Introduction

In the First Gulf War, the United States and its coalition allies decisively defeated the Iraqi military. The First Gulf War began on August 2, 1990, when Iraqi President Saddam Hussein ordered his military to invade Kuwait. Iraqi forces quickly overwhelmed the much smaller Kuwaiti military and occupied the country. A U.S.-led coalition immediately deployed military units to Saudi Arabia as a part of Operation Desert Shield in order to prevent the Iraqis from launching an invasion of Saudi Arabia. As the U.S. forces in Saudi Arabia began training for the coming fight, General Norman Schwarzkopf, commander of U.S. Central Command (CENTCOM), began planning the transition from Operation Desert Shield, the campaign to defend Saudi Arabia from an Iraqi invasion, to Operation Desert Storm, an offensive campaign aimed at driving the Iraqis out of Kuwait. The air campaign of Operation Desert Storm, which continued until the end of the war, began on January 17th, 1991. Then on February 24th, the ground campaign began as Coalition forces rolled into Iraq and Kuwait, engaging the Iraqi Army. By February 28th, hostilities had ceased. The result was a resounding victory for the Coalition; the United States and its allies had pushed the Iraqi military out of Kuwait and dealt it a severe blow.

Instrumental to the success of the U.S. Army in Operation Desert Storm was a new doctrine known as AirLand Battle. Army commanders developed AirLand Battle in the late 1970s and early 1980s, culminating with the publication of the Field Manual (FM) 100-5, Operations, in 1982. AirLand Battle had been developed at the end of the Cold War as the Army realized that it needed to be prepared to fight more than just the armies of the Soviet Union. Active Defense, the Army’s previous doctrine, was designed specifically to fight Soviet mechanized divisions in Central Europe. For example, the Soviet invasion of Afghanistan and the Iranian
hostage crisis showed U.S. military commanders that threats were emerging outside the U.S.S.R. and more specifically outside Central Europe. In response to this realization, the Army developed AirLand Battle. The decision to create a doctrine that was not designed exactly for Central Europe showed the foresight of Army commanders, because the next war the Army would fight was not against the Soviet Union and did not take place in Central Europe. In fact, AirLand Battle was not put to the test until the First Gulf War.

An integral part of actually implementing AirLand Battle was the role of the 101st Airborne Division (Air Assault), which played different roles during the air campaign and the ground campaign of Operation Desert Storm. Apache attack helicopters from the 101st Division were at the vanguard of the air offensive, at one point launching an attack that destroyed a pair of Iraqi radar stations. The destruction of these stations opened a gap in the Iraqi radar defense network, and that gap enabled Coalition aircraft to systematically bomb Iraqi military units, command centers, and control capabilities. Later, once the ground offensive began, the 101st Division reverted to a supporting role. It prevented the Iraqis from deploying reinforcements into Kuwait, and it decimated retreating columns of Iraqi units. The initial raid against the Iraqi radar stations conducted by the 101st Airborne Division at the beginning of Operation Desert Storm demonstrates that the unit, with its fleet of well-protected, heavily-armed, and highly-mobile attack and transportation helicopters, was designed specifically to implement AirLand Battle.

This thesis will rely on two sets of primary sources, in order, to analyze the role of the 101st Division in AirLand Battle during Operation Desert Storm. The first is the 1982 edition of FM 100-5, Operations. This edition refers to FM 100-5 as “the Army’s keystone How to Fight manual.” In other words, FM 100-5 is the primary field manual that explains how the Army should utilize its soldiers and weapon systems in order to defeat its enemies. The other type of primary source this thesis will use is a series of interviews conducted by the Aviation Branch History Office. Historians from this office interviewed soldiers from the 101st Airborne Division soon after those soldiers had returned from Iraq to the
United States. I obtained transcripts of these interviews from the archives of the U.S. Army Center of Military History at Fort McNair, Washington, D.C. Taken together, these primary sources will allow me to examine the transition from the theoretical idea of AirLand Battle to its actual implementation as seen in the 101st Division during Operation Desert Storm.

Regarding the development and publication of AirLand Battle, my thesis will rely primarily on a monograph written by John L. Romjue entitled, *From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982*. In his work, Romjue explains the causes, both national and international, that led the U.S. Army to change its doctrine from Active Defense to AirLand Battle. He also examines the military commanders who were instrumental in bringing about this change in the mid-1970s and early-1980s. Romjue’s analysis forms a critical part of my argument; I will draw predominantly from him in my examination of why the Army moved away from Active Defense and towards AirLand Battle. However, my thesis will focus more on analyzing how military commanders took these theoretical ideas and implemented them in an actual campaign.

