TOWARD THE BEST AVAILABLE THOUGHT:
THE WRITING OF FIELD MANUAL 100-5, OPERATIONS .
BY THE UNITED STATES ARMY, 1973 -1976

DISSERTATION

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CHAPTER I
INTRODUCTION

In 1976, the United States Army published its first post-Vietnam statement of doctrine in a wholly revised edition of Field Manual 100-5, *Operations*. This manual caused a doctrinal renaissance within the Army that continues through the 1980's. Ironically, that renaissance led to the displacement of the 1976 manual, an event the original authors largely did not anticipate and certainly did not intend. The fact that much of the Army's doctrinal thinking since 1976 has been both explicitly and implicitly a critique of the 1976 manual testifies to that document's historical importance. Furthermore, it begs the even more important question of how and why the Army came to publish the manual in the first place. To answer that question is the purpose of this study.

One can define doctrine as "authoritative fundamental principles by which military forces guide their actions." Thus, doctrine is important to an army because it provides a philosophical and conceptual point of departure for much of what an army does, especially influencing an army's
planning, organization, training, leadership style, tactics, and development of weapons and equipment. These activities in peacetime and in preparation for future war lie at the heart of the military profession in modern societies. Doctrine further is an important element of leadership within an army. A well-conceived and clearly articulated doctrine can help leaders explain seemingly unrelated activities and can instill confidence throughout the organization. Thus, doctrine can have the most profound effect on an army's performance in war. If an army's fate in war can be traced to its doctrine, then how an army translates ideas into doctrine can be no less important an issue than the doctrine itself.

An army's translation of ideas into published doctrine is a relatively modern phenomena that is more important in recent times because it is more complex, more difficult and of more immediate consequence to the society that army serves. This has much to do with the rapidly intensifying technological and bureaucratic complexity of warfare that began in the late 19th century, coupled in the American experience with an increased emphasis since 1947 on "readiness" in support of a foreign policy that has stressed containment, deterrence, and conflict control.
Doctrinal change in an army is closely related to technological change of weapons and other equipment. Perceived battlefield requirements sometimes inspire inventions, as the deadlocked Western Front of World War I gave impetus to the tank. Sometimes new technical capabilities cause reconsideration of combat techniques, as the tank, once invented, did throughout the 1920s and 1930s. The relationship becomes complex in highly technical armed forces because technical changes occur very rapidly and because a technical advance in one area may well require procedural or material changes in other areas. Conversely, doctrinal change can be constrained by an army's necessarily long-term investment in specific weapon systems. Because weapons development takes a long time and because its funding is a highly visible political process, an army, except in the most extreme circumstances, cannot adapt a doctrine inconsistent with its available weapons.3

An army must therefore think simultaneously in three dimensions, that is, what it wants to do on the battlefield, what its potential enemy can do on the battlefield, and what is and likely will be technically and organizationally possible. All three dimensions must inform an army's development of doctrine and equipment. Managing such development in a way that avoids at the same time the inherent potential for chaos and the danger of being
rendered obsolete by a more adaptable foe is the challenge that faces every modern armed force. Paradoxically, the very need for such management requires an army to create or hire agencies and experts whose very existence makes doctrinal choice a "political" process in that all compete with each other to influence that choice. To exploit the technical potential of the tank, for example, an army allows some soldiers to spend an entire career in tank organizations. Such soldiers soon become (indeed are made to be) a self-conscious community whose views of combat, doctrine, equipment, and the needs of the service are colored by their identification with tanks, and by their sense of competition with every other community within an army, almost always for influence, but also for funds, prestige, career opportunities, and the simple satisfaction of "winning". Other communities may center on a mission, such as counterinsurgency, rather than a weapon, and there may be considerable overlap between communities. That each such community supervises major programs in training, education, weapons development, and personnel management, all of which must respond to changes in doctrine, suggests how bureaucratically difficult doctrinal change can be.

To be sure, nearly all institutions face similar problems of policy choice. The United States Army's problem is different because it has so little margin for error. The
users of its doctrine are deployed or immediately deployable forces that must be capable of waging war successfully on a moment's notice. As importantly, they must be so perceived by any potential enemy if containment, deterrence, or conflict control is to work. To be in the throes of a major doctrinal change, or, worse, doctrinally adrift, or, worse yet, committed to a doctrine one's enemy perceives as unworkable is to risk international crisis if not outright military attack, or at least so it seems to officers responsible for the Army's "readiness." Therefore, the Army does not have the luxury of contemplating doctrine only in terms of combat against a hypothetical enemy at some unknown but relatively remote time and place. Doctrinal change can impact immediately on deployed forces and therefore directly influences American credibility abroad.

The authors of the 1976 manual, and especially the principal author, General William E. DePuy, Commander of the U. S. Army Training and Doctrine Command, did not fully appreciate the role and development of doctrine within an army in the broad and comprehensive terms just described, at least not initially. They were more concerned with "how to fight" on a battlefield they believed would be distinctly different from the one the U. S. Army had just
left in Southeast Asia in 1973. They felt a profound sense of urgency arising from the Army's internal turmoil of the early 1970s and the build-up of Warsaw Pact forces facing NATO Europe, and punctuated by the Arab-Israeli "October War" of 1973. In trying to deal with the practical problems of retraining and re-equipping an army quickly with scant resources for a new type of warfare, they came first to the complexities and difficulties of change in a modern army, and, second, to the issue of doctrine as a common starting point for all their other efforts. General DePuy dealt with these problems directly and forcefully, but also with growing sophistication. In so doing, he left to his successors a heightened consciousness of the dimensions of the problem and an increased determination to do better next time.

* * * * *

Doctrine in any army is not only the product of the bureaucratic politics of that army, but is also a product of that army's past, present, and vision of its future. The 1976 manual was no different. Although the authors intended that it describe the U. S. Army's next war, and not its last, the Army's historical experience in Europe in World War II had major impact, transmitted primarily by General DePuy, a veteran of that campaign. Similarly,
the war in Vietnam influenced the manual, first in the negative sense that its authors wrote it expressly to break with the military legacy of Vietnam. Such a complete break proved impossible. No manual, for example, could have caused the U. S. Army of the 1970s to disregard nearly a decade's experience with airmobility.

If the Army's past crept into the manual despite the determined efforts of its authors to expunge it, so also did the "present" of the early 1970s profoundly influence the manual. Its authors wrote in deliberate response to the conditions of the early 1970s and intended that it prepare the Army for the "here and now" and near future, and not the relatively remote future of the 1980s and beyond. They were compelled by a sense of the Army's general unpreparedness for what they continually referred to as "the modern battlefield," exemplified by the October War, and they believed that the special conditions of the 1970s denied them the luxury of time-consuming debate of their decisions. These conditions included a major reorientation of American foreign and defense policy, a significant relative reduction in the Army's budget, the switch from a conscripted force to an all-volunteer force, a quantum increase in Soviet military power both generally
and confronting NATO Europe, and an Army shaken to its foundation by the Vietnam War.

The past and present of the U. S. Army in 1973 provided the context in which doctrinal change took place, but the dynamic ingredient was the Army's vision of its future. What all peacetime regular forces do to retain their professional status within society is look ahead, attempting to envision and anticipate the military dimensions of the future, and then prepare accordingly. To their credit, all of the major actors in the development of the 1976 manual were doing just that. Their disagreements came over what the future held, and even more dramatically over what should be done by way of preparation. While they were compelled by the apparent dangers of their present and their immediate future, they were not responding knee-jerk fashion to an immediate problem without any thought for the more distant future. Of concern to them especially was the perception that the Soviet Union had passed them by in the development of conventional and special (nuclear, biological and chemical) weapons during the decade that the U. S. Army spent its energies in Vietnam. To catch up, they sought to preserve the Army's investment in its development of several new weapons systems as the foundation of a major modernization program. As they wrote FM 100-5, they came to see it as a tool for preparing the Army intellectually
for the weapons it would use in the future and as a doctrine that would help them justify a continued investment in those weapons.

Doctrinal change cannot take place in isolation from an army's past and present, and doctrinal change that fails to consider the future is meaningless. Given the complexity of modern military institutions, doctrinal change nearly always requires coordination, if not compromise. Yet ultimately individuals, and not bureaucratic processes nor historical currents, determine which ideas appear on the printed page as doctrine. The power of an idea is often determined by the character of the man who holds it. The outcome of bureaucratic struggles can likewise hinge on who is doing the struggling.

This was especially apparent in the writing of FM 100-5. The impact of General DePuy was direct and pervasive. One can say that despite the complexities of doctrinal change, he wrote the manual, and one can demonstrate that had another man been in his place, most probably a wholly different manual would have appeared. This is not to say that one man's character alone determines the issue, because the strength of his personality in part depends on the personalities of other participants. While General DePuy was a dominant figure, his influence over the manual
depended also on the qualities of two Army Chiefs of Staff, the Commanding General of the Combined Arms Center at Fort Leavenworth, Kansas, the commandants of the several branch schools, and important members of his staff, to name a few.

* * * * *

The 1976 edition of FM 100-5 was the "capstone" manual of an entire "family" of doctrinal manuals intended to describe "how to fight." Thus FM 100-5 attempted to describe an overarching concept of warfare from which all other manuals dealing with specific parts of the Army would follow. Specifically, the manual described "how the United States Army destroys enemy forces and secures or defends geographic objectives." The "family" of manuals constituted a wholesale replacement of the Army's then current tactical manuals. It was not merely a revision. Published in striking, camouflage pattern covers, and thoroughly illustrated with colored charts and realistic depictions of Army units in combat, the manuals were to convey to the Army a break with the past - especially the Vietnam War - and to prepare it doctrinally to win its next war, not its last.
To this end, the manual made several assertions about the nature of future combat. First, the U.S. Army must prepare to fight outnumbered and win, and to win the first battle, points which the authors acknowledged were not part of the Army’s historical tradition. The manual asserted that the tank was "the decisive weapon" of ground combat, but that the tank could not survive on "the modern battlefield" except as part of a "combined arms team" that included all the other combat branches of the Army and tactical air forces. The manual accepted "force ratios" as a primary determinant in battle and specified that successful defense required the defender to have no less than a 1:3 ratio to the attacker. Successful attack required a 6:1 superiority. On the battlefield, the manual stressed that cover (protection from enemy fire), concealment (protection from enemy observation), suppression (disruption of the enemy's fire with one's own) and teamwork (between the branches of the Army and between the Army and Air Force) were essential ingredients of victory.

Much of what the manual said rested on an analysis of weapons systems capabilities, and the manual devoted an entire chapter to a discussion of modern weapons. This chapter attempted to make two points. First, weapons available in the 1970s were more powerful by far then their
predecessors of World War II vintage, and the possession of them in abundance by many lesser states meant that a "new lethality" would characterize any battlefield where the U. S. Army might fight. Second, the techniques described later in the manual and in other manuals were the products of a systematic and comparative analysis of American and Soviet weapons and organizations superimposed one upon the other. The analysis "proved" that the techniques would work when properly employed. Consistent with this focus on weapons systems, the manual recognized emerging technological capabilities such as remotely controlled drones for collecting intelligence and identifying targets, special sights and goggles expected to give the Army a full night vision capability, and the soon-to-be fielded M-1 main battle tank, M-2 mechanized infantry combat vehicle, and the advanced attack helicopter. It attempted to present concepts and techniques that could be implemented using equipment currently on hand but which would allow the Army to practice a style of warfare consistent with possession of the new equipment.

The manual's emphasis on armored warfare, Soviet weapons systems, emerging technology, and American numerical inferiority all reflected its deliberate focus on the defense of NATO Europe. It even included a chapter each on
fighting alongside NATO allies and fighting in cities, both contributed by U. S. Army-Europe. It asserted that defense of NATO Europe was the U. S. Army's most important and most dangerous contingency, and that an army prepared to fight Warsaw Pact forces in Europe could probably fight successfully in other world areas against other enemies with little modification to its doctrine. It used the evidence of the October War to assert that contingency missions outside NATO were likely to pit the Army against enemies organized, trained and equipped in the Soviet style in any case.

Because the manual focused on the defense of NATO Europe as the Army's first priority mission, it articulated a totally new doctrine for defending that became a source of much criticism after the manual's publication. This was the so-called "active defense," which attempted to reconcile the political imperative of defending West Germany well forward along the inter-German border with the facts of numerical inferiority and Soviet possession of the initiative. Its features included deploying all forces forward without retaining reserves; fighting aggressively in a "covering force area" forward of the main defensive area to force the enemy to commit his main attack echelons; detecting the enemy main attack; and reinforcing against it by moving laterally from other sectors of the battlefield
where the defender would accept a certain degree of risk. Fighting to retain ground was a special case in the active defense, which focused on fighting the attacker's forces wherever they went on a fluid battlefield. By trading some space for enemy combat power and by laterally reinforcing against the enemy's main attack, the defender hoped to achieve a favorable combat ratio at the point of decision.

In addition to the active defense, the 1976 edition of FM 100-5 introduced the term "Air Land Battle" for the first time. The chapter entitled "Air Land Battle" only described the joint procedures agreed to by the Air Force and Army for cooperating in areas of mutual interest such as airspace management, air logistics, aerial reconnaissance, and electronic warfare. However, the term and the dedication of a chapter to its discussion signalled a strong interest by the Army in a new concept of theater warfare that recognized the total interdependency of the two services and sought to describe their activities within the theater in terms of a single, unified battle.

In each of these particulars, the 1976 edition of FM 100-5 was distinctly different from its predecessors. It was a deliberate attempt to change the way the United States Army thought about and prepared for war. It was
successful, but not in the way its authors had intended. It created controversy, as much by the way it became approved as by its content, and the controversy became a gradual groundswell of opinion within the Army against it. The 1982 manual that replaced it retained only a few of the earlier manual's features and in several areas seemed to explicitly critique it.

"Doctrine that only affects the printed page is stillborn," one noted student of the subject has written. And yet no doctrine is intentionally stillborn, nor does published doctrine very often have no effect at all past the printing press. The publication of doctrine is always a milestone in the dynamic process of an army's thinking about warfare and always reflects the historical conditions of that army at that point in time. The 1976 manual was such a milestone. It reflected serious thinking about warfare by experienced, intelligent soldiers attempting to grapple with complex military problems and it induced within the Army a renaissance of doctrinal thought. For these reasons, it was an important historical document that represented even more important ways of thinking and making decisions within the Army.

The desire to explain the intellectual origins of some past brilliant victory or disastrous defeat draws some
historians to the question of the doctrinal process. What compels this historian to write about this particular subject is the knowledge that for the United States Army, those consequences, one or the other, lie in the future.
FOOTNOTES

1 U. S., Department of the Army, Operations, Field Manual 100-5 (1976), hereafter referred to as FM 100-5 which indicates the 1976 edition unless otherwise noted.


5 Timothy T. Lupfer, Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War (Ft. Leavenworth: Combat Studies Institute, 1981).
CHAPTER II
THE GENERAL AND THE ARMY, 1941-1973

Because the doctrine in FM 100-5 in 1976 represented the tactical thinking of General William E. DePuy, the study of the doctrine begins with the man. Born in 1919, commissioned into the infantry from ROTC at South Dakota State University in 1941, DePuy landed at Normandy with the 90th Infantry Division on 7 June 1944. He participated in the great battles of the "Crusade in Europe" and ended the war as a 25-year-old battalion commander in 1945. Subsequent service would bring him to Europe twice more, once as commander of the 2d Battalion, 8th Infantry, 4th Armor Division at a time when many of his colleagues were just finishing a war with a wholly different enemy on the Korean Peninsula, and again in the early 1960s as commander of the 30th Infantry Regiment. Although he missed the Korean War altogether, he cut his teeth as a general officer in Vietnam, where he served as the J-3 of Military Assistance Command Vietnam and later as Commander of the 1st Infantry Division. Service as the Special Assistant to the Joint Chiefs of Staff for Counterinsurgency and Special Operations and, later, Assistant Vice Chief of Staff of the
Army, in Washington rounded out his preparation for a fourth star and command of the Army's new Training and Doctrine Command in the summer of 1973.

Intelligent, pragmatic, and forceful, DePuy was a leader with more energy than charisma. He described himself as "impatient," as a man "trying to make things happen, usually unsuccessfully, not wanting to be told that things aren't working well..." Convinced by his experience in World War II that only a small percentage of combat soldiers actually participated in the fighting, he believed in dominant, decisive leaders and frequent, clear, simple and direct instructions to keep an organization functioning. He told a group of senior cadets at West Point in 1969 that the three steps of leadership are to decide what is to be done; tell people to do it; and see that they do. If his leadership style was blunt, even tactless, it was unambiguous. He stated his expectations clearly and noted exceptions with "that's wrong." He required few of the latter to lose patience with a subordinate.\(^1\)

In 1974, the Army, trying to fill its ranks without the draft in the wake of an agonizingly unpopular war, made drastic changes in the lifestyle of its soldiers and the leadership style of its sergeants and officers. "Today's Army wants to join you" was the watchword, and the emphasis was on human relations, the rights and material comforts of
the individual soldier, and counseling as a component of leadership. Nevertheless, DePuy, in the keynote address to the TRADOC leadership conference at Fort Benning, Georgia, told the leaders of his command, "We are not in this business to be good guys...Nice, warm human relationships are satisfying and fun, but they are not the purpose of an Army. Establishing the most marvelous, warm, sympathetic and informed relationships is unimportant, except in the context of making the team work better." Describing the type of leader who was so preoccupied with getting his unit's mission accomplished that he had little time for or interest in the personal problems of his soldiers, DePuy said, "I am not saying that is best, but I am saying that is the cake and that the frosting on the cake is to be civilized and perceptive."²

Just before retiring, DePuy regretted that he hadn't had the time to be a better educator as a general officer, more persuasive and convincing.³ Persuasiveness, however, implies patience and he simply was not a man who had much of that. Impatience (bordering sometimes on intolerance), decisiveness, energy, and keen intellect were hallmarks of DePuy's style and personality and were important to the development of FM 100-5. They meant that DePuy's own ideas and those of like-minded men he trusted would prevail, largely without compromise, over the views of others. The
doctrine itself would reflect his assumptions about people and the nature of combat leadership. The Army published FM 100-5 in the form and at the time that it did because in a time of turbulent transition an intelligent, forceful, pragmatic, impatient man had and exploited a great deal of institutional political power as Commanding General, United States Army Training and Doctrine Command.

* * *

As it did to most of the men who experienced it, the Second World War profoundly affected William DePuy. He was like his fellow veterans in that he never forgot the campaign across Europe, referring to it frequently in public and private communication and recalling specific details thirty and forty years afterward. Unlike many other veterans, DePuy neither romanticized it nor thought particularly highly of the military prowess of the Army of which he had been a part. Many of his notions about soldiers and leadership came from his wartime experiences. Just as important, those experiences were the foundation of all of his tactical thinking.

That DePuy had rather unique recollections of the war is in part because he served for the duration with the unlucky, sometimes poorly led 90th Infantry Division. The
90th had a very spotty record. One of the transports carrying it struck a mine off Utah Beach and sank on 7 June 1944. Though there were no casualties, the sinking appears in retrospect an omen of what was to come. With only a very hastily completed training program under their belts, the green troops of the 90th attacked through the beachhead line held by the 82d Airborne Division on 9 June and directly into the "bocage" country of the Contentin Peninsula, the now infamous hedgerows for which allied planners had made almost no preparation. German defenses were strong and the lead battalion recoiled under its first enemy fire. By the end of the day, the division had advanced only about two kilometers, and DePuy's regiment, the 357th, alone had suffered ninety-nine casualties. The Corps Commander, Lieutenant General J. Lawton "Lightning Joe" Collins, whose mission it was to cut across the base of the peninsula and isolate German forces thereon in preparation for a drive to the port of Cherbourg, relieved the division commander, Major General Jay W. Mackelvie, and two regimental commanders. He switched the 90th's mission to the supposedly easier one of protecting the northern flank of the corps advance. 5

This change did not improve matters. The 90th now encountered the relatively fresh German units assembling to the north while the spearhead of the westward advance moved
against weakening resistance. The new division commander, Major General Eugene M. Landrum, seemed unable to improve the division's performance. When Collins' corps reached the Atlantic coast of the Cotentin and reorganized for the drive on Cherbourg, the 90th took up relatively stationary positions, this time facing south to seal the peninsula, but soon lost a bridge and over 100 men taken prisoner to elements of the German 1050th Grenadier Regiment.⁶

Cherbourg fell to American forces on June 27th, and Collins' VII Corps redeployed south to Carentan, transferring the 90th to VII Corps control. While the British 2d Army battered Caen on the eastern end of the allied beachhead, General Omar Bradley's U. S. 1st Army in the west pressed south against stiffening German resistance to seize the east-west highway connecting St. Lo with the Atlantic coast. The 90th Division fought near Monte Castre, a piece of dominant terrain from which German artillery observers placed accurate fire on the 90th's fitfull advance across swampy ground. To support Operation COBRA, the "carpet bombing" of the German lines near St. Lo and the break-out operation that followed, the 90th again attacked German-held high ground head-on, this time across the Seves River. The coordination of engineers, artillery, and tanks with the infantry assault was faulty, resulting in some infantry being stranded on the far side of the river where they were
battered by German artillery and machine guns. More 90th troopers surrendered. By the time the 90th joined General George S. Patton's newly organized U. S. 3d Army and pulled out of the immediate fighting in early August, General Landrum had been relieved and Patton, Bradley and Supreme Allied Commander Dwight D. Eisenhower had all expressed concern over the division's poor performance. Most telling were the casualties: the division replaced 100% of its initial strength in riflemen in two months of fighting.7

The division's fortunes improved under its new commander, Brigadier General Raymond S. McLain, a National Guard officer and banker from Oklahoma, who assumed command on 30 July 1944. Under the operational control of the XV and later V Corps, the 90th performed well in 3d Army's pursuit toward the Seine River. Its defense of Le Bourg St. Leonard on August 15 was a key to the destruction wrought on German forces attempting to flee through the famous Falaise Gap. Attached to XX Corps, the 90th participated in Patton's drive across Lorraine and, with Patton, stopped on the banks of the Moselle near the ancient fortress city of Metz.

From September to late in November 1944, when Major General James Van Fleet replaced now Major General McLain, the 90th participated in some of the hardest fighting of
the European Theater of Operations. German fortifications in and around Metz were extensive, formidable, and situated on ground ideally suited for the defense. Autumn rains swelled the Moselle River and its many tributaries and poured incessantly down on sodden American infantrymen. To make headway, units of the 90th Division resorted to attacks that relied upon detailed planning, squad-level execution, infiltration, and by-passing of enemy strong-points to move through fortified zones and enemy-held towns and industrial sites. DePuy, as regimental operations officer (S-3), applied these principles in taking the town of Maizieres-lès-Metz, and again, as a battalion commander, in conducting his portion of the crossing of the Saar River in mid-November. Enemy armored counter-attacks on the far side of the Moselle gave DePuy some of his first experiences in anti-tank warfare.

Once across the Moselle, the 90th advanced all the way to the German frontier and was into the "West Wall" fortifications near Dillingen, Germany, when it and the rest of 3d Army were sent bustling north to wrest the initiative away from the Germans at the Battle of the Bulge. Fighting in Luxembourg and into Germany near the Schnee-Eifel occupied the rest of January and February 1945. From mid-February to the end of the war in May, the 90th pursued the
remnants of the German army in a mobile, deadly game of fox and hounds that ended on the frontiers of Czechoslovakia.

These eleven months of combat taught William E. DePuy lessons in warfare that lasted his whole life. First, he was very impressed by the Germans. He admired their ability to organize terrain for the defense, using its every fold to site their weapons along probable enemy approaches with little regard for a neat, linear pattern. He admired their ability to camouflage and conceal their positions. He was impressed with their ability to integrate combat vehicles with their infantry, either as roving guns in the defense or as direct fire support platforms in the attack. And he admired their use of what he would later call "suppression," that is, the generation of a superior volume of fire against an enemy position with the intent of forcing that enemy to ground so that he cannot return fire accurately and is thus made vulnerable to assault. 10 DePuy observed how the Germans fought, contrasted it with what his own division was doing, and integrated into his battalion's procedures some of the German ideas.

One thing the 90th Division was doing, at least until it became part of Patton's 3d Army, was attacking German defenses directly. Whether the enemy was in hedgerows,
behind river lines, or on hill masses, the 90th plunged directly ahead and took the casualties. Only when confronted with the fortified and built-up defenses around Metz did the division seek an alternative to the head-on assault. The success of such attacks as that at Maizières-les-Metz, where squads infiltrated through the enemy lines, seized key positions, and then took out the defenses from the rear, all according to a centralized plan, convinced DePuy of the value of the indirect approach. When in later years he assailed tactical problems that required the attacking force to seize an enemy-held hill directly ("That's wrong...you want to go around behind it.") he was remembering World War II.11

DePuy admired German suppressive fire techniques because, in contrast to the Americans, they relied more upon direct fire from vehicles and machine guns than on indirect fire from mortars and artillery. This meant that a commander who controlled direct-fire weapons had available suppressive fires that were more responsive and accurate. It was not until after the Battle of the Bulge that DePuy had cause to adopt a technique similar to the Germans. His battalion was outrunning its artillery. To compensate for the resultant loss of available firepower, he concentrated all the battalion's heavy machine guns in a single company. This company provided a "base of fire" as
the rest of the battalion (two rifle companies and a tank platoon) maneuvered to attack the enemy in flank or rear. Sometimes the fires of the base company were augmented by tank destroyers and mortars.12

If DePuy were impressed with the technique of direct fire suppression, he was anything but heedless to the capabilities of artillery and aircraft. Having fought on the southern shoulder of the Falaise Gap, he had seen what artillery fire and aerial bombing could do to a concentrated target. He was convinced that they provided the firepower that was the margin of superiority in overall combat power that the Americans enjoyed. Indeed, he once described his job as an infantry commander in Europe as moving the artillery's forward observers across France and Germany.13

Finally, DePuy carried out of the war a clear impression of the potential of armored forces to conduct very rapid operations across varied terrain while employing both fire and maneuver. Pursuing the remnants of the German army across the interior of Germany in the spring of 1945, working closely with the 4th Armor Division, he participated in some of the most fluid operations of the war. The key to success that lingered in his memory was the
concentration of fire against the enemy to suppress him while other elements maneuvered to take him in flank or rear.\textsuperscript{14}

World War II not only was DePuy's seminal experience in the techniques and tactics of the battlefield, but also the experience in which he developed or confirmed his notions of combat leadership. DePuy was unimpressed with the initiative and aggressiveness of the soldiers of his command. He perceived them as inherently reluctant to take risks and, because of inadequate training, unable to take charge in the absence of orders from a superior. On the other hand, he believed they were willing to carry out specific instructions and orders, and that only specific, personal orders could overcome their natural fear in combat. He thus admired German leaders, whom he described as constantly "chattering" during battle, noncommissioned officers shouting to soldiers, junior officers to noncommissioned officers, soldiers to each other.\textsuperscript{15}

There is an apparent contradiction, then, between DePuy's perception of combat leadership and the requirements of the individual tactics he espoused, that is, that such tactics depend on aggressive subordinate leaders capable of independent action. DePuy reconciled this contradiction by what he called "centralized idea,
decentralized execution." He made thorough, detailed plans whenever possible, specifying missions down to squad level and cross-checking to insure his soldiers understood. He then released them to execute their missions, supervised by himself and his staff officers. He credited this system with his regiment's success in taking Mazieres-les-Metz and in crossing the Saar River in November 1944. He emerged from the war convinced that "self starters" were rare in the American Army, but that detailed orders and thorough supervision by commanders could overcome this deficiency. 16

* * *

Eight years after World War II, DePuy, still a lieutenant colonel, was back in Germany commanding the 2d Battalion, 8th Infantry, 4th Infantry Division. Again he organized and trained his companies so that one provided a base of fire while the others maneuvered to close with the enemy's flank or rear. While observing the training of the 2d Armored Division, he discovered in the work of Brigadier General Hamilton Howze a concept for battlefield movement that crystalized his thinking about suppressive fires and maneuver.

Recalling his own World War II experience, Howze concerned himself with the movement of tank units across
the battlefield. He recognized that suppressive fire was the best way to neutralize enemy fires so that decisive maneuver could take place. The difficulty was that a tank unit on the move could not instantly return a high volume of accurate fire, especially if engaged from a well-concealed position. An enemy could fairly easily destroy two or more tanks before the rest of the unit had time to seek cover, identify the attacker, and begin to return fire.

To resolve this problem, Howze coined the term "overwatch," a concept by which tanks assaulted only under the "overwatching" direct fire of other tanks, whose jobs it was "to establish 'mastery-by-fire' of the area of assault." They did so from stationary positions ideally. Howze's battle drill for infantry squads, and tank and armored infantry platoons, also used the term "overwatch" when describing how these units moved to contact or reacted to contact with the enemy. In any case, the point was to insure the immediate delivery of suppressive fire against an enemy so that the element engaged by that enemy could maneuver.

DePuy immediately saw that his idea of a base of fire company and one or more maneuver companies was consistent with Howze's overwatch, but that overwatch was more flexible and allowed for fluidity of movement. He also saw
overwatch as logically transferable to infantry units at any level where there were at least two subordinate elements. Soon, all of the 2d Battalion, 8th Infantry, was out practicing "overwatch." True to form, battalion commander DePuy personally drilled and tested each squad again and again.17

By the time DePuy returned again to Germany in 1961, the Army had changed its doctrine, organization, and equipment. In anticipation of atomic warfare, divisions were now "pentomic," that is, organized into five "battle-groups" instead of three regiments, each battle group comprised of five maneuver companies. One or more of these battle groups might be put under the command of a single officer as a "task force." Infantrymen had an armored, tracked vehicle, the M59, to convey them about the battlefield at nearly the same speed as tanks. The increased mobility and reduced size of the division overall, but with more maneuver elements, provided both the dispersion and the ability to mass rapidly required of units on the atomic battlefield.18

DePuy took over command of the 30th Infantry, a battle-group of the 3d Infantry Division. Initially, he simultaneously commanded one of the division's task forces comprised of his own battle group, plus the 38th Infantry
and other tank and cavalry units assigned to him by the division. Again, he drilled the whole force in overwatch, a technique more appropriate to the completely mechanized force he now commanded than his "base of fire" companies from World War II days. He also could practice what he had long observed, that is, that armor operations are highly mobile and require new command and control procedures in order to coordinate and concentrate all arms in a responsive manner. Units must be assigned destinations and missions rather than complete operations orders. They must rely on battle drill to carry them through enemy contact. They must be completely responsive to changes in their orders, and able to be underway with almost no forewarning. DePuy gloried in training and commanding his task force and battle groups. He called it "the practical culmination of my experience as an infantry unit commander." 19

Of course, DePuy would be an infantry unit commander again in only a few years, but in a place and an operational environment far removed from Central Europe: the Republic of Vietnam. Thus far, his experience in conventional command had been very consistent: infantry units combined with armor and facing a similarly organized enemy in Europe. Significantly, DePuy did not participate in the Korean War, nor did he like what he saw coming out of that war: an over-reliance on fortification, and little regard
for camouflage and "proper" use of terrain. Like the war in which he was about to participate, he saw Korea as a distraction from the Army's first priority mission, mechanized combat in Europe.20

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William DePuy spent three years in the Republic of Vietnam, two of them (1964-1966) as J-3 (Operations Officer) at the theater headquarters, Military Assistance Command, Vietnam, or MAC-V, and a year (1966-1967) as Commanding General, 1st Infantry Division. In this latter assignment, he showed that he could transfer the ideas about tactics he had nurtured for twenty-five years to a totally new environment.

The 1st Infantry Division consisted of tank and infantry battalions, but only two of its infantry battalions had armored personnel carriers (APC's) to carry them to battle. In addition, the division could call on a battalion of assault helicopters to ferry dismounted infantry very quickly onto the battlefield. Its area of operations included the thick jungles and rolling, rice-paddied terrain north of Saigon, along Highway 13 and the Saigon River. Its enemy was the 9th Viet Cong Division, consisting of three Viet Cong regiments and one regiment of
the North Vietnamese Army. These formations rarely operated in units larger than a battalion. They were highly mobile, relatively independent of a fixed base of supply, and able to blend at will with the local populace. These conditions implied at least a two-dimensional effort for the 1st Infantry Division. On the one hand, it had to protect the local populace and encourage support for the government while collecting intelligence about Viet Cong units in its area; on the other hand, it had to seek out those units and engage them in decisive combat.

