1979, 1990, 2002–03 and 2007. The 1979 reorganization, implemented provisionally in April and formally on 1 October of that year, was prompted by the decision of TRADOC Commanding General Donn A. Starry to shift resources to the main mission components—the Deputies for Training, Combat Developments, and ROTC. Another impelling cause was Starry's decision to involve TRADOC more emphatically in doctrine development. The new structure retained the DCSs for Training, Combat Developments, ROTC, and Resource Management. It disestablished the DCSs for Personnel; Logistics; and Operations, Readiness, and Intelligence. The 1979 action established new DCSs for Doctrine, Personnel and Logistics, and Engineer.

In 1990, the headquarters downsized with the rest of the Army. The offices of the DCSs for Personnel, Administration, and Logistics; Contracting; and Engineer; together with Surgeon, Chaplain, and other selected staff offices were merged into the DCS for Base Operations Support. The DCSs for Doctrine, Intelligence, and Combat Developments were merged into the DCS for Concepts, Doctrine, and Developments, with transfer of some functions to Headquarters, Combined Arms Center, which became Combined Arms Command in October 1990. A third major change was the establishment of the TRADOC Analysis Command (TRAC) at Fort Leavenworth, Kansas, as DCS for Analysis on the headquarters staff, albeit with a local staff representative. This reorganization left the offices of the DCSs for Information Management, Resource Management, and Training substantially unchanged; the office of the DCS for Training was reorganized internally. The 1990 merger of the doctrine office with combat developments did not work well and on 1 October 1992 became the office of the DCS for Doctrine and the office of the DCS for Combat Developments.

The effort to transform TRADOC in line with changes to the entire Army began to bear fruit in 2002. Although the command did not expect all of the changes to be complete until 2006, after Congress initiated a new round of Base Realignment and Closure (BRAC) actions, TRADOC leaders anticipated that the command would look significantly different by the end of 2003.



Effective 20 July 2007, the TRADOC staff was reorganized to improve the alignment of TRADOC responsibilities with the operational Army, and staff titles were changed to reflect the new G-Staff organization.

Previous Title	*G–Staff Title*
DCS, Personnel, Infrastructure & Logistics	G1/4
DCS, Intelligence	G2
DCS, Operations & Training	G3/5/7
Chief Information Officer	G6
DCS, Resource Management	G8
Director, Army Capabilities Integration Center	G9

Installations and Changes, 1973–2003

TRADOC commanded 20 major installations on the day it was established. Fort Wolters closed in 1974, and Forts Ord and Polk were transferred to Forces Command (FORSCOM) when their missions changed from training to unit stationing. In 1992, training at Fort Dix, New Jersey, was phased out and it, too, was transferred to FORSCOM. Thereafter, TRADOC operated 16 installations until 1 October 2003 when the Army's Installation Management Agency (IMA) assumed control of all Army installations. However, TRADOC mission commanders remained in the rating chains of the installation commanders to provide input on how the installations were run. IMA became Installation Management Command (IMCOM) in October 2006.

Intermediate Level Changes, 1973–2003

In September 1977, TRADOC's intermediate-level structure was strengthened to give the three functional centers a stronger integrating role vis-à-vis their associated TRADOC schools. The three-star TRADOC deputy commanding general position moved from Fort Monroe, Virginia, to Fort Leavenworth, Kansas, making the commander of the Combined Arms Center (CAC) dual-hatted. Beyond his local duties as Commander, CAC, as Deputy Commander, TRADOC he was to execute specific TRADOC missions. He was to direct, coordinate, and integrate combined arms doctrine, organization, and combat and training development programs for the Army.

In 1980, TRADOC reorganized and redesignated the Fort Benjamin Harrison agency as the US Army Soldier Support Center with much stronger doctrinal and training responsibilities in the personnel, administration, finance, and automatic data processing areas. The action also included replacement of the center's Institute of Administration by a newly renamed US Army Institute of Personnel and Resource Management. Two branch schools, the Finance and Adjutant General Schools, along with two new specialist-type schools, the Computer Science School and the Personnel Management School, were aligned under the new institute. The institute was subsequently redesignated the Soldier Support Institute in 1984.

In April 1983, the Logistics Center commander at Fort Lee was redesignated the TRADOC Deputy Commanding General for Logistics, and the position was upgraded to a three-star billet. The Logistics Center remained in tenant status on the installation, which was commanded by one of its subordinate organizations, the US Army Quartermaster Center and Fort Lee. That anomaly was rectified on 3 January 1989 when the TRADOC commander brought the Fort Lee structure in line with that existing at Fort Leavenworth and Fort Benjamin Harrison by establishing the US Army Logistics Center and Fort Lee, with the US Army Quartermaster Center and School becoming the tenant.

The integrating center structure remained in place until the end of the Cold War, which ushered in a period of Army drawdown and consolidation. On 1 October 1990 TRADOC replaced the integrating center structure with two major subordinate commands. The Combined Arms Command replaced the Combined Arms Center. Internal reductions and realignments recast the commanders of the Combined Arms Combat Developments Activity and the Combined Arms Training Activity as deputy CAC commanders for combat developments and for training. The second major action merged the Soldier Support Center with the Logistics Center creating

the Combined Arms Support Command (CASCOM) headquartered at Fort Lee, Virginia. At that time, the Soldier Support Center's Soldier Support Institute was eliminated as an administrative organization layered between the center and the resident schools.