Historians have written extensively about how AirLand Battle shaped the Army before Operation Desert Storm. For example, John Sloan Brown traces the transformation of the Army from the end of the Cold War to the beginning of the War on Terror in *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*. Brown also examines how technological advances and new weapon systems shape and are shaped by doctrinal transformations. Regarding AirLand Battle, he explains that this doctrine shaped the development of the “Big Five,” as they were called: the M1 Abrams main battle tank, the M2/M3 Bradley fighting vehicle, the AH-64 Apache attack helicopter, the UH-60 Black Hawk utility helicopter, and the Patriot air defense missile. According to Brown, the Army developed these new weapon systems, because after the development of AirLand Battle they recognized that the next U.S. military engagement would most likely be against a numerically-superior enemy. So, the Army would need to possess more modern, powerful weapon systems to overcome this disadvantage. Thus, Brown’s analysis of AirLand Battle and
Operation Desert Storm focuses on the changes this doctrine spurred in the Army.

Not all historians, however, view the application of AirLand Battle in Operation Desert Storm as a great success. Alberto Bin, Richard Hill, and Archer Jones provide a thorough account of the origins and military operations of the First Gulf War in *Desert Storm: A Forgotten War*. For example, in the final section of their book, these authors argue that the U.S. Army commanders did not actually put AirLand Battle to the test, because the U.S. military was superior to the Iraqi military in terms of technology, training, and morale. Therefore, the American victory had more to do with the inferiority of the Iraqi military than the superiority of the Coalition battleplan. They also claim that the U.S. VII Corps was unable to synchronize its attack with other Coalition units during Operation Desert Storm, causing a “significant deviation” from the original plan. AirLand Battle, as a method, emphasizes the need for synchronization. Based on that concept, the authors claim that given the difficulty commanders had in coordinating the advance of the VII Corps’ armored divisions in “such favorable circumstances,” the Army would have been unable to synchronize its forces in less favorable circumstances. I am not arguing here that the Coalition flawlessly executed Operation Desert Storm; the critique these authors present is valid. Nevertheless, my thesis demonstrates that AirLand Battle, even when it is not perfectly synchronized, is an effective strategy, and in the case of Operation Desert Storm, the attacks conducted by the 101st Airborne Division played a crucial role in defeating the Iraqi military.

**History and Organization of the 101st Airborne Division**

The 101st Airborne Division (Air Assault) is one of the most decorated units in the U.S. Army. Originally formed during World War II as an airborne unit, the 101st Division participated in the Allied invasion of Normandy, Operation Market Garden, and the Battle of the Bulge. The 101st Division was later reorganized as an airmobile unit in August 1968 and deployed to Vietnam, where it participated in the Tet Offensive. Although it had become an airmobile unit, the 101st Division retained its “Airborne” designation to honor its heritage as a World War II parachute
unit, thus becoming the 101st Airborne Division (Airmobile). After the Vietnam War, the 101st Division was re-designated as an air assault unit, becoming the 101st Airborne Division (Air Assault). The transformations from an airborne unit to an airmobile and then later to an air assault unit were fundamental changes for the 101st Division. For example, airborne units deploy primarily from transport airplanes, parachuting paratroopers and their weapons to the ground. In contrast, air assault and airmobile units rely primarily on helicopter aircraft to transport air assault troops and their weapons to the battlefield. Major General J.H. Binford Peay III, commander of the 101st Division during Operation Desert Storm, once described the unit as a “medium” division. Since the helicopters are organic to the unit—that is, a part of the division itself and not simply an independent unit temporarily attached to it—as Maj. Gen. Peay explained in an interview, the 101st Division is able to deploy rapidly like a light division, such as the 82nd Airborne Division, while still retaining the firepower of a heavy division due to the anti-tank capabilities of its attack helicopters. Helicopters are thus an integral part of the 101st Division, since it relies on them both to move the division and to provide anti-tank firepower. The 101st Division deployed six main types of helicopters to Saudi Arabia in support of Operation Desert Storm. The AH-64A Apache attack helicopter was the primary attack helicopter the 101st Division used in Operation Desert Storm. The Apache is armed with Hydra 70 rockets; deadly, laser-guided Hellfire missiles; and a 30mm chain gun. It is heavily armored and has night vision capability, enabling it to operate at nighttime or in reduced-visibility conditions. It thus forms a crucial part of the 101st Division’s offensive capability.