To perform this latter mission, DePuy preferred to gain contact with as small a force as possible while holding at the ready more forces able to enter the fight immediately to prevent the enemy's withdrawal. The enemy then could be smashed with artillery fire, tactical air strikes, and, only if necessary, assault by infantry forces. The key, of course, was accurate intelligence and a division capable of instant response in all of its varying assets. All of this was consistent in DePuy's mind with his earlier experiences as a commander in Germany.²¹

The notion of making contact with small units while holding larger ones in immediate reserve was essentially an extension of "overwatch" applied to an operational environment whose size, vegetation, and nature of the enemy disallowed Overwatch techniques in the sense of actually
observing the enemy's initial fire. Radio communication, artillery fires, and very rapid mobility by helicopter or armored personnel carrier compensated for the handicap of not being able to physically "overwatch" the many aerially inserted patrols one had out searching for the enemy. In order to exploit this mobility advantage, units had to be capable of responding instantly to a destination, time, and mission, relying on battle drill to carry them through the initial fight, just as DePuy had trained his companies in the 30th Infantry in Germany. Once the operation was underway, the problem was one of tactical articulation by the brigade and division headquarters, particularly in airspace coordination, so helicopters, artillery rounds, and tactical fighters could all perform their missions without collision.22

If speed, agility, the combining of arms on the battlefield, and a continued reliance on the relationship between suppressive fires and maneuver were all positive military experiences for DePuy in Vietnam, there were other operational practices of the war he did not think were of much use. He believed that an entire generation of American officers had learned to fight without regard for the military value of terrain. Due to thick vegetation, terrain did not offer observation and so it became irrelevant. Helicopter-borne commanders lost their respect for
the ability of terrain to hamper the mobility of units on the ground. Further, DePuy believed that an over-reliance on their overwhelming superiority in firepower, especially that delivered by artillery, helicopters, and Air Force fighter-bombers, had led Americans to bad habits. They disregarded camouflage and noise and light discipline in their fire bases, defensive perimeters, and semi-permanent installations. They had little respect for the importance of properly siting weapons, especially small arms. "None of those," he said in 1974, referring to Vietnam-style defensive positions, "would survive for two seconds on the modern battlefield."23

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For the six years between his return from Vietnam in 1967 and his assumption of command of TRADOC in 1973, DePuy served successively in Washington as Special Assistant to the Joint Chiefs of Staff for Counter-insurgency and Assistant Vice Chief of Staff of the Army. Here the macro-level problems of the Army commanded his attention far more than the problems of the battlefield. When DePuy left the 1st Infantry Division to take his new post in Washington, his notions about how an army should fight and how it should be trained were pretty well settled.
To William DePuy, the essence of battle was the physical destruction of the opposing force, normally by gunfire and other munitions. To destroy one's enemy, it was best to attack him where and when he was most vulnerable: on a flank, in the rear, by surprise. To do these things, one had to move very quickly while protecting oneself from enemy countermeasures, especially enemy fire. Very fast maneuver, by tank or helicopter, offered some protection, but against a sophisticated and conventionally armed enemy, the best protection would come from proper use of available cover and concealment and suppression of enemy fires with one's own. To do all of these things required at the low level intensive training in the basics such as fieldcraft, weapons siting, and movement techniques; at intermediate levels, a "mind set" of immediate responsiveness to mission-type orders; and at higher levels, an ability, built on the assumptions of that responsiveness, to integrate multiple assets in a closely coordinated, violently executed operation. DePuy was skeptical of the relevance of the Korean and Vietnam experiences, except as they reinforced these ideas. He favored armored, combined arms operations, and was inclined to admire the Germans. All of these ideas were very much grounded in his experiences in World War II. They were the ideas around which he would try to rally the entire United States Army.
While DePuy was in Washington, the U. S. Army went through one of the most traumatic experiences in its history. From the Tet Offensive in Vietnam in 1968, to the twin shocks of the Cambodian invasion and Kent State in 1970, to the investigation into My Lai in 1971, to the withdrawal from Vietnam and the shift to an all-volunteer armed force in 1973, the U. S. Army increasingly found itself the focal point of public criticism. Racial tensions and increasing drug abuse among soldiers compounded the sense of defeat that, however gilded, attended the withdrawal from Southeast Asia. The Army's theoretically highest priority unit, the 7th Army in Europe, was probably at the lowest state of readiness in its history during those years, the victim of a personnel replacement system in Vietnam that used other major commands as replacement pools, resulting in drastic shortages of officers and noncommissioned officers. Public disillusionment with the war in Vietnam became a general sentiment against all war and all military institutions. The U. S. Army in 1973 was losing its institutional identity: it had very little pride of purpose. This erosion of the Army's physical and moral strength happened at the same time that a major shift in American strategic policy took place and that American
intelligence analysts perceived a quantum improvement in the size and quality of Warsaw Pact forces facing Central Europe. Seen from the Pentagon, the coincidence of these three developments was a significant military danger to the United States.

The Vietnam experience caused a reassessment of American strategic policy with profound implications for the Army. The final conclusion drawn in the early 1970's was that American capacity to repel or deter aggression anywhere in the world was limited and that therefore American means to resist must be allocated to regions of the world in priority according to American security interests. This meant that many "third world" nations resisting aggression would have to look to their own security needs with only indirect American assistance and the assistance perhaps of major American allied nations within the region. Second, in paring down the defense establishment and budget, the U. S. assumed a "1½ war" contingency instead of the "2½ war" contingency that had prevailed in the 1960's, that is, the U. S. prepared to fight one general war in Europe or elsewhere and one other minor action, but not to fight two general wars simultaneously. This definition of American security interests, first enunciated as the Nixon or Guam doctrine in 1969 and later called the strategy of realistic deterrence, caused
strategic planners to shift their attention from Asia to NATO Europe, with a "½ war" glance at the Middle East, especially the security of Israel and the routes of access to Persian Gulf oil.25

As planners looked to the problem of deterring or resisting aggression in Europe, the most striking issue immediately apparent was the improvement in Soviet and Warsaw Pact forces, especially conventional forces. The Soviet Union had added five tank divisions to its forces facing NATO since 1965 and had increased the number of tanks in all of its motorized rifle divisions. The Soviets replaced older T-54/55 tanks with the T-62, and the T-72 began to appear. Better armored personnel carriers and self-propelled artillery, instead of towed, also gave Soviet divisions more offensive capability. Most telling, perhaps, was the gradual redeployment of Soviet and Pact units to bases closer to the border areas, implying to some the adoption of a pre-emptive, non-nuclear strategy. Outside of NATO, Soviet naval and air forces were more modern and far-reaching. In October, 1973, Soviet threats to intervene unilaterally in the October War demonstrated new Soviet assertiveness on the world scene.26

To DePuy and others in the Pentagon, the U. S. Army was in no condition to challenge this revitalized threat to
what was now acknowledged as America's first priority security region, NATO Europe. The draft and personnel turbulence of the Vietnam years had left the Army with morale and discipline problems, a lack of unit cohesion, and a shortage of experienced leaders at all levels. The Army's training base focused entirely on the infantry-intensive combat and counter-insurgency effort in Vietnam. Whatever combat experience the Army had gained there was likely to be irrelevant to war in Europe where American forces would decidedly not have the overwhelming advantages in firepower and air superiority that they had enjoyed in Vietnam. Even the significant innovation of airmobility had developed in the relative absence of an enemy air-defense capability. The Army's "combat developments" effort, that is, its research into new battlefield technology and doctrine, had been driven by the Vietnam War and had produced many innovations that were only coincidentally relevant to conventional war in Europe. In short, a decade of war in Vietnam had rendered the U. S. Army an unlikely instrument with which to protect America's European interests. 27

Compounding these concerns of Army planners was the decreased role of the active Army in the new strategy and the resultant lowering of the Army budget. Although the overall defense budget for Fiscal Year 1973 was an
increase over the previous fiscal years, it represented a significantly smaller portion of the gross national product and the total federal budget. The bulk of the increase was dedicated to personnel costs, especially pay and housing, reflecting the shift to an all-volunteer force. Other defense increases went to improvement of nuclear deterrent forces, naval forces, strategic mobility forces, the National Guard and Reserve, and military assistance programs.\(^{28}\) This meant that in order to maintain the highly ready conventional forces required by the new strategy and stay within the new budget, the Army had to find ways to concentrate its budget resources on real and immediate combat capability. The Army's most significant step in this direction was a complete reorganization of its major U. S.-based headquarters, the Continental Army Command.

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The Continental Army Command, or CONARC, was a headquarters activated in 1962 to oversee all Army activities in the continental United States. It exercised its responsibilities through four, and later three, subordinate continental army headquarters, each of which had a regional span of responsibility. The CONARC commander was responsible, through the Chief of Staff of the Army, to the Secretary of the Army for activities as diverse as the
combat readiness of operational units of the active Army, National Guard and Army Reserve, the operation of the Army's training bases and schools, and the supervision of the Army ROTC program. This sprawling span of control appeared to Army planners in the early 1970's as a likely opportunity to reduce costs by streamlining the headquarters functions.

Key among those planners was now Lieutenant General William DePuy, Assistant Vice Chief of Staff of the Army. Dissatisfied with the efficiency of CONARC's management of the recall and deactivation of units from Vietnam as the Army reduced its strength from 28 combat divisions to 13, DePuy, together with General Bruce Palmer, Vice Chief of Staff, was an early advocate of CONARC reorganization. Given the job of making recommendations for such a reorganization in the winter of 1971-1972, DePuy, in a manner characteristic of his style as a general officer, put two lieutenant colonels to work full time on the task. Their concept, a month in the making, was approved at every level from General DePuy through Secretary of Defense Melvin R. Laird in a single, bustling week in March 1972, and became the Department of the Army guidance to the task force formally assigned the job of planning the actual reorganization. Operation STEADFAST, as the reorganization was code-named, saw CONARC divided into two major headquarters,
one of which, the U. S. Army Training and Doctrine Command (TRADOC) was the institutional base from which Depuy, as its first commander, would prescribe combat doctrine for the Army. 29

The new Training and Doctrine Command was to oversee approximately half of CONARC's former responsibilities, those concerning individual training. This meant that all of the Army's schools and training centers (except the U. S. Military Academy at West Point, New York, and the U. S. Army War College at Carlisle, Pennsylvania), would come under TRADOC jurisdiction. A separate new headquarters, the U. S. Army Forces Command, or FORSCOM, would assume control over U. S.-based operational units.

Because training must be conducted according to some prescribed doctrine, and because training centers and schools, in their military students and faculty, are the repositories of broad and recent experience, TRADOC also assumed responsibility for publishing doctrine as a logical partner to its training mission. To support this doctrine development mission, TRADOC further assumed the functions of the U. S. Army Combat Development Command (CDC), a separate command from CONARC, whose field agencies had always been co-located with, but bureaucratically separate from, the Army schools. TRADOC thus consolidated under a
single commander three logically interrelated functions: research into new techniques of land warfare, to include equipment capabilities; development of doctrine and organization; and the training of soldiers, NCOs and officers according to that doctrine so that they were prepared for their post-schooling assignments in the field Army.  

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It would be too much to say that William DePuy intended from his return from Vietnam to reshape the thinking of the Army about ground combat. He did not, nor did he have any reason to suspect that he might someday be in a position to do so. However, by the time he arrived in Washington, his own tactical style and notions about combat were established. They rested solidly on the foundation of his World War II experience and were only slightly modified by his experience in Vietnam, a war he considered a special case. Likewise, his notions about soldiers and combat leadership were in place.

During his tenure in Washington, he developed a vigorous bureaucratic style that included isolating bright, relatively junior officers from other chores to "brainstorm" specific problems and come up with comprehensive conceptual recommendations. These could quickly gain the
approval of superiors and, with it, the authority to guide detailed planning, thus avoiding the tedious and diluting process of gaining approval of a detailed plan from every affected staff agency before sending it to higher authority.

DePuy's time in Washington further sensitized him to specific Army problems, namely, the Army's role in the new strategy of realistic deterrence, the management of the Army budget to produce more real fighting power with fewer resources, the perceived inefficiencies of CONARC, and the necessity to rationalize combat developments with doctrine and training. Each of these issues influenced him as he played a key role in the reorganization of CONARC and the design of TRADOC. When DePuy assumed command of TRADOC on 1 July 1973, the ideas, the management style, and the institutional tools for changing Army doctrine had all come together.
CHAPTER II FOOTNOTES

1 DePuy's description of himself is in William E. DePuy, Remarks to the Army Museum Conference, mimeographed, 16 April 1974, TRADOC Historical Office, Fort Monroe, Virginia. Location hereafter cited as "THO Files." His impressions of combat in World War II are in Bill Mullen and Les Brownlee, Interview of General (U. S. Army, retired) William E. DePuy, Oral History Program, U. S. Army Military History Institute, Carlisle, Pennsylvania. See especially Section II, page 10. Location hereafter cited as USAMHI. His emphasis on dominant leaders and clear, simple, direct orders pervades his career but are especially well expressed in DePuy, "11 Men, 1 Mind," Army, 8 (March 1958): 22-60; in DePuy, CG's Remarks at Fort Polk, mimeographed transcript, 7 June 1973, loaned to the author by Colonel William G. Carter, former aide-de-camp to General DePuy; and in Mullen and Brownlee, Interview of DePuy, Section II, p. 12. His remarks to the West Point Cadets are recorded on Tape RN0632, Special Collections, USMA Library, West Point, New York. During the Fort Polk briefing, DePuy expressed his displeasure with open-faced bunkers and foxholes by telling the audience "they are wrong...they are 100% wrong. They will not be tolerated any more. I don't want to see any more of those. That is not right," DePuy, CG's Remarks at Fort Polk, page 14.


3 Dr. Brooks Kleber, "Final Interview, General William E. DePuy," 23 May 1977, THO Files, pp. 37-40

4 Ibid, p. 3; DePuy, Briefing at Fort Polk, 7 June 73, p. 1.


6 Harrison, Attack, pp. 404 and 416.

7 Abrams, History, pp. 15-18; Weigley, Lieutenants, pp. 125 and 370.

8 Abrams, History, p. 30; Mullen and Brownlee, Interview of DePuy, Section II, pp. 19-27.

9 Mullen and Brownlee, Interview with DePuy, Section I, pp. 21-27.

10 Mullen and Brownlee, Interview of DePuy, Section I, pp. 26-27; Section II, pp. 8-10 and 29-30; Section III, p. 12; Section IV, p. 10. Weigly found evidence that DePuy was not the only American to understand the blend of suppressive fire and maneuver. On p. 128 he quotes Volume I, p. 118, of the 1st U.S. Army Report, 20 Oct 43 – 1 Aug 44: "Move forward aggressively. The German is a poor marksman under the best conditions. In the face of heavy fire and an aggressive enemy, his fire becomes highly ineffective."

11 Weigly, Harrison and Abrams all agree on the blundering performance of the 90th Division in the Normandy fighting that preceded the breakout. DePuy emphasized the futility of frontal attacks in Mullen and Brownlee, Interview of DePuy, Section IV, pp. 1-2, and Section VI, p. 15. That he abhorred such attacks while on active duty as a general officer and favored an indirect approach to an enemy's position is evidenced by the quote, which is from his Address to Cadets on Leadership, 1969.

12 DePuy, CG's Remarks at Fort Polk, 7 June 1973, THO Files, pp. 4-5; Mullen and Brownlee Interview of DePuy, Section II, p. 11; Section III, pp. 10-11 and p. 13.

13 Mullen and Brownlee, Interview of DePuy, Section II, p. 16 and Section III, pp. 14-15.

14 Mullen and Brownlee, Interview of DePuy, Section III, pp. 9-13.

15 DePuy, CG's Remarks at Fort Polk, 7 June 1973, THO Files, pp. 1 & 4; Mullen and Brownlee, Interview of DePuy, Section IV, p. 10.
16 Mullen and Brownlee, Interview of DePuy, Section II, pp. 21-27. DePuy recounts that on at least one occasion, he took the principle of specific orders to squads to an extreme by walking along a riverbank and personally ordering each squad into its boat for crossing, threatening some with a pistol. Section II, p. 22.

17 The term "overwatch" appears in Hamilton Howze, "Notes on the Training of an Armored Division," Armor 62 (Nov-Dec 1953) thru 63 (Sep-Oct 1954). See especially "Fire Support Techniques," 63 (Mar-Apr 1954). DePuy, CG's Remarks at Fort Polk, pp. 5 and 10; Mullen and Brownlee, Interview of DePuy, Section IV, p. 26. DePuy may have been influenced by Howze because he sensed that Howze shared his own outlook on soldiering. DePuy described Howze in 1974 as "...a man obsessed with training. He knew more about all the details than anyone else. Single-minded and humorless, but by God, he was devoted and focused." DePuy, Keynote Address, 22 May 1974.


19 DePuy, CG's Remarks at Fort Polk, p. 5; U. S., Department of the Army, U. S. Army Infantry School, Extract from a Guest Speaker Presentation to the Infantry Officer Advanced Courses at the U. S. Army Infantry School on Thursday, 13 February 1975 by General DePuy, mimeographed, 21 February 1975, loaned by Colonel Carter; Mullen and Brownlee, Interview of DePuy, Section IV, pp. 36-37.

20 DePuy, CG's Remarks at Fort Polk, p. 14; DePuy to Secretary of the Army Martin R. Hoffman, 18 Dec 75, DePuy Papers, USAMHI, p. 1; Mullen and Brownlee, Interview of DePuy, Section IV, pp. 26-27. It would be wrong to imply that DePuy had no experience in Asia. Between his two tours in Germany, he worked for the Central Intelligence Agency in Southeast Asia, but has not discussed that part of his career. His command experience in the Army had all been in Europe.

21 These techniques were common to many units in Vietnam and are described in Doughty, Tactical Doctrine, p. 36, and John H. Hay, Tactical and Materiel Innovations (Washington: Office of Chief of Military History, 1974), p. 13. DePuy discusses them in Mullen and Brownlee, Interview of DePuy, Section VI, pp. 1-3.

22 Mullen and Brownlee, Interview of DePuy, Section VI, pp. 1-3; Address to Cadets on Leadership, 1969.

23 DePuy, Keynote Address, p. 5; Mullen and Brownlee, Interview of DePuy, Section II, p. 34, and Section VI, pp. 13-14; DePuy, Commanding General's Remarks at Fort Sill, 19 June 1974, THO Files, pp. 2-3. DePuy's emphasis as Commander of 1st Infantry Division on weapons siting can be inferred from the following account: "When I [DePuy] visited that battalion...I knew that it had been deficient rather consistently in the attention that it paid to the tactical sitings of its defensive position...I personally climbed down in every defensive position [of one company] and I found that about 10 meters in front of these defensive positions was a burm...That company had a field of fire of 10 yards. This was not a single episode but it was the culmination of a lack of attention to the things that keep soldiers alive in war. It was the last of many, but it was gross. I relieved the battalion commander then and there." DePuy, Address to Cadets on Leadership, 1969.

24 DePuy, Briefing at Fort Polk, 7 June 1973, pp. 3-4.


29 The two Lieutenant Colonels were William Tuttle and James Edgar. Mullen and Brownlee, Interview of DePuy, Section VII, pp. 21-25.


31 DePuy did not know whether he would command either of the new headquarters while he was involved in the study and did not know he would command TRADOC until the late winter of 1973, a year after he submitted his recommendations to the Secretary of Defense. Mullen and Brownlee, Interview of DePuy, Section VII, p. 25.
CHAPTER III
ASSESSING THE OCTOBER WAR, 1973-1974

When General DePuy established his new headquarters inside the long dormant seacoast fortress at historic Fort Monroe, Virginia, in July 1973, he was not yet convinced of the Army's desperate need to overhaul its tactical doctrine. His priority missions, as he saw them, were to upgrade the Army's training programs and to integrate into TRADOC the combat developments functions of the old Combat Developments Command. These were formidable administrative tasks in themselves, and they competed for the General's attention with a whole host of other concerns, some inherent in establishing TRADOC, some directed by higher authorities in Washington. The Arab-Israeli War of October, 1973, caused a reordering of TRADOC's priorities. It convinced General DePuy of the necessity to address doctrinal issues first, and it powerfully demonstrated that there was no time to lose.

DePuy's guidance from his superiors in Washington — namely Chief of Staff of the Army Creighton W. Abrams and Secretary of the Army Howard H. Calloway — included more
tasks than organizing TRADOC. The Secretary was concerned more with the personnel management aspects of the new volunteer force than with organizing and preparing it for combat. His message to DePuy in February 1974 instructed him to pay careful heed to recruiting, retention rates, quality of personnel, management and training practices, soldier life-style, and the public image of the Army.¹ While General Abrams had talked to General DePuy prior to the activation of TRADOC about doctrine development, of greater concern to him in that first year was seeking authorization to increase the number of active Army divisions from thirteen to sixteen while staying within the allocated manpower ceiling of 785,000 soldiers. To do this, he looked to his major subordinate commanders to "rid ourselves--ruthlessly if necessary --of every project or activity that does not contribute directly to the attainment of the required force."²

General DePuy, not unnaturally, was therefore greatly concerned that his new command operate under sound management principles.³ Much of what he did for his first year he directed toward reducing staffs, increasing efficiency, and running his command with less money. Through a budget management initiative called the "contract system" in which subordinate commanders were given a list of priority missions and available resources, General DePuy attempted
to give the school commandants more initiative and freedom of action. As he prepared for his first commander's conference in Washington in the fall of 1973, he wrote to General Abrams about "the matters which are uppermost in my mind." Alongside training and combat developments issues were concerns about budget reductions (especially in light of soaring fuel costs), "excess" personnel, and reductions in the civilian workforce. Nowhere did he express a concern for the Army's doctrine. 4 As much as a year later, he reported to the Department of the Army about how his command was contributing to the 16-division force by doing more with less. Included were such things as reductions in the length of officer courses at the various schools, giving recruits their basic and advanced training at the same post to eliminate relocation costs, and fielding a variety of training aids so that more intensive specialized training could take place at the soldier's unit. 5

Given these conditions, General DePuy might have lost sight of what TRADOC was supposed to do for the Army as he became enmeshed in day-to-day administrative and financial operations. Such was not the case. He had a clear idea of TRADOC's overall relationship to the Army and of the Army's role in the security of the United States. That strategic perspective drove his innovations in training, first, and ultimately in doctrine.
General DePuy saw the reduction in size of the Army and the shift to an all-volunteer force not so much as a natural consequence of the withdrawal from Vietnam as a reflection of the change in American strategy. The United States was not anticipating war on anything like the scale of World War II, and it was not preparing in any way for such a war. If war came, it was likely to be unexpected, sudden, localized and "turned off by the world politicians as quickly as possible." Except in Europe, American involvement would be limited to a force of two or three divisions, first because that would be all she could spare, and second because combat would likely not last long enough to send more than that. The enemy, even if a Third World nation, would likely field sophisticated, well-armed, conventional forces. For these reasons, if the Army were to settle such conflicts in America's favor, it would have to be ready for instant deployment and be qualitatively far superior to any potential aggressor, including especially the enlarged and recently modernized forces of the Warsaw Pact. As DePuy looked at the Army's training establishment for which he was now responsible, he saw an institution created for the mass mobilization of World War II and modified only slightly since. He did not see an institution that would provide the sort of "deep professionalism" required of the Army in these new strategic conditions.
To General DePuy, this World War II training establishment was inadequate to current needs for two reasons. First, he recalled from his own training in the 1940's that the rapid expansion of the Army, the necessity to deploy troops soon, and American superiority in manpower had all conspired to yield only the minimum essential training for the soldier before he joined his unit and went overseas. The result was not infrequently the sort of performance the 90th Division turned in before it became experienced. Given enough soldiers, this was a politically acceptable price to pay at the time. The World War II training experience set the mold in which post-war training was cast. While the Korean War and Vietnam War did not require mobilization on the scale of World War II, the training experience for soldiers in both conflicts was much the same as for their elders in World War II: large numbers of conscripts being hustled through a series of exercises in which minimum competence was the goal. Such training undoubtedly accomplished very important socialization but not much military skill. Second, an assumption of the Army's training establishment since World War II had been that war would bring mobilization and a vastly expanded army. Today's captains were the lieutenant colonels and colonels of such an expanded army. Their training was tailored accordingly, for it focused on command problems
one or two echelons above the current level of the students.

Such training policies, DePuy believed, did not meet the changed circumstances of the Army. To support a small, volunteer force that had to be instantly ready to deploy overseas and fight against superior numbers, the training establishment would have to produce soldiers and officers who were thoroughly competent in those skills required of them immediately after their graduation. This meant better (but, for budgetary reasons, not always longer), more thorough training focused on the student's current grade. Consequently, DePuy directed that the schools shift the focus of their curricula to prepare the student for his immediate assignment after schooling. The branch schools should train lieutenants to be platoon leaders and captains to be company commanders and should not prepare either for duties at a higher level in an expanded Army. Probably most importantly, he gave his Deputy Chief of Staff for Training, Brigadier General Paul F. Gorman, the task of rewriting the Army's training literature to make it "readable and current," starting with those manuals most important to combat operations, the ones used to teach the Army "how we fight."
If the changed strategic circumstances of the Army required a new training establishment, the Army's fiscal concerns seemed to require new procedures for developing equipment and weapons. In the same fiscal year (1971-1972) in which he had helped plan the STEADFAST reorganization of the Army, General DePuy witnessed the termination of two major weapons procurement programs, one for the "Cheyenne" advanced attack helicopter and the other for the "MBT70" main battle tank. Although officers saw both as critical to the Army's long overdue modernization, they were unable to articulate to the Department of Defense and Congress a need for the weapons commensurate with the costs. The Army's procurement agency, the Army Materiel Command, set about solving the problem of cost overruns by improving its contracting procedures. Meanwhile, General DePuy hoped to help the Army express its needs more persuasively by integrating into TRADOC the functions of the old Combat Developments Command.

Prior to the STEADFAST reorganization, the Combat Developments Command (CDC) had been responsible for developing army doctrine, organization, and requirements for specific pieces of equipment. It had passed these latter requirements on to the Army Materiel Command, which in turn actually designed, developed and procured the needed item. 9 CDC's field agencies had always been co-located with the
various branch schools of the Army in recognition of the potential for cooperation between the "combat developers" and the users of the doctrine represented by the faculty and students of the schools. Because the agencies and the schools were responsible to separate commanders, however, this potentially beneficial relationship was totally dependent on local circumstances.

DePuy perceived that often there was no relationship. As a consequence, the Combat Developments Command could not develop doctrine, organization, and equipment needs together and then provide them to the Army as a package. Instead, civilian contractors and the Army Materiel Command tended to lead the equipment development process and pull it away from the development of doctrine and organization, which was anchored more securely to what was taught in the schools. Consequently, the Army invested in equipment that had impressive capabilities without thoroughly considering whether such equipment was compatible with other equipment on hand or in the development process, and/or with the Army's likely use of such equipment on the battlefield. This gap between the development of doctrine on the one hand and equipment specifications on the other was "big enough to drive a truck through." It was the major problem behind the Army's procurement disappointments, and one that TRADOC was uniquely competent to solve because, according
to DePuy, "we teach Lieutenants, Captains, Lieutenant Colonels and Majors how to fight... the fact that we teach it means we believe it. If we teach it and don't believe it, we're all frauds. If we teach it and we believe it, then we must buy the weapons that make it work and write the manuals that say how to use the weapons that make it work." By putting combat developments together with the schools under the same command, the Army hoped to shift the emphasis in materiel development from the scientists, engineers and contractors to the fighters and in the process make a more persuasive case for its modernization needs.

As a first step toward this goal, General DePuy exploited a bureaucratic characteristic of the TRADOC organization. All of the Army's schools came under three "integrating centers" that served as intermediate head-quarters between Headquarters, TRADOC, and the schools themselves. These centers had functional areas of responsibility. The Administration and Finance Center at Fort Harrison, Indiana, was to oversee Army training in administration and finance, the Logistics Center at Fort Lee, Virginia, was to oversee training in supply, transportation, ordnance, and related fields, and the Combined Arms Center at Fort Leavenworth, Kansas, was to oversee Army training in the combat branches of infantry, armor,
artillery, air defense, aviation and engineers. The Combined Arms Center was also responsible for training the Army's middle-grade officers at the Command and General Staff College located at Fort Leavenworth; overseeing and insuring the consistency of training at each of the combat branch schools; conducting combat developments research at a new facility called the Combined Arms Combat Development Activity (CACDA); and writing the doctrinal manuals that dealt with combined arms operations. Such organization was in no small part due to DePuy's own influence over the original design of TRADOC, and so General DePuy turned to Fort Leavenworth with his ideas about combat developments.

What General DePuy wanted Fort Leavenworth to do in combat developments was to bring order to what he perceived as chaos. He perceived all combat developments/materiel acquisition actions as necessarily starting with a concept, an idea of how the Army wanted to do something. The concept then had to be applied to a scenario that described specific conditions of terrain, weather and enemy activity, so that adjustments to the concept based on current organizational and equipment constraints could be made. Then the Army could clearly articulate the improvement in its capabilities that a new piece of materiel would provide, while also demonstrating that such hardware would remain compatible with other Army systems and reliable given the
circumstances of its employment. To gain such power of persuasion, the Army would have to speak with one voice about what it needed. Therefore, the concepts would have to enjoy consensus throughout the Army. The scenarios used to evaluate them would have to be limited in number, based on "real world" Army missions, and would have to include contributions to the Army's mission in a given theater by other services and allies, including especially the Tactical Air Command of the Air Force.\textsuperscript{12} DePuy saw the production of these scenarios as a major task for CACDA and Fort Leavenworth's new commander, Major General John H. Cushman.

General DePuy's concerns in the summer and fall of 1973 had not been to rewrite the combat doctrine of the U. S. Army. He was concerned first and foremost with getting his new organization off to a good start with efficient administration and financial management. He saw as his first priority missions the revitalization of the Army's training establishment and the integration of the combat developments function with the TRADOC structure. However, his approach to both of these missions led directly to the question of doctrine. Changing the school curricula to insure thorough preparation of the officer students for follow-on assignments begged the question of what those officers must know in those assignments. Rewriting the "how to fight" training literature required
that General Gorman decide how one should fight and what training a soldier should therefore receive. Grounding the development of equipment in commonly accepted concepts and scenarios required that one describe those concepts and scenarios. From these three separate directions, TRADOC asked the fundamental question of American military doctrine: how does the U. S. Army fight? Had no event as dramatic as the Arab-Israeli War of 1973 happened to accelerate the process, DePuy's initiatives in training and combat developments very likely would have led to an examination and updating of the Army's doctrine anyway. As it was, that war burst upon the consciousness of Army planners and captured their attention as quickly as it did world headlines. The war was the catalyst that brought DePuy's training and combat developments initiatives to reaction as new doctrine.

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If a war can be called a fortuitous event, then the October War which erupted on 6 October 1973 with simultaneous Egyptian and Syrian attacks on Israel was fortuitous for TRADOC and the U. S. Army. Within the first day Egyptian armies had forced a crossing of the Suez Canal, punctured the renowned Bar-Lev Line, established themselves on the east bank, and repelled successive Israeli armored
counterattacks. Meanwhile, four Syrian divisions broke into Israeli defenses on the Golan Heights and pressed hard for the Jordan River. In the three weeks of fighting that followed, Israeli brigades and Soviet-model Arab divisions swirled in a danse macabre rivalled only by the fiercest battles of World War II and punctuated by the very latest in sophisticated weaponry, especially long-range anti-tank guided missiles (ATGMs) and integrated air defense systems. When the fighting was over, total tank and artillery losses for both sides together exceeded the entire tank and artillery inventory of U. S. Army Europe. Captured Arab equipment showed that the Soviets who supplied it were well ahead of the U. S. in combat vehicle technology. If evidence was needed that future war might contrast sharply with the decade-long, painstaking experience of the U. S. Army in the rice-paddies and jungles of Vietnam, here it was for all to see. TRADOC gained not only a laboratory experiment in conventional warfare to provide analytic data, but, more importantly, a spectre of future war to stimulate the process leading to doctrinal reform.

Shortly after the October War, Army Chief of Staff General Creighton W. Abrams charged TRADOC to extract the "lessons" of the war. TRADOC in turn tasked the Combined Arms Center at Fort Leavenworth, Kansas, to head up a
Special Readiness Study Group composed of personnel from the CAC, the Army Logistics Center, and representatives from other selected Army schools and centers. This group, led by Brigadier General Morris J. Brady, Deputy Commandant of the CAC, visited the Middle East and culled available intelligence and observer reports to produce in July 1974 a detailed report on 162 specific issues of importance to the Army.  

