

AirLand Battle: The Development of a Doctrine

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Abstract

This study will explore the evolution of the Army's doctrinal thinking during the development of AirLand Battle and explain the doctrine's concepts. This paper will demonstrate that AirLand Battle was developed in large part as a reaction to the shortcomings inherent in the Army's doctrine of Active Defense. The progression which led to AirLand Battle saw doctrinal thinkers go to great pains to seek out new ideas and opinions including efforts to reach out to civilian defense intellectuals. In part because AirLand Battle was deliberately designed to defeat echeloned Soviet-style attacks, it literally deepened and broadened the Army's vision of the battlefield. In doing this, the Army moved beyond its previous narrow tactical focus by integrating a broad array of influences including those of civilian defense reforms and, surprisingly, those of Soviet military theory.

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Introduction

Following the Vietnam War, the United States Army refocused itself on its responsibility to defend NATO from the Soviet-led Warsaw Pact forces. This change in emphasis led to an attempt to formulate a doctrine suitable to the reemphasis on war in Europe. The resulting doctrine was expressed in three different editions of *FM 100-5* between the end of the Vietnam War and the end of the Cold War. The first, published in 1976 and known as Active Defense, was rejected by the Army despite the support given to it by Training and Doctrine Commander (TRADOC) commander General William DePuy. The second and third evolutions, published in 1982 and revised in 1986, were each known as AirLand Battle. AirLand Battle, which was the Army's doctrine during the First Persian Gulf War, not only achieved widespread acceptance throughout the Army but has been widely heralded both within and outside the Army as revolutionary to the American way of war and as the best fighting doctrine that this nation has produced. This text will explore the development of AirLand Battle doctrine and seek to investigate the evolution in the Army's doctrinal thinking during the development of AirLand Battle while explaining what this doctrine entailed and how it affected American warfighting.

This study is accomplished through an examination of the 1976, 1982, and 1986 editions of *FM 100-5* along with an extensive survey of the professional military thought of the period as expressed by the Combined Arms Center's journal, *Military Review*. *Military Review* was the center stage of the debate about Army doctrine in the era inaugurated by

William S. Lind's seminal 1976 article until the Army abandoned AirLand Battle in 1993. Through detailing the formulation of AirLand Battle and explaining its concepts, this paper will demonstrate that AirLand Battle was developed in large part as a reaction to the shortcomings inherent in the Army's doctrine of Active Defense. The progression, which led to AirLand Battle, was greatly fueled and enriched by the vigorous debate concerning doctrine which occurred during the late 1970s through the mid-1980s, a process which saw doctrinal thinkers go to great pains to seek out new ideas and opinions including efforts to reach out to civilian defense intellectuals. The end result was a doctrine which focused on the enduring intangible humanistic factors of war specifically stressing leadership, initiative, and aggressive action. In part because AirLand Battle was deliberately designed to defeat echeloned Soviet-style attacks, it literally deepened and broadened the Army's vision of the battlefield. In doing this, it moved the Army beyond its previous narrow tactical focus by integrating a broad array of influences including those of civilian defense reforms and, surprisingly, those of Soviet military theory. Unlike previous attempts to counter the Soviet adversary, AirLand Battle looked beyond the narrow service purview typical of the day. The development of AirLand Battle, along with other reforms of the era, ushered in a new era of professionalism in the American Army that resulted in an assertive, self-assured, combat-ready force that shared a common conception of war as was demonstrated by the Army's success in the First Gulf War.

Chapter One

Background

As America began the process of concluding its involvement in the Vietnam War, American foreign and defense policy underwent a shift back to its more traditional focus on Europe. As articulated in the 1969 Nixon Doctrine, America's commitment to defend NATO from an attack by the Soviet Union would take precedence over intervention in the Third World. It was in this political context that the Army began to examine how to confront the security challenges of the post-Vietnam era.¹

Since the 1960s, the war in Vietnam occupied the Army to the detriment of its ability to counter the Soviet threat. The infantry-centric war in Southeast Asia drove the Army's procurement policy and its strides in air mobility and fire support. Unfortunately, these means were insufficient to counter the Soviet armored-mechanized menace. While the American Army's attention was focused on Vietnam, the Soviet Army was able to concentrate on developing doctrine and weapons systems geared toward the defeat of NATO's forces on the mechanized battlefield of Europe. The Soviets used the American preoccupation with the requirements of fighting in the jungles of Southeast Asia to achieve a technological edge for their tactical forces. Throughout the 1960s, the Soviet army increased

¹ Saul Bronfeld, "Fighting Outnumbered: The Impact of the Yom Kippur War on The U.S. Army," *Journal of Military History* 71, no. 2 (2007): 469; Richard Lock-Pullan, "'An Inward Looking Time': The United States Army, 1973-1976," *Journal of Military History* 67, no. 2 (2003): 485; John Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982* (Fort Monroe, VA: Historical Office, U.S. Army Training and Doctrine Command, 1984), 1; Ingo Trauschweizer, *The Cold War US Army: Building Deterrence for Limited War* (Lawrence, KS: University Press of Kansas 2008), 195.

in size and its formations became increasingly mechanized in nature. These more maneuverable and survivable Soviet forces utilized an advanced doctrine that emphasized these advantages along with the use of their superior mass to achieve momentum in a campaign of continuous combat through the use of successive echelons. The Soviet generational advantages in weapons design, procurement, and doctrine, coupled with a Soviet numerical superiority in Europe that was greater than that of the 1960s led many Army officers to doubt the ability of American conventional forces to halt a Soviet offensive.²

In the aftermath of Vietnam, America's new volunteer Army was politically and culturally isolated from the larger American society. This alienation proved a blessing in that the Army was free to pursue a self-generated transformation process unimpeded from undue interference. The clearly defined problem of ensuring European security from the Soviet threat gave focus to the Army's efforts, though the undertaking would be formidable.³

Luckily, the Army's leadership during this time was both aware of and capable of confronting the vast task which confronted them in preparing the post-Vietnam and newly volunteer army for the defense of Western Europe. The Army Chief of Staff in 1972 was General Creighton W. Abrams. Abrams was a battle-hardened hero of Patton's Third Army during the Second World War and had commanded American efforts at the close of the Vietnam War. Abrams and his senior advisors were tough, experienced, and professional officers who sought to quickly close the technological gap with the Soviets by fielding an army prepared to fight on the mechanized battlefields of Europe.⁴

² Bronfeld, "Fighting Outnumbered," p. 469; Romjue, *From Active Defense to AirLand Battle*, pp. 1 and 2; Trauschweizer, *The Cold War US Army*, pp. 197 and 209; Swain, "Filling the Void," p. 149.

³ John L. Romjue, "AirLand Battle: The Historical Background," *Military Review* 66, no. 3 (1986): 52-53; Lock-Pullan, "An Inward Looking Time," pp. 490-491.

⁴ Bronfeld, "Fighting Outnumbered," p. 470.

Although American defense budgets were much reduced at the beginning of the 1970s, they slowly began to increase by the middle of the decade. The Army's tight financial resources meant that the funds for procuring the weaponry needed for this modernization campaign were dedicated to a few procurement items deemed essential to the Army's mechanization program. These five weapons systems were the Abrams Main Battle Tank, Bradley Infantry Fighting Vehicle (IFV), Blackhawk utility helicopter, Apache attack helicopter, and the Patriot air defense system. The projected capabilities of these five major procurement programs shaped the Army's future force structure and doctrine for the remainder of the Cold War.⁵

It did not take long for the Army's leadership to decide that a revision of Army doctrine was required in order to allow the Army to tackle the technological advances that had occurred while it was engaged in Vietnam. The new Eurocentric mechanized force envisioned by Abrams and other leaders required a change in the Army's operational concept. It was important that the Army find the correct doctrine for its mission in Europe because doctrine is used to prepare armies for the most probable projected battlefield conditions and imposes operational discipline on the force by unifying the organization's efforts and steering commanders to those actions that are most likely to succeed on the battlefield. As one commander noted, in any conflict doctrine guides the conduct of the initial battles; later, if that doctrine has proven inadequate, it will be adjusted or replaced. This was particularly significant for an Army anticipating a short, sharp war. Finally, of special importance to the Army's leadership was doctrine's ability to direct a military's focus.⁶

⁵ Bronfeld, "Fighting Outnumbered," pp. 460 and 470.

⁶ Swain, "AirLand Battle," p. 361; Swain, "Filling the Void," pp. 147 and 150; COL Robert Wagner, "Active Defense and All That," *Military Review* LX, no. 8 (1980): 4.

The responsibility for crafting the Army's new doctrine belonged to General William DePuy, the first commander of the U.S. Army's new Training and Doctrine Command (TRADOC). General Abrams formed TRADOC out of Continental Army Command (CONARC), which he believed was too large to accomplish any of its myriad missions effectively. The Army's training centers and schools were removed from CONARC and placed under TRADOC along with the Army's Combat Development Command in order to consolidate the formulation and education of Army doctrine.⁷

In October 1973, Syria and Egypt attacked Israel, thereby initiating the Yom Kippur War. Occurring just three months after TRADOC's formation, this largest mechanized war in thirty years was of the utmost interest to an Army that was formulating its operational concept for a mechanized war in Europe. American officers believed there were a number of factors that made the Israeli situation especially insightful for the dilemmas they faced in defending Western Europe. Political constraints forced NATO, like the Israelis following the Six Day War, to surrender the initiative at the outset of hostilities to their foes. Both the Israelis and NATO were forced to adopt a forward defense that did not permit either the initial battles to be lost nor the surrendering of terrain. In the event of a war in Europe, much of the weaponry was similar to that used in the Yom Kippur War. The Egyptian and Syrian armies were equipped with modern Soviet weapons and trained in their use by Soviet advisors (though they did not always operate according to Soviet doctrine), while many of the Israeli Defense Forces' (IDF) fighters, surface-to-air missiles (SAMs), armor, artillery, and armored personnel carriers (APCs) were of American origin. In addition to its suitability for comparing the effectiveness of weapons systems, the Yom Kippur War saw an

⁷ Bronfeld, "Fighting Outnumbered," p. 470; Lock-Pullan, "An Inward Looking Time," p. 495.

outnumbered and surprised IDF defeat a much larger Arab force that began the war with the initiative, an outcome that the Americans hoped to emulate in Europe.⁸

Historically, the performance of the American Army in the initial campaigns of its wars was less than laudable; notable twentieth century examples include the defeat at Kasserine Pass during the Second World War and of Task Force Smith in the Korean War. This initial unpreparedness and the defeat it ensured was only overcome after the population mobilized and a combat effective force slowly built. The Army's analysis of the Yom Kippur War strengthened the already-forming opinion that the demands of modern warfare meant that America would have to abandon its traditional reliance upon wartime mobilization. On, June 7, 1973, General DePuy gave a speech at Fort Polk, Louisiana, outlining this view prior to the October War. In it he postulated that any future war in Europe would be short because of the fear of nuclear escalation and, because of this, success in the first battle was critical. In DePuy's eyes, Army doctrine fell short as a blueprint for the outnumbered American forces to fight and win a short and intense war; analysis of the armored war in the desert only heightened these concerns within the Army.⁹

In addition to the end of mobilization, prior to the Yom Kippur War, DePuy stated that the modern battlefield would be increasingly lethal. He used the war to impress this point upon the Army. In particular, the success of the Soviet-supplied Sagger antitank guided missile (ATGM) was especially troubling since the Army's future was tied to the success of its new main battle tank. In addition to the greater accuracy of weaponry such as ATGMs, the Yom Kippur War saw both sides use large numbers of modern weapons

⁸ Bronfeld, "Fighting Outnumbered," pp. 473-474 and 495; Romjue, "AirLand Battle: The Historical Background," p. 53.

