

John Boyd and the AirLand Battle Doctrine

**A Monograph
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The U.S. Army underwent significant doctrinal changes in the years following the Vietnam War. The 1976 edition of Field Manual (FM) 100-5, championed by General William DePuy, attempted to guide the Army's actions necessary to defeat the Soviet Union on a European battlefield by utilizing an active defense. This concept generated vigorous debates internal and external to the Army that ultimately led to the 1982 and 1986 editions of FM 100-5, commonly referred to as the AirLand Battle Doctrine. Since that time, numerous authors have attempted to link John Boyd directly to the doctrine's creation, with the most damning claims being that the Army outright plagiarized Boyd's work. However, while there is much writing addressing Boyd and the AirLand Battle Doctrine individually, the current literature does not provide empirically conclusive evidence of this linkage. This research has concluded that there was not a direct correlation between John Boyd's concepts and the AirLand Battle Doctrine; however, similarities between Boyd's work and the doctrine were due to the larger reform movement within the Department of Defense preceding and throughout the doctrine's development. In order to arrive at this conclusion, this monograph discusses Boyd and the reformers; the doctrine and its authors; and lastly the linkages between the two.

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Abstract

JOHN BOYD AND THE AIRLAND BATTLE DOCTRINE by Maj Todd M. Larsen, USAF, 52 pages.

The U.S. Army underwent significant doctrinal changes in the years following the Vietnam War. The 1976 edition of Field Manual (FM) 100-5, championed by General William DePuy, attempted to guide the Army's actions necessary to defeat the Soviet Union on a European battlefield by utilizing an active defense. This concept generated vigorous debates internal and external to the Army that ultimately led to the 1982 and 1986 editions of FM 100-5, commonly referred to as the AirLand Battle Doctrine. Since that time, numerous authors have attempted to link John Boyd directly to the doctrine's creation, with the most damning claims being that the Army outright plagiarized Boyd's work. However, while there is much writing addressing Boyd and the AirLand Battle Doctrine individually, the current literature does not provide empirically conclusive evidence of this linkage. This research has concluded that there was not a direct correlation between John Boyd's concepts and the AirLand Battle Doctrine; however, similarities between Boyd's work and the doctrine were due to the larger reform movement within the Department of Defense (DoD) preceding and throughout the doctrine's development. In order to arrive at this conclusion, this monograph discusses Boyd and the reformers; the doctrine and its authors; and lastly the linkages between the two.

The 1976 version of FM 100-5 generated such critical debate within and external to the U.S. Army that the service began revising the manual almost immediately under the direction of TRADOC Commander, General Donn Starry. Starry assembled a team, led by then Lieutenant Colonels Huba Wass de Czege and L.D. Holder, whose efforts eventually led to the publication of the 1982 version of FM 100-5, more commonly known as the AirLand Battle Doctrine.

Simultaneous to the FM 100-5 debate and subsequent revision was an effort occurring within the DoD known as the Military Reform Movement. The group's goal was to change the DoD's focus on what they deemed excessively expensive weapons systems and antiquated attrition-style warfare. Although this group contained several ranking members of Congress, Boyd and congressional staffer William Lind were at the group's center. While Boyd gained notoriety delivering his maneuver-oriented "Patterns of Conflict" briefings, Lind fueled the movement by writing his *Maneuver Warfare Handbook* and various other professional articles.

Even though the movement was external to the U.S. Army's doctrinal revision efforts, some linkages do exist that highlight an influential correlation between the reform movement and the doctrinal reform. Both Boyd and Lind conversed with Wass de Czege during this period and lectured at Fort Leavenworth at the latter's invitation. More succinctly, Holder described another member central to the reform movement as "influential and timely" in their contributions.

After a careful review of existing literature, it becomes clear that the U.S. Army did not plagiarize Boyd's ideas, but rather benefited from an ongoing dialogue occurring within the DoD. Although Boyd was an important figure during this intellectual reformation, he is not the conceptual source of the AirLand Battle Doctrine. Therefore, after discussing the authors and the reformers, it becomes clear that the conceptual shift within the DoD was a product of many efforts including Military Reform Movement.

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Introduction

The U.S. Army underwent significant doctrinal changes in the years following the Vietnam War. The 1976 edition of Field Manual (FM) 100-5, championed by General William DePuy, attempted to guide the Army's actions necessary to defeat the Soviet Union on a European battlefield by utilizing an active defense. This concept generated vigorous debates internal and external to the Army that ultimately led to the 1982 and 1986 editions of FM 100-5, commonly referred to as the AirLand Battle Doctrine. Since that time, numerous authors have attempted to link John Boyd directly to the doctrine's creation, with the most damning claims being that the Army outright plagiarized Boyd's work. While there is much writing addressing Boyd and the AirLand Battle Doctrine individually, the current literature does not provide empirically conclusive evidence of this linkage. Therefore, this monograph shows that the U.S. Army did not plagiarize Boyd's work. However, similarities between Boyd's work and the doctrine were due to the larger reform movement within the Department of Defense (DoD) preceding and throughout the doctrine's development.

In order to identify the actual linkage between Boyd and the AirLand Battle Doctrine, this monograph will review the doctrine's context to test the theory that the U.S. Army's AirLand Battle Doctrine was not the result of a single person's concepts, but rather it was a product following a conceptual shift within the DoD. The reformers, who are identified and documented in numerous books and articles, initiated the Military Reform Movement. This movement was part of the catalyst that created a conceptual shift within the DoD and the U.S. Army, which is the link between the reformers and the AirLand Battle Doctrine.

This monograph uses four sections, other than the introduction and conclusion, in order to demonstrate this theoretical linkage. The first section will discuss Boyd and review his concepts and theories. The second section will examine the Military Reform Movement, its central members, and the concepts that the reformers were advocating. The third section will

examine the 1982 version of FM 100-5, *Operations*, focusing on the doctrine's origins, the doctrine's authors, and the doctrine's key concepts. The final section will examine the connections between the doctrine and the reformers by discussing similarities between Boyd's concepts and the doctrine, similarities between the reformers' concepts and the doctrine, and reviewing known relationships between the doctrine authors, Boyd, and members of the Military Reform Movement.

John Boyd and His Theories

Before addressing the AirLand Battle Doctrine, it is important to first review the individual central to this monograph, John R. Boyd. Although a complete biography of Boyd is beyond the scope of this research, there are several key events in his background that provide a useful understanding as to the context in which Boyd developed his theories. After a brief review of his background, it is then possible to discuss his major conceptual and theoretical works. As Boyd published very little literature expressing his concepts, this review largely relies on the interpretations of known associates, other authors, and briefings he delivered.

John Boyd's Biography

Although John Boyd stands out as a modern military theorist, his overall life and career path in the defense establishment was not unique. After early development as a tactical expert in fighter aircraft, he transitioned to staff positions until retirement. Following his retirement, he remained at the Pentagon as a DoD civilian until he eventually retired from government service and moved to Florida until the time of his death on 9 March 1997. However, aside from a generic career progression, a deeper look reveals much of what he was able to accomplish in these positions. For the purpose of this monograph, his life can be split into two main phases: his time on active duty, and his time as a DoD civilian. His youth, although interesting, reveals little insight into the mind and theories of Boyd.

Born in Erie, Pennsylvania in 1927, Boyd had a relatively modest upbringing considering the era. To avoid the uncertainty of the draft after high school, he enlisted in the U.S. Army Air Corps as a junior in high school in 1944.¹ By the time he graduated and completed basic training, the war was over, and he served his enlistment with the occupation forces in Japan. After the Army Air Forces discharged Boyd, he gained a commission through the Air Force Reserve Officer Training Corps at the University of Iowa in 1951. Due in part to the U.S. involvement on the Korean peninsula, Boyd achieved his childhood dream and entered pilot training at Columbus Air Force Base (AFB), Mississippi.

Boyd soon found himself headed to Korea, after completing training in the F-86 Sabre at Williams AFB, Arizona. Since he did not arrive in Korea until 1953, he flew only 22 combat sorties before the armistice.² However, these missions were critical in shaping Boyd's future theories of war that began during his next assignment to the U.S. Air Force Fighter Weapons School at Nellis AFB, Nevada. Boyd would spend nearly the next six years at the school, first as a student and then as an instructor.³ It was during this assignment that Boyd developed from a good pilot to a tactical expert, ultimately gaining the moniker "Forty-Second Boyd" due to his unmatched ability as a fighter pilot.⁴ He earned this title due to an open wager that he could win any aerial engagement within forty seconds or else pay the victor forty dollars. According to many accounts, Boyd never lost this challenge. It was also during this assignment that Boyd began cultivating his own notions of combat by publishing several articles on tactics in the school's newspaper, rewriting the training syllabus, and publishing his *Aerial Attack Study* in

¹ Robert Coram, *Boyd: The Fighter Pilot Who Changed the Art of War* (Boston: Little, Brown and Company, 2002), 29.

² Grant Tedrick Hammond, *The Mind of War: John Boyd and American Security* (Washington, DC: Smithsonian Institution Press, 2001), 38.

³ *Ibid.*, 41.

⁴ Coram, *Boyd*, 74.

1960.⁵ However, Boyd soon realized that in order to develop his concepts, he required a degree in engineering.

The Air Force sent Boyd to the Georgia Institute of Technology, which he graduated from in 1962 with a bachelor's degree in industrial engineering.⁶ The Air Force then assigned Boyd to one of the Air Force's research and development facilities at Eglin AFB, Florida, and he then began working on his energy-maneuverability theory. Boyd developed this theory based on his experience in Korea in an attempt to explain the superior performance of U.S. aircraft. The mathematical models developed from this theory also applied to modern aircraft, and they analyzed and predicted performance advantages or disadvantages.⁷ The Air Force quickly recognized the value and implications of his theory, and in 1966, they reassigned Boyd to the Pentagon to work on the F-X fighter aircraft project.⁸

Over the next several years at the Pentagon, Boyd's work largely involved the F-X project and the Lightweight Fighter project, which would eventually become the F-15 Eagle and F-16 Fighting Falcon, respectively. This is also when he became increasingly critical of defense acquisition programs, which he viewed as overly complex and excessively expensive. With the exception of a deployment to Southeast Asia in 1972, Boyd spent the remainder of his active duty career at the Pentagon until retiring in 1975.⁹ By the time he retired and entered the second phase of his career, Boyd had already begun developing more theories as well as becoming involved in the Military Reform Movement.