Consistently with its charge, the Brady team attempted more to use the events of the October War "as a means of raising issues regarding the U. S. Army's mid-intensity war-fighting capabilities" than to conduct a definitive analysis of what happened, although that was also desirable. The idea was to identify specific operational problems and submit each to that agency most able, first, to assess that problem's probable effect on the Army and, second, to recommend improvements to overcome that problem on a future battlefield. The scope and exhaustive detail of the Brady Study as well as the process of submitting each issue to an "action" agency for further coordinated analysis meant that any substantive response by the Army to the events of October 1973, would be necessarily long in coming.
This was not a process to appeal to a man like General DePuy. Fearing that the immediate impact of the Brady Study would be lost by its bulk and the diffusion of its recommendations throughout the Army bureaucracy, DePuy drew his own conclusions from the report and submitted them directly to General Abrams.\textsuperscript{17} These conclusions, more than the details of the Brady Study, formed the basis of TRADOC's official "lessons learned" and in turn drove TRADOC doctrinal initiatives over the next two and one-half years.

General DePuy as well as numbers of other observers saw in the October War indications that future conventional warfare would be significantly different from previous American experiences if not altogether revolutionary. What most impressed him were the staggering losses of tanks, vehicles, guns, and aircraft, manifestations of what he liked to call the "new lethality" of the battlefield which resulted from a proliferation of accurate, long-range, deadly weapons such as improved tank cannon and fire control instruments, ATGMs and surface-to-air missiles (SAMs).\textsuperscript{18} He deduced from this evidence that a critical issue on future battlefields would be how best to protect one's own forces from this lethality while maximizing the potential of the new weapons to inflict casualties on the enemy. Secondly, he was impressed that supposedly "Third
World" nations like Egypt and Syria, with Soviet assistance, could field and fight large forces so equipped with relative proficiency. This meant that if American power were to be brought to bear in the Middle East or elsewhere, the Army had to be prepared, as in Europe, to fight large numbers of well-equipped enemy forces from the first day of hostilities. Assuming either that governments would attempt (as in the October War) to bring any such clash under control before it ignited a world or nuclear war or that the rapid consumption rates of battle would disallow prolonged fighting, the Army had to win the first engagements of such a war so that the settlement would be favorable to American interests.

To do these things in an operational sense meant that American forces had to be able to concentrate on the battlefield against the enemy's main force and defeat it quickly. To do that at the right time and place required knowledge of the enemy's disposition of forces in depth, which required not only superior intelligence collection and analysis, but a conception of the enemy by field commanders that extended beyond the front "lines" to include the enemy's successive echelons, artillery, support troops, and headquarters, as well as his possible courses of action, all as a single entity.
No less important than these new concepts inspired by the October War were the new operational issues that it presented. Arab air defenses consisted of radar-controlled guns and missiles of varying ranges arrayed in a belt from which a protective "umbrella" of anti-aircraft fire covered the advancing ground troops. In addition, anti-aircraft guns mounted on armored, tracked vehicles accompanied the forward-most troops. These had successfully blunted the Israeli Air Force. Not until Israeli ground forces had attacked and destroyed enough of these air defense sites to create gaps in the umbrella did they receive adequate air support. Not only did DePuy worry that the U. S. Army lacked a similar air defense capability, but also that neither the American Army nor the Air Force was prepared for a battle in which the former could not get immediate air support and the latter could not operate with impunity over the battlefield. DePuy recognized that the success of the ground forces often depended upon close air support and air interdiction, which in turn required a joint effort by ground and air commanders against enemy air defenses, a problem he saw as "one of the most important...facing the ground commander," and requiring "close and intimate relations with the Air Force in training, operational procedures, planning and in weapon systems acquisition...."20
The problem posed by Arab air defense had a parallel on the ground in the ATGM. Egyptian infantry assaulting across the Suez Canal anticipated immediate counterattacks by Israeli tanks, potentially disastrous in the open terrain of the Sinai unless the Egyptians could defend themselves until bridges could be built and their own tanks brought across. Their solution to this problem had been the formation of special tank-killing teams of infantry armed with anti-tank guided missiles such as the Soviet Sagger and other tank-killing weapons such as mines and hand-held rockets. The teams crossed the Canal in the first assault waves, moved quickly to the far side of the first low ridge-line paralleling the canal, dug in and attempted to halt the Israeli tanks. Mortar and artillery fire and, where possible, tanks from the Egyptian side of the Canal provided fire support. Piecemeal attacks by Israeli tank companies and battalions that had planned only to fight other tanks were stopped cold. The small parties of well camouflaged Egyptian infantry scattered among the rocks and depressions of the desert engaged the Israeli tanks at ranges out to 2000 meters. Trained to move together at top speed along the most suitable avenues, the tanks provided excellent targets to volleys of Egyptian missile and, later, tank fire. The tankers could not see their opponents nor did they have at hand accompanying infantry, artillery support, or high-explosive tank
ammunition necessary to fight them. Air support could not get through the umbrella of Egyptian anti-aircraft fire. Not until the Israelis used the cover of terrain and accompanied their tank formations with their own infantry and artillery were they able to breach these defenses and regain the initiative. While DePuy would be very cautious in his assessment of the ATGM, he recognized that the infantry's greatly enhanced ability to destroy tanks forced a reliance on all arms working in combination to achieve victory, a point he considered a major lesson of the war. 21

To best assist the movement of the tanks, infantry needed equivalent mobility and armor protection so that they could move with and fight alongside the tanks, using automatic small-arms fire to "suppress" enemy anti-tank capable infantry such as that encountered by the Israelis. If the enemy infantry could not be suppressed, the infantry's task was to leave their vehicles only long enough to dislodge the enemy by direct assault. This represented more direct infantry participation in the tank battle than had heretofore been the case in the U. S. Army and would lead to a rediscovery of German panzer-grenadier doctrine.

Finally, General DePuy recognized the apparent degree to which Soviet forces were prepared for chemical and
nuclear warfare as evidenced by the design of Soviet combat vehicles captured from the Arabs by the Israelis. Vehicle filtration systems (which allowed the crew to fight their vehicle in a contaminated area by closing hatches only but not donning encumbering protective masks) and sophisticated decontamination kits affixed to each vehicle indicated that the Soviets were preparing actively for (and perhaps anticipating) chemical and nuclear operations. They also showed clearly that in such operations their forces would have a decided advantage.

If the Arab-Israeli War presented a type of modern conventional warfare for which the U. S. Army was unprepared, it also confirmed for General DePuy notions about combat that he had nurtured for years. The war's dramatic events might compel the Army to move more vigorously, (indeed, DePuy would use it for just that purpose) but whatever tactical lessons might emerge had to meet the approval of the TRADOC Commander before they became Army doctrine. To him, the operations in the Sinai and on the Golan were more continuity than change.

Foremost among DePuy's notions about conventional combat was the primacy of armor. While the combination of arms was now essential, to DePuy the tank remained the decisive element in ground combat. Its inherent offensive
mobility, firepower, and heavy armor protection meant that it was the key weapon with which to penetrate the enemy's defenses and disrupt the integrity of his forces by destroying headquarters, communications, and stores in his rear. It could not move on the modern battlefield without closely coordinated action by infantry and artillery, but their job was clearly to assist the movement of the tanks.23

To survive amid the new lethality of the battlefield, DePuy insisted, armored and mechanized units must adopt new techniques of movement. Their commanders must abandon all thought of arranging their vehicles in geometric patterns such as the "Y", "vee", and "wedge" then current, and instead flow across the ground in whatever configuration best exploited the available cover and concealment of terrain. They must be prepared to immediately return the fire of enemy anti-tank weapons with voluminous fire of their own, to destroy the enemy at best and at least to disrupt his fire and allow the continued rapid movement of their own vehicles, a concept DePuy called suppression. Ideally, suppression would be pre-arranged in the form of tank and mechanized infantry units "overwatching" the forward-most moving elements, either from stationary, covered and concealed positions, or from units also on the move but outside any kill zones the lead elements might
encounter. Suppression should also be provided in the form of "on call" artillery fires which could reach beyond the range of friendly direct-fire weapons to strike especially at enemy ATGMs. To do these things effectively against an enemy with comparable equipment in equal or superior numbers meant that the U. S. Army would have to field a force superior - as DePuy believed the Israelis had been - in skill, leadership, discipline, motivation, and courage. All he believed could be produced by intensive training.\textsuperscript{24}

Above the level of the company commanders who would actively fight the combined units of tanks, infantry, ATGMs and artillery, the crucial quality of combat commanders was the ability to concentrate forces at the right time and place, which in turn required of all echelons superior mobility and flexibility and positive control of subordinate units. To DePuy, the right times and places were those which took advantage of enemy weakness and thus forced the enemy to fight the battle according to one's own concept and not the enemy's.\textsuperscript{25}

Although these ideas appeared in his various reports to his superiors and the Army at large on the lessons derived from the October War, each had its roots firmly in his earlier experiences. He was inclined by his service in World War II and in Europe in the 1950's and 1960's to accept the primacy of the tank on any battlefield where the
terrain allowed its employment. He discounted contrary evidence from Korea and Vietnam because he saw those infantry-intensive wars as aberrations from the historical trend. World War II had impressed DePuy with the essentiality of combining arms to achieve both suppressive fire and decisive maneuver. Thus inclined, he immediately endorsed General Howze's ideas on "overwatch" during his first peacetime command in Europe in the 1950's. He eagerly experimented with roles for the infantry on the mechanized battlefield when, in the early 1960's, he commanded the U. S. Army's first mechanized infantry regiment. Although command in Vietnam did not confront him with a mechanized enemy against which to test these ideas, he vigorously applied the technique of overwatching small lead elements of infantry with weapons capable of placing immediate suppressive fire on the enemy and thus allowing the lead and following elements to maneuver to encircle and destroy him. His command style there reflected a near obsession with exploiting airmobility to achieve rapid concentration. Although DePuy believed that one achieved victory on the battlefield by defeating the enemy's main force, his World War II experience with the 90th Infantry Division had convinced him that one did that by avoiding enemy strength and attacking enemy weakness so as to give oneself a decisive advantage over that force.
What DePuy saw in the October War further reflected his life-long interest in the smallest echelons of the Army: its soldiers, crews, squads, platoons and companies. To him the penultimate problem of the Arab-Israeli War was bringing the capabilities of each weapon to bear in concert so that the objective could be obtained. That problem progressed up the hierarchy from the squad leader who must order some men to fire so that others may move to the general who must integrate all of the capabilities of tanks, infantry, artillery, air defense, engineers, tactical air support, and logistical support. The "new lethality" dictated that unless new techniques of movement were adopted by the lowest echelons of the Army, no amount of effort at higher echelons would produce success. Those techniques themselves were an exercise in combining or integrating weapons effects to allow the movement that resulted in the enemy's defeat. They had to be mastered by sergeants, lieutenants and captains whose Vietnam experience had not prepared them for this sort of combat. The colonel who wrote about the essence of a rifle squad in 1958, the division commander who relieved a battalion commander for poorly sited machine guns in 1967, the lieutenant general who lectured infantry drill sergeants on fire team leadership in 1973 came almost instinctively to this focus on the "cutting edge" of the Army. To DePuy, the October War demonstrated that the U. S. Army must be
retrained, starting at the lowest levels and working up, to think about combat as a problem of weapons systems integration. 26

In addition to focusing some of his doctrinal concepts, the October War provided General DePuy with a tailor-made opportunity to link materiel development and acquisition to doctrinal development. That is, the war provided issues, ideas and concepts against which to test on-going equipment acquisition programs. For example, the Israeli experience suggested that mechanized infantry had to participate directly in the tank battle by using onboard automatic weapons to suppress the ATGMs of the enemy's infantry. One could measure how well different armored infantry carriers performed this task and then decide whether the improvement in capabilities between them was worth the attendant costs. The Israelis had already found that their World War II-vintage M-3 halftracks were unsuitable because they were too slow. They seemed satisfied with their wartime expedient, the newer, American-made M113 armored personnel carrier. To DePuy, the best vehicle was the controversial and expensive "mechanized infantry combat vehicle" (MICV), which, not coincidentally, was one of the Army's top procurement priorities for Fiscal Year 1973. Whichever vehicle was really best, this "closing of the gap" between materiel and doctrine development DePuy
saw as a major TRADOC mission, and the October War provided him with a wealth of similar issues to bring to the task.

The U. S. Army digested the lessons of the Middle East War throughout 1974 and 1975. The first official analyses were complete by January 1974; the Brady Study was completed in June of that year, as was General DePuy's forwarding letter to the Chief of Staff of the Army. By February of 1975, General DePuy could give selected audiences a complete, classified briefing entitled "The Implications of the Middle East War on U. S. Army Tactics, Doctrine and Systems." The war did more than pose questions about tactics, doctrine and systems. It brought the Army's attention sharply to its own unreadiness. Vietnam-experienced paratroopers who waited in full combat gear near their aircraft at Pope Air Force Base, North Carolina, during President Nixon's world-wide military alert learned that they would not have been prepared to fight tanks in the Sinai Desert. Thus the war both posed the questions and spurred the Army to seek solutions, while providing men like General DePuy with a compelling and universally recognized case in point. If TRADOC was to coordinate its initiatives in training, officer schooling, and combat developments so that all focused on preparing the Army for wars like the October War, then each of those initiatives must be founded on a common concept of how the
Army should fight in such a war. The articulation of that concept must precede the other initiatives. "...the implications of the Middle East War... involved problems and challenges at every level from corps to company," wrote General DePuy to the Army Chief of Staff in February, 1976. "TRADOC therefore embarked on a program to reorient and restructure the whole body of Army doctrine from top to bottom." 27
CHAPTER III FOOTNOTES

1 Secretary of the Army Howard H. Calloway to DePuy, 11 February 1974, DePuy Papers, USAMHI.

2 General Creighton W. Abrams to DePuy, 13 August 1974, DePuy Papers, USAMHI.

3 Mullen and Brownlee, Interview of DePuy, Section VII, pp. 26-34.

4 DePuy to Abrams (draft), November 1973, pp. 1-3, loaned by Colonel Carter. An example of General DePuy's management headaches: "For the last several months, we have had an excess capacity of 36% in the training centers. We are losing money at the rate of $167,100.00 per week, $724,100.00 per month, and would lose $5,068,700.00 if we failed to make the reduction by the end of the fiscal year...Our concern stems partly from the fact that the military personnel concerned should be reassigned to FORSCOM units...and partly from our concern about money and...rising fuel prices. At Ft. Leonard Wood alone in the last week our estimate of increased fuel cost has risen by $1,000,000.00 for the remainder of the fiscal year [due to an increase in the price of propane from 8¢ per gallon to 44¢ per gallon]."

5 DePuy to Foster (electronic message) 20 December 1974.


7 DePuy CG's Remarks at Ft. Polk, on 7 June 1973.


10 William E. DePuy, CVPR Prebrief, mimeographed transcript of DePuy's remarks to the combat vehicle program review rehearsal at Fort Knox, Kentucky, October 1973, loaned to the author by Colonel William G. Carter.


12 U. S., Department of the Army, U. S. Army Training and Doctrine Command, Combat Scenarios, Pamphlet 71-11 (1973), p. 1-1. U. S., Department of the Army, U. S. Army Training and Doctrine Command, SCORES Historical Summary, August 1975. Nowhere did DePuy express these ideas more clearly than at Ft. Knox, Kentucky, in October 1973, during a rehearsal for an exhibit of armored equipment and doctrine for the Army's research community and civilian contractors. Said he: "I have high hopes that all of us together in TRADOC...can begin to close that gap. Can begin with our concept, illustrate that concept with the scenario and extract from that scenario our capabilities and limitations and derive from that the direction we should [go] in the future..." Speaking of the research and development community, he said, "They know what their little thing is all about, but nobody ever ties it together for them. Now that is what we want to do." DePuy, CVPR Prebrief, pp. 1-2.

13 The literature on the October War is extensive. The best, most recent account that attempts to place the war in historical perspective is Chaim Herzog, The Arab-Israeli Wars - War and Peace in the Middle East. (New York: Random House, 1982) See bibliography for more titles.


15 U. S., Department of the Army, U. S. Army Combined Arms Center, Analysis of Combat Data - 1973 War (Unclassified), Vol 1, Main Report (July 1974). Report is classified SECRET. Material used is UNCLASSIFIED. DePuy to Secretary of the Army Martin R. Hoffman, 18 December 1975, DePuy Papers, USAMHI.

16 Combined Arms Center, Analysis, pp. iii and vi. Material used is UNCLASSIFIED.
DePuy, Commanding General's remarks at Ft. Sill, Jun 74, pp. 1-2; DePuy to Chief of Staff of the Army, "Analysis," p. 2; DePuy, "Implications..." p. 2; p. 5, p. 17; DePuy insert to POS, p. 2; DePuy, Keynote Address, p. 4.

Romjue, MFR, 7 Nov 74. DePuy, Remarks to Mus Conference, Apr 74, p. 6; Keynote Address, May 74, pp. 2-3.

"Implications..." pp. 3-4 and 65-66.

"Implications..." DePuy to Komer, Apr 75, p. 1, on caution about ATGMs.

DePuy inserts to POS, Jun 74; DePuy to Chief of Staff of the Army, "Analysis," 21 Jun 74, p. 5; "Implications..." pp. 24-25.


Remarks at Ft Sill, p. 9; Remarks at CVPR Conference, Oct 73.


"Analysis," ; "Implications," ; CG's remarks at Ft. Sill; Keynote address; DePuy to Hoffman; Interview; DePuy to Weyand, FEB 76; Romjue, Army 86; Nicholson, DePuy Comments: Kleber, final interview; POS.


Referring to lessons of the Middle East War, DePuy said in June 1974, "But the mission of the infantry is still just to eliminate a problem which is causing the tanks not to be able to do their job. Now that relationship is beginning to be well understood and the design of equipment is being driven to fit that." DePuy, "CG's Remarks at Ft. Sill," 19 June 1974, pp. 9-10.

DePuy to Weyand, 18 Feb 76, p. 2.
CHAPTER IV
HARNESSING TRADOC, 1974

General DePuy believed that the Arab-Israeli War of 1973 confirmed both his strategic outlook and his fundamental ideas about tactics. It further suggested the unreadiness of the U. S. Army for mid-intensity conflict in a dramatic manner evident to all, thereby providing a perishable opportunity to focus the Army's energy on reform. DePuy believed that TRADOC was uniquely able to guide that reform, that, indeed, to do so was its mission. Between the winter of 1973-1974, when the Army digested the first analyses of the Arab-Israeli War, and the autumn of 1974, when he would decide to rewrite all of the Army's field manuals, General DePuy struggled to harness his sprawling command to the purpose of changing the combat doctrine of the entire Army.

This was a formidable bureaucratic task. It involved synchronizing the efforts of his own complex organization while integrating contributions from allies and sister services, all the while attempting to persuade other Army commands, outside his jurisdiction, of the legitimacy of
his work. All of this was to be done against a ticking clock counting off the unknown remaining time to the next military crisis. The most important and controversial work was done within TRADOC, punctuated by three key decisions by the TRADOC commander: first, he allowed the U. S. Army Armor School to take the lead over other TRADOC agencies in developing the substance of the doctrine; second, he committed his tactical ideas to writing in a single, concise description of the sort of combat for which the Army must prepare as first priority; and third, he formalized TRADOC's efforts to influence the entire Army by deciding to rewrite all of the Army's field manuals within eighteen months, making each of them consistent with his own tactical ideas.

Some of the groundwork for doctrinal reform was well in-hand by the spring of 1974. DePuy's concept of standard scenarios as a baseline for combat and materiel developments had been approved by the Chief of Staff of the Army in November 1973, and the centers and schools were busy preparing their portions of each.\(^1\) The Army Materiel Command, responsible for actual procurement of equipment for the Army, was actively cooperating with TRADOC on the use of the scenarios for analyzing the relationship between concepts and equipment specifications.\(^2\) Informed by much of this developmental work, the most important work
relevant to doctrine was that coordinated by Brigadier General Gorman in the area of training.

As a result of General DePuy's evaluation of the Army's training establishment, General Gorman, DePuy's Deputy Chief of Staff for Training, had been directed to rewrite the Army's training literature. This mission yielded a series of training bulletins and circulars published by the various centers and schools, each in an attractive format, each describing a single, specific tactical function. Distributed widely throughout the field Army, these documents did not carry the weight of approved doctrine, but rather were "feelers" intended to generate comment from the field leading to modification and consolidation in formal approved field manuals. The most important described the techniques of the maneuver arms and were published by the Infantry Center at Fort Benning, Georgia, and the Armor Center at Fort Knox, Kentucky. They were consistent with DePuy's own tactical thinking and had his approval. Thus TRADOC had begun to assemble a body of literature about combat techniques and had begun to indirectly influence training and tactical thought throughout the Army before it embarked on a formal program to rewrite the doctrine on a wholesale basis.
The same tactical ideas that inspired these mini-manuals found their way into a more compelling document of General Gorman's creation. This was the Army Training and Evaluation Program or ARTEP. An ARTEP was a document that listed the critical tactical tasks that any given combat unit must be able to perform. For each task, the ARTEP specified the conditions under which it must be performed, and the standards of performance it must achieve to be successful in combat. ARTEP tasks were delineated for all echelons from the squad through the battalion task force, including all components of such a force, such as its attached engineer platoon or air defense artillery platoon. For each task, three different standards were cited to reflect three different levels of combat readiness. Based on extensive operations research at TRADOC headquarters, the ARTEP provided the field commander with a single source for focusing his unit's collective training and for measuring its capabilities. Also disseminated throughout the Army as they were developed, the ARTEPs directed the field commander's attention to the appropriate manual or circular for detailed guidance on how to execute each of the critical tasks, again indirectly influencing the tactical thinking of the field Army. As the ARTEPs were approved as formats to replace the annual Operational Readiness and Training Test (ORTT), they became a powerful stimulus to adoption of new fighting techniques.
None of this work was as well advanced in the spring of 1974 as it was to become, but all of it was underway. Simply doing it, however, very early demonstrated the need for greater harmony among TRADOC's various agencies if the product were to be sufficiently powerful to influence the entire Army.

The spectre of the Arab-Israeli War of 1973 stimulated the doctrinal renaissance in early 1974, and central among the "lessons" of that war had been the criticality of combined arms on the modern battlefield. The Army, however, had no agency for inquiring into the problems of combined arms. It had centers organized around each of the arms or branches (infantry, armor, artillery, etc.), and a Combined Arms Center in name at Fort Leavenworth, Kansas. This latter institution, however, was too new, changing too fast and focused by charter at the brigade and division level, which were too high, to be useful in assessing the commanding tactical lessons of the war. So the U. S. Army set out to adopt the lessons of a quintessentially combined arms war via two monocular institutions: the Infantry Center at Fort Benning and the Armor Center at Fort Knox.

Problems arose early. Believing that the Arab-Israeli War suggested the usefulness of combining tanks and infantry within a platoon, officers at the Infantry Center
considered an interim doctrinal statement to that effect. However, "a problem exists in that Fort Knox has doctrinal proponenty over tank employment and we have to write our manuals around their concepts." A more pressing issue was that of brigade proponenty. In March 1974, TRADOC head-quarters set off a Donnybrook by assigning to Fort Knox the task of preparing plans and orders for type armor and mechanized brigades to be used in combat modelling evaluations within each of the standard scenarios. This implied to the Infantry Center its loss of proponenty for mechanized infantry, and indeed such was nearly the case. "We...content that the proponenty for the 'heavy' and 'light' brigades...is at variance with [previous] agreements," protested Major General Thomas H. Tarpley, Commandant of the Infantry Center. In the then most important scenario being developed, that for a contingency in the Middle East, the proposed assignments would give all of the work to the Armor School, "leaving the infantry school proponenty for nothing." The general further feared that his school's participation in future work on the European scenario "would also be reduced to zero," and all but demanded equal time.

General DePuy tried to pour oil on these troubled waters with a letter dated 8 May 1974, but it could not have been very comforting to Fort Benning. In it, he
acknowledged the difficulty of assigning proponency for brigades composed of more than one arm and admonished his commandants that "we will have to accept overlap of interests and even occasional duplication." He nonetheless went on to identify Fort Knox as the Army's "repository of professionalism on the employment of brigades composed mainly of tracked vehicles," and assigned it responsibility for writing new training circulars on the armor and mechanized brigades. The Infantry Center retained proponency for infantry, airborne and airmobile brigades, as well as all infantry battalions, including mechanized infantry battalions. Almost as a sop, Fort Benning was also to assist Fort Knox with its work on the armor and mechanized brigades, and control the participation of mechanized brigades in scenarios when the specific contingency called for no other infantry forces. Perhaps also to assuage sensitivities, DePuy decreed that the new training circulars on the armor and mechanized brigades, when adopted as field manuals, would be numbered differently: not with a 7-xxx, as had earlier manuals of infantry origin, nor with a 17-xxx, as had those of armor origin, but with a new 71-xxx "to signify a new series of combined arms manuals."9 Clearly, however, the commanding role in the Army's doctrinal revision efforts had been passed to the U. S. Army Armor Center at Fort Knox, Kentucky.
General DePuy had several reasons for this decision and not least among them was that it made sense to him. Responsibility for any single activity could not rest co-equally on two agencies in his soldier's mind, and especially not if some product were expected in short order. The Arab-Israeli War had been a mechanized war in which the primacy of the tank had been confirmed with only some qualification. Certainly the tank was central to the defense of NATO Europe, and it now appeared to be central to any conflict in the Middle East. To DePuy, the wars for which the Army must prepare were tankers' wars and tankers should lead the effort.

Even had this argument not been as compelling as it was to him, DePuy was inclined to give Fort Knox the nod because of the personality of its commandant, Major General Donn A. Starry. Starry was a protege of General Abrams and a man whom DePuy found "confident that he understands tactics" to a degree superior to most "other people of any rank in the Army."\textsuperscript{10} He was aggressive and enthusiastic to bring the doctrinal lessons of the Arab-Israeli War home to the armor community. From his first weeks at Fort Knox, he bombarded his boss with back-channel telegraphic messages outlining new initiatives, proposing changes in priorities of missions, and seeking support in controversies with other Army activities. DePuy was not always pleased with
his Pattonesque apostle of tank warfare, but he knew he was a self-starter who would spare no effort to get things done.11

The climate Starry created around Fort Knox contrasted sharply with that at Fort Benning. The commandant there, Major General Tarpley, was no less competent a man than Starry, but neither he nor his colleagues at Fort Benning were quite as ready to step to the steady drumbeat of mechanized warfare that the Arab-Israeli War provoked. Even had they been, it is unlikely that they could have readily overcome more than a decade's intense experience preparing officers and soldiers for the infantry-dominated war in Vietnam. Both personal and institutional experience placed Fort Benning in the unenviable position of advocating consideration of the lessons of the last war at a time when the Army was consciously trying to avoid that perceived bugaboo and gird itself to fight and win the next one, a war heralded by the events in the Sinai and on the Golan in October, 1973. "I wanted the infantry school to get away from the 2½ mph mentality," said General DePuy years later, "...but they were in the hands of light infantrymen...they didn't do the mech infantry well at all. They didn't understand it...that is why I took these draconian measures with them. To shake them out of that lethargy."12
No such shaking was required at Fort Knox. If anything, DePuy probably worried that Starry would act too fast and create an open debate over doctrine within the Army before TRADOC was in a position to lead the effort. This was because Starry saw extensive and early dialogue with the field Army as a necessary ingredient of TRADOC's recipe for doctrinal reform.\textsuperscript{13} To him, TRADOC's initiatives in literature and in training of junior officers and noncommissioned officers would not overcome the time-honored tradition of a field commander to employ his force as he saw fit. By prescribing its training and its war plans, he had ultimate authority over its tactical doctrine. Without the active collaboration of the field commanders, there was no reason why they should adhere to doctrine developed by TRADOC. "It will not suffice to simply send our training circulars out and trust that they will be acclaimed on the basis of their eminent logic," Starry warned his boss after a visit to Europe in April 1974. "Groundwork must be laid, it must begin in the chain of command; like everything else, one has to talk about an idea persuasively for a while before it has any chance of being accepted." Starry left no doubt as to the importance of this persuasive effort: "...I am fearful that we won't make the headway we hope for...unless a very carefully thought out preparatory dialogue is set up with commanders all over the world."\textsuperscript{14}
General DePuy did not want a dialogue he could not control. His many initiatives, still in their earliest stages, were designed to give the TRADOC Commander a decisive voice in the formulation of doctrine. They needed time to mature. If there was to be a dialogue, it would come after TRADOC-trained officers had permeated the field Army. That, however, was wholly dependent on how aggressively the school commandants integrated the new ideas into their curriculae.

Probably in response to Starry’s urgings, DePuy made this point explicitly when in May 1974, he issued a three-phase plan for the dissemination of doctrine to the Army. There would be a dialogue with the field commanders, but it would consist of his own apostolic visits to their headquarters, as Step 2, and a series of clinics or seminars on tactics as Step 3, sponsored jointly by Fort Benning and Fort Knox. Neither step would be taken until the new techniques now going into training circulars were "published and the instructors in the schools...believe in it and [are] teaching it." To Generals Tarpley, Gorman, and (probably especially) Starry, he wrote, "I know this sounds slow, but we cannot move out on either educational or salesmanship programs until the basic work is done at the schools... In short, I am prepared to go to steps two and
three when you have finished your work on step one but not before."^{15}

This mild rebuff set the pace at which TRADOC would proceed. It did not change the fact of USAARMS primacy in the doctrinal development effort, nor did it solve the problems inherent when one branch of service writes doctrine for another. This was immediately apparent to Brigadier General Gorman as he attempted to design an ARTEP common to armor and mechanized task forces.

A task force is a battalion-size combat element of some 800 soldiers that includes both armor (tanks) and mechanized infantry (foot soldiers who ride into battle in armored personnel carriers that can keep up with the tanks). A task force was not a permanent organization, but a temporary one created by a brigade commander by "cross attaching" or exchanging one or more companies between his pure tank battalion(s) and his pure mechanized infantry battalion(s). In theory, any task force, whether composed of a tank battalion with mechanized infantry units attached, or a mechanized infantry battalion with tank units attached, should be capable of performing equivalent tasks on the battlefield. In trying to specify these tasks and the conditions and standards to which they must be performed in an ARTEP common to all armor and mechanized
task forces, General Gorman discovered that reality did not easily conform to theory.

First were the practical difficulties. The organization of the headquarters companies of the two battalions were different, meaning that the "base" of logistical, communications, and staff capabilities of a task force built around an infantry battalion was not the same as that of an armor battalion task force. Likewise, the two battalions' Combat Support Companies differed, meaning that the task forces would have different reconnaissance, air defense, mortar, and anti-tank guided missile capabilities. General Gorman discovered different doctrinal nuances among armor officers and infantry officers, for instance, in their concept of the purpose and organization of an assembly area and in their notions of how to plan for supporting artillery fires. Finally, he perceived a distinct difference in leadership styles between tankers and infantrymen, the former preferring to command their company or task force from the turret of a tank, and the latter more likely to command from a relatively stationary command post. All of these made the articulation of common tasks difficult; more importantly, they suggested serious institutional obstacles to the unfettered and rapid cross-attachment of units that "modern warfare" seemed to require.
None of these problems, of course, were insurmountable. What troubled General Gorman even more than the practical difficulties of getting infantry and armor together was his sense that the two schools were developing doctrine along divergent paths, and he laid the blame at the door of the Armor Center. General Starry, tactically self-confident, aggressive, believing he enjoyed the favor of the Chief of Staff of the Army, and since May tapped by General DePuy to lead the Army's most important doctrinal reform initiatives, was perhaps moving too fast and thereby missing the combined arms essence of what General DePuy believed the new doctrine should be. General Gorman left no room for doubt that he should be reigned in. Said he to General Starry's boss:

"In the course of writing the Armor ARTEP, I encountered what I would term 'doctrine by slogan.' It was asserted that 'Armor never conducts a deliberate attack;' that 'Armor never attacks a defendable locale, but goes around;' that 'tanks do not defend ground, that's the job for infantry.' These nostrums... made it difficult for me to devise tests for the Armor Battalion [sic] like those envisaged for the Mechanized Battalion [sic]... I believe strongly, in the interests of developing effective combined arms operational capabilities in the field, we must stamp out sloganeering and semantic differentiation at both schools. My sensing is, however, that the Armor school is the principal offender. [You are] going to have to issue some strong guidance to the effect that Infantry and Armor will fight together, using the unique capabilities of each branch to best advantage, but always operating as a team."

General DePuy was not as alarmed as his training deputy by this situation and did not restrain General
Starry in any formal way. This was because he received on the heels of General Gorman's complaint proof that his Armor School Commandant was proceeding in accordance with the three-phase plan and with doctrine fundamentally consistent with DePuy's own ideas. The proof came in the form of a missive dated July 8, 1974, in which General Starry spelled out the fundamentals of tactical doctrine as he saw them and what he was doing to comply with the three-phase plan.

