# Continuity and Evolution: General Donn A. Starry and Doctrinal Change in the U.S. Army, 1974-1982

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#### Abstract

# CONTINUITY AND EVOLUTION: GENERAL DONN A. STARRY AND DOCTRINAL CHANGE IN THE U.S. ARMY, 1974-1982 by MAJ Aaron J. Kaufman, US Army, 69 pages

The historiography of doctrinal change in the US Army that began with the publication of the 1976 version of FM 100-5, Operations, and ended with its replacement in 1982, settles on a general claim of controversy and rejection as the source of doctrinal change. In the broader narrative, the 1976 version of FM 100-5, nicknamed Active Defense, lacked senior leader and organizational consensus, and once its main author, General William E. DePuy retired, the Army rejected both the doctrine and the author's methods, and instead choose a path that led to the 1982 version of FM 100-5, nicknamed AirLand Battle. This monograph argues that the historical record fails to validate this claim. While the record does demonstrate some controversy, it nevertheless fails to show direct causation between controversy and doctrinal change, as it does not link controversy and rejection to the influence of those with the authority to direct and approve change. Close examination of primary sources of the period quickly undermines the supposed influence of rejection and controversy. Once discarded, the monograph argues that the source of change centers on the critical role and indispensible influence of General Donn A. Starry. His career, centering on his command and staff experience from 1968-1982, places him among the main sources of reform and change, of continuity and evolution, during this period. His writings serve to clarify the thinking of the period, logically linking ideas on doctrinal change to context, while also linking the threads of history to the new realities of warfare. To that extent, Starry never deviated from the necessity of combined arms warfare, but he extended the idea of combined arms into a total concept known as AirLand Battle. However, the AirLand Battle concept would prove useless without the preceding changes in doctrine and training that radically improved Army fighting competence and readiness, and this includes the 1976 version of FM 100-5. As Starry played a major role in the 1976 version and the decisive role in the 1982 version, ignoring his influence prior to 1977 skews the history. Once published as doctrine, AirLand Battle arguably served as the first indication of operational thinking in the US Army. Operational art thus assumed a uniquely American character; one where the Army's high-quality and welltrained units and leaders would fight forward deployed and win against any foe. Thus, General Starry serves as the main protagonist in the history of not only doctrinal change, but also in the expansion of thinking beyond the mastery of tactics to the realm of operational thinking and art. The US Army of today remains a direct and recognizable descendant of the ideas and thinking of General Donn Starry.

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#### Introduction

Old soldiers never die; they just fade away. General Douglas MacArthur

What's true of old soldiers does not hold for military doctrine.<sup>1</sup> Doctrine lives or dies.

Successful doctrine, like victory, may have a thousand fathers.<sup>2</sup> Rejected doctrine, like defeat,

dies and orphan, the progeny of the failed thinking of the very few if not the singular mind. The

1976 version of FM 100-5, Operations, and the dominant narrative concerning its fate certainly

makes it appear a doctrinal orphan that succumbed to an early death. The manual appeared as a

<sup>2</sup>From the late 1970s through the early 1980s saw the advent of the military reform movement, a group of civilian and military intellectuals that sought to reform the military. Its claim to influence on doctrinal change is indirect from the writing of the period. See Asa A. Clark IV, Peter W. Chiarelli, Jeffrey S. McKitrick, and James W. Reed., eds. The Defense Reform Debate: Issues and Analysis (Baltimore: The Johns Hopkins Press, 1984). This book provides rich detail of the people and ideas of the reform movement, of the military and political ties to the movement, including names of such civilian reformers as Steven Canby, William Lind, Timothy Lupfer, Edward Luttwak, Gary Hart, Jeffrey Record, and Newt Gingrich. Concerning military reformers, Huba Wass de Czege contributed to the collection of essays. Wass de Czege was also a primary author of the 1982 version of FM 100-5; for a more direct claim on the influence of the civilian ideas of the military reform movement, see Richard Lock-Pullan, "Civilian Ideas and Military Innovation: Manoeuvre Warfare and Organisational Change in the US Army," in War & Society Vol. 20 No. 1 (May 2002), 146. Lock-Pullan claims that the 1982 version of FM 100-5, AirLand Battle, owed much of its thinking to the maneuver war advocates of the military reform movement; for a recent counterargument, see Saul Bronfeld, "Did TRADOC Outmanoeuvre the Manoeuvrists? A Comment," in War & Society Vol. 27 No. 2 (October 2008): 112. Bronfeld claims that influence of the reform movement on doctrine or the thinking of senior leaders is negligible at best; for a direct refutation of the influence of the reformers, see See also Donn A. Starry, interview by LTC Matthias A. Spruill and LTC Edwin T. Vernon, 15-18 February 1986, transcript, Senior Officer Oral History Program, Special Collections, U.S. Army Military History Institute, in Lewis Sorley, ed., Press On! The Selected Works of General Donn A. Starry (Fort Leavenworth: Combat Studies Institute Press, 2009), 1126-1127, 1147, (hereafter Starry, Selected Works, Life and Career Interview, February 1986). Starry, as a primary author of the 1976 version of FM 100-5 and the approving authority for the 1982 version claims reformers such as Lind and Luttwak retained only a facile understanding of the 1976 version of FM 100-5 and did not influence the discourse of change. Starry gives significant credit to Wass de Czege, who was a primary author of the 1982 version of FM 100-5.

<sup>&</sup>lt;sup>1</sup>Department of the Army, Field Manual (FM) 1-02, *Operational Terms and Graphics* (Washington, DC: Government Printing Office, 2004), 1-65. FM 1-02 defines doctrine as fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application. Stated simply, doctrine is a contemporary expression of how a military thinks about fighting.

product of the times, a doctrine intensely, if perhaps not overly focused on the Soviet Union and Warsaw Pact forces, clearly the greatest threats facing US Army forces anywhere in the world.<sup>3</sup>

The narrative begins with the label of controversy. In 1979, retired Army officer and military historian Robert Doughty described the FM as one of the most controversial ever written.<sup>4</sup> Richard Swain, another retired Army officer and historian, wrote about the increasing controversy of the manual.<sup>5</sup> Attribution followed controversy, where the manual acquired the name of the DePuy Doctrine in reference to the first US Army Training and Doctrine Command (TRADOC) commander, General William E. DePuy, who tightly controlled and directed the revision and publication of the manual in 1976.<sup>6</sup> Rejection ultimately followed controversy and attribution. Military historian Roger Spiller wrote about a metaphorical tipping point, where the lack of majoritarian consensus in the Army ultimately doomed the manual.<sup>7</sup> Retired Army officer Paul Herbert, the author of a comprehensive account of the history of the manual and the men behind it, wrote:

<sup>&</sup>lt;sup>3</sup>John L. Romjue, From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982 (Fort Monroe, VA: U.S. Army Training and Doctrine Command, Historical Office, 1984): 1-2; Robert A. Doughty, "The Evolution of U.S. Army Tactical Doctrine 1946-1976," in *Leavenworth Papers No. 1* (Ft. Leavenworth, KS: Command and General Staff College, 1976): 40-42; Ingo Trauschweizer, *The Cold War U.S. Army: Building Deterrence for Limited War* (Lawrence, KS: University of Kansas Press, 2008): 197-205.

<sup>&</sup>lt;sup>4</sup>Doughty, 43.

<sup>&</sup>lt;sup>5</sup>Richard M. Swain, "Filling the Void: The Operational Art and the U.S. Army," in B.J.C. McKercher and Michael Hennessy, eds. *The Operational Art: Developments in the Theories of War* (Westport, CT: Praeger Publishers, 1996): 154. Swain writes that the controversy centered on three points. First, the manual focused too much on tactics. Next, the manual clearly fixed on Western Europe, despite the claim that the doctrine retained equal utility in all theaters of war. Finally, it fixated too greatly on small unit battles.

<sup>&</sup>lt;sup>6</sup>Walter E. Kretchik, U.S. Army Doctrine: From the American Revolution to the War on Terror (Lawrence, KS: University Press of Kansas, 2011); Robert H. Scales, Yellow Smoke: The Future of Land Warfare for America's Military (Oxford: Rowman & Littlefield Inc., 2003), 52. Linn

<sup>&</sup>lt;sup>7</sup>Roger J. Spiller, "In the Shadow of the Dragon: Doctrine and the US Army after Vietnam", *The RUSI Journal* (December 1997): 51.

Ironically, the critique and rejection of FM 100-5 was in part a response to the measures DePuy took to ensure that the Army would accept it as doctrine. Because he wanted to have a dramatic effect on the Army, which he perceived as essentially unprepared for a dangerous future, he purposely drew much attention to the manual, both directly by publishing it in an eye-catching format and by flooding the Army with copies of it atone time and indirectly by tying all TRADOC's training initiatives to the doctrine. Because the manual had command emphasis and was available, attractive, and easy to read, the Army's officers read it. Not only did they read it and at tempt to apply it, but they understood it, thought about it, talked about it, wrote about it, and eventually rejected it."<sup>8</sup>

Thus the demise of the 1976 version of FM 100-5 leads to the conclusion that a

successful life for Army doctrine can at times appear little more than a popularity contest. The life of doctrine depends on broad acceptance indicative of popular consensus among Army officers and senior leaders, perhaps within the Army writ large. Failure leads to doctrinal death, and results from a lack of consensus and thus disapproval, followed by attribution and rejection.

The dam finally burst under the pressure from senior leaders that wanted the doctrine changed, including the 3d (US) Corps commander, Lieutenant General Richard Cavazos and Army Chief of Staff General Edward Meyer.<sup>9</sup> The Army—its officers and units—simply would not implement the doctrine.<sup>10</sup> The replacement of FM 100-5 in 1982 signified a clear rejection of the 1976 version.<sup>11</sup> Doctrinal change concerning FM 100-5, from 1976 to 1982, resulted from the growing controversy and ultimate rejection of the 1976 version of FM 100-5. The 1982 version

<sup>&</sup>lt;sup>8</sup>Paul Herbert, "Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations," *Leavenworth Paper No. 16* (Ft. Leavenworth, KS: Command and General Staff College, 1988): 98.

<sup>&</sup>lt;sup>9</sup>Shimon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (Portland, OR: Frank Cass, 1997), 11; Brian McAllister Linn, *The Echo of Battle: The Army's Way of War* (Cambridge, MS: Harvard University Press, 2007), 207; Huba Wass De Czege, "Lessons from the Past: Making the Army's Doctrine 'Right Enough' Today,"*The Landpower Essay* 06-2 (September 2006): 6.

<sup>&</sup>lt;sup>10</sup>Long, Jeffrey W. "The Evolution of U.S. Army Doctrine: From Active Defense to AirLand Battle and Beyond" (master's thesis, US Army Command and General Staff College,1991): 254.

<sup>&</sup>lt;sup>11</sup>Ibid., 48.

stood as a completely new doctrine, one that rejected both DePuy's doctrine and his method of producing it.<sup>12</sup>

DePuy's doctrinal reform efforts and disruption of tradition met a predictable and conservative reaction from within the Army. The Command and General Staff College (CGSC) at Fort Leavenworth, Kansas, traditionally retained the responsibility to rewrite major doctrinal publications such as FM 100-5. DePuy viewed the efforts of Fort Leavenworth in the doctrinal reform project beginning in 1974 as too scholastic and useless, and so stripped away its traditional responsibility to rewrite the field manual and consolidated the effort under a small team of selected officers.<sup>13</sup> Rushing to complete the project within two years, DePuy imposed his new vision on the Army with only marginal attempts at building consensus from senior commanders.<sup>14</sup> His departure from TRADOC in 1977 and subsequent retirement opened the floodgates of reaction from senior Army officers.

Some of the initiatives involving DePuy endured past his retirement despite the fate of his doctrine. The central role doctrine played in Army reforms, in driving changes in organization, combat systems development, budgeting and programming, and training remained in force after his retirement.<sup>15</sup> The major training and educational reforms developed and promoted by influential officers such as Brigadier General Paul Gorman remained intact. General Donn A.

<sup>14</sup>Spiller

<sup>15</sup>Herbert, 100.

<sup>&</sup>lt;sup>12</sup>Doughty, 43; Herbert, 2, 79, 98, 104. Paul Herbert claims that the value of the 1976 version of FM 100-5 lay its provocative nature and method of production, which on the one hand stimulated the interest of Army officers on the topic of doctrine, but on the other ultimately led to its rejection by the Army, both its content and method of production; Thomas H. Etzold, "Short-War Theorem: Cliché or Strategy?" in *Army* Vol. 20 No. 9 (September 1977): 14-17; Harold R. Winton, "Partnership in Tension: The Army and Air Force Between Vietnam and Desert Shield" in *Parameters* Vol. XXVI (Spring 1996): 100-19. Winton provides several critiques as points of reference, but extrapolating a broad consensus of rejection among the officer corps remains difficult from the evidence cited.

<sup>&</sup>lt;sup>13</sup>Herbert, 100.

Starry, DePuy's successor at TRADOC, ultimately sealed the fate of the 1976 version of FM 100-5 when he returned the doctrine-writing authority for FM 100-5 to Fort Leavenworth and directed a new revision in 1979. This process ultimately emerged as the 1982 version of FM 100-5, nicknamed AirLand Battle.<sup>16</sup> Despite the enduring legacy of some of DePuy's ideas, the narrative behind doctrinal change from 1976 to 1982 centers on controversy, attribution, and culminates in organizational rejection.<sup>17</sup> His most important effort ultimately failed.

This narrative, however, fails to articulate clearly, beyond abstractions, how authority and influence combined to effect doctrinal change between 1976 and 1982. Specifically, the argument centered on the power and influence of controversy and rejection leading to change must remain abstract when the sources of influence and authority remain abstract, incidental, or indirect. More specifically, this applies when attribution falls on generic, group-centric, consensus-based sources of influence and authority, such as the Army or Army officers.<sup>18</sup> Moreover, emphasizing the controversy of the field manual, one that led to rejection, misplaces the authority and agency behind change and thus distorts the history. The rejection narrative lacks coherence when it fails to show that the person in a direct position of authority to change doctrine rejected the 1976 version of FM 100-5. The change directed by someone of clear authority, in this case command

<sup>&</sup>lt;sup>16</sup>Starry, *Selected Works*, Life and Career Interview (February 1986), 1148. Starry credits Brigadier General Donn Morelli in convincing him to name the doctrine AirLand Battle, which one should not confuse with the chapter of same name in the 1976 version of FM 100-5.

<sup>&</sup>lt;sup>17</sup>Donn A. Starry, interview by John L. Romjue, 19 March 1993, transcript, US Army Training and Doctrine Command Oral History Interview, in Starry, *Selected Works*, 1266; (hereafter Starry, *Selected Works*, TRADOC Interview, March 1993); See also Henry G. Gole, *General William E. DePuy: Preparing the Army for Modern War* (Lexington, KY: The University Press of Kentucky, 2008), 245-249. Enduring areas of influence include linking doctrine to budgeting, programming, and combat systems development, as well as the systems approach to training, called performance-oriented training. General Paul Gorman, while serving as the Deputy Commandant of the Infantry School in 1973, developed the new training methodology with the support of DePuy.

<sup>&</sup>lt;sup>18</sup>Clayton R. Newell, "On Operational Art," in *On Operational Art*, Clayton R. Newell and Michael D. Krause, eds. (Washington D.C.: Government Printing Office), 14; Long, 45; 254; Kretchik, 202; Naveh, 11.

authority, stands on its own historically and requires little evidence beyond a few primary sources. The claim of influence towards doctrinal change from 1976 to 1982, with direct or indirect influence of those in positions of authority retains a larger burden of proof, and the historical record fails to accommodate influence as a main source of change. If the rejection narrative fails to explain why FM 100-5 changed between 1976 and 1982, then what caused the change?

Investigating the causes of doctrinal change from 1976 to 1982 invariably orients the arguments on the command authority inherent in the TRADOC commander. DePuy transferred command of TRADOC to General Starry in July 1977. Starry served as the TRADOC commander proved far from incidental.<sup>19</sup> He served subordinate to DePuy in several important positions, most recently as the commandant of armor, and his professional competence and reputation extended as far back to his service as a tank platoon leader in West Germany in the 63d Tank Battalion, at the time commanded by then-Lieutenant Colonel Creighton Abrams. Starry served again under Abrams, this time in Vietnam both as a secret redeployment planner for Abrams and as the commander of the 11<sup>th</sup> Armored Cavalry Regiment. He continued to serve in important positions following Vietnam, where he ultimately worked for DePuy in the Pentagon during the planning for Army reorganization. His selection to serve as commandant of armor by the Army Chief of Staff General Creighton Abrams in 1973 again placed him subordinate to DePuy.

Additionally, Starry proved a prolific writer and thinker concerning military affairs, and left a significant written record of books, papers, correspondence, and speeches that demonstrate his intellectual ability and talent in the realm of military affairs. His career path placed him amongst several influential Army elites, where his experience and interaction with those elites

<sup>&</sup>lt;sup>19</sup>Starry, *Selected Works*, Life and Career Interview (February 1986), 1141.

demonstrated his abilities and potential, particularly during and after his Vietnam experience. His writing demonstrates his advanced understanding of military history and affairs, and serve to clearly show his exceptional intellect and talent. Woven together, his experience and assignments indicate a thread of continuity from the early 1970s to the early 1980s. His writings, speeches, and papers demonstrate his growing grasp or synthesis of thinking with respect to military affairs, an evolution in thinking. Controversy and rejection fail to account for his critical role in the path that doctrinal reforms took from 1974 to 1982. Understanding the central role of General Starry serves as the basis for understanding the source of doctrinal change in FM 100-5 from 1976 to 1982. Doctrinal change, when viewed within the broader contexts of the period, occurred as a product of continuity and evolution centering on the authority, intellect, and influence of General Donn A. Starry. The transition from the 1976 version of FM 100-5 to the 1982 version, from an emphasis on tactics towards thinking on operational art, resulted directly from the guidance and influence of Starry as the TRADOC commander.<sup>20</sup>

<sup>&</sup>lt;sup>20</sup>Naveh, 11. Naveh viewed the 1982 version of FM 100-5 as the first indication of operational thinking in the US Army; see also Department of the Army, Army Doctrinal Publication (ADP) 3-0, *Unified Land Operations* (Washington, DC: Government Printing Office, 2011), 9. ADP 3-0 defines operational art as the pursuit of strategic objectives, in whole or in part, through the arrangement of tactical actions in time, space, and purpose.