⁹ Bronfeld, "Fighting Outnumbered," pp. 471 and 487; Lock-Pullan, "An Inward Looking Time," pp. 498 and 501; GEN Donn Starry, "A Perspective on American Military Thought," *Military Review* LXIX, no. 7 (1989): 11.

systems such as advanced optics, aircraft, and anti-armor systems. The density of sophisticated weapons systems contributed to the combined Egyptian-Syrian losses of 1,500-2,000 tanks and 500 artillery pieces. In more striking terms, the Arab forces lost more armor in a mere eighteen days of combat than the Army had stationed in Europe. DePuy attributed this increased lethality to the greater range and accuracy of modern weapons along with the large numbers that were available. To many officers, the lethality demonstrated by the Yom Kippur War confirmed the Army's need for a new doctrine.¹⁰

Many in the Army believed that greater proficiency in combined arms warfare, that is, the battlefield integration of artillery, infantry, armor, engineers, aviation, and air defense, was the only way to succeed on the increasingly lethal battlefield. The greater firepower of the infantry and other arms prevented any single weapon system from dominating the others, making it essential for all the arms to cooperate. DePuy, in an April 1973 speech to the Combat Arms Training Board (CATB), noted that ATGMs strengthened the infantry, especially in the defense. However, he still believed that its primary purpose was to support armor—a belief which the Yom Kippur War did not alter. The greater firepower available to both sides required units to better use cover and concealment when moving in order to minimize their exposure to enemy fire. DePuy also advocated the liberal use of suppressive fires to throw off the aim of the enemy personnel manning antitank weapons, a method used extensively by the Wehrmacht in the Second World War.¹¹

There were fundamental flaws with the analysis of the Yom Kippur War. It was almost exclusively tactical with its focus on the performance of Soviet and American

¹⁰ Bronfeld, "Fighting Outnumbered," pp. 476 and 487; Swain, "AirLand Battle," p. 367; Starry, "A Perspective on American Military Thought," p. 8; Trauschweizer, *The Cold War US Army*, p. 202.

¹¹ Bronfeld, "Fighting Outnumbered," pp. 471-2 and 476-7; Starry, "A Perspective on American Military Thought," p. 8.

weapons systems, small unit actions, and the effect of training on soldier and unit performance. Further, it demonstrated an oddly myopic focus on the Israeli war against Syria on the Golan Heights while ignoring the war against Egypt to include the decisive maneuver across the Suez Canal to encircle the Egyptian Third Army. In addition to its narrow focus, TRADOC's analysis of the war was largely uncritical in that it dismissed shortcomings in Israeli force structure, planning, and strategy.¹²

The Army's analysis of the Yom Kippur War was important to its reorientation to mechanized warfare. However, one should not get the mistaken impression that the Yom Kippur War was the genesis of the mechanized warfare concepts of DePuy and other Army leaders. Instead, this war, fought in many ways according to a Second World War model which was the formative experience of leaders like DePuy, merely served to reinforce and hone preexisting concepts in the minds of these leaders. DePuy saw the war as a lever to use in internal Army battles which he waged against an influential group of senior infantry officers who sought to base the defense of Europe on the air-mobile concepts developed in Vietnam. Prior to the Yom Kippur War, DePuy had already concluded that the Army's current doctrine, as embodied in the 1968 version of *FM 100-5*, was unsuited to the demands of war against the Soviet Union. The October War provided not so much an example or template, as some historians have argued, but as a tool to refocus the Army as part of DePuy's mission to make up the ground the Army lost to the Soviets during the 1960s. The

¹² Bronfeld, "Fighting Outnumbered," pp. 475, 479, 481, and 482; Robert Citino, *Blitzkrieg to Desert Storm: The Evolution of Operational Warfare* (Lawrence, KS: University Press of Kansas, 2004), 259-260.

perceived lessons of the Yom Kippur War, whether present before, were fundamental to Army's first post Vietnam doctrine—Active Defense.¹³

¹³ Bronfeld, "Fighting Outnumbered," pp. 465, 468, 472, 473, and 488; Romjue, *From Active Defense to AirLand Battle* pp. 2 and 4; Lock-Pullan, "An Inward Looking Time," pp. 496, 498, and 500; Brian M. Linn, *The Echo of Battle: The Army's Way of War* (Cambridge, Harvard, 2007): 202.

Chapter Two

Active Defense

In 1976, TRADOC published its vision of how to fight the Soviets in Europe in *FM 100-5: Active Defense*. This manual, released three years after the establishment of TRADOC, was a definitive step in the reorientation of the Army toward a conventional war in Europe. Active Defense's writing process and operational concept were (and remain) both atypical for Army doctrine. These factors helped ensure that Active Defense was the most controversial doctrinal manual in the Army's history.¹⁴

Traditionally, the responsibility for formulating Army doctrine had rested with the respective schools. The Armor School wrote armor doctrine, the Infantry School handled infantry doctrine, and the Combined Arms Center's (CAC) Command and General Staff College (CGSC) was responsible for creating the Army's capstone doctrine as espoused in *FM 100-5*. By placing the onus for the creation of doctrine on the schools, the doctrine's understanding and acceptance by the officers whose responsibility it was to train others in it was ensured. DePuy, in part because he believed doctrine was the responsibility of general officers, broke with this tradition and shifted responsibility for the creation of *FM 100-5* from CGSC to TRADOC's Concepts Branch. This decision had negative effects on the Army's understanding and acceptance of Active Defense.

¹⁴ Swain, "Filling the Void," p. 151; Swain, "AirLand Battle," p. 372; Romjue, *From Active Defense to AirLand Battle*, p. 13; Bronfeld, "Fighting Outnumbered," p. 489.

A bigger indictment of Active Defense was the decision to concentrate the writing in the hands of general officers. DePuy and two deputies personally wrote several chapters of the manual. However, in the period following Vietnam, the Army's general officers were not viewed as technically and tactically competent by the rest of the officer corps. The Army's generals were so discredited during this period that in 1972 hostile audiences composed of his own officers forced Army Chief of Staff General William Westmoreland offstage during speaking engagements at both Fort Benning and CGSC. This loss of confidence in the Army's generals exposed their ideas to question and debate by subordinate officers to an extent never before seen in the Army. The arrogance many perceived in DePuy's chosen writing process was enhanced when, in order to ensure that the manual was issued prior to DePuy's retirement in 1977, TRADOC published Active Defense without undergoing the Army's normal staff review process.¹⁵

The Army wrote Active Defense to address the problem of fighting a numerically superior enemy on a heavily mechanized battlefield dominated by armor. This was unsurprising given the Army's dedicated focus to its NATO mission. General DePuy's view of the tank as the dominant weapon system ensured that the mechanized battlefield would be seen through the prism of armored and antitank warfare.¹⁶

DePuy's view of warfare dealt almost exclusively with the tactical level of war. He focused on the minutia of combat, such as the performance of individual weapons. Because of this micro view, DePuy sought to reduce war to the lowest common denominator. For example, he repeatedly used a briefing slide that attempted to reduce the Army's mission to two tank and one infantry platoons which were responsible for destroying sixty Soviet tanks

¹⁵ Romjue, *From Active Defense to AirLand Battle*, p. 5; Swain, "AirLand Battle," pp. 361, 364, and 372; Swain, "Filling the Void," p. 152; Lock-Pullan, "An Inward Looking Time," pp. 493 and 505.

¹⁶ Citino, *Blitzkrieg to Desert Storm*, p. 256; Trauschweizer, *The Cold War US Army*, pp. 194 and 201.

in 7.3 minutes. His perspective, which in many ways lost sight of the forest for the trees, saw war as a series of tactical engagements decided by the efficient utilization of massive amounts of firepower and tactical displacement. This unsophisticated view of war permeated Active Defense.¹⁷

The appearance of the 1976 FM 100-5 was quite different than previous editions. The manual was filled with so many graphs, charts, statistics, and listings of the technical specifications of weapons systems that it led to comparisons with an engineering text. DePuy used these mathematical means, which were similar to those used by the operations research systems analysts of the McNamara era, in order to express the increased lethality of the modern battlefield. This mathematical tone was indicative of Active Defense's break with the Army's tradition of emphasizing the importance of soldiers rather than technology. By concentrating on those factors that were easily quantifiable, Active Defense attempted to impose order on the chaos of the battlefield by making victory the result of easily determined target servicing requirements. This resulted in an emphasis on technical skill and the neglect of subjective factors which were not quantifiable, such as human and psychological considerations, of which leadership and morale were the most prominent. The tactical and mathematical tone of Active Defense resulted in a mathematical approach to combat that inevitably led to an emphasis on the defense and prepared defensive positions.¹⁸

The operational concept of the Active Defense concentrated on combat at the battalion and brigade level. Here, commanders would employ a strong covering force to determine the Soviet's main effort in order to allow the timely massing of friendly forces in front of the Soviet thrust. The forward deployed American defenders would achieve these

¹⁷ Swain, "AirLand Battle," pp. 363 and 366; Lock-Pullan, "An Inward Looking Time," p. 497.

¹⁸ Romjue, *From Active Defense to AirLand Battle*, p. 10. Swain, "Filling the Void," p. 151; Linn, *The Echo of Battle*, pp. 200, 203, and 204; Holder, "Doctrinal Development 1975-85," pp. 50-51.

favorable force ratios through the lateral movement of units from sectors under attack by secondary thrusts to that sector which faced the enemy's main effort. Additionally, once identified, those friendly forces opposite the enemy's main attack received priority for supporting fires. Active Defense sought to achieve a favorable strategic outcome through the amassing of tactical successes in these force-on-force encounters with the more numerous Soviet forces.¹⁹

This operational concept was reactive and defensive in nature. The new doctrine addressed offensive action in a pessimistic tone because of doubts that attacks or movement could succeed in the face of the greater lethality of the modern battlefield. This carried over to discouragement of counterattacks as too hazardous because of the belief that the enemy, in covered or concealed positions, would destroy the counterattacking force which was in the open and exposed to fire. Active Defense stressed the need for air and ground forces to work together in order to bring their fires to bear on the enemy as a requirement for battlefield success, but the chapter detailing their interaction was lacking in detail. This led to a close working relationship between TRADOC and the Air Force's Tactical Air Command which lasted into the 1990s.²⁰ As one historian noted, "[t]here can be no doubt that the manual emphasized the defense."²¹ Despite this, more traditional defensive concepts such as the mobile or area defense were not discussed in the 1976 manual.

Traditionally, commanders had deployed their forces with two units of the next lower echelon forward and one in reserve. Active Defense abandoned this battle-proven tactic in

¹⁹ Romjue, *From Active Defense to AirLand Battle*, p. 19; Holder, "Doctrinal Development 1975-85," p. 51; Romjue, "AirLand Battle: The Historical Background," p. 53; Lock-Pullan, "An Inward Looking Time," p. 506.

²⁰ Holder, "Doctrinal Development 1975-85," p. 51; Swain, "Filling the Void," p. 152; Linn, *The Echo of Battle*, pp. 205-207; Trauschweizer, *The Cold War US Army*, pp. 24, 207, and 210; Tom Clancy with GEN Fred Franks, *Into the Storm: A Study in Command* (New York, Berkley, 2004): 109 and 501; Headquarters, Department of the Army, *Field Manual 100-5, Operations* (1 July 1976), 4-3.

