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How We Got There: Air Assault and the Emergence of the 1st Cavalry Division (Airmobile), 1950–1965

John M. Carland

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ASSOCIATION OF THE UNITED STATES ARMY**

AN AUSA INSTITUTE OF LAND WARFARE PAPER

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by John M. Carland

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Foreword

Transformation is nothing new to the United States Army. Over its more than 200 years of service, the Army has transformed many times, adapting itself organizationally to accommodate new circumstances, doctrine, weapons and technology. One of the key areas where the Army has experienced the most radical changes is in its mobility. In slightly more than fifty years, the Army transformed from a horse and foot-mobile army to one that could move entire divisions by air, first by parachute and glider, then by helicopter.

This paper tells the fascinating story of the men and events behind the Army's move into the age of the helicopter and air assault warfare. Dr. Carland shows how change in a complex organization can be accomplished with few resources by the dedicated work of a few farsighted men willing to push the bounds of the possible. He details a case study of how real change was accomplished through time by real people. Open to learning from the past, they developed a brand-new concept of airmobile warfare and capability that combines the esprit of the airborne soldier, the dash and independence of the cavalryman, and the technology of modern aviation. Their early dreams have evolved into the world's most advanced air assault and air attack units—units that have proved successful in combat from the jungles of Vietnam to the deserts of Iraq.

In the 21st century there are more lessons to be learned and more men and women of vision needed who are willing to do the hard and often unrewarded work necessary to continue the Army's transformation—and to assure its long-held position as the world's premier land fighting force on future fields of conflict.



GORDON R. SULLIVAN
General, U.S. Army Retired
President

May 2003

How We Got There: Air Assault Warfare and the Emergence of the 1st Cavalry Division (Airmobile), 1950-1965

General William C. Westmoreland, the commander of U.S. forces in South Vietnam between 1964 and 1968, called helicopter air assault warfare “the most innovative tactical development to emerge from the Vietnam War.”¹ Nothing symbolized the American war effort in South Vietnam more than the helicopter in air assault mode, and no unit was more closely associated with that way of war than the 1st Cavalry Division (Airmobile).² What was striking and original about that division at its creation in 1965 was the unusually large number of organic helicopters—428—and their multiple functions. As an integral component in the division’s operations, helicopters delivered troops to the battle area to attack, reinforce or block and returned them to camp; supplied them in the field; carried out reconnaissance and screening missions; and provided aerial artillery for the division’s ground troops. Such activities represented a radical rethinking of the Army in combat, allowing planners to design action in terms of vertical movement on the battlefield as well as along the lines of the more traditional two dimensions. Since the division did not emerge full-grown and mature at the start of the Vietnam War, where did the notion of air assault, also called airmobile, warfare originate?³ How did it evolve? What, on the eve of the commitment of American ground forces to Vietnam, had it produced?⁴ And finally, what lessons does this study hold for the Army regarding transformation?

American Military Failures in Korea: Diagnosis and Prescription

Mobility has always been a key ingredient in any equation of military power, and the most mobile unit of a land army has always been its cavalry. Traditional horse cavalry exercised its important role in operations because of the mobility differential, “the contrast between its mobility and that of other land forces.”⁵ In 1909 one observer thought that the airplane could become a vehicle for a new cavalry and provide the necessary mobility differential.⁶ Over time this proved to be a dead end because the airplane could not hover and required extended areas on which to land and take off. In fact, once airborne troops parachuted to the ground or airplanes flew them to an operational area, they had even less mobility than did regular infantry with access to wheeled vehicles. In short, because the airplane gave a field commander only a single shot of mobility differential, it could not provide the Army a true cavalry capability.

The helicopter gave the mobility differential back to the Army. One early analyst presciently understood this. In the waning years of World War II Franklin Gregory claimed that armed helicopters could be used offensively or defensively as “vehicles

from which to fire rockets and medium caliber guns where it is necessary to search out the enemy.”⁷ He was ignored, and the experience of World War II failed to generate any practical action by the Army to determine the tactical utility of the helicopter. Consequently, the American military in the immediate postwar era, while allowing that the helicopter could be a useful machine for supply, transport and medical evacuation purposes, failed to see its warfighting potential. Before this potential was realized two things were needed—helicopters that were simpler to operate, and more powerful and easier to maintain; and, perhaps even more important, a sense that something was “broken” and thus had to be fixed. The fighting in Korea provided this necessary eye-opener to the Army.