A New Strategic Situation and a New Doctrine, 1979-1982

Beginning in 1979-1980, the strategic situation that faced the United States changed dramatically. The Soviet invasion of Afghanistan and the Iranian hostage crisis demonstrated that the U.S. Army could no longer prepare exclusively to fight a war in Central Europe, even as Europe remained the Army’s main strategic concern. New types of enemies were emerging, enemies that differed from the mechanized divisions of the Soviet
Union. More fundamentally, leaders predicted that the battlefield of the future would be different from the battlefields of the past; battlefields would now be marked by fluidity, rapid movement, and intense fire.\textsuperscript{11}

In August 1982, in response to all these strategic changes, the U.S. Army Training and Doctrine Command (TRADOC) published a new edition of FM 100-5, \textit{Operations}. This manual officially replaced the 1976 edition and its doctrine of Active Defense with the doctrine of AirLand Battle, and so the new FM 100-5 represented a significant shift in doctrinal thinking. It departed from Active Defense in important ways, including Active Defense’s emphasis on lateral movement of forces to counter enemy attacks and its overall defensive nature. AirLand Battle returned to “a more traditional reliance on reserves” and was much more aggressive than Active Defense.\textsuperscript{12} Simply put, AirLand Battle “referred to simultaneous battles on the forward line and deep in the enemy’s rear echelons, in close concert with airpower and ground forces.”\textsuperscript{13} AirLand Battle thus called for a concerted and coordinated attack against the enemy in order to disrupt and destroy the opposing forces. A key part of AirLand Battle is the deep attack, confronting the enemy far behind the front lines, thereby using the full depth of the battlefield to disrupt the enemy’s attempts to reinforce and resupply his frontline forces.

As I will prove, the 101st Airborne Division (Air Assault) was uniquely designed to implement AirLand Battle. The Army did not put this doctrine into practice in an actual conflict until Operation Desert Storm. The 101st Division, with its fleet of helicopters, was maneuverable, well-protected, well-armed, and well-led. The unit launched several deep attacks during Operation Desert Storm, decimating enemy rear areas and retreating columns. Consequently, the 101st Division played a crucial role in validating AirLand Battle and its emphasis on the deep attack.

\textbf{101st Airborne Division and Operation Desert Storm, 1991}

The 101st Airborne Division would play an important role in Gen. Schwarzkopf’s overall battle plan for Operation Desert Storm from the very onset of the offensive campaign. Operation Desert Storm began on January 17, 1991. When, the 101st Division
conducted the first attack of the air offensive by destroying two Iraqi radar stations. This attack opened the way for allied aircraft to bomb targets in Iraq. For the next five weeks, Coalition aircraft subjected the Iraqi military to daily airstrikes, averaging 1,000 airstrikes a day. The airstrikes targeted Iraqi infrastructure; command, control, and communication centers; and frontline units. The Coalition air forces were thus preparing the way for ground units to launch a massive counterattack.

Then on January 17, 1991, a special task force, codenamed Task Force Normandy, fired the opening shots of Operation Desert Storm deep behind enemy lines. Task Force Normandy consisted of Apaches from the 1st Battalion, 101st Aviation Regiment, 101st Division, supported by Air Force MH-53J Enhanced Pave Low III helicopters, which provided navigational support. This mission demonstrated the 101st Division’s deep attack capability and therefore provides evidence of why the unit was so well-designed to implement AirLand Battle.

The objective of this mission, which was to destroy a pair of Early Warning/Ground Control Intercept (EWGCI) radar sites in Iraq, can also reveal some of the unit’s other elements for success. By destroying these sites, Task Force Normandy would open a gap in the Iraqi radar defense network and enable U.S. and Coalition aircraft to bomb targets in Iraq without fear of being fired upon by surface-to-air missiles (SAMs). This mission would ultimately have a domino effect because it enabled U.S. airplanes to hit other radar sites and even the Iraqi headquarters in Baghdad, greatly reducing the enemy’s ability to fight effectively. Furthermore, the Iraqi Air Force was only able to muster a few fighters to engage the Americans, thus giving the Coalition complete air superiority when the ground offensive of Operation Desert Storm began.