²¹ Citino, *Blitzkrieg to Desert Storm*, p. 257.

the pursuit of massing all available firepower against the enemy's main attack. Active Defense held that this process, called 'thickening,' which involved the shifting of forces from sectors under secondary attacks to that which faced the main effort, was the key to success. The traditional concept of a dedicated reserve was incompatible with Active Defense's underlying firepower-force ratio emphasis. Indeed, Active Defense discouraged commanders from holding reserves at all. Since the operational concept predicated tactical success on correctly massing combat power in front of the enemy thrust, withholding any forces from the fight was considered risky. The doctrine's adherents viewed the concentration of combat power through lateral movement along the forward line of own troops (FLOT) as a form of reinforcement. The manual warned division commanders that their command would be defeated before all of its combat power could influence the battle if they followed traditional tactical concepts by keeping a brigade in reserve. Instead, division commanders were to concentrate six to eight battalions in a fifth of the division's defensive frontage while using Army aviation and divisional cavalry elements to cover those that remained. Many officers viewed the absence of a traditional reserve as an unnecessary and unacceptable risk that surrendered the initiative to the enemy. They realized that this new lateral reinforcement depended upon tactical movements along the FLOT which were exceedingly difficult under the best of circumstances.²²

In its treatment of combat operations, Active Defense treated commanders as mid-level executives by precisely defining the command responsibilities of generals, colonels, and captains. Captains were to fight the battle, while colonels controlled and directed the battle, and generals concentrated the forces for battle. German officers condemned placing

²² Romjue, *From Active Defense to AirLand Battle*, pp. 9, 10, and 17; Swain, "Filling the Void," p. 152; Swain, "AirLand Battle," p. 375; Holder, "Doctrinal Development 1975-85," p. 51; Romjue, "AirLand Battle: The Historical Background," p. 53.

the primary responsibility for directing combat operations upon company commanders because it required these officers to exercise command and control over more than the assets organic to their command. In most armies, such as the West German and Israeli, these actions took place at the battalion level where commanders had the benefit of a staff to assist them with coordinating supporting arms. DePuy was forced to abandon the Active Defense's rigid vision of combat command and in subordinate manuals placed battalion commanders in a more traditional role.²³

General DePuy confessed that Active Defense was an effort to take German defensive concepts and apply them to the American Army. However, at this time many American officers believed that because of internal West German political pressure, German operational concepts overemphasized the retention of terrain, resulting in a rigid forward defense. American officers criticized this forward deployed defensive scheme for minimizing the role of reserves. Despite the prevalence of these opinions in the American Army, the creators of Active Defense did nothing to address these concerns.²⁴

Active Defense assumed predictability in Soviet actions at the tactical and operational levels. Specifically, Active Defense was designed to counter what TRADOC planners believed was the most likely occurrence, a massed Soviet armor assault arrayed in depth along a narrow frontage. However, if the Soviets failed to act, as TRADOC predicted, in a manner which facilitated the concentration tactics of the defenders, then the coherence of the defense was at serious risk. The Yom Kippur War demonstrated the vulnerability of the Soviet BMP infantry fighting vehicle, and this had helped shift Soviet operational thought.

²³ Holder, "Doctrinal Development 1975-85," p. 51; Lock-Pullan, "An Inward Looking Time," p. 505; Trauschweizer, *The Cold War US Army*, pp. 206 and 210; Linn, *The Echo of Battle*, p. 205.

²⁴ Trauschweizer, *The Cold War US Army*, pp. 201 and 235.

Observers noted that in maneuvers and field exercises, the Soviets practiced a multi-prong attack four times as often as they did the narrow armored thrust that Active Defense was designed to counter. More disturbingly, defense analyst Steven Canby noted that by the mid-1970s the Soviet Army placed more emphasis on a meeting engagement followed by a flexible response which shifted the main effort to areas where the attack met the least resistance. However, the dogmatic nature of Active Defense was unforgiving to defenders who failed to ordain enemy actions. In part because the tactical focus of Active Defense ignored large unit operations, the doctrine failed to address the problem posed by the echeloned nature of a Soviet offensive. While the defenders may have been capable of defeating the initial Soviet echelon, Active Defense left follow-on echelons with considerable freedom of action to rollover the already attrited defenders. The dilemma posed by the Soviet follow-on echelons was central to later American operational thought.²⁵

Active Defense provided the Army with an operational concept specifically tailored for a European mechanized battlefield. Its development paid at least some attention to Soviet capabilities and operational thought, unlike the Army's previous doctrine. The Army's new doctrine was not the tactically authoritative document DePuy had desired. Active Defense was a sharp break from traditionally accepted military thought. DePuy even went so far as to have the widely accepted principles of war removed from the 1976 manual. Active Defense's basis on mathematical calculations of firepower and target-servicing requirements

²⁵ Romjue, *From Active Defense to AirLand Battle*, pp. 16-17; Swain, "AirLand Battle," p. 377; Lock-Pullan, "An Inward Looking Time," p. 507; Bronfeld, "Fighting Outnumbered," p. 481; Trauschweizer, *The Cold War US Army*, pp. 210 and 213.

along with its defensive, to the point of pessimistic, tone ensured that there would be some resistance to the doctrine.²⁶

By 1978, an energetic public debate about Active Defense and Army doctrine had emerged, involving both military officers and civilian defense intellectuals. Field exercises and simulations that resulted in the piecemeal destruction of the defenders increased doubt about the viability of Active Defense. The discourse propelled the officer corps to new intellectual heights as they sought to understand mechanized combat and resulted in a doctrinal renaissance in the Army. This long overdue discussion about how to best tackle the Soviet threat in Europe was the greatest legacy of Active Defense. During the course of the debate over Active Defense, *Military Review* published nearly eighty articles that were highly critical of some facet of the doctrine. A 1977 *Military Review* article by senate staffer William S. Lind initiated the public debate over the viability of Active Defense.²⁷

Lind's sharp critique cut to the basic underlying notion of Active Defense, that the supposed new lethality of the modern battlefield made the defensive the superior form of war. He pointed out that the technological advances which made the battlefield increasingly deadly could favor the attacker as well as the defender. Among the capabilities Lind cited were the Soviets' extensive electronic warfare capability, network of ground based antiaircraft systems, better NBC defense capability, and the higher percentage and total number of Soviet mechanized formations. (At that time, only nine of nineteen U.S. divisions

²⁶ Romjue, *From Active Defense to AirLand Battle*, p. 20; Swain, "AirLand Battle," p. 373; Trauschweizer, *The Cold War US Army*, p. 210.

²⁷ Romjue, *From Active Defense to AirLand Battle*, p. 15; Romjue, "AirLand Battle: The Historical Background," p. 53; Swain, "AirLand Battle," p. 377; Swain, "Filling the Void," p. 154; Lock-Pullan, "An Inward Looking Time," p. 507; Citino, *Blitzkrieg to Desert Storm*, p. 260; Linn, *The Echo of Battle*, p. 209; Trauschweizer, *The Cold War US Army*, pp. 210 and 214.

were mechanized.)²⁸ The article inquired if the focus of winning the first battle meant that there would not be a second and, if there was, would the myopic focus on the initial battle help or hinder those efforts. In fact, Soviet doctrine was prepared for the likely event of heavy attrition in and the possible defeat of their first echelon formations by possessing sufficient mass in order to absorb these losses and by placing emphasis on subsequent echelons. Lind correctly pointed out that Active Defense did not address this critical issue.²⁹

In addition to the manual itself, Lind based his article on a February 11, 1976, briefing at TRADOC headquarters by General DePuy. During the presentation, the operational concept of Active Defense was illustrated by three diagrams. The operational concept consisted of the bulk of a unit's combat power deployed in individual strongpoints arrayed in a shallow linear defense. Depth was achieved through the conduct of a bounding overwatch to the rear by the troops in these defensive positions. Since commanders lacked a traditional reserve, they moved units laterally during battle from less critical sectors in order to mass combat power in front of the Soviet main effort.

Lind pointed out that TRADOC's bounding overwatch to the rear was little more than a withdrawal, historically an exceedingly difficult action to execute. The scenario envisioned by TRADOC relied on precise timing and coordination in order to ensure that individual strongpoints could "schedule their withdrawal so as to avoid being overrun, yet not withdraw so early as to render their defensive action ineffective."³⁰ Perhaps more dubious was the notion of lateral reinforcement to meet Soviet thrusts. This maneuver relied upon correct and timely battlefield intelligence to identify the enemy's main effort in sufficient time to allow

²⁸ William Lind, "Some Doctrinal Questions for the United States Army," *Military Review* 57, no. 3 (1977): 56-57.

²⁹ Lind, "Some Doctrinal Questions for the United States Army," pp. 58-59.

³⁰ *Ibid.*, p. 64.

the commander to mass combat power in front. Given the importance that Soviet forces historically placed upon deception operations and achieving surprise, it was an appalling oversight that Active Defense failed to address what would occur if an American commander failed to concentrate his forces in front of the enemy's main effort, an unfortunate situation which could occur because of anything from an incorrect intelligence picture to a shift in the focus of the enemy's attack. Furthermore, the transmission of the orders to shift forces relied on unimpeded communications, far from a certainty given Soviet electronic warfare capabilities.

The article questioned the tone of FM 100-5. Lind maintained that the tone of the manual only strengthened the misplaced focus upon firepower and attrition in the operational concept at the expense of an examination of the possibility for decisive maneuver. In support of this he cited the section on Battlefield Dynamics which stated the presumed advantages of the defender entirely in terms relating to firepower. Active Defense's second section, "Modern Weapons on the Modern Battlefield," was brought to task for its presentation of the modern battlefield as a mathematical problem through the heavy utilization of tables which demonstrated the comparative firepower of various weapons systems.³¹

Lind was largely correct in his criticism of Active Defense. The proposed forward deployed linear defense based upon the successive withdrawal of strongpoints and the lateral movement of reinforcements had numerous flaws. These were only heightened when matched against a Soviet doctrine that emphasized bypassing enemy strongpoints and the shifting axis of advance to capitalize upon success.

To better counter the Soviet threat, Lind proposed that the Army should seriously examine adopting a maneuver-oriented doctrine. As an example of its feasibility in the face

³¹ *Ibid.*, pp. 57 and 60.

of the new lethality, Lind cited the successful Israeli counteroffensive across the Suez Canal during the Yom Kippur War during which the use of maneuver was decisive to the outcome of the campaign—a part of the war often overlooked in favor of the temporal success of the Egyptian Army.³²

Lind's astute critique was denounced as naïve in its criticisms of the shallow linear nature of the defense. Defenders of Active Defense stated that the politics of the NATO alliance, especially those with West Germany, mandated this deployment and used this to attack the validity of Lind's entire argument. However, AirLand Battle succeeded as a credible defensive doctrine in large part by adding the very depth that these critics held to be impossible to achieve in the defense of West Germany. In doing so, this re-conceptualization of depth for American forces was one of the most revolutionary insights of AirLand Battle.

Criticism of Active Defense was not limited to civilian defense intellectuals such as William S. Lind, Edward Luttwak, or retired Air Force Colonel John Boyd. Future Generals Wayne Downing and Barry McCaffrey were among the officers who voiced criticism of Active Defense in the pages of *Military Review*. The majority of these officers were men with first-hand experience attempting to apply Active Defense along the inter-German Border. Exercises with this goal were the subject of articles written by Colonel Robert Wagner, commander of the 10th Armored Cavalry Regiment (ACR), and Colonel Nicholas Andreacchio, commander of the 1st Brigade Combat Team (BCT) of the 1st Armored Division (1AD). Lieutenant Colonel McCaffrey had commanded an infantry battalion of the 3rd Infantry Division (3ID) in Germany and wrote about his experiences later while a student at the Army War College, while Colonel Wayne Downing gave his perspective from his

³² Lind, "Some Doctrinal Questions for the United States Army," pp. 61 and 62.

perch on the Joint Staff. This “meat-and-potatoes”³³ view from commanders charged with implementing Active Defense is especially insightful as they saw the doctrine in action on the terrain and with the soldiers for whom it was specifically designed.

The commanders viewed their mission in offensive terms. Their plans were not to withdraw as part of a delaying action but instead to hit the enemy where he was vulnerable and bring about his defeat. This brought up something some observers overlooked: commanders can only focus and rally their troops on winning. The officers concluded that the *FM 100-5* or the subordinate “How to Fight” manuals did not address victory or winning. As a result of these factors, frontline commanders were left to create war plans with the objective of winning but that were also in accordance with a doctrine that did not call for victory.³⁴

The officers believed that Active Defense needed to be less passive; otherwise, it risked being interpreted as a forward deployed, laterally dispersed Maginot Line which lacked the critical ingredient of offensive maneuver. They wanted a doctrine which was less about being on the defensive and more about taking action. Active Defense was described as both “bankrupt” and “doomed to failure.”³⁵ Active Defense represented a doctrine of pure firepower-attribution which they believed was of dubious value against a numerically superior enemy equipped with weapons of similar quality. The articles pointed out that in execution, Active Defense did not function as the field manual described. The officers described the tactics in the Army’s operational concept as mechanical and focusing on firepower at the expense of factors such as terrain and maneuver. In their opinion, Active Defense had no

³³ Wagner, “Active Defense and All That,” p. 5.