#### The Context of Doctrinal Reforms

Arguments concerning the reform of FM 100-5, from 1976 to 1982, and the processes and people surrounding the reform efforts requires strict adherence to the contexts of the time. On a larger scale, this requires acknowledgement of the strategic contexts of the time. Strategic context, however, remains insufficient to fully explain the broader Army and doctrinal reforms of the mid-1970s. In the Army, as in any stratified and hierarchical organization, effective historical interpretation requires linking agency, authority, power, and influence to the change processes that move an organization in new directions. Acknowledging the decisive role and influence of General Starry in the broader reform efforts from 1972 through 1981 ultimately centers the argument of change on one man with significant authority and influence in the Army, rather than an argument that centers on the abstract idea of the rejection of the 1976 version of FM 100-5 by the Army. Thus, when factoring in the authority and influence of Starry, continuity and evolution, rather than controversy and rejection, characterize the doctrinal reform process.

Starry, however, affected change within the background of the strategic contexts of his time, and those contexts clearly influenced his thinking on fighting as well. In this vein, thinking about fighting, rather than an exercise in pure theory and abstract ideas, always necessitates the consideration of the practical influences of context and acknowledging the limitations of abstract ideas or concepts that claim an enduring, clear, positive, and useful link between abstract ideas and fighting in practice.

#### **Theory and Context**

As Clausewitz argued, war has its own grammar but not its own logic.<sup>21</sup> In extension, thinking on warfare may prove deceptive in its logic. In this sense, theories that simply attempt to deal with warfare or fighting as concepts that retain their own sufficient logic in the abstract fail to acknowledge that war or warfare has no logic outside of the context of its application.<sup>22</sup> Thus, a pure theory often retains little utility in practice. Claiming ubiquitous utility in particular approaches to warfare or fighting denies the superior influence of particular strategic contexts that indelibly shape the use of force. Theory without context deceives in its simplicity. Theory shaped by strategic context and effectively interpreted provides significant advantage.<sup>23</sup>

Synthesizing and describing the effect of strategic context on US Army operational doctrine in 1976 requires placing the organization and its leaders within the context, which

<sup>&</sup>lt;sup>21</sup>Carl von Clausewitz, *On War* edited and translated by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 605. This is an extension of Clausewitz's thought that war is simply a continuation of political intercourse, with the addition of other means. Political intercourse does not end when war begins, it continues throughout. Thus, war remains subject to the thoughts and interactions of the participants, the political intercourse, just as in "speech and writing." War cannot be divorced from political life, nor from the constraining contexts that shape its application. The specific knowledge and skill requirements that define profession of arms do not retain their own logic in the pure abstract.

<sup>&</sup>lt;sup>22</sup>Starry, *Selected Works*, TRADOC Interview (March 1993), 1266. Starry essentially states the pure theory of maneuver warfare as advocated by some theorists and military officers is irrelevant. The true idea centers on taking the initiative in warfare, which involves all aspects of combined arms and the methods of its application. In essence, Starry undercuts the maneuver versus attrition debate. One can seize the initiative by a variety of means, including maneuver.

<sup>&</sup>lt;sup>23</sup>Colin S. Gray, *War, Peace and International Relations: An Introduction to Strategic History* (New York: Routledge, 2007), 3. Strategic historian Colin Gray provides seven major contexts of strategic history, including political, socio-cultural, economic, technological, military-strategic, geographical, and historical. Each context may prove distinct in definition, but serve to provide a broad framework for synthesis, to combine and describe rather than divide and particularize. Gray's contexts of strategic history serves as a useful tool to ensure that the criticisms of the 1976 version of FM 100-5 sufficiently account for the contexts of strategic history that shaped the doctrine; For a synopsis on DePuy's thinking regarding the various contexts of the writing of the 1976 version FM 100-5, see William E. DePuy, "FM 100-5 Revisited," in *Army* 30, no.11 (November 1980): 13. Richard M. Swain, comp., *Selected Papers of General William E. DePuy: First Commander, U.S. Army, Training and Doctrine Command, 1 July 1973*, (Ft. Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, 1994), 303 (hereafter, DePuy, *Selected Papers*).

enables a clearer and more factual analysis versus analyzing doctrine strictly for its soundness vis-à-vis other doctrines, concepts, and approaches. This requires starting with the post-Vietnam US Army, then gradually spreading outwards to describe the Army in context with military strategy and policy in the mid-1970 centered on the defense of Western Europe.

#### The Post-Vietnam US Army: Transition, Modernization, and Readiness

The early 1970s saw the Army rapidly disengage and redeploy forces from Vietnam. The Army that left for Vietnam proved a shadow of its former self upon its return, particularly in the quality and quantity of non-commissioned officers and officers. President Johnson's decision not to mobilize the reserves for Vietnam placed the burden of the war on the active force, where even units facing Warsaw Pact forces in West Germany suffered devastating shortages of leaders and soldiers. The war forced the Army to consume itself—its professional competence and fighting ability—which could prove devastating if the anticipated enemy conducted a conventional attack. Improving readiness required rebuilding basic fighting competence and leadership at the small unit level through education and training, and thus provided the most immediate means of reducing the risk to Army forces.<sup>24</sup>

Additionally, traditional advantages in technology proved no longer reliable as a means to counteract Soviet and Warsaw Pact superiority in force size. In the era known as the lost decade among senior officers, spanning from the early to mid 1960s to the mid 1970s, the Army sacrificed modernization to fund the war in Vietnam, fielding no new major combat systems.

<sup>&</sup>lt;sup>24</sup>Roger J. Spiller, "In the Shadow of the Dragon: Doctrine and the US Army after Vietnam", *The RUSI Journal* (December 1997): 42-43; General (retired) Paul F. Gorman, *The Secret of Future Victories* ((Ft. Leavenworth, KS: Combat Studies Institute, U.S. Army Combined Arms Center, 1992), III-1,2. Gorman writes that General DePuy retained longstanding concerns with US Army tactical doctrine, concerns that would magnify the deficiencies in a much smaller all-volunteer army; John L. Romjue, Susan Canedy, and Anne W Chapman, "Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command, 1973-1993" *TRADOC Historical Study Series* (Ft. Monroe, VA: Office of the Command Historian, 1993), 6; Gole,,239; Herbert, 6.

Meanwhile across the Iron Curtain, enemy forces concurrently expanded and modernized. Improving the combat power of Army units through significant modernization and improvements in combat systems anticipated a future where better trained forces and leaders equipped with the most modern technology and combat systems would offset any adversary advantage in numbers.<sup>25</sup>

No external event proved more consequential than the 1973 Arab-Israeli War in providing the Army with clear political justification for modernization efforts.<sup>26</sup> This conflict proved that even a mediocre army organized along Soviet lines and equipped with modern, technologically advanced weapons could cause tremendous destruction on the contemporary battlefield. Called by some as the era of new lethality, the traditional ideas of Western technological superiority as a means of conventional deterrence appeared false and dangerous. This new era, one characterized by the advent of total mechanization, anti-tank missiles, and the integrated air defense system placed inferior forces in strategic limbo. Once engaged in fighting, the only decisive mitigating factor for the Israeli Defense Forces proved moral in nature. In essence, the leaders, individuals, or crews that proved more capable at fighting and enduring the hardships of war won the day.<sup>27</sup> Thus, the drive to improve training and education in the Army

<sup>&</sup>lt;sup>25</sup>Donn A. Starry, "Recruiting and the Soldier," transcript of remarks given to the Association of the United States Army (AUSA) in Huntsville, Alabama, 2 October 1981, in Starry, *Selected Works*, 705 (hereafter Starry, *Selected Works*, Remarks to AUSA, October 1981); Spiller, 46. Spiller argues that the US Army's efforts to modernize faced additional skepticism from the US Congress due to expensive cancellations of two combat programs just prior to 1973, to include one main battle tank and one attack helicopter; see also Romjue, *From Active Defense to AirLand Battle*, 2; William E. DePuy, "Are We Ready for the Future?" in *Army* 28, no. 9 (September 1978): 22; Justin Galen, "Keeping the Transatlantic Bargain: The Last Chance for Forward Defense?" in *Armed Forces Journal* (December 1978): 30.

<sup>&</sup>lt;sup>26</sup>Gole, 240; Saul Bronfeld, "Fighting Outnumbered: The Impact of the Yom Kippur War on the U.S. Army" in *The Journal of Military History* Vol. 71 No. 2 (April 2007): 496.

<sup>&</sup>lt;sup>27</sup>Romjue, *From Active Defense to AirLand Battle*, 7; William E. DePuy, "Implications of the Middle East War on U.S. Army Tactics, Doctrine, and Systems," transcript of presentation in DePuy, *Selected Papers* (not dated): 77 (hereafter cited, DePuy, *Selected Papers*, Implications of Middle East War presentation (not dated); Gole, 240. Thus a justification for performance-based approach. In essense, US

meshed well with efforts to modernize technologically.<sup>28</sup> The Army needed few abstract arguments to Congress regarding the necessity of improving the Army and its capabilities, as recent history provided the concrete example of the necessity to modernize.

The end of the Vietnam War occurred concurrent with the political decision to transition to an all-volunteer force. Ending conscription not only denied the Army its traditional conscription-mobilization basis for warfighting, but also occurred concurrent to a drop in authorized end strength from 1.4 million soldiers to fewer than 800,000.<sup>29</sup> Stated simply, the Army would have to fight with what it had on hand; and in the broader context of events would do so with less available forces against a potential foe that leveraged the period of the Vietnam War to modernize while the American military stagnated technologically and eroded organizationally.

# The Broader Strategic Context: The North Atlantic Treaty Organization (NATO), Western Europe, and Conventional Deterrence

The greatest conventional threat to US national security and interests stood across the border separating West and East Germany. The Warsaw Pact forces of the 1970s saw both an expansion of forces positioned in Central and Eastern Europe as well as an effort in equipment modernization that effectively negated any perceptions of Western technological superiority as a hedge against sheer numbers of forces. Moreover, the expansion of Warsaw Pact conventional

Army must outperform the Warsaw Pact forces to fight outnumbered and win; see also, Trauschweizer, *The Cold War U.S. Army: Building Deterrence for Limited War*. The Soviets added six additional combat divisions to Central and Eastern Europe, starting in 1974.

<sup>&</sup>lt;sup>28</sup>Lt Col Jack Goldstein, "The Army's Big Five: Irons in the Fire," in *Army* Vol. 15 No. 5 (May 1973): 18-21. The Big Five consisted of a new air defense missile system, two new helicopters (attack and utility), an infantry fighting vehicle, and a new tank. Congress approved all systems, which still serve today.

<sup>&</sup>lt;sup>29</sup>Herbert, 25-27; DePuy, *Selected Papers*, xi; Trauschweizer, 206; Doughty, 42.

capability led some Army leaders to believe that the nuclear deterrent capability of NATO tactical nuclear weapons would prove ultimately useless.<sup>30</sup> Enemy forces in Central and Eastern Europe appeared large enough to defeat conventional forces and to outlive any tactical nuclear strike on military formations.

Furthermore, a military strategy that relies on a restricted resource outside of military or theater control is fundamentally one based on a shaky assumption that political leaders will ultimately allow the use of nuclear weapons to defeat communist aggression. In essence, this question revolved around whether or not war in Europe would naturally escalate to full-scale nuclear exchange with strategic nuclear weapons. If it did, then conventional combat would prove of little consequence to the war effort. If it did not, and the war stayed within limits as war often does, then conventional combat would prove essential to maintaining a foothold in Europe until the arrival of reinforcements from the United States.<sup>31</sup>

In both cases, the obligation of senior Army leaders with respect to strategy and the forward deployed force remained clear. With no guarantee of the use of nuclear weapons, it could not afford to depend on such weapons to ensure the viability of the defense of Western Europe,

<sup>&</sup>lt;sup>30</sup>Donn A. Starry, "Reflections," in *Camp Colt to Desert Storm: The History of U.S. Armored Forces*, ed. George F. Hofmann and Donn A. Starry (Lexington: University Press of Kentucky, 1999): 546; Donn A. Starry, "Message to Lieutenant General E.C. Meyer, Deputy Chief of Staff for Operations, 28 December 1978," in *Starry, Selected Works*, 732. Starry's message to Meyer concerns tactical nuclear weapons; Donn A. Starry, "Memorandum to Colonel John M. Collins, Library of Congress, 3 September 1981," in *Starry, Selected Works*, 756. Starry writes that the weak state of NATO readiness in Western Europe led to a conflux of reinforcing perceptions on the outcome of strategy, in this case, escalation to full nuclear exchange. This included the opinion of several Supreme Allied Commanders of Europe (SACEUR), as well as the poor state of readiness of US units, known disparities in force ratios, and a general perception by US Army forces that anticipated complete destruction at the hands of Warsaw Pact Forces. Raising the nuclear threshold required a more capable conventional force; See also Trauschweizer, 129.

<sup>&</sup>lt;sup>31</sup>Donn A. Starry, "Armor/Antiarmor in the Future of Land Combat," transcript of remarks given to the Center for Strategic and International Studies (CSIS) in Washington D.C., 6 October 1988, in Starry, *Selected Works*, 125-128 (hereafter Starry, *Selected Works*, Remarks to CSIS, October 1988). Starry claims that the Soviets, upon reaching nuclear parity by 1966 in Europe, decided that the objectives in theater war could be achieved through conventional means, and thus affirms their decision to outpace the allies in conventional modernization..

even with the risk of losing tremendous amounts of manpower and equipment. The moral obligations of field command mandated radical improvements in unit fighting competence to mitigate the risk of the destruction of the entire European force by the enemy. The obligations of the institutional Army to improve doctrine, equipment, and training served to enable the field command to build forces capable of fighting outnumbered and winning.<sup>32</sup>

The efforts to improve military strength and political unity of NATO countries served also to roughly shape the boundaries within which the American military could legally operate in West Germany. Clearly, the main role for the US Army in the 1970s centered on the forward defense of Europe with large amounts of forward deployed armored and mechanized forces.<sup>33</sup> This mission, however, proved tightly bound to contesting any attempt by Warsaw Pact forces to attack into West Germany rather than using a more desirable mobile defense concept that traded Western European territory for space. Concerning the planning and operational concepts, the Germans proved resistant to the use of their country as a mobile battleground and the use of nuclear weapons on West German territory.<sup>34</sup> Instead, they believed that the forward defense along the East German border retained significant value geopolitically, as it demonstrated the willingness of NATO to militarily confront any Warsaw Pact incursion and thus retained significant deterrent value.

<sup>34</sup>Gole, 264.

<sup>&</sup>lt;sup>32</sup>William E. DePuy, "TRADOC Draft Concept Paper: Combat Operations, 23 July 1974," in DePuy, *Selected Papers*, 122; See also, Donn A. Starry, interview by Dr. Harold R. Winton, 13 May 1995, transcript, United States Air Force Oral History Program, in Starry, *Selected Works*, 1289-1290 (hereafter, Starry, *Selected Works*, AirLand Battle Interview, May 1995).

<sup>&</sup>lt;sup>33</sup>Donn A. Starry, "FM 100-5: Operations," transcript of paper published for the Inter-University Seminar at Fort Leavenworth, KS, 30 March 1978, in Starry, *Selected Works*, 306. Starry writes that the reemphasis on Western Europe and NATO largely stemmed from the Army's interpretation of the Nixon Doctrine, which centered around the general disengagement of US military power from regional conflicts. See also, Spiller, 43-44. See also, Lock-Pullan, 485-486. Lock-Pullan argues that Nixon Doctrine essentially eliminated a military role in low-intensity conflict, and thus provided the US Army with a justification for both ignoring this form of warfare and ignoring the lessons of Vietnam.

Arguably, the demonstration of allied strength and unity along the border also served the West German efforts surrounding *Ostpolitik* and détente, presented as a sort of a fait accompli to the allies.<sup>35</sup> Treaty members, due to the strategic importance of West Germany, necessarily proved susceptible to accommodating German regional domestic interests and consequent foreign policy initiatives in order to maintain the face of unity.<sup>36</sup> Thus its strategic value to the alliance—both geographically and as a material and military power—would weigh in as a heavy influence to the extent that allied ground forces positioned forward along the border prior to conflict, and thus determined, de facto, how the alliance would fight.

The ability of NATO conventional forces to deter communist aggression in Western Europe in the mid-1970s proved a point of significant divergence of opinion. Where Warsaw Pact forces across the Iron Curtain remained under the tight control of the Soviets, allied forces seemed unified on paper only. National economic interests, a lack of defense spending on the part of many members, and a lack of unity of effort on weapons development, production, and efficiency served to highlight the fragility of the alliance and brought in to question the ability of allied to deter or stop any Soviet aggression.<sup>37</sup>

The Vietnam War exacerbated this problem. The systematic degradation of US Army combat capability in West Germany to support the war in Vietnam served to negatively shape

<sup>&</sup>lt;sup>35</sup>Werner D. Lippert, "Richard Nixon's Détente and Willy Brandt's *Ostpolitik*: The Politics and Economic Diplomacy of Engaging the East" (PhD diss., Vanderbilt University, 2005), 1-10. *Ostpolitik* refers to the efforts the Federal Republic of Germany (FRG, or West Germany) under Chancellor Willy Brandt to pursue an independent foreign policy with the Eastern Block. Détente refers to the efforts to decrease the military and foreign policy tension between East and West, or communist and capitalist, particularly regarding nuclear brinksmanship. Lippert argues that Brandt's efforts occurred in response to an FRG perception in the unreliability in US support, mainly as a consequence of US fixation in Vietnam; Trauschweizer, 196. The Europeans, in general, wanted to assert their independence while preventing any reduction of the US role in the defense of Western Europe.

<sup>&</sup>lt;sup>36</sup>Donn A. Starry, "Letter to David Chu, Congressional Budget Office, 31 December 1980," in Starry, Selected Works, 362.