The second phase of his career begins following his retirement, when Boyd remained at the Pentagon working within the Office of the Secretary of Defense (OSD). Boyd's criticism of

⁵ Ibid., 112. The *Aerial Attack Study* was a 150-page manual on air-to-air tactics.

⁶ Hammond, *The Mind of War*, 53.

⁷ Ibid., 55–61.

⁸ Coram, *Boyd*, 185.

⁹ Ibid., 312.

aircraft acquisition programs quickly spread into other defense programs, which was a fundamental ideal of the Military Reform Movement. His involvement with this movement brought him into contact with “members of the Congress and Senate from both parties, civil servants from the defense establishment, academics from various disciplines, and officers on active service.”¹⁰ One of the officers from other services would become one of the principal authors of the AirLand Battle Doctrine, then Lieutenant Colonel Huba Wass de Czege.¹¹

Also during the second phase of his career, Boyd increased his studies and writing about the conduct of war in general and grew less focused on tactical engagements between aircraft.¹² Boyd soon realized that he needed to expand his study to incorporate history into his theories. Although he did complete another air tactics paper titled “New Conception in Air-to-Air Combat” in 1976, this is also when he wrote the first draft of “Destruction and Creation.”¹³ During the following year, Boyd wrote the first draft of “Patterns of Conflict,” which he would continue to refine over the next decade. Throughout the remainder of his career in OSD, he devised three more concepts that he incorporated into his briefings, before retiring to Florida in 1988 where he remained until his death in 1997.

An Overview of Boyd’s Theories

The purpose of this section is to review the core concepts of Boyd’s theories in order to identify any linkages or similarities with the AirLand Battle Doctrine. It is also necessary since his theories are often misunderstood or misrepresented, with his Observe, Orient, Decide, Act (OODA) Loop being the most commonly misunderstood. For example, a recent article in *Armed*

¹⁰ Shimon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (Portland: Frank Cass, 1997), 257.

¹¹ Jeffrey L. Cowan, “Warfighting brought to you by...” *United States Naval Institute Proceedings* 127, no. 11 (2001): 62.

¹² Hammond, *The Mind of War*, 118–20.

¹³ Coram, *Boyd*, 322.

Forces Journal states, “We must, in effect, discard the OODA Loop by acting first, then observing and then acting again, without ever deciding that we know enough.”¹⁴ The article continues to argue that the OODA Loop has lost relevancy in modern, complex conflicts. However, Frans Osinga argues that “[i]t has become evident that the common view of the OODA Loop model, interpreted as an argument that victory goes to the side that can decide most efficiently, falls short of the mark in capturing the meaning and breadth of Boyd’s work.”¹⁵ Therefore, this section will clarify the principles behind Boyd’s concepts and theories.

While Boyd began writing aerial tactics manuals as early as 1960, this study focuses on his general theoretical writings and presentations as they are central to the scope of this research. Although his 1960 “Aerial Attack Study” provides relevant contextual information concerning the development of his theories, this essay will trace his general theories of war beginning in 1976 when Boyd wrote his sixteen-page essay titled “Destruction and Creation.” He continued to refine and expand his theories through the presentations “Patterns of Conflict”; “Organic Design for Command and Control”; “Strategic Game of ? and ?”; and finally “A Discourse on Winning and Losing.” Although he constructed the essay and presentations in this order, Boyd never published the works in order to limit misinterpretation in part due to their being in a constant state of revision.¹⁶ Moreover, Boyd intended his theories to remain conceptually broad, and publishing them might result in their adaptation into a more prescriptive manual.¹⁷

The essay that laid the foundation for Boyd’s theories, “Destruction and Creation,” was his attempt to support his concepts with established scientific principles. Hammond summarized

¹⁴ Kevin Benson and Steven Rotkoff, "Goodbye, OODA Loop: A Complex World Demands a Different Kind of Decision-Making," *Armed Forces Journal* 149, no. 3 (2011): 27.

¹⁵ Frans P.B. Osinga, *Science, Strategy and War: The Strategic Theory of John Boyd* (New York City: Routledge, 2007), 235.

¹⁶ Robert B. Polk, "A Critique of the Boyd Theory—Is it Relevant to the Army?," *Defense Analysis* 16, no. 3 (2000): 259.

¹⁷ *Ibid.*, 264.

Boyd's intent best by writing, "His purpose was to seek rigorous scientific corroboration for his intuitive insights developed over the years and to prove to himself that they were logically sound, not some harebrained set of insights known only to him without real weight or substance."¹⁸ Therefore, "Destruction and Creation" uses the fields of mathematical logic, thermodynamics, and physics to describe how individuals must use analysis and synthesis to attain the goal of human nature, survival on one's own terms.¹⁹ Specifically, he utilized Gödel's Incompleteness Theorem to demonstrate how it is impossible to define a system strictly from within. In Boyd's words, "Gödel's proof indirectly shows that in order to determine the consistency of any new system we must construct or uncover another system beyond it. Over and over this cycle must be repeated to determine the consistency of more and more elaborate systems."²⁰ He continued by employing the Second Law of Thermodynamics and examining the effects of entropy on a system. Boyd applied this law to his theory of warfare by noting the effects of entropy on a closed system. He asserted that systems that are closed or cannot communicate outside of itself will increase in entropy, dissipate energy, and eventually result in confusion and disorder. Finally, Boyd utilized the Heisenberg Uncertainty Principle to illustrate that "uncertainty, rather than certainty, lies at the base of our physical universe and theoretical understanding of it."²¹ This principle demonstrates his reluctance to publish or codify his theories by accepting the fact that the physical world consists of uncertainties. While it is possible to have an approximate understanding of the physical environment, it is not possible to have an absolute understanding.

Boyd followed "Destruction and Creation" a year later with the first draft of his "Patterns of Conflict" briefing. Although the first iteration of this briefing was only one and a half hours, Boyd would continue to refine his theories over the following twenty years, which resulted in a

¹⁸ Hammond, *The Mind of War*, 120.

¹⁹ John R. Boyd, "Patterns of Conflict," (unpublished presentation slides, December 1986), 10.

²⁰ John R. Boyd, "Destruction and Creation," (unpublished essay, 3 September 1976), 4–5.

²¹ Hammond, *The Mind of War*, 119.

briefing that often lasted more than thirteen-hours.²² Boyd summarized the four-part mission of the discourse as: (1) to make manifest the nature of moral-mental-physical conflict; (2) to discern a pattern for successful operations; (3) to help generalize tactics and strategy; and (4) to find a basis for grand strategy.²³ Moreover, Boyd stated the briefing's intent as "to unveil the character of conflict, survival, and conquest."²⁴ In this presentation, Boyd transitioned from his scientific foundations into a thorough study of history seeking to uncover patterns for successful military operations. John Oseth summarized the study as Boyd's "attempt to identify the main ingredients of successful military operations via a survey of military history."²⁵ It is also during the presentation that Boyd presents his OODA Loop—observe, orient, decide, and act in repeating cycles. In its simplest form, he uses this model to demonstrate the advantage gained by rapidly progressing through the cycle at a rate faster than an adversary progresses. Ultimately, an adversary's reactions will be inappropriate, and confusion can lead to disorder and panic.²⁶ Boyd devotes the majority of briefing slides to his survey of military history where he advocates maneuver warfare in lieu of attrition warfare. Somewhat incomplete in slide format, William Lind translated Boyd's theories from "Patterns of Conflict" into the *Maneuver Warfare Handbook*.²⁷

Boyd continued to refine his theories and briefings including them in the 1987 release of "A Discourse on Winning and Losing," which combined "Patterns of Conflict" with "Organic Designs for Command and Control" and "The Strategic Game of ? and ?."²⁸ Although he

²² Ibid., 120.

²³ Boyd, "Patterns of Conflict," 2.

²⁴ Ibid.

²⁵ John M. Oseth, "An Overview of the Reform Debate," in *The Defense Reform Debate: Issues and Analysis*, ed. Asa A. Clark IV (Baltimore: Johns Hopkins University Press, 1984), 45.

²⁶ Gary Hart and William S. Lind, *America Can Win: The Case for Military Reform*, 1st ed. (Bethesda, MD: Adler & Adler, 1986), 6–7.

²⁷ William S. Lind, *Maneuver Warfare Handbook*, Westview Special Studies in Military Affairs (Boulder, CO: Westview Press, 1985).

²⁸ Hammond, *The Mind of War*, 155.

developed the new segments of his theory after both the 1982 and 1986 versions of FM 100-5, “A Discourse on Winning and Losing” represents the combination of his entire work as it evolved over time. Boyd wrote in the briefing’s abstract, “As one proceeds from ‘Patterns of Conflict’ through ‘Organic Designs for Command and Control,’ ‘Strategic Game of ? and ?,’ and ‘Destruction and Creation’ to ‘Revelation’ he or she will notice that the discussion goes from the more concrete and obvious to the more abstract.”²⁹ As such, he begins the discussion with general historical examples and transitions to the abstract with discussions including science and the human nature. “Organic Designs for Command and Control” therefore did not focus on the impact of modern technology on a commander’s ability to control military forces, but rather addressed human interaction and the importance of trust and understanding the commander’s intent.³⁰ In Boyd’s words, “‘Organic Designs for Command and Control’ surfaces the implicit arrangements that permit cooperation in complex, competitive, fast moving situations.”³¹ He then transitioned to “Strategic Game of ? and ?,” where he “emphasizes the mental twists and turns we undertake to surface schemes or designs for realizing our aims or purposes.”³² This is also the portion where he elaborates on how one transitions through the OODA Loop in a competitive environment. He shows his preference for the metaphor by likening strategic synthesis to someone that is able to build a snowmobile out of parts from a tractor, snow skis, a bicycle, and a motorboat.³³ Consequently, he believed there are individuals that are capable of building snowmobiles and those that are not.

Boyd continued to develop and evolve his theories until the time of his death in 1997, but the previously discussed collection contains the essence of his concepts. Although he developed

²⁹ John R. Boyd, "A Discourse on Winning and Losing," (unpublished abstract, 1987).

³⁰ Hammond, *The Mind of War*, 162.

³¹ Boyd, "A Discourse on Winning and Losing."

³² Ibid.

³³ Hammond, *The Mind of War*, 156.

“A Discourse on Winning and Losing” after the AirLand Battle Doctrine and is thus outside the scope of this investigation into plagiarism, the briefing does highlight the structure of Boyd’s theories. Therefore, this analysis will focus primarily on his “Patterns of Conflict” briefing and the subsequently published *Maneuver Warfare Handbook* as this book is the written representation of Boyd’s work published by his colleague, William Lind.