Based on the lesson drawn from the October War that the "modern battlefield," whether in Europe or elsewhere, would be characterized by massive numbers of highly lethal anti-tank and anti-aircraft weapons and that U. S. forces would be outnumbered from the start, Starry posited eleven "new priorities" for armor tactics. These included detection and identification of the enemy main body at maximum possible distances; teaching tank gunners to "fire fast first;" control and distribution of anti-tank fires so that ammunition was available to engage succeeding enemy echelons; the necessity for suppressive fires from overwatch; the necessity for Army aircraft to fly "nap of the earth," that is, as close to the ground as possible to use terrain and vegetation as cover and concealment without limiting mobility; priority to destruction of enemy air defense weapons; the use of reverse slopes as avenues of approach
for attack and counterattack; skill at fighting at night and in periods of reduced visibility; highly reliable tactical communications; and highly flexible, responsive and self-sufficient logistical support.¹⁸ Most of these ideas found their way into, or were consistent with, a Draft Concept Paper that General DePuy circulated later in the same month.

The point of General Starry's message was not to announce new doctrine: he and General DePuy were very much in agreement on most of their ideas about tactics. The point was to demonstrate what he was doing to export those ideas to the field, thereby showing that his school was well along with "Step One" of DePuy's three-phase plan, and thus by example and implication urging on his boss the initiation of Steps Two and Three:

"Now what I've done is to include a tailored version of [the new priorities] into: the battalion ARTEP; [training circulars] for the tank platoon, armored cavalry platoon, company team and tank gunnery," Starry announced in machine-gun-like bursts. "When the time comes a suitable version will appear in [training circulars] on [battalion task forces and brigades.] A version will appear in my personal column in Armor [magazine] for September-October. A version will...be used...to drive the combat developments process in the right direction. Target 1 August. A version will be delivered by either Huck [Starry's deputy] or me to every officer and NCO class at Knox starting immediately. And finally, I'm sending a letter to the scattered armor brotherhood from battalion commander up saying this is what we think and here's what we're doing about it. This will go out within the month."
Starry wanted to head off what he saw as "a lot of opposition" to TRADOC initiatives. In case the point were missed, he concluded "...if you disagree at all, I'd appreciate knowing it now. We really have to get moving—we had precious little time to begin with, now we may have even less."19

General DePuy may have been irritated at this admonition that time was short, but he did not pull in the reins on General Starry. Nor did he become enmeshed in the details of how armor forces might do things differently from infantry forces. General Starry's tactical ideas were consistent with his own and General Starry was getting on with the job. General Gorman's admonition could not be cast off lightly, however. The perception that the new doctrine was based narrowly on the whims of the Armor School could be as damaging as prematurely soliciting the participation of the entire Army. General DePuy therefore acted to gain within TRADOC a broader consensus for and more thorough understanding of the doctrinal changes he espoused. His method was to commit to paper for the first time a comprehensive statement of those ideas.

To insure that the initiatives undertaken by the several centers and schools sprang from a shared concept of combat operations, General DePuy circulated to his
subordinate commandants a "Draft Concept Paper" that was to be a living model from which and with which they were to derive and coordinate their own doctrinal work. Written under General DePuy's personal guidance by a small cell of majors and lieutenant colonels attached to General Gorman's office, this draft was a first attempt within TRADOC to make a comprehensive statement about the combat operations for which the Army was to prepare. It was a concise package of the ideas that were to become FM 100-5. Informed by weapons systems analysis, operations research and the October War, it nevertheless bore the stamp of William E. DePuy like a fingerprint.

"The commander who minimizes his own vulnerability by covering and concealing his own forces while at the same time suppressing or destroying the weapons of the enemy can dominate any battle field even against much larger forces." This, asserted the paper, was the basis for all combat operations, applying with equal logic to all echelons from a squad to a corps. "In mobile warfare the tank is the decisive weapon." Infantry and artillery were mainly to assist the passage of tanks to "the enemy's rear or onto critical terrain features" from which "the enemy's system of defense can be defeated." This called for panzer-grenadier-like tactics by the infantry, suppressing enemy short- and medium-range anti-tank fire with automatic
weapons fire from their carriers whenever possible, when not, "dismount[ing] and under the overwatching suppressive fire of the armored vehicles, assault[ing] the enemy positions on foot with grenades and small arms." Overwatch was continually emphasized: "A good commander at any echelon will find the enemy with a small part of his force--be able to deliver suppressive fire instantly--and have a maneuver element on hand, covered and concealed from the enemy."

If these ideas were rooted in DePuy's experiences of the 1940s, 1950s and 1960s, the draft paper was anything but unconscious of recent developments. It was indeed an effort to grapple with the next war and not the last one. It stressed the "greatly increased lethality and numbers" of air defense weapons and "the practice of moving them with the foremost elements" and concluded that "air defense suppression in concert and collaboration with the U. S. Air Force is now one of the most important operational problems facing the ground commander." It acknowledged the changes wrought by the increased ranges and accuracy of anti-tank guided missiles. It attempted to transfer the Army's Vietnam experience in airmobility and recent developments in attack helicopter technology to the battlefield environment of the October War where helicopters had not been used significantly, saying "airmobile infantry...could be
decisive in trapping [the enemy's] light forward units [in a pursuit]," and "the tank-killing helicopter...adds a new capability for attack, defense and delay...we do know enough from operations in Vietnam and from extensive testing and experimentation to describe the considerations which should govern its initial commitment to combat."21

As interesting as the paper itself was the role it was intended to play in TRADOC's doctrinal efforts. It was not for publication, but for comment, amendment and additions, and to be the point of departure for doctrinal discourse among TRADOC's senior officers. It was to provide "a conceptual basis for the determination of weapons systems requirements," and it was to "find [its] way into your doctrinal manuals and your instruction in both officer and NCO schools" if the commandant found it "relevant and useful to your business." It contained "tactical concepts on which I hope we can agree through the medium of this paper." The Air Defense Artillery and Engineer Centers, respectively, were to provide supplementary material to beef up perceived weaknesses in the concept in those areas, but otherwise DePuy ":[did] not expect or wish to whip up a lot of additional paperwork." He wanted his commandants to keep the paper alive and improving as an informal but shared working model, much like, in DePuy's analogy, a pot
of soup in the home of a French peasant, to which all in
the household contribute and from which all may draw. 22

By the end of the summer of 1974 and his first year as
TRADOC Commander, General DePuy had reason to believe that
his command was off to a good start. Hopefully, the ideas
contained in the "Draft Concept Paper" were percolating
through the Army's school system and bringing into harmony
the potentially divergent initiatives of the various
branches (especially the infantry and armor centers) in
publishing training literature. Officers and NCOs attend-
ing the schools learned the techniques and doctrine derived
therefrom and took that learning with them to their units.
The training literature, special TRADOC bulletins, ARTEPs,
and TRADOC-produced video tapes began circulation through-
out the Army. DePuy hoped that operational units using
these techniques would provide critical feedback. The same
concepts that drove these training initiatives TRADOC also
applied to the standard scenarios to derive weapons systems
specifications and force planning data to the Army Materiel
Command and Department of the Army respectively. DePuy
believed that the application of the same operations
research and analysis to both the Army's doctrinal efforts
and its weapons systems development represented "a major
new departure for the United States Army." Said he, "...we
have now established what I believe is a most productive,
direct and close reinforcing relationship with...the Department of the Army, the Operating Forces and AMC."

* * *

That being the case, and with at least the Armor School asserting its compliance with "Step 1" of the three-phase plan, General DePuy decided Steps 2 and 3 could be implemented. He scheduled a joint FORSCOM–TRADOC conference on tactics called "Octoberfest" for October 1974 and, in the same month, planned to visit U. S. troops in the Federal Republic of Germany. "Octoberfest" convinced General DePuy that the time had arrived to formally rewrite the tactical doctrine of the U. S. Army, a decision reinforced by his visit to Germany and the on-going revision of the Draft Concept Plan.

"Octoberfest" brought together at Fort Knox, Kentucky, many if not most of the general officers of both Forces Command and the Training and Doctrine Command, as well as a good many brigade and battalion-level commanders, and observers from 7th Army in Europe, 8th Army in Korea, and forces stationed in Panama and Alaska. Officially, the purpose was to examine small unit (squad, platoon and company) infantry, armor and combined tactics in light of the lessons of the Middle East War. The not-so-hidden
agenda, of course, was slightly different: it was to sell the assembled commanders on TRADOC tactical doctrine. To that end, General DePuy and General Starry personally supervised rehearsal of the several live-fire maneuver demonstrations that, collectively, were the centerpiece of the conference.  

Carefully orchestrated to lead the attendees to specific conclusions regarding tactical techniques in modern, mid-intensity warfare, Octoberfest was also a legitimate and sincere attempt to focus the attention of some of the Army's most powerful figures on the "really important problems of the Army." Rarely if ever before had those who wrote the manuals come together directly with those who commanded the soldiers, and that step in the right direction received acknowledgement. The conference caused its attendees, theoretically the Army's best and most experienced soldiers, to set aside for the moment their macro-management concerns with budgets and construction and personnel policies and think about the combat soldier, his unit, how he should fight, and how he should be trained. It carefully spelled out in briefings followed by impressive live-fire demonstrations the TRADOC-DePuy-Starry argument for abandoning old methods and habits (and most especially those left over from Vietnam) and adapting new ones, justified by the October War and characterized by
overwatch, suppressive fires, combined arms, terrain masking, and use of camouflage and smoke. In short, it efficiently brought to the attention of a significant group of Army decision-makers an important problem and offered a substantive solution.

As a political tool for getting that solution accepted Army-wide, Octoberfest earned high marks. Certainly it showed for all who cared to see the primacy of the Armor School in TRADOC's doctrinal development process: no amount of effort to present a united front could have obscured the significance of the conference site at Fort Knox and the role of General Starry in preparing it. TRADOC briefers at the conference continually stressed the "Step 1" of the three-phase plan, that is, that the techniques being demonstrated were what the lieutenants and captains and sergeants joining the operating forces would have been taught while attending TRADOC schools, a fait accompli subtly suggesting that the techniques were not entirely open to debate. Most importantly, whether the attendees agreed with what they saw or not, they were unprepared to offer rebuttal to the carefully staged, coherent, and assertive TRADOC initiative. On the final day of the conference, an executive session of general officer attendees yielded no significant opposition to nor critique of the techniques displayed. General Walter T.
Kerwin, Jr., Commander of FORSCOM, who in the past had seemed to keep TRADOC ideas at arm's distance, gave the new techniques an important if qualified boost before the close of the executive session: "I want you commanders to get with it and try the new concepts and techniques," he urged, but adding, "Test the doctrinal changes and if you have problems, let TRADOC know."26 If the conference did not end with a ringing endorsement of TRADOC's ideas by all concerned, it did end on a positive and agreeable note that General DePuy called "a consensus."27

Such a rare thing for an army is not to be wasted. So pleased was General DePuy with Octoberfest that he decided to act immediately to exploit the apparent consensus, and not to let it vanish. Not only did a very significant portion of the "high priced help of the Army" now know about and at least not disagree openly with DePuy's tactical ideas, but there was tacit approval of TRADOC's leading role in the doctrinal process, an equally significant phenomena for an institution barely a year old. "I intend that we rewrite all the important field manuals in the United States Army and have them published by 30 June 1976," he ordered his school commandants on 10 October. "We have now participated in enough discussions, listened to enough briefings and seen enough demonstrations to have the best consensus on how to fight that has probably ever
existed in the school system of the United States Army. It is now time to institutionalize and perpetuate this consensus through doctrinal publications." The most important of these would be Field Manual 100-5, *Operations*, the "capstone manual of the operations of the Army in the field" from which all other manuals would take their doctrinal cue. Having made this decision, General DePuy was not one to put off its implementation. He directed his commandants to meet with him on December 13, 1974, scarcely two months hence, for the purpose of collectively reviewing and approving drafts of the first three manuals, including 100-5. And he was dead serious about the schedule he had proposed: "...I look to each of you personally to bring this about. If necessary, you must write them yourselves, as I hold each of you personally responsible for achieving the objective I have set." Having decided what needed to be done, he told people to do it, and would check to see that they did.

Before the end of October, events confirmed to DePuy that he had made a timely decision. His official visit to U. S. Army Europe and the German Army left him with two distinct impressions. First, U. S. troops in Europe were not adapting the new techniques despite their receipt of TRADOC training circulars and TRADOC-trained junior officers and NCOs. If a major justification for the new
doctrine was its relevance to mid-intensity warfare in Europe or the Middle East in contradistinction to Vietnam, it would not do for the Army's major force in Europe to fail to adopt the doctrine. Therefore, a full and coherent statement of the doctrine in a "family" of manuals blessed by Department of the Army might be more influential than the more subtle approaches taken thus far. Second, the German Army was superior, in DePuy's estimate, to the American in its concepts for the employment of armored and mechanized forces. DePuy attributed this to their better understanding of panzergrenadier techniques in armored warfare and, significantly, to the fact of their having articulated that understanding in a basic statement of doctrine applicable to the whole army, HDv 100/100, the German equivalent of FM 100-5.30

Also in October, General DePuy received the infantry and engineer schools' contributions to his Draft Concept Paper first sent out to the commandants as a "pot of soup" in July. General Tarpley from the infantry school made a last ditch and futile effort to remove "the tank is the decisive weapon" from the concept and contributed some excellent material on airmobility. Major General H. R. Parfitt's engineers added (probably too much) technical material on the employment of their branch, as DePuy had requested. Neither school challenged the premises or the
fundamentals of the concept. That challenge would come in December from an unexpected quarter: the designated author of the capstone manual itself. From Fort Monroe at the peak of a warm Virginia autumn, the consensus appeared intact, the opportunity for initiating a wholesale doctrinal reform of the Army excellent.³¹
CHAPTER IV FOOTNOTES

1 Major General B. E. Huffman to Foster, 17 Jan 74

2 DePuy to TRADOC Staff, TRADOC Organization and Operations, Memo, 30 Sep 74, THO Files.


4 Training Circular (TC) 71-4-2, The Tank/Mechanized Infantry Team, published jointly by the Armor and Infantry Centers in October 1974, reflected both the lessons of the Arab-Israeli War and DePuy's influence on tactics. Citing the "devastating lethality" of the "modern battlefield," its section on "Battlefield Dynamics" stressed that "The enemy has excellent weapons - if he can see you, he can kill you." (p. 9). It than prescribes techniques of movement based on "overwatch," suppression of enemy fires and use of terrain for cover and concealment. These concepts received more emphasis in TC 7-10-10, The Rifle Company (Fort Benning, January 1975), and TC 7-4, The Mechanized Infantry Platoon (Fort Benning, February 1975). By June 1975, reflecting TRADOC's increased concern with the defense, Fort Benning supplemented these fundamentally offensive-oriented publications with TC 7-3-1, How to Defend with Mechanized Infantry and Light Infantry Platoons. TC 17-12-3, Battlefield Gunnery Techniques for Tanks, published at Fort Knox in June 1975, cited the Arab-Israeli War specifically to show that modern weapons "can destroy almost anything on the battlefield," that "U. S. tank crews must learn to fight and win even though outnumbered." By June 1975, nearly all the TRADOC centers were distributing throughout the Army colorful, concise, thoroughly illustrated pamphlets on a plethora of combat techniques. Each contained a preface to the effect that it was a basis for training pending revision of the appropriate manual and many contained self-addressed, postage-paid questionnaires to be returned to the

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proponent agency by the reader with recommended changes. See also Dr. Brooks Kleber, TRADOC Historian, Memo for Record, DePuy Ft. Knox Presentation, 8 November 1974, THO Files.

5 Likewise, the aforementioned training circulars emphasized their relationship to the ARTEPs. For example, TC 7-3-1 stated in bold type on the front page, "This publication should be used in training and evaluation with the following ARTEPs," and listed those for Mechanized Infantry Task Forces, Light Infantry Battalions, and Ranger Battalions.

6 General Starry testifies to the importance of the ARTEP: "Here the process was easier -- it filled a complete void. We were providing the field with something they simply didn't have and which they all recognized they needed badly. Like a dry sponge, they soaked up the liquid rapidly. And in so doing they played directly into the scheme of gaining their acceptance of the new ideas. For the ARTEPs are the action documents which implement the change. One can write FM's forever -- if they aren't accepted and used, they're useless. But if people know they are to be scored in an evaluation on the basis of what's in the FM, then they quickly go to the FM to see what to do. This one was easier to handle and has not required nearly the persuasive effort that the FM's have. But only because the ARTEP filled a widely recognized, long-time void." Major General Donn A. Starry to Major General Wilder M. Snodgrass, 25 November 1975, Starry Papers, USAMHI.

7 Colonel Zeb Bradford to Richardson, "Infantry Platoon Tactics Fact Sheet," 24 January 1974

8 Major General Thomas H. Tarpley to Lieutenant General Orwin C. Talbott et al, 12 April 1974. General Tarpley's fears were not misplaced. Certainly he sensed General DePuy's doctrinal and personal preference for the Armor School and General Starry. General Starry on more than one occasion hinted strongly that he should have proponency for all mechanized infantry, as in his "Observations from Europe Trip" report to General DePuy on 1 May 1974 in which he noted that such was the successful arrangement preferred by the German Army.

9 DePuy to Commandant, USAARMS; Commandant, USAIS; Commandant, USACGSC, "Brigade Proponency," 8 May 1974.

10 DePuy, Interview with the author, 4 June 1984.

Herbert, Interview with DePuy, 1 June 1984.

Ibid.

Ibid.

Starry to DePuy, Observations from the Europe Trip, electronic message, 1 May 1974, Starry Papers, USAMHI.

Ibid.

DePuy to Commandants, 8 May 1974, THO Files.


Ibid. General Gorman sent General Starry an advance copy of the letter.

Starry to DePuy, "Rationale for Changes in Tactics, Gunnery, ATT, ATP," 8 July 1974, Starry Papers, USAMHI.

Ibid.

U. S., Department of the Army, U. S. Army Training and Doctrine Command, Annual Historical Review FY 76-77, p. 28; Romjue, "Huffman's Comments," 7 Nov '74, THO Files.

All quotes are taken from "Combat Operations," an inclosure to DePuy to Donn [Starry], Tom [Tarpley], Dave [Ott], C J [LeVan], Bill [Maddox], Jack [Cushman] and Hal [Parfitt], 23 July 1974, THO Files, or from an earlier draft of that document that includes several of them in DePuy's own handwriting, and from the basic letter itself.


DePuy to TRADOC Staff, TRADOC Organization and Operations Memo, 30 Sep '74, THO Files.

I have relied upon the following sources for this account of Octoberfest: U. S., Department of the Army, U. S. Army Training and Doctrine Command, Annual
Historical Review FY 76-77, pp. 28-29; Colonel Edward G. Scribner, "Doctrinal Development by TRADOC, May 1973 - December 1979", unpublished paper loaned by Lieutenant Colonel Robert A. Doughty; Major General B.E. Huffman, Jr., to Department of the Army, FORSCOM/TRADOC Training Conference, 29 October 1974, THO Files; DePuy to General Frederick C. Weyand, Chief of Staff of the Army, 18 February 1976, DePuy Papers, USAMHI; and Herbert interviews with DePuy, Gorman, Starry, 1 June 1984, 22 July 1984, 19 July 1984.


26 Dr. Brooks Kleber, Interview with Colonel Cosby, 13 February 1976, THO Files. That General Kerwin had kept TRADOC at arm's length is evidenced by his lukewarm response to ARTEPs: "General Kerwin's letter on training guidance was a disappointment...[it implies] that FORSCOM saw the ARTEP as being useful mainly for Reserve Component commanders -- We have some educating to do in Atlanta." Gorman to DePuy, 9 July 1974, DePuy Papers, USAMHI.

27 DePuy to Weyand, 18 February 76, p. 2.


29 Ibid.

30 Mullen and Brownlee, Interview of DePuy, Section II, p. 33; DePuy to Herrn G L Hildebrandt, Inspector General (equivalent to U. S. Chief of Staff) of the West German Army, 13 December 1974, THO Files.

31 Major General Thomas A. Tarpley to DePuy, 7 October 1974, THO Files; Major General H. R. Parfitt to DePuy, 21 October 1974, THO Files; DePuy was not to be dissuaded from his stand on tanks in mid-intensity warfare: "The infantry's...role is to support the tanks. That has been quite hard for the infantry school to stomach... the decisive offensive weapon is the tank... The Israelis, Egyptians, Syrians, Russians, British, Germans and I accept it." DePuy, "Commanding General's Remarks at Ft. Sill," 19 June 1974.
CHAPTER V
CONFLICTING IDEAS, 1974-1975

General DePuy decided in the autumn of 1974 to rewrite all the Army's manuals and to make each of them consistent with a "capstone" manual, FM 100-5, Operations that would describe the fundamentals of the conduct of modern warfare. He turned to the Combined Arms Center at Fort Leavenworth to write that manual. The document that Leavenworth, and more specifically its commandant, Major General John H. Cushman, produced for the first meeting at Fort A. P. Hill, Virginia, in December, 1974, did not meet DePuy's approval. Moreover, it betrayed significant philosophical differences between General DePuy and General Cushman — and therefore within the Army — about the purpose of doctrine and the conduct of warfare. The two officers did not resolve their differences during the first four months of 1975, so General DePuy transferred responsibility for FM 100-5 from Fort Leavenworth to TRADOC headquarters at Fort Monroe. The result was two-fold. The Army received from TRADOC, on schedule, a coherent, assertive body of doctrine largely undiluted by institutional compromise. That very lack of compromise, however, meant that FM 100-5 did not include
important insights on warfare and doctrine that might have greatly enhanced its credibility.

With the STEADFAST reorganization of the Army, the mission of writing the field manuals that contained the U. S. Army's combat doctrine returned to Fort Leavenworth after a ten-year hiatus with the now disbanded Combat Developments Command.¹ As one of TRADOC's three "integrating centers," the Combined Arms Center monitored training and doctrinal work in the combat branch schools and actually wrote doctrine that applied to more than one branch, that is, to division level and higher organizations. Therefore, the CAC, and specifically the Department of Tactics of the Command and General Staff College, one of the CAC's two principle institutions, had proponency for FM 100-5.²

Until General DePuy announced his intention to rewrite all of the Army's field manuals, writing FM 100-5 had not had top priority at Leavenworth nor had Leavenworth been intimately involved in the training literature initiatives taken by TRADOC thus far. The CAC had responsibility not only for FM 100-5 but for twenty-three other manuals as well. Most important of these was FM 100-15, Larger Units: Theater Army and Corps, a project that had the attention of the Army Chief of Staff.³ Other important Leavenworth
missions in the first year-and-a-half under the new TRADOC structure included fielding the Brady Study of the Middle East War, producing the scenarios so important to TRADOC's combat developments procedures, hosting a series of "defense conferences" to analyze the problems of a non-nuclear defense of NATO Europe, adjusting the Command and General Staff College curriculum to reflect General DePuy's mandated emphasis on the division as opposed to higher echelons, and integrating the operations research functions of the new Combined Arms Combat Development Activity (CACDA), the CAC's other principle institution, into the doctrine writing process performed by the college. In this environment, writing FM 100-5 did not receive daily attention from General Cushman.

If FM 100-5 was not a top priority at Leavenworth, much less so were the training circulars written by the branch schools. Leavenworth was not a higher headquarters to the branch schools, but an "integrating center" with no real authority over their activities. The training literature initiative had started in TRADOC headquarters under General Gorman's supervision, and he had dealt directly with each of the schools. This was because almost all of the early circulars dealt with specific tactical techniques for which TRADOC could clearly identify one or another of the schools as the exclusive proponent. Moreover, it was a
project in which General DePuy had intense interest and so came directly under the supervision of his headquarters. TRADOC might have called upon the Combined Arms Center to resolve such intramural squabbles as those that arose during the writing of the ARTEP, but the ARTEP was, after all, a training document, not doctrine, and its focus was the battalion, whereas the CAC's was division and higher. Likewise, the CAC might have mediated the controversy between Forts Benning and Knox over brigade proponentcy had General DePuy not stepped in with his decision to make Fort Knox proponent in effect for armor and mechanized infantry. Even General DePuy's conclusions from the October War had more immediate impact on the branch schools than on the CAC. Describing the new movement techniques and use of suppressive fires required of mechanized formations, he reported to General Abrams in June, 1974 that both the Armor and Infantry Schools would incorporate them in all tactical training immediately. The result of all this was that by the time General DePuy decided to rewrite all of the field manuals, much doctrine had already been written, key players identified, and major concepts agreed upon.

Presiding over and stimulating much of Leavenworth's bustling activity in 1973 and 1974 was its new Commanding General, John H. Cushman. Graduated twelfth in his Class of 1944 from West Point, originally commissioned in the
Corps of Engineers, General Cushman's career could not have been more different from General DePuy's unless it had been in a different army. Cushman saw only the tail end of World War II, and that as a junior engineer officer in the Pacific theater. Much of his subsequent career made use of his powerful intelligence and rewarded him with a reputation as one of the Army's real intellectuals: postwar service with the Special Weapons Project at Sandia Base, New Mexico; graduate work at the Massachusetts Institute of Technology; liaison officer to the 1st Belgian Corps in Germany in 1954; member of the faculty of the Command and General Staff College, 1955 to 1958; and then successive assignments with the Chief of Staff of the Army, the Office of the General Counsel, Department of Defense, and as military assistant to the Secretary of the Army. A soldier as well as an intellectual, Cushman had transferred to the infantry in 1951. Although, like DePuy, he missed the Korean War, he served three tours in Vietnam, as a senior advisor to a Vietnamese division, 1963-1964; as commander of the 2d Brigade, 101st Airborne Division in 1968; and Commanding General, Delta Regional Assistance Command, 1970-1971. His most significant assignment after returning from Vietnam and before assuming command at Fort Leavenworth had been as Commanding General, 101st Airborne Division, at Fort Campbell, Kentucky. 6
An intellectual who had worked in the highest levels of the Army from mid-career and an infantryman with very little experience in armored operations, General Cushman nevertheless shared at least some of General DePuy's perceptions in 1973. First and foremost was "that somebody had to get the Army moving..." In the turbulent early months of TRADOC's establishment, when the Leavenworth commander was relatively free to tend to his own responsibilities as he saw fit, there was even reason to believe that the relationship between the Combined Arms Center and Fort Monroe would be a platonic one. Both General Abrams and General DePuy supported the selection of Cushman as Commander of the Combined Arms Center. General Cushman was in complete agreement with General DePuy on the need to ground doctrine and training in real world situations and circumstances, and he stressed realism above all in the classrooms of the Command and General Staff College. The same rigid tactical formations that DePuy decried in the wake of the October War Cushman censored as "pattern without thought."

These similarities were coincidental, however. The differences in outlook between the two men not only reflected their different backgrounds, but made their different backgrounds pale by comparison. General DePuy believed that real initiative was rare in human beings and
that organizations functioned best when its members were frequently told in simple terms what to do. General Cushman believed that organizations worked best when liberated to the degree possible from artificial constraints upon the tremendous creative potential of the group. He therefore encouraged, for example, student participation in the college's writing of doctrine, an initiative about which DePuy was skeptical. Assuming real creative intelligence to be a rare commodity, DePuy preferred to isolate a few select officers to work directly and solely on important projects under his immediate supervision. Cushman would more likely involve many others in the problem-solving process and would encourage alternative solutions. DePuy wanted the Command and General Staff College to train its graduates to be experts in the handling of a division in combat, and to take with them to their field assignments a learned system for training that division's subordinate elements. Cushman wanted to educate them as well as train them, to make them think, to enrich them personally and professionally, and prepare them intellectually for all of their years as field grade officers. DePuy was confident, analytical, and decisive. He never shrank from delivering a "that's wrong" when the "cold hard facts" told him it was needed. Cushman was thoughtful and reflective, acknowledging at least philosophically the potential merit in all ideas.
Being so dissimilar in intellectual character, General DePuy and General Cushman not surprisingly had different approaches to doctrine. Indeed, they represented fundamentally opposite schools of thought about what doctrine is and what purpose it fulfills for an army. The "DePuy School" looked to doctrine as a tool with which to coordinate the myriad activities of a complex organization, a function General DePuy grasped in earnest after the October War of 1973. Doctrine consisted of those tactical techniques necessary to success on the modern battlefield that were taught in the schools and training centers and published in circulars and manuals. As important, it was an expression of the concepts against which researchers tested Army equipment. It was a channel of communication with which to influence the activities and thinking of the field army: to change the Army, one changed its printed doctrine. The "DePuy School" held that the institutional purposes of doctrine were as important as its substance and that doctrine should therefore be simple, clear, and specific.

The "Cushman School" was a direct contrast. Although FM 100-5 had not been the top priority project at Leavenworth under General Cushman until the fall of 1974, the writing of doctrine generally had topped his agenda since his assumption of command. To General Cushman, the
substance of doctrine was more important than its institutional purposes. "The search for valid doctrine is, at its root, a search for truth." By theory, experience, and inductive reasoning, one could make "an enlightened exposition of what usually works best" which was doctrine. Doctrine may serve a variety of institutional purposes, but its most important function was to provide "the best available thought that can be defended by reason...[to] indicate and guide but... not bind in practice..." Simplicity was desirable, but not at the cost of being restrictive. Doctrine was a guide that allowed for the infinite variety of conditions and situations characteristic of human affairs. It therefore required "judgment in application." If this meant that doctrine contained ambiguities that hampered its bureaucratic utility, that was acceptable. Doctrine's only requirement was that it "stand the test of actual combat." 9

The DePuy and Cushman schools of doctrine were not mutually exclusive. They differed in the degree of emphasis each placed on two important functions of doctrine: to guide judgment in the field, on the one hand, and on the other, to provide a conceptual starting point for many other institutional activities. It was this latter function that was most important to William DePuy. Because the training establishment needed overhaul, because material
development and procurement needed rationalization, because the Army needed preparation for a mission wholly different from its recent experience, the Army therefore needed a doctrine. To determine what that doctrine would be, DePuy relied primarily on his own experiences in combat, reinforced by analyses of wargames and the October War and the judgment of a small group of trusted assistants. The Cushman school approached the problem from the opposite direction. An Army's purpose is to win wars, or to be perceived as so likely to win that potential enemies refrain from war. Therefore, the Army as an institution must study war thoroughly and constantly and make available to all within it the latest and best thought about warfare. When published as doctrine, such thought should be an authoritative guide to the judgment of the Army's agents in all activities, whether they were preparing contingency plans for the defense of NATO Europe or determining the specifications for a new tank. Doctrine therefore by definition served the institutional purposes so important to the TRADOC commander, but it was not because of these purposes that one invented doctrine. Doctrine was the natural product of the Army's thinking about war.

If there were DePuy and Cushman schools of doctrine within TRADOC in 1974, so were there DePuy and Cushman
schools of tactics. Tactics to General DePuy were the specific combination of learned techniques that a commander applied to a given battlefield situation. The techniques essential in any tactic appropriate to the modern battlefield were suppression, overwatch, the indirect approach, making contact with a small element, and the rapid concentration of force against the enemy main body. Supported by detailed analyses of Soviet and American weapons capabilities, these techniques carried the weight of inviolable rules. In the Cushman school, there were no rules. A commander must certainly ground his tactics in detailed knowledge of his own and his enemy's capabilities, but whether "overwatch," "suppression," or any other technique were appropriate depended entirely on the specific situation. Only generally demonstrable principles to guide judgment could be learned. "It is better that a tactician go to the essentials of a single situation and solve it well than that he memorize all the rules ever written."

Like General DePuy, General Cushman believed that the Army needed, desperately, to rethink its approach to the teaching of tactics both in the school system and the field. And he believed that as Commanding General of the Combined Arms Center he was in a unique position to stimulate that renaissance. The difference was in his approach: teaching tactics did not mean teaching techniques derived from
weapons systems analysis; it meant teaching leaders how to think through tactical situations for themselves.10

The draft of FM 100-5 that the Command and General Staff College prepared for the meeting at Fort A. P. Hill was more than a reflection of General Cushman's intellectual character and his "school" of doctrine and tactics. It was a critique of the DePuy school. It drew on the same evidence and used the same language as DePuy had so many times in speeches and in his Draft Concept Paper, but it reached conclusions nearly opposite to those of DePuy.