Because of budget reductions and a changed world situation, TRADOC launched a "reengineering" initiative in 1993. TRADOC headquarters assumed the integration function traditionally held by CAC and CASCOM. That action necessitated several organizational and functional changes in both CAC and CASCOM, most of which were completed by the end of 1994. In July of that year CAC once again became a center. The reorganization shifted some functions and personnel from Fort Leavenworth, Kansas, to other TRADOC installations. In addition, CAC's combat development, doctrinal concepts, and integration functions moved to Headquarters, TRADOC. The CASCOM reorganization included the centralization of combat developments, training developments, proponency and evaluation, and standardization at Headquarters, CASCOM.

Schools

Under the STEADFAST reorganization, TRADOC commanded 16 branch schools, 8 military schools and colleges, and 4 specialist schools. As previously noted, the Primary Helicopter School at Fort Wolters, Texas, was discontinued on 30 June 1974. TRADOC inherited two signal schools from CONARC, the Signal School at Fort Monmouth, New Jersey, and the Southeastern Signal School at Fort Gordon, Georgia. On 1 July 1974, the Monmouth organization became the Communications-Electronics School, and the Gordon organization was redesignated the Signal School, a step in the consolidation of all signal training at the southern post. That occurred 2 years later when the Communications-Electronics School was discontinued on 31 October 1976. The Chaplain School, located at Fort Hamilton, moved to larger facilities at Fort Wadsworth, New York, a subpost of Fort Dix, on 15 August 1974. It remained there until Fort Wadsworth was closed on 1 August 1979 and was relocated to Fort Monmouth, New Jersey. The Military Police School moved from Fort Gordon to Fort McClellan, Alabama, on 1 July 1975, to make room for the consolidation of signal training.

The Organizational Effectiveness Training Center was established on 1 July 1975 at Fort Ord, California, to inculcate and teach organizational skills. It was redesignated the Organizational Effectiveness Center and School on 2 April 1979. After 10 years in operation, it was closed on 1 October 1985. On 1 October 1976, the US Army Security Agency Training Center and School at Fort Devens, Massachusetts, was transferred

into the TRADOC school system. The new TRADOC school was renamed the Intelligence School, Fort Devens, and was subordinate to the commandant of the Intelligence Center and School at Fort Huachuca, Arizona.

Beginning in the 1970s, female soldiers were integrated into the main branches of the Army. As a result, the Women's Army Corps Center and School at Fort McClellan was discontinued in 1978. The first post-Vietnam move in the direction of a larger chemical training program occurred with the redesignation on 30 November 1976 of the Ordnance Center and School at Aberdeen Proving Ground, Maryland, as the Ordnance and Chemical Center and School. As plans unfolded, the Chemical School was moved and established as a separate school at Fort McClellan, Alabama, on 14 September 1979.

Changes continued in the 1980s. The Aviation School, historically a specialist school, became a branch school following designation of Army aviation as a branch by the Secretary of the Army on 12 April 1983. Simultaneous expansion of the aviation logistics mission prompted TRADOC to establish an Aviation Logistics School, colocated with the Transportation School, at Fort Eustis, Virginia, on 1 October 1983. Shortly thereafter, on 10 January 1984, those two schools were merged as the Transportation and Aviation Logistics Schools. That arrangement continued until 1988 when, on 1 October, TRADOC brought the Aviation Logistics School under the direct authority of the Commander, US Army Aviation Center, while leaving it at Fort Eustis. A similar realignment occurred with placement of the Missile and Munitions Center and School at Redstone Arsenal, Alabama, under the commander of the Ordnance Center and School at Aberdeen Proving Ground, Maryland. On 3 August 1984, the Redstone facility was realigned and retitled the Ordnance Missile and Munitions Center and School.

On 1 October 1983, the Institute for Military Assistance at Fort Bragg, North Carolina, was redesignated the JFK Special Warfare Center, because of a special operations forces (SOF) realignment that year. The JFK Special Warfare Center was in essence a branch school but was categorized as a TRADOC special activity. Further SOF realignments transferred the TRADOC school to the US Army Special Operations Command at Fort Bragg on 20 June 1990. TRADOC gained the US Army School of the Americas (SOA) when provisions of the Panama Canal Treaty of 1977 necessitated the transfer of that US Army Security Assistance Agency component, located at Fort Gulick, Panama, to CONUS. The school was relocated to Fort Benning and transferred provisionally to TRADOC on

16 December 1985 and formally on 16 April 1986. On 17 January 2001, the SOA was inactivated and became the Western Hemisphere Institute for Security Cooperation(WHINSEC), aligned directly under the Secretary of Defense with TRADOC as its executive agent. In 1988, following earlier designation of the Signal Center as proponent for the information mission area, the Computer Science School, a component of the Soldier Support Institute at Fort Benjamin Harrison, was transferred to Fort Gordon.