The Military Reform Movement

After reviewing the life and theories of John Boyd, it is necessary to discuss the Military Reform Movement in order to highlight any linkages between Boyd and the AirLand Battle Doctrine. This is a key step in order to expand on the notion that the Military Reform Movement was one of the catalysts that led to the conceptual shift within the DoD, which ultimately resulted in many innovative changes including the AirLand Battle Doctrine. Before assessing the movement’s impact on the AirLand Battle Doctrine, it is necessary to examine the movement’s origins, members, and key concepts.

The Military Reform Movement’s Origins

Although many authors have documented the Military Reform Movement, there exists some discrepancy in the actual origin of the movement.³⁴ Some of the contextual issues of the time were poor performance in Vietnam, rising defense costs to cover the possibility of nuclear war against the Soviet Union, and continued involvement in small wars intent on the containment of communism.³⁵ Shimon Naveh wrote, “According to Senator Gary Hart, the military reform started with the combined initiative of Senator Robert Taft and William Lind to write a White Paper on defense in 1976.”³⁶ However, Grant Hammond views the Military Reform Movement as

³⁴ Denny Smith, "The Roots and Future of Modern-Day Military Reform," *Air University Review* 36, no. 6 (1985): 34.

³⁵ Hammond, *The Mind of War*, 105–7.

³⁶ Naveh, *In Pursuit of Military Excellence*, 257.

a follow on to the reforms undertaken by Boyd while working on the F-X project in the 1960s. He goes on to state, “Along the way, the Fighter Mafia’s interests evolved into something that would eventually be known as the Military Reform Movement.”³⁷ The Fighter Mafia was an unofficial name given to Boyd and his associates who sought to change the pursuit of larger and more complex, air-superiority aircraft. Other authors concur with Hammond’s view and go further to say, “The original idea of transformation was born amid this effort at reform, and by all accounts this movement drew its inspiration from the thinking of John Boyd.”³⁸ Regardless of the exact formation date or source, the movement’s origins revolved around three core concepts: fighter aircraft development, defense acquisitions, and a military doctrine advocating maneuver warfare.

During the first part of Boyd’s assignment at the Pentagon, he applied his energy maneuverability theory to current aircraft in the U.S. Air Force inventory as well as aircraft in development. His theory revealed that despite the growing cost of fighter aircraft, the air-to-air performance capability was decreasing and not on par with current adversary aircraft. Those working with him on the project, used this theory as a basis to redesign the F-X fighter aircraft that would eventually become the F-15 Eagle. However, the group maintained that the F-15 lacked optimization for air-to-air combat due to its size and equipment they deemed was not mission essential. Additionally, they believed that the aircraft was excessively expensive and would prevent procurement of the number needed for a war with the Soviet Union. This dissatisfaction led them to pursue a lightweight fighter concept that was more maneuverable and less expensive than the F-15.³⁹ The concept resulted in the successful development and

³⁷ Hammond, *The Mind of War*, 104. Smith, "The Roots and Future of Modern-Day Military Reform," 34.

³⁸ Eugene Jarecki, *The American Way of War: Guided Missiles, Misguided Men, and a Republic in Peril* (New York: Free Press, 2008), 170.

³⁹ Smith, "The Roots and Future of Modern-Day Military Reform," 37. Congressman Smith wrote, "Interestingly enough, it was the disappointment with the final F-15 outcome in 1968 that led the fighter reformers—spearheaded by Boyd, Riccioni, and Sprey—to almost immediately begin the seemingly quixotic task of starting a genuinely "hot," small, and affordable fighter."

acquisition of the F-16 Fighting Falcon and the F-18 Hornet, with both of these aircraft produced in greater numbers than the F-15.⁴⁰ The lightweight fighter program also contributed to one of the movement's other concepts—reforming defense acquisitions processes.

During the lightweight fighter development, the Fighter Mafia proposed for two defense contractors to build aircraft prototypes and conduct a head-to-head competition in order to determine which prototype best achieved the design specifications.⁴¹ Further, each prototype competed against adversary aircraft under combat conditions, rather than rely on computer modeling and simulations. This approach became a central concept to the movement, and Hart summarized it stating, “The performance requirements themselves should reflect combat-based effectiveness analysis.”⁴² This approach resulted in the redesign of other systems such as the M-2 Bradley. During the operational testing phase, reformers insisted that the U.S. Army test the vehicle under realistic combat conditions using Soviet-made rockets. The initial design proved ineffective, and the Army eventually redesigned it because of the realistic testing.⁴³

The third concept that appears during the origins of the movement is that of maneuver warfare versus attrition warfare. The debate began after the U.S. Army released the 1976 edition of FM 100-5, which pursued a doctrine termed Active Defense. The reformers viewed this approach as unnecessarily absorbing high casualties and overly relying on firepower. Lind, in reference to the Active Defense Doctrine, stated, “The conflict is more physical than mental.”⁴⁴ However, Lind argues that maneuver warfare is not new to the U.S. military, and its concepts exist in the writings of Sun Tzu.⁴⁵ The reformers viewed attrition warfare as an extension of

⁴⁰ Hammond, *The Mind of War*, 98.

⁴¹ *Ibid.*, 94–5.

⁴² Hart and Lind, *America Can Win*, 200.

⁴³ Coram, *Boyd*, 398–412.

⁴⁴ William S. Lind, “The Case for Maneuver Doctrine,” in *The Defense Reform Debate: Issues and Analysis*, ed. Asa A. Clark IV (Baltimore: Johns Hopkins University Press, 1984), 89.

⁴⁵ *Ibid.*, 90.

Department of Defense tendencies to focus on complex, expensive weapons systems in order to defeat the enemy. This was in part due to the Active Defense Doctrine emphasizing advanced technology and weapons systems while not emphasizing the human aspects of warfare. Maneuver warfare, therefore, became a critical extension of the effort to reform the defense acquisition practices.

The Military Reform Movement's Members

The Military Reform Movement's origin is difficult to identify precisely, and its membership is equally nebulous. Further compounding the confusion is that the membership consists of three segments: the core members, the political members, and the military members. It is unnecessary to identify all members of the movement, but identification of a few is necessary in order to highlight linkages between the group and the AirLand Battle Doctrine.

According to Hart and Lind, "At the core of the civilian wing lies a group of five people: John Boyd, Steven Canby, Bill Lind, Norman Polmar, and Pierre Sprey."⁴⁶ Hart and Lind continue by stating that the loosely organized group is not controlled by any of these individuals, but they do "provide much of the grist for the reform mill in the form of catalyzing ideas."⁴⁷ Steven Canby, Norman Polmar, and Pierre Sprey were defense analysts, while Boyd and Lind provided much of the theoretical philosophies for the movement. More specifically, "The foremost contribution of William Lind ... was the translation of Boyd's system of abstract ideas into a theoretical product which could be digested by the more advanced circles of the armed forces."⁴⁸ Lind, who also served on the staffs of Senators Hart and Taft, therefore became one of the more visible core members by advancing the movement's concepts through such publications

⁴⁶ Hart and Lind, *America Can Win*, 4–5.

⁴⁷ *Ibid.*, 5.

⁴⁸ Naveh, *In Pursuit of Military Excellence*, 259.

as his *Maneuver Warfare Handbook*.⁴⁹ Lind used this handbook as the “translation of the abstract gist of ‘Patterns of Conflict’ into clear and practical language.”⁵⁰

Lind also provided the link to the second segment of the reform group. Senator Gary Hart, with the assistance of Lind, founded the political wing in the summer of 1981. This group, known as the Military Reform Caucus, soon had 45 members including Representatives Newt Gingrich and Richard Cheney.⁵¹ The caucus grew to more than 100 members by 1985, representing “the entire political spectrum and the array of concerns about American national security.”⁵² The sheer size and diversity of the caucus membership made it a formidable group within Congress.

The final segment of the movement’s membership is that of the military reformers. This group is the most difficult to identify as some members were concerned about bureaucratic reprisals. As Hart and Lind state, “They remain anonymous, because the leaders of their respective services, with the exception of the Army, are hostile to reform. They are not rebels or subversives; they try to work loyally within the system. But they do seek change.”⁵³ Furthermore, many “reform-minded” officers did not proclaim official membership in the movement, with two notable Army officers being Lieutenant Colonels Huba Wass de Czege and L.D. Holder.⁵⁴ Additionally, as Hart and Lind note, “the uniformed wing of the reform movement is by no means dependent on, or an offshoot of, the civilians.”⁵⁵ They also highlight that the civilian segment’s primary goal is to make the services self-reforming, thereby decreasing the necessity of the civilian wing. This notion is central to this discussion since it highlights a professional connection

⁴⁹ Lind, *Maneuver Warfare Handbook*.

⁵⁰ Naveh, *In Pursuit of Military Excellence*, 260.

⁵¹ John T. Correll, “The Reformers,” *Air Force Magazine* 91, no. 2 (2008): 42.

⁵² Hammond, *The Mind of War*, 110–1.

⁵³ Hart and Lind, *America Can Win*, 12.

⁵⁴ Naveh, *In Pursuit of Military Excellence*, 25n37.

⁵⁵ Hart and Lind, *America Can Win*, 12.

between military and civilian reformers, and it was a key part of conceptual change within the services.

The Military Reform Movement's Concepts

Due to the diverse membership and ambiguous nature of the Military Reform Movement, it is difficult to define its charter and membership. Author Serge Herzog summarizes his view of the movement's broad concepts:

Succinctly stated, reformers hold the following positions: (1) overemphasis on high technology has driven the cost of modern weapons out of control; (2) high technology has introduced a level of complexity that seriously hampers force readiness; (3) high technology is pushed in areas often irrelevant to success in combat and may even endanger its user; (4) the added increment in performance resulting from high technology rarely justifies the cost involved; and (5) high technology stretches acquisition and maturation, causing critical delays in technology integration and frequently unexpected technical problems.⁵⁶

However, this view only highlights a portion of the movement's concepts, as it only focuses on defense acquisitions reform. Not only did the movement advocate this reform, but the movement was also a proponent of doctrine and education reform.

The first concept, defense acquisition reform, is the one most closely tied to the political arm of the movement. While some countered that the movement was only focused on low-cost weapons systems, Hart and Lind clarified by stating, "Military reform has effectiveness, not efficiency, as its goal."⁵⁷ The civilian and political members of the movement had grown increasingly weary with rising costs with what was appearing to be degraded performance. Boyd had highlighted this trend with his early involvement in the F-X program, where he was critical of the enormously expensive F-111 aircraft that fell short of its designed capability and performance as an air superiority aircraft.⁵⁸ Smith provides a concise summary of the acquisition reforms by

⁵⁶ Serge Herzog, *Defense Reform and Technology: Tactical Aircraft* (Westport, CT: Praeger, 1994), 3–4.