"Tactics," the manual asserted on its very first page, paraphrasing the Infantry School's 1934 book Infantry in Battle, "is a thinking man's art. It has certain principles which may be learned but it has no traffic with rules." Throughout, then, it emphasizes the nine abstract "principles of war" that have been part and parcel of U. S. Army doctrine since 1922. It makes no mention of "over-watch" and only mildly stresses "suppression." Even the seemingly unassailable DePuyism that one always goes around the enemy and not into the teeth of his defenses is open to question: while an indirect approach is "usually preferred," "the attacker may have a mission that requires him to go directly up against terrain strongly defended by an
enemy." Describing the "modern battlefield" in standard TRADOC terms (highly lethal, enemy has comparable equipment in superior numbers), the Leavenworth manual likewise stresses the need for combined arms cooperation, but makes the point emphatically by stating "there are no supreme weapons systems." The tank gets no pride of place as the "decisive" weapon, and the helicopter gets at least equal emphasis. Acknowledging the scarcity in the Army of "born" tactical leaders, the manual concludes not that orders need therefore be direct, frequent, and simple, but that leaders must constantly teach what they know, both the "how" and the "why," so that "peerless execution" will derive in each unique situation "from the marvelous ingenuity and endless imagination of the American soldier." Undue detail in orders will confine and confuse subordinates; a commander must keep a "strong hand on the battle" while allowing his subordinates "freedom of action." Consistent with this latter theme, the manual itself is descriptive and suggestive, admonishing the reader but not directing assertively that one must do things a certain way.

As General Cushman prepared for the meeting at Fort A. P. Hill, he apparently had every confidence that the manual he and his staff had written was about to become the capstone manual of the U. S. Army's combat doctrine. "We... have to get the views of the TRADOC community before
we can put the manual on the street as a test manual," he said as he announced distribution of the draft within the College and CACDA, but he directed these organizations to "start writing the applications doctrine" as if the draft were already approved. In its emphasis on original thought based on principles as opposed to adherence to memorized rules, Cushman believed that the manual held the key to a "new approach to doctrine and tactical instruction in the classroom and in the field."

He might have been less confident had he seen what General DePuy was even than scrawling across the frontpiece of a similarly worded manual written at Leavenworth entitled _The Division in the Defense_: "sophmoric... We are teaching not debating... there is no concept - no connection with weapons effectiveness, suppression, mobility, blocking, etc., etc."

The clash of the DePuy and Cushman schools of doctrine took place at the meeting General DePuy had called at Fort A. P. Hill, Virginia, from December 10 - 13, 1974, and at a subsequent meeting held at the same place from April 29 - May 1, 1975. At the first conference, DePuy rejected General Cushman's draft of FM 100-5, not on the basis of its content, even though its content criticized most of General DePuy's strong convictions about combat, but on the basis of its style. It was boring, too much like older manuals with its numbered paragraphs and dry language. It
was not likely to serve well as the centerpiece of a TRADOC-directed effort to refocus the energies of the entire Army. The manual did not contain the "deathless prose" that would "convey to the Army the [necessary] sense of urgency." 14

Certainly, General DePuy realized the degree to which the Leavenworth draft contradicted his own beliefs, and certainly that contradiction contributed to his decision to reject the manual. His emphasis on style in rejecting it, however, clearly demonstrates his philosophical approach: that the institutional purpose of doctrine is at least as important as the doctrine itself. If the purpose is to "retrain, reorient and refocus" an army, the style and wording must express a clean break with the past and the messages must be hard-hitting, compelling, and coherent throughout. Here the issue of style begins to spill over the very thin line that separates it from substance; the purpose of the manual gets in the way of doctrine the manual contains. Some doctrinal issues defy simple expression (defining "combat power," for example) and others, such as the employment of tactical nuclear weapons, create problems of consistency and coherence in a comprehensive expression of doctrine. Hard-hitting, compelling messages tend to be those that express certainties, and much about doctrine, given its dynamic nature, is uncertain in the
scientific sense. Moreover, the search for compelling messages easily leads to imperatives, to rules not only of action, but of thought. The Leavenworth draft may have erred on the side of ambiguity and a boring style, but when General DePuy rejected it, he rejected the "Cushman" school of doctrine from which it sprang. In doing so, he courted the dangers of oversimplification, rigidity, and impermanence inherent in his own school.

Because of the gulf between the DePuy and Cushman schools of doctrine, Leavenworth probably could not have written a manual that would have satisfied General DePuy. When General DePuy wrote "we are teaching, not debating" across the frontpiece of The Division in the Defense, he wrote volumes about the differences between the two schools. To General DePuy, one teaches what one knows to be right to others who will then know it also. General Cushman would have been surprised to learn that any doctrinal publication written at Leavenworth during his tenure could be interpreted as something less than teaching. The quality of a Leavenworth education was probably his first priority as Commanding General of the Combined Arms Center. To him, however, teaching was guiding another's search for that which is true and real. The purpose of doctrine to General DePuy was to "teach" the Army what to do; therefore, manuals needed to express certainties clearly. To
General Cushman, doctrine "taught" by providing the field commander the Army's best available thought on combat operations as a guide to that commander's approach to the particular operational problem he faced. In the absence of compromise, no officer firmly grounded in one school could write doctrine that an officer of the other school would find satisfactory, and neither could General Cushman.

General DePuy did give him the opportunity, however. While still at the meeting at Fort A. P. Hill in December, having rejected the Leavenworth draft, he led his assembled subordinates through the writing of an outline for a new draft edition of FM 100-5. He gave this to General Cushman with the task of writing from it another draft manual in time for a second meeting in the spring.\(^{15}\) General Cushman did not complete this task and given his philosophical position the reason seems clear: he could not. When the commandants of the various schools met again with General DePuy at the end of April, 1975, it was for the purpose of writing the manual that Leavenworth could not. General Cushman attended, but did not participate in the writing.

Apparently General Cushman forewarned his boss of his inability to complete the task assigned to him, because General DePuy came to the meeting fully prepared to have
his other commanders and staff officers write a draft of FM 100-5. He had even arranged for a team of clerks and typists from the Administration Center at Fort Benjamin Harrison to support the effort. In his introductory remarks to the meeting, he provided guidance that clearly reflected his school of doctrine. The manual, he said, was to be "coherent... simple and direct." It was "to concentrate on principles that are going to help our commanders at company, battalion, brigade and division level to win." In the interests of simplicity, it was not "to cover every single contingency that could happen on the battlefield," but instead to make its points logically, clearly, and assertively. Comparing it to the training he himself received in the early days of World War II, when no important messages stood out from the mass of material on which he was trained, General DePuy admonished his officers to emphasize "the simple thrust of each one of these messages that we are trying to get across." Logic, coherence, simplicity, directness, assertiveness, and clarity should characterize the manual because "we are teachers and this is a teaching document."16

Working from the outline first drafted in December, General DePuy then assigned each chapter to a small committee chaired by a general officer: General Gorman chaired the chapter on the offensive, General Tarpley that on the
defensive, General DePuy himself chaired the chapter on intelligence. The three-day meeting consisted of alternating writing periods and briefings to the general officers on work completed. At the conclusion, General DePuy instructed General Gorman to collect all of the draft chapters and take them back to Fort Monroe for completion, thereby officially relieving General Cushman of the task and moving proponency for the manual three levels of command from the Department of Tactics, Command and General Staff College, Combined Arms Center at Fort Leavenworth, to Headquarters, Training and Doctrine Command at Fort Monroe.¹⁷

These two meetings in retrospect were a very important point in the U. S. Army's post-Vietnam experience. The transfer of proponency meant that the published doctrine that appeared in the field, dictated the schooling of officers and noncommissioned officers, and undergirded the Army's research, development, and procurement activities would reflect the DePuy school of doctrine and tactics and not the Cushman school.
CHAPTER V NOTES

1 Doughty, The Command and General Staff College in Transition, p. 57.


3 Ibid., p. 8.

4 Fort Leavenworth's role in the Brady Study and the production of scenarios has already been described. The defense conferences are described in Scribner, "Doctrinal Development by TRADOC," p. 9. Doughty, CGSC in Transition, gives a thorough treatment of the problems of adjusting the curriculum and integrating CACDA.


8 Earlier chapters have established General DePuy's intellectual character. I have derived my assessment of General Cushman from Doughty's discussions of student participation in writing doctrine (CGSC in Transition, p. 113) and of the DePuy-Cushman controversy regarding Leavenworth's role in training vice education (Ibid., pp. 117-123). Major primary sources that confirm Cushman's intellectual character are "The CGSC Approach to Writing Doctrinal Literature," 18 September 1973, authored by him ("The search for doctrine is... a search for truth... It comes from the interaction between... practical experience... and... the intellectual activity of the military professional... in the clash of ideas with other professionals," p. 4); Brigadier General B. L. Harrison, "/5 Curriculum Planning as Viewed by the Commandant," 26 September 1973 ("This is an academic institution. We should, therefore, look at any idea on its merits. Under
the concept of academic freedom, I would like everyone to participate in the discussion as to what is best for our curriculum," p. 1); and Cushman, "Text," 9 December 1974 ("It is better that a tactician go to the essentials of a single situation and solve it well than that he memorize all the rules ever written," p. 3).

9 "The CGSC Approach..." pp. 3-5.

10 "Text...," pp. 3-4. Cushman outlawed at Leavenworth the acronym COCOA as a reminder that one should consider Cover, Obstacles, Concealment, Observation, and Avenues of approach in terrain analysis. "Anyone who considers himself a tactician and who has to use COCOA to remind himself what to look for is in the wrong line of work," he declared, implying clearly that tactics is a nearly intuitive art that can only be learned by exposure to many different problems. DePuy would have assumed that most officers needed simple reminders of how to perform routine tasks.

11 U. S., DA, Command and General Staff College, Fort Leavenworth, "FM 100-5 (Test), "Operations, A. P. Hill Draft," unpublished, each page dated 21 Nov 74 or 2 Dec 74. Many photocopies made and circulated at Fort Leavenworth. Quotes are from pages 1-1; 1-5; 2-4; 1-4; 1-2; 1-15; 1-9.

12 Cushman, "Text," pp. 3-5.

13 The manual is in the TRADOC Historical Office at Fort Monroe, Virginia, in File 220-3. The date is December, 1974. The comments quoted are clearly in General DePuy's handwriting.

14 General Starry wrote to General DePuy in November 1974: "The point is that in the combined arms business we should strive for as few manuals as possible... If we get the right kind of deathless prose, we can do it." Starry to DePuy, "TCs and FMs," 1 November 1974. General DePuy said he rejected the manual because "We didn't think that [it] conveyed to the Army the sense of urgency, that it was too scholastic, wasn't enough how to retrain, reorient and refocus an Army." Interview with the author, 1 June 1984.

15 DePuy, Interview with the author, 1 June 84.

16 DePuy, "Introduction to A. P. Hill II," loaned to the author by Colonel William G. Carter.

17 Scribner, "Doctrine Development by TRADOC," pp. 4-5.
CHAPTER VI
HELP FROM OUTSIDE THE ARMY:
THE GERMANS AND THE U. S. AIR FORCE

General DePuy's transfer of responsibility for FM 100-5 from the Combined Arms Center to TRADOC Headquarters resulted from more than a professional falling out with General Cushman, however profound their disagreements may have been. If the DePuy-Cushman clash "pushed" the manual toward Fort Monroe, other forces were "pulling" in that direction. Two of these were TRADOC's ties to the West German army and the Tactical Air Command (TAC) of the U. S. Air Force.

For several military and bureaucratic reasons, DePuy wanted the manual to be consistent with the doctrines of both of those institutions. To achieve such consistency, he needed personal control over the manual's development and so moved the project to Fort Monroe. Once the manual was complete, he could then use German and Air Force concurrence as leverage to gain the Army's acceptance of the new manual. This pattern of events was less DePuy's deliberate and premeditated plan than it was his response to
the increasingly complex task of articulating doctrine for the Army. TRADOC's collaborative efforts with the West Germans and the Air Force not only directly influenced the manual, but also illustrate just how complex a task that was.

The U. S. Army's collaboration with the German Army was a natural result of the two nations' strategic situations in the early 1970s and the growing importance of the Federal Republic of Germany to the NATO Alliance. With the withdrawal of American forces from Vietnam in 1973, the German Army's only mission, defense of NATO Europe, became the U. S. Army's first priority mission. In Europe, the 7th U. S. Army was second in size only to the West German army. It shared that army's mission in an army group composed of forces from both nations. Collaboration in operational concepts and tactical doctrine was therefore imperative between 7th Army and its German hosts. Cooperation at the national level was just as imperative because the bulk of American combat units in the United States would reinforce NATO in any crisis. Like the Americans, the Germans were undergoing a major reorganization of their armed forces between 1971 and 1975 as they attempted to reconcile Ostpolitik and the increasing costs of defense in a structure that met their obligations to NATO. Furthermore, as the United States Army turned to the problems of
conventional, mid-intensity warfare, it looked to the Germans for expertise because of their World War II experience and their exclusive focus since then on defeating the Warsaw Pact armies. For these reasons, General Abrams established very early in his tenure as Chief of Staff a close relationship with General Horst Hildebrandt, his West German counterpart. Moreover, and important to note, General Abrams directed the TRADOC commander to develop closer, more formal relations than had previously existed between the U. S. Army (as distinct from U. S. Army - Europe) and the Deutches Heer. ²

The links to the German Army that General DePuy forged took three forms. First, he established close personal relationships with members of the German high command. Second, these personal ties formed the basis of a series of exchanges and high-level, annual talks on doctrine, training, and equipment, which in turn produced joint concept papers on matters of mutual concern. ³ Third, the two armies exchanged doctrinal literature. Specifically, the German manual HDv 100/100, Command and Control in Battle, was a standard reference for the American officers who wrote FM 100-5, including General DePuy and General Starry. General DePuy also sent drafts of FM 100-5 to the Germans for comment.
General DePuy by personal inclination was the right man for this job. He had admired German tactical competence since World War II and frequently referred to the Germans in his talks on tactical doctrine.\(^4\) When the German high command suggested in 1974 that they would like a closer dialogue with the Americans on a bilateral basis, precipitating General DePuy's trip to Europe immediately after the "Octoberfest" conference at Fort Knox, General DePuy welcomed the opportunity. He returned to the United States not only mightily impressed with German panzer/panzergrenadier tactics, but with a plan for continued collaboration.

That plan laid down that exchanges between the two armies should be informal and unstructured. High-level officers should meet at least annually. By not formalizing the high-level talks, DePuy believed, the Army would not create the false impression of turning its back on the NATO structure and seeking bilateral contacts instead. The first high-level talks should emphasize tactical concepts as a prelude to discussion of weapons and should identify areas of mutual interest for further, detailed investigation. As both parties came to agreement on concepts, they could then discuss equipment. Among the topics that might be included in an agenda for the first talks were employment of anti-tank guided missiles, armor and
mechanized infantry on the central front, and suppression of enemy air defense weapons by ground and air forces, in other words, the very issues that were of immediate concern to TRADOC in the wake of the October War.  

General Frederick C. Weyand, who had succeeded to the post of Army Chief of Staff upon the death of General Abrams in September, 1974, accepted DePuy's recommendations and transmitted them nearly verbatim to General Hildebrandt, who also accepted them. Simultaneously, General DePuy invited General Fritz Birnstiel, chief of combat arms in the German Army staff, to the United States to present a series of lectures on *panzergrenadier* doctrine to the combat branch schools. So eager were the Germans for this relationship to develop that not only did General Birnstiel come, but General Hildebrandt himself initiated the high-level talks with a visit to the United States at the end of April, 1975, just at the time of the second meeting at Camp A. P. Hill. These personal visits continued over the following two years, and had a direct influence on FM 100-5.

The "German connection" was important to TRADOC's development of FM 100-5 both in substance and in a political sense. Substantively, the Germans helped clarify DePuy's ideas about *panzergrenadier* tactics and defensive
doctrine and provided a contrasting approach to tactical cross reinforcement and Army-Air Force cooperation. Politically, DePuy would use German acceptance of the principles written into FM 100-5 as an important device for gaining acceptance of those ideas within the U. S. Army.

One of the most important influences the Germans had on General DePuy and subsequently on the doctrine that appeared in FM 100-5 and its associated manuals was what the Germans called panzergrenadier tactics. The term originated in World War II when Adolf Hitler in 1942 redesignated all German infantry regiments as "grenadiers," including those motorized regiments organic to German armor or panzer divisions. More than just a name distinguished these soldiers, however, for they were an integral part of the panzer division concept. Equipped whenever possible with armored, half-tracked carriers, they theoretically had the capability to accompany tanks and participate closely in the tank battles. Unlike other infantry, they attempted to remain in their vehicles most of the time so as not to hamper the mobility of the division. They dismounted only briefly and attempted to fight only with the support of the heavy weapons on their carriers. Their primary missions in World War II included the elimination of light anti-tank guns manned by enemy infantry, the clearing of obstacles
that the tanks could not cross, and the assault of pockets of resistance bypassed by the tanks.\textsuperscript{7}

The Americans copied the German style into their armored infantry battalions in World War II and retained the term "armored infantry" into the 1960s. However, the adoption of enclosed armored personnel carriers in the late 1950s, the ROAD reorganization of 1963, the separation of doctrinal proponenty between Forts Benning (for infantry) and Knox (for armor), and especially the war in Vietnam, all conspired to dilute American understanding of the essence of \textit{panzergrenadier} tactics, which had been the union of tanks and armored infantry in a single concept of mobile warfare.\textsuperscript{8} Meanwhile, the Germans had not lost their understanding. When they reconstituted an army in 1956, they organized nearly half their forces into armored infantry brigades and acquired a fighting vehicle, the Hispano-Suiza 30, as opposed to a carrier, as the rifle squad's means of conveyance.

General DePuy became interested in German ideas about \textit{panzergrenadier} tactics after the October War. That war had demonstrated the need for very close cooperation between tanks and infantry in order to defeat infantry armed with anti-tank guided missiles. The Israeli solution of allowing their infantry to fight from their carriers for
as long as possible was consistent with DePuy's own beliefs about combined arms and suppression, and he endorsed it in his letter to General Abrams reporting on the principle lessons of the war. The Israeli solution had been an expedient, however, an adaptation of existing organization and equipment to a new purpose demanded by an immediate conflict. And their use of infantry in this manner had been primarily offensive.

The Germans, on the other hand, had not only thought deeply about the role of armored infantry for years, but had articulated a concept of its employment that was thoroughly consistent with the defensive mission of their army. Further, in 1971 they had acquired an infantry fighting vehicle, the Marder, successor to the HS-30, with which to execute the concept. It was this thorough understanding of the panzergrenadier concept that had impressed General Starry during his visit to Europe in the spring of 1974 and had prompted him to point out to General DePuy that, unlike American mechanized infantry, German panzergrenadiers were the doctrinal child of the German armor school.9

In the spring of 1974 the term panzergrenadier began to appear in DePuy's correspondence and public remarks. After his own visit to Germany in October of that year, he
became an open advocate. He invited General Birnstiel to the United States to lecture on panzergrenadier doctrine in early December. The outline of FM 100-5 that he and his officers wrote at the first meeting at Fort A.P. Hill directed that "panzer/panzergrenadier" forces be described in the section dealing with "types of forces." In February 1975, he made German panzergrenadier doctrine the centerpiece of his address to the graduating class from the Infantry Officers' Advanced Course at Fort Benning, Georgia. In April 1975, he wrote to General Weyand, "[German officers perceive] that the U. S. Army did not understand or practice Panzer/Panzergrenadier tactics ...[but] ...TRADOC, in conjunction with FORSCOM, is now changing our doctrine (tactics and techniques) to conform with the German. Basically, we are involved in moving from a 'Dismounted Infantry' oriented doctrine to an 'Armored' doctrine with the Infantry, Artillery, and Air Defense in support." He could be certain that this report was accurate because he signed it on the same day that he convened the second meeting at Fort A.P. Hill in which he took proponenty for FM 100-5 away from the Combined Arms Center. At that point, TRADOC was indeed changing, or attempting to change, the Army's doctrine.

General DePuy took inspiration from German panzergrenadier doctrine and used the term to communicate
to others his similar ideas about combined arms. No less important to his thinking and the doctrine he wrote was the German emphasis on the defense. Operational compatibility with the West Germans required accepting the primacy in their doctrine of forward defense of the inter-German and Czechoslovakian borders. German operational concepts grew from this strategic imperative and influenced TRADOC's own study of defending outnumbered. That effort yielded the defensive doctrine that appeared in FM 100-5 and came to be known as the "active defense."

"Forward defense" meant that any Warsaw Pact attack on NATO via the Federal Republic of Germany would be met and, hopefully, contained by conventional means along West Germany's easternmost frontier. It derived from the strategy of "flexible response" adopted by NATO in 1967, which required an early and aggressive conventional defense to buy time and thus lower the nuclear threshold. The military difficulties of detecting and deploying against such an attack in time notwithstanding, the doctrine was politically imperative because it assured West Germans of NATO's commitment to defend their country and not just use it as a battlefield, as a defense in depth would appear to do. The NATO Defense Planning Committee implicitly accepted forward defense when it endorsed a report on Alliance Problems for the 1970s (the AD 70 Study) in May
1971.\textsuperscript{11} The German government in turn formally expressed its commitment to forward defense in a comprehensive strategic concept adopted in August 1973.\textsuperscript{12} The German Army then published, in September, its operational doctrine in HD\textsuperscript{v} 100/100, and it was this manual that General DePuy, General Starry, and their staffs used as they wrote FM 100-5.\textsuperscript{13}

German operational doctrine for the defense as expressed in HD\textsuperscript{v} 100/100 was clearly a derivative of forward defense and the heart of all German doctrine. The manual's first page noted that wars of aggression are illegal, that NATO is a defensive alliance that aims to deter aggression, and that "forces of high defensive strength are an indispensable political means to preserve the peace."\textsuperscript{14} (My emphasis) Later, the manual states clearly that "the task of the land forces is to protect friendly territory against enemy attacks on land."\textsuperscript{15} Defensive doctrine had pride of place in the manual over offensive doctrine, being addressed in Chapters 27, 28 and 29, whereas offensive doctrine comprised Chapters 30, 31 and 32. Lastly, forward defense was implicit in the statement "The purpose of the defense is to hold a certain area against all attacks, thus preventing the enemy from advancing into a region to be protected."\textsuperscript{16} Since the task of the land forces was to protect friendly territory and
all of the Federal Republic was friendly, a forward defense logically resulted.

The German operational concept for defending forward asserted that "with fire, [the defender] can achieve a superior effect against the enemy who is compelled to move, can exploit all cover against enemy fire and coordinate to a large degree fire, obstacles and movements. [¶] If the defender succeeds in effectively weakening the attacker in this way, and confronting him repeatedly with new situations, he can even achieve decisive successes against a numerically superior enemy." In order to confront the enemy repeatedly with new situations, the Germans stressed thorough preparation of terrain, flexibility to allow rapid shifting of the main point of effort, organization in width and depth, a willingness to take risks in some sectors in order to concentrate in others, and, if possible, the deployment of mobile forces in an aggressive delaying action forward of the defense area to buy time and determine the attacker's main effort. Since the most desirable outcome was to repel the attack "as far forward as possible [and] even in front of the defensive area," the manual stressed that "the annihilation of enemy tanks is of decisive importance." 17 As will be seen, this concept bore a striking resemblance to the "active defense" that TRADOC - and especially Fort Knox - developed throughout 1975 and
that appeared as Chapter 5 of FM 100-5. The resemblance was not coincidental. TRADOC officers actively sought German ideas and had English versions of HDv 100/100 available to them as they wrote FM 100-5. More importantly, General DePuy took a direct and personal role in their work, and his position on the German doctrine was clear. "I am personally a great supporter of the German concept of forward defense...we want to emulate the Germans."  

By October 1975, TRADOC headquarters had produced a draft of FM 100-5 that emulated the Germans, especially in its discussion of mechanized infantry and its concept for the defense. General DePuy took that draft with him on a visit to Germany at the end of October and briefed the German high command on its content. German officers in turn briefed the TRADOC entourage on HDv 100/100, after which the two parties discussed the similarities and differences of the two documents. They then progressed to discussions of helicopter employment, main battle tanks, anti-tank operations, night vision devices, mine/counter-mine warfare, artillery rocket systems, battlefield reconnaissance, air defense, battlefield identification "friend or foe," and the tactical use of smoke. The conference continued for three days. General DePuy left the draft of FM 100-5 with his host, General-leutnant Rudiger von
Reichert, Vice Chief of Staff of the West German army, asking him to study it in some detail and to provide comments. Returning to the United States, he declared the meeting an "unqualified success" that bode well for future collaborative efforts. More importantly, there were "no important differences" between German doctrine as expressed in HDv 100/100 and the draft manual FM 100-5. "We understand the mission of defending forward along the international border in the same way. Our general concept for the conduct of defensive operations is to all intents and purposes the same. The principles of defense tactics and techniques are the same..." 19

Much was the same, and yet there were differences. First, the Germans believed that American doctrine called for too much "cross attachment" of infantry platoons with tank companies, tank companies with infantry battalions, and so on. American doctrine prescribed that an "independent" commander needed a combined arms capability. Further, the "active defense" called for concentrating at the decisive place and time by moving battalions laterally from one brigade to another. In the German view, this "combat tailoring" diluted tank forces, which must remain concentrated for decisive action such as the counterattack. To the Germans, the brigade was the most important level of command on the armor battlefield. All German heavy
brigades had their own tank and armored infantry battalions. The German brigade was thus a permanent organization; except in special circumstances, the Germans did not "cross attach" units below the brigade level, that is, they would not normally exchange battalions between brigades, companies between battalions nor platoons between companies. General DePuy did not think that this difference would have "adverse consequences," especially if cross attachment between German and American units took place only at the brigade level.

A second significant difference between the two armies was the degree to which each relied upon and cooperated with its respective Air Force. The Germans did so to a much lesser degree than the Americans, and therefore sought weapons and equipment that would allow their army to conduct reconnaissance and to attack targets deep (sixty to seventy kilometers) within the enemy zone. General DePuy replied that beyond fifty kilometers, the U. S. Army would depend on the Air Force to conduct reconnaissance and attack targets, and that the Army "would prefer to spend our money on... systems of more direct application to the closer-in battle." 20

These differences did not erode DePuy's confidence that he and his German counterparts thought alike in terms
of operational and tactical doctrine. Nor should they have. By early January 1976, General von Reichert could write to DePuy: "It is welcomed that our respective tactical concepts coincide in principle, especially our doctrine of an active and mobile defense which makes antiarmor operations the centerpiece of all tactical and technical considerations." The German army's discussion of the draft of FM 100-5 "did not center around what is in [the] draft or anticipated in chapters not written," but whether the manual was sufficiently comprehensive and detailed. This critique vanished when the TRADOC liaison officer to the German army staff explained that FM 100-5 was a capstone manual to an entire series of manuals which supplemented it. On February 2, 1976, General DePuy expressed his confidence to General von Reichert: "You can see that our conversations in October have borne fruit... I believe we can fight shoulder to shoulder under the concepts now set forth in your 100/100 and our 100-5... I see no reason to delay the publication of 100-5..."

The talks that General DePuy held with the German army in 1975 and 1976 were as important to establishing TRADOC's authority within the U. S. Army as they were to the substantive development of doctrine. Because General DePuy acted as the personal representative of the Army Chief of Staff, he could conduct talks directly with the German High
Command instead of through one of its subordinate offices or headquarters. The Germans perceived him as acting with authority for the whole U. S. Army. Despite the formality of including a representative of U. S. Army - Europe in all of the talks, TRADOC was displacing that headquarters as the principle link between the two armies at the national level. This was particularly evident when, in early 1976, TRADOC assumed control of the network of U. S. liaison officers to the German military schools formerly controlled by the U. S. European Command, and in the initiation of several joint equipment development ventures for which the German army staff shared responsibility with a TRADOC agency. TRADOC was a key participant in a joint training conference between the Germans and U. S. Army - Europe at Grafenwoehr, Germany, in November 1976, at which an American battalion from USAREUR demonstrated the TRADOC-designed "active defense" to the satisfaction of German observers. By the time TRADOC distributed FM 100-5 in December 1976, the German Army looked not to U. S. Army - Europe, but to TRADOC, for the latest word on how the Americans would train and fight. When the new Supreme Allied Commander-Europe, General Alexander Haig, expressed to General DePuy his reservations about the emerging doctrine, DePuy countered that Haig was "ignor[ing] the German origins of a great part of that doctrine" and advised him to "be aware of its almost total coincidence
with that of our German allies." The Germans thus not only contributed substantively to American doctrine, but their collaboration was an important device for persuading the rest of the U. S. Army of the doctrine's legitimacy and, by extension, of TRADOC's authority in doctrinal matters.

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Less important, perhaps, to the publication of FM 100-5 in 1976 than the "German connection," but of lasting significance to the Army's emerging vision of future war was the relationship General DePuy established with the Tactical Air Command of the United States Air Force. The relationship gave currency to the concept "Air-Land Battle," first officially mentioned as Chapter 8 of FM 100-5 in 1976 and destined to become the centerpiece of U. S. Army doctrine. Here again, DePuy carried out the directions of Army Chief of Staff Abrams, who insured through agreements with the Air Force Chief of Staff that TAC would be as eager for the relationship to prosper as was the Army.  

General Abrams' desire for closer relations with the Air Force emanated from his service in Vietnam and from his perception that, in a period of fiscal retrenchment, the
two services must avoid internecine quarrels that could jeopardize each other's budget. As recently as 1972, Congress had stopped funding the Army's development of the "Cheyenne" advanced attack helicopter because of Air Force insistence that it performed an Air Force mission, that is, close air support of ground troops. The Army saw the Cheyenne as vital to its ability to shift anti-tank combat power rapidly on the battlefield, and made a similar helicopter one of its "Big Five" procurement priorities for 1973 and beyond. General Abrams did not want that helicopter cut from the budget, nor did he want to suffer the professional embarrassment of arguing openly with another service in a public forum. Fortunately for him, his Air Force counterpart, General Brown, was of like mind. General Brown's career included service in all Air Force missions (strategic bombardment, air superiority, close air support, and military airlift) and, most significantly, he had served as General Abrams' Deputy for Air Operations in Vietnam. He was therefore quite familiar with army operations and priorities, and likely to welcome greater collaboration between the two services.

Achieving such collaboration was among the initial missions General Abrams gave General DePuy as TRADOC's first commander. Assisted by the close proximity of their respective headquarters at Fort Monroe and Langley Air
Force Base, both in Virginia, DePuy and TAC Commander General Robert J. Dixon, brought their two commands into close cooperation if not complete doctrinal harmony. The Air Force never challenged the basic ground combat doctrine of FM 100-5, and therefore was able to contribute to Army doctrine in many marginal areas such as electronic warfare, air space management, and air logistics. More importantly, TRADOC-TAC cooperation sprang from a realization, greatly enhanced by the October War of 1973, of the mutual interdependence of the two services.

The October War implied that the nature of Army-Air Force tactical cooperation in future mid-intensity warfare would be significantly different from what the two services had experienced in Vietnam. The enemy would use his own air force to contest control of the skies over the battlefield. He would possess a sophisticated and highly flexible air defense system. The battlefield would be fluid. There would be little time for the detailed coordination procedures that had characterized ground-air operations in Vietnam. Compounding the problem was the fact that air operations were more critical to ground force success, or even survival, than they had been in Vietnam, but were not possible unless both the ground and air forces worked together to eliminate the enemy air defenses. This meant that the Army now played a significant role in the
Air Force air superiority campaign. The October War did not raise these issues for the first time (the TAC-TRADOC initiative was underway before that conflict), but it did portray them in the most vivid and compelling circumstances. General DePuy himself wrote into an early version of the "Draft Concept Paper" that "air defense suppression in concert and collaboration with the U. S. Air Force is now one of the most important problems facing the ground commander." 26

General DePuy clearly understood that the need for air defense suppression and the Army's commitment to airmobility and the attack helicopter in an anti-armor role demanded closer cooperation between the Army and the Air Force. He also understood that clear definition of tactical roles was necessary for fiscal reasons. Explaining the U. S. Army's greater reliance on the Air Force for missions beyond 50 kilometers into the enemy's zone, General DePuy told his German counterparts "we... would prefer to spend our money on Army systems of more direct application to the closer-in battle," and he repeated the point specifically to General Dixon: "My personal view is... that the Army must concentrate its resources on the proximate battle area. We don't have enough money to duplicate Air Force systems -- in fact, we
don't have enough money to do what we need to do on the immediate battlefield."\textsuperscript{27}

Driven by a recognition of the need for greater operational collaboration, a sense of urgency prompted by the October War, and a desire to conserve available funds for highest priority service missions, TAC and TRADOC set about the task of learning "to fight better, not each other."\textsuperscript{28} Agreeing early that their joint work should concentrate on procedures and not doctrine \textit{per se}, the two commanders identified air space management, air defense suppression, reconnaissance and surveillance, electronic warfare, close air support and air logistics as their first priority concerns. General DePuy further identified their respective interests as functions of the ranges of their weapons systems. By this scheme, the Army would have the stronger voice in matters directly related to the battle within five kilometers of the frontline, because that was the maximum range of Army direct fire weapons and therefore the area most crucial to ground fighting. The Air Force would have the stronger voice in matters relating to the battle beyond fifty kilometers and outside the range of nearly all Army systems. The battlefield between five and fifty kilometers would be of mutual concern.\textsuperscript{29}
The process by which the two services worked together took three forms. First, to insure common understanding of the future battlefield environment, TRADOC invited TAC to participate in the construction of scenarios. Second, for each area of mutual interest identified by the two commanders, they established a "joint working group" of officers from both services to investigate that interest and prepare a joint working paper that would identify specific problems and recommend solutions. The joint working groups coordinated their papers with affected Army and Air Force commands. In some areas, these papers were the bases of joint manuals approved by and applicable to both services. In 1975, the several joint working groups came under the supervision of a new organization, the Air Land Forces Application Agency, or ALFA, located at Langley Air Force Base, but under the direction initially of an Army colonel from the TRADOC staff. Third, General DePuy and General Dixon met personally several times to review the status of ALFA activities. All of this work received the periodic endorsement of the Army and Air Force Chiefs of Staff.