³⁴ COL Wayne Downing, “US Army Operations Doctrine: A Challenge for the 1980’s and Beyond,” *Military Review* LXI, no. 1 (1981): 72; LTC Barry McCaffrey, “The Battle on the German Frontier,” *Military Review* LXII, March (1982): 64; Wagner, “Active Defense and All That,” p. 11.

³⁵ Downing, “US Army Operations Doctrine,” p. 64.

real meaning at the company, the level where the doctrine had originally placed most of the responsibility for the conduct of the battle. These officers noted that because of the speed and shock of the Soviet advance, the company would become decisively engaged and be unable to execute the Active Defense.³⁶

The lack of reserve in Active Defense brought unanimous criticism. This controversial segment of Active Defense was ignored in actual operations: Colonel Wagner kept a force in reserve which he credited with allowing his command to seize the initiative, while Colonel Andreacchio's brigade was the division reserve at the outset of their operation. All concluded that a reserve must be available to the commander while the size depended on local circumstances. Whatever size force was kept in reserve, it was used to counterattack the flanks of Soviet penetrations and add depth to the defense.³⁷

The colonels wanted a doctrine which sought a positive outcome—to win. They noted that the Army's doctrine overlooked the psychological factors important in war. In order to emerge victorious against their more numerous Soviet foes, the Army needed to recognize the value of maneuver, and some went as far as to advocate the adoption of a maneuver warfare doctrine. Colonel Downing even offered a definition of maneuver warfare: "Maneuver Warfare, directed at an enemy's centers of gravity, emphasizes speed and movement to present an opponent with rapidly developing and quickly changing situations. Attacks are directed at weaknesses of the opponent's attack or defense so that he is unable to adequately react."³⁸ Downing was not trying to imply that firepower was no

³⁶ Downing, "US Army Operations Doctrine," pp. 64, 65, and 66; McCaffrey, "The Battle on the German Frontier," pp. 62, 63, and 68; Wagner, "Active Defense and All That," p. 5.

³⁷ COL Nicholas Andreacchio, "The Active Defense: A Snapshot," *Military Review* LXI, no. 6 (1981): 51 and 57; Downing, "US Army Operations Doctrine," p. 70; McCaffrey, "The Battle on the German Frontier," pp. 66 and 69; Wagner, "Active Defense and All That," p. 12.

³⁸ Downing, "US Army Operations Doctrine," p. 67.

longer essential to combat. However, he stated that it would no longer be the sole reason for maneuver. These officers believed that the Army must have a doctrine which emphasized maneuver and flexibility in order to use shock and surprise as weapons against the Soviets. Success in field exercises was identified as the result of commanders who allowed subordinates to take the initiative to initiate offensive action through attacks and counterattacks. Maneuver which led to attacks that targeted the enemy's flanks or rear were viewed as more likely to result in a local superiority of forces which matched strength against weakness, unlike Active Defense's pitting of strength against strength. Additionally, the officers appreciated the deterrent value of offensive action early in the war along with counterattacks across the inter-German Border. Finally, the articles identified the enemy's second echelon as the key to defeating the Soviets. It was determined that an effective attack against the second echelon had the potential to disrupt the timing and tempo of the overall enemy offensive. Also, these officers advocated a more robust role for a covering force prepared to fight to force the Soviets to deploy as early as possible.³⁹

The Active Defense clearly reflected a decision to win through pure physical destruction of the Soviet attackers. The Active Defense's focus on firepower and attrition assumed that superior American weapons quality could make up for the quantitative advantage held by the Soviets. It engaged the Army in a battle of attrition in which numbers mattered, against a decidedly more numerous opponent. The operational concept consisted of a race to detect the enemy's main thrust in order to concentrate fire-power in its path. In addition to a reactive nature which was anathema to the Army's officer corps, the doctrine abandoned proven military precepts in favor of dubious new foundation concepts such as the

³⁹ Andreacchio, "The Active Defense: A Snapshot," p. 57; Downing, "US Army Operations Doctrine," pp. 64, 65, 67, 69, and 70; McCaffrey, "The Battle on the German Frontier," p. 68; Wagner, "Active Defense and All That," pp. 7, 9, 11, and 13.

absence of reserves, reliance on lateral movement, and lack of depth to the defense. While the Army failed to accept Active Defense, the cognitive crisis it produced did force serious deliberations by the officer corps on warfighting. The sophisticated internal debate initiated by Active Defense bore fruit when AirLand Battle addressed many of the criticisms of that doctrine.⁴⁰

⁴⁰ Romjue, *From Active Defense to AirLand Battle*, p. 14; Romjue, "AirLand Battle: The Historical Background," p. 53; Lock-Pullan, "An Inward Looking Time," p. 506; Swain, "Filling the Void," pp. 152 and 154; Swain, "AirLand Battle," p. 375; Linn, *The Echo of Battle*, pp. 205-207; Trauschweizer, *The Cold War US Army*, pp. 24, 207, and 208; Clancy with Franks, *Into the Storm*, p. 109; Donald E. Vandergriff, *The Path to Victory: America's Army and the Revolution in Human Affairs* (Novato, CA, Presido, 2002): 106.

Chapter Three

The Central Battle

One of the most influential officers in the Army's doctrinal development was General Donn Starry. Starry's career included command of the 11th Armored Cavalry Regiment (ACR) during the Vietnam War; his time in command included the 1970 invasion of Cambodia. Starry, an armor officer, was a protégé of Army Chief of Staff General Creighton Abrams, who placed him in command of the U.S. Army Armor Center in 1973, a position Starry held until 1976.⁴¹ In his capacity as commander of the Armor Center, Starry was intimately involved in the formulation of Active Defense and wrote several chapters of the 1976 manual.⁴² After Starry left the command of the Armor Center he took command of V Corps, which was forward deployed in West Germany as part of NATO's Central Army Group (CENTAG). Starry would play a critical role in the development of AirLand Battle. His corps command experience, the ongoing controversy surrounding Active Defense, and with shifting political realities soon initiated a process of transformation in Army doctrine that resulted in AirLand Battle. The first step in that process was known as the Central Battle.⁴³

⁴¹ Romjue, *From Active Defense to AirLand Battle*, p. 23; Swain, "AirLand Battle," p. 368.

⁴² Trauschweizer, *The Cold War US Army*, p. 235.

⁴³ Romjue, *From Active Defense to AirLand Battle*, p. 23.

Upon assuming command, Starry quickly realized that Active Defense conflicted with the CENTAG plans for the defense of Western Europe. These plans relied upon the use of prepared defensive positions with clearly defined fields of fire and preplanned engagement areas, a practice eliminated by Active Defense. Also under Active Defense the role of the covering force was unclear and caused confusion. The new V Corps Commander conceded that Active Defense's elimination of the traditional concept of reserves made the doctrine "intolerant of mistakes," a key criticism of Lind's.⁴⁴ Starry quickly came to appreciate that the officers of V Corps, those most responsible for implementing Active Defense, had no faith in the doctrine.⁴⁵

The Yom Kippur War influenced Starry as it did his former boss, General DePuy. While commander of the Armor Center, Starry visited Israel in January 1974, not long after the conclusion of the October 1973 war. During this trip, General Starry formed a close bond with Israeli Major General Musa Peled. It was Peled who led a counterattack that psychologically broke the Syrians on the Golan front. The Israeli commander guided Starry across the recent battlefields on the Golan Heights detailing how his outnumbered Israelis defeated the Soviet-trained and -equipped Syrians by attacking deep into their rear with Peled's division, an attack preceded by air and artillery strikes to disrupt Syrians in depth. This Israeli counterattack reinforced Starry's belief that outnumbered forces could win if they seized the initiative.⁴⁶

A later encounter with Peled left a lasting impression on Starry's evolving conception of the operational problems inherent in the defense of West Germany. On February 10,

⁴⁴ Swain, "AirLand Battle," p. 379.

⁴⁵ Trauschweizer, *The Cold War US Army*, p. 214; Linn, *The Echo of Battle*, p. 208.

⁴⁶ Bronfeld, "Fighting Outnumbered," p. 493; Swain, "AirLand Battle," p. 368; Clancy with Franks, *Into the Storm*, p. 108.

1977, Starry hosted General Peled at V Corps headquarters in Frankfurt when a report arrived that a Soviet armored force had taken up positions across the Inter-German Border in the Fulda Gap undetected until their deployment was complete. The incident caused widespread alarm; located in central Germany, the Fulda Gap was a highly likely invasion route as the attackers could easily use it to target West Germany's principal urban and industrial areas. The ability of the Soviets to deploy undetected on the border profoundly highlighted the need to discover and attack Soviet follow-on echelons before they could influence the battle along the FLOT. The V Corps Commander realized that in this area Active Defense was wholly inadequate with its myopic focus on defeating the enemy along the FLOT.⁴⁷

During his time at V Corps, General Starry directed his staff to conduct a study of past armor battles and carried out 150 simulations of battles in the V Corps sector. Starry was also acquainted with Dr. Robert Helmbold's examination of more than a thousand battles in an attempt to disprove the validity of the "Lanchester Laws"⁴⁸ for BDM Corporation. Helmbold attempted to refute the traditionally held 3:1 attacker to defender ratio. His research demonstrated that the outcome of an engagement could not be predetermined unless there was at least a 6:1 superiority or inferiority of forces. Additionally, by seizing the initiative, even very outnumbered defenders had a good chance of emerging victorious.

Helmbold's research, along with the war games and study of corps operations in armored warfare conducted at V Corps, helped shape Starry's cognitive understanding of the feasibility and requirements of defending against a Soviet offensive. Along with a new emphasis on the value of initiative, other factors identified as critical to a successful defense

⁴⁷ Swain, "Filling the Void," p. 153; Bronfeld, "Fighting Outnumbered," pp. 491 and 492.

⁴⁸ Specifically, the Lanchester Square Law which was a differential equation created in 1916 by Frederick Lanchester to predict the attrition from firepower in tactical units.

were the use of close air support (CAS) and the need to disrupt or delay the Soviet second echelon. The determination that success could be achieved with a 5:1 attacker to defender ratio was particularly significant since during the mid-1970s the Warsaw Pact held a 2:1 advantage in the number of active divisions located in Central Europe. When looked at in terms of number of personnel in these divisions, the Warsaw Pact's advantage dropped to less than ten percent.⁴⁹

The time spent implanting Active Defense while commanding V Corps, the study of the Golan campaign and the research done by Dr. Hembold, and the V Corps staff were critical to Starry's formulation of the concept of the Central Battle. Starry defined the Central Battle as "that part of the battlefield where all elements of firepower and maneuver came together to cause a decision."⁵⁰ However, the V Corps commander had not totally rejected the validity of the fire power/ attrition focus of Active Defense and believed that the Central Battle could be quantified in order to develop a battle calculus. This battle calculus forced commanders to think in terms of measurable quantities, such as how many minutes into the battle a particular action would occur, the force ratios involved, rates of advance of various units, visibility, rates of fire, number of command decisions, and the time from request to delivery of tactical air (TACAIR). The purpose of the battle calculus was to facilitate the more efficient destruction or suppression of enemy targets. Indeed the attritionally-minded target-servicing focus of Active Defense was the focus of Starry's Central Battle.⁵¹

⁴⁹ Romjue, *From Active Defense to AirLand Battle*, p. 24; Swain, "AirLand Battle," p. 368; Bronfeld, "Fighting Outnumbered," p. 490; Trauschweizer, *The Cold War US Army*, p. 215.

⁵⁰ Romjue, *From Active Defense to AirLand Battle*, p. 23.

⁵¹ *Ibid.*, p. 24; Trauschweizer, *The Cold War US Army*, p. 216.