⁵⁷ Hart and Lind, *America Can Win*, 14.

⁵⁸ Hammond, *The Mind of War*, 80.

writing, “It was during this time that increased competition, ‘fly before buy,’ competitive prototypes, fly offs, highly lethal air-to-ground cannons, operational testing, and the concept of low-cost/high-effectiveness weapons all became words of the day, due to the efforts of the early reformers.”⁵⁹ The process of defense acquisitions had thus evolved into a model that created competition between defense contractors with the goal of purchasing the most effective weapons system within budgetary constraints.

The second concept, doctrine reform, dealt specifically with what the reformers advocated as maneuver warfare. Although maneuver warfare was not an original concept, the reformers viewed Boyd as the source of their inspiration.⁶⁰ Boyd undertook an extensive historical study to identify consistencies between battles where the outnumbered or physically weaker opponent prevailed. Hart and Lind highlighted this relationship by writing, “Colonel Boyd asked himself: what did all these cases have in common? His answer was what is now called the Boyd Theory, which is explained in ‘Patterns of Conflict.’ It is the theory of conflict that underlies much of the military reformers’ work.”⁶¹ Before elaborating on maneuver warfare, the reformers viewed attrition warfare as, “the physical destruction of enemy forces by application of massive strength and firepower.”⁶² Author John Oseth continued, “On the battlefield [attrition warfare] uses massed troop formations as a bludgeon, seeking by straightforward, frontal attacks to batter the enemy away from advantageous terrain in physical, firepower-oriented engagements.”⁶³ In contrast, the reformers concept of maneuver warfare focused more on the psychological and human factors in combat. Oseth described it as, “[maneuver warfare] seeks the enemy’s defeat—not his destruction or obliteration—by flexible

⁵⁹ Smith, "The Roots and Future of Modern-Day Military Reform," 38.

⁶⁰ Oseth, "An Overview of the Reform Debate," 45.

⁶¹ Hart and Lind, *America Can Win*, 6.

⁶² Oseth, "An Overview of the Reform Debate," 46.

⁶³ Ibid.

and unpredictable movement of forces and firepower.”⁶⁴ While each style may have its relevance to different applications of military force, the reformers were concerned that the current American approach to warfare was insufficient in countering the growing Soviet threat. Once again, Oseth provides an astute summary by writing, “The [reformers’] main concern stems from their belief that America’s military force structure, operational doctrine, and weapons acquisition policies have been shaped mainly by the attrition perspective, while the nation has lost the material preponderance, the strength of numbers, and the assurance of mobilization time needed to make attrition warfare work.”⁶⁵ The reformers believed that the U.S. military was training and equipping in a manner that would be insufficient at countering a Soviet invasion, and they believed that the 1976 edition of FM 100-5 supported this belief. Lind, through his lectures and publications, “sowed the initial doubts regarding the ability of the 1976 manual to deliver the operational goods required by the strategic circumstances.”⁶⁶ Therefore, they judged that it was of paramount importance for the military to reform its doctrine to a model that relied on maneuver warfare—a role that Lind believed was the responsibility of the military wing of the reform movement.⁶⁷

The final concept, military education reform, was the key aspect to making the military self-reforming. However, the reform movement did not intend education reform to act as a conduit solely for advancing the movement’s ideas. Rather, as Oseth writes, “The reform challenge, then, is not to choose one combat style or dogma over another, but to develop officers’ ability to select the right maneuver and firepower, to make the right choices, in specific combat contexts.”⁶⁸ Hart and Lind also recognized that the civilian wing was not the single source for

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Naveh, *In Pursuit of Military Excellence*, 259.

⁶⁷ Ibid., 260.

⁶⁸ Oseth, “An Overview of the Reform Debate,” 49.

conceptual thought by writing, “The uniformed reformers do their own thinking, and they include some intellectuals of the first rank.”⁶⁹ Their account also covers a review of the professional education systems of each service. While their review is rather critical of most institutions, they do praise the U.S. Army Command and General Staff College referring to it as, “the bright spot, not just in army education but in American military education generally.”⁷⁰ This praise came in response to the creation of the School of Advanced Military Studies, which Hart and Lind viewed as “the finest educational program offered by any service.”⁷¹ Lind, following a 1984 visit to the school, saw the institution as a positive step towards maneuver warfare and military education reform. Writing to members of the Reform Caucus, Lind states, “We should do our best to make sure the Advanced Course receives whatever resources it needs, and that the Army receives due public credit for what it is attempting to do through this course.”⁷² The civilian and political wings of the reform movement therefore understood the importance of educational reform and its necessity to internalizing reform to the military. Lind feared that without this change to the military education system, changes to doctrine would be ineffective.⁷³

Following this review of the Reform Movement, it is apparent that the Reform Movement and AirLand Battle Doctrine shared several commonalities. The purpose of this section was to expand on the notion that the Military Reform Movement was one of the catalysts that led to the conceptual shift within the DoD, which ultimately resulted in many innovative changes including the AirLand Battle Doctrine. While a later section covers the exact linkage between the movement and the doctrine, it is apparent that there are conceptual similarities and professional

⁶⁹ Hart and Lind, *America Can Win*, 12.

⁷⁰ *Ibid.*, 170.

⁷¹ *Ibid.*

⁷² William S. Lind to Members of Military Reform Caucus, 28 November 1984, "The Army's New Advanced Military Studies Program at Fort Leavenworth," Combined Arms Research Library, Fort Leavenworth, KS.

⁷³ *Ibid.*

linkages between the two. Before assessing the depth of this linkage, it is first necessary to examine the doctrine involved—primarily the 1982 FM 100-5.

The 1982 Field Manual 100-5

The central U.S. Army document to this discussion is the 1982 edition of FM 100-5, *Operations*, commonly referred to as the AirLand Battle Doctrine. This doctrinal document represented a vast departure from the previous edition of the manual, which the Army published in 1976 and which proposed a concept called Active Defense. Therefore, it is necessary to examine the origin of the 1982 doctrine, the authors of the doctrine, and finally review the doctrine's key concepts. Once this review is accomplished, it will be possible to identify any similarities or disparities between the reformers' maneuver warfare concepts and the concepts espoused in the AirLand Battle Doctrine.

The Doctrine's Origins

Almost immediately after the release of the 1976 edition of FM 100-5, a significant debate ensued that was both internal and external to the U.S. Army. The 1976 edition was the product of General William DePuy and the newly formed Training and Doctrine Command (TRADOC) in the wake of the Vietnam War. In order to describe the AirLand Battle Doctrine's origins, it is necessary to first review the 1976 version of FM 100-5. This monograph will then review the debate that ensued after the doctrine's release and then transition to analyzing the development and writing of the 1982 version of FM 100-5.

The 1982 FM 100-5 was the result of and reaction to the vigorous debate over the 1976 version of the manual.⁷⁴ Furthermore, the 1976 version must be viewed through the context of the early 1970s. During this period, the U.S. Army withdrew from Vietnam and refocused its

⁷⁴ John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973–1982*, TRADOC Historical Monograph Series (Fort Monroe, VA: Historical Office, U.S. Army Training and Doctrine Command, 1984), 1.

commitments to defending Western Europe against a Soviet invasion. Concurrently, public mood was shaping U.S. foreign policy hoping to limit future involvement in proxy wars fought to contain further Soviet expansion. Therefore, the U.S. military focused on a direct engagement with Soviet forces and not irregular warfare. However, although U.S. and Soviet involvement was generally limited to advisory and materiel support roles during the 1973 Arab-Israeli wars, this brief war did highlight a growing disparity between Soviet and U.S. equipment in favor of the communist superpower.⁷⁵ All of these factors, combined with fiscal restraints, drove the desire for a revised doctrine centered on major combat operations in Europe. The doctrine also served the purpose of highlighting the necessity for weapons system modernization and resulted in the procurement of the U.S. Army's "big five" weapons systems—the Bradley Fighting Vehicle, the Abrams tank, the UH-60 Blackhawk helicopter, the AH-64 Apache helicopter, and the Patriot air defense missile system.⁷⁶ In this role, the Active Defense Doctrine proved remarkably effective by matching doctrine to materiel development.

Although the 1976 version of FM 100-5 was successful at modernizing the U.S. Army's aging equipment, many quickly attacked the manual for its conceptual shortcomings. The doctrine was uniquely tailored to the European theater and generally ignored other possible engagements with an entire chapter devoted to "Operations within [North Atlantic Treaty Organization]."⁷⁷ The goal was to fight outnumbered and win while relying on technological capabilities to mitigate the personnel shortcomings, specifically relying on greater mobility with increased nighttime and electronic warfare capability.⁷⁸ This reliance on the technological

⁷⁵ Saul Bronfeld, "Fighting Outnumbered: The Impact of the Yom Kippur War on the U.S. Army," *Journal of Military History* 71, no. 2 (2007): 465.

⁷⁶ George F. Hofmann and Donn A. Starry, *Camp Colt to Desert Storm: The History of U.S. Armored Forces* (Lexington: University Press of Kentucky, 1999), 409.

⁷⁷ U.S. Army, *Field Manual (FM) 100-5, Operations* (Washington DC: Headquarters, Department of the Army, 1976), 13-1.

⁷⁸ Joseph J. Redden, "AirLand Battle—The Global Doctrine?" (master's thesis, U.S. Army War College, 1983), 16–7.

solution produced a doctrine centered on the strength of the defense while relying on firepower to mitigate unfavorable force ratios—otherwise known as attrition warfare. Force ratio and combat power analysis appears throughout the manual with charts that highlight the trends of increased firepower capability in both range, speed, and a “new lethality.”⁷⁹ Commanders used maneuver mainly for massing firepower in order to “concentrate overwhelming combat power and to decisively alter force ratios when and where we choose.”⁸⁰ The dependence on the defense was a vast departure from previous, offensive-oriented traditions, and hinged on the unprecedented necessity of winning the first battle.⁸¹ These were just some of reasons that sparked an intense debate, shaping the way for the AirLand Battle Doctrine.