In the Korean conflict, American combat units lacked cavalry. Armor units, no matter what their unit designation, were too heavy and road-bound to be considered cavalry. Therefore, American forces were more likely to arrive on the battlefield “lastest with the leastest” than the more desirable “fustest with the mostest.” Major General James M. Gavin, a senior officer with extensive airborne experience in World War II, vigorously made this point in his seminal piece of writing, “Cavalry—and I Don’t Mean Horses,” in 1954. He argued that America’s lack of true cavalry in its military provided the common thread in explaining the nation’s military defeats in the Korean War’s early months. When North Korean forces invaded South Korea on 25 June 1950 and achieved almost complete surprise, what South Korean and American forces needed most was time to regroup and properly assess their predicament. How to do this? “The tactical situation called for a cavalry force,” Gavin believed, “to be committed at once, to screen and delay, while the heavier infantry and armored forces built up a more substantial defense.” However, the United States/Republic of Korea force possessed no cavalry worth its name and therefore nothing to commit. Then, on 15 September 1950, America turned the tables with the Inchon landings. At first, the American ploy succeeded brilliantly and North Korean forces disintegrated. “The situation screamed,” wrote Gavin, “for highly mobile cavalry forces to exploit this unprecedented opening.” Such forces could have moved quickly south to the Naktong River line to trap the North Koreans between the American units breaking out of the Pusan Perimeter and the cavalry moving toward them.

Instead [he concluded], we took almost two weeks. . . . When the first breakout of our forces from the southern perimeter moved northward, it was a combined tank-truck column, essentially an infantry column limited in its performance by its road-bound equipment.

A cavalry arm—“airlifted in light planes, helicopters and assault-type aircraft”—to pursue the enemy and exploit the situation did not exist. A “debacle . . . a tragic chapter in our history” was the sad consequence. Next, on 26 November 1950 thirty Chinese divisions achieved “complete and overwhelming surprise” against the United Nations force that, as a result, suffered a terrible defeat. Again, that there was no cavalry to reconnoiter and gather intelligence explained precisely why the Chinese could surprise the Americans.⁸

Gavin attributed these failures to the “deification of heavy equipment” in World War II. American military leadership had deluded itself into believing that “heavy armor is

cavalry.” Consequently, noted Gavin, “we lost the cavalry when we mounted it in weighty tanks and trucks, all of which move (if the terrain will allow them to move at all) at exactly the same speed as motorized infantry, if not slower.” He proposed that it might be possible to regain battlefield mobility and mobility differential through the use of assault transports such as light utility planes, helicopters, or convertiplanes.⁹ Through his article, Gavin made a significant contribution to the history of air assault warfare. In advocating the reintroduction of an effective cavalry element into the land forces of the U.S. Army, he provided intellectual and practical legitimacy to helicopter warfare enthusiasts who, later in the decade, desired to develop the helicopter as an armed combat cavalry vehicle and to devise accompanying tactical concepts.

Tactical Concepts for the Employment of Helicopters in Combat

Gavin had refrained from suggesting how to arm or tactically employ a new cavalry formation. Brigadier General Carl I. Hutton, Commandant of the Army Aviation School at Fort Rucker, Alabama, took up the challenge in 1955. Believing that the Army should consider its aviation needs with “a fresh eye,” Hutton raised the following questions:

What sort of organization would employ the fighting aircraft, or the family of fighting aircraft? Would it not be feasible to organize a division with combinations of different types of fighting aircraft for various tactical roles? There might be, for example, a light, high-speed reconnaissance group, a fast striking force, an element to deliver a firepower punch, and finally a heavy fighting unit. The commander would coordinate the employment of the various fighting elements in the same way as an infantry or armored division commander.

Hutton did not specifically designate the helicopter to do all of the above, but in practical terms it seemed the only vehicle that could possibly meet these requirements.¹⁰

To both test and explore that notion, Hutton, in the spring of 1956, asked his subordinate Colonel Jay D. Vanderpool, Chief of the Combat Development Office at Fort Rucker, if a helicopter could be armed. Specifically, could machine guns and rockets be safely mounted and fired from a helicopter? Vanderpool replied ambiguously: “Well, we could arm it. I don’t know whether it will work or not, but we could . . . find out.”¹¹