When the Department of the Army decided to develop advanced training for Army civilians in the form of the Army Management Staff College (AMSC), TRADOC assumed proponency for it in August 1987. AMSC initially opened in Baltimore, Maryland, in July 1986, and in August 1987, Fort Belvoir was selected as the new site for the school. Following assignment of a full-time commandant, classes were convened at the Fort Belvoir location in 1990. On 1 October 1991, TRADOC acquired the Army Logistics Management College (ALMC) at Fort Lee from AMC. In July 2002, the two schools subordinate to the Ordnance Center and Schools, one at Redstone Arsenal, Alabama, and the other at Aberdeen Proving Ground, Maryland, were renamed, respectively, the Ordnance Munitions and Electronics Maintenance School (COMEMS) and the Ordnance Mechanical Maintenance School (OMMS).

Training Organizations

Throughout TRADOC's history, training organizations continued to evolve. A large portion of basic combat and advanced individual training was conducted by the Army Training Centers (ATC) at Forts Dix, Jackson, and Leonard Wood, which were devoted specifically to that mission. Initial entry training was also conducted at the ATCs at Forts Knox, Benning, Gordon, Sill, and Bliss. Women's Army Corps (WAC) training was conducted at Fort McClellan. TRADOC commanded seven ATCs in 1973. The number rose to 11 in 1976 when one-station unit training (OSUT) was phased in at several posts. OSUT enabled trainees to pass directly from basic to branch-related advanced individual training, saving both time and travel. The number of ATCs dropped to 8 in the early 1980s and was maintained at that level until the closeout of training at Fort Dix in 1992. TRADOC also commanded noncommissioned officer academies and drill sergeant schools through several of its installations, as well as an Active Component Officer Candidate School at Fort Benning.

The two specialized training agencies under TRADOC jurisdiction in 1973, the Combat Arms Training Board at Fort Benning and the Training Aids Management Agency at Fort Eustis, were joined on 1 August 1974 by

a new Training Devices Requirements Office at Fort Benning, responsible for Army-wide training device requirements. The Fort Eustis agency was redesignated the Army Training Support Activity on 1 July 1975. The training support program at Fort Eustis was expanded and consolidated in a retitled Army Training Support Center on 1 July 1976.

The Training Management Institute, established at Fort Eustis on 16 July 1975 to further training improvements through workshops and special projects, was redesignated the Training Developments Institute on 2 May 1977. A further change was the combination of the Logistics Training Board at Fort Lee and the Combat Arms Training Board at Fort Benning into a redesignated Army Training Board on 1 October 1977. This was also located at Fort Eustis. Both the Training Developments Institute, which was renamed the Training Technology Agency, and the Army Training Board eventually moved to Fort Monroe. The former was inactivated in 1988 and the latter in 1989.

Test Organizations

There were important early additions to TRADOC's experiment and test capability that served the command in pursuit of its combat developments mission into the late 1980s. In August 1974, the major test facility at Fort Hood known as the Modern Army Selected Systems Test Evaluation and Review (MASSTER) was transferred to TRADOC from FORSCOM. Also transferred to TRADOC were five test boards of AMC's subordinate Test and Evaluation Command. The test boards gave TRADOC, as the user representative, control over the means for early-stage conceptual and experimental work in the fields of airborne, communications, electronics, field artillery, infantry, armor, engineer, and air defense. These boards were subsequently joined by an aviation board and an intelligence and security board. As the testing mission grew, TRADOC established a headquarters, DCS for Test and Evaluation, in December 1980. That position was eliminated in March 1985 and the function returned to the DCS for Combat Developments.

Late in 2002, the position of Deputy Commanding General (DCG), Initial Entry Training (IET), created in 1997, became dual-hatted with the Army's new Accessions Command (AAC). The mission for the DCG-IET was to ensure that initial entry training remained challenging, safe, relevant, realistic, and executed to Army standards. Originally, DCG-IET had oversight for IET policies and programs encompassing the entire process of bringing soldiers into the force from recruitment to the completion of AIT. With the establishment of the Accessions Command, the recruitment

function became the responsibility of the new command. Another major change was the establishment of a TRADOC DCG, Transformation at Fort Lewis to command the brigade coordination cell of the Interim Brigade Combat Teams (IBCTs) that were established as a test bed for transformation initiatives.

The DCG, Combined Arms, physically located at Fort Leavenworth, Kansas, and the DCG, Combat Service Support, located at Fort Lee, Virginia, had oversight for near-term and mid-term training in their respective realms. The DCGs for the Army National Guard and for the Army Reserve, both headquartered at Fort Monroe, Virginia, were responsible for integrating doctrine, training, and combat development throughout the Reserve Components.

Also in 2002, the DCSs for Doctrine, Combat Developments, Training, and Intelligence received new titles. The DCS for Doctrine became the DCS for Doctrine, Concepts, and Strategy. Training now fell under the DCS for Operations and Training. The DCS for Combat Developments became the DCS for Developments to bring the title more in line with transformation efforts. The Directorate of Information Management came under the purview of the DCS for Command, Control, Communications, and Computers (DCSC4).