<sup>&</sup>lt;sup>37</sup>Justin Galen, "NATO's Lost Decade, Part II: Restoring the NATO-Warsaw Pact Balance, The Art of the Impossible," in *Armed Forces Journal* (September 1978): 30-40.

regional perceptions on the commitment of the United States to the defense of Western Europe. Unlike the Soviet Union in the Warsaw Pact, America could not force compliance of treaty obligations despite being the largest military and economic power in the alliance. Thus, action, not words, would prove the only way America could demonstrate a recommitment to Europe. Militarily, this involved the strengthening of combat forces. Appointing people of capability and reputation in positions of senior authority proved critical as well. In 1974, President Gerald Ford appointed General Al Haig as the supreme allied commander in Europe (SACEUR). A man of impressive reputation in political and military circles, General Haig ultimately served from 1974 to 1979.<sup>38</sup>

Another man of reputation in political and military circles, Ambassador Robert Komer, served as the advisor to the Secretary of Defense on NATO affairs from 1977 to 1979. Komer, known as "Blowtorch Bob," designed and led CORDS program in Vietnam from 1966 to 1968 following a service on the National Security Council under President Johnson.<sup>39</sup>

Additionally, Congress appeared deeply concerned about NATO conventional military capability and interoperability, particularly in light of the modernization efforts of the Soviets. The Nunn-Bartlett report of 1977 raised questions on the feasibility of the use of nuclear weapons

<sup>&</sup>lt;sup>38</sup>General Alexander M. Haig Jr., "A Viable, Healthy Deterrant" interview with General Haig, by L. James Binder, in *Army* Vol. 19 No. 8 (August 1977): 12; General Alexander M. Haig Jr., "Improving NATO's Efficiency and Getting the Alliance More Resources," interview with General Haig, by Benjamin F. Schlemmer in *Armed Forces Journal* (September 1978): 26-30; Galen, *Armed Forces Journal* (December 1978): 34. Galen emphasizes Haig's critical role after 1974, writing that "only after the revitalization of NATO in 74 could NATO ministers, military authorities, and the SACEUR (Haig) could interpret "forward defense" in ways that gave NATO warfighting capability as well as deterrent symbolism." CORDS stood for Civil Operations and Revolutionary Development Support.

<sup>&</sup>lt;sup>39</sup>Robert W. Komer, "Treating NATO's Self-Inflicted Wound," in *Military Review* (August 1974): 53-63. Komer argued that NATO's posture did not fit its policy. Conventional deterrence is more important due to nuclear parity. Détente, budget pressures, and rising weapons cost all challenged the quest to improve conventional deterrence in NATO; Ambassador Robert W. Komer, ""It's Easier to turn this Building Around Then it is to Turn Around 14 NATO Allies"," interview with Robert Komer, by Benjamin F. Schlemmer in *Armed Forces Journal* (September 1978): 47-52. Komer's interview emphasizes the effort to increase NATO fighting capability, but not through expanding force numbers.

to stop or blunt the offensive power of Warsaw Pact forces, and instead recommended an expansion and improvement of allied conventional combat power. These recommendations reflected earlier policy guidance from the Ford administration. Clearly, the viability of NATO and the strategic importance of Western Europe remained one of the top priorities of policymakers throughout the 1970s.<sup>40</sup>

The pivotal role of the Army in the military strategy in Europe centered on the concept of forward defense. If the Warsaw Pact attacked, the Army, in conjunction with the US Air Force (USAF) and NATO allies must stop the attack as close to the border as possible, buying time for the deployment of additional forces.<sup>41</sup> To do this, the Army needed to improve its conventional fighting capability and interoperability with other forces, particularly the German Bundeswehr.<sup>42</sup> To improve fighting capability, the Army had to rapidly modernize, improve training and tactical leadership, and all of this while transitioning to an all-volunteer force.

The genesis of the 1976 version of FM 100-5 and its concepts mesh well with the broader strategic context, and enables a clear justification for the doctrine as published. Clearly, the senior leaders such as General William E. DePuy chose to acknowledge the contexts of policy and

<sup>&</sup>lt;sup>40</sup>Bryan J. Auten, *Carter's Conversion: The Hardening of American Defense Policy* (Columbia, MO: The University of Missouri Press, 2008), 151-152.

<sup>&</sup>lt;sup>41</sup>Donn A. Starry, "Letter to Major General C.P. Benedict, 1<sup>st</sup> Infantry Division (Mechanized), 13 March 1978," in Starry, Selected Works, 300; See also Donn A. Starry, interview by LTC Matthias A. Spruill and LTC Edwin T. Vernon, 15-18 February 1986, transcript, Senior Officer Oral History Program, Special Collections, U.S. Army Military History Institute, in Starry, *Selected Works*, 1157-1158; (hereafter Starry, *Selected Works*, Life and Career Interview, February 1986). Starry writes that, at least with respect to West Germany, he expected the commitment all USAREUR forces in the fight, with essentially no sizeable operational reserve due to the target-servicing requirements. Starry stated that in the event of a Soviet invasion, the USAREUR commander would need ten divisions in ten days. In essence, the US lacked sufficient strategic mobility to move the right type of divisions—heavy divisions—to reinforce Central Europe; See also, Komer, 52.

<sup>&</sup>lt;sup>42</sup>Walter E. Kretchik, *U.S. Army Doctrine: From the American Revolution to the War on Terror* (Lawrence, KS: University Press of Kansas, 2011), 196-200. DePuy and TRADOC vetted the 1976 version of FM 100-5 through the Bundeswehr—as well as the USAF Tactical Air Command; Gole, 264; Trauschweizer, 200; Herbert, 61-73.

strategy in doctrine, and in doing so, leaned towards a more practical and prescriptive doctrine that anticipated fighting outnumbered against a near peer enemy.<sup>43</sup> Indeed, if one believes doctrine ought to appeal to universal application in all types of fighting, then the 1976 version of FM 100-5 appears as clear violation of this principle. When viewed outside of the context of the times, such a violation clearly supports the doctrinal dissenters. On the other hand, when considered in context, the 1976 version of FM 100-5 seems a far more practical piece of doctrinal literature, arguably more useful and relevant to forces in the field than doctrine that emphasizes abstract theory and universal application.

#### The Institutional Aspects of Doctrinal Change

The 1976 version of FM 100-5 represented a significant departure from the Army's doctrinal traditions. Normally, the staff and faculty of the CGSC at Fort Leavenworth wrote *Operations*, where its commander, an Army three-star general officer, retained the ability to approve the product.<sup>44</sup> In this case, however, the newly formed US Army Training and Doctrine Command wrote the doctrine instead, deliberately marginalizing the Fort Leavenworth's commander, Lieutenant General John H. Cushman and his subordinates. Additionally, the style and presentation differed significantly from the past. Whereas past iterations of *Operations* served more to orient thinking on warfare, broad concepts in fighting, and theory in general, the

<sup>&</sup>lt;sup>43</sup>Kretchik, 196; Gole, 264; Trauschweizer, 200; Richard M. Swain, "Introduction" in *Selected Papers of General William E. DePuy: First Commander, U.S. Army, Training and Doctrine Command, 1 July 1973*, Richard M. Swain, comp., (Ft. Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, 1994), xi. DePuy's approach to practical doctrine, while influenced from his experience in World War II, centered on the necessity of winning the first battle. To that extent, capstone doctrine must remain—at least in the mid-1970s—practical, as even lieutenants and company commanders cannot afford to learn how to fight in contact. They must know how to fight immediately, even right out of branch schools..

<sup>&</sup>lt;sup>44</sup>Herbert, 51-55. Unsatisfied with the efforts of CAC and Cushman, DePuy assumed total control over the rewrite of FM 100-5 in 1974; Doughty, 43; Starry, *Selected Works*, Life and Career Interview (February 1986): 1111-1112.

1976 version clearly emphasized the practical versus the abstract.<sup>45</sup> Furthermore, the doctrine, in deemphasizing theory and emphasizing a specific operational concept, remained clearly fixed and oriented on a particular type of enemy in a particular location. In this case, the Soviet and Warsaw Pact mechanized and armored forces arrayed across East German border.

This reorientation of forces towards the defense of Western Europe served as a moral catharsis for a particular group of senior leaders to implement the late General Creighton Abrams' directive to "get the Army off its ass."<sup>46</sup> This effort did not begin with FM 100-5. Rather, the field manual attempted to capture and encapsulate—in a very specific operational concept—the gains and ongoing revolution in training occurring at Army branch schools.<sup>47</sup> This revolution in training had roots going as far back as 1972 and achieved full momentum with the support of General DePuy and TRADOC and some of his particularly able subordinates, to include Generals Donn Starry and Paul Gorman.<sup>48</sup> The improvement in training centered of several major initiatives, including the shift to performance-oriented training, the revamp of officer and NCO education systems, improvement of homestation training, rewriting of small unit tactical doctrine, and development of the combat training centers (CTCs). Out of this process came the Army

<sup>&</sup>lt;sup>45</sup>Herbert, 99; Gole, 207. Gole writes on the emphasis that DePuy placed on realistic training. This indicates a clear link between the "how to" tactical manuals published before FM 100-5 in 1976 and the emphasis that FM 100-5 placed on tactics.

<sup>&</sup>lt;sup>46</sup>Donn A. Starry, interview by LTC Douglas V. Johnson, COL Thomas Sweeney, and COL Douglas W. Craft, 18 September 1991, transcript, US Army Military History Institute Oral History Interview, in Starry, *Selected Works*, 1233 (hereafter, Starry, *Selected Works*, Desert Storm Lessons Interview, September 1991); Herbert, 101.

<sup>&</sup>lt;sup>47</sup>Army branch schools refer to physical schoolhouses and commands designated authority and educational responsibility under a specific arm, such as the infantry center at Fort Benning, GA, the armor center at Fort Knox, KY, the field artillery center at Fort Sill, OK, etc.

<sup>&</sup>lt;sup>48</sup>Romjue, *From Active Defense to AirLand Battle*, 4; Herbert, 38-39, 47; Herbert describes the massive amount of Training Circulars (TC) and other guidance that permeated the US Army and indoctrinated younger generations of officers and NCOs; Spiller, 48-49; Gorman, III-41. Gorman writes on the importance of the rewrite and publication of Army Regulation (AR) 350-1 in April 1975, which codified the ARTEP and performance-based approach to training; Anne W Chapman, "The Army's Training Revolution, 1973-1990—An Overview" *TRADOC Historical Study Series* (Ft. Monroe, VA: Office of the Command Historian, 1994), 3-11.

Training and Evaluation Program and a generation of officers and NCOs trained and educated in the new methods. Achieving clear standards in training proved self-reinforcing over time, improving unit fighting proficiency as well as combat readiness.<sup>49</sup>

When viewed within the larger contexts of the time, the 1976 version of FM 100-5 represents more of an accommodation of contexts both internal and external to the Army of the time and less the product of one man's driving intellect and ego. Senior leaders such as DePuy and Starry tried to construct a structure for fighting that reflected the most dangerous reality facing American forces at the time. Additionally, the doctrine built upon ongoing initiatives in the Army to improve unit performance and readiness through unit and leader education and training. It served an even greater purpose in Army reform, assisting in combat systems development, budgeting and programming, and training and education improvement.

No other argument exists from the period that both attempts to refute the arguments in the doctrine and accommodates the context of the period. Simply put, the historical record provides no basis, no alternate route in thinking that inform a different path or model that doctrine could have taken. If the historical record could demonstrate that Starry, as DePuy's replacement at TRADOC, rejected the 1976 version of FM 100-5, then it follows that controversy-rejection has a basis in fact and substance. As it now stands, the record provides no evidence of Starry breaking from DePuy and rejecting his doctrine. Thus continuity serves to inform the transition from DePuy to Starry, and from FM 100-5 in 1976 to its subsequent edition 1982. The record does provide, however, evidence of Starry's evolution in thinking throughout his later career. The

<sup>&</sup>lt;sup>49</sup>Robert H. Scales, *Certain Victory: The US Army in the Gulf War* (Fort Leavenworth: US Army Command and General Staff College Press, 1994), 362-363.

synthesis of continuity and evolution surrounding Starry's experience and thinking serve to clearly center the narrative of doctrinal change on him.

#### **Continuity: Prelude to Evolution**

In 1987 retired Army officer Andrew Bacevich wrote that military reform emanates from within sources of authority inside military, and that the ability of outsiders to influence Army reform remains marginal at best. His article served to counter the idea that the potential for true military reform, one indirectly promoted by the military reform movement, resided mainly with the ability of outsiders to impose change on an inherently conservative institution. On the contrary, the momentum for change starts from within the military result in true reform. <sup>50</sup> The ability to influence the narrative of change within the military remains directly dependent achieving reputation and stature over years and decades leading to command authority. Starry's career from the late 1960s through the early 1980s creates a strong thread of continuity that places him at or near the center of the events and processes that influenced Army reforms. He worked for and interacted with leaders and officers that set the Army on the path of reform, men such as Generals Abrams and DePuy. Within these relationships, Starry gained in influence as well as authority to the extent that he ultimately took command of TRADOC, the organization with the responsibility to develop and publish FM 100-5.

This thread of continuity began in 1969, when Starry went to work for General Abrams at Military Assistance Command Vietnam (MACV), and ended in 1981, when he transferred the command of TRADOC to General Glenn K. Otis. Before commanding TRADOC, he served as the commandant of armor and commanded the US Army's V Corps in Germany, which enabled Starry to test concepts of warfare in a field environment. The Army published the 1982 version of FM 100-5 shortly after Starry's transfer to the US Readiness Command. Starry's influence proved

<sup>&</sup>lt;sup>50</sup>Andrew J. Bacevich, "Prospects for Military Reform," in *Parameters* Vol. XVII (Spring 1987): 42.

more than coincidental, more than a product of fortune, rank, and position. Clearly a man of exceptional ability, his assignments of increasing responsibility place him within both the military and intellectual milieu of the period and as a shaper of the path of debate concerning Army reform, reform that ultimately gave the legacy of operational thinking and operational art to the Army as it exists today.

Describing General Donn Starry as a main source of doctrinal change from 1976 to 1982 may seem, on its face, presumptuous. However, the hierarchical structure of the army means that decisions on doctrine, equipment, organization, training, etc., always return to the person retaining the authority to make the decision. Determining the motivation for change within the people that retain the authority to affect change becomes the essential factor towards understanding doctrinal change. Rather than being an exercise in deduction, determining this motivation must first consider the available primary sources and what those sources say about the source of change. In this case, Starry's service record provides a series of benchmarks that clearly place him in the conflux of critical events that reshaped how the Army thought about fighting.

Starry's appointment as the commandant of armor in 1973 proved perhaps the most consequential decision that led to the 1982 version of FM 100-5 and to the birth and growth of operational thinking in the US Army. This decision, made by General Creighton Abrams during his term as the Army Chief of Staff, placed him directly subordinate to General DePuy in TRADOC. Both men commanded forces in Vietnam, saw extensive combat, and retained positive reputations for their leadership, intellectual, and tactical abilities.

#### Starry Prior to Vietnam

The confluence of events surrounding the Army and Starry's writings place him as both a man of his times and a relatively modest contributor to the broader thinking of the period until his

assignment as commandant of armor in 1973. Starry's career until the outbreak of the Vietnam War clearly demonstrated his potential as a very capable armor and cavalry officer.<sup>51</sup> His fortuitous interaction with the widow of General George Patton as well as platoon leader time under then Lieutenant Colonel Creighton Abrams in Germany following World War II cemented his career in the armor and cavalry instead of the transportation corps. The broadening experience of serving in the Eighth US Army G2 (intelligence) section in Korea following the Korean War further served to expand his knowledge of the military profession. Exceptional service as a staff officer and battalion commander in Germany further served to highlight Starry's effective leadership as well as his tactical and administrative acumen.<sup>52</sup> While clearly ahead of his peers throughout his early and mid-career service, Starry's true potential as a military intellectual and thinker became manifest only after he served in positions that involved more than tactical thinking. His transition in service and thinking began during his years at the Army War College.

#### Expanding the Lens: The War College Years and Vietnam

Starry attended the Army War College from 1966 to 1967, the same period that General and future Secretary of State Alexander Haig attended, where both earned the reputation as nonconformist and independent thinkers.<sup>53</sup> While at the War College, Starry wrote a paper about the new challenges of the military profession, the militarization of American foreign policy, and the possibility of internal reforms to help the profession of arms adapt to the new reality, themes not

<sup>&</sup>lt;sup>51</sup>Lewis Sorley, "Introduction" in *Press On! Selected Works of General Donn A. Starry*, 2 vols., Lewis Sorley, ed. (Ft. Leavenworth, KS: Combat Studies Institute, U.S. Army Combined Arms Center, 2009), vi; (hereafter, Starry, *Selected Works*).

<sup>&</sup>lt;sup>52</sup>Ibid., 6. General Abrams, while serving as the 3<sup>rd</sup> Armored Division commander in Germany, rated Starry the top battalion commander in the division.

<sup>&</sup>lt;sup>53</sup>Starry, *Selected Works*, Life and Career Interview, February 1986): 1059. Starry states that he was the first student in fifteen years to write a dissent on some of the literature being used as a source of study and instruction. Haig assisted on writing some of the later dissents.

uncommon today.<sup>54</sup> As interest in insurgency and revolutionary warfare occupied the minds of many military officers in the mid-1960s, Starry also wrote a sophisticated critique on a French concept for counterrevolutionary warfare known as *La Guerre Révolutionnaire*.<sup>55</sup> At this point in his career, Starry's path remained relatively conformist and tactically oriented.

Following the War College, Starry deployed to Vietnam to work in the G3 Plans section of the US Army Vietnam staff. By his account, assignment to this staff rated the worst of his experiences in the army.<sup>56</sup> Fortunately, he worked there only four months. General Arthur West, who served as the chief of the Mechanized and Armor Combat Operations Vietnam (MACOV) study, pulled in Starry to work in the study group.<sup>57</sup> Following this tour, Starry co-authored two reports published in *Armor Magazine* in 1968 that highlighted the strengths and limitations of mechanized forces operating in Vietnam.<sup>58</sup> Fundamentally, both articles challenged the assumption that mechanized forces retained little utility in the challenging terrain and environment in Vietnam. On the contrary, such forces retained significant advantages and utility, particularly due to the adaptability and innovation of armor and mechanized units. Starry claimed the greatest lesson he learned from the MACOV study centered on effective officer leadership while in command. Commanders needed to get better at integrating all resources available to

<sup>&</sup>lt;sup>54</sup>Donn A. Starry, "The American Military Profession Today" (US Army War College Student Research Paper, 1966) in Starry, *Selected Works*, 530.

<sup>&</sup>lt;sup>55</sup>Donn A. Starry, "La Guerre Révolutionnaire," *Military Review* 47 (February 1967): .61-70.