Starry brought the Central Battle concept with him when he took command of TRADOC in 1977. Along with the Central Battle, Starry's time at V Corps instilled the belief that there was excessive emphasis on defeating an attack by Soviet first echelon forces and that the threat posed by the follow-on echelons needed to be addressed. It was widely believed that the deployment of these successive echelons would, to an extent, be predictable—a possibility which could open them up to attack before they influenced the battle along the FLOT. This inquiry into the feasibility of attacking Soviet second echelon formations broadened TRADOC's doctrinal horizons beyond the Central Battle and led to the concept of Force Generation.⁵²

One of the first tasks undertaken by TRADOC's new commander was the Battlefield Development Plan (BDP), initiated in late 1977 and published in November 1978. General Starry charged the combat developers at TRADOC with examining the future of doctrine and weapons fielding using the Central Battle concept. In a departure from DePuy's practice of looking for immediate use and CONARC, which had forecasted out twenty-five years, Starry directed the BDP to examine the mid-future, which he defined as eight years out. In 1978, the Army's major procurement programs were nearing the production stage and could be expected to be fielded in quantity to combat divisions by the mid-1980s. The BDP examined what effect these and other anticipated technological advances such as enhanced armor protection, and advances in communications and imagery, would have on how the Army fights.⁵³

The BDP identified the battalion and brigade as the echelons of command principally concerned with fighting the Central Battle. It was here that air and ground systems, along

⁵² Romjue, *From Active Defense to AirLand Battle*, p. 25; Trauschweizer, *The Cold War US Army*, p. 216.

⁵³ Romjue, *From Active Defense to AirLand Battle*, p. 25.

with the required logistical support, were integrated. The BDP identified five critical tasks of the Central Battle: target servicing, air defense, suppression-counterfire, command control communication electronic warfare (C3EW), and logistical support. Commanders were charged with combining these five critical tasks in order to accomplish any number of tactical missions in the course of the Central Battle.⁵⁴

Unlike the Central Battle, responsibility for Force Generation tasks increased from corps up to theater levels of command. It was these higher levels of command which possessed the assets that allowed their commanders to see deep, thus facilitating the application of combat power against follow-on echelons.⁵⁵ Like the Central Battle, Force Generation was also composed of five critical tasks: interdiction, C3, force mobility, surveillance-fusion, and reconstitution. These tasks focused on combat power. By adding depth to their conception of the battlefield, the Army sought to shape the Central Battle and fight it under more advantageous conditions through delaying and/or channeling enemy forces and opening gaps in their line. The deeper engagement of the enemy was also anticipated to assist the defender in gaining initiative. As envisioned in the BDP, Force Generation would occur between, not simultaneous with, the Central Battle.⁵⁶

The separate but related functions of the Central Battle and Force Generation were at the heart of the BDP. These concepts both widened and deepened the Army's view of the battlefield. This proved to be the beginning of the Army's development of deep battle. Additionally, it was through the prism of the Central Battle and Force Generation's ten critical tasks that Starry wanted commanders to view the battlefield. He wanted to create a holistic functional framework in order to move commanders away from viewing the battle in

⁵⁴ Romjue, *From Active Defense to AirLand Battle*, pp. 25-26.

⁵⁵ *Ibid.*, p. 27.

⁵⁶ Romjue, *From Active Defense to AirLand Battle*, pp. 25-27; Trauschweizer, *The Cold War US Army*, p. 218.

branch specific terms and facilitate combined arms cooperation. The Battlefield Development Plan provided the crucial expansion and elaboration of ideas about how to fight that was necessary to mature them into doctrinal concepts. Eventually, in a more evolved form, the concepts of Central Battle and Force Generation became two of the underlying battlefield constructs of the Army's deep battle doctrine known as AirLand Battle.⁵⁷

⁵⁷ Romjue, *From Active Defense to AirLand Battle*, pp. 23-27.

Chapter Four

The Integrated Battlefield

While TRADOC's combat developers were working on the Battlefield Development Plan, a team of officers led by Colonel Anthony G. Pokorny and Major John S. Doerfel at the US Army Field Artillery School (USAFAS) at Fort Sill, Oklahoma, were in the process of developing the operational concept of the Integrated Battlefield. The Integrated Battlefield concept was first presented at the December 1979 Nuclear Systems Program Review. Integrated Battlefield further refined the Central Battle and Force Generation concepts and expanded the means for combating Soviet follow-on echelons. In many ways the Integrated Battlefield was at the core of AirLand Battle doctrine.⁵⁸

The new operational concept examined the battlefield in an air-land context, which incorporated both ground and air assets and capabilities acting holistically to counter the Soviet threat. The officers at USAFAS determined that it was only through this lens that the modern battlefield could be understood. This new operational concept was integrated in the sense that the “‘use of the full range of weapons’ at the disposal of the US commander— that is, conventional, chemical and nuclear” was planned for from the outset.⁵⁹ The Integrated Battlefield for the first time linked the use of tactical nuclear weapons, operational maneuver, and interdiction by conventional and un-conventional fires into a coherent operational

⁵⁸ Romjue, *From Active Defense to AirLand Battle*, pp. 33-35; Trauschweizer, *The Cold War US Army*, p. 219.

⁵⁹ COL William Hanne, “AirLand Battle: Doctrine, Not Dogma,” *Military Review* LXII, no. 6 (1983): 35.

concept in which victory would be the result of the successful interdiction of enemy follow-on echelons before they could influence the battle along the FLOT.⁶⁰

Major Doerfel conducted an exhaustive examination of a Soviet assault against defenders implementing the operational concept outlined in Active Defense. Doerfel's study looked closely at the composition and disposition of the attacking Soviets throughout their depth. His inquiry determined that second echelon Soviet forces would crush the attrited defenders and that the reactive target servicing focus of Active Defense would do nothing to counter the momentum of the Soviet attack.⁶¹ Further detailed target analysis conducted by the USAFAS began to focus upon the possible use of interdiction to disrupt the momentum of the enemy advance. Interdiction was not a new concept; it had been used with varying degrees of success since the Second World War. Traditionally, interdiction had used attacks on the enemy's logistics apparatus, communications network, and reserves to inhibit the enemy's freedom of action. The officers believed that increased technological capabilities in the realm of target acquisition and communications allowed for a more precise and coordinated form of interdiction, one capable of taking advantage of possible vulnerabilities offered by the echeloned nature of a Soviet attack.⁶²

The analysis done at USAFAS indicated that interdiction could potentially neutralize Soviet numerical superiority. Attacks on Soviet follow-on echelons sought to create or widen gaps in their formations, canalize their advance, and delay or attrit reserves. At longer distances, interdiction focused on enemy support units (such as logistics units), because at extended ranges these units have a greater impact on the enemy system than combat arms units in comparable locations. Destruction of these high payoff targets would result in the

⁶⁰ Romjue, *From Active Defense to AirLand Battle*, pp. 33-35.

⁶¹ *Ibid.*, p. 36.

⁶² *Ibid.*, p. 33; Trauschweizer, *The Cold War US Army*, p. 218.

stripping away of support for the enemy's armor and infantry and the enemy's ability to coordinate his forces. These attacks attempted to turn the momentum of the Soviet attack to the defender's advantage, much as in judo. Interdiction could also enable offensive action by American forces by allowing them to take the initiative, supporting the movement of friendly forces and creating windows of action between the Soviet echelons. In addition to increasing the possibility for offensive maneuver, commanders could use these windows to gain approval for the release of tactical nuclear weapons.⁶³

Properly executed interdiction allowed commanders to set the conditions for the Central Battle. In order to properly focus the targeting of the interdiction efforts, it was now necessary to link the battle along the FLOT with efforts to interdict the enemy; because of this the Central Battle and Force Generation could no longer be viewed as separate entities as they had been under the BDP. This placed new requirements on the commander, whose conception of depth now had to include the factor of time along with the traditional one of distance if he was to successfully use interdiction to shape the Central Battle.⁶⁴

The commander of the Field Artillery School, Major General Jack N. Merritt, impressed upon General Starry that successful interdiction efforts required skilled and coordinated use of friendly intelligence, surveillance, target acquisition, and C3. This necessitated that interdiction efforts be executed at those levels which possessed the ability to both see and operate in depth. This requirement split the responsibility for interdiction between the division and the corps levels of command. Divisional interdiction efforts would be more sensitive to actions related to the battle along the FLOT and linked to the division commander's operational plan and maneuver. At the corps level, interdiction focused on

⁶³ Romjue, *From Active Defense to AirLand Battle*, pp. 34-38.

⁶⁴ *Ibid.*, pp. 34-36.

physically destroying the enemy. It was also at this echelon that time-sensitive targets which required rapid strike planning were engaged. The greater depth at which corps level interdiction occurred brought out the need for discussion between the Army and the Air Force to clarify which targets tactical air assets would attack.⁶⁵

While the concept of a targeted interdiction effort to counter the echeloning of the Soviet attack required a number of procedural issues to be worked out with the Air Force, it was largely uncontroversial, unlike the Integrated Battlefield's pronouncements on the use of tactical nuclear weapons. Major Doerfel's team believed that the Army could no longer assume that a non-nuclear battlefield existed and that the Army must be prepared to fight in an environment where the Soviets would use the entirety of the weapons at their disposal. This realization was brought about by the parity in strategic nuclear weapons, Soviet deployment of weapons systems which possessed a tactical nuclear capability (such as the 152mm self-propelled howitzer and the FROG 5/7 rocket), the greater survivability to nuclear and chemical attack built into Soviet fighting vehicles, and recent Soviet military theory which advocated the use of nonstrategic nuclear weapons.⁶⁶

This acknowledgement of the potential use of tactical nuclear weapons by American forces was nothing new. Prior to 1973's Active Defense, American defensive plans for the previous twenty years had relied heavily upon the threatened use of tactical nuclear weapons in Europe in the event of a Soviet attack. In an aberration from the Army's traditional Cold War conception of tactical nuclear weapons, Active Defense regarded the employment of tactical nuclear weapons as a specialized operation that was no longer necessary for the

⁶⁵ Romjue, *From Active Defense to AirLand Battle*, pp. 32-36.

⁶⁶ *Ibid.*, p. 37; Hanne, "AirLand Battle: Doctrine, Not Dogma," pp. 36-37.

successful defense of Europe.⁶⁷ The Integrated Battlefield team saw a number of advantages to the potential use of tactical nuclear fires. They believed that concern over the use of tactical nuclear weapons forced the Soviets to disperse in order to present less of a target to nuclear attack. This dispersion prevented the Soviets from forming the dense formations that they held were a requirement to breakthrough enemy defensive formations.⁶⁸ In order to ensure the effective use of tactical nuclear strikes, the USAFAS team advocated the streamlining of approval procedures and the implementation of integrated battle planning.

The execution of a tactical nuclear strike, like any use of nuclear weapons, required approval by the National Command Authority. This authorization process was not a speedy affair. It was believed that commanders would obtain approval only after the tactical situation had deteriorated to such an extent that the use of nuclear weapons could no longer redeem it or the intended target no longer presented itself for attack. The officers at USAFAS predicted that in the wake of the chaos resulting from a Soviet nuclear attack, the difficulties inherent in obtaining approval would greatly multiply. In addition, the unique and detailed planning process for nuclear strikes was time-consuming, and commanders could not afford to plan operations in which nuclear strikes played a critical role unless they were confident that their request for the use of tactical nuclear weapons would be approved, and for this reason Doerfel's team advocated the pre-approval of tactical nuclear weapons.⁶⁹

In order to simplify and accelerate the staff procedures for the planning and coordination of tactical nuclear weapons, the officers at USAFAS advocated the adoption of a process they dubbed integrated battle planning (IBP). IBP brought the procedures for the

⁶⁷ Hanne, "AirLand Battle: Doctrine, Not Dogma," pp. 36-38.

⁶⁸ The Soviets and Americans would both develop the same answer to this dilemma, which was to form up at the last moment close enough to enemy lines to prevent the use of nuclear weapons.