TRADOC Organization in 2008

TRADOC continued as a major command (MACOM) until the Army was reorganized in September 2006. At that time, it became one of three Army Commands (ACOM) along with FORSCOM and AMC. Headquarters, TRADOC consisted of a command group; the commanding general's personal and special staffs; five DCGs—Initial Military Training (IMT), Combined Arms (CA), Army Capabilities Integration Center (ARCIC), Army National Guard (ARNG), and US Army Reserve (USAR); and the G-Staff consisting of the G1/4, G2, G3/5/7, G6, G8, and G9. ARCIC and G9 were one in the same function.

TRADOC Major Subordinate Commands

US Army Combined Arms Center (CAC), Fort Leavenworth, Kansas. The Commander, CAC is also DCG, Combined Arms.

US Army Combined Arms Support Command (CASCOM), Fort Lee, Virginia.

US Army Accessions Command (AAC), Fort Monroe, Virginia, was originally organized to encompass both ROTC and Recruiting Commands

as well as the training center at Fort Jackson, South Carolina. Its commander was also DCG, IMT. In a move to bring all Army accession functions directly under Department of the Army (DA), Accessions Command became a DA subordinate on 1 October 2008. The training center at Fort Jackson reverted to the staff supervision of DCS for G3/5/7.

TRADOC Schools, Centers, and Activities

Adjutant General School, Fort Jackson, South Carolina
Airborne School, Fort Benning, Georgia
Air Defense Artillery Center and School, Fort Bliss, Texas
Armor Center and School, Fort Knox, Kentucky
Army Logistics Management College, Fort Lee, Virginia
Army Management Staff College, Fort Belvoir, Virginia
Army War College, Carlisle Barracks, Pennsylvania
Aviation Center and School, Fort Rucker, Alabama
Aviation Logistics School, Fort Eustis, Virginia
Chaplain School, Fort Jackson, South Carolina
Chemical School, Maneuver Support Center, Fort Leonard Wood, Missouri
Command and General Staff College, Fort Leavenworth, Kansas
Drill Sergeant Schools, Fort Benning, Georgia; Fort Jackson, South Carolina; and Fort Leonard Wood, Missouri
Engineer School, Maneuver Support Center, Fort Leonard Wood, Missouri
Field Artillery Center and School, Fort Sill, Oklahoma
Financial Management School, Fort Jackson, South Carolina
Infantry Center and School, Fort Benning, Georgia
Intelligence Center and School, Fort Huachuca, Arizona
Military Police School, Maneuver Support Center, Fort Leonard Wood, Missouri
Officer Candidate School, Fort Benning, Georgia
Ordnance Mechanical Maintenance School, Aberdeen Proving Ground, Maryland
Ordnance Munitions and Electronics Maintenance School, Redstone Arsenal, Alabama
Physical Fitness School, Fort Benning, Georgia
Quartermaster Center and School, Fort Lee, Virginia
Ranger School, Fort Benning, Georgia
School of Advanced Military Studies, Fort Leavenworth, Kansas
School of Information Technology, Signal Center, Fort Gordon, Georgia

School of Military Packaging Technology, Aberdeen Proving Ground, Maryland
Sergeants Major Academy, Fort Bliss, Texas
Signal Center and School, Fort Gordon, Georgia
Transportation Center and School, Fort Eustis, Virginia
Warrant Officer Career College, Fort Rucker, Alabama

Chapter VIII

International Activities

Since its establishment in 1973, TRADOC has managed an expanding program of bilateral staff talks and exchanges with allied armies. Included in the command's responsibilities were the coordination of a quadripartite, or America, Britain, Canada, and Australia (ABCA) forum, and NATO standardization and interoperability programs.

Beginning in 1975 with the German Army, TRADOC began a series of bilateral army-to-army staff talks with other countries. By 2008, there were staff talks with 11 nations on a regular basis. In addition, TRADOC represented the US Army in more informal discussions with the Israeli Defense Force. International activities, including work with selected armies of Latin American nations, increased greatly. As part of the TRADOC liaison network, TRADOC officers served abroad in Germany, the United Kingdom, France, Spain, Italy, Turkey, Israel, Korea, Japan, and Canada. At the same time, 15 nations sent liaison officers to TRADOC headquarters. Of long-standing were the liaison arrangements with Australia, Brazil, Canada, France, Germany, Israel, Italy, Japan, Korea, the Netherlands, Spain, Turkey, and the United Kingdom. Additions that are more recent were representatives from the Czech Republic and Greece. By 2008, the number had grown to 17 with the addition of Singapore and Norway.

US Army Photo

International Reception, Fort Monroe, 2007.