After months of planning and rehearsing the mission, the day for the attack finally arrived. In the early morning hours of January 17th, the nine Apaches, one Black Hawk, and two Pave Lows of Task Force Normandy made their way into enemy-controlled territory. Operation Desert Storm had officially begun. The flight into Iraq was approximately 140 miles from the Apache’s base, so the helicopters had to be specially modified to enable them to carry enough fuel for the mission. The Pave Low
helicopters provided critical navigational support to the Apaches, helping them locate their targets in the darkness. Maintaining radio silence and flying low to the ground in order to avoid detection by enemy radar, the helicopters managed to arrive at the target sites unobserved. The Iraqis were completely unprepared for the impending attack.

As they approached their objectives, the Apaches split into two teams to attack both of the Iraqi radar sites simultaneously. Once they were in position, the attack helicopters opened fire. Streaks of flame illuminated the night as salvos of deadly Hellfire missiles found their targets, followed by rocket and 30mm fire. The radar sites were completely destroyed, raked by deadly missiles and bullets from the Apaches. Task Force Normandy encountered little resistance—most of the Iraqis were asleep in their barracks when the helicopters arrived—so the S-60 light anti-aircraft guns that defended the sites were unmanned. The Apaches had also quickly destroyed the guns before the Iraqis could man them, leaving the radar sites defenseless. Lieutenant Timothy Devito, an officer from Task Force Normandy, summed up the whole mission concisely, “The only thing that would stop us would be, of course, if the enemy was aware that we were coming because if he wasn’t, he was dead. As simple as that.”

Once they had destroyed the radar sites, the helicopters returned to friendly airspace in Saudi Arabia, having completed their mission and blown a hole in the Iraqi defense radar network. That same night, Coalition aircrafts began flying into enemy territory and bombing strategic targets in Iraq. The 101st Airborne Division had struck the opening blow in the Coalition’s counteroffensive to liberate Kuwait. Their action was a validation of the crucial role that helicopters could play in AirLand Battle because the raid was an example of the type of mission emphasized by the doctrine: deep attacks aimed at controlling the full depth of the battlefield. The radar sites destroyed by Task Force Normandy were located 140 miles inside Iraqi territory, far behind the frontlines. Furthermore, the destruction of the radar sites allowed Coalition aircrafts to launch bombing runs against the Iraqi forces and their military headquarters in Baghdad. These bombing runs disrupted and destroyed enemy units, giving the
Coalition a significant advantage when the ground offensive began on February 24th.

Overall, the AH-64A Apache attack helicopter was critical to the 101st Division’s success during Task Force Normandy’s raid. A ground force would have taken too long to reach the radar sites without being spotted, and airplanes would have been detected by enemy radar before they could have launched their missiles and destroyed the sites. The Apache, on the other hand, with its sensor-jamming technology and ability to fly low to the ground, could reach the radar sites undetected. Once they arrived at their target, the heavy payload the Apaches could carry enabled them to destroy the radar sites before safely returning to friendly territory.

Although other American air units, such as the 229th Aviation Regiment, contain Apache helicopters, the 101st Division was unique in that it was, and remains, the only air assault division in the world. As an air assault unit, the 101st Division combines attack helicopters with cargo helicopters, utility helicopters, and air assault infantry. This rare combination gives the 101st Division the ability not only to deep attack enemy forces, but also to transport infantry far behind the frontlines in support of such attacks. Infantry are critical to capturing and securing territory, a task which attack helicopters alone cannot achieve effectively. No other unit in the world possessed this unique capability.

Conclusion

On the evening of March 23rd, 2003, regiment of AH-64D Longbow Apache helicopters took off from its forward base and headed north towards Baghdad. The helicopters were conducting a deep attack as part of Operation Iraqi Freedom against an Iraqi Republican Guard division just south of Bagdad. The Americans’ mission was to destroy the enemy division and clear the way for the U.S. 3rd Infantry Division’s advance to the Iraqi capital. The Apaches were flying low to the ground, at between 100 and 120 miles per hour when, without warning, they began taking small-arms, antiaircraft, and rocket-propelled grenade (RPG) fire. Hiding in tree lines and buildings, Iraqi insurgents raked the Apaches from below. The attack helicopters took heavy fire, so the American pilots called off the attack. As the regiment limped back to base,
the pilots surveyed the scene: The Iraqis had damaged more than 90% of the helicopters, shot down one of the Apaches, and captured its crew.25

One of the reasons Americans found this raid so shocking was that the Iraqis had managed to defeat a regiment of Apaches, “the most advanced attack helicopter in the world,” armed with only limited technology and small-arms weapons.26 Using cell phones and comrades on the ground to coordinate their ambush along with their use of assault rifles, machine guns, cheap antiaircraft guns, and RPGs to attack the weak points of the Apaches, the insurgents never presented a concentration of enemies for the helicopters to attack. Instead, dispersed groups of fighters attacked the Apaches from multiple directions.27