<sup>&</sup>lt;sup>56</sup>Starry, *Selected Works*, Life and Career Interview (February 1986): 1063.

<sup>&</sup>lt;sup>57</sup>Ibid. Starry also writes that he spent the last two months of his time with MACOV in Malaysia with the British Army. More specifically, Starry visited the British Jungle Warfare School (JWS) in Kota Tinggi, where the US Army sent soldiers to train on how to fight in the jungle, where the British Army had successful defeated a communist insurgency known as the Malayan Insurgency, ending in 1960. British General Walter Walker started the school, and the tactics developed stemmed largely from the lessons learned by the British Indian Army fighting the Japanese in Burma during World War II.

<sup>&</sup>lt;sup>58</sup>Donn A. Starry and Arthur L. West, "Go or No-Go in Vietnam," in *Armor* (March-April 1968): 20-25; Donn A. Starry and Arthur L. West, "Armor in Area War," in *Armor* (September-October 1968): 34-37.

them—in essence, combined arms—to help them win the battle.<sup>59</sup> The central emphasis that Starry placed in the ability of commanders to visualize and describe the combined arms battlefield, while integrating all available resources, manifested in Vietnam and later on in V Corps in Germany.<sup>60</sup> The mastery of tactics depended on the mastery of combined arms thinking and warfare, and such mastery serves as the building block for operational art and thinking.

Upon return from his first tour in Vietnam in the summer of 1967, Starry began work an operations analyst on the Army Staff working for the vice chief of staff. In February of 1968, Starry moved from the Army Staff to the Office of the Secretary of Defense (OSD), where he worked for Assistant Secretary of Defense (ASD) for administration, Dr. Solis Horowitz. Starry witnessed the effect of the systems analysis program in the OSD, as well as the transition of secretaries from Robert McNamara to Clark Clifford and finally Mel Laird.<sup>61</sup> Starry spent two years in Washington D.C. before returning to Vietnam in February 1969 for his second tour.

In February 1969, Starry returned to Vietnam for his second tour, assigned initially as the head of operations analysis for J-3 MACV. Starry led a small task force of four majors (two Army, one Air force, and one Marine Corps) tasked to develop the plan for both the Vietnamization of the war as well as concurrent troop drawdowns. The political and military sensitivity of the planning efforts compartmentalized the effort to the extent that only the MACV commander, General Abrams, and his chief of staff, Major General Carter Townsend knew of the effort.<sup>62</sup> Starry continued his work with J-3 MACV until his assignment as commander, 11<sup>th</sup>

<sup>&</sup>lt;sup>59</sup>Starry, *Selected Works*, Life and Career Interview (February 1986): 1068.

<sup>&</sup>lt;sup>60</sup>Ibid. Starry, while the 11ACR commander, went on terrain flyovers via helicopter with his subordinate commanders in order to gauge their ability and proficiency. In Germany, Starry conducted terrain walks with all of his battalion commanders for the same purpose.

<sup>&</sup>lt;sup>61</sup>Ibid.,1065. Starry states that this period saw the waning of influence of the systems analysts. <sup>62</sup>Ibid., 1066.

Armored Cavalry Regiment. Arguably, he held the single most important staff position of any colonel in Vietnam.

Starry's return to tactical level command placed him in a confluence of military operations that culminated in the Cambodian incursion in April 1970. Convinced of the efficacy of mounted combat operations in Vietnam, he later reflected that his armored cavalry regiment proved far superior at fighting successfully and enduring ground combat in Vietnam than airmobile infantry counterparts. Fundamentally, Starry's forces could persist and fight for extended periods, staying in contact with the enemy, learning the enemy's ways, and track his movements. Airmobile infantry units, on the other hand, flew in to make contact, attempted to destroy the alerted and dispersed enemy with firepower, and then flew back to alcohol-sodden and massage parlor infested rear camps. Discipline and morale suffered as units failed to learn and adapt effectively from constant interaction with the enemy, leading to a self-imposed cognitive isolation from the battlefield.<sup>63</sup> Staying in the field led to better and more discriminating fire discipline, as units, leaders, and soldiers.<sup>64</sup> While more flexibility in mobility, in deploying forces to the operating environment, lighter forces nonetheless lacked the endurance and flexibility of heavier mechanized forces when fighting.

The Cambodian incursion proved the culminating event in Starry's command of the 11<sup>th</sup> Cavalry. Commanding from the front, Starry's forces attacked into the area known as the fishhook in order to destroy a very large contingent of logistics bases and cache cites. Initially attached to the 25<sup>th</sup> Infantry Division for the operation, Starry's regiment transferred to the control of 1<sup>st</sup> Cavalry Division during the operation. Starry not only controlled his organic forces,

<sup>&</sup>lt;sup>63</sup>Ibid., 1070. Starry offers this explanation to the critique that Army units proved to reliant on firepower.

<sup>&</sup>lt;sup>64</sup>Ibid., 1072.

but also eventually saw his combat power increase by an additional four battalions of airmobile infantry.<sup>65</sup> Wounded in May 1970 by a grenade during the incursion and evacuated to a military hospital, Starry returned to his regiment twelve days later, commanding through July 1970.<sup>66</sup> The armored cavalry regiment proved a versatile and powerful combat organization, even in the jungles of Cambodia.

Several assignments later, while serving as the commandant of armor, Starry headed a task force that wrote a comprehensive account detailing the evolution of the use of mounted forces in Vietnam titled *Mounted Combat in Vietnam*. In this book—and in his reflections— Starry rails against the myth on the unsuitability of armored and mechanized forces in Vietnam. Starry assessed the cause as the influence of Bernard Fall's *Street Without Joy* on senior Army leaders such as General William Westmoreland. Fall's book wrongly created the perception of Vietnam as an infantryman's war. Fall writes an entire chapter on the destruction of Groupement Mobile 100, titled "End of a Task Force," which Starry claims led to the incorrect conclusion on the unsuitability of armored forces in Vietnam. The Army, despite the MACOV study completed in 1967, continued to heed the conclusions of Fall more than its own study.<sup>67</sup>

Starry's reflections and writing on combat in Vietnam never deviate from his consistent theme on the necessity of a combined arms approach to warfare, particularly concerning the utility and versatility of mechanized and armor forces, including support from Army and Air Force aviation. Contrary to popular myth, mechanized and armored forces proved versatile, adaptive, and effective in Vietnam, more so than their airmobile infantry counterparts. In a

<sup>&</sup>lt;sup>65</sup>Ibid., 1073-1076.

<sup>&</sup>lt;sup>66</sup>Ibid., 1099. Starry came out on the promotion list for brigadier general while in the hospital.

<sup>&</sup>lt;sup>67</sup>Ibid., 1088; Donn A. Starry, *Mounted Combat in Vietnam* (Washington, D.C.: U.S., Government Printing Office, 1978), 4; see Bernard B. Fall, *Street Without Joy* (Mechanicsburg, PA: Stackpole Books, 1994), 185-250.

broader synthesis, Starry clearly identified the central role that heavy, combined arms formations play in combat, as they offer the command more options in methods of fighting due to advantages in firepower, mobility, and protection; advantages that offer tactical flexibility and scalability. The utility of such formations remains contingent on the commander's ability to leverage the total power of combined arms. To that end, he clearly saw the first function of command leadership of tactical formations as the ability to think and plan conceptually as well as in a detailed manner.<sup>68</sup>

Conceptually, commanders must visualize fighting and the battlefield prior to combat and to effectively integrate available resources. Commanders must also understand the capabilities and resources available in detail, properly integrating them in order to create opportunities and mitigate risk. The requirements of effective combat leadership of tactical forces places the most demand on conceptual and detailed thinking and thus how to conduct integrated planning, and even more so for commanders of units with more resources and capabilities as seen in mechanized and armored formations. Thus, service in Vietnam served to solidify and reinforce Starry's thinking on combined arms warfare, and he continued to think and write on the subject as commandant of armor and V Corps commander. Starry's next assignment, beginning in the summer of 1970, sent him back to the Pentagon and ultimately into a subordinate relationship with General DePuy, perhaps the most consequential professional relationship of his career.

#### The Background of 1970-1973: Reforming the Army from the Bottom Up

The DePuy-Starry relationship proved consequential as the broader context of the transition to the much smaller all volunteer force, the pullout from Vietnam, and the refocus of Army efforts towards the defense of Western Europe comes into view. The need for

<sup>&</sup>lt;sup>68</sup>Starry, *Selected Works*, Life and Career Interview (February 1986): 1068.

reorganization and reform in the Army became apparent by 1970, if not earlier.<sup>69</sup> Reorientation towards Western Europe exposed the significant fighting and readiness deficiencies of US Army forces in Europe, much of which appeared as consequence of inadequate training.<sup>70</sup>

General Westmoreland uncovered this problem during his tenure as Army Chief of Staff in 1970. Opinions varied significantly, depending on rank, as to the source of the training and readiness problems. Senior officers in the Pentagon believed that the source centered on poor company and field grade officer leadership. Company and battalion commanders believed that general officers clearly did not understand the problems facing tactical units, and how those problems inhibited training and readiness.<sup>71</sup> Westmoreland clearly understood the need for change, and in the summer appointed the deputy commandant of the Infantry School, Brigadier General Paul Gorman, to investigate the sources of training and readiness deficiency. This mandate from Westmoreland led to the formation of the Board for Dynamic Training, which Gorman chaired.

Gorman sought advice on how to proceed with the work of the board from the General DePuy, who at the time worked as the Assistant Vice Chief of Staff, and who recommended to Gorman that he gather information and input from the Army leaders in the field instead of relying on assessments from the Pentagon. The investigation exposed a relative cognitive dissonance between Army senior and junior officer leadership. Senior leaders tended to blame the corrupting influences of the Vietnam War and how such experience poorly prepared officers to plan and

<sup>&</sup>lt;sup>69</sup>Jonathan Lee Due, "Seizing the Initiative: The Intellectual Renaissance that Changed U.S. Army Doctrine, 1970-1982" (master's thesis, University of North Carolina at Chapel Hill, 2007), 8.

<sup>&</sup>lt;sup>70</sup>Paul F. Gorman, "Dynamic Training," transcript of remarks given to the Conference Training Armies for the 21<sup>st</sup> Century, Grafenwoehr, 26 October 1998, page 5, in *Strategy and Tactics for Learning: The Papers of General Paul F. Gorman* http://usacac.army.mil/cac2/CSI/docs/Gorman/index.asp (accessed 15 December 2011); hereafter referred to as Gorman, *Gorman Papers*, Transcript of Remarks on Dynamic Training, October 1998.

<sup>&</sup>lt;sup>71</sup>Ibid., 3-4.
execute training in garrison. Junior officers, at the battalion and below, argued that other factors prevented readiness and dynamic training. The conclusion of Gorman's board sided with the latter.

Among other changes, the board recommended the scrapping of the Army Training Program, a program centered on a step-by-step blocks of instruction and allocated hours. Essentially a checklist, the program provided a false sense of readiness, as it failed to consider more salient issues concerning readiness, such as how personnel turbulence and quality of cadre instruction inevitably affect training and readiness. Demonstrating proficiency, or the ability to perform certain tasks to an identified standard, proved far less important that simply executing a block of classes.

The program falsely supported an assumption of true readiness held at more senior levels, an assumption that company commanders assessed as false. As Gorman later puts it, "time-managed, process-centered training gave way to decentralized, performance-oriented training. The Army Training Program yielded primacy to each commander's Mission Essential Task List, from which he derived tasks for training, and appropriate conditions and standards."<sup>72</sup> Gorman credits Westmoreland for having both the courage to form the Board for Dynamic Training and to implement its findings. He also credits Westmoreland's successors as Chief of Staff—Generals Abrams and Palmer—for following through with even more changes, of which the formation of TRADOC by Abrams under the STEADFAST reorganization proved the most important.<sup>73</sup>

Starry also visited Europe in late 1970 and found an Army convinced that it could not win, that served only as speed bumps to the Rhine in the face of the Soviet juggernaut.<sup>74</sup> Such a

<sup>&</sup>lt;sup>72</sup>Ibid., 6.

<sup>&</sup>lt;sup>73</sup>Ibid., 5.

<sup>&</sup>lt;sup>74</sup>Starry, *Selected Works*, TRADOC Interview (March 1993): 1265.

conclusion portended a defeatist malaise, and concurrent with Westmoreland's actions from 1970 to 1972, Gorman's findings, Abrams' views, and DePuy's recommendations reflect a general consensus of Army elites on the necessity of reforming and restoring the Army.

## Pentagon Service, Round II: Starry and DePuy

In August of 1970, Starry began his second assignment working in the Army Deputy Chief of Staff for Operations (DCSOPS), replacing Brigadier General Richard Stilwell. Promoted to brigadier general in April 1971, Starry later assumed duties as the Director of Manpower and Forces Directorate for the Assistant Chief of Staff for Force Development (ACSFOR), General Bob Williams, who replaced General Fritz Kroesen.<sup>75</sup> Starry viewed this job as extremely important and prestigious. In essence, the officer assuming this duty determined the future force structure of the Army.

The future force structure of the Army remained undetermined, but radical change appeared a foregone conclusion. The transition to the all-volunteer force, the redeployment from Vietnam, and the shrinking of budgets all portended consequences of unknown magnitude. One of the first problems Starry faced involved determining the force structure of the army—mainly concerning the number of active divisions—and then determining the manpower requirements to fill those divisions. Starry and the DCSOPS, General Vessey, determined the Army needed sixteen active divisions. General Abrams convinced Secretary of Defense James Schlesinger on the need for the divisions, but failed in convincing him to support the requirement for 850,000 soldiers.<sup>76</sup>

<sup>&</sup>lt;sup>75</sup>Ibid., 1099.
<sup>76</sup>Ibid., 1100.

Starry claimed that the long-term practical consequence of delinking force structure from force cap centered on personnel turbulence. Requirements always exceed authorizations. Thus, people move around a lot more, which negatively effects unit cohesion.<sup>77</sup> Unit manning requirements remained more closely aligned to the managerial needs of Army bureaucracy than to the personnel needs of tactical units. Ultimately, the fundamental fact of a much smaller Army anticipated a future war where the Army must adapt, modernize, and equip in the face of strategic conditions where the Army must fight the first battle outnumbered and win.

Arguably, the most consequential aspect of Starry's second tour at the Pentagon surrounded the close working relationship Starry developed with General DePuy, who served as the Assistant Vice Chief of Staff beginning in 1969 and ending in 1973.<sup>78</sup> DePuy efforts from 1969 to 1973 restored credibility and authority to the Army Staff taken away by Secretary McNamara in 1966. DePuy's lasting impact as from those years centered on the reorganization of the Army, known as the STEADFAST reorganization, that split up the large and cumbersome Continental Army Command (CONARC) into Forces Command (FORSCOM) and TRADOC.<sup>79</sup> However, the splitting up of CONARC involved more than reorganization. Outside of his demonstrated command leadership during three wars, DePuy possessed a wide-ranging intellect

<sup>77</sup>Ibid.

<sup>79</sup>Gole, 228.

<sup>&</sup>lt;sup>78</sup>Ibid., 1106. Starry stated that ACSFOR, General Williams, was interested mainly in equipment development and not force structure and development. General DePuy, however, proved very interested in such things. Thus, Starry ended up working mainly for DePuy; see also Henry G. Gole, *General William E. DePuy: Preparing the Army for Modern War* (Lexington, KY: The University Press of Kentucky, 2008), 216-218. The office of the AVICE existed for only seven years from 1967-1974, and proved controversial from its inception. Born of a lack of confidence in Army's ability in the McNamara style of management centering on operations research, systems analysis, and quantification, the office of the AVICE appeared to some senior officers as potentially dangerous element that subverted the Army Staff, stripping both authority and responsibility. The AVICE retained four directorates: Force Planning Analysis; Weapons System Analysis; Management Information Systems; and Coordinator of Army Studies. DePuy regarded the Force Planning Analysis directorate the most important part, which later became the Planning and Programming Analysis Directorate.

spanning doctrine, training, weapons, and tactics, as well as a ceaseless drive to fix the Army combined with skill in managing bureaucracies.<sup>80</sup> DePuy's efforts in from 1969 to 1973 touched many sensitive areas within the Army Staff outside of reorganization, including weapons systems development and procurement and officer personnel management.<sup>81</sup> In all cases, DePuy assigned intelligent and hard working officers to work in various directorates in the Army Staff, where they found fertile soil for good ideas and an intelligent, aggressive boss willing to listen to dissent.

The selection of Starry as commandant of the Armor Center at Fort Knox, Kentucky, stems directly from the relationship Starry built with DePuy from 1971 to 1973. DePuy's selection as the first commander of TRADOC led him to petition Abrams to assign Starry as commandant, despite internal knowledge of another officer's selection for that position.<sup>82</sup> Clear conclusions regarding the evolution of Starry's thinking from 1970 to 1973 remain difficult to ascertain. Drawing on inference, however, leads to the conclusion that his experience in DCSOPS working force development problems, and particularly his time spent working for DePuy helped to solidify his thinking on the central role of determining and validating concepts of warfare. Validated concepts served to drive all other salient efforts including doctrine, organization, equipping, and training, and enabled the Army to effectively participate in the larger Department of Defense acquisitions process known as the planning, programming, and budgeting system. In

<sup>&</sup>lt;sup>80</sup>Gole, 235.

<sup>&</sup>lt;sup>81</sup>Gole, 218-219. DePuy's staff became deeply involved with weapons systems acquisition, and retained a free hand to give independent advice to the Vice Chief of Staff. The AVICE Weapons Systems Analysis Directorate advocated for the Big Five systems that survived scrutiny and review in the 1970s. DePuy also gave credit to his studies directorate for laying the groundwork that led to the Officer Personnel Management System (OPMS), which led to the centralized selection of officers for battalion and brigade command.

<sup>&</sup>lt;sup>82</sup>Starry, *Selected Works*, Life and Career Interview (February 1986): 1106. Starry states that the common knowledge around the Pentagon held that General Bill Burke was to receive the position.

essence, effective Army senior leadership requires not only competence in military affairs concerning preparing for and executing combat operations, but also in managing and leading complex and powerful bureaucracies and interests that shape and influence the force from the inside.