The International Army Programs Directorate (IAPD), Army Capabilities Integration Center (ARCIC), was responsible for the administration and logistical support of Foreign Liaison Officers assigned to Headquarters, TRADOC; the administrative support to TRADOC liaison officers assigned overseas; the implementation and day-to-day management of the TRADOC International Engagement Activities; and TRADOC support to Army-level bilateral staff talks. The Joint and Allied Doctrine Division (JADD) of ARCIC provided staff management for the integration of Army doctrine into joint, multinational, and multi-Service doctrinal publications. JADD wrote selected joint and multinational doctrine and coordinated and reviewed selected joint Army doctrine. It focused primarily on strategic and operational level doctrine.

Standardization and Interoperability

On its establishment, TRADOC continued CONARC's coordination of the Service schools' participation in international standardization programs held under the auspices of NATO and ABCA. NATO meetings included separate panel and working party conferences relating to a wide variety of military topics including weapons; inter-Service tactical air operations; mobility; nuclear, biological, and chemical (NBC) defense; and intelligence. ABCA meetings—more doctrinally oriented than the NATO meetings—related, among other things, to standardization in the fields of command and control, aviation, air defense, communications, and quality assurance.

In 1976, TRADOC assumed Department of the Army (DA) planning and coordination responsibilities for four NATO and four ABCA working parties. The new ABCA responsibilities included the air defense, armor, infantry, and surface-to-surface working groups. The NATO responsibilities were for the movements and transport, and rail movement and transport working parties; the land-based air defense weapons panel; and the NATO helicopter inter-Service working party. TRADOC provided delegates and data to the subgroups of both those forums. Actions in TRADOC's purview that were agreed to by the national parties and cleared by the review bodies were implemented by TRADOC on DA approval.

During fiscal year 1977, a new Defense Department emphasis on developing standardized equipment with NATO allies began to be felt at TRADOC. Prompted as part of that defense policy was the related notion of seeking "interoperability" between like weapons or pieces of equipment that were being developed separately by the United States and an allied nation. The issue of a two-way street in weapons development was sensitive, and usually meant that the United States would have to adopt

more allied-built weapons into its own arsenal if the principles of standardization and interoperability were to have any meaning. The Nunn-Culver Amendment to the 1977 Department of Defense Appropriation Act formally committed the United States to standardization, or at least interoperability, with its allies.

During the 1980s, it became evident that doctrine to guide US Army operations with allied forces was needed. Though the writing of up-to-date Army and joint doctrine were priority efforts by necessity, it was also true that future wars of any large dimension would likely be allied enterprises. Some alliance-specific doctrine existed, such as Allied Tactical Publication (ATP)-35A, *Land Force Tactical Doctrine*, which was the NATO manual published by the Military Agency for Standardization in 1995. ATP-35A was contemporary with the 1993 edition of FM 100-5, which had several chapters devoted to combined arms operations. Also already published in a test version was JCS Pub 3-0, *Doctrine for Joint Operations*. But there was no formal and general combined operations field manual in the US Army inventory. Beginning in early 1989, TRADOC undertook the development of FM 100-8, *Combined Army Operations*. Doctrine writers completed the preliminary draft of FM 100-8 in September 1992 and sent it to the TRADOC Deputy Chief of Staff for Doctrine for approval. After some revision, it was resubmitted in December. Over the next 5 years, the draft manual underwent significant revision, and its name was changed to *The Army in Multinational Operations*. FM 100-8 was published on 24 November 1997.

Bilateral Staff Talks

By virtue of its Army-wide doctrinal, combat developments, and training missions, TRADOC acted as the US Army's executive agent for bilateral staff talks and exercised multilateral contacts with allied and friendly armies around the world. Those significant activities were carried out from the headquarters at Fort Monroe. Beginning in 1975 with the first formal staff talks with the army of the Federal Republic of Germany, the level of activity in bilateral army-to-army dialogue increased to include staff talks with armies of the United Kingdom, France, Italy, Spain, Canada, Brazil, Korea, Australia, Israel, and Japan. The primary objective for talks among formally allied armies was the enhancement of the ability to operate together with common understanding of the battlefield and interoperable equipment with which to fight. Further, in discussions with friendly countries, TRADOC aimed to develop instructive exchange on broader areas of interest. In addition, over its 35-year history, TRADOC increasingly carried out cooperative activities with the armies of several Latin

American countries. In the absence of formal talks, informal bilateral exchanges were common, as were visits by senior officers of allied and some non-allied armies to TRADOC headquarters, centers, and schools, and numerous visits by senior TRADOC officials to other armies.

US Army Photo

Chinese officers visit ROTC command.

With the end of the Cold War, bilateral talks continued as routine without the urgency of a looming Soviet threat. New dialogues opened with former East Bloc countries and with China. However, with the beginning of the Global War on Terrorism in 2001, bilateral talks as well as issues of interoperability assumed a new urgency. Operations in Iraq included several allied nations, as did operations in Afghanistan. Once the conventional aspects of the war ended, counterinsurgency warfare dominated operations. Allies with experience in the counterinsurgency environment were asked for their views. During this period, TRADOC coordinated the reviewing, editing, and staffing of Allied Joint publications (AJP), which included the subjects of allied military police operations, joint airspace control, personnel recovery, targeting, information operations, and foreign humanitarian assistance. Like joint operations with other Services, the Army and TRADOC have become directly involved with allies in developing doctrine and procedures from inception rather than adjusting to already established procedures.