To that end, on 15 June, a Friday, Vanderpool and his men initiated the first crucial tests. After attaching two .50-caliber machine guns and Oerlikon 8-centimeter fixed-fin aerial rockets to a Bell H-13 Sioux helicopter, they strapped the test vehicle to a specially built wooden platform, four or five feet above the ground, and then put the guns, rockets and helicopter to the test. Firing single shots, short bursts, and then, with more confidence, longer bursts, the pilot, a Captain Montgomery, reached this phase’s climax when he let go twenty to thirty rounds at a time from each gun. Next he let fly a single rocket, then a few more, and finally four in quick succession, all of which sped away in the direction aimed. Pausing occasionally to examine the helicopter for structural damage, Vanderpool and his colleagues found none. With the helicopter still strapped to the platform, Vanderpool cautiously allowed Montgomery to run the engine while firing the machine guns and rockets. Next the helicopter was unstrapped and the captain

discharged the weapons while hovering. “We told Monty,” said Vanderpool, “not to get more than two or three feet [off the platform], because if he fell, we wanted to be able to find the pieces.”¹² However, all went well, and all continued to go well, in these first tests as Montgomery now progressed to firing while flying. The captain began his maneuvering, repeating the earlier drill with the same weapons but doing so while airborne. The results surpassed expectations. They demonstrated that helicopters could successfully discharge machine guns and rockets without harming the flying ability or structural integrity of the aircraft while in flight—a first in aviation history.¹³

If they could launch rockers from the helicopter, the follow-up question seemed to be how accurate they could be. On this very busy Friday, using crude sighting systems—spots painted on the bubble, World War I-type open rings, and World War II electric sights—Vanderpool and his men fired into a target area, hoping for the best. Unfortunately, they could not hit intended targets with any regularity. Therefore, when Captain Montgomery scored just one bull’s-eye in eight attempts against a tank, Hutton and Vanderpool stopped the exercise, observing that “we were not yet ready to invite comparisons.”¹⁴ Despite the firing inaccuracies, Hutton and the others finished the workday quite excited by what they had accomplished, and determined to move on to the next logical step: devising a way to employ the helicopter tactically.

At this stage, Hutton said later, “We had not . . . developed any ideas about tactics.”¹⁵ However, the general, as generals are wont to do, now directed Vanderpool to “come up with a company sized air-cavalry organization, determine the aircraft requirements, the pilot requirements, draw up an organizational sketch, and draw up a maneuver plan.” Furthermore, he was to do so in less than 36 hours before Sunday, 17 June, when the team would reassemble to “have a parade ground look at the organization” in the morning and test the maneuver plan in the afternoon.¹⁶

Vanderpool proved equal to the challenge. Sitting at his dining table that Friday evening, he pictured in his mind’s eye a helicopter air assault organization based on the Duke of Wellington’s notions of cavalry and mobile warfare. Perceiving horses and helicopters to be, roughly speaking, tactical equivalents, Vanderpool imagined Wellington’s light cavalry as armed reconnaissance helicopters, the dragoons as helicopter-borne infantry, and the horse artillery as aerial rocket artillery or artillery that was helicopter-borne. These were “standard Wellington ideas . . . that had been tested and retested; the only thing that changed was the helicopter for the horse.” Although an inspired piece of conceptualizing, would substituting the helicopter for the horse work?¹⁷

On Sunday morning the team gathered, and Vanderpool explained his concept and plans for the day. After lunch the volunteer pilots from the school mounted their helicopters. Throughout the afternoon they experimented with the H-13s as combat reconnaissance craft, as tactical troop transports, as mounted artillery, and as vehicles for logistic support. First in one test and then in another, the concept held up well. To Vanderpool’s amazement, it was clear that a helicopter-borne force “could converge on a point in moments or disperse over miles of area in minutes. The cavalry platoon could cover dozens of square miles in a matter of minutes.”¹⁸



H-13 helicopter armed with two .50 ANM machine guns and two 6-tube 2.75-inch Folding-Fin Aerial Rocket clusters. Matteson Range at Fort Rucker, AL October 1958

Robert McNamara, Secretary of Defense; Cyrus Vance, Deputy Secretary of Defense; and GEN Earle G. Wheeler, Chairman of the Joint Chiefs of Staff, June 1967



Combat troops deployed by helicopter



Secretary of the Army
Elvis Stahr



MG James M. Gavin
●G, 82d Airborne Division
U.S. Army, Belgium
February 1945

LTGC. WG. Rich, Army Exercise Air Assault II,
speaks to his staff near rubber fuel containers
March 1965



●H-13, the latest
model 47 line of
helicopters, Texas,
1965

MG John J. Tolson
standing with a group
of foreign students,
Fort Rucker, AL
August 1965





**MG John M. Wright, Jr., CG
101st Airborne Division
(Airmobile) talking
with troops along
Highway 547 leading
into A Shun Valley,
November 1969**