As Robert Doughty wrote in 1979, “When the new manual was published in July 1976, it became one of the most controversial field manuals ever published by the U.S. Army.”⁸² While significant criticism of the doctrine came from outside the U.S. Army, originating from writers such as military reformers William Lind and Edward Luttwak, a significant amount of criticism generated from within.⁸³ Furthermore, while the debate encompassed numerous criticisms, this section will address three predominant arguments—overreliance on tactics, technology, and the defense. The overreliance on tactics is a reference to the 1976 version’s perceived preoccupation with the first battle. Specifically, critics viewed the Active Defense Doctrine as lacking in reference to the operational and strategic levels of war.⁸⁴ While the company commander’s role

⁷⁹ U.S. Army, *1976 FM 100-5*, 2-1.

⁸⁰ *Ibid.*, 3-4.

⁸¹ Jeffrey W. Long, “The Evolution of U.S. Army Doctrine: From Active Defense to AirLand Battle and Beyond” (master’s thesis, Command and General Staff College, 1991), 45.

⁸² Robert A. Doughty, *The Evolution of U.S. Army Tactical Doctrine, 1946–76* (Fort Leavenworth, KS: Combat Studies Institute, 1979), 43.

⁸³ William S. Lind, “Some Doctrinal Questions for the United States Army,” *Military Review* 57, no. 3 (1977).

⁸⁴ Aaron Blumenfeld, “AirLand Battle Doctrine: Evolution or Revolution?” (bachelor’s thesis, Princeton University, 1989), 31.

receives significant attention, the 1976 manual lacks guidance on the echelons above division.⁸⁵ The manual similarly lacks operational maneuver guidance not related to repositioning and massing firepower in tactical engagements. The manual placed the emphasis on the hardware's mobility and capability and less on the individual soldier. Lastly, many critics cited the apparent abandonment of the offensive mindset and the possible implications on a soldier's morale. As Aaron Blumenfeld states, "a number of military thinkers have argued, with some historical validity, that a defensive doctrine can be damaging to soldiers' morale."⁸⁶

In the years following the release of the 1976 version of FM 100-5, the U.S. Army attentively participated in and listened to the debate surrounding the doctrine. Concurrent with this debate, General Donn Starry was executing the doctrine in training exercises as commander of the V Corps in Europe. This operational employment added depth to the argument that the doctrine lacked the necessary framework to counter the Soviet threat.⁸⁷ After Starry assumed command of TRADOC in 1977, he began the lengthy revision process with a different approach. Not only did Starry return the responsibility of writing the doctrine back to the Combined Arms Center at Fort Leavenworth, but he also began a circulation campaign of the future doctrine. These efforts brought the educational arm at the Command and General Staff College back in line with doctrinal development.⁸⁸ The circulation campaign also served the purpose of creating a constructive discourse throughout the U.S. Army and played a significant role in developing and refining the doctrine. The campaign also helped improve service commitment prior to publishing the AirLand Battle Doctrine. While many U.S. Army officers were involved in the revision efforts, Starry approached the revision from two major fronts. First, Starry appointed Brigadier General Donald Morelli, Deputy Chief of Staff for Doctrine, to oversee the circulation campaign

⁸⁵ Paul E. Cate, "Large Unit Operational Doctrine," *Military Review* 58, no. 12 (1978): 40.

⁸⁶ Blumenfeld, "AirLand Battle Doctrine," 27.

⁸⁷ Romjue, *From Active Defense to AirLand Battle*, 24.

⁸⁸ *Ibid.*, 30.

and gain service consensus. Second, Starry appointed Lieutenant General William Richardson, commander of the Combined Arms Center, to oversee the writing of the doctrine. For this task, Richardson appointed Lieutenant Colonels Huba Wass de Czege and L.D. Holder to author the AirLand Battle Doctrine.

The Doctrine's Authors

The purpose of this section is not to review the complete biographies of each of the major contributors to the AirLand Battle Doctrine, but rather the intent is to highlight the relevant contextual attributes of each major contributor. These attributes frame the discussion and aid in understanding the development of the doctrine. Therefore, the biographies will be rather limited in scope, but they will clarify the professional mindset and discourse that occurred. Furthermore, this biographical review is limited to the contributions of General Donn Starry, Brigadier General Donald Morelli, and Lieutenant Colonels Huba Wass de Czege and L.D. Holder.

General Starry, “a visionary with great intellect,” was born in 1925 and graduated from the U.S. Military Academy (USMA) in 1948.⁸⁹ Commissioned into the armor branch, Starry saw combat service in Korea and served two tours in Vietnam, including commanding the 11th Armored Cavalry Regiment during its operations in Cambodia.⁹⁰ Prior to assuming command of TRADOC, he commanded the V Corps in Germany and in that role had worked closely with General William DePuy in formulating the Active Defense Doctrine for application in V Corps’ area of responsibility. It was also during this role where Starry developed his own concepts for revision. After taking command of TRADOC in 1977, he began collaborating and revising these concepts and eventually published the concept statement in March 1981 that would lead to the

⁸⁹ James F. Dunnigan and Raymond M. Macedonia, *Getting it Right: American Military Reforms after Vietnam to the Persian Gulf and Beyond* (New York: W. Morrow and Co., 1993), 310.

⁹⁰ Gregory Fontenot, "Book Review: Press On! Selected Works of General Donn A. Starry," *Parameters* 40, no. 2 (2010): 139.

AirLand Battle Doctrine .⁹¹ Although the U.S. Army was already accomplishing the doctrinal revision, the concept statement and numerous other professional articles began disseminating the core concepts of the doctrine throughout the military. This written dissemination was in addition to the briefings delivered by Brigadier General Morelli.

General Donald Morelli was born in 1933 and graduated from the USMA in 1956. Commissioned into the infantry branch, Morelli served in Vietnam with the 9th Infantry Division and concluded his career serving in TRADOC. It was in early 1981 that Starry tasked Morelli, his Deputy Chief of Staff for Doctrine, to brief the fundamental concepts to industry, Congress, and the executive branch in order to gain support.⁹² Concurrently with Morelli's briefings, Starry tasked briefing teams from the Combined Arms Center with briefing the U.S. Army. While the U.S. Army briefs focused on gaining internal consensus, Morelli's briefings sought to gain support from other services as well as the policy makers. Furthermore, Morelli's briefings "stressed the new doctrine's reliance on the strengths of Western man—his innovativeness, independent thinking, flexibility, and adaptability to change."⁹³ During these briefings, Morelli routinely interacted with members of the Military Reform Movement and Military Reform Caucus.⁹⁴ In addition to this, Morelli directed the inclusion of the terms and definitions for the operational level of war that appeared in both the 1982 and 1986 versions of FM 100-5.⁹⁵

While Starry and Morelli provided the necessary visibility of the AirLand Battle Doctrine, Lieutenant Colonels Holder and Wass de Czege received the task of writing the doctrine. Huba Wass de Czege was born in 1941 and commissioned into the infantry branch after graduating from the USMA in 1964. Following two tours in Vietnam, Wass de Czege graduated

⁹¹ Romjue, *From Active Defense to AirLand Battle*, 44–50.

⁹² Dunnigan and Macedonia, *Getting it Right*, 308.

⁹³ Blumenfeld, "AirLand Battle Doctrine," 68.

⁹⁴ Saul Bronfeld, "Did TRADOC Outmanoeuvre the Manoeuvrists? A Comment," *War & Society* 27, no. 2 (2008): 121.

⁹⁵ L.D. Holder, e-mail message to author, 16 February 2012.

with a masters' degree from Harvard University and subsequently taught at the USMA. After commanding an infantry battalion, the Army assigned him to Fort Leavenworth as an Army War College Research Fellow with the task of conducting studies of the Army's staff college system.⁹⁶

Lieutenant Colonel L.D. Holder followed a similar path such as Wass de Czege. Holder graduated from Texas A&M University and received a commission into the armor branch. After serving one tour in Vietnam, Holder also attended Harvard University and earned a Master of Arts degree in History before teaching history at the USMA.⁹⁷ He completed Command and General Staff College in 1977 and returned to Fort Leavenworth in June 1980 with an assignment as a doctrine author.

Lieutenant General Richardson assigned Wass de Czege, and subsequently Holder, to assume the rewrite project after Richardson became "not entirely happy with the pace of progress on the new FM 100-5."⁹⁸ As lead writer, Wass de Czege frequently conferred with Starry to the level where the latter approved every concept in the new doctrine. Wass de Czege and Holder also wrote in professional journals and books as a source for vetting the concepts of the AirLand Battle Doctrine. They coauthored an article in *Military Review* titled "The New FM 100-5," while Wass de Czege wrote a book section titled "Army Doctrinal Reform" as well as other works.⁹⁹

Although abbreviated, these biographies do provide insight to the current discussion. First, all four of the reviewed officers served in combat in the infantry or cavalry, and, more specifically, they all served in Vietnam. This experience undoubtedly framed their views about

⁹⁶ Kevin Benson, "Educating the Army's Jedi: The School of Advanced Military Studies and the Introduction of Operational Art into U.S. Army Doctrine, 1983–1994" (PhD diss., University of Kansas, 2010), 6.

⁹⁷ Dunnigan and Macedonia, *Getting it Right*, 306.

⁹⁸ Blumenfeld, "AirLand Battle Doctrine," 53.

⁹⁹ Huba Wass de Czege, "Toward a New American Approach to Warfare," *The Art of War Quarterly* II, no. (1983); Huba Wass de Czege, "Army Doctrinal Reform," in *The Defense Reform Debate: Issues and Analysis*, ed. Asa A. Clark IV (Baltimore: Johns Hopkins University Press, 1984); Huba Wass de Czege, "Understanding and Developing Combat Power" (Combined Arms Research Library, 1984); Huba Wass de Czege and L. D. Holder, "The New FM 100-5," *Military Review* 62, no. 7 (1982).

the U.S. Army's capability and future missions. Likewise, as they all had also served in Germany, they understood the intricacies and necessity of countering a Soviet attack in Europe. In addition to operational and combat experience, Starry, Wass de Czege, and Holder proved to be academically-minded with a proclivity for authoring professional works aimed at shaping the future of the U.S. Army.