Glossary

AAC	Army Accessions Command
ABCA	America, Britain, Canada, and Australia
ACOM	Army Command
ACRA	Airlift, Concepts, and Requirements Agency
AHIP	Army Helicopter Improvement Program
AIT	advanced individual training
AJP	Allied Joint Publication
ALFA	Air-Land Forces Application Agency
ALMC	Army Logistics Management College
AMC	Army Materiel Command
AMSC	Army Management Staff College
AOE	Army of Excellence
ARCIC	Army Capabilities Integration Center
ARTEP	Army Training and Evaluation Program
AT XXI	Army Training XXI
ATACMS	Army Tactical Missile System
ATC	Army Training Center
ATLDP	Army Training and Leader Development Panel
ATP	Army Training Program
ATP	Allied Tactical Publication
AWE	advanced warfighting experiments
BCT	basic combat training
BCTP	Battle Command Training Program
BOLC	Basic Officer Leader Course
BRAC	Base Realignment and Closure
BTID	Battlefield Target Identification Device
C3	command, control, and communications
C4I	command, control, communications, computers, and intelligence
CAC	Combined Arms Center/Combined Arms Command
CAS3	Combined Arms and Services Staff School
CASCOM	Combined Arms Support Command
CATT	Combined Arms Tactical Trainer
CBRS	Concepts-Based Requirements System
CDC	Combat Developments Command
CDEC	Combat Developments Experimentation Command
CGSC	Command and General Staff College
CINC	commander in chief
CLIC	Center for Low Intensity Conflict
CMTC	Combat Maneuver Training Center
COE	Contemporary Operating Environment
CONARC	Continental Army Command
CONUS	continental United States
CREW	Counter Radio-Controlled IED Electronic Warfare

CTC	Combat Training Center
DA	Department of the Army
DARPA	Defense Advanced Research Projects Agency
DCG	Deputy Commanding General
DCS	Deputy Chief of Staff
DCSC4	Deputy Chief of Staff for Command, Control, Communications, and Computers
DCSTE	Deputy Chief of Staff for Test and Evaluation
DOTLMS	doctrine, organization, training, leader development, materiel, and soldiers
DOTMLPF	doctrine, organizations, training, materiel, leadership and education, personnel, and facilities
DRS	Division Restructuring Study
ELSORV	Enhanced Logistic Off-Road Vehicle
EXFOR	Experimental Force
FAMSIM	family of simulations
FAST	Future Army Schools Twenty-One
FCS	Future Combat System
FM	field manual
FORSCOM	Forces Command
G1/4	(Personnel and Logistics)
G2	(Intelligence)
G3/5/7	(Operations, Plans, and Training)
G6	(Command, Control, Communications, and Computers)
G8	(Resource Management)
G9	(Concept Development, Experimentation, and Requirements Determination)
GPS	Global Positioning System
GWOT	Global War on Terrorism
HDTE	historical decision training exercise
HIMARS	High Mobility Artillery Rocket System
HTTB	High Technology Test Bed
IAPD	International Army Programs Directorate
IBCT	Interim Brigade Combat Team
IED	improvised explosive device
IET	initial entry training
ILE	Intermediate Level Education
IMA	Installation Management Agency
IMCOM	Installation Management Command
IMT	Initial Military Training
JAAD	Joint and Allied Doctrine Division
JCS	Joint Chiefs of Staff
JFCOM	Joint Forces Command
JNTC	Joint National Training Capability
JP	joint publication

JRTC	Joint Readiness Training Center
J-SAK	Joint Attack of the Second Echelon
J-SEAD	joint suppression of enemy air defense
JSTARS	Joint Surveillance and Target Acquisition Radar System
LAM	Louisiana Maneuvers
LAV	light armored vehicle
LIC	low intensity conflict
MACOM	major command
MASSTER	Modern Army Selected Systems Test Evaluation and Review
MCA	Mobility Concepts Agency
MHEP	Military History Education Program
MILES	Multiple Integrated Laser Engagement System
MLRS	Multiple Launch Rocket System
MOS	military occupational specialty
MOUT	military operations in urban terrain
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological, and chemical
NCOES	Noncommissioned Officer Education System
NTC	National Training Center
O&O	organization and operations
OES	Officer Education System
OMEMS	Ordnance Munitions and Electronics Maintenance School
OMMS	Ordnance Mechanical Maintenance School
OOTW	operations other than war
OPFOR	opposing force
OSUT	one-station unit training
POM	program objective memorandum
RETO	Review of Education and Training for Officers
ROAD	Reorganization Objective, Army Divisions
ROTC	Reserve Officers' Training Corps
SAMS	School of Advanced Military Studies
SAT	Systems Approach to Training
SCOPES	squad combat operations exercise, simulated
SIMNET	Simulation Network
SOA	School of the Americas
SOF	special operations forces
SQT	skill qualification test
SWG	Seminar War Games
TAC	Tactical Air Command
TACS-AAGS	tactical air control system–Army air-ground system
TASS	Total Army School System
TOE	table of organization and equipment
TRAC	TRADOCAnalysis Command
TRADOC	US Army Training and Doctrine Command
TSM	TRADOC System Managers

TTP	tactics, techniques, and procedures
TUAV	tactical unmanned aerial vehicle
UAV	unmanned aerial vehicle
US	United States
WAC	Women's Army Corps
WHINSEC	Western Hemisphere Institute for Security Cooperation

Suggestions for Additional Reading

Bronfeld, Saul. "Did TRADOC Outmanoeuvre the Manoeuvrists? A Comment." *War and Society* 27 (October 2008): 111–125.