**Waiting for the beginning of an
armed combat demonstration
during an Army Scientific Advisory
Panel Conference: (l-r) COL Jack
L. Marinetti, President of Aviation
Board; BG Robert R. Williams,
CG, USA Aviation Board;
LTG Arthur G. Trudeau, Chief of
Army Research and Development;
Dr. Finn J. Larsen, Asst. Secretary
of the Army for R&D; and
Merrough P. O'Brien,
Panel Chairman**



**H-37 "Mojave" lifting
a 2½-ton truck
during service tests by
U.S. Army Aviation board,
April 1957**

3d Infantry Division personnel
unloading from an H-37
during FTX helicopter infantry
assault demonstrations in
Grafenwohr, Germany
November 1959



GEN William C. Westmoreland
January 1969



BG Hamilton H. Howze



H-37 helicopter
transporting 105mm
howitzer during
demonstration at Fort
Sill's landing strip
15 October 1961

Proving this basic concept workable turned out to be a first step only. Throughout the rest of 1956 and into 1957, the team continued to test different types and combinations of machine guns and rockets on a variety of helicopters in a number of tactical situations. Failure as well as success had lessons for them. At first they did not understand what was retrospectively obvious and tactically advantageous: how easy helicopters made it to move men and material from one point to another. In an exercise to attack a roadblock, the mounted infantry arrived by helicopter at what turned out to be the precise point where they would have conducted a conventional ground assault, thus negating the helicopter's advantage. This helped Hutton and his colleagues realize that "our thinking was too road bound. . . . With the ability of the flying machine [the helicopter] to move independently of the roads, we could cover a road while moving along routes away from it. Jumping from terrain feature to terrain feature was easy." When they repeated the exercise, the attacking unit successfully air assaulted from the rear under covering fire from reconnaissance helicopters and rocket ships.¹⁹

Hard at work at his regular duties during the day, experimenting with the helicopters on weekends, Vanderpool also spent many evenings developing provisional doctrinal statements on air assault warfare. Hutton's successor at Fort Rucker, Major General Bogardus S. Cairns, provided unexpected assistance. As an old cavalry officer, Cairns possessed a 1936 cavalry manual, and offered it as a possible guide. It turned out to be a perfect aid to selling the concept. "We knew what we wanted to do," Vanderpool later observed, but he also knew that "it would be more convincing . . . when put in words that old cavalymen could understand." Therefore,

we took the 1936 yellowback cavalry manual and went from horses to tanks to trucks. We took the horse cavalry portion of it, and substituted helicopters for horses, using the same language, the same terminology. It was well received. Older soldiers, I mean two, three and four star generals, could understand the language of their day, of the late '30s.

They distributed the "new" manual, technically a training text, throughout the Army as the *New Tactical Doctrine*. Vanderpool and his colleagues—wisely, he believed—"refrained from advertising our source of genius."²⁰ When a formal air assault doctrine later came into being, Vanderpool's text became a useful source.²¹

Fort Rucker in 1955–57 was the birthplace of the Army's helicopter air warfare capability. In Germany, on his next assignment, General Hutton reflected on the accomplishments at Rucker:

The universal cross-country mobility of the sky cavalry introduced something, or brought something back, to our present day tactics. Sky cavalry is not limited to avenues of approach on the ground. It is at its highest effectiveness when it can utilize terrain which is difficult or inaccessible for ground movement. Habitual concepts of distance lost their meaning. The mobility of the helicopter allowed the cavalry to cover many times the frontages heretofore thought possible.²²

Indeed, through the work of individuals such as Hutton, Vanderpool and Montgomery, Fort Rucker became the critical crucible of air assault warfare.

Slicing through the Gordian Knot: McNamara's Key Role

Although the helicopter had been successfully armed and a concept of tactical employment developed, two obstacles faced those intent on the creation of a permanent air assault unit in the Army: They required a more powerful and reliable helicopter; and they needed Department of Defense approval and funds to establish an experimental unit to thoroughly test the concept. The gas turbine-powered UH-1, developed by Bell Aircraft Corporation, answered the first obstacle, but taking on the second proved more difficult. Into the late 1950s and early 1960s, efforts by proponents of air assault warfare—Hutton, Vanderpool, Lieutenant General Hamilton H. Howze, and others—remained unsuccessful. Ultimately, Secretary of Defense Robert S. McNamara provided the key.