The Doctrine's Concepts

Before highlighting the similarities between the AirLand Battle Doctrine and the concepts of John Boyd and the military reformers, thereby resolving the plagiarism debate, it is first necessary to review the key concepts of the doctrine. Huba Wass de Czege provided a brief summation of the key components of the doctrine in a 1983 journal article:

AirLand Battle Doctrine has a number of distinctive features. It takes a non-linear view of battle and enlarges the geographical area of conflict, stressing unified air and ground operations throughout a theater. It distinguishes the operational level of war—the conduct of campaigns and large unit operations—from the tactical level. It recognizes the non-quantifiable elements of combat power, especially that of maneuver which is now accorded the same importance as firepower. It acknowledges the importance of nuclear and chemical weapons and of electronic warfare and details their effects on operations. And, most importantly, it keeps the human element prominently in the foreground.¹⁰⁰

Therefore, for the purposes of this study, the AirLand Battle Doctrine consists of the following major themes: integration of the deep attack; the incorporation of operational art and the operational level of war; the interaction of maneuver and firepower; and the human element of combat. In addition to these themes, the AirLand Battle Doctrine also included four basic tenets: initiative, depth, agility, and synchronization.¹⁰¹

The integration of the deep attack is the first theme to be discussed and is even indicated in the doctrine's title—AirLand Battle. This version of the doctrine capitalized on incorporating joint firepower capabilities in order to attack the enemy in depth. Although the doctrine's authors

¹⁰⁰ Wass de Czege, "Toward a New American Approach to Warfare," 53.

¹⁰¹ U.S. Army, *Field Manual (FM) 100-5, Operations* (Washington, DC: Headquarters, Department of the Army, 1982), 2-1.

viewed this as “an important element of operations,” they also acknowledged that the concept was not revolutionary but instead highlighted that “U.S., German, and Israeli campaign plans have historically made use of long-range interdiction to gain local battlefield advantage.”¹⁰² While many criticized the 1976 version of FM 100-5 for insufficiently addressing the threat of follow-on Soviet forces, the AirLand Battle Doctrine remedied this shortcoming by applying long-range interdiction firepower against the enemy in order to prevent them from massing. The deep attack utilized the tenet to depth in order to gain or maintain another tenet—initiative. Furthermore, it was essential to synchronize combat capabilities while executing the deep attack.

The second major theme is the incorporation of the operational level of war and operational art into the AirLand Battle Doctrine. This incorporation into doctrine was the result of the 1976 version giving excessive attention to tactical actions and little discussion of actions above division. The AirLand Battle Doctrine says the operational level is the level that “uses available military resources to attain strategic goals within a theater of war. Most simply, it is the theory of large unit operations.”¹⁰³ Moreover, the manual constantly links tactical actions to strategic objectives—the foundation of operational art.

The third major theme addressed in the AirLand Battle Doctrine is the inclusion of maneuver warfare concepts in addition to the firepower concepts of the 1976 FM 100-5. Specifically, the AirLand Battle Doctrine highlighted the interdependence of maneuver and firepower. While some individuals viewed the two concepts as independent concepts, Wass de Czege referred to this notion as “a false dichotomy.”¹⁰⁴ He highlighted the interaction of the two by noting how forces maneuver to employ firepower, and they employ firepower to create opportunities for maneuver. Additionally, Wass de Czege viewed the pure, maneuver theories as

¹⁰² Wass de Czege and Holder, “The New FM 100-5,” 57.

¹⁰³ U.S. Army, *1982 FM 100-5*, 2-3.

¹⁰⁴ James McDonough, “The Operational Art: Quo Vadis?,” in *Maneuver Warfare: An Anthology*, ed. Richard D. Hooker, Jr. (Novato, CA: Presidio Press, 1993), 111.

excessively vague and not appropriate to the realities of large formation operations.¹⁰⁵ The AirLand Battle Doctrine balanced maneuver and firepower, and in doing so capitalized on the tenets of depth, agility, and synchronization.

The final major theme addressed by the AirLand Battle Doctrine was the emphasis placed on the human element of combat. This was a result of the debate over the 1976 version's apparent overreliance on firepower and technology to defeat the adversary. While the weapon systems introduced during this era greatly increased battlefield lethality, the AirLand Battle Doctrine authors highlighted the notion that "war was fought by people and not by machines."¹⁰⁶ The authors also realized that "optimizing weapons effectiveness does not always optimize the effectiveness of soldiers."¹⁰⁷ Similarly, the doctrine also highlighted the importance of tactical leader initiative in order to create opportunities, hence achieving greater effectiveness.

While this review is not all-inclusive of the AirLand Battle Doctrine's concepts, the major themes and tenets previously discussed are central to the doctrine and to this study. While some viewed the doctrine solely as the U.S. Army's adoption of maneuver warfare concepts, others recognized its significance at providing the "Army with a sound intellectual basis for how it could fight outnumbered and win."¹⁰⁸ Furthermore, while some viewed the doctrine as a revolutionary approach to warfare, the doctrine's authors viewed it merely as an evolutionary change. Holder and Wass de Czege claimed, "[The AirLand Battle Doctrine] has retained many of the best features of the 1976 manual, recaptured many important elements from earlier doctrine and added some vital new concepts to make the Army's fighting doctrine reflect the full capability of the force."¹⁰⁹ One such new concept is included in the chapter titled "Fundamentals

¹⁰⁵ Wass de Czege, "Toward a New American Approach to Warfare."

¹⁰⁶ *Ibid.*, 56.

¹⁰⁷ *Ibid.*

¹⁰⁸ Dunnigan and Macedonia, *Getting it Right*, 168.

¹⁰⁹ Wass de Czege and Holder, "The New FM 100-5," 69.

of the Offense,” which states, “To maintain the initiative, the attacker must see opportunities, analyze courses of action, decide what to do, and act faster than the enemy—repeatedly.”¹¹⁰ This statement bears remarkable similarity to John Boyd’s OODA Loop.

Connections between the Reformers and the Doctrine

After reviewing John Boyd, the Military Reform Movement, and the AirLand Battle Doctrine, it is now possible to identify the relationships between them. However, before examining the connections between the reformers and the doctrine authors, it is first necessary to review the accusations in depth. Next follows an examination of the similarities between Boyd’s theories, the Military Reformers Movement’s theories, and the AirLand Battle Doctrine. Finally, this monograph will highlight the connections and analyze their impact on the AirLand Battle Doctrine in order to understand the similarities and disprove the accusations that the U.S. Army plagiarized John Boyd.

The Accusations

Several commentators have developed arguments that the doctrine authors used John Boyd’s theories to write the AirLand Battle Doctrine. These commentators range from Boyd’s close friends, to military theorists, historians, and biographers. The arguments reviewed here are from five books and are summarized in chronological order beginning with James Burton’s account in the *Pentagon Wars*.

Burton was a U.S. Air Force officer and a close friend of Boyd who worked with him in the Pentagon during the 1970s and 1980s. Boyd biographer Robert Coram referred to him as one of Boyd’s six acolytes and part of Boyd’s inner circle.¹¹¹ Burton published his book, the *Pentagon Wars*, in 1993 as his first-hand account of the military reformers challenging the

¹¹⁰ U.S. Army, *1982 FM 100-5*, 8-5.

¹¹¹ Coram, *Boyd*, 298.

bureaucracy within the DoD. Early in his book he discusses Boyd's attack against the 1976 FM 100-5, referring to it as "a piece of garbage."¹¹² He then covers Boyd's campaign advocating maneuver warfare leading to the 1982 and 1986 versions of FM 100-5. Burton references the new versions writing, "In those revisions, the Army threw out most of the dinosaurs' philosophy and embraced the philosophy espoused by Boyd."¹¹³ Later in his book, he is a little more direct with his beliefs stating, "The Army was a little more inventive. It tried to copy Boyd's work."¹¹⁴ Burton then describes his first-hand account in 1981 during a briefing by Brigadier General Donald Morelli. Burton confronts Morelli about the similarities between the upcoming AirLand Battle Doctrine and Boyd's theories sending Morelli "into a tirade, claiming that the ideas were all original and not taken from Boyd's work."¹¹⁵ To support his accusation, Burton highlights the fact that Boyd had briefed his theories to General William DePuy in 1977, and several copies of Boyd's work still circulated TRADOC.

The second argument is less strong and appeared in Shimon Naveh's 1997 book, *In Pursuit of Military Excellence*. Naveh spends significant time discussing the conceptual revolution in the American military during the 1980s. He goes into detail covering the AirLand Battle Doctrine development and the role of Boyd and William Lind. Naveh wrote that Boyd's greatest contribution to the conceptual revolution was his principles of relational maneuver: "disruption of synergy among the elements combining the rival system; simultaneous engagement of the operational components, structured hierarchically along the entire depth of the opposing system; and development of operational momentum, exceeding the relative reaction capability of

¹¹² James G. Burton, *The Pentagon Wars: Reformers Challenge the Old Guard* (Annapolis, MD: Naval Institute Press, 1993), 3.

¹¹³ *Ibid.*

¹¹⁴ *Ibid.*, 51.

¹¹⁵ *Ibid.*, 52.

the rival system.”¹¹⁶ He concludes that, “Boyd’s ideas were interpreted almost literally into the four basic tenets comprising the conceptual skeleton of the AirLand Battle Doctrine, namely: initiative, agility, depth, and synchronization.”¹¹⁷

The next argument is also less direct, and is in Grant Hammond’s 2001 Boyd biography titled, the *Mind of War*. Hammond is a professor at the U.S. Air Force Air War College and wrote the biography after years of research to include interviews with Boyd prior to his death in 1997. Hammond simply highlights multiple claims about the alleged inspiration for the AirLand Battle Doctrine, but he does write, “Boyd helped set the stage for a complete revision of U.S. Army doctrine that eventually became known as AirLand Battle.”¹¹⁸ He also states later in the book in reference to the AirLand Battle Doctrine, “There is little doubt that Boyd’s hundreds of ‘Patterns of Conflict’ briefings around the Pentagon and throughout the U.S. military had prepared the ground for a different approach to war fighting for the American military.”¹¹⁹

One year after Hammond published a Boyd biography, novelist Robert Coram published one titled, *Boyd: The Fighter Pilot Who Changed the Art of War*. Coram’s account focuses more on the Boyd’s confrontational nature and discusses his criticism of the 1976 FM 100-5. While he does not overtly claim plagiarism, Coram writes, “The Army not only adopted most of Boyd’s theories regarding maneuver warfare, they even created the School of Advanced Military Studies—SAMS, for short—and placed Wass de Czege in charge.”¹²⁰ Coram makes this claim following a review of Boyd’s personal interaction with the primary doctrine author, Huba Wass de Czege.

¹¹⁶ Naveh, *In Pursuit of Military Excellence*, 258.

¹¹⁷ Ibid.

¹¹⁸ Hammond, *The Mind of War*, 9.

¹¹⁹ Ibid., 154.

¹²⁰ Coram, *Boyd*, 371.