### **Commandant of Armor**

Starry arrived at Fort Knox shortly after promotion to major general in May 1973 to assume command of the US Army Armor Center in the position formally known as the commandant. In July 1973, General DePuy took command of the newly formed TRADOC, which included all of the branch schools. DePuy selected Gorman to serve as the his Deputy Chief of Staff for Training, which placed Gorman in a position to influence the implementation of some the ideas that emanated from the report of the Board for Dynamic Training submitted by Gorman to Westmoreland in 1971. Starry, as the commandant of armor, thus served directly under DePuy, and worked for and with senior officers that retained the vision, will, and energy for the task of Army reform.

In the fall of 1973, General Abrams directed Starry and Brigadier General Robert Baer, the program manager for the new XM1 main battle tank, to visit different countries and investigate contemporary tank programs, particularly in England and Germany. A series of test failures and project cancellations plagued the Army's efforts at modernizing, developing, and procuring new combat systems in the 1960s and early 1970s. Most recently, a combined venture by the US and Germany towards the development of a new main battle tank failed after cost overruns led to the Germans bailing out and Congress cancelling the project.

Abrams clearly understood that the survival of the new tank program required overarching expertise concerning modern tank technology and capabilities. Institutional consensus on requirements mandated expertise based on science and experience. Only after achieving this consensus could the Army effectively navigate the turbulent politics of the Office of Secretary of Defense and Congress.<sup>83</sup> Thus, in the spring of 1974, Starry and Baer flew to England and then to Germany.<sup>84</sup> While in Germany, Abrams directed Starry and Baer to fly to Israel to gather information and lessons from the Yom Kippur War.<sup>85</sup>

No event during Starry's time as commandant proved more momentous and opportune than the Yom Kippur War, which began on 6 October 1973 and ended 19 days later. Beyond simply reshaping the requirements for the next tank, the Yom Kippur War demonstrated both the lethality of the modern battlefield and weapons systems as well as the central role the tank played in combined arms battle.<sup>86</sup> The war also served perhaps a more important purpose in that it shifted the support of recent history towards the ideas of DePuy, Starry, and others.<sup>87</sup>

Starry, serving as commandant, published his first article for *Armor Magazine* in the November-December 1973 issue, in the place within the magazine reserved for the commandant, titled "The Commander's Hatch." In his this article he details his views of decentralization, planning, and programming. Starry wrote that "decentralization is delegation of responsibility and authority for executing a mission to the lowest level of command which has, or to which can be made available, the requisite resources to accomplish the mission."<sup>88</sup> Decentralization, however,

<sup>&</sup>lt;sup>83</sup>Ibid., 1194. Abrams wanted to ensure that any blame associated with "screwing up the tank program" would not fall on the Army.

<sup>&</sup>lt;sup>84</sup>Ibid.

<sup>&</sup>lt;sup>85</sup>Ibid. Starry and Baer went to Washington D.C. immediately after returning to Israel, and sat down with Abrams, General Fred Weyand (Vice Chief of Staff), and General Hank Miley (Commander of Army Material Command), to discuss the results of their investigation. The group determined that some of the requirements as listed in the early document for the XM1 program appeared wrong and needed revisiting. The tank special study group emerged from this meeting. General Glenn Otis chaired this group, and its purpose centered on analyzing and revising the requirements for the new tank program.

<sup>&</sup>lt;sup>86</sup>Donn A. Starry, "Armor Conference Keynote Address," in *Armor* (location, November-December 1975): XX. Half of all armored vehicles on both sides were destroyed in twelve intense days of fighting.

<sup>&</sup>lt;sup>87</sup>Starry, Selected Works, Interview on Abrams (December 1976), 1193

<sup>&</sup>lt;sup>88</sup>Donn A. Starry, "The Commander's Hatch," in *Armor* (November-December 1973): 4-5. Arguably, decentralization remains one of the recurring memes in military history, and it was no different

does not extend to planning and programming to units that lack the requisite tactical, administrative, and logistical capabilities.<sup>89</sup>

While his first article defined his views on a subject of concern mainly among officers at the field grade level and below, his following articles reflected a broader concern tied to the implications of the Yom Kippur War. In the January-February 1975 issue, he wrote another article under "The Commander's Hatch" titled "Observations from the Tank-Antitank Battlefield." He wrote that the lessons of the October War appeared congruent with recent tests and evaluations of new firepower and equipment, particularly concerning the lethality of the modern warfare.<sup>90</sup> Starry also highlighted the combined roles of infantry, armor, and cavalry, as well as the primary role of the combined arms team.<sup>91</sup> This article stood as an opening salvo in further articles that reinforced his ideas on combined arms and the central role of the tank, and also his views—highlighted with evidence—on the supporting, not decisive, role of the anti-tank guided missile. Perhaps more fundamentally, this article demonstrated his appreciation of the role the school commandant plays in educating younger leaders on areas particularly critical to combat arms officers in the profession of arms. A survey of the literature from other branch schools of the period finds few examples of commandant writing as prolific, detailed, and specific as the efforts of Starry.

Over the following twelve months, he wrote another three articles concerning combined arms. In the May-June 1974 issue of *Armor Magazine* he wrote an article on the tactics and

in Starry's day. From time to time the meme reemerges to challenge the micro-managers.

<sup>&</sup>lt;sup>89</sup> Ibid., 5. Starry writes that planning involves the ways to achieve specific goals, and that programing involves rationalizing goal achieving plans to fit within resource constraints. Both planning and programing describe what is to be done. Executing involves devising how to do what is programmed.

<sup>&</sup>lt;sup>90</sup>Donn A. Starry, "Observations on the Tank-Antitank Battlefield," in *Armor* (January-February 1974): 4.

<sup>&</sup>lt;sup>91</sup>Ibid, 5. Starry wrote "the primary task of the tank-mechanized infantry-attack helicopterartillery-tacair team is to conduct offensive operations whose purpose is destruction of the enemy."

techniques of combined arms. He claimed that tactical manuals of the time often contained a poor mixture of superfluous material with relevant tactical instruction on techniques and procedure, forcing the user to separate the relevant from the irrelevant. Starry's solution towards the writing of new doctrine emphasized simplicity.<sup>92</sup> Doctrine, particularly at the tactical level, must remain simple and direct.

In the May-June 1975 issue, Starry published arguably the most revealing article written he wrote for *Armor Magazine*. Titled "The First Battle of the Next War," Starry touched on several themes that doctrine later codified in the 1976 version of FM 100-5. The two themes centered on winning the first battle of the next war and fighting outnumbered and winning.<sup>93</sup> Starry described his logic in detail, and justified his logic through an analysis of the strategic context of the time.

Thus, the Army appeared condemned to fight outnumbered should war break out, but the Yom Kippur War demonstrated the limits of pure advantages in force size and numbers.<sup>94</sup> Starry believed that radical improvement in fighting centers mainly on better training, and this training starts within the total generating force, or force that educates, trains and provides individuals to Army fighting units, and extends to unit training. Better equipment served only to enhance what the generating force and unit-based training already created, meaning individual soldiers, leaders, and units that could already train and fight outnumbered.<sup>95</sup>

Domestic and international politics also factored directly into Starry's thinking. While general consensus existed, at least superficially, for the enduring role and unity of NATO, no

<sup>&</sup>lt;sup>92</sup>Donn A. Starry, "Tactics & Techniques: Combined Arms," in Armor (May-June 1974): 5.

<sup>&</sup>lt;sup>93</sup>Donn A. Starry, "The First Battle of the Next War," in Armor (May-June 1975): 6-12.

<sup>&</sup>lt;sup>94</sup>Ibid., 10.

<sup>&</sup>lt;sup>95</sup>Ibid., 11. Starry wrote that improvement to fighting is ten percent new equipment and ninety percent better training. He also wrote that units must be able to fight outnumbered, including against ten or twenty to one.

official consensus existed on the threat that Warsaw Pact forces posed to the allies, and threat assessments remain critical to justifying requirements and expenditures to political authorities.<sup>96</sup> This lack of consensus provided fertile soil for arguments that sought to shape military policy, arguments that not only discussed force size, organization, and disposition, but also attempted to claim the ascendancy of new weapons, such as the anti-tank guided missile, over tanks, arguments that Starry, DePuy, and others sought to refute through the use of recent history. The 1976 version of FM 100-5 proved the ultimate outcome of this argument, a way to clearly describe and firmly declare the institutional opinion regarding warfare in the mid-1970s against the communist forces in Europe.

## Doctrinal Change as the Locus for Reforms: The 1976 Version of FM 100-5,

#### **Operations**

Doctrinal change quickly became the locus for the broader reform of the Army after DePuy took over TRADOC in 1973. Army reforms of the past, such as those initiated by Elihu Root and Emory Upton, took four decades to develop consensus and accomplish. Senior leaders such as Starry saw no similar reformer in the Army secretariat or within the Department of Defense, no guiding civilian or military hand that could reform the Army against its conservative tendencies.<sup>97</sup> DePuy and Starry clearly believed time as a more critical factor than consensus. The

<sup>&</sup>lt;sup>96</sup>Ibid., 7; DePuy, *Selected Papers*, 93. Starry, *Selected Works*, 49-51; Edward Luttwak, "The Tank is Alive and Well," in *Armor* (July-August 1972): 63-65. Luttwak's argument does not address antitank guided missiles, but the idea that the US Army needs a light tank. He attacks skewed arguments for light tanks, where the paramount virtue of light tanks centers on quickness and mobility. However, Luttwak argues, mobility in the face of a thinking enemy that shoots, or battlefield mobility, is the true consideration. Battlefield mobility is contingent on the crew's protection (survivability) and not a pure function of the speed of a vehicle...without protection, crews become hesitant and slow down. Aggressive maneuver is more contingent on a sense of protection, then firepower, followed lastly by speed.

<sup>&</sup>lt;sup>97</sup>Due 23; Donn A. Starry, "Letter to Major Wilder M. Snodgrass, Newport, RI, 1 October 1975," in Starry, *Selected Works*, 279.

Army simply lacked the time—in the face of the Soviet and Warsaw Pact threat in Europe—to undertake a long and laborious reform process in order to grow institutional consensus. In essence, the Army had to reform in a few years, not a few decades, and reform while forward positioned in Europe facing a conventionally superior enemy force.

Starry clearly influenced the writing and content of the 1976 version of FM 100-5. The opening pages the manual highlighted the two of the main contexts of the next war: fighting outnumbered and winning the first battle, contexts found in Starry's thinking throughout his earlier writing.<sup>98</sup> No single officer outside of Starry, save General DePuy and perhaps Gorman influenced and contributed more to the end product.<sup>99</sup> Starry's outsized contribution reflected not only the strength of the relationship between DePuy and Starry, but also the quality and quantity of doctrinal literature and work emanating from Fort Knox, from Starry and his staff. DePuy's mandate to TRADOC in 1974 to get all major field manuals rewritten by June 1976 fit well into the work already underway at Fort Knox.<sup>100</sup>

DePuy let neither the newness of TRADOC nor the interests of other organizations slow down or derail his efforts at modernizing FM 100-5. He determined that he could not rely on the traditional process of rewriting doctrine—done through Fort Leavenworth—and instead placed the burden of the effort on others that thought like he did and possessed the will, intelligence, and determination to get it done.<sup>101</sup> He proved entirely unhappy with the efforts of the CGSC and Fort Leavenworth in drafting a new version of FM 100-5 to the extent that he negated its doctrine-

<sup>&</sup>lt;sup>98</sup>Department of the Army, Field Manual (FM) 100-5, *Operations* (Washington, DC: Government Printing Office, 1976), 1-1, 1-2.

<sup>&</sup>lt;sup>99</sup>Starry, *Selected Works*, Life and Career Interview (February 1986): 1055, 1110, 1114.

<sup>&</sup>lt;sup>100</sup>Gole, 257-258.

<sup>&</sup>lt;sup>101</sup>Herbert, 75, 86-87. Starry and Gorman were both influential in the doctrine. Gorman selected several field grade officer to assist in writing the new FM, and the group became known as the "Boathouse Gang."

writing role entirely, thus ensuring its isolation from the new doctrine. In the contest of Army elites, DePuy clearly defeated Fort Leavenworth's commander, Lieutenant General John Cushman.<sup>102</sup> Starry also believed that Cushman's efforts proved entirely unsatisfactory, and that Cushman specifically and Fort Leavenworth generally, failed to understand the urgency of getting the new doctrine written and published to the force.<sup>103</sup> In the fast-moving pace of the doctrine writing and consensus building from 1974 to 1976, DePuy proved so formidable in promoting the new doctrinal effort that other Army elites, such as the commander of Forces Command found no reason to deny his effort full support.<sup>104</sup>

Out of all branch school commandants Starry served as DePuy's most trusted subordinate in the doctrine-revision process. Not only did Starry write significant portions of the new field manual, but he also orchestrated and hosted the Octoberfest conference in October 1974 at Fort Knox that brought in major command representation from across the Army in order to build consensus behind the effort, particularly among general officers. The conference proved so effective at leading to particular conclusions that no officers provided any substantive critiques to the ideas that would ultimately go into FM 100-5.<sup>105</sup>

The Army published the new doctrine in July 1976 after a rapid and non-traditional approach to doctrine revision. The ultimate shape the doctrine took reflected the significance of Starry's contribution to its content and logic. Due to this fact, understanding the logic behind the doctrinal change that led to the 1982 version of FM 100-5 must follow a different path than one

<sup>&</sup>lt;sup>102</sup>Ivan J. Birrer, "Service at the Command and General Staff College: 20 January 1948 to 30 June 1978," transcript of interview by Robert A. Doughty (21 April 1978): 137, 178. Birrer served for over thirty years at the staff college, and retained tremendous insight as to the events that transpired at the college. Birrer alludes to the challenge that the new TRADOC HQ and commander brought to the college.

<sup>&</sup>lt;sup>103</sup>Starry, *Selected Works*, Life and Career Interview (February 1986), 1111; see also Herbert, 51-52, 57.

<sup>&</sup>lt;sup>104</sup>Herbert, 48.

<sup>&</sup>lt;sup>105</sup>Ibid.

centering on DePuy, doctrinal controversy, and rejection. Such an argument seems reasonable, particularly if one considers DePuy's retirement as a point where his influence and power wanes to the extent where new leaders can change the doctrine. The change narrative only works when placing Starry in the middle of the argument, and as a major author of the 1976 version of FM 100-5, Starry's critical role places him as an advocate of the doctrine, and not a rejecter.

### US Army V Corps Commander

Starry assumed command of V Corp in Germany in February 1976, approximately five months prior to the publication of the 1976 version of FM 100-5. He immediately set out to conduct an assessment of the fighting competence of subordinate units, using the terrain walk and its associated training plan. Concerned about the readiness of the seventy-two battalions under his command, the terrain walk program allowed him to evaluate the professional competence of his subordinate commanders.<sup>106</sup> Starry used the new manual as a tool for dialogue with and assessment of his subordinate commanders. The German Defense Plan assigned permanent defensive sectors to combat units, and this afforded commanders the ability to master all the aspects of the terrain within their operating environment.<sup>107</sup> This advantage should have afforded battalion commanders the ability to critically integrate conceptual and detailed planning. Such planning would manifest in fairly detailed thinking and plans concerning the integration of the combined arms in simple concepts. Additionally, the concepts and plans for fighting must invariably lead to a training plan that prepares the force to fight in its designated area.

Starry soon realized that the vast majority of his battalion commanders could not, to his satisfaction, articulate their fighting plans during the terrain walk. Only ten to fifteen of his

 <sup>&</sup>lt;sup>106</sup>Starry, *Selected Works*, Life and Career Interview (February 1986): 1004, 1018-1019, 1020.
 <sup>107</sup>Ibid., 996.

seventy-two battalion commanders could both communicate their plan for fighting as well as demonstrate how combat training aligned to ensure proficiency in fighting tasks.<sup>108</sup> Commanders did not understand the concepts behind the newly developed skills qualification tests and ARTEP, the basis for performance-based training.<sup>109</sup> In addition, in deference to notions of decentralized training, battalion staffs failed to do proper staff work in the management of finite resources towards the ends of training proficiency.<sup>110</sup> All of this amounted to a large problem of education, one that Starry, through direct interaction, sought to remedy very quickly.<sup>111</sup>

Starry's emphasis on training proficiency, resource management, and fighting competence in the combined arms demonstrate a continuity of thinking, thinking heavily influenced by his previous experience with highly regarded generals such as Creighton Abrams. In that sense, he clearly remains a product of his times, a combination of tactical ability and competence in contemporary military thinking. While fortunate in his early career to serve in Abrams' tank battalion, he clearly earned his later positions based on his reputation and performance. Abrams, DePuy, and other important officers such as Gorman all placed the same relative importance on training as Starry did while in command. In this regard, his thinking appears archetypical of a particular group of military elites, not revolutionary in nature but weighted heavily towards improving the fighting competence and tactical ability of leaders and units. He clearly proved a source of continuity rather than one of rejection.

<sup>&</sup>lt;sup>108</sup>Ibid., 1018.

<sup>&</sup>lt;sup>109</sup>Donn A. Starry, "Letter to General George S. Blanchard, 22 November 1976," in Starry, *Selected Works*, 778.

<sup>&</sup>lt;sup>110</sup>Donn A. Starry, "Letter to Major General William A. Mundie, Fort Benjamin Harrison, IN, 12 August 1976," in Starry, *Selected Works*, 774.

<sup>&</sup>lt;sup>111</sup>Donn A. Starry, "Letter to Major General Paul F. Gorman, 24 January 1977," in Starry, *Selected Works*, 779.

## **Evolution**

Starry's participation in the professional discourse of the mid-1970s concerning tactics and doctrine certainly place him among the top contributors of the period. Whether serving as the commandant of armor or the commander of the Army's V Corps, Starry placed a premium on tactical competence and thinking about combined arms. His thinking, however, also began to evolve beyond the tactical realm. This evolution of thinking would ultimately force him to fundamentally assess his role as the V Corps commander. Even if units achieve tactical supremacy, what is the purpose of the corps commander in the fight? How does the corps commander shape the battlefield in order to enable outnumbered forces the ability to fight and win? The questions and their answers required an evolution of thinking.