⁶⁹ Romjue, *From Active Defense to AirLand Battle*, p. 37.

employment of nuclear fires in line with those for conventional fire support. Specifically, the two types of fires used the same intelligence, C3 apparatus, and target acquisition assets. By making the planning and coordination procedures for tactical nuclear weapons standardized with those of conventional fires, the incorporation of nuclear fire planning into maneuver operations, whether offensive or defensive in nature, was ensured. Additionally, it meant that targeting for nuclear fires was a continuous process like that for conventional fire support.⁷⁰

The Nuclear System Program Review's proposed changes relating to tactical nuclear weapons, interdiction, and integrated battle planning required significant changes to doctrine. Greater emphasis was placed upon deep attack in the form of interdiction conducted by artillery, maneuver, unconventional fires, and, to a great extent, aviation with the goal of disrupting, delaying, and attriting the enemy in order to shape the Central Battle. This required not only a simplification of nuclear release procedures and the standardization of fire planning in the form of IBP, but also adoption of joint agreements with the Air Force about its role in the deep battle. These measures, along with the much deeper view of the battlefield in space and time, were much more sophisticated than the operational concept of Active Defense. Additionally, the Integrated Battlefield concept's tone was different than that found in the 1976 FM 100-5; officers conducting IBP would have victory as their objective instead of the mere avoidance of defeat. The Integrated Battlefield was the overarching concept well into 1980 and provided the structure upon which AirLand Battle was built.⁷¹

⁷⁰ *Ibid.*, pp. 35-37.

⁷¹ *Ibid.*, pp. 37-39.

Chapter Five

The Extended Battlefield

One of the more underappreciated figures in the development of AirLand Battle is Army Chief of Staff General Edward C. “Shy” Meyer. Meyer, to an extent that Starry (a creator of Active Defense) never admitted, understood that the intellectual foundations of Active Defense were based on flawed assumptions and were not acceptable to the Army. While serving as Deputy Chief of Staff, Meyer began to address his concerns about Active Defense to TRADOC through the CAC Commander, Major General William R. Richardson. Meyer recognized that Active Defense’s limited focus on defensive war in Europe excluded many of the threats that the United States now faced. Meyer saw that the next decade required the Army to be capable of addressing contingencies throughout the full spectrum of conflict, from high intensity conflict in Europe to terrorist acts, a universal applicability that Active Defense was lacking.⁷²

Once made Chief of Staff in June 1979, Meyer directed General Starry to revise *FM 100-5*. The new Chief of Staff of the Army (CSA) wanted the focus of the Army doctrine to be at the brigade level while also addressing higher levels of command such as the corps and theater, unlike Active Defense, which focused almost exclusively on the company level. This order eventually led to the Army’s acknowledgement of operational art. As he hinted at

⁷² Swain, “Filling the Void,” p.156; Trauschweizer, *The Cold War US Army*, p. 218; Linn, *The Echo of Battle*, pp. 206 and 207.

in earlier conversations with Richardson, Meyer desired that the Army's operational concept possess a broader applicability. He expressed this in a white paper issued in February 1980. In it, he laid out his belief that the Army must be able to meet threats which arose outside the NATO paradigm while not degrading the force's ability to accomplish its critical task of defending Europe.⁷³

General Starry realized that General DePuy's arbitrary decision to divorce the task of crafting the Army's capstone doctrine from CGSC had hampered both the Army's acceptance and understanding of Active Defense. With this in mind, the TRADOC commander restored the responsibility for *FM 100-5* to CGSC. Starry hoped that this move would help the new doctrine enjoy the organizational consensus that Active Defense failed to achieve.⁷⁴

In March 1980, LTC Richard Henriques was assigned the task of writing the new edition of *FM 100-5*. Starry viewed the project as merely a revision of Active Defense with the goal of addressing that doctrine's shortcomings. Despite this odd view, Starry also ordered the inclusion of the Integrated Battlefield concept in the new doctrine. He directed that the writing team, which in mid-1980 added Lieutenant Colonels Huba Wass de Czege and L. Don Holder, consult the German Army Regulations and the 1941 US Army Field Service Regulations in the course of revising the manual.⁷⁵

By the middle of 1980, General Starry decided that the working title of the Army's new doctrine would be the Extended Battlefield. The term *Integrated Battlefield* had become associated with the use of tactical nuclear weapons only. Despite political conditions that

⁷³ Romjue, *From Active Defense to AirLand Battle*, p. 39; Romjue, "AirLand Battle: The Historical Background," p. 54; Swain, "AirLand Battle," p. 380.

⁷⁴ Swain, "Filling the Void," p.158; Lock-Pullan, "An Inward Looking Time," p. 508; Trauschweizer, *The Cold War US Army*, p. 220.

⁷⁵ Romjue, *From Active Defense to AirLand Battle*, pp. 42-43.

now allowed a more open discussion of tactical nuclear weapons, it was determined that retention of the name would color discussion and acceptance of the Army's new doctrine. It was believed that not only was Extended Battlefield free of the nuclear connotation but brought the dimension of depth to the forefront.⁷⁶

Starry articulated the concept of the Extended Battlefield in a presentation given at an October 1980 Army Commanders Conference. In March 1981, General Starry published an article in *Military Review* outlining the operational concept for the benefit of the Army at large. AirLand Battle's conceptualization of depth was largely the same as that found in the Extended Battlefield. This new American understanding of depth and deep attack would be the technical basis of AirLand Battle.⁷⁷ In his article, Starry acknowledged that the Extended Battlefield was not a new operational concept, but rather an apt way of stating the Army's desire to utilize its target acquisition assets and weapons system to their full potential. The battle and battlefield would be extended in three ways: in depth on the opposite side of the FLOT, forward in the dimension of time, and through the wider range of target acquisition and strike assets employed. Recognizing the extreme difficulty of physically destroying a Soviet offensive, the Army's objective would be to collapse the Soviet's ability to fight.⁷⁸ Unlike Active Defense, the Extended Battlefield would not aim to merely avoid defeat, though as part of an overall defensive strategy, the Extended Battlefield sought to win on the battlefield in order to give political leaders leverage to negotiate a favorable end to hostilities. It was realized that this goal would most likely take more than the single battle, as viewed by

⁷⁶ Romjue, *From Active Defense to AirLand Battle*, pp. 43 and 45.

⁷⁷ Romjue, *From Active Defense to AirLand Battle*, p. 43; Bronfeld, "Fighting Outnumbered," p. 494; Richard Lock-Pullan, "How to Rethink War: Conceptual Innovation and Airland Battle Doctrine," *Journal of Strategic Studies* 28, no. 4 (2005): 683.

⁷⁸ Romjue, *From Active Defense to AirLand Battle*, p. 46; GEN Donn Starry, "Extending the Battlefield," *Military Review* LXI, no. 3 (1981): 32; Lock-Pullan, "How to Rethink War," p. 684; Trauschweizer, *The Cold War US Army*, p. 221.

Active Defense, to be accomplished and instead victory would require winning a coordinated series of battles—a campaign.⁷⁹

Attack of the enemy throughout the depth of his formations and in concert with the battle along the FLOT was key to defeating the Soviets. The Army needed deep attack because of the enemy's doctrine and numerical superiority which permitted significant forces to be kept out of the initial assault. The enemy commander was then free to use these formations to bypass friendly forces or to overwhelm the worn down defenders. This aspect of Soviet-style operational maneuver helped Soviet-style commanders retain the initiative. Because of the danger posed by these numerically superior echeloned attacks, Starry advocated that the attack of enemy assault and follow on forces begin with the commencement of hostilities, while these formations were still deep in enemy territory.⁸⁰

These targeted attacks on the enemy's follow-on echelons would cause the enemy to lose momentum and disrupt the enemy commander's plan. By destroying the cohesiveness of the enemy's operational system, Starry hoped that American commanders would be able to wrestle the initiative away from their foes and ideally create windows for offense action. As Starry noted in his article, the "real goal of deep attack is to create opportunities for friendly action—attack, counterattack or reconstitution of defense."⁸¹ The deep battle concept as espoused in the article cited three means of deep attack: interdiction through aviation, artillery or special operations forces, offensive electronic warfare, and deception operations. Notable for its omission in Starry's article was interdiction through maneuver, a

⁷⁹ Starry, "Extending the Battlefield," pp. 32 and 34; Trauschweizer, *The Cold War US Army*, p. 221.

⁸⁰ Romjue, *From Active Defense to AirLand Battle*, pp. 40, 44, and 46; Starry, "Extending the Battlefield," pp. 34 and 35.

⁸¹ Starry, "Extending the Battlefield," pp. 35, 38, and 42.

concept which was present in the Integrated Battlefield and would receive greater emphasis in AirLand Battle.⁸²

The Extended Battlefield concept did possess more clearly delineated command responsibilities than the Integrated Battlefield. Commanders at all levels had to conceptualize the battlefield in the dimension of time in addition to the traditional one of space. This was necessary because the depth beyond the FLOT that each echelon of command was responsible for was determined by that echelon's planning horizon, expressed in hours. The operational concept gave commanders a dual responsibility to attack one enemy echelon while determining the intentions of a follow-on echelon. This requirement meant that commanders had to be attentive to both of the new conceptual tools of areas of influence⁸³ and interest.⁸⁴ The requirements of the close and deep battles along with the echeloned nature of the Soviet attack mandated a division of responsibility among the echelons of command in order to ensure the best use of acquisition and strike assets. This division of responsibility or of areas of influence would differ with the assets available to each command.⁸⁵

General Starry maintained that the close and deep battles were one fight in which synchronized attack throughout the depth of the enemy's echelons was the key to victory. If the operational concept allowed the close and deep fights to be viewed as separate endeavors, then it would greatly increase the likelihood that opportunities for offensive action would not

⁸² Starry, "Extending the Battlefield," p. 37.

⁸³ From Headquarters, Department of the Army, *Field Manual 100-5, Operations* (20 August 1982), 7-15: "Area of Influence. The area of influence is the assigned area of operations wherein a commander is capable of acquiring and fighting enemy units with assets organic to or in support of his command. It is a geographical area, the size of which depends upon METT-T. It is assigned by higher headquarters and designated by boundaries and a forward terminating line."

⁸⁴ From *FM 100-5, Operations* (1982), pp. 7-15: "Area of Interest. The area of interest extends beyond area of influence. It includes territory which contains enemy forces capable of affecting future operations. The area of interest is usually within the next higher headquarters' and a portion of adjacent units' areas of influence."

⁸⁵ Romjue, *From Active Defense to AirLand Battle*, p. 40; Starry, "Extending the Battlefield," pp. 36 and 39.

be created or that they would not be identified in time and efforts would be wasted. In order to ensure that the needed coordination of present and future actions occurred, unity of command for the close and deep fight was stressed. Utilizing a battle plan, the product of a single commander's mind, throughout the depth of the battlefield helped to ensure coordination of the fight along the FLOT and deep attack. This was important because commanders needed advanced and continuous planning to integrate the use of combat power in depth, anticipate opportunities created by interdiction, and prevent the dissipation of target acquisition and deep strike assets through the attack of targets which did not profit the close fight.⁸⁶

The Extended Battlefield was heavily dependent upon the ability of friendly target acquisition assets to peer deep into the enemy order of battle. Starry was certain that the Army and Air Force currently had the means to successfully attack the Soviets in depth. Additionally, the TRADOC commander was convinced that some existing research and development programs could be reconceptualized to support the deep attack concept. The technological requirements for deep attack caused General Starry to redefine the connection between technology and doctrine in the U.S. Army. Doctrine would now set the technological requirements for Army procurement in order to ensure that the Army's capability for deep battle would increase as emerging technologies matured.⁸⁷

The Extended Battlefield placed much more emphasis on initiative and the fullest use of depth than the Central Battle. The Extended Battlefield was geared to creating windows of opportunity for offensive action rather than the retention of terrain or attrition of the

⁸⁶ Romjue, *From Active Defense to AirLand Battle*, pp. 46-48; Starry, "Extending the Battlefield," pp. 32, 39, and 42.