Dissatisfied with the Army's aviation program, McNamara in late 1961 directed the Army to prepare a study specifying its aviation requirements. The completed report disappointed McNamara and led him to consult two officers whom he thought could help set the Army on a proper course—Brigadier General Robert R. Williams, Director of Defense Research and Engineering, and Colonel Edwin L. Powell of the Army Office of Research and Development. They drafted two memoranda, which McNamara signed and sent to Secretary of the Army Elvis Stahr in April 1962. The combined effect of the memoranda was to dramatically force the pace of the development of air assault warfare.²³

Expressing the Secretary of Defense's unhappiness with the Army's report, the first memorandum instructed the Army to reexamine the issue, and to inform McNamara no later than 15 May 1962 (less than a month away) how it planned to go about this reexamination, and then complete it by 1 September.²⁴ The second memorandum, the more hardhitting of the two, established the U.S. Army Tactical Mobility Requirements Board to evaluate the new ideas and concepts. The secretary led with the comment that "I have not been satisfied with Army program submissions for tactical mobility." The board had to take a "bold 'new look' at land warfare mobility," and to do so "in an atmosphere divorced from traditional viewpoints and past policies." McNamara nominated its key members, to include General Howze as president. His instructions to the Howze Board, so called after its president, indicated the results he wanted. "I shall be disappointed," he wrote, "if the . . . re-examination merely produces more of the same, rather than a plan for implementing fresh and perhaps unorthodox concepts which will give us a significant increase in mobility."²⁵

McNamara, who has deservedly received criticism on many issues, should here be given credit. By allowing these memoranda to go forward over his signature and by placing his authority at the service of the concept of an airmobile division, he compelled the Army to move ahead. By being decisive at a critical moment, he offered airmobility advocates the opportunity to turn their vision into reality.

The Howze Board and the Air Assault Concept

The Army gave the Howze Board an infantry battle group, part-time use of two others, elements of the 82d Airborne Division, and 150 Army aircraft of various types for the experiments. In three months the board conducted about forty tests using rotary- and

fixed-wing aircraft in a variety of tactical situations.²⁶ Its report, submitted ahead of schedule on 20 August 1962 and called “a small masterpiece” by a later analyst, laid the foundation for what would become the first air assault division.²⁷

The board reached one general conclusion—“adoption by the Army of the airmobile concept . . . is necessary and desirable”—and made a number of force structure recommendations.²⁸ Specifically, the board proposed that five air assault divisions take the place of five of the Army’s 16 divisions. At the same time, three air cavalry combat brigades and five air transport brigades would be added to the Army’s force structure. Each air assault division would possess 459 aircraft, the overwhelming majority of them helicopters. As Howze envisioned the new division, organic helicopters would be able to move the division’s combat elements in three lifts. Such a division could mount attacks against an enemy by moving troops to the operational area in helicopters and then maneuvering them about the battlefield in the same aircraft. In addition, armed helicopters could escort troop carriers to battle, while other helicopters armed with rockets could provide fire support. In consequence, a good deal of the division’s traditional equipment would be unnecessary, and therefore dispensed with.²⁹ The board additionally recommended that each of the air cavalry combat brigades have 316 aircraft, of which 144 would be attack helicopters. Made up of three squadrons of four troops each, the brigade would be “vastly more mobile” than the air assault division—so mobile in fact that it could move all members of its combat units in a single lift, and achieve, said Howze, “what Jimmy Gavin used to call a mobility differential [which] would allow the [air] cavalry [combat brigade] to undertake the role of the cavalry for the newly mobile infantry, the air assault division.” Each air transport brigade would contain 12 medium helicopters, 90 fixed-wing transports, and a support command.³⁰

The creation of tactical airmobile units would make the Army a more powerful combat entity by restoring the proper balance between the two main elements of ground warfare. Brigadier General John J. Tolson, then Director of Army Aviation, put it this way:

Since World War II, improvements in firepower have far outstripped improvements in our ability to maneuver. Mobility limitations, then, have restricted the ground commander’s ability to realize fully the combat potential of his units. Through increased battlefield use of Army aviation, particularly the helicopter, we hope to reduce this mobility restriction and bring our firepower and maneuver capabilities into better balance.³¹

Rather than accept the board’s recommendations wholesale, which would have amounted to a radical overhaul of the Army’s force structure, the Army leadership instead ordered more extensive tests to begin in 1963. The trials would revolve around scenarios based on a division and its component parts, essentially removing the air cavalry combat and air transport brigades from the equation. Howze always regretted the Army’s rejection of his larger scheme. He especially regretted the decision not to establish the air cavalry brigades. It was “a great pity,” he wrote in 1974, “that none of these brigades was ever organized: they would have had a most exceptional and desirable capability against either a guerilla force or a modern tank-heavy force.”³²