The final argument is also the most accusatory and is in Frans Osinga's 2007 book titled, *Science, Strategy and War*. Osinga, an officer in the Royal Netherlands Air Force, provides one of the most in depth reviews of Boyd's theories, but he also makes several statements concerning Boyd's involvement in the AirLand Battle Doctrine development. He writes in the book's introduction, "Boyd's influence first became apparent during the late 1970s and 1980s in the development of what later turned out to be the AirLand Battle concept."¹²¹ He continues the arguments in the second chapter when he writes, "But the U.S. Army did take notice, or rather plagiarized his work."¹²² Osinga also makes a grand claim in his conclusion writing, "Boyd infected a generation of senior military and political leaders with the virus of novelty and led them to think in different ways about the conduct of war. It inspired AirLand Battle and U.S. Marines' doctrine."¹²³

As can be seen, several authors conclude that Boyd played a singularly important role in the development of the AirLand Battle Doctrine. While some merely state that Boyd was the source of the inspiration for the military's conceptual revolution, others clearly assert that the U.S. Army directly plagiarized Boyd's theories. In order to analyze any of these accusations, it is necessary to discuss the documented similarities between Boyd's theories and the AirLand Battle Doctrine.

The Similarities

After sufficiently reviewing the accusations, it is now appropriate to highlight the similarities, as well as key dissimilarities, between Boyd's theories, the reformer's theories, and the concepts in the AirLand Battle Doctrine. The key similarities are the inclusion of the OODA Loop, operational art, and a concept for decentralized command and control in order to enable

¹²¹ Osinga, *Science, Strategy and War*, 3.

¹²² *Ibid.*, 50.

¹²³ *Ibid.*, 256.

subordinate leaders to exploit initiatives. Following this review is a broad overview of the key dissimilarities.

The first similarity is that of the inclusion of Boyd's OODA Loop into the AirLand Battle Doctrine. As stated in the previous section, the 1982 version of FM 100-5 states, "To maintain the initiative, the attacker must see opportunities, analyze courses of action, decide what to do, and act faster than the enemy—repeatedly."¹²⁴ However, while it closely mirrors the fundamental elements of Boyd's cycle as depicted in his "Patterns of Conflict" briefings, this usage of the OODA Loop restricts the concept to its basic form.¹²⁵ Furthermore, inclusion of the OODA Loop restricted to its basic, tactical form is not coincidental. Wass de Czege was critical of the concept and wrote, "Colonel John Boyd's decision cycle theories are clearly applicable in the cockpit of a fighter pilot aircraft or even in tank-on-tank battles, but they are difficult to execute as neatly in a campaign of corps against combined arms armies."¹²⁶ While its applicability is debatable, numerous authors highlight the OODA Loop's incorporation into service doctrine, such as U.S. Army Major General Geoffrey Lambert. In addition to his open endorsement, Lambert also highlights the abstract applicability of Boyd's cycle as applied to complex systems.¹²⁷ However, Robert Polk views this abstract use as not the norm by stating, "Yet, while some armed services embrace his theory as a viable operational concept, others continue to relegate Boyd's OODA Loop to a simple tactical device for decision-making."¹²⁸ Regardless of the use, Boyd's OODA Loop entered into military doctrine beginning with the 1982 version of FM 100-5. William Angerman of the U.S. Air Force goes as far as to document twenty-four joint doctrinal

¹²⁴ U.S. Army, *1982 FM 100-5*, 8-5.

¹²⁵ Boyd, "Patterns of Conflict," 6.

¹²⁶ Wass de Czege, "Toward a New American Approach to Warfare," 35.

¹²⁷ Geoffrey C. Lambert, "Nexus: John Boyd, Special Operations Forces at War, and the Information Age," *Horizons* 1, no. 3.

¹²⁸ Polk, "A Critique of the Boyd Theory," 6.

publications that have incorporated the OODA Loop into their main bodies.¹²⁹ Even though Boyd's OODA Loop has become a regular fixture in U.S. military doctrine, and even though it appeared in the AirLand Battle Doctrine, Wass de Czege was clearly critical of the concept and therefore did not include the theory in Boyd's intended form.

The second similarity between Boyd's theories and the AirLand Battle Doctrine is the incorporation of operational art and the operational level of war. Boyd's abstract conception of operational art was translated by William Lind as, "operational art is the art of using tactical events—battles or refusals to give battle—to strike directly at the enemy's strategic center of gravity."¹³⁰ While this is similar to the current definition of operational art used in the 2011 Army Doctrine Publication 3-0, the 1982 version of FM 100-5 relegated operational art largely to the employment of large formations.¹³¹ Although the AirLand Battle Doctrine incorporates this level, the two definitions are not similar enough to warrant claims of plagiarism or even correlation. Shimon Naveh attempts to clarify Boyd's contribution to the doctrine by referencing his conception of the operational principles of the relational maneuver.¹³² Naveh viewed Boyd's main impact on the AirLand Battle Doctrine as the inclusion of the four basic tenets—initiative, agility, depth, and synchronization.¹³³

The final similarity between Boyd's theories and the AirLand Battle Doctrine is the concept of decentralized command and control that enables leaders to succeed by exploiting the initiative. Boyd stated, "Decentralize, in a tactical sense, to encourage lower-level commanders to shape, direct, and take the sudden/sharp actions necessary to quickly exploit opportunities as they

¹²⁹ William S. Angerman, "Coming Full Circle with Boyd's OODA Loop Ideas: An Analysis of Innovation Diffusion and Evolution" (master's thesis, Air Force Institute of Technology, 2004), 74.

¹³⁰ Lind, *Maneuver Warfare Handbook*, 24.

¹³¹ Wass de Czege and Holder, "The New FM 100-5," 56.

¹³² Naveh, *In Pursuit of Military Excellence*, 258.

¹³³ *Ibid.*

present themselves.”¹³⁴ He advocated balancing this tactical decentralization with the necessity to remain strategically centralized in order to preserve unity of effort and coordinate effects to achieve the desired strategic objectives. The 1982 version of FM 100-5 paralleled these concepts by stressing the initiative of junior leaders while maintaining clearly defined objectives and operational concepts.¹³⁵

Although there are some similarities between Boyd’s theories and the AirLand Battle Doctrine, there is also a key dissimilarity between the two. While both concepts advocate a form of maneuver warfare, the two forms are fundamentally different. As Richard Lock-Pullan states, “In AirLand Battle Doctrine, [maneuver] was not conceived of in the exclusive terms laid down by the civilian theorists, where it was the opposite of firepower. For FM 100-5, maneuver was the dynamic element of combat, allowing the concentration of forces to use surprise, psychological shock, position, and momentum to enable smaller forces to defeat larger ones.”¹³⁶ While Lind was one of the first to criticize the Active Defense Doctrine as attrition warfare reliant on firepower, he offered maneuver warfare as the opposite.¹³⁷ Furthermore, Boyd’s “Patterns of Conflict” briefings cite numerous historical examples that illustrate a numerically inferior force succeeding through superior maneuver. However, the AirLand Battle Doctrine seeks to employ maneuver and firepower in concert with each other by using maneuver to engage the enemy with decisive firepower, and using firepower to create opportunities for operational maneuver. Wass de Czege summarized his criticism of Boyd’s and Lind’s maneuver theories by writing, “The

¹³⁴ Boyd, "Patterns of Conflict," 128.

¹³⁵ U.S. Army, *1982 FM 100-5*, 7-2.

¹³⁶ Richard Lock-Pullan, "Civilian Ideas and Military Innovation: Manoeuver Warfare and Organisational Change in the U.S. Army," *War & Society* 20, no. 1 (2002): 139.

¹³⁷ Lind, "Some Doctrinal Questions for the United States Army."

prescriptions for wholesale adoption of ‘maneuver warfare’ are compelling in theory but uniformly vague.”¹³⁸

While there are some similarities between Boyd’s theories and the AirLand Battle Doctrine, there are also significant differences. Central to the similarities is the doctrine’s inclusion of the OODA Loop, but it is quite clear that the two approaches differ on a core concept of maneuver warfare theory. However, even the OODA Loop usage in the AirLand Battle Doctrine differs greatly from Boyd’s intent for the cycle. While Boyd viewed the OODA Loop as applicable to all levels of warfare, the AirLand Battle Doctrine used it merely as a tool for tactical decision-making. While there are some similarities and fundamental differences in the concepts, the next section will examine the interaction between individuals in order to identify the source of the similarities and contribution to a perceived conceptual shift.

The Connections

After reviewing the similarities between Boyd’s theories and the AirLand Battle Doctrine, it is now possible to identify the connections between the doctrine authors, Boyd, and the reformers. In doing so, this monograph will highlight the professional relationships that resulted in similarities between the concepts. Before conducting this analysis, it is first necessary to review some of the competing arguments that dispute a connection between the doctrine authors and the civilian reformers.

The primary source of competing arguments to this monograph’s hypothesis is from Saul Bronfeld. His article, “Did TRADOC Outmaneuver the Maneuverists,” is intended to disprove the notion that the civilian reformers, including Boyd, contributed to the formulation of the AirLand Battle Doctrine.¹³⁹ Bronfeld writes, “Starry’s 1982 Field Manual presented an operational level doctrine that employed maneuver warfare and that the Military Reform

¹³⁸ Wass de Czege, "Toward a New American Approach to Warfare," 35.

¹³⁹ Bronfeld, "Did TRADOC Outmanoeuvre the Manoeuvrists?."

Movement preached such a doctrine, but each side interpreted quite differently those two basic concepts. ... Therefore, it is not surprising that Starry never mentioned that some of the credit for the 1982 Field Manual was due the reformers, nor that they never claimed that they had been so deprived.”¹⁴⁰ While this monograph has already shown that the interpretations of the maneuver warfare theory were different, Bronfeld uses this argument to discount any role the reformers may have had in maneuver warfare debate. Throughout the article, Bronfeld disputes Richard Lock-Pullan’s claims largely using vague references to an article by Wass de Czege. Wass de Czege’s article, while critical of some of the reformer’s concepts, did not dispute the reformer’s role in the professional debate.¹⁴¹ Since it is difficult to ignore similarities between the concepts, Bronfeld merely attributes these to the doctrine authors adopting the reformers’ terms in order to gain consensus.¹⁴² Although Bronfeld’s article may be misrepresentative of the connections, he did accurately assess Starry’s views of the civilian reformers.

General Starry, indisputably an essential part of the AirLand Battle Doctrine, was very critical of the reformers and their concepts. Starry summarizes his views in his response to a reformer’s request to become involved in writing the AirLand Battle Doctrine. Starry wrote to his aide constructing the response, “Write a nice letter. Tell him ‘Thanks for your interest in National Defense, but you’ve already screwed us up enough. We don’t need any more of your stupid ideas.’ Be nice!”¹⁴³ In other writings, Starry asserted, “The writers of Army doctrine have taken their direction from a reading of the national purpose.”¹⁴⁴ Although Starry was critical of the reformers, he recognized their importance and therefore chose to interact with them by proxy, primarily through Brigadier General Morelli.