## The Seeds of Evolution: Modern Armored Battle and the Yom Kippur War

The first evidence of the evolution of Starry's thinking occurred during his time as the commandant of armor at Fort Knox. His ideas began to coalesce around a concept for future armored warfare, which he called Modern Armor Battle. His ideas emerged as a product of reorienting thought towards armored warfare on a European battlefield, ideas that he initially exchanged with Abrams and DePuy prior to his arrival at Fort Knox.<sup>112</sup> Starry claimed that his thinking about future armored warfare began with Modern Armor Battle, and this idea served as his intellectual point of departure along an evolutionary path that eventually led to the 1982 version of FM 100-5.<sup>113</sup>

<sup>&</sup>lt;sup>112</sup>Donn A. Starry, interview by COL Jim Bergen, LTC John Collison, and LTC Bill Burleson, 14 December 1976, transcript, U.S. Army Military History Institute Oral History Interview, in Starry, *Selected Works*, 1193; (hereafter Starry, *Selected Works*, Interview on Abrams, December 1976).

<sup>&</sup>lt;sup>113</sup>Starry, Selected Works, AirLand Battle Interview, May 1995: 1275.

Starry's survey and study of the Yom Kippur War, directed under the authority of Abrams, provided another critical opportunity for learning and reflection. Fundamentally, his experience in surveying the battlefields in the Sinai and Golan served to both reinforce and enhance his thinking on modern warfare. The initial, most basic lesson centered on the relationship between mass and victory. Sheer weight of numbers concerning men and equipment clearly influence battles and may portend its outcome, but such factors remain indeterminate when forces remain within parameters of six to one or even ten to one.<sup>114</sup> The Israeli Defense Force conclusively demonstrated the possibility of fighting outnumbered and winning on the modern battlefield, a battlefield of relative technological parity and large numerical superiority on part of an adversary, in this case, the Egyptians and Syrians.

Starry believed in the limited utility of purely scientific and mathematical approaches towards analyzing warfare, particularly if such approaches are used as a primary means for predicting the outcome of wars.<sup>115</sup> Although he retained a technical and analytic skill, he

<sup>&</sup>lt;sup>114</sup>Starry, *Selected Works*, Desert Storm Lessons Interview (September 1991): 1228; see also Donn A. Starry, "Evolution of Doctrine: The Armored Force Example," transcript of presentation given to the US Army War College Committee in Carlisle Barracks, PA, on 10 June 1982, in Starry, *Selected Works*, 110; (hereafter cited as Starry, *Selected Works*, War College Committee Presentation, June 1982). Starry cites the work of Dr. Robert Helmbold, particularly his chart titled "A Thousand Battles" which appeared in his report to a NATO wargame conference in 1956. Starry claims that the analysis of combat power concerning numbers of attackers versus numbers of defenders appears—within reasonable limits—a poor factor in determining the outcomes of combat, which the historical record affirms. The larger implication appears that relative combat power analysis, one that factors in considerations regarding moral factors surrounding leadership, training, and cohesion better explains why battles are won or lost.

<sup>&</sup>lt;sup>115</sup>Donn A. Starry and Arthur R. Woods, "Operations Analysis for Armor," in *Armor* (location, March-April 1970): 20. In fact Starry argued for the proper balance of scientific approach combined with military common sense and practicality. In 1970, while doing operations analysis for the Army, Starry wrote "in short, the scientific platoon had been quite an asset. They taught us to apply the scientific method to military problems, and to temper it with a little military common sense—an invaluable combination. We learned we could make many analyses ourselves by just collecting good hard facts, and with them make some cupola estimates. The lesson was clear. We had a good synthesis. The scientists provided the technical knowledge and understanding of how to collect, relate, and interpret data. The soldiers contributed the sense of urgency, of purpose, of insistence on clear goals, the knowledge of how human beings and machines behave in battle, and a certain hopefully useful cynicism about the relationship between theory and practice in everything to do with war. We learned to tolerate one another's

continually criticized against over-adherence to theories of English mathematician F.W. Lanchester.<sup>116</sup> Instead, human and moral factors tend to assert their dominance in war. The question of who attacks or defends first remains unimportant, just as in the balance of forces.<sup>117</sup> Rather, the main problem centers on taking the initiative, just as Israeli Defense Forces General Musa Peled did in the Golan in 1973.<sup>118</sup> Once the Israelis took the initiative, losses on the part of the Egyptians and Syrians increased exponentially. Thus, recent history affirmed the theory of fighting outnumbered and winning, and DePuy, Starry, Gorman, and others used both.<sup>119</sup> Theory also relied on historical analysis and conclusions that directly refuted Lanchester's laws. In particular, Starry and Gorman both used the research of Dr. Robert A. Helmbold, who presented a report to a 1956 NATO war games conference titled "A Thousand Battles."<sup>120</sup> Helmbold analyzed

idiosyncrasies in the search for well reasoned, properly documented, soundly analyzed, and thoroughly practical results, results to improve our combat effectiveness."

<sup>116</sup>Donn A. Starry, "Armor Conference Keynote Address," in *Armor* (November-December 1975): 22-25. Starry states "historically, we have described tank battles using mathematical formulas derived from the Lanchestrian equations traditionally used to describe the mathematics of aerial combat. Lanchester's laws, as most of you know, say that the side that is outnumbered at the beginning is foredoomed to defeat. Based on our preliminary examination of 15 to 18 battles in the October War, we analyzed about a thousand tank battles, and can find nothing in the history of mass tank warfare to validate the prediction that the side outnumbered at the beginning seems to have a better chance of winning than does the other side;" see also Donn A. Starry, "Future Battlefields," transcript of presentation given to the Armor Conference, Fort Knox, KY, 13 May 1981, in Starry, *Selected Works*, 214; Donn A. Starry, "The Corps Battle," 1977 briefing scripts in Starry, *Selected Works*, 285; Donn A. Starry, Letter to Major General John C. Faith, Office of the Deputy Chief of Staff for Operations, 19 May 1978, in Starry, *Selected Works*, 324; Donn A. Starry, "The Central Battle Again," transcript of presentation given to the Armor Association, Fort Knox, KY, 24 May 1978, in Starry, *Selected Works*, 330; Donn A. Starry, 497-8; Donn A. Starry, "Leader Skills," transcripts of remarks given to the Pre-Command Course at Fort Leavenworth, KS, on 22 January 1979, in Starry, *Selected Works*, 497-8.

<sup>117</sup>Starry, *Selected Works*, Desert Storm Lessons Interview (September 1991), 1228. Starry argued that Lanchester Law's may in fact simply describe the general limit of 6 to 1, where clear superiority of forces—once the ratio gets larger than 6 to 1—sharply increases the potential for determining outcomes in favor of the larger force.

<sup>118</sup>Ibid.

<sup>119</sup>Bronfeld, 476.

<sup>120</sup>Ibid., 477; Starry, *Selected Works*, War College Committee Presentation, June 1982, 110; Starry, *Selected Works*, Desert Storm Lessons Interview (September 1991), 1228.

1,000 tactical battles and showed that as long as the force ratio did not exceed six to one and the defenders took the initiative, an outnumbered force retained a fair chance of winning.<sup>121</sup>

The ideas of winning outnumbered, of seizing the initiative, remain fundamentally dependent on relative superiority of uniquely human factors surrounding fighting competence. The Israelis proved better trained and prepared for close combat, particularly in tank crew gunnery and maneuver proficiency, all necessary for seizing and retaining the initiative.<sup>122</sup> While insufficient on their own in determining the outcome of battle, well-trained and aggressive armor formations served as the centerpiece of the combined arms organizations that won the day.<sup>123</sup> Starry, DePuy, and Gorman arrived at the same conclusions regarding the implications of the Yom Kippur War. The Army, in order to fight outnumbered and win, must improve its fighting proficiency at all levels, incorporating better technology towards more capable and lethal manmachine synthesis and improving training and education in ways that enable outnumbered forces to seize and retain the initiative towards the destruction of the enemy.

Tactical superiority and fighting competence, while providing significant advantage, do not predetermine victory. Winning while outnumbered requires the proper concept and plan for the employment of forces, and to this variable fighting competence remains subordinate and dependent. Starry also gained insight concerning command of large formations, on the role of the commander in determining the right operational approach and concept for the battle. As he walked the Golan Heights in 1974, Starry attempted to visualize the problem facing IDF General Musa Peled and his division after the IDF forces in the Golan barely stopped the initial Syrian

<sup>&</sup>lt;sup>121</sup>Bronfeld, 490.

<sup>&</sup>lt;sup>122</sup>Ibid., 476-477.

<sup>&</sup>lt;sup>123</sup>Ibid., 477; William E. DePuy, "Letter to Senator Culver, 12 May 1975" in *Selected Papers of General William E. DePuy*, compiled by Richard M. Swain (Fort Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, 1995), 165 (hereafter referred to DePuy, *Selected Papers*).

attack. The problem consisted of superior, in number, Syrian forces, arrayed in echelon, from the Bar-Lev line all the way to Damascus. Reinforcing weakened points along the defensive prevented the concentration of strength necessary to conduct a counterattack. Peled settled on a division-size attack, and after receiving support from the government, conducted an attack into the southern flank of Syrian forces, defeating them at every occasion. As Peled's division penetrated further, the defeat turned into a rout, and thus opened the road to Damascus.<sup>124</sup>

The problem of commanding large combat organization requires envisioning a sequence of engagements—tactical actions—on the ground and in the air. Standing from the Golan and observing Damascus, visualizing Syrian forces arrayed in echelon against heavily outnumbered Israeli forces, Starry concluded that the role of the large unit commander involves fighting the enemy throughout his depth, in planning and sequencing engagements that leverage all available assets to see and strike the enemy well before such forces arrive the front lines.<sup>125</sup> Thus, perhaps the greatest insight Starry gained from the Yom Kippur war centered on operational thinking leading towards operational art.

Within the context of thinking operationally, one cannot escape from the reality of the situation facing Army forces in Germany. Facing superior in number Soviet and Warsaw Pact forces, with relative technological parity, across the border into East Germany, fighting sharply outnumbered appeared preordained, just as with the Israelis in 1973. Unlike the Israelis who could mobilize fully in forty-eight hours, US forces forward-positioned globally must fight and win with forces immediately available.

<sup>&</sup>lt;sup>124</sup>Starry, *Selected Works*, Life and Career Interview (February 1986): 1110.

<sup>&</sup>lt;sup>125</sup>Starry, Selected Works, TRADOC Interview (March 1993): 1263.

Thus, the major, and general, insights of the war center on relative fighting competence in combined arms teams and operational thinking.<sup>126</sup> Improving relative fighting competence in integrating the combined arms by individuals and leaders, and thus in small and large units offsets—within reason—pure force ratio analyses concerning size of forces. Superior fighting competence and tactical ability enables an inferior force to not only survive an attack by a superior in numbers foe, but also to seize the initiative in the initial engagement. Maintaining the initiative, however, requires operational thinking, or how to sequence and arrange tactical engagements that compounds advantage. While the ideas surrounding the second lesson coalesced over time within Starry, the impacts of the first lesson served to reinforce current trends in the overhaul of Army training, education, and doctrine, trends that DePuy, Starry, Gorman, and others initiated or supported. The evolutionary process of reforming the Army clearly focused on training and building units ready to fight immediately as a first step, towards the development of clear fighting superiority with the first battle in mind. What followed—the codification of operational thinking in doctrine by 1982-clearly depended on the first step. In essence, emerging operational art in Army thinking and concepts anticipated a future of fighting from forward bases overseas, outnumbered in personnel and equipment, against an enemy with technological parity, relying mainly on the relative fighting superiority of the forward Army at all levels, from the individual soldier to large units.

The Yom Kippur War proved less an intellectual shock to Starry, DePuy, and a few others, and more of moral catharsis towards accelerating Army reforms. Clearly the first concern centered on the reform of training and doctrine to the ends of increasing training effectiveness

<sup>&</sup>lt;sup>126</sup>William E. DePuy, "Letter to General Abrams," in DePuy, *Selected Papers* (14 January 1974): 69-74; see also DePuy, *Selected Papers*, Implications of Middle East War presentation (not dated): 77-111, TRADOC presented more specific lessons regarding the war, including DePuy's letter to Abrams in January 1974. The lessons as relayed by DePuy to Abrams and briefed later fit more within the lesson of superior fighting competence in combined arms teams.

and building ready and capable combined arms organizations. In the November-December 1974 issue of *Armor Magazine*, Starry published the first of two articles in a Modern Armor Battle series that detailed his thinking on the concept for the future battlefield. The first article dealt with the offense, and the second article, published in the January-February 1975 issue, centered on the defense.<sup>127</sup> Both articles continued to emphasize the central importance of the combined arms approach to warfare and the central role of the tank.

Starry believed the Army must win the first battle or battles of the next war, either in Europe or some other strategic vital area, such as the Middle East. Preparing for such battles remained the moral imperative for the Army, followed by other contingency operations. Mobilizing after losing the first battle condemned a large portion of the all-volunteer Army, and the entire European force, to destruction and the inevitable use of nuclear weapons. In any case, effective mobilization required time not only to mobilize but also to learn how to fight, as well as secure air and sea lines of communication and supply from the continental United States, both of which may prove impossible due to the range of intercontinental ballistic missiles. The learning curve in the next war would prove impossibly steep for the inferior forces of Army units stationed in Germany, such that officer and NCOs of the next war—unlike in World War II and Korea—must know how to fight immediately.<sup>128</sup>

<sup>&</sup>lt;sup>127</sup>Donn A. Starry, "The Commander's Hatch," in *Armor* (November-December 1974): 5-8. The article is the first Modern Armor Battle article; Donn A. Starry, "Modern Armor Battle II: The Defense," in *Armor* (January-February 1975): 5-7.

<sup>&</sup>lt;sup>128</sup>Ibid., 8-10.

# Command of V Corps: The Emergence of a New Problem and the Corps Battle

Starry assumed command of V Corps in February 1976, approximately four months prior to the publication of the revised FM 100-5. A believer in the utility of the draft manual, he aggressively promoted and distributed the doctrine to subordinate commanders.<sup>129</sup> He used the draft manual as a way to engage in dialogue with his subordinate commanders, many that had never walked or visited their sectors of the German Defense Plan (GDP) in the German state of Hessen.<sup>130</sup> The terrain walks served to enable the corps commander, General Starry, to engage and assess his subordinate battalion commanders using the language and ideas in the new doctrine. Within the first year of command Starry believed that his battalion commanders finally believed in the value of the new doctrine, and more importantly, actually believed they could fight outnumbered and win.<sup>131</sup>

Starry also sought to significantly improve the training management at the battalion level. More specifically, he identified significant problems in how battalion commanders planned, programmed, and managed training, as the Army did not educate officers on how to manage training.<sup>132</sup> Beginning in August 1976 he spent two to three hours per unit, attempting to understand how commanders planned, trained, and resourced training to gain unit proficiency in battle tasks.<sup>133</sup> Starry later wrote to BG Paul Gorman that his subordinate commanders failed to

<sup>&</sup>lt;sup>129</sup>Starry, Selected Works, TRADOC Interview (March 1993): 1268.

<sup>&</sup>lt;sup>130</sup>Starry, *Selected Works*, Life and Career Interview (February 1986): 1124.

<sup>&</sup>lt;sup>131</sup>Starry, Selected Works, TRADOC Interview (March 1993): 1268.

<sup>&</sup>lt;sup>132</sup>Donn A. Starry, "Letter to General George S. Blanchard, 22 November 1976," in Starry, *Selected Works*, 778.

<sup>&</sup>lt;sup>133</sup>Donn A. Starry, "Training Management Review," memorandum to multiple addresses, August 1976," in Starry *Selected Works*, 777.

adequately understand the new ARTEPs and military occupational skills qualification tests.<sup>134</sup> Consequently, he spent a significant amount of time with his tactical unit commanders, attempting to smooth the transition to the new training system without having to wait for years for the new doctrine and subordinate literature to trickle up through the military hierarchy.<sup>135</sup>

As the tactical acumen and proficiency of subordinate tactical units and leaders appeared to improve, Starry faced an emerging problem. Improvement in tactical efficiency may enable US forces to defeat Warsaw Pact forces in the first battle, but such forces may represent only the initial echelon. What were allied forces going to do against the enemy's second echelon? From Starry's perspective the second and follow on echelons remained the corps commander's fight until such echelons became engaged in close combat. In essence, the corps commander must shape the later tactical engagements through the disruption of follow-on echelons. To do this the corps commander must see and strike deep, and at the time the means of surveillance, target acquisition, and strike did not exist.<sup>136</sup> Some of the identified gaps in capabilities ultimately led to new weapons and systems, such as the multiple launch rocket system (MLRS), the army tactical missile system (ATACMS), and the joint surveillance target attack radar system (JSTARS).<sup>137</sup>

The new weapons and systems followed new thinking and emerging concepts in warfare rather than anticipate them. Starry developed an operational concept centering on the idea of the Corps Battle, or how V Corps, leveraging all the available capabilities, with detailed knowledge of the enemy and the terrain, would fight outnumbered in Hessen in 1976.<sup>138</sup> The concept of the

<sup>&</sup>lt;sup>134</sup>Starry, "Letter to General George S. Blanchard, 22 November 1976," in Starry, *Selected Works*, 778.

<sup>&</sup>lt;sup>135</sup>Ibid.

<sup>&</sup>lt;sup>136</sup>Starry, Selected Works, TRADOC Interview (March 1993): 1268-1269.

<sup>&</sup>lt;sup>137</sup>Ibid., 1269.

<sup>&</sup>lt;sup>138</sup>Donn A. Starry, "The Corps Battle," 1977 briefing scripts in Starry, Selected Works, 285-294.

Corps Battle allowed Starry to translate his thinking ideas associated with Modern Armor Battle and his experience in Israel together with the absolute requirement of developing a sound and detailed plan for fighting in West Germany. In practice, the concept of the Corps Battle would reach a crescendo in the central battle, or as Starry described it, "the critical point on the battlefield where all the aspects of firepower and maneuver come together to cause a decision."<sup>139</sup> The Corps Battle serves as the organizing concept for analyzing and comparing particular aspects of Army organization, training, and equipment vis-à-vis the most dangerous adversary at the time. <sup>140</sup> Identified deficiencies thus served to inform future requirements that ought to create battlefield advantage. Ultimately, this process intended to ensure an orientation towards a future central battle, one that depended on technical simulations and evaluations that relied on a continual analysis of enemy organization, doctrine, and equipment as it changed, adapted, and reacted to NATO forces.<sup>141</sup> Ultimately, Starry took the nascent concept of Corps Battle with him to TRADOC in 1977, where the concept of Corps Battle then became the Central Battle.