Field Testing the Air Assault Concept and the Birth of the Airmobile Division

In February 1963, at Fort Benning, Georgia, the 11th Air Assault Division (the former 11th Airborne Division) was activated, along with the 10th Air Transport Brigade, which was not organic to the division but added as a support unit. The recently appointed commander of the 11th Air Assault Division, then Brigadier General Harry W.O. Kinnard, received from Army Chief of Staff General Earle G. Wheeler just the order he wanted: “Harry, I want you to determine how far and how fast the Army can go, and should go, in embracing airmobility.” Kinnard faced the challenge of his career.³³

To give himself the best odds for success, Kinnard wanted his officers and enlisted men to be aggressive, mentally flexible, risk-takers—i.e., airborne-qualified soldiers. To Kinnard, parachutists had “a certain mentality . . . admirably adapted to the kind of thing . . . we ought to be doing with helicopters.”³⁴ With their “airmobile state of mind,” soldiers could think

about ground combat in new ways based on the capabilities and limitations of helicopters. In the broad sense this included visualizing distance not in miles but in minutes of flight; thinking of routes of approach not as roads or bridges or swamps, mountains and rivers; rather we learned to think in terms of suitable, three-dimensional corridors, taking into account such parameters as hostile air defenses, best nap-of-the-earth approaches, landing zones, weather and wind direction, coordination of airspace with our artillery and friendly air, best aircraft formations, need for gunship escort, planning friendly fires in the objective area, etc.³⁵

The new division practiced and experimented with the helicopter as an instrument of war throughout the rest of 1963 and into 1964. By the summer of 1964 the division contained six understrength infantry battalions³⁶ organized into three brigades of two battalions each; four aviation battalions, including an aerial surveillance and escort battalion, an assault support battalion and two assault helicopter battalions; and five artillery battalions, consisting of an aerial rocket battalion, a missile battalion and three howitzer battalions. Early on, it became evident that Fort Benning lacked sufficient space for the trials. Consequently, a great deal of the operational activity occurred elsewhere in Georgia, North Carolina and South Carolina. Kinnard let his soldiers know that he would seriously consider ideas from all to improve the way an airmobile unit might operate, that nothing was too out of bounds. His approach paid off handsomely when troopers began to originate new combat and combat-related techniques and tactics. Those that survived experimentation were integrated into the division’s standard operating procedures, after which all units practiced and practiced and then practiced more to make the execution of the new ways parade-ground perfect. By September, General Kinnard and the Army believed that the division had reached the stage where it could be evaluated under field conditions.³⁷

Air Assault II, the crucial test, began on 12 October 1964 and continued until 14 November.³⁸ Thirty-five thousand soldiers maneuvered amidst four million acres of the rugged North Carolina and South Carolina countryside. Although emphasizing the offensive, the tasks also included defensive actions and withdrawals. In scenario after

scenario, the 82d Airborne Division opposed the air assault division. Horrific weather conditions complicated the initial work. Rain and high winds, side effects of Hurricane Isabel, blanketed the region, making ceilings in some cases no more than 50 feet and visibility often no more than 400. In the first major test, 120 helicopters transported combat infantrymen about 100 nautical miles to a preselected objective. The troop-carrying helicopters successfully maneuvered through the storm and arrived safely at their objective only an hour behind schedule, well before more conventional means of transport could have delivered the soldiers to the battlefield.³⁹

Additional accomplishments demonstrated an air assault formation's advantages. In action against guerrillas, heliborne divisional units on command and on schedule were able "with startling suddenness to disgorge sky troopers at all points of the compass." They no longer needed to scour the countryside on foot, navigating difficult land barriers such as fences and streams, because the helicopters simply flew over the obstacles. And to defend against a conventional attack from their opponents, the troopers used helicopters to simply slip away, denying 82d Airborne Division soldiers concrete targets and compelling them to stretch their resources thin as they attempted to acquire such targets. In such instances, 11th Air Assault units, with a startling speed, aggressively attacked the open or poorly defended flanks of the 82d's soldiers. Kinnard's men thus demonstrated that the helicopter gave them the ability to leapfrog over enemy units and go against them from behind or on the flanks. As the test period reached the end, the men of the 82d Airborne were in disarray, and the contest's outcome obvious.⁴⁰

Interestingly, the 82d Airborne Division's commander, Major General Robert H. York, was enthusiastic about the "dynamic potential" of air assault combat exhibited in Air Assault II. "Seldom do we see a new military concept," said York, "which can contribute so decisively throughout the entire spectrum of warfare." General Kinnard could not have agreed more, noting that the air assault division could "exert control over a much wider area and with much more speed and flexibility and with much less concern for the problems of interdicted ground communications or of difficult terrain" than a standard division. However, it was the evaluation and recommendation of the neutral test director, Lieutenant General C.W.G. Rich, that counted most. Rich observed that air assault warfare's potential could only be realized in a division

specifically trained and equipped to exploit the continuing close tactical integration of heliborne lift as a primary means of maneuver, accompanied by readily available aerial fires and by highly responsive aerial reconnaissance and support systems.