TAC-TRADOC collaboration reflected the services' recognition of their mutual interdependence in modern warfare and their need to establish commonly understood procedures for cooperation in a variety of tactical
functions. An important first step was a common vision of the future battlefield, a step taken as the Air Force participated with the Army in the development of scenarios at Fort Leavenworth. Implicit in this was the growing realization that combat on land was not an autonomous activity only exceptionally supported by air operations, but that ground and air operations were integral, inseparable parts of the whole effort to apply force against and defeat the enemy. Inspired by General Cushman, who wrote about this issue as early as 1965, officers at Fort Leavenworth began to use the term "air-land" and "air-land battle" to express this idea. While the component parts of air-land battle (air defense, tactical air support, and air space management) were not new problems to officers of either service, a heightened consciousness of their importance and the difficulties inherent in synchronizing them with traditional missions of both services suggested the need for a new, three-dimensional concept of the battlefield. Thus General Cushman included a chapter entitled "Air/Land Operations" in the draft of FM 100-5 that he prepared for the first meeting at Fort A. P. Hill, implying that this new concept was equally important to the Army's thinking about warfare as were the concepts offense, defense and intelligence, the subjects of other chapters. Cushman described the concept in terms of its inherent problems: "The basic problem
facing the air and land commanders is to work together so that each part of the air/land force can operate to its full potential without needlessly restricting the operations of any other part. The combined air/land battle force that solves this problem best will most likely prevail."32

General Cushman's version of FM 100-5 did not survive that first meeting, of course, but ideas about air-land battle did. Using a team composed of officers from the Command and Staff College student body, the CACDA, and the Tactical Air Command liaison office to the Combined Arms Center, General Cushman prepared a briefing on the "Air-Land Battle Concept" and presented it to TAC and TRADOC staff officers in March and April 1975. The concept posited a corps-sized Army element with appropriate Air Force support in a scenario set in the Middle East and attempted to portray a "conceptualization of the integrated Air-Land tactical battle." Despite some initial misgivings by the TAC staffers, General Cushman and his team briefed Generals DePuy and Dixon on April 10, 1975.33

These officers "expressed reservations." They believed the concept implied a misutilization of tactical air support assets, calling for flights of two aircraft for missions requiring a hundred. Furthermore, they doubted
that the "Joint Combat Operations Center" called for in the briefing would work. They sent the briefing team back to Fort Leavenworth with a new set of instructions for developing the concept further and postponed staff work on a proposed Joint Memorandum of Agreement on air-land battle. 34

Air-Land Battle as General Cushman conceived it did not become an agreed doctrine of the U. S. Army and Air Force in the spring of 1975, but the reasons transcend the "reservations" expressed at the briefing by Generals Dixon and DePuy. First, the TAC staff officers who heard the pre-briefing were not enthusiastic about the concept from the beginning. They believed it dealt with too many specific details, required decisions of the TAC commander which he was not yet prepared to make, and reflected a misunderstanding of the current Air Force Air-Ground Operations System. These combined with the "reservation" that the concept "misutilized" tactical aircraft suggests considerable Air Force opposition to the concept. Second, General Cushman did not enjoy General DePuy's full confidence in the spring of 1975. One almost feels the clash of the two men's personalities in the brief notes recording the instructions given the briefing team after their presentation: "Reorient [the] effort to align with substantive problems: Winning the war tomorrow... Europe
present forces... Limited to defense suppression." Finally, what General Cushman suggested to the two commanders was a substantive change in doctrine and they had agreed to coordinate procedures only and not doctrine.

This last point is a fine one because, as we have seen, all parties agreed on the component issues of "Air-Land Battle." General Cushman, however, was urging that both services agree that these issues constituted the core of battle as it would occur in the foreseeable future. Purely "air" or "ground" roles would be the exception and would take second priority to articulating the doctrine and equipping, training, and fielding the forces necessary for the "air-land" fight. For that reason, a joint task force commander needed his own combat operations center with which to control the unified battle on the ground and in the air. Neither service was yet willing to go that far because to do so could require significant redefinition of service roles and apportionment of assets. By rejecting Cushman's "air-land battle," General DePuy and General Dixon agreed that the safer, more productive approach was the one on which they had embarked: tacit acceptance of two arenas of battle, one on the ground and one in the air, each the primary province of a respective service, and explicit acknowledgement that the two arenas are mutually interdependent, leading to procedural, but not doctrinal,
collaboration. The TAC-TRADOC dialogue of the mid-1970s was an unprecedented degree of Army-Air Force cooperation in peacetime; it was not a platform for doctrinal revolution.

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TRADOC collaborated with the West German Army and the Tactical Air Command of the U. S. Air Force throughout the writing of FM 100-5 in 1974 - 1976. In both cases, the format of the talks followed a pattern set by General DePuy: working groups focused on specific areas of mutual interest with the purpose of agreeing on concepts first, and coordinated and spurred on by periodic meetings between General DePuy himself and a counterpart of equivalent rank and authority. This collaboration substantively influenced the doctrine written into FM 100-5. German ideas about forward defense meshed with TRADOC's emerging "active defense." The Germans' *panzer/*panzergrenadier heritage helped General DePuy articulate the "armor" doctrine he believed the U. S. Army must adopt. Collaboration with the Air Force influenced the manual in marginal but nonetheless significant areas: the chapters that dealt with the nature of modern warfare, intelligence, and electronic warfare were consistent with the thinking and operational procedures of the Tactical Air Command. Although the Air
Force was unwilling to endorse "Air-Land Battle" as a definitive doctrinal concept, the very close Army-Air Force collaboration had helped generate within the Army a new way of thinking about future battle that would persist. Signifying the Army's interest in this concept was the fact that the new manual, when published, would discuss suppression of enemy air defenses, close air support and airspace management all in a separate chapter entitled "Air-Land Battle."

TRADOC's dialogues with the Germans and TAC reveal not only some of the sources of the doctrine contained in FM 100-5, but also something about the process of doctrinal development within TRADOC at the time. If the format of the talks reflects DePuy's highly personalized executive style, it also helps to explain it.

General DePuy believed that the Chief of Staff of the Army expected him to coordinate the Army's doctrine with the Bundeswehr and with TAC. Gaining consensus between three bureaucracies as large as TRADOC, the Bundeswehr and the Tactical Air Command was no easy chore. Without persistent command attention, initiatives easily could have disappeared into a maze of interested agencies and superior and subordinate headquarters. DePuy prevented that by
keeping all of the work keyed to a schedule of meetings between himself and his general officer counterparts. For these meetings to be effective, DePuy had to be able to speak authoritatively for the Army and to make binding decisions.

To have decentralized the writing of FM 100-5 to a subordinate headquarters would have involved yet another player in the process and would not have worked unless the commander of that headquarters thought exactly as DePuy did and enjoyed his confidence. General Starry came as close as anyone within TRADOC to meeting these criteria, but to have the Armor School commandant write the Army's key doctrinal statement would be inappropriate. General Cushman, as Commanding General of the Combined Arms Center, was in the only appropriate position but did not meet the criteria. Therefore, General DePuy elected to have his own headquarters write it under his personal supervision. Not coincidentally, he enacted this decision at the second meeting at Fort A. P. Hill in late April 1975, just as the dialogue with the Germans entered a critical phase with General Hildebrandt's and General Birnstiel's visits to the U. S. and just as the Air Force was expressing its displeasure with Air-Land Battle.
Whether it was wise to allow an ally and a sister service to have strong influence over the Army's official thought about warfare is another question. Doctrinal consistency with the Germans, for instance, required some form of forward defense for political reasons, whether or not a forward posture constituted the "best available thought" on defensive operations generally for the U. S. Army. Likewise, whether or not "Air-Land Battle" was the "best available thought" about warfare, it was meaningless without the Tactical Air Command's concurrence and participation. To General DePuy, there was little point to a doctrine that was not consistent with the ideas of other forces upon whose success one's own depended. Doctrine had to deal with realities, and the realities to General DePuy were that the Army's most important mission was in NATO, that that required consistency with the Germans and the Air Force, and that the Army simply lacked the time and resources to prepare extensively for contingencies elsewhere in the world or to steer its own course doctrinally, independent of the cooperation of the Tactical Air Command. General DePuy kept a firm hand on doctrinal development within TRADOC to insure the "retraining" of the Army in an "armor" doctrine, to preserve the Army's investment in new weapons, and to insure consistency with the Germans and TAC. He could then use their concurrence as a powerful argument with which to persuade others that the doctrine
in FM 100-5 was legitimate. Certainly no one could say in the mid-1970s that those two institutions were irrelevant to the U. S. Army's ability to perform its primary mission. All of this clearly reflects General DePuy's "school" of doctrinal development and his response to the inherently political process of doctrinal change. And yet DePuy's method could, and would, boomerang. Considering the global scope of the Army's mission and the diversity of its possible opponents, one might argue that a doctrine wholly consistent with that of the German Army and the Tactical Air Command was a liability.
CHAPTER VI FOOTNOTES


2 General Abrams' role in initiating national-level contacts with the West German Army, his reasons for doing so and his designation of TRADOC as the executive agency are described in General DePuy's opening remarks to the 1975 TRADOC Commander's Conference in Headquarters United States Army Training and Doctrine Command Commanders' Conference (Fort Monroe, 1975), pp. 12-6 to 12-7; in John Romjue, Historical Staff Meeting With General DePuy, Memo, 5 September 1975, THO Files, and in Richard Weinert and John Romjue, Memo for Record, 1 April 1976, THO Files. See also "Talking Paper on Field Manual 100-5, Operations," undated, photocopy, and, Dr. Brooks Kleber, "Final Interview with General DePuy," 23 May 77, pp. 8-9, THO Files.

3 The meetings that yielded the joint concept papers took place beginning in April 1976, after General DePuy was satisfied that the Germans agreed in principle to FM 100-5. They therefore are beyond the scope of this work. They were important in DePuy's mind as starting points for possible joint development of materiel and to insure that doctrinal consistency with the Germans continued as TRADOC wrote the entire "family" of manuals that supplemented FM 100-5. The first eleven joint concept papers included a description of the threat, an assessment of the influence of urban growth in West Germany on military operations, a review of
anti-armor tactics and techniques, and a review of airmobile concepts. DePuy to Weyand, 14 Nov 75; DePuy to TRADOC commanders and staff, electronic message, 11 Dec 75; Weyand to DePuy, 24 Dec 75, DePuy Papers, USAMHI.

As one of many examples, in remarks he made to the faculty of the Field Artillery School at Fort Sill, Oklahoma, on 19 June 1974, he twice mentioned the Germans, first praising Rommel's tactics in North Africa and later discussing the relationship of the new German armored infantry fighting vehicle "Marder" to German defensive doctrine. DePuy, "CG's remarks at Ft. Sill," 19 June 1974, p. 4 and p. 14, THO Files.

DePuy to Weyand, 24 Feb 75, DePuy Papers, USAMHI.

Weyand to DePuy, 23 Apr 75, and DePuy to Hildebrandt, 20 May 75, German Army papers, THO Files.

Peter Chamberlain and Chris Ellis, Panzer-Grenadiers - German Infantry 1939-1945 (London: Almark Publishing Co., Ltd, 1972), pp. 3-12

The evolution of the armored infantry carrier from the panzergrenadier-like half-track of World War II to the fully enclosed armored personnel carrier of the 1950s and 1960s tended to suggest a battlefield transport vehicle but not a combat vehicle, a tendency reinforced in the 1950s by emphasis on the carrier's ability to protect its crew from atomic radiation and fallout. The ROAD reorganization replaced the term "armored infantry" with "mechanized infantry" and moved proponenty for same from the armor school at Ft. Knox to the infantry school at Ft. Benning. There "mechanized infantry" doctrine did not develop in tandem and close doctrinal harmony with armor doctrine, but became simply a variation of doctrine for regular infantry. As the Vietnam War increased in intensity, it completely absorbed Ft. Benning's attention with the problems of counterinsurgency, airmobility, and jungle warfare, inherently light infantry tasks. The few mechanized infantry battalions that fought in Vietnam did indeed fight mounted to protect the soldiers from booby-traps, ambushes and small arms fire, but the continuous close relationship between mechanized infantry and tanks characteristic of panzergrenadier existed only in the armored cavalry regiments, if at all. Even then, the battlefield was usually one of armor restrictive terrain and vegetation with an enemy who had no tanks of his own.

"A. P. Hill Conference (Dec 74) Outline of 100-5 (Defense)" loaned to the author by Colonel William G. Carter, former aide-de-camp to General DePuy; DePuy, Extracts from Address to IOAC, 13 Feb 75, Memo for the Staff of the Infantry School, 21 Feb 75 and DePuy to Weyand, 29 Apr 75, DePuy Papers, USAMHI.


General DePuy frequently acknowledged the deliberate compatibility of FM 100-5 with HDv 100/100. He wrote to General Hildebrandt in December 1974, "[In] a comprehensive review of U. S. Army doctrine... we relied heavily upon your new and excellent manual, HDv 100/100." DePuy to Hildebrandt, 13 Dec 74, German Army Papers, THO Files. That the German manual was available throughout TRADOC's preparation of FM 100-5 is evidenced by the fact that HDv 100/100, paragraph 2703, appears as a reference in the outline of FM 100-5 prepared at the December 1974 meeting at Fort A. P. Hill. Further, General Starry reports, "I helped write much of 100-5 and had constantly with me a copy of 100/100 as I did so." Starry to General Karl Schnell, Commander in Chief, Allied Forces Central Europe, 26 July 1976, Starry Papers, USAMHI.

Federal Republic of Germany, Federal Office of Languages and Army Staff, Command and Control in Battle, Army Regulation 100/100, September 1973, p. 1-1. Hereafter cited as HDv 100/100 and page.

Ibid, p. 2-1.

Ibid, p. 27-1.

Ibid, pp. 27-1 through 27-6.

DePuy to Robert W. Komor, RAND Corporation, 24 Apr 75, pp. 1-2, DePuy Papers, USAMHI.
Brigadier General W. B. Burdeshaw, CG TRADOC Visit to USAREUR/FRG, 23-30 October 1975, Memo for Record, German Army Papers, THO Files; DePuy to Weyand, 14 Nov 75, THO Files; DePuy, "Opening Remarks to Commander's Conference," 11 Dec 75. The Burdeshaw memorandum states on page 4, "Principles of both armies [U. S. and German] (combined arms) are the same and described in FM 100-5, 100/100."

DePuy to Weyand, 14 Nov 75, pp. 1-2 and p. 5; DePuy, "Opening Remarks...," 11 Dec 75, pp. 12-7 to 12-8.

von Reichert to DePuy, 9 Jan 1976, loaned to the author by Colonel Carter; USATRADOC LNO GAO (Cologne) to Commander, TRADOC, (electronic message), 20 Jan 1976, and DePuy to von Reichert, 2 Feb 1976, pp. 1-2, German Army Papers, THO Files.

DePuy to General Alexander M. Haig, Jr., Supreme Allied Commander-Europe, 13 Oct 1976, DePuy Papers, USAMHI. Interestingly, Haig, as a lieutenant colonel, had been Major General DePuy's operations officer (G-3) in the 1st Infantry Division in Vietnam. Herbert, Interview with DePuy, 1 June 1984.

"I talked to DePuy -- he has 'the same marching orders' I have -- each of us from Brown and Abrams,..." General Robert J. Dixon, Memo, 9 Oct 1973, THO Files. See also DePuy to Hoffman, 18 Dec 1975, DePuy Papers, USAMHI; Weinert and Romjue, Memo, 1 Apr 1976, THO Files; Herbert, Interview with DePuy, 1 June 1984.


See Chapter III above.

DePuy to Weyand, 14 Nov 1975, p. 5; DePuy to Dixon, 20 Nov 1975, DePuy Papers, USAMHI.


DePuy to Dixon, 20 Nov 1975, DePuy Papers, USAMHI.

For example, "I agree we are on the right track with the TAC-TRADOC interface. It's clear we need to continue to improve our dialogue with the Army," General David C. Jones (Chief of Staff, USAF) to Dixon, 25 Jul 1975, THO Files.

U. S. Army, Department of the Army, Command and General Staff College, Operations, FM 100-5 (Test), 2 December 1974, p. 5-2, THO Files. General Cushman wrote about "air-land" warfare under the pseudonym "Pegasus" in 1965. Arguing for stronger ties between Army and Air Force in doctrine, schooling of officers, and joint commands, he wrote "...land warfare... in reality since 1920 has been 'air-land' warfare, in three dimensions, waged by a composite of land and air systems..." Pegasus, "The Forty Year Split: The Healing Years: 1961-1965," Army 15 (October 1965): 61-64.


Ibid, pp. 12-13. Resistance to the concept must have come from TAC because General DePuy had heard the briefing earlier of Ft. Leavenworth and had responded enthusiastically to it. His "turn about" at the April meeting was most likely because, sensing TAC's reservations, he did not want to damage the growing TAC-TRADOC relationship by overzealously urging "Air-Land Battle" upon them.
CHAPTER VII
TRADOC WRITES THE MANUAL

In April, 1975, General DePuy moved responsibility for FM 100-5 from the Combined Arms Center to TRADOC Headquarters, partly because of his dissatisfaction with Leavenworth's efforts, partly because of his desire to make the Army's capstone doctrinal statement consistent with agreements reached with the Air Force Tactical Air Command and the West German Army. From that point, General DePuy personally supervised the writing of the manual at Fort Monroe. Meanwhile, the branch schools began work on the follow-on tactical manuals, especially the "71" series on combined arms. DePuy worked very closely with a small group of trusted assistants whom he designated "the boathouse gang." Writing parts of the manual himself, he also strictly controlled contributions from outside TRADOC Headquarters. The most significant of these was the "active defense," largely the brainchild of Generals DePuy and Gorman and General Starry's armor school at Fort Knox. By October, 1975, DePuy was able to brief the Germans on the new doctrine from a preliminary draft of FM 100-5. He assembled his commandants at Fort A.P. Hill for a final
review of the manual in November, and by December, 1975, the manual was close to publication. It was the product not so much of an institutional process as the highly personalized bureaucratic style of William E. DePuy. It reflected his personal beliefs about combat and the nature of the Army and his penchant for detailed systems analysis. While writing it, DePuy convinced himself that what had started as a "quick fix" to reorient the Army's training had become a major overhaul of the Army's doctrine that would last for years.

* * * * *

The autonomy that General DePuy enjoyed in 1975 is partly due to the death of General Creighton W. Abrams, Chief of Staff of the Army, in September 1974. General Abrams approved the STEADFAST reorganization, appointed DePuy as TRADOC's first commander, and designated TRADOC as the Army's executive agent for improving relations with TAC and the West German Army. He also selected General Starry as commandant of the Armor School and approved the selection (at General DePuy's urging!) of General Cushman for command of Fort Leavenworth. A hero of the Battle of the Bulge, General Abrams earned wide respect within the Army as General William C. Westmoreland's successor in command of American forces in Vietnam, and especially for his
handling of the American military withdrawal from that country. A man of great personal authority, he was also keenly interested in TRADOC and General DePuy's initiatives in systems analysis, training, and combat developments, especially as those affected his personal determination to squeeze more usable fighting strength from the Army's 785,000 soldiers.

Much of what TRADOC did in 1974 and 1975, it did in General Abrams' name, although the Chief provided little guidance after April, 1974, when he became terminally ill with cancer. General DePuy believed that he and General Abrams had like minds when it came to tactics, and that he was carrying out a program largely approved by General Abrams. He was always careful to inform his boss of his plans and intentions, and his correspondence with General Abrams reflected a deference appropriate to their subordinate - senior relationship. General Abrams, after all, was not only the Army's Chief of Staff, but was five years senior to DePuy and had held four-star positions in Vietnam when DePuy was a brigadier and then major general.

This close relationship with the Army's Chief of Staff did not continue after Abrams' death in September. General Frederick C. Weyand succeeded General Abrams, and he was simply not the same man in interests, rank, or personal
stature. He and General DePuy had been peers in Vietnam, Weyand commanding the 25th Infantry Division at the time that DePuy commanded the 1st. General Weyand was not as personally interested in TRADOC's activities as General Abrams had been. General DePuy was still conscientious about reporting to his superior and respected him personally and for his office, but his reports tended to stress accomplishments rather than plans. Perhaps most telling was their style. DePuy always addressed General Abrams as "Dear General" and signed his full name. His letters to General Weyand began "Dear Fred," and ended with "Bill."\(^1\)

* * * * *

General Abrams had been vitally concerned with eliminating waste and redundancy within the Army in order to get maximum combat strength from the Army's allocation of manpower. He also worried about modernizing the Army in a time of very limited funding. He passed these twin concerns on to his successor and to subordinates like General DePuy. As Assistant Vice Chief of Staff of the Army, General DePuy participated directly in preparing and defending the Army's budget requests before a Department of Defense notorious for submitting nearly all proposals to rigorously skeptical "cost-effectiveness" analyses. DePuy learned in Washington that such analyses were very
often the key to victory in bureaucratic disputes over money. When he assumed command of TRADOC, he was determined to provide the Army with the sort of analytic data it needed to support the major components of its modernization program. To do this, he intended to rationalize doctrinal and equipment development into a single process. This "systems analysis" approach to warfare, with emphasis on justifying the Army's investment in new weapons, was the reason for his creation in 1973 of "scenarios" as a major analytic device. Moreover, it pervaded the doctrine that he and his assistants wrote into FM 100-5 throughout 1975.

Under the STEADFAST reorganization plan of 1973, TRADOC was to assume responsibility for the Army's old Combat Developments Command. This latter command had performed the Army's experimental work in both battlefield techniques and equipment, but had reported directly to Department of the Army and so had no formal interface with the development of doctrine within the Army's schools. TRADOC was to bring the two functions together.

To do this, General DePuy had given each branch school commandant "combat developments" responsibilities and had initiated "standard scenarios" as common frameworks for all new doctrinal or materiel testing. An important part of each scenario was its description of expected enemy
(usually Soviet) weapons, forces, and tactics. New ideas were to be expressed in a formal document called an "ROC" for "Required Operational Capability." This document specified the new idea in terms of what its authors wanted to be able to do in a given scenario. It further explained why the Army required this new capability. TRADOC forwarded approved ROCs to the Army Materiel Command and Department of the Army and then began a detailed "Cost and Operational Effectiveness Analysis" that attempted to find the optimum changes to current Army doctrine, organization and/or equipment that would allow realization of the new idea. Ideally, this process generated the necessary data to defend the cost of Army modernization because it considered anticipated costs as a factor in determining the best solution to an operational problem. To support this process, the TRADOC Deputy Chief of Staff for Combat Developments maintained contact with a host of agencies capable of performing sophisticated and automated analyses, especially the Combined Arms Combat Development Activity at Fort Leavenworth.  

This organization of TRADOC sprang from DePuy's perception that important officials in the Department of Defense believed that the Army "[doesn't] know what we need and [has] no orderly process by which to develop our needs." Hence the Army was in danger of losing DOD
support for the most important new items in its budget, and especially the "Big Five" identified in the Army's Fiscal Year 1973 budget proposal as critical to Army modernization. These were a new main battle tank, a mechanized infantry combat vehicle (MICV), an advanced attack helicopter, a new troop carrying assault helicopter, and a new short-range air defense missile system. DePuy believed that the Army could not convince the Defense Department or Congress of its need for these weapons unless it could demonstrate clearly the improvement in its overall combat capabilities that each would provide. To do that required detailed analysis within one or more scenarios. These analyses should not start with the desired piece of equipment, but with a concept of what one wanted to do that would allow comparative analyses of different doctrinal and material solutions.

Although these analytical procedures had been designed to measure trade-offs between different weapons systems, they soon became a critical part of tactical thinking within TRADOC. DePuy emphasized starting any analysis with a concept, not a weapon. The tendency then, especially after the October War flooded the Army with data on Soviet-style weapons and doctrine, was to look to quantified analyses of weapons systems for tactical inspiration. Reinforcing this tendency was TRADOC's focus
on "fighting outnumbered," which became a question of making one's own weapons account for more of the enemy's. Indeed, one important member of the TRADOC staff stated that what General DePuy meant by developing tactics was to "look at present doctrine, recent military experience..., data on enemy weapons, then ask: what should our tactics be?" By deriving "tactics" from a comparative analysis of enemy and friendly weapons systems, one was basing tactics on "cold, hard facts," thus taking their development "out of the abstract."  

No better example of this union of doctrinal and materiel developments for purposes of defending the Army's budget requests exists than General DePuy's April 1975 letter to General Weyand on the mechanized infantry combat vehicle (MICV). The MICV had been in the development process since 1964. The Army awarded the Food Machinery Corporation of San Jose, California, a $29.2-million development contract in the fall of 1972, but production delays, deficiencies in the suspensions and transmissions of early prototypes, and doubts about the vehicle's main armament, a 25mm automatic cannon called "Bushmaster," caused considerable criticism of the vehicle within Defense Department circles. TRADOC completed a "Cost and Operational Effectiveness Analysis" that satisfied DOD concerns
about the Bushmaster in December, 1974, but doubts about the vehicle itself lingered.⁸

These doubts bothered General DePuy because they indicated that "we have failed to break through a strong prejudice against MICV which doesn't seem to be susceptible to our tactical, technical or cost arguments." Those arguments were that the MICV was essential to the Army's ability to adopt an armored doctrine, like that of the Germans, appropriate to a mechanized battlefield characterized by highly lethal modern weapons and enemy numerical superiority. On such a battlefield, the Army required its infantry "to support tank-led combat teams by: long-range suppression of enemy anti-tank weapons, or suppression of the same enemy capability while the MICV is moving cross-country with tanks..., or delivery of a high volume of close-in overwatching suppressive fire in support of dismounting infantry..., and [be able to] defeat the [Soviet] BMP beyond the range of [its] 73mm gun, and be able to fire an ATGM from the deck, and protect against automatic weapons fire." The Army's current armored personnel carrier, the M113, DePuy asserted, could not do these things. The MICV could and would cost less than the Germans paid for their Marder or the Soviets paid for their BMP. "Therefore, we must win this one" because it was "one of those issues that goes to the heart of the Army's
capability. [¶]... We must miss no occasion to impress upon Secretary [James] Schlesinger the direct connection between the MICV and the tactics we must adopt to fight alongside our German allies... As you can see, I don't want to see the Army lose this one." 

General DePuy did not see the Army "lose that one," partly because by moving responsibility for FM 100-5 from Fort Leavenworth to his own headquarters at Fort Monroe, he linked the Army's development of doctrine directly to its development and analysis of weapons systems. Such linkage to DePuy was an important, even critical, factor in bureaucratic disputes over the budget. "...TRADOC... is now changing our doctrine... [which is] the central issue behind the MICV," wrote General DePuy in his April letter. If TRADOC "Cost and Operational Effectiveness Analyses" were the Army's most important proofs of its budget requirements, and if those analyses were based upon a TRADOC concept of how to fight, then that concept had to be Army doctrine, not just in the war games theaters of TRADOC and the minds of TRADOC analysts, but published in manuals, taught in the schools, and used in the field. Otherwise, the whole purpose of rationalizing combat developments, training, and doctrine under a single headquarters would be lost. Because TRADOC supported Army weapons acquisitions with highly specific and technically detailed weapons
systems analysis based on a concept of how to fight, General DePuy could not tolerate a non-technical, "philosophical" approach to doctrine such as General Cushman's. Nor could he afford to have the concepts which supported his analyses fail to become the published and accepted doctrine of the entire United States Army. The necessity to defend the budget drove General DePuy to codify as Army doctrine the concepts which underlay TRADOC's analyses.

* * * * *

One of these concepts was the "active defense," a term applied first by General DePuy and later throughout the Army. It referred to a doctrine derived from a weapons systems analysis of defending NATO Europe against the superior numbers of the Warsaw Pact. Written into FM 100-5 as Chapter 5, this concept more than any created controversy within the Army. Its origins reflect the influence of the German Army, TRADOC's penchant for grounding doctrine in analytical data, and the primacy by 1975 of General DePuy and his selected assistants in the promulgation of doctrine.

Since the early 1950s, Army defensive doctrine had posited two types of defense, a "mobile" defense and an
"area" or "position" defense. The first focused on destroying the attacking force with armored formations in a fluid battle, while the second focused on retaining ground with infantry, supported by preplanned artillery fire. As American officers looked to the problem of defending Europe in the immediate post-Vietnam years, they sensed that neither form as prescribed in then-current manuals was appropriate, not least of all because there were insufficient U. S. forces in Europe to defend the American sector in the manner prescribed. In fact, neither U. S. corps then deployed in Europe was using either concept. A new doctrine appropriate to the extended division frontages and enemy numerical superiority that the Army faced in Europe seemed necessary.

An early post-Vietnam attempt to grapple with these problems came from the Infantry School at Fort Benning, Georgia. This was the so-called "force-oriented defense." Designed to "reduce the attacker's combat power to a manageable ratio," this concept called for a "battle of attrition" to be fought across successive "attrition areas" by mechanized infantry forces preparatory to decisive counterattack by armored forces. The concept appeared to be an effort by the Infantry School to retain the status it enjoyed during the Vietnam years as the Army's focus
shifted to Europe. It did not survive scrutiny by General DePuy, who declared it had "no standing in TRADOC."^{12}

So soon after assuming command of TRADOC, General DePuy ordered the Combined Arms Combat Development Activity (CACDA) at Fort Leavenworth to construct the "standard scenarios." One of these was a European scenario which focused on the problem confronting the U. S. V Corps along the inter-German border near Fulda. Working with this scenario, Leavenworth hosted a series of "Defense Conferences" in 1974 that included representatives of FORSCOM and TAC to examine the problem of defending that sector in light of the lessons of the October War. By November, 1974, this effort was well underway, and the defensive battle in the European scenario had precedence over the other seven scenarios as a basis of TRADOC analysis.^{13}

Meanwhile, in TRADOC Headquarters, Major General Paul F. Gorman, the Deputy Chief of Staff for Training, had been preparing the ARTEPs and training circulars and incorporating into them the tentative lessons of the October War. As a result, he had become interested in the problem of fighting outnumbered. In January, 1974, he drafted and circulated within TRADOC a paper entitled "How to Win Outnumbered." This paper attributed the Israeli victory over vastly superior numbers to their ability in battle to
achieve greatly superior "tank exchange ratios." This in turn was due to the superior quality of their tank crews. Because Israeli crews were more cohesive and more highly skilled than their Arab opponents, their tactics and tank gunnery were better, and so they killed more tanks than they lost. Further, their superior quality gave them greater confidence, and so they took greater risks on the battlefield. Conversely, their more cautious opponents not only failed to realize the combat potential of their superior numbers, but apparently were more prone to panic when those seemingly overwhelming numbers did not prevail. Panic plus mediocre crew quality plus massed formations made their tank forces highly vulnerable to superior Israeli gunnery and yielded exchange ratios as great as 1:50 in some battles. This "mathematics of melee," according to Gorman, had profound implications for the training and career management of American tank crewmen.14

The focus of General Gorman's paper was on "training and doctrine: what is to be taught, and how it shall be taught."15 In grappling with that problem, he had expressed the essence of the problem confronting Army planners since the withdrawal from Vietnam, that is, "how to win outnumbered." He had taken a systems analysis approach to the data of the October War to find an answer. These ideas, wedded to some of General DePuy's long-
standing tactical convictions about suppression and combined arms, appeared in the defense portions of the "Draft Concept Paper" in July 1974, with an even greater weapons systems flavor.

That document stated that "the basic concept of the defense is to optimize the employment of one's own weapons -- to exploit every conceivable advantage of the terrain to minimize one's own vulnerability -- and to establish a system of mutually supporting weapons positions and actions which anticipate and defeat the attacker's plans and actions."\(^{16}\) To defend against tanks, the paper called for a defense "built around the anti-armor/anti-tank weapons system." It then discussed U. S. anti-tank weapons in terms of range, accuracy, and rates of fire. Artillery fires were important in this concept because they could suppress enemy "overwatch" positions and forward air defenses and could reduce the effectiveness of attacking tanks by "33%." This latter task was sufficiently important to deserve the dedication of "a certain amount of artillery... at least during the critical phases of the action."