¹⁴⁰ Ibid., 113.

¹⁴¹ Wass de Czege, "Toward a New American Approach to Warfare," 59.

¹⁴² Bronfeld, "Did TRADOC Outmanoeuvre the Manoeuvrists?," 121.

¹⁴³ Blumenfeld, "AirLand Battle Doctrine," 69.

¹⁴⁴ Herbert London, *Military Doctrine and the American Character: Reflections on AirLand Battle* (New York: National Strategy Information Center, 1984), 15.

Morelli was the primary interaction between the doctrine and the reformers. While the Active Defense Doctrine was highly criticized both internal and external to the U.S. Army, Starry appointed Morelli to conduct briefings in order to gain consensus for the new concepts. Starry wrote, “Morelli, assisted by a briefing team, did very little else for four years but expose the developing concept to staffs in the Congress and academia, even as the details were being written. Those who did not agree were invited to provide suggestions, with the assurance that their suggestions would, to the extent possible, be included or dealt with in the final product.”¹⁴⁵ Starry clearly understood the importance of these briefings by writing about how the briefings evolved over time and eventually secured commitment from the participants.¹⁴⁶ Morelli, in this liaison role, routinely briefed the concepts throughout the DoD, but he was not the only one of the contributors to interact with the reformers.¹⁴⁷ The primary authors, Wass de Czege and Holder, both interacted with Boyd, Lind, and other reformers.

Wass de Czege and Holder routinely interacted with the reformers while they wrote the AirLand Battle Doctrine, and they continued this interaction after the U.S. Army published the doctrine. While some commentators would go as far as to identify Wass de Czege as Boyd’s protégé, many other authors clearly identify their professional relationship.¹⁴⁸ Holder highlights the actual relationship between Boyd and the AirLand Battle Doctrine stating, “We knew of Colonel Boyd’s theories and discussed them during the 1982 version’s preparation but they weren’t central to the concept for AirLand Battle.”¹⁴⁹ Furthermore, this monograph additionally disputes the notion that the authors plagiarized Boyd by reviewing the interaction between Boyd

¹⁴⁵ Suzanne C. Nielsen, “U.S. Army Training and Doctrine Command, 1973–1982: A Case Study in Successful Peacetime Military Reform” (master’s thesis, Command and General Staff College, 2003), 552.

¹⁴⁶ Donn A. Starry, “Extending the Battlefield,” *Military Review* 77, no. 1 (1997): 151.

¹⁴⁷ Lock-Pullan, “Civilian Ideas and Military Innovation,” 137.

¹⁴⁸ Cowan, “Warfighting brought to you by...” 62.

¹⁴⁹ L.D. Holder, e-mail message to author, 16 February 2012.

and Wass de Czege while the latter was presenting the AirLand Battle Doctrine prior to its release in 1982. Boyd, offering his critique of the doctrine to Wass de Czege, stated, “They still believe in high diddle diddle, straight up the middle.”¹⁵⁰ Although Boyd was critical of even the greatly revised doctrine, and Wass de Czege openly criticized some of Boyd’s theories, they nevertheless forged a professional relationship based on advancing military ideas. For example, prior to writing the doctrine, Wass de Czege invited Boyd and Lind to lecture students and faculty at the U.S. Army Command and General Staff College, and he extended this invitation after becoming the founding director of the School of Advanced Military Studies (SAMS).¹⁵¹ In this capacity, Wass de Czege received praise from Lind for his efforts to reform the conceptual practices of the officer corps.¹⁵² This interaction continued through Holder’s term as the director of SAMS, where he hosted many guest lecturers including Lind, Luttwak, and Starry. Although Holder may not have universally accepted all of their competing theories, he saw the importance as “the speakers challenged conventional wisdom and reinforced the lessons on critical thinking.”¹⁵³

After reviewing the connections between Boyd, the reformers, and the doctrine authors, it is evident that Bronfeld’s dismissal of a positive, professional discourse is very unlikely. Furthermore, numerous other authors have clearly identified a clear, professional relationship. While some commentators assumed this interaction resulted in the plagiarism of Boyd’s ideas, it is also apparent that the doctrine authors and the reformers did not always agree. Most of those involved expressed their appreciation for the creative discourse, but they also did not hesitate to criticize theories that they found lacking or inappropriate. Holder’s comments on the reformers’ theories provide an excellent example of this symbiotic relationship by stating, “We in the Army were discussing [operational art] at the time, and Ed Luttwak’s paper added a lot to that

¹⁵⁰ Coram, *Boyd*, 371.

¹⁵¹ *Ibid.*, 370.

¹⁵² Lind, "The Army's New Advanced Military Studies Program at Fort Leavenworth."

¹⁵³ Benson, "Educating the Army's Jedi," 112.

discussion.”¹⁵⁴ Holder described Luttwak’s and Lind’s contributions as contributing to the overall discourse by highlighting deficiencies of the 1976 version of FM 100-5. Holder wrote, “Lind did a great service to the Army in publicizing and articulating the problems we all talked about where doctrine was concerned.”¹⁵⁵ Therefore, the connections, while they did exist and contribute to the conceptual shift within the U.S. Army, did not result in the aforementioned accusations.

Conclusion

The purpose of this monograph was to identify the actual linkage between John Boyd and the AirLand Battle Doctrine in order to disprove the accusations that the U.S. Army plagiarized Boyd. In order to accomplish this task, this monograph reviewed the doctrine’s context to test the theory that the U.S. Army’s AirLand Battle Doctrine was not the result of a single person’s concepts, but rather it was a product following a conceptual shift within the DoD. The reformers, who are well identified and documented in numerous books and articles, initiated the Military Reform Movement. This movement was just a small part of the catalyst that contributed to a conceptual shift within the DoD and the U.S. Army, which is the link between the reformers and the AirLand Battle Doctrine. Therefore, this monograph proved the hypothesis that the U.S. Army did not plagiarize Boyd’s work. However, similarities between Boyd’s work and the doctrine were due to the larger reform movement within the DoD preceding and throughout the doctrine’s development.

While there are some similarities between Boyd’s theories and the AirLand Battle Doctrine, as highlighted by some of the accusations, the evidence does not support Burton’s and Osinga’s accusations. Therefore, this monograph has reviewed and disproved the claims of outright plagiarism. First, Osinga’s source for his plagiarism claims is Burton’s book, the *Pentagon Wars*. However, while Burton does in fact accuse the U.S. Army of plagiarism, he fails

¹⁵⁴ Ibid., 61.

¹⁵⁵ L.D. Holder, e-mail message to author, 16 February 2012.

to conclusively prove these claims. Burton's book is an emotional account of his first-hand experiences working within the Pentagon. Therefore, while his account is fascinating, it is not an objective account of the events contributing to the AirLand Battle Doctrine. Concerning the other accusations reviewed, such as those from Naveh, Hammond, and Coram, this monograph proved that while there are similarities, the AirLand Battle Doctrine differed in many fundamental ways. Moreover, it is important to note that the reformers never claimed that the U.S. Army committed plagiarism, as Bronfeld astutely highlights.¹⁵⁶ Finally, Holder succinctly responds to the accusations stating, "We did not plagiarize John Boyd's work while writing the AirLand Battle versions of the Army's FM 100-5."¹⁵⁷

The relationship between Boyd, the reformers, and the AirLand Battle Doctrine is best described as a professional discourse that created a conceptual shift. Holder provides an excellent example of this relationship when he acknowledged the fact that a civilian theorist's "paper added a lot to that discussion."¹⁵⁸ The official TRADOC historian for the AirLand Battle Doctrine also commented on this discourse noting, "The debate extended through the end of the 1970s, accompanying and stimulating new doctrinal thinking."¹⁵⁹ In another of TRADOC's historical accounts, John Romjue writes, "Those criticisms stirred an internal and external debate that led to new thinking. Out of the debate came the distinguishing ideas of a new operational view and tactics of battle tagged AirLand Battle in the FM 100-5 of August 1982."¹⁶⁰ The civilian reformers also commented on this professional discourse. While William Lind was central to

¹⁵⁶ Bronfeld, "Did TRADOC Outmanoeuvre the Manoeuvrists?," 113.

¹⁵⁷ L.D. Holder, e-mail message to author, 16 February 2012.

¹⁵⁸ Benson, "Educating the Army's Jedi," 61.

¹⁵⁹ 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 (Fort Monroe, VA: Office of the Command Historian, United States Army Training and Doctrine Command, 1993), 54.

¹⁶⁰ John L. Romjue, *American Army Doctrine for the Post-Cold War*, TRADOC Historical Monograph Series (Fort Monroe, VA: Military History Office, United States Army Training and Doctrine Command, 1996), 16.

Boyd's maneuver theories, he commended the uniformed members of the reform movement noting that they were independent of the civilian reformers, and that they "include some intellectuals of the first rank."¹⁶¹ Furthermore, as a guest of Wass de Czege at the newly created School of Advanced Military Studies, Lind wrote to members of the Military Reform Caucus, "[The U.S. Army] is moving to reform itself, rather than waiting for reform to be imposed from the outside."¹⁶² Therefore, as identified by many internal and external observers and participants, the relationship between Boyd and the AirLand Battle Doctrine was not about plagiarism, but it was rather about a professional dialogue that helped create a conceptual shift.

Finally, referring to the process as plagiarism not only attacks the doctrine authors directly, it also undermines the purpose of the Military Reform Movement. The movement's purpose was to stimulate change within the DoD. While many were involved with this effort, Lind pointed out that ultimately the military services must become self-reforming. However, although the purpose of this monograph was to disprove the plagiarism accusations, the purpose was not to moderate John Boyd's impact on the conceptual shift within the DoD and the resultant AirLand Battle Doctrine and the overall. Hammond summarized Boyd's enormous contribution best stating, "There are many heroes in this tale, ... but many of the major players in the drama (... [including] Army officers such as [Brigadier] General Huba Wass de Czege and others more grudgingly) will admit that it was the constant drumbeat of Boyd's briefings and ideas that slowly drew the U.S. military into step with maneuver warfare."¹⁶³

¹⁶¹ Hart and Lind, *America Can Win*, 12.

¹⁶² Lind, "The Army's New Advanced Military Studies Program at Fort Leavenworth," 3.

¹⁶³ Hammond, *The Mind of War*, 151.

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