The test division's personnel and equipment should not be lost by "dissipation, fragmentation, or dispersal." Rather, it should be incorporated into the Army's force structure. "The significant question," he wrote,

is not whether we can afford such organizations, but whether this nation . . . can afford NOT to have them. These tested organizations are prototypes, in being, of the most versatile forces that we can add to the United States Army.⁴¹

In December, General Rich sent his overwhelmingly positive recommendation to the Army Chief of Staff, General Harold K. Johnson. In early 1965 Johnson and the Secretary of

the Army strongly endorsed the report, and in March the Joint Chiefs of Staff, with the Chief of Staff of the Air Force dissenting, chimed in favorably. On 19 April, the Secretary of Defense accepted the proposal. Two days later, for reasons that are not clear but perhaps had to do with Army–Air Force differences over the roles and mission of the new unit, McNamara temporarily placed his decision on hold. Almost two months later, however, on 15 June, McNamara approved the addition of an airmobile division to the Army’s force structure. To bring the concept to reality, the Army immediately undertook a series of administrative changes involving three units. It switched—on paper only—the designation of the 2d Infantry Division at Fort Benning, Georgia for that of the 1st Cavalry Division in Korea, moving neither personnel nor equipment but only the flags of the two units. Then it inactivated Kinnard’s 11th Air Assault Division, also at Benning. Those elements of the 11th Division essential to an airmobile division were assigned to the new unit, while those portions that were no longer consistent with its mission were inactivated. On 1 July 1965 the newly configured unit, named the 1st Cavalry Division (Airmobile), became the first air assault division in the United States Army.⁴²

Impact of the Vietnam War

In the months before McNamara’s June decision, the expanding conflict in Vietnam, and the increasingly likelihood that American combat forces would intervene, probably played a significant role in the birth of the 1st Cavalry Division. During the first half of 1965, although aware that General Rich had favorably recommended the establishment of the division he desired, Kinnard remained anxious about the ultimate outcome. “It was my overall impression,” he later said,

that our life [i.e., the air assault division’s] was hanging by a thread, and I was very worried about it. I was trying to think of—invent things that we could do to keep us in the Army’s eye and keep showing how good we were. We would do things like coming up with . . . aerial refueling of helicopters—anything we could think of, you know, to try and show how much capability we had.

Despite these actions, Kinnard’s own later judgment was that the war in Vietnam was the critical factor in creating an air assault division.

I think it was a very tight time and, I guess, I would have to speculate that if there had been no decision to send a division to Vietnam—an Army division—that we probably would have been broken up and probably there would not have been an airmobile or an air assault division.⁴³

Given the substantial institutional momentum by then in favor of the creation of the division, Kinnard may have worried unduly. The fact that South Vietnam, America’s ally in the war against Communism, appeared to be losing the fight no doubt provided Kinnard’s superiors another reason to support the proposal. By March 1965, senior Army officers, persuaded that American ground troops would be deployed, were also convinced that to fight in the almost roadless yet strategically significant central highlands of South Vietnam required an especially mobile unit. Thus, the rhetorical question raised at the time by the Army’s Vice Chief of Staff, General Creighton W. Abrams—“Is it not fortuitous that

we happen to have this organization [the test division] in existence at this point in time?”—and its obvious answer must have given Kinnard great pleasure.⁴⁴

The Achievement

With the activation of the 1st Cavalry Division (Airmobile) the era of air assault warfare began. In the mid-1950s the idea of harnessing old notions of mobility to the new technology of rotary-winged aircraft resulted in little more than a vague sense of the combination’s battlefield potential. However, during a decade of refinement, of experimentation, of trial and error, of bureaucratic politics and infighting within the defense community, the pioneers—Gavin, Vanderpool, Hutton, Powell, Williams, Howze, Kinnard and others—transformed what had been an exciting but amorphous concept into the powerful and precise reality of an air assault division. Using helicopters as horses had been used in previous wars, the air cavalry restored the mobility differential needed, yet conspicuously lacking, in America’s mid-20th century army.