⁸⁷ Romjue, *From Active Defense to AirLand Battle*, p. 48; Bronfeld, "Fighting Outnumbered," pp. 493 and 494; Lock-Pullan, "How to Rethink War," p. 684; Starry, "Extending the Battlefield," p. 33; Trauschweizer, *The Cold War US Army*, p. 214.

enemy. General Starry would not wait for the Extended Battlefield to be translated into official Army doctrine before taking steps to increase the Army's capabilities for deep battle. He ordered the establishment and training of integrated targeting cells in fire support elements from the brigade to corps levels. Additionally, the TRADOC commander advocated corps control over sensors such as the OV-1D Bronco side-looking radar and RC-12 Guardrail, which facilitated the ability to see deep. The enhanced capability provided by these systems would allow commanders to better implement the operational concept of the Extended Battlefield to create and seize opportunities for offensive action. While not developed to the extent found in AirLand Battle, because of the lack of deep attack through maneuver, the conceptualization of depth in the Extended Battlefield was nearly identical. This new American understanding of depth and deep attack would be the technical basis of AirLand Battle.⁸⁸

⁸⁸ Romjue, *From Active Defense to AirLand Battle*, pp. 44 and 48; Starry, "Extending the Battlefield," pp. 40 and 47; Lock-Pullan, "How to Rethink War," p. 683; Trauschweizer, *The Cold War US Army*, p. 221.

Chapter Six

AirLand Battle

The deep battle that was the basis for the Army's new operational concept was a joint air and land endeavor. It was determined that the name Extended Battlefield did not convey the dualistic nature of the new doctrine to the extent desired by TRADOC. In January 1981, General Starry selected AirLand Battle as the name for the Army's new capstone doctrine. The 1976 edition of *FM 100-5* originally used this name in the chapter detailing the use of CAS. In its new incarnation, AirLand Battle was meant to invoke the integration of air and ground forces in the conduct of the battle. The newly named doctrine was largely the product of the three officers from the Department of Tactics (DTAC) at the CGSC (Lieutenant Colonels Richmond B. Henriques, L. Don Holder, and Huba Wass de Czege) assigned the duty of writing and editing the new *FM 100-5*. The doctrinal statement produced by these officers was much more advanced than Active Defense and ushered in a new era of American military thought.⁸⁹

Henriques was initially the sole member of the writing team and charged with producing a simple revision of Active Defense. The revision proposed by Starry had the objective of rectifying shortcomings in the 1976 doctrine and addressing the concerns of its numerous critics. Henriques realized that it was impossible to produce a more refined

⁸⁹ Swain, "Filling the Void," p. 157; Romjue, "AirLand Battle: The Historical Background," p. 54; Romjue, *From Active Defense to AirLand Battle*, pp. 44 and 72; Lock-Pullan, "How to Rethink War," p. 682; Trauschweizer, *The Cold War US Army*, p. 222.

statement of Active Defense that utilized the concepts pioneered in the Integrated Battlefield and satisfied the numerous objections that the 1976 doctrine raised. CAC commander Lieutenant General Richardson aided Lieutenant Colonel Henriques's push to draft a doctrine entirely removed from its failed predecessor. It was Richardson who placed Wass de Czege and Holder on the writing team with Henriques. Holder was an armor officer who had previously taught history at the United States Military Academy. He commanded the 2nd Armored Cavalry Regiment during Desert Storm and rose to the rank of Lieutenant General. Regarded as one of the best tacticians in the Army, Holder's realistic world view was a good counterweight to the romantic notions of Wass de Czege.

Huba Wass de Czege was born in Hungary to a prominent novelist. His father was forced to flee with his family to the United States in 1956. A Harvard educated infantry officer, Wass de Czege was highly critical of the Army's current doctrine and had begun to look outside the Army for fresh ideas, going so far as to invite retired Air Force Colonel John Boyd to lecture at CGSC. Wass de Czege became the leader of the Leavenworth writing team. These two additions would overshadow Henriques and play a major role in both drafts of AirLand Battle.⁹⁰

Aside from adding key personnel to the doctrine team, General Richardson played an important role in ensuring that AirLand Battle was decidedly different than Active Defense. Richardson directed a shift in both the tone and emphasis in the new manual. Historical examples replaced the mathematical-engineering feel of Active Defense with its numerous graphs. The text would use more traditional language and descriptions while attempting to avoid unnecessary jargon, and it borrowed phrases from Prussian military theorist Carl von

⁹⁰ Romjue, *From Active Defense to AirLand Battle*, p. 53; Swain, "AirLand Battle," p. 382; Swain, "Filling the Void," p. 158; Linn, *The Echo of Battle*, p. 209; James Burton, *The Pentagon Wars: Reformers Challenge the Old Guard* (Annapolis: Naval Institute Press. 1993), 53.

Clausewitz. The CAC commander's guidance to the writing team stressed that the end result would not be a prescriptive doctrine like Active Defense. Their product should be descriptive in nature and teach officers how to apply its base principles in combat. The resulting document was much more positive in tone and more conceptual than mechanical in nature. It discarded the core of Active Defense, target-servicing, in favor of a more humanistic approach that had initiative as its unifying feature.⁹¹

Lieutenant General Richard E. Cavazos, the commander of the Army's III Corps, saw that Active Defense's disregard for the moral and psychological dimension of war was a major shortcoming that needed correction in the new doctrine. AirLand Battle was grounded in humanistic factors and military history partially because of Cavazos's determination. He introduced the DTAC team to the writings of Ardant du Picq and John Keegan's *The Face of Battle* and encouraged them to utilize ideas from these authors as well as noted military thinkers such as Clausewitz, Martin van Creveld, Sun Tzu, and B. H. Liddell Hart. This was evidenced in the use of Hart's indirect approach, Antoine Henri de Jomini's lines of operations, and the Clausewitzian concepts of centers of gravity and the culminating point. In its published form, AirLand Battle took full account of humanistic concepts of leadership, command, courage, endurance, and fear in its view of war. AirLand Battle placed a much greater premium on leadership than its predecessor. The new doctrine's concern with intangible factors ensured that its definition of combat power included quantifiable elements as well as those that were not. Though the doctrine writers were naturally inclined to

⁹¹ Romjue, *From Active Defense to AirLand Battle*, pp. 53, 69, and 73; Swain, "Filling the Void," pp. 158 and 160; Swain, "AirLand Battle," pp. 384, 386, and 388; Linn, *The Echo of Battle*, pp. 209-210.

produce a doctrine that placed the Soldier at the center, Cavazos influenced AirLand Battle by exposing the writing team to new sources of inspiration.⁹²

Beginning in late 1980, the DTAC team wrote initial drafts of the new manual's chapters and forwarded them to Generals Starry and Richardson. The two officers provided feedback that the writing team incorporated into the initial draft. TRADOC went to great pains to ensure that AirLand Battle was accepted by the Army, defense intelligentsia, and government. The CAC and TRADOC doctrine staff led by Brigadier General Donald R. Morelli briefed the Army at large along with interested members of Congress and their staffs. TRADOC asked prominent civilian critics of Active Defense such as William S. Lind and Edward Luttwak to review the initial draft of AirLand Battle, and their opinions influenced the doctrine to an extent. Following the completion of a coordinating draft of the manual in January 1981, the proposed *FM 100-5* went through the Army staff review process that Active Defense had avoided. In the case of AirLand Battle, TRADOC solicited comments from throughout the Army, at times drawing input from the battalion level of command. By and large, the response to the doctrine was very positive. The return to traditional principles and tactical concepts along with the greater emphasis on maneuver and positive tone were all points stressed in articles published in *Military Review* by members of the officer corps.

The doctrine review process did lead to some notable additions to AirLand Battle. Forces Command (FORSCOM) commander General Robert M. Shoemaker urged the inclusion of the German concept of mission type orders and an Americanized version of *auftragstaktik* (a subordinate's independent response, within the commander's intent, to a changed tactical situation). He supported this organic means of command and control as a

⁹² Romjue, *From Active Defense to AirLand Battle*, pp. 53 and 55; Swain, "AirLand Battle," p. 391; Citino, *Blitzkrieg to Desert Storm*, p. 263; Trauschweizer, *The Cold War US Army*, p. 223.

way to cope with the chaos of the battlefield, which would only be heightened by Soviet electronic warfare capabilities that would make centralized control difficult, if not impossible. Additionally, the greater reliance on the commander's intent forced the consciousness of leaders to include the next higher level of command, helping to decrease friction and avoid a narrow view of the battle. The final draft of *AirLand Battle*, completed in June 1981 by Lieutenant Colonel Holder while Wass de Czege and Richardson were on an official visit to China, incorporated this type of feedback. General Meyer approved the revised manual in August 1981; however, publication was delayed another year because of changes insisted on by the new TRADOC commander, General Glenn K. Otis. Some of these were minor, such as the substitution of the term *AirLand Battle* in the text for the word *doctrine*. At least one of General Otis' modifications had a lasting impact on American military thought: the inclusion of the operational level of war.⁹³

The inclusion of the operational level of war in Army doctrine was initially proposed by Edward Luttwak in an article published in *International Security* during the winter of 1980. The Army War College was another proponent of the inclusion of this originally Russian concept in *AirLand Battle*. The Bundeswehr was also deliberating the inclusion of the operational level in their doctrine after striking it in 1973. General Starry had originally ensured the exclusion of the concept. The writing team believed that it was too advanced of a theoretical construct for the Army at large to comprehend. The operational level of war was eventually incorporated at the urging of Starry's successor, General Otis. This decision

⁹³ Romjue, *From Active Defense to AirLand Battle*, pp. 44, 53, 57-59, and 61; Romjue, "AirLand Battle: The Historical Background," p. 55; Swain, "AirLand Battle," p. 382; Shimon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (Portland: Frank Cass, 1997), 15; Trauschweizer, *The Cold War US Army*, p. 222.

had major effects on Army doctrine as AirLand Battle came to stress the essential nature of operational art to achieve victory and ensure that the Army doctrine did not have the narrow tactical focus that characterized Active Defense.⁹⁴

The 1982 edition of *FM 100-5* introduced the operational level of war into American military thought. The 1986 edition of AirLand Battle refined and evolved it into the more advanced concept of operational art. While the original statement of AirLand Battle introduced the operational level of war to the Army, it failed to adequately explain the concept. The Army wrote the 1986 revision of AirLand Battle in large part to rectify this shortcoming. In doing so, the Army placed itself ahead of the other services and the joint staff, who were forced to follow the Army's lead despite the still-broad direction given to operational level commanders.⁹⁵

Army doctrine now recognized three levels of war: strategic, operational, and tactical. Strategic goals were largely determined by the nation's political leadership while previously, tactics had been the exclusive focus of Army doctrine. The Army's capstone doctrinal manual emphasized the operational level, while subordinate manuals concerned themselves with tactical matters. The theoretical construct of the operational warfare combines characteristics of the tactical and strategic levels while providing a linkage to make tactical actions serve strategic ends. The operational level ensures this harmony of effort by

⁹⁴ Romjue, *From Active Defense to AirLand Battle*, p. 61; Swain, "Filling the Void," pp. 160, 161, and 163; Swain, "AirLand Battle," pp. 383 and 387; Edward N. Luttwak, "The Operational Level of War," *International Security*, Vol. 5, No. 3 (Winter, 1980-1981), pp. 61-79; Trauschweizer, *The Cold War US Army*, p. 223; The significance of the operational level/dimension of war was first recognized in the Soviet Union during the 1920s, see Naveh, *In Pursuit of Military Excellence*, p. 10.