The "Draft Concept Paper" implied but did not specify that the defender would have to be very mobile. General Starry at the Armor School remedied that deficiency. In
May, 1974, General DePuy had ordered that the Armor and Infantry Schools work together on doctrine for armor and mechanized infantry at the company and battalion level.\textsuperscript{17} In compliance with that order, and very probably as a result of DePuy's "Pot of Soup" letter, a team from Fort Benning visited Fort Knox in August, 1974 to brief General Starry on a "strong point defense" built around fortified nests of anti-tank guided missiles. General Starry "had great problems with it" and took over the briefing to "talk Starry on defense."\textsuperscript{18} While no record of his talk remains, one can surmise the essence of it from a letter he had sent to General Gorman less than a month earlier on "the purpose of the tank." In that letter, he stated "in defensive operations, the closer one can construct the battle to resemble an attack, the greater advantage can be taken of the tank's most sanguine capabilities. That is, the defense should be designed to lure or canalize the enemy onto ground of our choosing -- preferably a reverse slope, where a brisk tank counterattack wipes him out."\textsuperscript{19} In other words, in armored operations successful defense depended upon mobility and positive action by the defender, and not just arraying one's weapons consistently with the enemy's capabilities and the terrain.

When General Starry finished his "talk" to the Infantry School briefing team, he directed one of his staff
officers, Lieutenant Colonel David L. Tamminen, to design a manual wargame with which to analyze his concepts against Soviet doctrine. In the next year, the Armor School worked on this project. Colonel Tamminen set his wargame in the terrain of Hunfeldt, Germany, and called the study Hunfeldt I. Hunfeldt is a small German town near Fulda, near the inter-German border in the sector of the U. S. V Corps. Whether intentionally or not, Fort Knox was now competing with Fort Leavenworth for the honor of teaching the U. S. Army "how to defend."

Fort Knox and General Starry won that honor. By the fall of 1974, General DePuy looked more and more to the Armor School to lead TRADOC in the direction DePuy desired, as evidenced by DePuy's choice of Fort Knox to host the critical "Octoberfest" conference where TRADOC demonstrated some of its tactical ideas to the field commanders. General Starry, in turn, found himself increasingly at odds with Fort Leavenworth, especially over how to defend in Europe. "I have several problems with the [European] scenario," he wrote to General Cushman in October. "The most important one is that the conduct of the defense is pretty much the same as we have used in the past and it does not in my judgment reflect the lessons of the Middle East War..." If General Starry was distressed with Leavenworth's work, so too, and more importantly, was
General DePuy. In December, he had rejected Leavenworth's draft manual, *The Division in the Defense*, precisely because he saw in it "no connection with weapons effectiveness, suppression, mobility, blocking, etc." Later that month, at the Fort A.P. Hill meeting, General DePuy became convinced that General Cushman and Fort Leavenworth were not of a like mind with himself, General Gorman and General Starry. He rejected Cushman's draft of FM 100-5. When General Cushman turned down a second chance to write the manual, the strongest remaining voice on defensive doctrine was General Starry's. When General DePuy opened the second meeting at Fort A.P. Hill in April, 1975, the first item on the agenda was a briefing on covering force operations in the defense, by Lieutenant Colonel Tamminen of Fort Knox, and based on his latest study, Hunfeldt II.23

The ascendancy of the armor school over other TRADOC schools did not mean that General Starry now had *carte blanche* to write defensive doctrine for the Army. Indeed, General DePuy selected General Tarpley of the Infantry School to write the first draft of the defense chapter of FM 100-5 while still at the second meeting at Fort A.P. Hill.24 At the conclusion of that meeting, DePuy transferred the project to his own headquarters. Thereafter he, General Starry, and General Gorman supervised the work on FM 100-5, including its defensive doctrine. General
DePuy's close supervision and involvement in this work reflected the fact that there remained significant differences of opinion between him and General Starry over how to defend.

General Starry's concept of the defense as expressed in his July letter to Gorman stressed attack and counter-attack, a theme to which he returned in an article published in February, 1975, describing a new defensive concept based on Tamminen's wargames. This concept was very close to the doctrine published in FM 100-5. It organized defending forces into a "covering force area," "main battle area," and "reserves," stressed deployment of units according to enemy weapons capabilities and doctrine and the defender's inherent advantage to see and prepare the terrain, and implied a battle of falling back along successive positions while inflicting heavy casualties on the enemy. However, Starry emphasized as one of four principles of this defense that "the defender must at some point in the battle seize the single advantage he does not have - the initiative - he must attack. The purpose of the attack is to destroy the enemy..." Task force commanders in the Main Battle Area must prepare detailed counterattack plans for each of their defensive positions, so that they could exploit any opportunity to destroy large enemy forces and return to a defensive posture before follow-on enemy
echelons arrived on the battlefield. Defensive positions themselves were to be "mini-ambushes" that made best use of terrain for cover, concealment and weapons siting and allowed the defender to deliver a high volume of deadly fire suddenly on the attacker. The four principles of Starry's defense were "threat, terrain, ambush and attack." Said Starry, "The pervading logic is identical with that which dictated how to operate on the offense."

General DePuy was much more cautious than General Starry about the advantages of counterattack. His "Draft Concept Paper" had not stressed counterattack as an imperative, and had cautioned that such attacks "may well fail" because they give up the defender's inherent advantages. His preference was for "carefully selected blocking positions which retain the advantage of the defense," implying that counterattack might consist of moving to a position from which one could inflict decisive losses on a temporarily stalled enemy force by fire. Also, "limited counterattacks conducted on reverse slopes fully covered from the attacker's overwatching weapons may also be more effective." DePuy specifically addressed these points at the first meeting at Fort A.P. Hill in December, 1974, which Starry attended. The outline for FM 100-5 that he gave General Cushman at that meeting listed eight "principles" of the defense, including "use of blocking
positions versus counter-attack and ambush-like positions." It may very well have been Starry's opposition to DePuy on these points as expressed in Starry's February article that caused DePuy to select General Tarpley to write the defense chapter at the second meeting.

However that may have been, after the second meeting and throughout 1975 General Starry's approach to the defense was closest to General DePuy's. Both men saw the problem as one of stopping an onslaught of Soviet armor well forward, and both men took a strong weapons systems analysis approach to the problem. The "covering force" and "main battle area" structure of the defense expressed by Starry probably as early as August, 1974, was to become the structure written into the final version of FM 100-5, although a "rear area" concept replaced Starry's "reserves." Most notably, at the end of the year, Colonel Tamminen published an article entitled "How to Defend Outnumbered," based on his continuing wargames at Fort Knox, that contained the essence of "the active defense" as it appeared in FM 100-5.

Focusing on covering force operations, Tamminen's article is significant because it contained the "proof" that the active defense would work. That proof came in the
form of meticulous statistical analysis of the simulated battle that showed U. S. forces taking heavy casualties from the enemy's initial artillery bombardment, but recovering quickly to achieve a favorable "exchange ratio." It showed the Americans losing 83 combat vehicles while destroying 297 of the enemy and concludes that "the covering force can... defeat an enemy or series of enemy forces which outnumber it." The techniques used required company commanders to control their dispersed platoons so that none engaged the enemy except during the last few seconds in the time of flight of an artillery barrage called for by the commander. Further, the article asserted that the enemy would not destroy many U. S. vehicles with direct fire because "proper use of the techniques described denies the enemy the opportunity to shoot back at anything." Whether these two ideas reflected a realistic understanding of combat conditions is open to question. However, Tamminen reached the apogee of TRADOC's infatuation with numbers in his conclusion. "The simple mathematical fact is: If we are outnumbered 1 to 5, we must have exchange ratios that are higher, or we lose. We cannot spend a tank... and get only three or four of the enemy in return. This defense and the techniques that go with it, when properly planned and properly executed, do permit us to defend outnumbered and win."29
In addition to the influence of Generals DePuy, Gorman, and Starry, and their collective systems analysis bias, the active defense also reflected TRADOC's developing relationship with the West German Army. The Germans said their defense "will be conducted actively."\textsuperscript{30} They took as its central problem a defense well forward against superior numbers of tanks attacking according to Soviet doctrine. They organized their forces into brigade "defense areas" similar to TRADOC's "main battle areas" and planned to deploy forces forward of the brigades to perform the same missions as TRADOC's "covering force."\textsuperscript{31} While the Germans were more emphatic about holding terrain, they saw the purpose of the defense as weakening the enemy, creating a more favorable force ratio, and gaining time.\textsuperscript{32} They believed that armor was the weapon of main effort and that all other arms acted in support of tanks, including the infantry who fought mounted.\textsuperscript{33} The German doctrine put great stress on firepower in the defense: "The effectivity [sic] of the defense rests above all on the systematically prepared and strictly controlled fire of all weapons," their manual stated. Elsewhere it declared, "Movements are used to bring weapons within range to deliver fire on the enemy or to remove friendly forces from the reach of enemy weapons."\textsuperscript{34} The Germans accepted both DePuy's "blocking positions" and Starry's "mini-ambushes" as workable techniques for small units, which would fight from a series
of pre-planned "positions." They gave forward deployment of units priority over organization of the battlefield in depth. They accepted risk in some sectors in order to concentrate "at the point of main effort." Their vision of the "steps" in conducting the defense was identical to TRADOC's: engage the enemy with long range fire; ascertain the enemy's point of main effort; concentrate fires to stop the enemy well forward first by shifting artillery and aerially delivered fires, and second by reinforcing laterally from less threatened areas; and finally, counter-attack. All of these similarities demonstrate that TRADOC's ties to the German Army had a dramatic effect on U. S. doctrine.

There were, in fact, only three significant differences between the defensive doctrine in HDv 100/100 and the "active defense." First, although the Germans concerned themselves with abstract "force ratios," nowhere in their manual did they attempt to quantify these. Very likely, they saw a favorable "force ratio" as a function of "combat power," which to them included morale, leadership, and other unmeasurable factors. TRADOC was by no means ignorant of these aspects of military effectiveness, but tended to think more in terms of actual numbers of weapons systems deployed by both sides on the battlefield. Second, TRADOC's "active defense" called for a division commander
to concentrate against the enemy's main effort by detaching battalions from some brigades, moving them laterally behind the front, and attaching them to other brigades. The Germans concentrated by shifting brigade boundaries and changing brigade missions, but always keeping their original brigades intact. Third, TRADOC expressed the active defense very much in terms of one big system manipulated by a few key commanders at corps and division level, much like the wargames that undergirded it. Units below division, and especially battalions, were essentially pawns to be moved about the battlefield. They had to be thoroughly trained in a number of specific tasks so that no matter where they were sent they could execute their part of the mission. This characterization of warfare was in some respects accurate, but it was a major point of emphasis in the active defense. The Germans were not so wholly committed to this systems approach, even though they agreed with the basic structure and conduct of the American concept. Their manual declared that "because of the variedness of combat, tactics - except for general principles and rules - cannot provide any rigid formulas or instructions... Success is ensured only by the free action of commanders within the scope of their missions." Their fundamental "battle concepts" included "resolution and persistence; freedom of action; risk taking... surprise... [and] deception," as well as more systems-oriented concepts
such as "cover and concealment" and "cooperation." Most significantly, rather than focus on closely choreographed responses to the enemy's attack and deemphasis of the counterattack, the Germans expected their defending commanders to "break free of [their] dependence on the attacker and decide the outcome of the battle in [their own] favor."

General DePuy changed the defensive doctrine of the U. S. Army from a mobile defense or position defense to an "active defense" with the publication of FM 100-5 in July 1976. That concept bore a strong and deliberate resemblance to German defensive doctrine of the early 1970s. It differed from German doctrine only in that it emphasized TRADOC's concern with "fighting outnumbered and winning" and the systems analysis approach to solve that problem favored by Generals DePuy, Gorman, and Starry. The "active defense" was not the product of a collaborative effort. By the fall of 1975, when DePuy briefed the Germans on a final version of the concept, the U. S. Army Infantry School, U. S. Army Combined Arms Center, and U. S. Army-Europe were no longer important participants in the deliberations. The authors of the active defense and of the entire manual were a select group of generals and staff officers of the U. S. Army Armor School and Headquarters, U. S. Army Training and Doctrine Command.
By 1975, FM 100-5 was the cornerstone project of General DePuy's efforts to refocus the entire U. S. Army on a new type of warfare under new strategic conditions. DePuy believed that time was short. He further believed that the doctrine that appeared in the new manual must support the Army's investment in new weapons and also must be compatible with the doctrine of the West German Army and U. S. Air Force Tactical Air Command. These factors drove him to assume more and more personal control over the manual's development. Assisting him in the exercise of that control was a small group of selected officers who actually wrote many of the early drafts of FM 100-5.⁴⁴

These officers had an ambiguous status on the TRADOC staff. Many of them were majors and lieutenant colonels with backgrounds in operations research who worked originally for General Gorman, the Deputy Chief of Staff for Training. Indeed, General Gorman recalled that he selected such individuals specifically because he felt they were capable of the sort of analytical staff work that would influence General DePuy.⁴⁵ TRADOC's revision of Army doctrine began with "training literature" under General Gorman's supervision, and so these officers caught General DePuy's attention. By the fall of 1974, General DePuy was
using them as a personal staff, adding to their ranks his own former aides-de-camp and other young officers who particularly impressed him and eventually transferring them from General Gorman's staff to his own. Known variously as the "concepts team," "boathouse gang" (because their office was in a building at Fort Monroe once used as a yacht club) and finally "tactical concepts office," these officers were important because they made possible the timely publication of a manual that was satisfactory to General DePuy and that the formal TRADOC structure could not produce.

DePuy used this ad hoc staff arrangement for three purposes. First, it provided a sounding board for his own ideas. Starting with the draft chapters of FM 100-5 brought back to Fort Monroe from the second meeting at Fort A.P. Hill, the concepts team provided General DePuy with modified drafts for his comment. Often he would meet with the entire team to discuss these comments or, in some cases, to provide them drafts in his own hand. This process continued until the chapters met General DePuy's approval. Second, the team actually did the writing in accordance with DePuy's guidance. Third, team members acted as couriers for coordinating drafts with other agencies. They worked especially closely with General Gorman so that FM 100-5 remained consistent with that
officer's innovations in Army training. They also carried drafts of the manual directly to Fort Knox, Fort Leavenworth, or wherever necessary to gain an interested commander's concurrence or comments. Such trips were always by air, rarely longer than overnight, and always conducted in the name of the TRADOC commander.\textsuperscript{47}

These officers very likely had little direct influence over General DePuy's tactical thinking. The doctrine that appeared in FM 100-5 too clearly reflected DePuy's lifelong tactical preferences and the influences of Generals Gorman and Starry, the West Germans, the Tactical Air Command, and even General Cushman, for yet another group of persons to have been the source of much of it. DePuy's instructions to them indicate that he wanted them to be an extension of his own mind and method. He wanted them to write doctrine strictly according to his school of doctrine and tactics. In this way, they were a substitute for institutional compromise.

"Don't get too lofty or philosophical," he told them. "Wars are won by draftees and reserve officers. Write so they can understand."\textsuperscript{48} Discussing the importance of suppression and fire superiority, he said, "Field manuals should explain to the Blotzes and the draftees that you need superiority of firepower whenever you attack... these
messages about suppression and fire superiority must be stressed over and over again in the introduction and throughout all chapters of that manual." He warned them that he would not accept a manual that "drifts away from the direct, simple message." Fire superiority and suppression were important because they "change[d] the force ratio at that particular place and time," and force ratios were key to winning when outnumbered. This idea was central. "We have to stick to the fundamentals, stick to the arithmetic of the battlefield," DePuy instructed them. Showing his concern for the new lethality of the battlefield, he said, "...we're starting this war with so few people and so few weapons that we'll be out of business in a matter of days if we don't combat the enemy... with cautious smartness while conserving our own forces." One's own forces had to be conserved so that they would survive to achieve a favorable force ratio at the decisive place and time and thus win the battle. "Leadership calls for massing on the battlefield," DePuy proclaimed. "Audacity calls for massing on the battlefield. Use of the Air Force for combat air support calls for massing on the battlefield. Good tactics calls for massing on the battlefield."

These instructions demonstrated that DePuy's "concepts team" was essentially an extension of his own ideas about warfare. In the same session, DePuy went on to show that
by early 1975 he was becoming confident that TRADOC's innovations in doctrine would have a lasting effect on the Army. "What you are writing," he told his team, "is going to affect the colonels, lieutenant colonels, majors, captains, lieutenants and sergeants. The impact of these manuals will be a thousandfold. It will be more significant than anyone imagines. What is put into these manuals will be the Army way and it will show up for decades."

If the "concepts team" did not directly influence the substance of FM 100-5, it did make one critical contribution. That was to organize and express DePuy's ideas so that a manual was ready according to his time schedule. This was critical because DePuy knew that the "consensus" he had wrought with the Army at large by his "Octoberfest" conference - and that he was building with the Germans and the Air Force - was fragile. As he reached agreements, he had to be able to incorporate them into the Army's doctrine directly and that doctrine had to appear in print soon, while the consensus lasted. Only in this way could the ideas approved at the various high-level conferences he attended become doctrine that would actually influence the fighting army and help prepare it to win the first battle of the next war. To DePuy, implementation of the doctrine in the schools and in the field as soon as possible was the goal. The bureaucratic structure of TRADOC could not
produce manuals in the form or at the pace he desired, so he created his own ad hoc staff to do the job. That staff displaced more traditional participants in the doctrinal process and made possible the highly personalized tone of FM 100-5.

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By the fall of 1975, the basic concepts that became FM 100-5 were in place. Central in importance were the concepts "fight and win outnumbered," coined by General Gorman, and "win the first battle," a Gorman expression for what DePuy had long seen as a strategic imperative. Next was DePuy's idea of the manual as a description of "how to fight," and a capstone to a whole series of derivative tactical manuals that announced to the Army a break with Vietnam and a refocus of attention and energy on Europe. Other important ideas included the primacy of the tank, the centrality of armor/anti-armor warfare, the active defense, an emphasis on weapons systems analysis and force ratios, an appreciation for tactical air power, and a commitment to clear, simple, specific and assertive language. Satisfied that these ideas were ready for publication and determined to have a final draft manual prepared in time for the Department of the Army Commanders' Conference in December 1975, General DePuy used the fall
months to rally support, head-off potential opposition, and incorporate some ideas that until now had not had his attention.

To DePuy, a key ally was the West German Army. DePuy's most important conference with the Germans was when he went to Europe in October 1975, to brief them on a draft of FM 100-5. He returned from that conference confident that German concepts and his own were essentially the same, an important preliminary to gaining the approval of Department of the Army. As importantly, German concurrence with the TRADOC manual helped prevent any potential opposition from U. S. Army-Europe. That command might object to having an administrative headquarters in the U. S. dictate how it should fight, but it could hardly criticize TRADOC's concepts if in doing so it criticized its German allies. While DePuy was very careful to work closely with General George Blanchard's 7th Army Headquarters while he was in Europe, he was clearly most interested in the Germans' point of view. While DePuy was in Europe, USAREUR staff officers suggested that the draft of FM 100-5 did not sufficiently address coalition warfare or combat in cities. These issues did not threaten the basic thrust of the manual, and so DePuy happily invited USAREUR to submit draft chapters on each. He incorporated those chapters directly into the final version of the manual. 49
Earlier in the same month as his Europe trip, General DePuy had moved to address another possible source of opposition from within U. S. Army Forces Command (FORSCOM). FORSCOM's concurrence with FM 100-5 was as important to its gaining Army-wide acceptance as was U. S. Army-Europe's because all of the operational units in the United States that would have to adopt the doctrine came under FORSCOM. DePuy had tried to keep FORSCOM headquarters abreast of TRADOC initiatives in doctrine and training, but the relationship was not a close one.

One possible reason for DePuy's concern about FORSCOM in the fall of 1975 was that seven of the eleven divisions subordinate to FORSCOM headquarters were airmobile, airborne, or conventional infantry divisions, rather than armored or mechanized divisions. Their officers had close links to the Infantry School at Fort Benning. Some had undoubtedly served under General Cushman when he commanded the 101st Airborne Division (Air Assault). Probably most importantly, they were the institutional repository of the Vietnam experience with light infantry, airmobility, and deployment contingencies outside NATO Europe. They were thus an informal community that was likely to resist a doctrine that put armored operations in Europe at center stage and sought to break with the legacy of Vietnam, especially since the authors of that doctrine had excluded
both the Infantry School and the Combined Arms Center from the process.

To insure the support of the new FORSCOM commander, General Bernard Rogers, General DePuy accepted an invitation from General Rogers to host a joint conference on airmobility similar to the "Octoberfest" conference held at Fort Knox the previous year. The conferees included high-ranking officers from FORSCOM and TRADOC, the reserve components, major overseas commands, and the Army Chief of Staff, General Weyand. They met at Fort Hood, Texas, on October 8th and 9th to discuss how the Army "as the leader in airmobile tactics in Vietnam [would] keep the advantage internationally." They addressed the tactical movement of troops by helicopter and the use of armed helicopters against tanks in a mid-intensity environment. DePuy later described the origins of this "OFTCON" (for October FORSCOM-TRADOC Conference) meeting as a response to a perception by "certain elements of the Army," including Lieutenant General Robert M. Shoemaker, Commander of the Army's III Corps and Fort Hood, that TRADOC's initiatives thus far "signalled a retreat from airmobility and too narrow a focus on mounted or mechanized warfare." DePuy declared that the conference and subsequent studies gave TRADOC "confidence in the role of airmobility on the modern
battlefield [and] [i]t stimulated a resurgence of interest in the organization of the 101st Airmobile Division." 53

This was a very important posture for TRADOC to assume given the Army's experience with airmobility. DePuy was not "anti-airmobile," as evidenced by his aggressive use of helicopters in Vietnam and the fact that two of the Army's "Big Five" procurement priorities for which he had fought as Assistant Vice Chief of Staff were helicopters. However, the October War had suggested to some within the Army that helicopters could not be employed in the face of a sophisticated enemy air defense system. 54 DePuy himself was cautious about their utility, including in his Draft Concept Paper a detailed discussion of anti-tank attack helicopters only and deferring discussion of airmobility generally to later versions. 55

Such caution, combined with the obvious armor orientation of TRADOC's initiatives in 1974 and 1975, had sent a disturbing signal to the Army's airmobile community. "OFTCON" was thus primarily a "political" conference to placate that community before FM 100-5 went to press. It did not result in any sweeping changes to the manual, but probably did force the insertion of several phrases and sections that acknowledged the U. S. Army's continued
commitment to world leadership in attack helicopters and airmobility.

A smaller but no less significant community within the Army was that which concerned itself with tactical nuclear weapons. So far General DePuy and TRADOC had concerned themselves primarily with conventional combat along the lines of the October War. While this remained the central focus of FM 100-5, TRADOC could not publish a Europe-oriented doctrine without discussing the employment of tactical nuclear weapons. DePuy moved in the fall of 1975 to bring the Army's small nuclear weapons community into the doctrinal process.

The agencies with which TRADOC dealt were the U. S. Army Nuclear and Chemical Agency (USANCA) in the Pentagon and the so-called NUDORE (for Nuclear Doctrine, Organization and Equipment) Study Team recently moved from CACDA to the Command and General Staff College at Fort Leavenworth.56 Since TRADOC Headquarters had no office to deal with nuclear weapons matters, these two agencies formed a separate community of experts, even though organizationally the NUDORE Team was subordinate to TRADOC and the USANCA was superior. Such isolation was a function of the high security classification given to nuclear matters and the technical qualifications required of officers to
work in either office. Thus, nuclear weapons expertise was functionally outside the mainstream of Army doctrinal thinking.

This was a situation intolerable to some members of the nuclear community but quite acceptable to General DePuy. Officers involved with nuclear weapons planning believed that the United States enjoyed clear superiority over the Soviet Union in tactical nuclear weapons. The mere existence of a U.S. tactical nuclear capability complicated Soviet planning while close linkage of tactical weapons to strategic weapons enhanced the deterrent capability of Army forces worldwide. Further, nuclear weapons employment was a very real possibility for which the Army had to prepare itself thoroughly. According to these officers, then, tactical nuclear weapons should be in the mainstream of Army doctrinal thinking, on a par with the traditional branches such as armor, infantry, and artillery. 57

General DePuy did not share this line of reasoning. To him, the employment of nuclear weapons could not be considered a routine option for Army commanders worldwide because of the very stringent controls placed on such use. Furthermore, nuclear warfare was so theoretical that one should not build an entire doctrine around a guess, however
educated. Clearly, United States policy required a conventional defense of NATO Europe in hopes of controlling any conflict below the nuclear threshold. This meant that the Army's conventional capability must take first priority. DePuy perceived the Army nuclear weapons community as too eager to make the option attractive and thus push doctrine over the line into policy. That was a step he was unwilling to take.

Other obstacles to thorough integration of tactical nuclear weapons with the emerging TRADOC doctrine were important. First, DePuy wanted wide distribution of FM 100-5 and its derivative manuals. He wanted soldiers of all ranks throughout the Army to study the manuals thoroughly. This would not be possible if the manuals contained classified information necessary to a thorough discussion of nuclear weapons. Second, and more importantly, of major concern to DePuy was continued support from the Germans for his doctrinal initiatives. U. S. employment of tactical nuclear weapons in Europe was a highly controversial issue in Germany that could only threaten the relationship he had so painstakingly developed over the past two years. 58
For all of these reasons, the draft chapter prepared jointly by the NUDORE team and USANCA did not appear in the final manual. Indeed, by the December Commander's Conference, which was DePuy's target date, the draft chapter on tactical nuclear weapons still carried a high security classification, requiring DePuy to distribute it to the conferees under a separate cover. To resolve the dilemma, DePuy agreed that tactical nuclear doctrine should appear in a separate, classified manual as FM 100-5-1, while FM 100-5 itself would contain only a discussion of the effects of nuclear weapons, their control, and principles of fire planning. The Assistant Chief of Staff of the Army for Intelligence agreed to allow publication in that chapter of a previously classified chart showing processing times at each level of command of a request to use nuclear weapons. These matters, of course, did not constitute a doctrine for nuclear weapons, but treated them "as ancillary to the major concern - the conventional battle against the enemy's first-echelon forces."

Also ancillary to the manual's focus, but critical to any discussion of war with the Soviet Union, was the issue of chemical weapons. Again, matters of classification, technical knowledge, and policy constraints inhibited thorough integration of chemical warfare doctrine with Army doctrine generally. Since President Richard M. Nixon's
1969 renunciation of America's first use of chemical weapons, the Army had paid little heed to the problem and was on the verge of disbanding its own Chemical Corps. Then the October War intervened. Modern Soviet equipment captured from the Arabs indicated that the Soviet Union was well ahead of the U. S. in chemical defense technology and seemed to suggest Soviet preparedness to use chemical munitions offensively as a routine part of military operations. The Chief of Staff of the Army directed a comprehensive review of the Army's chemical warfare posture, and that review was in progress as TRADOC prepared FM 100-5.

Perhaps for that reason, General DePuy did not include a discussion of chemical warfare in the early drafts of FM 100-5. Significantly, none of the other TRADOC schools suggested it, testimony to the marginal importance attached to the issue. As part of his preparations for the December conference, however, DePuy circulated drafts of the manual to the Army staff and other major command headquarters. One of these arrived in the Nuclear Division of the Office of the Deputy Chief of Staff for Operations, which had staff responsibility for chemical matters as an "additional responsibility." There a staff officer of the Chemical Corps noted the absence of any discussion of chemical warfare in the manual and recommended appropriate
changes. In a classic example of the hazards of bureaucratic suggesting, TRADOC Headquarters had no one with the necessary background to make such changes and so requested that the officer who originally made the suggestion be tasked to prepare a draft chapter on chemical warfare. The officer obliged, and his draft appeared intact as Chapter 11 of the final manual. Similar to Chapter 10 on tactical nuclear weapons, it discussed U.S. chemical warfare policy, Soviet chemical capability, the effects of various weapons, and some principles of planning, but did not represent a major doctrinal pronouncement.

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As all of this work progressed, General DePuy brought the "informal power bloc" together one last time at Camp A.P. Hill to incorporate the results of OFTCON and his talks with the Germans. Here on November 18 and 19, 1975, he, General Gorman, and General Starry rewrote the final drafts of the manual's first six chapters. These were entitled U.S. Army Objectives; Modern Weapons on the Modern Battlefield; How to Fight; Offense; Defense; and Retrograde. They constituted the heart of the new doctrine. General DePuy wrote Chapter 1, General Gorman
Chapter 2, Generals DePuy and Gorman together Chapter 3, General DePuy and General Starry wrote Chapter 4, and General Starry wrote Chapters 5 and 6. Significantly, General Cushman attended the meeting as an observer but did not participate in the writing. No other general officers attended. It was the draft prepared at this meeting that DePuy took to the Department of the Army Commander's Conference on December 10 and 11, 1975.

His briefing to the Commander's Conference went well. "They like it," he reported. He provided each participant with a copy of the draft manual and asked for their comments by February 1, 1976, the date by which he hoped also to have the comments of the West German High Command and by which he expected to "go in concrete." None of the comments he received significantly altered the doctrine that he, General Gorman, and General Starry had penned at Camp A.P. Hill in November. Once DePuy received German concurrence in January, the bulk of TRADOC's efforts on the manual shifted to preparing the graphics and illustrations that made such a striking contrast to past manuals. By April 1, 1976, General DePuy was "content ...that we finally have the doctrine problem in order." On July 1, 1976, his draft of FM 100-5 gained official Department of
the Army approval, and the presses began to print it as the
U. S. Army's new combat doctrine.
CHAPTER VII FOOTNOTES

1. William G. Bell, Commanding Generals and Chiefs of Staff, 1775-1983: Portraits and Biographical Sketches of the United States Army's Senior Officer (Washington: Center of Military History, 1983), pp. 144-146. Both DePuy and Starry confirm the changed environment after Abrams' death. "By that time I kind of felt like I wanted to finish what we started along the lines that we were proceeding," and "[General Weyand] was a good soldier but he just wasn't as intensely interested in the kinds of things we are talking about as I was and as Abe was and as Gorman was and Starry was and so on. He just wasn't." Herbert, Interview with DePuy, 1 June 1984. General Starry recalls that General Abrams was very much in support of TRADOC's initiatives. Because Abrams was the only officer with sufficient "clout" to bring about a wholesale doctrinal reform, his illness and death made TRADOC more dependent upon the October War as a persuasive case in point. Starry says that General Weyand supported TRADOC's initiatives, but had not been a part of them from the start (i.e., planning STEADFAST) and lacked the personal image in the Army to bring them about. Herbert, Interview with Starry, 19 July 1984.

2.


7. General William E. DePuy to General Frederick C. Weyand, Chief of Staff of the Army, 29 April 1975, DePuy Papers, USAMHI.

8. The Army's development at the MICV can be traced by reading Jerry M. Bunyard and Jerome B. Hilmers, "MICV-UTTAS," Army, July 1973; "Infantry News," Infantry, Jan-Feb 1973; Emanuel Karbeling, "MICV Update," Infantry, Mar-Apr 1974; and Jeff F. Cherry, "Mounted Combat," Infantry, Sep-Oct 1975. DOD's skepticism about this program is evident in OCMH, Department of the Army Historical Summary, for FYs 1971 thru 1975; for example the 1975 summary states that cost overruns and mechanical failures "posed a threat to the future of the program," p. 117.

9. Depuy to Weyand, 29 Apr 75.

10.


12. John H. Cushman, U.S. Army Operational Doctrine as Expressed in FM 100-5 and the Defense of Central Europe (The MITRE Corporation, McLean, Virginia), Sep 1978, pp. 7-8. General Starry recalls that a major concern of his and General DePuy's was that Europe "was in a shambles," that the officers there did not believe they could win. Herbert, Interview with Starry, 19 July 1984.

13. Major General Orwin C. Talbott, "The Role of Mechanical Infantry," Armor 82 (March-April 1973): 9-12. This article was a none-too-subtle message to the armor community that the infantry "forms the nucleus of the Army's fighting strength around which the other arms and services are grouped" and should continue to do so. It was also a plea for the MICV. Indeed, one suspects that the "force oriented defense" may have been prompted as much by these parochial concerns as by an objective assessment of how to defend Europe, so prominent are they in Talbott's article. See also Doughty, Tactical Doctrine, pp. 42-43. DePuy's assessment is in  


15. Brigadier General Paul F. Gorman, "How to Win Outnum-
bered," enclosure to Gorman to Major General Donn A. Starry, 8 January 1974, Starry Papers, USAMHI.