———. "Fighting Outnumbered: The Impact of the Yom Kippur War on the U.S. Army." *The Journal of Military History* 71 (April 2007): 465–498.

Brownlee, Colonel Romie L., and Brigadier General William J. Mullen III, interviewers. *Changing an Army: An Oral History of General William E. DePuy, USA Retired*. Carlisle Barracks, PA: US Military History Institute, and Washington, DC: US Army Center of Military History, 1988.

Cameron, Robert S. *Mobility, Shock, and Firepower: The Emergence of the U.S. Army's Armor Branch, 1917–1945*. US Army Historical Series. Washington, DC: US Army Center of Military History, 2008.

Canedy, Susan, James T. Stensvaag, Anne W. Chapman, John L. Romjue, and Charles H. Cureton. *TRADOC Support to Operations Desert Shield and Desert Storm: A Preliminary Study*. TRADOC Historical Study Series. Fort Monroe, VA: Office of the Command Historian, US Army Training and Doctrine Command, 1992.

Chapman, Anne W. *The Army's Training Revolution, 1973–1990: An Overview*. TRADOC Historical Study Series. Fort Monroe, VA: Office of the Command Historian, US Army Training and Doctrine Command, and Washington, DC: US Army Center of Military History, 1994.

———. *The National Training Center Matures, 1985–1993*. TRADOC Historical Monograph Series. Fort Monroe, VA: Military History Office, US Army Training and Doctrine Command, 1997.

———. *The Origins and Development of the National Training Center, 1976–1984*. TRADOC Historical Monograph Series. Fort Monroe, VA: Office of the Command Historian, US Army Training and Doctrine Command, 1992.

Chapman, Anne W., Carol J. Lilly, and Benjamin King. *Transforming the Army: TRADOC's First Thirty Years, 1973–2003*. TRADOC Historical Study Series. Fort Monroe, VA: Military History Office, US Army Training and Doctrine Command, 2003.

Chapman, Anne W., Carol J. Lilly, John L. Romjue, and Susan Canedy. *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command, 1973–1998*. TRADOC Historical Study Series. Fort Monroe, VA: Military History Office, US Army Training and Doctrine Command, 1998.

Dastrup, Boyd L. *Eyes and Ears: A History of Field Artillery Target Acquisition*. US Army Fires Center of Excellence Historical Monograph Series. Fort Sill, OK: Office of the Field Artillery Branch Historian, US Army Fires Center of Excellence and Fort Sill, 2008.

———. *Field Artillery: A History and Sourcebook*. Westport, CT: Greenwood Press, 1995.

———. *King of Battle: A Branch History of the U.S. Army's Field Artillery*. TRADOC Branch History Series. Fort Monroe, VA: Office of the Command Historian, US Army Training and Doctrine Command, and Washington, DC: US Army Center of Military History, 1993.

———. *Modernizing the King of Battle, 1973–1991*. US Army Field Artillery Center and School Historical Monograph Series. Fort Sill, OK: Office of the Command Historian, US Army Field Artillery Center and School, and Washington, DC: US Army Center of Military History, 2003.

———. *Operation Desert Storm and Beyond: Modernizing the Field Artillery in the 1990s*. US Army Field Artillery Center and School Historical Monograph Series. Fort Sill, OK: Command Historian's Office, US Army Field Artillery Center and School, 2005.

Doughty, Major Robert A. *The Evolution of U.S. Army Tactical Doctrine, 1946–76*. Leavenworth Papers Number 1. Fort Leavenworth, KS: Combat Studies Institute, US Army Command and General Staff College, 1979.

Gole, Henry G. *General William E. DePuy: Preparing the Army for Modern War*. Lexington, KY: University Press of Kentucky, 2008.

Griffith, Robert K. Jr. *The U.S. Army's Transition to the All-Volunteer Force, 1968–1974*. Army Historical Series. Washington, DC: US Army Center of Military History, 1997.

Herbert, Major Paul H. *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations.* Leavenworth Papers Number 16. Fort Leavenworth, KS: Combat Studies Institute, US Army Command and General Staff College, 1988.

King, Benjamin, Richard C. Biggs, and Eric R. Criner. *Spearhead of Logistics: A History of the U.S. Army Transportation Corps*. Fort Eustis, VA: US Army Transportation Center, and Washington, DC: US Army Center of Military History, 2001.

Linn, Brian M. *The Echo of Battle: The Army's Way of War*. Cambridge, MA: Harvard University Press, 2007.