⁹⁵ MG L. D. Holder, "Education and Training for Theater War," in *On Operational Art*, ed. Clayton Newell (Ft. Leavenworth: Center for Military History, 1994), 172.

translating abstract strategic goals into mechanical terms which commanders can then accomplish.⁹⁶

Typically, operational warfare concerns corps and larger formations. In the American Army of the period, the corps was the lowest echelon of command capable of self-sufficient and independent operations. The corps, which typically contained between two and five divisions, possessed its own logistics means and the redundancy of capabilities necessary to conduct protracted campaigns. Since the coordination of Army and Air Force assets occurred at the corps, AirLand Battle was fought at the operational level. Like the rest of the material in the new manual, operational level warfare was attentive to the principles of war. However, the writers noted that application of these timeless principles varied depending upon the echelon of command concerned. Instead of being primarily concerned with tactical engagements, corps commanders had to plan and direct operations that furthered strategic objectives. AirLand Battle introduced these operations, called campaigns, into Army doctrine. Since commanders at the operational level were concerned with achieving strategic goals their decisions about where, when, how, and even if to fight the enemy were of phenomenal importance.⁹⁷

The introduction of operational warfare in official Army doctrine preceded its instruction at both CGSC and the Army War College. In order to educate the officer corps in this theoretical construct, the Army established the School of Advanced Military Studies (SAMS) in 1983. Wass de Czege, who also served as its first director, conceived SAMS,

⁹⁶ Swain, "Filling the Void," p. 166; Clancy with Franks, *Into the Storm*, pp. 112 and 139; Naveh, *In Pursuit of Military Excellence*, pp. 8 and 10; Trauschweizer, *The Cold War US Army*, p. 222

⁹⁷ Romjue, *From Active Defense to AirLand Battle*, p. 61; Holder, "Doctrinal Development 1975-85," p. 52; LTC Huba Wass de Czege and LTC L.D. Holder, "The New FM 100-5," *Military Review* LXII, July (1982): 56; Swain, "Filling the Void," p.160; LTC Clayton R. Newell, "On Operational Art," in *On Operational Art*, ed. Clayton Newell (Ft. Leavenworth: Center for Military History, 1994), 14; Clancy with Franks, *Into the Storm*, p. 139.

while Holder was its third. Lieutenant Colonel Richard Sinnreich, the primary author of the 1986 revision of *AirLand Battle*, was the second director of the school. The officers at SAMS spent a considerable amount of their time analyzing campaigns through the prism of Clausewitzian theory. Colonel David Glantz, a historian of the Soviet military, conducted seminars on the Eastern Front in the Second World War for the officers. The writings of Marshal of the Soviet Union Mikhail Tukhachevsky and Colonel Vladimir Triandafillov provided the basis for a significant portion of the study of operational theory. In addition to providing the Army with a pool of officers trained in the employment of corps and echelons above corps, the 1986 revision of *AirLand Battle* was written at SAMS.⁹⁸

In September 1984, General Richardson, now TRADOC commander, informed Wass de Czege that *AirLand Battle* would undergo a revision. While the manual paid greater attention to low-intensity conflict and expanded the leeway given to commanders, this edition left the basic doctrine of deep attack and the manual's emphasis on moral factors untouched and instead focused on refining the Army's position on operational level warfare. The 1986 *FM 100-5* is generally regarded within the Army and by defense commentators as the most crisp and lucid doctrine presented by the American military. Among the changes in the discussion of operational warfare, Wass de Czege sought to ensure that corps commanders would understand that theater priorities determined their allocation of scarce air assets. The formal recognition of an operational level of war evolved into the embrace of operational art. Operational art expanded upon the previous manual by acknowledging that the conduct of war at the operational level required greater creativity from commanders at that level. This creative process was needed during the act of campaign planning where

⁹⁸ Swain, "AirLand Battle," p. 387; LTC Paul DeVries, "Maneuver and the Operational Level of War," *Military Review* LXIII, no. 2 (1983): 32.

commanders translated strategic goals into tactical objectives. In this manner, operational art was the centripetal force uniting competing strategic and tactical demands. The new *FM 100-5* also gave a superior treatment to multi-engagement operations and the conduct of campaigns. Interestingly, the American explanation of campaign and theater was made into almost an exact translation of the Soviet definition. Finally, concepts such as branches and sequels which would lead to the playbooks of the First Persian Gulf War were introduced to the Army's planning process.⁹⁹

The operational concept of the AirLand Battle was largely the same as that of the Extended Battlefield. However, the DTAC writing team advanced beyond the operational concept expressed in Starry's *Military Review* article to a more sophisticated doctrine. In addition to a new stress on the humanistic element of combat, AirLand Battle placed a much greater emphasis on maneuver than either the previous TRADOC operational concept or Active Defense. General Richardson wanted the new doctrine to restore the maneuver-fire power balance that was dramatically abandoned with Active Defense. The writers of AirLand Battle went to great pains to explain the importance of maneuver to the operations. In marked contrast to Starry's article, which did not include maneuver as a form of interdiction, AirLand Battle viewed maneuver as the most effective method of interdiction because of its ability to place friendly mass along enemy lines of communications.¹⁰⁰

The conduct of the defense envisioned in AirLand Battle was of a much more aggressive variety than that found in Active Defense. Instead of the single prescriptive

⁹⁹ Swain, "AirLand Battle," pp. 340, 390, and 391; Swain, "Filling the Void," pp. 161, 163-165; Naveh, *In Pursuit of Military Excellence*, pp. 11-12; Citino, *Blitzkrieg to Desert Storm*, pp. 264 and 265; Trauschweizer, *The Cold War US Army*, p. 228; Headquarters, Department of the Army, *Field Manual 100-5, Operations* (5 May 1986), 10.

¹⁰⁰ Romjue, *From Active Defense to AirLand Battle*, pp. 51, 53, 56, and 69; Swain, "AirLand Battle," p. 381; Trauschweizer, *The Cold War US Army*, p. 224

defensive scheme found in the 1976 doctrine, AirLand Battle envisioned the defense as existing along a scale that went from the purely static to wholly mobile with commanders free to tailor their conduct to the mission and conditions that existed locally. During defensive operations, AirLand Battle encouraged commanders to conduct counterattacks to wrestle the initiative away from the enemy and allow a transition to offensive operations. This was a far cry from the passive nature of Active Defense, which surrendered the initiative to the attacker. The goal was no longer to merely retain possession of terrain but instead to take the initiative and bring the fight to the enemy.¹⁰¹

Despite the attention historians give to the Israelis' supposed influence on AirLand, (because of the amount of analysis devoted to the Yom Kippur War) and the Germans (because of the fascination exhibited by many officers with the Wehrmacht's performance in the Second World War along with the close working relationship with the Bundeswehr in the context of the NATO alliance), the most important and profound influence on AirLand Battle is often overlooked—that of Soviet military theory. The 1970s saw an increased study of Soviet military thought within the United States military prompted in part by the publication of numerous translations of Soviet works by the United States Air Force. Another important influence was the scholarly examination of Soviet Marshal Mikhail Tukhachevsky's Deep Battle theory by scholars such as Richard Simpkin and John Erickson. This greater exposure to sophisticated Soviet doctrinal thought led to the Sovietization of American Army doctrine. AirLand Battle was very similar to Deep Battle. Developed in the 1930s, Tukhachevsky's doctrine proposed that it was possible to attack the enemy throughout the depth of the battlefield through the use of self-contained and highly maneuverable forces that coordinated

¹⁰¹ Romjue, *From Active Defense to AirLand Battle*, pp. 55 and 59; Wass de Czege and Holder, "The New FM 100-5," p. 64; Charles, Messenger, *The Art of Blitzkrieg* (London: I. Allan, 1976), 281.

their actions with artillery and especially air support to cause the collapse of the enemy operational system and thus ensure his defeat. AirLand Battle reflected not just the study of Soviet operational concepts but their wholesale adoption by the U.S. Army.¹⁰²

Unlike its predecessor, the officer corps accepted AirLand Battle and believed that the Army's new capstone doctrine would bring victory on the battlefield. With AirLand Battle, the Army abandoned the belief that victory would be achieved through combat within a narrow band of territory along the FLOT. This linear view of battle, with its most radical expression in William DePuy's Active Defense, gave way to a doctrine with a much more sophisticated conception of depth. This new American understanding of depth was born of the inability to surrender space for tactical gains, due to internal NATO political constraints, and an overdue detailed examination of the echeloned nature of the Soviet adversary. These factors caused AirLand Battle not only to abandon Active Defense's myopic focus on the close fight but also to obtain the needed depth by targeting enemy follow-on echelons. This reconceptualization of depth led to the adoption of Soviet theories of deep battle and the recognition of the significance of operational art.¹⁰³

For all the credit heaped upon General Donn Starry for the creation of AirLand Battle, it was really officers in the middle grades who overturned the firepower-target servicing focus of Active Defense. In addition to the USAFAS officers who truly fathered the idea of extending the battlefield, the DTAC team returned Army doctrine to its traditional grounding in enduring principles. While AirLand Battle drew upon many influences such as

¹⁰² Lock-Pullan, "How to Rethink War," p. 682; Swain, "Filling the Void," p.162; Richard Simpkin in association with John Erickson, *Deep Battle: The Brainchild of Marshal Tukhachevskii* (London, Brassey's Defence, 1987), 77; Sally Stoecker, *Forging Stalin's Army: Marshal Tukhachevsky and the Politics of Military Innovation* (Boulder: Westview Press, 1998), 138; Citino, *Blitzkrieg to Desert Storm*, pp. 262 and 263; Trauschweizer, *The Cold War US Army*, pp. 223, 233, 234, and 235; Clancy with Franks, *Into the Storm*, p. 134; Naveh, *In Pursuit of Military Excellence*, pp. 250-251.

¹⁰³ Swain, "Filling the Void," p. 162; Lock-Pullan, "How to Rethink War," pp. 682 and 683; Swain, "AirLand Battle," p. 383; Citino, *Blitzkrieg to Desert Storm*, p. 261; Trauschweizer, *The Cold War US Army*, p. 210.

civilian defense intellectuals, military history, and Soviet military theory, it was ultimately a small group of Lieutenant Colonels who were together throughout the writing process who decided what the correct distillation of these ideas would be for the American Army. Their efforts resulted in an offensively oriented doctrine that emphasized maneuver, collapse of the enemy system in lieu of physical destruction, and preeminence of the human element in war. It was this doctrine, AirLand Battle, that was validated during the First Persian Gulf War.¹⁰⁴

¹⁰⁴ Romjue, *From Active Defense to AirLand Battle*, pp. 48, 66, and 73; Romjue, "AirLand Battle: The Historical Background," p. 55; Swain, "AirLand Battle," pp. 381-383; Lock-Pullan, "How to Rethink War," p. 682; Lock-Pullan, "An Inward Looking Time," p. 509; Citino, *Blitzkrieg to Desert Storm*, p. 264; Trauschweizer, *The Cold War US Army*, p. 222; Linn, *The Echo of Battle*, p. 87.

Conclusion

The preceding discussion of the progression in Army doctrinal thinking that led to AirLand Battle demonstrated that the resulting doctrine was written largely as a reaction to the shortcomings inherent in Active Defense. Active Defense was roundly rejected by the officer corps charged with implementing it in any future conflict with the Soviets. The hostility to Active Defense was so strong that it led to a unique occurrence: many of these officers publically criticized Active Defense in the pages of *Military Review*.

Soon after he took command of TRADOC, General Starry began the process of revising Army doctrine. This led to an evolution of operational concepts as the Army sought to find an answer to the problems posed by a Soviet echeloned attack. Although AirLand Battle was initially viewed as nothing more than an update of Active Defense, the vigorous debate which ensued during the late 1970s through the mid-1980s greatly enriched the new doctrine. This process led to the incorporation of the ideas and opinions of civilian defense intellectuals such as Edward Luttwak and William S. Lind.

The most important new ideas that the Army incorporated belonged not to civilian defense intellectuals but to Soviet military theorists. Soviet Marshal Mikhail Tukhachevsky's Deep Battle theory, along with the writings of Colonel Vladimir Triandafillov, had a profound impact on AirLand Battle. AirLand Battle saw Soviet operational theory adopted almost verbatim by the American Army along with a revolution in the Army's perception of depth, thus answering the dilemma posed by Soviet follow-on echelons.

Despite these profound influences on Army doctrine, AirLand Battle took the direction that it did because of a small group of Lieutenant Colonels from the Combined Arms Center. These officers created an offensively oriented doctrine that emphasized maneuver, collapse of the enemy system in lieu of physical destruction, and preeminence of the human element in war. AirLand Battle restored the Army's traditional focus on the enduring intangible humanistic factors of war—specifically leadership, initiative, and aggressive action. The development of this new doctrine, AirLand Battle, along with other reforms of the period, ushered in a new era of professionalism in the American Army that resulted in an assertive, self-assured, combat-ready force that shared a common conception of war as was demonstrated by the Army's success in the First Gulf War.

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