17. See Chapter IV, above.


19. Major General Donn A. Starry to Brigadier General Paul F. Gorman, July 1974, Starry Papers, USAMHI.


22. See Chapter V, above.


24. Ibid.


27. A copy of the outline was loaned to the author by Colonel (then Major) William G. Carter, former aide-de-camp to General DePuy.


29. Ibid.


31. Ibid., pp. 27-5 to 27-6 and p. 27-15.

32. Ibid., p. 27-1.

33. Ibid., pp. 4-8 to 4-9.

34. Ibid., pp. 10-9 and 27-9.

35. Ibid., pp. 27-4 and 27-7.
36. Ibid., pp. 27-4 and 27-7.
37. Ibid., p. 27-3.
38. Ibid., pp. 27-16 and 27-20.
39. Ibid., pp. 10-5.
40. Ibid., pp. 27-15.

41. The idea of generals and colonels moving battalions about the battlefield from one position to another pervades Chapter 5 of FM 100-5. For example, "The defending commander thus directs the fight by specifying which battle positions his units will occupy and what they will do there - defend, support, attack." U. S. Department of the Army, Operations, FM 100-5, Washington, D. C., 1 July 1976, p. 5-5.

42. 100/100, p. 10-2.

43. Ibid., pp. 10-3 to 10-5. General von Reichert emphasized these points in comments he sent to DePuy on a TRADOC pamphlet on anti-armor doctrine: "Surprising concentrations of forces on decisive sport, surprising transition from one type of combat to another, and missions that do not strangle the commander's initiative, are qualities characterizing delaying operations as well as defense." von Reichert to DePuy, 9 January 1976, German Army File, THO Files.

44. Ibid., p. 27-20.

45. Some of these officers were Lieutenant Colonel Jack Nicholson and Majors Samuel Wilder, David Meade, Gerald Granrud, and William Carter. Scribner, "Doctrine Development by TRADOC," p. 1. See also Richard Weinert, TRADOC Historian, Interview with Major General Huffman, Memorandum for Record, 7 November 1974, THO Files.


47. Ibid; Herbert, Interview with General DePuy, 1 June 1984.


50. Major General Paul P. Gorman, Fact Sheet: Status of FM 100-5, Memorandum for TRADOC staff, 19 January 1976, THO Files.


52. Ibid.

53. Ibid; General DePuy to General Frederick C. Weyand, 18 February 1976, DePuy Papers, USAMHI.


55. For example, "The Army's evaluation of the Middle East war also ends the love affair between the generals and the helicopters. The choppers, it was agreed, could not survive over the battlefields of Sinai or the Golan Heights..." Drew Middleton, "U. S. Alters Military Stance as Deadlier Arms Spread," New York Times, 9 July 1975.

56. TRADOC, Draft Concept Paper. See also Chapter IV, p. above.


59. Murry remembers that a major hindrance to the publication of FM 100-5-1, which did not appear until November 1976, was German objection to some aspects of American fire planning. A West German officer attending the Command and General Staff College at Fort Leavenworth "leaked" materials from tactical problems in the course to the German Army, causing a minor furor over American controls over target planning.

63. The officer was then lieutenant colonel, now Brigadier General Bobby C. Robinson. These paragraphs are based entirely on Richardson to the author, 1 May 1984.
CHAPTER VIII
TOWARD THE BEST AVAILABLE THOUGHT

The new manual impacted upon the Army immediately. In July, TRADOC distributed 1,000 copies to the Department of the Army Staff, all major command headquarters, each corps and division, and each TRADOC school. In August, another special mailing placed 22,000 copies in the hands of all combat arms commanders down to company level in the active Army, Army Reserve, and Army National Guard. A further 153,000 copies followed through normal distribution channels. By September, division commanders in Europe were conducting formal classes for all their officers on the new manual. Meanwhile, General Starry, recently promoted and given command of the U. S. V Corps to which he had devoted so much attention, reorganized the general defensive plan of that corps to conform with the new doctrine, and convinced 7th Army commander General George S. Blanchard and VII Corps commander, Lieutenant General David Ott to do the same.1 The manual produced a doctrinal reorientation rivalled in the U. S. Army's peacetime history only by the adoption of the "Pentomic" division in 1956.2 General DePuy intended that the manual's distribution be wholesale
and abrupt because he was not trying to change a manual but change the Army. Ironically, that very fact began the process of critique within the Army that led to the manual's demise.

The critique and rejection of FM 100-5 disappointed General DePuy not only because he identified himself closely with the manual and because he had struggled so hard to publish it, but also because to him it was the centerpiece of a much broader range of activities that marked a "historic turning point" for the U. S. Army. DePuy believed that the Army's increasing dependency on highly sophisticated weapons and equipment, and the support services necessary to sustain them, signalled the Army's evolution from an organization of people with weapons to an organization of weapons with crews. In this sense, the Army was becoming more like the Air Force and Navy, and had to prepare accordingly. FM 100-5 was a systems and weapons oriented doctrine intended to prepare the Army for its future, which included as a worst case very high intensity conventional battle using lots of sophisticated weapons, and as a best case significant organizational and equipment changes as the new weapons in which the Army had invested became available. 3
The doctrine in FM 100-5 was deliberately consistent with many other TRADOC initiatives taken to prepare for this future. These included the publication of an entire "family" of doctrinal manuals; a "division restructuring study" (DRS) that outlined organizational changes in Army divisions to accommodate the new equipment; continued weapons systems analysis to support Army budgeting and procurement; continued cooperation with the West Germans, aimed toward a "unified allied doctrine" and joint development of equipment; continued cooperation with TAC; and a thoroughly reorganized, criterion referenced, hands-on training program, designed to certify regularly each soldier's proficiency in the specific skills that defined his role in the larger army system. This rationalization of the Army's doctrine with its initiatives in organization, procurement, and training, all under a single headquarters, meant that any critique of the doctrine implicitly applied to the whole TRADOC apparatus. Conversely, a critique of any part of the TRADOC apparatus, or of the weapons supported by TRADOC analyses, or of the budget to procure those weapons, implicitly critiqued the doctrine. Thus the doctrine was at one and the same time very vulnerable to criticism from several directions and very resistant to change. Indeed, DePuy's willingness to center so much of TRADOC's activities around the doctrine shows that he did not anticipate significant challenges. Barring a
revolutionary weapons technology breakthrough or a major change to Warsaw Pact forces, a TRADOC briefing paper stated, "this manual should provide adequate guidance for the Army for an extended period of time."\(^5\) DePuy himself told General Weyand, "It will be several more years before 51% of the commanders in the Army -- Generals through Captains -- operate instinctively in accordance with the principles in FM 100-5. At that time, it will be genuine doctrine."\(^6\) As late as 1979, DePuy listed FM 100-5 and its derivative manuals as one of his three most significant contributions to the Army while TRADOC commander.\(^7\)

Paradoxically, the manual never enjoyed the instinctive acceptance of a majority of the Army's officers, and yet it was indeed DePuy's most important contribution to the Army. Both were due to the critique of the manual that began almost as soon as it appeared.

Despite early approval of the manual's style and clarity, three major points of criticism arose almost immediately. These were that the manual placed too much emphasis on the defense at the expense of the offense; that in stressing force ratios and the destruction of enemy forces it ignored the psychological dimensions of warfare; and that it focused too narrowly on combat in Europe to the exclusion of contingencies elsewhere in the world.
Variations of this critique came from many different sources and at different times, but none were earlier or better expressed than Supreme Allied Commander Alexander M. Haig's letter to General DePuy on 10 September 1976.8

Fearing that officers might tend "to canonize prescriptions based on carefully restricted assumptions" applicable mainly to Europe, Haig wrote that he "would personally like to see... a more explicit reminder that in general, the ultimate purpose of any defense is to regain the initiative by taking the offensive." He feared that the manual's emphasis on Europe "may induce too narrow a focus on defense for its own sake." Haig acknowledged that such was not the intent of the manual, but a danger inherent in "focussing [sic] on a particular contingency, however crucial." Haig further hoped that the manual could be refined to highlight "the importance of offensive maneuver in destroying an opponent's will - as opposed to his capacity - to fight."

Haig's critique was important because it accurately predicted that a difficulty with FM 100-5 as doctrine might be more a matter of the Army's response to it than what the manual actually said. It was not only the substance but also the emphasis and tone. General DePuy recognized the subtlety but responded that emphasis was a command
prerogative. The manual was essentially a menu that described how to do whatever the commander chose to do.\textsuperscript{9} Haig's comments on offensive maneuver were also important. There was no lack of emphasis on maneuver in FM 100-5, as many of its critics claimed, but the manual's chapter on offensive operations was not nearly as detailed nor sophisticated as that on defensive operations. More importantly, the manual seemed to dilute the idea of the offensive as critical to victory. Destroying the enemy's will to continue was the fifth purpose of the offensive, appearing after destruction of enemy forces, securing terrain, depriving the enemy of resources, and demoralizing him. The manual's guidance on "when to attack" seemed muted: "Whenever [one can] inflict disabling... losses on enemy units, neutralize major forces, or accomplish some lesser effect for a specific purpose."\textsuperscript{10}

When General Haig penned his letter to DePuy, General Starry was in his seventh month as commander of V Corps. By that time, Starry too was discovering that the doctrine did not address all of the problems a corps commander faced. This was especially true of the active defense. Although the doctrine was very handy for organizing battalions, brigades, and even divisions for the initial defensive battle, it did not help Starry deal with enemy follow-on echelons that were of great concern at the corps level.
"I must admit I simply hadn't... an answer to [that] in the '76 edition," Starry said much later. "We tackled the tactical problem up forward [but] we kind of brushed aside the operational level considerations, the theater-level considerations... What gelled it for me was being a corps commander."  

It is not the purpose here to recount the entire story of the critique of FM 100-5, but merely to show that important elements within the Army were not satisfied with the manual within a very short time after its publication. 12 Between 1976 and 1981 other important points of criticism emerged. The active defense, modelled against a Soviet "breakthrough" attack, did not account for a perceived change in Soviet offensive doctrine from a massed "breakthrough" penetration in successive echelons to a "multi-pronged" offensive designed to keep the defender off balance and then exploit any weak spots in his defenses with an "operational maneuver group" held in reserve. In emphasizing battle at and below division level, the doctrine did not adequately address the "operational" level of war, that is, the conduct of campaigns by corps and higher commanders to bring about decisive battles on favorable terms. With its emphasis on weapons, firepower, and force ratios, the manual seemed to imply an "attrition strategy" rather than a supposedly superior "maneuver strategy."
Finally, the manual seemed to be founded upon statistical analysis rather than enduring historical principles. As a case in point, it was the first edition of FM 100-5 since 1949 to exclude the historically derived "Principles of War."

General Starry, who succeeded DePuy as TRADOC commander in 1977, wrote, "...no Army manual has ever been so widely commented on, debated and, to a large extent, misunderstood," and General DePuy, who had retired ("an old soldier no longer in the king's employ"), acknowledged in 1980 "that some of the doctrine set forth in 100-5 has not taken hold throughout the Army in the manner intended."\(^{13}\)

By that time, the wide-ranging critique of FM 100-5 was coming together as an effort to revise the manual. Revision gave way to replacement, and in 1982 the Army published an entirely new manual. This manual not only addressed all of the points of criticism that had emerged, but took a wholly different approach to warfare. Combat was not fundamentally a matter of weapons systems integration, although that was important, but a matter of will and wit. Accordingly, the new manual did not set out to describe "how the U. S. Army destroys enemy forces," but rather "how the Army must conduct campaigns and battles in order to win."\(^{14}\)
The breadth and depth of the critique of FM 100-5 was the reason that the Army never accepted it as doctrine. Ironically, that critique was in direct response to the measures DePuy took to insure that the Army would accept it as doctrine. Because he wanted to have a dramatic effect on an army he perceived as essentially unprepared for a dangerous future, he purposely drew much attention to the manual, both directly by publishing it in an eye-catching format and flooding the Army with copies of it at one time, and indirectly by tying all of TRADOC's training initiatives to the doctrine. Because the manual had command emphasis, was available, attractive, and easy to read (it was written for "Blotzes"), the officer corps of the Army did read it. They not only read it and attempted to apply it, but they understood it, thought about it, talked about it, wrote about it, and in doing so eventually rejected it. That renaissance of professional discourse might have happened anyway, but it in fact did happen in direct response to FM 100-5. For that reason the manual was a most important contribution to the United States Army.\textsuperscript{15}

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Doctrine is a product of the bureaucratic politics and personalities of the army it serves as much as it is
objective "best available thought" about warfare. An army's past, present, and vision of its future always influence doctrine because each is an inherent part of the intellectual process by which armies develop doctrine. These truths are evident in the U. S. Army's formulation of the 1976 edition of FM 100-5.

Even though General DePuy and the other authors of FM 100-5 intended to write a manual that would prepare the Army for its next war, and not its last, they could not possibly escape the historical experience of the Army. General DePuy's most fundamental ideas about tactics, combined arms, combat leadership, the nature of the American soldier, and the nature of the U. S. Army came directly from the campaign to liberate Europe from Nazism. He never forgot them and he wrote them into FM 100-5. Similarly, the Army's experience in the Republic of Vietnam had a direct influence on the manual. DePuy and his assistants feared that Vietnam had been an aberration in the historical trend of warfare and that the Army had lost a generation's worth of technical modernization there while gaining a generation's worth of nearly irrelevant combat experience. They discovered that they could not expunge that experience, try as they might, and so had to incorporate it instead. This was most clearly evident in General Shoemaker's initiation of the "OF T CON" conference
on airmobility in 1975, but appeared elsewhere as well. The TAC-TRADOC dialogue in part reflected the Vietnam experience of Generals Abrams and Brown. While no documentary evidence exists to demonstrate the point, the failure of FM 100-5 to address corps and theater-level "operations" may have been an unconscious legacy of Vietnam, a war in which corps and higher headquarters remained stationary and did not "campaign" in the traditional sense. Likewise, the very assertive manner in which DePuy presented FM 100-5 to the Army may well have been necessary in an army that tended to disdain manuals because of their evident irrelevance in the war just completed.16

If the Army's past strongly influenced FM 100-5, so did its "present," the period from 1973 to 1976. That particular period of American history contained conditions to which the doctrine of the U. S. Army responded. Among these were a change in U. S. foreign and defense policy, the Army's fiscal concerns, and the condition of the U. S. Army in the wake of the Vietnam War.

First and most important in defining the "present" of the early 1970's was the U. S. Army's withdrawal from Vietnam and the parallel realignment of American foreign and defense policy. If the doctrine focused too narrowly on defense of NATO Europe, that was because the policy of
the United States all but specifically prohibited the use of American military forces in any contingency other than meeting its alliance obligations to Japan, the Republic of Korea, and NATO. Of these, NATO was not only first priority but seemed in the worst danger in view of the condition of the U. S. 7th Army and the build-up of the forces of the Warsaw Pact. The October War of 1973 dramatically heightened that sense of danger by suggesting that modern, conventional, mid-intensity warfare would be dramatically different from the Army's experience in Vietnam. That war further suggested that a Europe-oriented doctrine would not be entirely inappropriate in other contingencies.

Europe's status as the Army's first priority mission meant that it was the Army's only mission in practical terms because the Army simply lacked the resources to prepare for much else. Congress planned the post-Vietnam active army to consist of 785,000 volunteer soldiers in thirteen active divisions. Only General Abrams' solemn pledge not to exceed that number of soldiers allowed him to increase the number of divisions to sixteen. To create the additional three divisions, Abrams ordered the deactivation of numerous headquarters, support units, and bases. Combined with the rising costs associated with the volunteer army, the drastically increased cost of fuel, and the Army's low budget priority relative to the Air Force and
Navy, this meant that the Army of the early 1970s was cost conscious to a fault. Such sensitivity to its budget was the second most important characteristic defining the "present" to which the Army's doctrine responded.

As TRADOC commander, DePuy was determined to provide the Army with better arguments with which to defend its budget, and especially that part of the budget earmarked for investment in new weapons. He proposed to demonstrate the Army's need for each budget item by explaining its role in an overarching concept of how the Army fought. He would then apply rigorous cost-effectiveness analyses within standard scenarios to demonstrate that each item was the optimum balance of costs and capabilities. The Army's need to preserve its investment in new weapons in an era of strict fiscal controls thus prompted the search for an overarching concept, or doctrine, and insured that the doctrine would have a strong weapons systems emphasis. A doctrine that maximized the potential of every weapon on the battlefield also appeared to maximize the return on every dollar spent on those weapons, a matter of no small significance to an Army with a politically vulnerable budget.

This process of linking doctrinal development closely to weapons acquisition for the purpose of better managing
the Army's budget led to difficulties. The process began to work backwards. What DePuy had intended to do was derive a concept of how to fight from a description of the enemy threat within a specific scenario and then identify what the Army needed to execute the concept. This required modelling, expression of variables as numbers, and other routine procedures of operations research. So systems oriented was the TRADOC approach, however, that the analytical expression of the concept displaced the concept itself, first in wargames and later in TRADOC publications. Traditional and familiar concepts such as the principle of war "mass" (concentrate combat power at the decisive place and time) became procedural rules like achieve a favorable force ratio of not less than 6:1 at the point of decision. FM 100-5 devoted an entire chapter to weapons but less than a page to leadership. A systems analysis mindset seemed to pervade the doctrine. The Army reacted at first with confusion and ultimately with rejection. The writers of the 1982 manual set out to describe "how soldiers, not systems, fight and win."\textsuperscript{17}

The systems analysis bias of the 1976 doctrine was a direct response to the Army's fiscal concerns in the early 1970s. It reflected a way of thinking that Secretary of Defense Robert M. McNamara brought into the Pentagon in the 1960s; that the services thereafter used to identify their
budget requirements for weapons and "programs;" that General DePuy brought with him to TRADOC to better link weapons development to doctrine and training; and that he, General Gorman, and General Starry then applied to the Army's thinking and official writing about doctrine. General DePuy thought that in doing so he was preparing an increasingly systems-oriented army for its own future while explaining clearly and simply how that army fought so that every soldier might understand his role within it. Ironically, the Army perceived the doctrine as an oversimplification that paid too little heed to the human dimension of warfare. As DePuy had rejected Cushman's doctrine as too abstract, so the Army rejected DePuy's doctrine as too mechanical, too mathematically certain, too specific.

The third most important characteristic of the early 1970s was the condition of the U. S. Army immediately after Vietnam. Neither defeated nor victorious in that war, misunderstood if not unappreciated at home, rent by racial, drug, and disciplinary problems, short of experienced leaders, and in the throes of major personnel policy changes associated with the end of conscription, the Army was in danger of losing its identity and pride of purpose. Like its sister services, it was anything but combat ready. DePuy, Gorman, and Starry each believed that these circumstances demanded intensified, quality training focused
squarely and without apology on "how to fight." Their sense of urgency grew after the October War suggested the irrelevance of whatever combat experience the Army retained from Vietnam. Training for a mid-intensity war like the October War required an appropriate doctrine, and, in the opinions of TRADOC's senior officers, the United States Army did not have one. This pressing need to retrain the Army drove TRADOC to develop new doctrine.

The preceding discussion of the 1976 doctrine as a response to the historical conditions of the period 1973-1976 has already suggested the "vision of its future" that also informed the Army's doctrinal efforts. To General DePuy, the future had already arrived and the U. S. Army was unprepared. The Warsaw Pact armies were numerically and quantitatively superior to the U. S. Army. Third World nations possessed large, sophisticated armed forces. Future warfare would entail conventional battle against a numerically superior enemy with comparable equipment. Such warfare could break out at any moment in the Middle East, as it recently had. While war in Europe was much less likely, it was also much more dangerous. General Gorman captured TRADOC's vision of the Army's future with the slogans "Fight outnumbered and win," and "Win the first battle," ideas that were central to FM 100-5.
Although a dangerous and uncertain present seemed to crowd any thought for the more distant future out of TRADOC's thinking about missions, geographical regions, and enemy forces, in one respect FM 100-5 was very forward-looking. That was the systems and weapons emphasis that made it so unpalatable to the Army. If DePuy struggled to come to grips with Warsaw Pact capabilities in the here and now, he also tried to articulate a doctrine consistent with technological capabilities that he knew were on the horizon and with an unprecedented modernization program that he believed would make the Army akin to the Air Force and Navy. To him, both problems seemed so acute that he addressed them specifically, exclusively, and assertively. The result was a Europe-focused, weapons-oriented doctrine that did not withstand critique, especially in light of changed circumstances such as the change in Soviet offensive doctrine. It may have been a failure as a doctrine, but it was a success in focusing the Army's attention on two issues bound to be part of its future: the defense of NATO Europe and technological modernization.

Memories of the past, conditions of the present, and images of the future are all inherent to the intellectual process of formulating doctrine. That process is also inherently political because it seeks to decide which of many competing ideas will become "approved fundamental
principles." The writing of FM 100-5 in 1976 was nothing if not such a political process.

In the first place, the 1976 doctrine was a direct result of the Army's desire to compete more effectively within the Department of Defense for money. General DePuy did not set out in 1973 to "seek truth" about warfare but to help the Army better preserve its investment in new weapons. Similarly, TRADOC's collaboration with TAC reflected a concern by both services that they had to cooperate on the budget in order to cooperate on the battlefield. If cooperation was desirable, it also had its limits as TAC's reluctance to endorse "Air Land Battle" indicates.

On another plane, General DePuy discovered early that doctrine, rather than just concepts, was a very important persuasive tool in the weapons acquisition process. ("If we teach it and we believe it then we better buy the weapons that make it work.") One could make a case for the MICV, for example, if one spoke authoritatively about "how the Army fights" and could show that the MICV was essential to that concept. Speaking authoritatively about how the Army fights was the problem. General DePuy could not ground the Army's case for new weapons in a concept of "how to fight" that was not shared by the Army's field
commanders. Nor could he train officers and noncommissioned officers in the schools according to ideas that they would never see again in the field. If TRADOC were to perform what DePuy saw as its two most important missions, then TRADOC concepts had to be U.S. Army doctrine. This meant that they must enjoy consensus and appear in manuals approved by Department of the Army.

This put General DePuy in a difficult situation because consensus building within a complex institution like the Army is a time consuming process and DePuy believed he had very little time. (His vision of the future was the here and now.) Adding to his difficulties was the fact that his was a new organization to which the Army's field commanders did not automatically ascribe authority in doctrinal matters. His response was an impressive exercise in bureaucratic politics. At conferences like "Octoberfest" he involved the most influential officers of the other commands in his doctrinal work, using persuasion but also carefully maintaining the initiative in ideas. He used his control of the training literature and curricula of the Army's schools to influence the lower ranks of the Army. He used his close ties to the West German army as leverage with U.S. Army Europe. When the FORSCOM commander wanted a conference on airmobility in 1975, he readily agreed, not only because he believed
airmobility was important to the Army in itself, but also because he could not afford to alienate the three- and four-star commanders who supported it. Political considerations were not more important than doctrinal ideas to General DePuy, nor did he have a premeditated political strategy from the outset, but the very process of expressing a doctrine for the entire United States Army was inherently political, and caused him to respond in a political manner.

DePuy's problem would have been difficult enough had it entailed no more than convincing all the Army field commands to adopt a new doctrine, but as Commanding General of TRADOC he had to work in yet a third political arena. That was his own command. The U. S. Army Infantry School (Fort Benning, Georgia), U. S. Army Armor School (Fort Knox, Kentucky), and U. S. Army Combined Arms Center (Fort Leavenworth, Kansas) all vied with each other for the right to describe to the Army how to fight, and each had strong ties to the Army outside of TRADOC. This was no petty squabble for prestige, promotion, and General DePuy's favor, although it had elements of each, but genuine and heated debate over "how to fight," how to organize and train, and over the very nature of doctrine itself. General Starry's "victory" was due as much to DePuy's firm belief that armor was the most important branch of the Army
as it was to Starry's superior skill in political battles with his peers. General Cushman's "defeat" was a clear case of an officer who valued the integrity of his beliefs more than he did his career.

The external and internal politics of TRADOC are critical to understanding the development of FM 100-5 and its impact on the Army. The very complexity of the process helps explain why DePuy centralized doctrine development in his own headquarters. He could not act simultaneously in three political arenas (outside the Army, with the Germans and TAC; within the Army, with the Department of the Army, FORSCOM, and USAREUR; and within TRADOC) in any meaningful way unless he could control at least one. Because of the international situation, the condition of the Army, and his belief that binding decisions were required of the TRADOC commander in the other two arenas, he did not believe he had time to build a solid consensus within TRADOC, especially after General Cushman confronted him with fairly profound opposition. As substitutes for consensus, he elevated the Armor School to "first-among-equals" status and created the "boathouse gang," in the process alienating important institutions like Fort Benning and Fort Leavenworth. This may have been a necessary expedient but was nonetheless short-sighted. It allowed TRADOC to publish a doctrine largely undiluted by compromise that
addressed the Soviet threat and the lessons of the October War, provided a rationale for funding overdue modernization, and undergirded the Army's training developments, all important and immediate concerns. On the other hand, it ensured that FM 100-5 would be controversial on two counts, first in substance, narrowly based as it was on a statistical analysis of armored combat in Europe, and second in the manner of its promulgation. Hastily written in an assertive style by a select few and then imposed upon the Army in blitzkrieg fashion tailored for dramatic effect, the manual was not likely to endure. With the 1982 edition, the Army rejected both the 1976 doctrine and the method that had brought it about. 18

The political process demanded a man of strong personality as Commanding General, TRADOC, and General DePuy was certainly that. Historical and intellectual currents and bureaucratic politics may define the processes by which ideas become doctrine, but ultimately individuals make the important decisions. These reflect the unique talents and eccentricities such individuals bring to the job. This was certainly true of FM 100-5.

DePuy's was a personal response to the political environment in which he worked. Centralization of decision-making, isolation of opponents, command attention
to priority projects, strict adherence to a demanding time schedule, and an aggressive campaign of persuasion all reflected a command style nurtured since World War II and best described by DePuy himself in 1969: "Decide what has to be done, tell someone to do it, and check to be sure that they do." If the style seems blunt it was at least decisive and compensated greatly for a political process that might have caused a different man to compromise too much and consequently write meaningless doctrine. FM 100-5 was not meaningless. It played the important role that it did in the U. S. Army's post-Vietnam history precisely because it was unambiguous, and that was because DePuy overcame the bureaucracy, however controversial his method. It may well be the case that only the impatient, energetic style of a DePuy could have started the doctrinal renaissance that began in 1976.

Because DePuy overcame the bureaucracy, the doctrine he wrote carried a personal stamp. There can be no question that had General Cushman been Commanding General of TRADOC, the 1976 edition of FM 100-5 would have been a wholly different manual. As it was, the manual contained tactical ideas and rested on assumptions about the Army that were clearly if not solely General DePuy's.
These latter deserve comment. In a fundamental sense, General DePuy misunderstood the Army he had served so long. FM 100-5 was DePuy's one-liner on leadership applied to the Army at large. It was a training philosophy applied to doctrine. Having decided what the Army had to do, he used the manuals and schools to tell the Army to do it, and ARTEPs and other devices to check to be sure that it did. It was a technique applicable, perhaps, to a battalion of hastily trained draftees in the midst of a major war, but not to a large and complex organization with long historical experience, deep traditions, and that counted a number of original thinkers among its officers. FM 100-5 deliberately described to the Army "how to fight" in language that a drill sergeant might use to train a recruit in the manual of arms. It did injustice to an Army whose traditions included considerable autonomy to theater commanders, extemporizing in the face of diverse missions, and respect for intelligence and education. It was a very useful document for focusing the energies of that Army on the problems of a perilous future, and to the extent that DePuy intended that, he succeeded. He also intended, however, to have the Army perform instinctively according to the principles in the manual. The Army was not likely to do that unless those principles were sufficiently broad and abstract to accommodate the Army's wealth and diversity of experience, tradition, structure, and missions. General
DePuy's criticism of General Cushman's draft of FM 100-5 as too abstract was probably correct; Cushman wrote a philosophy of officer education, not a doctrine. Having rejected Cushman's efforts, DePuy erred in the opposite direction and wrote doctrine according to a philosophy of training. FM 100-5 might have been a better doctrine had the two men sought and achieved some compromise and some amalgam of their philosophical approaches. They did not. In the Army, the old adage that the subordinate officer must ultimately comply with his superior or resign is so commonplace that it obscures the corollary: the superior officer must provide the opportunities for compromise. TRADOC failed in 1976 to come to grips with an important approach to doctrine that might have dramatically improved FM 100-5. The responsibility for that failure rests with William E. DePuy.

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Whatever its faults, much of what DePuy wrote into FM 100-5, the Army needed to consider. His clear ideas about tactics, weapons effects, terrain, and combined arms, while not new, constitute the foundation of military competence, but are all too easily relegated to secondary status as officers go about the sometimes hectic daily business of maintaining the peacetime army. His description of modern
armies and modern battle as problems in systems integration and management was not and is not irrelevant. If he placed too little emphasis on the very human qualities of warfare, and especially neglected leadership, it was in part because he believed those were a continuity in the Army's experience that did not need as much emphasis as the change from an army of soldiers with weapons to an army of weapons with crews. DePuy wanted the Army's officers to be inspirational leaders and competent managers of their highly sophisticated systems, and believed that to be the former and not the latter was to recklessly risk the lives of American soldiers. Finally, the development of FM 100-5 in the early 1970's was in many ways a heroic effort to harness together a very complex process under extremely trying circumstances. General DePuy's methods survived no longer than the manual he wrote, but they did describe the scope of the problem from the interface of doctrine and technology to the subtleties of doctrine as a tool of institutional leadership and persuasion.

FM 100-5 was not stillborn. It marked a milestone in the United States Army's intellectual efforts to come to grips with the military challenges of the late 20th century. It caused a renaissance of doctrinal thought within the Army. It defined the problem of doctrinal change for a modern army with many missions. Most especially, it
demonstrated that doctrine responds to the Army's past, present, and vision of its future; that competition between ideas is inherently competition between people and institutions and thus political; and that despite bureaucratic complexity, individuals decide what ideas will be approved as doctrine. No amount of institutional reform, however beneficial, is likely to alter these fundamentals of doctrinal change and any such reform must account for them. By recognizing them, the Army can better ask whether its published doctrine represents "the best available thought."
CHAPTER VIII FOOTNOTES


2. "The Army probably has never experienced a more radical change [than the Pentomic division] during peacetime in its thought, doctrine, and organizations." Doughty, Evolution, p. 18.

3. DePuy to Weyand, 18 February 1976, DePuy Papers, USAMHI. This document has been published in John L. Romjue, From Active Defense to AirLand Battle (Fort Monroe: U. S. Army Training and Doctrine Command Historical Office, 1984), Appendix C. DePuy elaborated on his ideas of the changing nature of the Army in his final interview as TRADOC commander. Dr. Brooks Kleber, TRADOC historian, Interview with DePuy, 23 May 1977, THO Files.

4. Richard Weinert and John L. Romjue, TRADOC historians, Meeting with General DePuy, 30 March 1976, memorandum for record, 1 April 1976, THO Files.


7. Mullen and Brownlee, Oral History Interview with DePuy, 23 April 1979, USAMHI. General DePuy did anticipate that revisions and additions to the manual would be necessary and for that reason had it published in a loose-leaf, snap-ring binder to facilitate replacement of pages.


10. FM 100-5, pp. 4-1 - 4-2.


12. The critique and consequent development of the 1982 edition of FM 100-5 are treated in detail in Romjue, Active Defense to AirLand Battle.


15. As this was being written, the first such acknowledgement of the 1976 edition's value appeared in Military Review: "Whatever its deficiencies, the controversial manual of 1976 served the Army well. It recalled the Army's attention to the most dangerous threat, and it generated an unprecedented level of professional debate about how to fight." Lieutenant Colonel L. D. Holder, "Doctrinal Development 1975-1985" Military Review 65 (May 1985): 51. Lieutenant Colonel Holder played a significant role in the writing of the 1982 manual.

16. General DePuy, the officers who assisted him, and the Army as an institution brought their past with them to the process of formulating new doctrine. That does not mean they were historically minded. At no time did they approach military history as systematically and purposefully as they did weapons systems analysis. Their effort can fairly be called "ahistorical."

17. Romjue, From Active Defense to AirLand Battle, p. 55.

18. Romjue describes the development of the 1982 manual in detail. It was an exercise in consensus building, beginning with General Starry returning proponency for FM 100-5 to Fort Leavenworth in 1977.
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The following persons and institutions have loaned to me or allowed me to use or copy documents in their possession. Wherever I have cited such a document, I have indicated its owner/location.

Colonel William G. Carter III, former aide-de-camp to General William E. DePuy.


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