Lock-Pullan, Richard. "'An Inward Looking Time': The United States Army, 1973–1976." *The Journal of Military History* 67 (April 2003): 483–512.

Raines, Edgar F. Jr. *Eyes of the Artillery: The Origins of Modern U.S. Army Aviation in World War II*. Army Historical Series. Washington, DC: US Army Center of Military History, 2000.

Raines, Rebecca R. *Getting the Message Through: A Branch History of the U.S. Army Signal Corps*. Army Historical Series. Washington, DC: US Army Center of Military History, 1996.

Romjue, John L. *A History of Army 86, Volume I: Division 86: The Development of the Heavy Division, September 1978–October 1979*. TRADOC Historical Monograph Series. Fort Monroe, VA: Historical Office, US Army Training and Doctrine Command, 1982.

———. *A History of Army 86, Volume II: The Development of the Light Division, the Corps, and Echelons Above Corps, November 1979–December 1980*. TRADOC Historical Monograph Series. Fort Monroe, VA: Historical Office, US Army Training and Doctrine Command, 1982.

———. *American Army Doctrine for the Post-Cold War*. TRADOC Historical Monograph Series. Fort Monroe, VA: Military History Office, US Army Training and Doctrine Command, 1996.

———. *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973–1982*. TRADOC Historical Monograph Series. Fort Monroe, VA: Historical Office, US Army Training and Doctrine Command, 1984.

———. *The Army of Excellence, The Development of the 1980s Army.* TRADOC Historical Monograph Series. Fort Monroe, VA: Office of the Command Historian, US Army Training and Doctrine Command, and Washington, DC: US Army Center of Military History, 1997.

———. "The Evolution of American Army Doctrine," in *The Origins of Contemporary Doctrine,* edited by John Gooch. Strategic and Combat Studies Institute Occasional Paper Number 30. Camberley, UK: Strategic and Combat Studies Institute, 1997.

Romjue, John L., Susan Canedy, and Anne W. Chapman. *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command, 1973–1993*. TRADOC Historical Study Series. Fort Monroe, VA: Office of the Command Historian, US Army Training and Doctrine Command, 1993.

Swain, Colonel Richard M., comp. *Selected Papers of General William E. DePuy: First Commander, U.S. Army Training and Doctrine Command, 1 July 1973*. Fort Leavenworth, KS: Combat Studies Institute, US Army Command and General Staff College, 1993.

Trauschweizer, Ingo W. "Learning with an Ally: The U.S. Army and the *Bundeswehr* in the Cold War." *The Journal of Military History* 72 (April 2008): 477–508.

Weigley, Russell F. *History of the United States Army*. Enlarged edition. Bloomington, IN: Indiana University Press, 1984.

Weinert, Richard P. Jr. *A History of Army Aviation, 1950–1962*. TRADOC Historical Monograph Series. Fort Monroe, VA: Office of the Command Historian, US Army Training and Doctrine Command, 1991.

Williams, James W. *A History of Army Aviation: From Its Beginnings to the War on Terror*. Bloomington, IN: iUniverse, 2005.

Yarrison, James L. *The Modern Louisiana Maneuvers*. Washington, DC: US Army Center of Military History, 1999.

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About the Author

Benjamin King was born in New Haven, Connecticut, in 1944. He graduated from the University of Connecticut with a degree in Liberal Arts (History) in 1965. From the time of his graduation until 1977, he was on Active Duty with the Army serving in Germany and Vietnam where he was awarded the Bronze Star with "V," the Air Medal, and the Purple Heart. After his release from Active Duty, he served as a contract historian to the Casemate Museum from 1978 to 1979. In 1984 he was selected Chief of Simulations at the US Army Transportation School. During his tenure he designed the simulations *TRASWAR III, Transportation Movement Control in the Theater of Operations,* and *TRANSWAR IV, Truck Company Operations in the AirLand Battle*. In 1992, Mr. King became the Command Historian of the US Army Transportation Corps. From 1992 to 1994 he headed the team that wrote *Spearhead of Logistics, A History of the US Army Transportation Corps*, the second branch history completed in the Army. He also appeared in the Discovery Channel production of *Machines that Won the War*. In 2000, King accepted his current position as Research Historian in the TRADOC Military History Office. Since arriving, he completed five multiyear command histories bringing the headquarters up-to-date. His research on US Army doctrine and the history of TRADOC and its organization has been widely used, and parts of his monographs on soldiers and warriors were used in the Warrior Code. In addition, he designed 15 historical decision-training exercises (HDTE) that were used by the Army. Mr. King is also the co-author of *Impact, the History of Germany's V-weapons*, the definitive history of German surface-to-surface guided missiles published in 1998. He contributed to *Coalition Air Warfare in the Korean War* published by the US Air Force History and Museums Program and has articles published in *Field Artillery Journal*, *Transportation Professional Bulletin,* and *Vietnam* magazine. His book-length works of fiction include *A Bullet for Stonewall*, 1990; *A Bullet for Lincoln*, 1993; and *The Loki Project*, 2000. He lives in Isle of Wight, Virginia, with his wife, Loretta, and Bismark the cat.