### **Command of TRADOC: The Central Battle**

The operational concept of the Central Battle eventually became a centerpiece of organizational and institutional dialogue. Starry ultimately determined that operational concepts, in general, served as the intellectual core of other processes that lead to new equipment, tactics, and doctrine.<sup>142</sup> Much of what TRADOC eventually does stemmed from its ability to generate an adequate operational concept. The ability of TRADOC to integrate and accommodate new ideas

<sup>&</sup>lt;sup>139</sup>Ibid., 285.

<sup>&</sup>lt;sup>140</sup>Ibid., 291.

<sup>&</sup>lt;sup>141</sup>Ibid., 294.

<sup>&</sup>lt;sup>142</sup>Donn A. Starry, "TRADOC Commander's Notes No. 3: Operational Concepts and Doctrine," 20 February 1979, in Starry, *Selected Works*, 338-339; Donn A. Starry, "Letter to Lieutenant General Sir Robin Carnegie, 5 February 1982," in Starry, *Selected Works*, 936.

about the Central Battle, rather than exclude or isolate them, proved important to Starry.<sup>143</sup> He clearly had more time to leverage institutional feedback towards the improvement of operational concepts than did General DePuy in his efforts to rapidly modernize and republish FM 100-5 in 1976.

Starry promoted the operational concept of the Central Battle early on during his command of TRADOC. In a speech given to the Association of the United States Army at Fort Benning, Georgia, in April 1978, Starry laid out in detail the logic and thinking behind the Central Battle.<sup>144</sup> In essence, the Central Battle served as a descriptive tool to enable the Army to better see itself with relation to the enemy, to show the interrelationships between Army and enemy tactics, organizations, weapons, and training.<sup>145</sup> The Central Battle is the bounded environment where all friendly and enemy capabilities and forces compete for a decision. Starry discussed the first analysis of the most obvious condition of the Central Battle, which consisted of the imbalance of forces and equipment in the Western Europe.<sup>146</sup> The analysis linked in directly with combat development efforts to address the imbalances over time. Next, TRADOC used simulations over different times in the future to analyze the effects of real and anticipated changes in capabilities and their impacts within the Central Battle.

The next salient factor concerned choosing the right operational concept, which ultimately shapes and orients larger bureaucratic efforts over time through the particular lenses of manning, equipment, training, doctrine, organization, and force structure.<sup>147</sup> Integrating all the

<sup>&</sup>lt;sup>143</sup>Starry, "TRADOC Commander's Notes No. 3," in *Selected Works*, 339.

<sup>&</sup>lt;sup>144</sup>Donn A. Starry, "The Central Battle," transcripts of remarks given to the Association of the United States Army (AUSA), at Fort Benning, GA, on 24 April 1978, in Starry, *Selected Works*, 312-317.

<sup>&</sup>lt;sup>145</sup>Ibid., 312.

<sup>&</sup>lt;sup>146</sup>Ibid., 313.

<sup>&</sup>lt;sup>147</sup>Donn A. Starry, "Battlefield Development Plan," letter to Lieutenant General E.C. Meyer, December 1978, in Starry, *Selected Works*, 177.

disparate efforts into a cohesive and realistic plan over time proved critically important. Starry initially termed such efforts the combat developments strategy, and wrapped up the plan under the title the Battlefield Developments Plan (BDP), first published in 1978.<sup>148</sup> Later iterations of the plan integrated efforts to integrate the Army training strategy and sustainment strategy in the overarching plan. The Central Battle thus served as the true centripetal force concerning pure thinking about combat, as the BDP ultimately served to integrate, prioritize, and settle those efforts that support the ultimate purpose of the operational concept, which centered on defeating the enemy in Western Europe.<sup>149</sup>

In the end, Starry argued, a good operational concept simply serves to give the Army about equal capability to that of the enemy, as technology never provides pure advantage to the extent that it can actually replace combat power in the form of units.<sup>150</sup> Training ultimately made high-performing units and leaders, and such units achieve positive effects in battle along an exponential path rather than a linear one, as seen in the recent Yom Kippur War.<sup>151</sup> The Central Battle thus assumed that US forces would perform at significantly higher level of proficiency against an enemy that possessed similar equipment in larger numbers. Rigorous training, along the lines of the training revolution that began in the early 1970s, created the relative qualitative potential that enabled the ability to fight outnumbered and win in the Central Battle.

<sup>148</sup>Ibid.

<sup>&</sup>lt;sup>149</sup>Donn A. Starry, "Message to General Frederick Kroesen, 26 September 1978," in Starry, *Selected Works*, 650. This message concerned the compression of the traditional acquisitions process. Starry argued that the traditional acquisitions process needed to accommodate the Battlefield Development Plan.

<sup>&</sup>lt;sup>150</sup>Donn A. Starry, "The Central Battle," transcripts of remarks given to the Association of the United States Army, at Fort Benning, GA, on 24 April 1978, in Starry, *Selected Works*, 312-317.316

<sup>&</sup>lt;sup>151</sup>Donn A. Starry, "The Central Battle," transcripts of remarks given to the Association of the United States Army (AUSA), at Fort Benning, GA, on 24 April 1978, in Starry, *Selected Works*, 316-317.

The concept of the Central Battle, through enabling a total analysis approach of a complex system of interactions, also served to focus thinking and discourse between the Army and Air Force concerning land operations. As Starry argued, the operational concept of the Central Battle required concentrating forces, seeing deep, suppression of enemy fires, and attacking in the enemy's rear echelons.<sup>152</sup> The corps commander lacked the resources to do all of these things, and thus relied on the Air Force resources to help shape the Central Battle. Starry understood the important symbiosis of land and tactical air operations, and to this extent solidified the relationship between TRADOC and Air Force's Tactical Air Command (TAC), between himself and General Wilbur Creech, a relationship that began with General DePuy and the former TAC commander General Robert Dixon.<sup>153</sup> As a concept for land operations the Central Battle concept remained valid only as long as capabilities aligned with requirements. As the Air Force retained all fixed-wing tactical aircraft, the Air Force's support for the Central Battle concept remained a critical factor in its overall acceptance.

Within two years, the concept of the Central Battle would assume the name of the Integrated Battle.<sup>154</sup> Integration, in the context of the Integrated Battle, means adding the effects of nuclear and chemical warfare into the overall operational concept in recognition of Soviet operational concepts. Consensus opinion held that the Soviets considered the integrated battlefield the norm, that they planned to use conventional, chemical, and nuclear means simultaneously.<sup>155</sup>

<sup>&</sup>lt;sup>152</sup>Ibid., 315.

<sup>&</sup>lt;sup>153</sup>Donn A. Starry, "Message to General E.C. Meyer, 22 February 1980," in Starry, *Selected Works*, 6. This message concerned the topic of offensive air support.

 <sup>&</sup>lt;sup>154</sup>Donn A. Starry, "Message to General E.C. Meyer, 25 January 1980," in Starry, *Selected Works*, 347.

<sup>&</sup>lt;sup>155</sup>Ibid.

Starry recognized the integrated nature of the modern battlefield as an overarching condition, although he appeared reluctant to use the concept of Integrated Battle.<sup>156</sup> The right concept inherently recognized the integrated nature of the next battlefield. Starry struggled to get subordinate branch schools and doctrine writers to recognize this inevitable condition, to regain doctrinal ascendancy on fighting in nuclear and chemical conditions lost during the Vietnam War.<sup>157</sup> While the term integrated battlefield survived in the lexicon of Starry into the early 1980s, the Central and Integrated Battle concepts gave way to the Extended Battle in 1980.

#### The Extended Battle: Offensive Orientation to a Defensive Mission

The Extended Battle or Battlefield proved the last articulated concept preceding the full synthesis and maturation of ideas under AirLand Battle in 1982. Although there appears no clean break or transition between concepts, the Extended Battle concept did serve to clearly orient the trend of future doctrinal thinking to offensive operations, even in the defensive mission in Europe.<sup>158</sup> Battlefield victory should lead to an aggregate growth in political capital towards gaining leverage over a wartime adversary. In the context of Western Europe, leverage would not come from defeating an attacking force, but from defeating an enemy, in depth, extended back into his own territory. Starry claimed that the Extended Battle concept was not new. He states:

<sup>&</sup>lt;sup>156</sup>Donn A. Starry, "Message to Multiple Addresses Concerning Integrated Operations, 9 July 1980," in Starry, *Selected Works*, 193.

<sup>&</sup>lt;sup>157</sup>Ibid. See also Donn A. Starry, "Army of the Future," transcripts of remarks given at the US Army Readiness Command Executive Seminar at Atlanta, GA, on 14 February 1980, in Starry, *Selected Works*, 669.

<sup>&</sup>lt;sup>158</sup>Donn A. Starry, "Extending the Battlefield," in *Military Review* 61 (March 1981): 32.

It is a more descriptive term for indicating the full potential we must realize from our acquisition, targeting and weapons systems. The battlefield and the battle are extended in three ways: First, the battlefield is extended in depth, with engagement of enemy units not yet in contact to disrupt the enemy timetable, complicate command and control and frustrate his plans, thus weakening his grasp on the initiative. Second, the battle is extended forward in time to the point that current actions such as attack of follow-on echelons, logistical preparation and maneuver plans are interrelated to maximize the likelihood of winning the close-in battle as times goes on. And lastly, the range of assets figuring in the battle is extended toward more emphasis on higher-level Army and sister service acquisition means and attack resources.<sup>159</sup>

The Extended Battle thus provides the framework for linking tactical actions in time and space towards a common purpose of achieving victory. As an operational concept, the Extended Battle necessitated the expansion of thinking concerning the employment of organizations and systems upwards and outwards, beyond corps and division levels and even outside of the Army.<sup>160</sup> It also mandated the unified employment of all capabilities and systems in time and space towards the collapse of the enemy's ability to fight.<sup>161</sup> Deep strike and close combat thus worked together, and the planning associated with the employment of deep strike sensors and assets must not lose sight of its clear supporting relationship to the close fight.<sup>162</sup> As a unifying idea, the Extended Battle served to orient thinking on future capabilities and systems towards the same ends.

The Extended Battle also absorbed the thinking of the Integrated Battle concerning nuclear and chemical warfare as well as attacking the Soviet operational concept.<sup>163</sup> Starry argued that the Soviets considered the use of tactical nuclear weapons like any other weapons, one that supported a clear operational concept, and not necessarily a weapon whose use portended

<sup>159</sup>Ibid.

<sup>163</sup>Ibid.

<sup>&</sup>lt;sup>160</sup>Ibid., 47.

<sup>&</sup>lt;sup>161</sup>Ibid., 32.

<sup>&</sup>lt;sup>162</sup>Ibid., 32-33.

strategic nuclear exchange or a weapon used to restore a balance.<sup>164</sup> The Extended Battle operational concept also directly exploited the Soviet operational concept through the destruction of the Soviet assault elements and dispersal or destruction of Soviet follow-on echelons, their reserve, in order to gain the initiative for the offense.<sup>165</sup>

The essential systems involved in deep attack in the Extended Battle centered on surveillance and target acquisition, command and control, and delivery systems.<sup>166</sup> The means involved included deception, offensive electronic attack, and interdiction in the form air, artillery, and special operating forces.<sup>167</sup> The limitation of the means available for deep attack, and the seemingly limitless availability of targets presented by the enemy, necessitated clear operational thinking by corps and division towards unifying the effects of deep attack and close combat, to make the most of limited resources.<sup>168</sup>

Starry deliberately kept evolving concepts out of official publications, as from his perspective insufficiently mature operational concepts become fixed when publicized in official documents, such as TRADOC Pamphlet 525-5, which served to describe the Army's current operational concepts.<sup>169</sup> Towards the end of his fourth year in command at TRADOC, however, Starry did publish an updated version of the pamphlet, *The AirLand Battle and Corps 86*. This publication preceded the next version of FM 100-5, which translated concepts into doctrine.

<sup>&</sup>lt;sup>164</sup>Donn A. Starry, "Message to the Secretary of Defense Concerning Strategy Issues, 7 September 1982," in Starry, *Selected Works*, 762. Starry argues that the Soviets created a very capable tactical nuclear weapons arsenal in support of a clear operational concept.

<sup>&</sup>lt;sup>165</sup>Donn A. Starry, "Extending the Battlefield," in *Military Review* 61 (March 1981): 34.

<sup>&</sup>lt;sup>166</sup>Ibid.

<sup>&</sup>lt;sup>167</sup>Ibid., 37.

<sup>&</sup>lt;sup>168</sup>Ibid., 38.

<sup>&</sup>lt;sup>169</sup>Starry, *Selected Works*, AirLand Battle Interview (May 1995): 1275. Starry used the term pentacrete to describe what happens when ideas become official, as in TRADOC Pamphlet 525-5. In essence, ideas ossify in the professional forum once gaining the appearance of official sanction.

### AirLand Battle: Concept into Doctrine

The term AirLand Battle, although coined in the 1976 version of FM 100-5 as published as a chapter, saw its attachment to a mature operational concept by TRADOC's Deputy Chief of Staff for Doctrine, Brigadier General Don Morelli.<sup>170</sup> The TRADOC Pamplet 525-5 clearly articulated the AirLand Battle concept as a synthesis of both the Extended Battlefield and the Integrated Battlefield.<sup>171</sup> This concept linked the idea of attacking the enemy in depth across the battlefield using all means including conventional, nuclear, chemical, and electronic.<sup>172</sup>

In January 1981, after the acknowledgment of the assimilation of the concepts of the Integrated and Extended Battlefields within the Army, Starry directed the use of the concept and term AirLand Battle as a synthesis for both preceding terms and concepts.<sup>173</sup> Six months later Starry took over the US Readiness Command after transferring command of TRADOC to General Glen Otis. Starry gave another detailed speech on AirLand Battle to the Armed Forces Staff College in September 1981, and the role of US Readiness Command within the concept of AirLand Battle.<sup>174</sup> The Army ultimately published the 1982 version of FM 100-5 in August 1982, almost a year after TRADOC published the manual in draft form to solicit feedback.

<sup>&</sup>lt;sup>170</sup>Ibid., 1276; see also Starry, *Selected Works*, Life and Career Interview (February 1986): 1147. Starry, as TRADOC commander, created the Deputy Chief of Staff (DCoS) for Doctrine position and selected BG Morelli to serve as its first deputy. Starry credits Morelli with selling AirLand Battle to doctrinal critics, particularly influential civilians and politicians.

<sup>&</sup>lt;sup>171</sup>Department of the Army, TRADOC Pamphlet 525-5, (FM) 100-5, *US Army Operational Concepts: The AirLand Battle and Corps 86* (Washington, DC: Government Printing Office, 25 March 1981), 2.

<sup>&</sup>lt;sup>172</sup>Ibid.

<sup>&</sup>lt;sup>173</sup>Donn A. Starry, "Message to Multiple Audiences, AirLand Battle I, 21 January 1981," in Starry, *Selected Works*, 365.

<sup>&</sup>lt;sup>174</sup>Donn A. Starry, "AirLand Battle II," transcript of remarks given to the Armed Forces Staff College in Norfolk, VA, on 22 September 1981, in Starry, *Selected Works*, 372-384.

Rather than fall on the Army as a thunderclap, AirLand Battle cleanly fell into the doctrinal gap that Starry himself largely created through the communication of his ideas about warfare and operational concepts in the late 1970s. The manual represented the culmination of years of thinking by Starry and his ability to articulate his ideas and adapt them. It also depended on his ability to build a team of capable subordinates that could translate concepts into doctrine and also effectively advocate for the doctrine to circles both within and outside of the Army.<sup>175</sup> Without Starry, AirLand Battle may have never arrived as a mature concept, a thus not a concept ultimately articulated in official doctrine. When considering his thinking and authority from 1972 to 1982, history can only support the idea of evolutionary thinking as a source doctrinal change in FM 100-5, rather than an idea promotes controversy and rejection centering on the 1976 version of FM 100-5.

<sup>&</sup>lt;sup>175</sup>John L. Romjue, "The Evolution of the AirLand Battle Concept," *Air University Review* (May-June 1984): 15. See footnote number 9. Romjue writes: "The record is clear that the major intellectual force behind the formulation of AirLand Battle was General Donn Starry. He was aided significantly by the TRADOC Deputy Commanding General, Lieutenant General William R. Richardson, who commanded the Combined Arms Center at Fort Leavenworth, and by Richardson's staff, in particular the author-designee for the revision of FM 100-5, Lieutenant Colonel Huba Wass de Czege. Major General Jack N. Merritt (Field Artillery Center Commander), Colonel Anthony G. Pokorny, and Lieutenant Colonel Steven Doerfel at Fort Sill helped develop the concept analytically from the central battle ideas of 1977 to AirLand Battle. Pokorny had had an earlier central role in the formulation of the Battlefield Development Plan. Brigadier General Don Morelli played an active role, especially in the briefing of AirLand Battle to DOD, congressional, and administration circles. Important also in the formulative work was Morelli's deputy, Colonel Edwin G. Scribner, and Colonel Frederick M. Franks of the TRADOC combat developments planning directorate. Authorship must be considered multiple and includes many planners not named here."

## Conclusion

The doctrinal reforms that changed the Army in the 1970s remain a fascinating history that demonstrates how an organization resurrected its professional reputation and competence in the wake of the disaster of the Vietnam War. The contexts of how change occurred, in doctrine, organization, and training, demonstrate that the Army can effectively reform itself from within, and thus the historical interpretation must first account for internal agents and motivations for change. To a large extent the historical interpretation of change emphasizes a narrative of controversy and rejection surrounding doctrinal reforms that began with General William DePuy, the first commander of TRADOC, and the 1976 version of FM 100-5. In short, the 1976 version of FM 100-5, and the forceful, disruptive, and directive manner associated with the publication proved very controversial following its publication. This new doctrine met an untimely fate, as the Army rejected it shortly after its publication, and the retirement of its main progenitor, General DePuy. The negative reaction of the Army to the new doctrine inspired an intellectual catharsis, one that ultimately led to a truly revolutionary Army doctrine, the 1982 version of FM 100-5, nicknamed AirLand Battle. Thus, when considered it total, reform and change centering on doctrine resulted from the spark of controversy that ignited an explosion of rejection across the Army. This ultimately suggests authority and position may prove less important towards doctrinal change and reform in Army than organizational and institutional consensus, at least among elites. However, the rejection narrative fails to explain why FM 100-5 changed between 1976 and 1982. Doctrinal change, when viewed within the broader contexts of the period, occurred as a product of continuity and evolution centering on the authority, intellect, and influence of General Donn A. Starry. The transition from the 1976 version of FM 100-5 to the 1982 version, from an emphasis on tactics towards thinking on operational art, resulted directly from the guidance and influence of Starry as the TRADOC commander.