Criticisms of the deep attack in general and of the Apache helicopter in particular began almost immediately after the raid. Air Force Secretary James Roche asserted that the U.S. Air Force would probably begin taking over deep attack missions after the poor showing by the Apache regiment.28 Others claimed that the attack helicopter was designed for deep attacks against conventional forces and that this was an outdated idea in the modern age of asymmetric warfare.29 Loren Thompson, director of the Lexington Institute, wondered if the Apache was no longer a viable weapon system, given that it had been so easily defeated in the operation on 23 March. Retired Air Force General Merrill McPeak was one of the staunchest critics of the Apache, saying that the helicopter had made no difference in Operation Iraqi Freedom.30

Another mission carried out several days later, however, showed that critics had been too quick to condemn the Apache as outdated. On March 28, 2003, the 101st Airborne Division (Air Assault) carried out a deep attack against the 14th Brigade of the Medina Republican Guard Division. Unlike the previous mission, A-10 Warthogs, the Air Force’s primary ground attack airplane, provided support to the 101st Division’s Apaches. When the helicopters began receiving organized, small-arms fire from enemy fighters, they called in the A-10s to attack the insurgents. The raid was successful, as the Americans destroyed 866 targets, including tanks, armored vehicles, artillery pieces, and antiaircraft guns.31
Nevertheless, as operations in both Iraq and Afghanistan have continued, it has become clear that the enemy the United States is facing has learned from the success of the U.S. military in Operation Desert Storm. Iraqi and Afghan insurgents no longer present a clear target for U.S. forces to engage. Due to the massive advantage that the U.S. military possesses in terms of technology, training, and weapon systems, enemy insurgents are forced to fight an asymmetric war. In both Iraq and Afghanistan, insurgents use ambushes, hit-and-run attacks, and improvised explosive devices (IEDs) to engage U.S. forces because they know that the U.S. military is too powerful to take on in a conventional fight.32

Apache pilots have thus been forced to adapt to fight in these new counterinsurgency operations. Deep attacks are effective against conventional, military formations, but they are ineffective against an enemy that refuses to present a clear target, preferring instead to launch hit-and-run attacks and to disperse before the helicopters can counterattack. This tendency has led to a fundamental shift in the way Apaches fight in Iraq and Afghanistan. Rather than deploying large formations of helicopters to engage enemy units, as it did in Operation Desert Storm, the 101st Division uses its helicopters to provide close air support for ground troops.33 Working in teams of two, the Apaches support ground forces by launching airstrikes against insurgent positions.34 The helicopters’ 30mm cannon, Hydra rockets, and Hellfire missiles—which proved so effective against enemy armored units in Operation Desert Storm—have proven themselves again in Operation Iraqi Freedom and Operation Enduring Freedom.

The 101st Airborne Division has established itself as one of the most flexible units in the U.S. Army. Originally created as an airborne unit, the 101st Division fought valiantly across France, the Netherlands, and Germany. Reorganized as an airmobile and then as an air assault unit, the 101st Division excelled in its new role. Armed with attack, transport, and scout helicopters, the 101st Division played a crucial role in Operation Desert Storm, deep attacking enemy radar sites and Iraqi armored columns as they retreated. Even in the modern age of asymmetric warfare, in which enemy insurgents launch hit-and-run attacks against
U.S. forces, the 101st Division demonstrated that the critics of the attack helicopter were wrong. Deploying small teams of Apaches to support ground troops, the 101st Division has successfully adapted to this new style of warfare and ensured that their storied division will continue to play a critical role in future operations of the U.S. military.
NOTES


6. Ibid.


8. Ibid.


10. Ibid., Appendix A.


12. Ibid., 71-72.
13. Ibid., 72.


16. Ibid., 2.

17. Ibid., 15-17.

18. Ibid.

19. Ibid., 22, 7-8.

20. Ibid., 12, 22.

21. Ibid., 22-23.

22. Ibid., 14.

23. Ibid., 10.


32. Ibid., 40.


The 101st Airborne Division is a division of the United States Army that provides forcible entry capability through heliborne 'air assault' operations. Capable of inserting a 4,000 soldier combined arms task force, 150-kilometers into enemy terrain in one lift, and possessing 281 helicopters, including three battalions of Apache attack helicopters, this division is the most versatile in the Army. For this reason, the 101st Airborne Division is the division most in demand by combatant commanders.