The contexts of the period, the ones surrounding the major events of early 1970s, as well as the contexts of Starry's service, serve to frame the overall process that shaped reform and

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change. The political and military-strategic contexts of the early 1970s portended significant changes in the US Army. Politically, the Army faced the unclear future of transitioning to an allvolunteer force, and doing so as its public and political reputation stood in tatters in the aftermath of the Vietnam War. Militarily and strategically, the Army had to reorient and reinvest in the defense of Western Europe against Warsaw Pact forces that spent the 1960s expanding and modernizing while the Army consumed itself and its modernization resources in order to win in Vietnam. The political context and budgetary problems reinforced the military-strategic problem. The Army needed to rapidly modernize conventionally to field an adequate military force that could fight outnumbered and win, but its reputation and the pressure to decrease military spending served to inhibit modernization. External events appeared to conspire against the Army and its efforts to fix itself.

Organizationally and institutionally, the Army appeared either broken or on its way to collapse. The Army relied on its junior leaders—its officers and NCOs—to both fight in war and maintain unit readiness through training. Yet for the Army forced to provide leaders from units in Europe and US, the Vietnam War and the individual rotation policy that supported it separated units from leadership, destroying the cohesion and trust essential for discipline and tactical competence. For an outnumbered US Army in Europe, the aftermath of the Vietnam War portended unavoidable destruction at the hands of the Warsaw Pact, and thus enabled a defeatist malaise to permeate the force. The Army could no longer rely on mobilization to rapidly bolster its ranks, and thus the first battle in Europe may prove the last. The first step in fixing the Army required rebuilding units and improving fighting competence towards the immediate end of winning the first battle. Barring expansion of the force, improving training appeared the only method to improving the Army, to enable it to fight outnumbered and win, and to win the first battle.

The training revolution of the early 1970s, with the manifestation of performance-based training, tactical doctrine reforms, the ARTEP, and military educational reforms provided the first

step towards Army reforms. Within this process, officers such as Westmoreland, Abrams, DePuy, Gorman, and Starry deserve much credit. The Board for Dynamic Training, chaired by Gorman at the behest of Westmoreland, proved very consequential as to ultimate path the Army took concerning the reform of Army training doctrine, process, and evaluation. In this process, DePuy's advice to Gorman to seek insight from the field instead of the Pentagon led to consequent conclusions regarding the way the Army ought to plan and execute individual and unit training. Ultimately, the training revolution sought to create leaders and unit that could fight more competently than their adversaries across the Iron Curtain, and an absolute necessity for a significantly outnumbered, forward deployed force. The 1976 version of FM 100-5 merely served as the crescendo in an overall process that sought to dramatically improve the fighting competence of tactical units that had only a few years earlier suffered deficits in leadership, personnel, equipment, and competence.

Starry emerged within these contexts not as an outsider or non-conformist, but rather as source of continuity, albeit a source endowed with extraordinary ability, intellect, leadership, and ultimately vision. His service and interaction with future senior leaders such as Abrams demonstrated his potential early on in his career. His multiple tours in Vietnam, command experiences, and staff experience placed him in direct proximity with other future senior leaders such as DePuy, Haig, and Gorman. His writings and speeches during his time as commandant of armor, often emphasizing combined arms, tactics, and training place him squarely in the front of the training revolution, alongside DePuy and Gorman. Starry ultimately appeared as an intellectual confederate with DePuy, and as such wrote a significant portion of the 1976 version of FM 100-5. His ultimate selection to command V Corps and TRADOC represent institutional and organizational continuity that stemmed from his demonstrated character and competence as expressed in his professional relationships with officers such as Abrams and DePuy.

The truly innovative aspects of Starry's intellect and ability emanated from the evolution of his ideas on the future of warfare, ideas that coalesced into operational concepts over time.

This evolutionary process within Starry ultimately initiated the growth of operational thinking and art in the US Army, organizationally manifested in the 1982 version of FM 100-5. His background and interest in military history combined with experience and authority enabled him to both conceptualize the future of warfare as well as put his ideas into practice. Starry's thinking on tactics and combined arms, the thinking that influenced the 1976 version of FM 100-5, provided the basis for operational concepts concerning how Army tactical units must fight. The experience of walking the Golan Heights in 1974 and reflecting on Israeli success against a much larger Syrian force confirmed his idea that fighting ability is heavily dependent on relative moral and human factors, on training and tactical fighting competence rather than pure advantages in force size or equipment. More importantly, however, the Golan experience shaped Starry's thinking on the role of large unit commanders in thinking operationally, in envisioning the battlefield in depth and how tactical actions linked in time, space, and purpose serve to unite in effect to defeat the enemy.

As the commander of V Corps in Germany in 1975 to 1976, Starry spent much of his time assessing the ability of his subordinate battalion commanders to visualize and describe their plan to defend their sectors using combined arms, and then had them describe how their training plans developed such ability. He realized that a successful defense conducted by tactical units required the corps commander to positively shape the battlefield through deep attacks to both support close combat and generate reinforcing effects throughout the breadth and depth of the battlefield. The corps commander must see, attack, and disrupt the follow on echelons of Warsaw Pact forces. The model for the corps fight became known as the Central Battle, and it stood for an operational concept that enabled a holistic analysis of friendly and enemy capabilities, organizations, and doctrine with respect to a battle or series of battles that leads to a decision. The Central Battle enabled a look into the future, anticipating and integrating new capabilities over time.

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Starry took his ideas and concepts with him to TRADOC, where the Central Battle became the Integrated Battle, followed by the Extended Battle. The Integrated Battle returned the thinking on chemical and nuclear warfare to the conventional battlefield. The extended battlefield codified the symbiotic and inseparable relationship between close combat and deep attack. The new battlefield would require significant non-Army support, most of it from the tactical support of USAF tactical strike aircraft, as well as new command and control systems, air and ground surveillance and interdiction capabilities. The total synthesis of all these concepts came about in 1981 with the publication of TRADOC Pamphlet 525-5, the document that described the concept of AirLand Battle. In August 1982 the Army published FM 100-5, AirLand Battle, and the it ultimately changed how the Army thought about operational doctrine.

Perhaps the greatest legacy of General Starry lies in the birth and growth of operational thinking and art first codified in the 1982 version of FM 100-5. The operational concept of AirLand Battle provided a logical framework that enabled an outnumbered US Army in Europe to conceive of defeating the Warsaw Pact forces in Europe through offensive action. It provided for the possibility of victory where it did not exist before. It also forced commanders to think operationally, on how to achieve decisive effects through a series, sequence, or combination of tactical actions, always considering the entire potential of combat power using all systems and services. This operational concept fundamentally assumed and depended on the clear superiority of individual and unit fighting competence, and it also depended on a clear superiority of combat planning and leadership, from the battalion commander on up.

Thus, perhaps Starry's contemporary and future relevance lies in his unique concept of operational art and thinking born in the mid-1970s. Small Army units, forward-positioned globally, often outnumbered locally when asked to fight overseas, must win the first battle of the next war and probably fight outnumbered in order to win. This necessitates a professional force, one that trains and fights better than any potential adversary as the foundation for fighting and winning tactically, and thus creating the potential for an effective operational approach. The

requirement of the leader thus centers on operational thinking as the means to effectively turn tactical proficiency into operational capability and potential. Today the requirement remains the same. The Army remains an expeditionary force, one that will likely find itself in combat facing a larger adversary while disadvantaged in both size and local knowledge. The commander will find himself not totally unlikely Starry back in 1976, when Starry attempted to understand his actual role as a corps commander.

## **Bibliography**

- Auten, Bryan J. *Carter's Conversion: The Hardening of American Defense Policy*. Columbia, MO: The University of Missouri Press, 2008.
- Bourque, Stephen A. Jayhawk! The VII Corps in the Persian Gulf War. Washington DC: Government Printing Office, 2002.
- Chapman, Anne W. *The Army's Training Revolution 1973-1990: An Overview*. TRADOC Historical Study Series, Fort Monroe, VA: Office of the Command Historian. 1991.
- Clausewitz, Carl von. *On War* edited and translated by Michael Howard and Peter Paret. Princeton: Princeton University Press, 1976.
- Cushman, John H. Fort Leavenworth: A Memoir. Fort Leavenworth, KS: Government Printing Office, 2001.
- Doughty, Robert A. *The Command and General Staff College in Transition, 1946-1976.* Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1976.
  - ------ "The Evolution of US Army Tactical Doctrine." *Leavenworth Papers* 1. Fort Leavenworth, KS: Combat Studies Institute, 1979.
- Fall, Bernard B. Street Without Joy. Mechanicsburg, PA: Stackpole Books, 1994.
- Gole, Henry G. *General William E. DePuy: Preparing the Army for Modern* War. Lexington, KY: The University Press of Kentucky, 2008.
- Gorman, Paul F. *The Secrets of Future Victory*. Fort Leavenworth, KS: The US Army Command and General Staff College, 1994.
- Gray, Colin S. War, Peace and International Relations: An Introduction to Strategic History. New York: Routledge, 2007.
- Herbert, Paul. "Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations." *Leavenworth Papers* 16. Fort Leavenworth, KS: Combat Studies Institute, August 1979.
- Kretchik, Walter E. U.S. Army Doctrine: From the American Revolution to the War on Terror. Lawrence, KS: University Press of Kansas, 2011.
- Naveh, Shimon. In Pursuit of Military Excellence: The Evolution of Operational Theory. Portland, OR: Frank Cass, 1997.
- Newell, Clayton R. and Krause, Michael D., eds., *On Operation Art.* Washington, D.C.: US Army Center for Military History, 1994.
- Romjue, John. From Active Defense to Airland Battle: The Development of Army Doctrine, 1973–1986. Fort Leavenworth, KS: U.S. Army Training and Doctrine Command, Historical Monograph Series, 1984.
- Romjue, John L., Chapman, Anne W. and Susan Canedy. "Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command, 1973-1993." *TRADOC Historical Study Series*. Ft. Monroe, VA: Office of the Command Historian, 1993.
- Scales, Robert H. *Certain Victory: The US Army in the Gulf War*. Fort Leavenworth: US Army Command and General Staff College Press, 1994.

- Sorley, Lewis, ed. *Press On! Selected Works of General Donn A. Starry*. Fort Leavenworth, KS: Combat Studies Institute Press, September 2009.
- Starry, Donn A. and Hofmann, George F., eds. *Camp Colt to Desert Storm: The History of U.S. Armored Forces* ed. George F. Hofmann and Donn A. Starry.
- Trauschweizer, Ingo. *The Cold War U.S. Army: Building Deterrence for Limited* War. Lawrence, KS: University Press of Kansas, 2008.
- United States Army, Field Manual 100-5 *Operations*. Washington D.C.: Department of the Army, July 1976.
- ————Field Manual 100-5 *Operations*. Washington D.C.: Department of the Army, August 1982.
- ————TRADOC Pamphlet 525-5 US Army Operational Concepts: AirLand Battle and Corps 86. Washington D.C.: Department of the Army, March 1981.
- ————Field Manual 1-02 *Operational Terms and Graphics*. Washington D.C.: Department of the Army, September 2004.
- Swain, Richard M, comp. *The Selected Papers of General William E. DePuy*. Fort Leavenworth, KS: The Combat Studies Institute, 1994.

#### Articles

- Bronfeld, Saul. "Fighting Outnumbered: The Impact of the Yom Kippur War on the U.S. Army." *The Journal of Military History* Vol. 71 No. 2 (April 2007): 465-498.
- "Did TRADOC Outmanoeuvre the Manoeuvrists? A Comment." War & Society Vol. 27 No. 2 (October 2008): 111-125.
- DePuy, William E. "FM 100-5 Revisited." Army 30, no.11 (November 1980): 12-17.
- Galen, Justin. "NATO's Lost Decade, Part II: Restoring the NATO-Warsaw Pact Balance, The Art of the Impossible." *Armed Forces Journal* (September 1978): 30-40.
- Goldstein, Jack. "The Army's Big Five: Irons in the Fire." Army Vol. 15 No. 5 (May 1973): 18-21.
- Komer, Robert W. "Treating NATO's Self-Inflicted Wound." *Military Review* (August 1974): 53-63.
- Lind, William. "Some Doctrinal Questions for the United States Army." *Military Review*. Fort Leavenworth: Combat Studies Institute (March 1977): 54-65.
- Lock-Pullan, Richard. "Civilian Ideas and Military Innovation: Manoeuvre Warfare and Organisational Change in the US Army." War & Society Vol. 20 No. 1 (May 2002): 125-147.

Luttwak, Edward. "The Tank is Alive and Well." Armor (July-August 1972): 63-65.

- Romjue, John L. "The Evolution of the AirLand Battle Concept." *Air University Review* (May-June 1984): 4-15.
- Spiller, Robert J. "In the Shadow of the Dragon: Doctrine and the US Army after Vietnam." *The RUSI Journal* 142 No. 6 (December 1997): 41-54.
- Starry, Donn A. "La Guerre Révolutionnaire." Military Review 47 (February 1967): 61-70.
- ------ "The Commander's Hatch," in Armor (November-December 1973): 4-5.
- ------ "Observations on the Tank-Antitank Battlefield," Armor (January-February 1974): 4-6.
- ------ "Tactics & Techniques: Combined Arms," Armor (May-June 1974): 5-8.
- ------ "The Commander's Hatch." Armor (November-December 1974): 5-8.
- ------ "Modern Armor Battle II: The Defense." Armor (January-February 1975): 5-7.
- ------ "The First Battle of the Next War." Armor (May-June 1975): 6-12.
- ------- "Extending the Battlefield," *Military Review* 61 (March 1981): 31-50.
- Starry, Donn A. and West, Arthur L. "Go or No-Go in Vietnam," Armor (March-April 1968): 20-25.
- ------ "Armor in Area War," Armor (September-October 1968): 34-38.
- Starry, Donn A. and Woods, Arthur R. "Operations Analysis for Armor." Armor (March-April 1970): 15-20.
- Winton, Harold R. "Partnership in Tension: The Army and Air Force Between Vietnam and Desert Shield." *Parameters* Vol. XXVI (Spring 1996): 100-19.

#### Starry Interviews and Oral Histories Consulted from Selected Works

Donn A. Starry with Jim Bergen, John Collison, and Bill Burleson, December 1976.

- ------ with Matthias A. Spruill and Edwin T. Vernon, oral history interview, February 1986.
- ------with Douglas V. Johnson, Thomas Sweeney, and Douglas W. Craft, oral history interview, September 1991.
- ——with John L. Romjue, 19 March 1993.
- ------with Dr. Harold R. Winton, oral history interview, May 1995.

#### Transcripts of Starry Remarks, Letters, Messages, and Other Papers Published in

#### Selected Works

- Donn A. Starry, "The American Military Profession Today." US Army War College Student Research Paper, 1966.
- -----letter to Major Wilder M. Snodgrass, October 1975.
- -----letter to General George S. Blanchard, November 1976.

-"Training Management Review," memorandum to multiple addresses, August 1976. —"The Corps Battle," 1977 briefing scripts. -"FM 100-5: Operations," paper published for the Inter-University Seminar at Fort Leavenworth, KS, March 1978. -letter to Major General C.P. Benedict, March 1978. - "The Central Battle," transcripts of remarks given to the Association of the United States Army at Fort Benning, GA, April 1978. -"The Central Battle Again," presentation given to the Armor Association, May 1978. -----letter to Major General John C. Faith, May 1978. —message to General Frederick Kroesen, September 1978. -message to Lieutenant General E.C. Meyer, December 1978. -"Battlefield Development Plan," letter to Lieutenant General E.C. Meyer, December 1978. -"Leader Skills," transcripts of remarks given to the Pre-Command Course at Fort Leavenworth, KS, January 1979. -"Operational Concepts and Doctrine," TRADOC Commander's Notes No. 3, February 1979. ——message to General E.C. Meyer, January 1980. -message to General E.C. Meyer, February 1980. -"Army of the Future," transcripts of remarks given at the US Army Readiness Command Executive Seminar at Atlanta, GA, February 1980. —message to multiple addresses, July 1980. -letter to David Chu, Congressional Budget Office, December 1980. -"AirLand Battle I." Message to multiple audiences, January 1981. ——"Future Battlefields," transcript of presentation given to the Armor Conference, May 1981. —— "AirLand Battle II," transcript of remarks given to the Armed Forces Staff College September 1981. ——memorandum to Colonel John M. Collins, September 1981. -"TRADOC Organization and Rationale," letter to Lieutenant General Sir Robin Carnegie, February 1982. -"Strategy Issues," message to the Secretary of Defense, September 1982. -"Armor/Antiarmor in the Future of Land Combat," remarks given to CSIS, October 1988. **Other Interviews Consulted** 

Ivan J. Birrer with Robert Doughty, April 1978.

Alexander M. Haig Jr. with L. James Binder, August 1977.

Alexander M. Haig Jr. with Benjamin F. Schlemmer, September 1978.

Robert W. Komer with Benjamin F. Schlemmer, September 1978.

#### William E. DePuy Remarks, Letters, and Papers Consulted from Selected Papers

William E. DePuy. "Implications of the Middle East War on U.S. Army Tactics, Doctrine, and Systems," not dated.

——letter to General Abrams January 1974.

------ "TRADOC Draft Concept Paper: Combat Operations," July 1974.

——letter to Senator Culver, May 1975.

#### **Other Papers Consulted**

- Due, Jonathan Lee. "Seizing the Initiative: The Intellectual Renaissance that changed U.S. Army Doctrine, 1970-1982." Master's thesis submitted to the University of North Carolina at Chapel Hill, 2007.
- Lippert, Werner D. "Richard Nixon's Détente and Willy Brandt's *Ostpolitik*: The Politics and Economic Diplomacy of Engaging the East. PhD dissertation submitted to Vanderbilt University, 2005.
- Gorman, Paul F. *Strategy and Tactics for Learning: The Papers of General Paul F. Gorman.* Found at http://usacac.army.mil/cac2/CSI/docs/Gorman/index.asp (accessed 15 December 2011).