A Model for Transformation?

Transformation in a complex organization such as the United States Army occurs in many ways. For example, Congress or the President may mandate change; civilian authorities at the Defense Department or the Department of the Army may direct reform; the Chief of Staff of the Army may himself visualize a new future and ways to get there; blue-ribbon commissions or think tanks may generate ideas and proposals; and, finally, thinkers and doers in the Army, especially when new ideas and the need for action intersect, may become successful agents of change. It is the last alternative that is described in this paper.

Over and above relating the story of how the 1st Cavalry Division (Airmobile) came to be, the study also speaks directly to issues central to understanding how an institution changes and reforms itself. In this sense, the paper may provide theoretical and practical insight to those intent on pursuing and supporting change in the Army. Specifically, it

- highlights the intellectual origins of transformation;
- addresses the means by which ideas about transformation are translated into reality;
- suggests how new technology and old concepts can be effectively joined;
- underscores the necessity of testing new ideas and concepts in rigorous field exercises; and
- emphasizes the significant contributions key individuals and small groups can make to the process.

This case study documents the course of real change through real time brought about by real people. Its remarkable results might well encourage and provide a model to others in the Army community who wish to participate in and contribute to the transformation process so necessary to the Army’s future and so strongly advocated by the leadership of the U.S. Army.

Endnotes

1. William C. Westmoreland, *A Soldier Reports* (New York: Doubleday & Company, Inc., 1976), p. 348.
2. This is not to say that helicopter air assault originated with the division. The idea of using helicopters tactically in combat can be traced back to World War II and American advisors in Vietnam before 1965 used the helicopter to give South Vietnamese troops additional mobility and firepower. In addition, the American combat forces that arrived in South Vietnam between March and September 1965, before the cavalry division, used the helicopter to increase mobility and firepower, as did combat units entering Vietnam after the 1st Cavalry.
3. Early on some attempted to make a sharp conceptual distinction between the terms “airmobile” and “air assault.” For example, then Brigadier General John M. Wright, assistant division commander, 1st Cavalry Division, put it this way: “By definition, air mobility means moving men and equipment by air and nothing more than that, whereas air assault integrated the aircraft into the fighting elements of the division.” Over time this useful distinction was lost and the terms became virtually interchangeable. Senior Officers Oral History Program, U.S. Army Military History Institute, “Interview with John M. Wright, Lieutenant General, USA, Retired,” 1983, p. 403.
4. This paper concentrates on the evolution of the concept of air assault warfare in its own terms and thus almost totally excludes external considerations, not because they are unimportant but because they are peripheral to the story at hand.
5. James M. Gavin, “Cavalry—and I Don’t Mean Horses,” *Harper’s Magazine*, April 1954, p. 54. See also James M. Gavin, “The Mobility Differential,” *ARMY*, June 1963.
6. See John D. Taylor, “Cavalry and the Aeroplane,” *Journal of the United States Infantry Association* 6 (July 1909).
7. See H. Franklin Gregory, *Anything a Horse Can Do: The Story of the Helicopter* (Cranbury, N.J.: A.S. Barnes Co., 1976; 1st edition, 1944), p. 160, quoted in John Bonin, “Combat Copter Cavalry: A Study in Conceptual Confusion and Inter-Service Misunderstanding in the Exploration of Armed Helicopters as Cavalry in the U.S. Army, 1950–1965” (M.A. thesis, Duke University, 1982), p. 59.
8. Information and quotations in this paragraph are from Gavin, “Cavalry—and I Don’t Mean Horses,” pp. 54–55.
9. *Ibid.* A convertiplane is an aircraft equipped with helicopter rotors and conventional airplane wings so that it can fly vertically as well as forward.
10. For “fresh eye” quotation see Brigadier General Carl I. Hutton, USA, “Statement of Plan: A History of the Development of Army Aviation from 1940 to 1957,” p. 10, copy at Historical Resources Branch, U.S. Army Center of Military History (hereafter referred to as HRB, CMH. For longer block quotation see Hutton, “The Commandant’s Column: An Air Fighting Army?” *Army Aviation Digest*, July 1955, p. 2.
11. Senior Officers Oral History Program, U.S. Army Military History Institute, “Interview with Jay D. Vanderpool, Colonel, USA Retired,” 1983, p. 155 (hereafter cited as “Interview with Vanderpool”).

12. *Ibid.*, p. 161. See also Brigadier General Carl I. Hutton, USA, “Without Trumpets and Drums: Recollections of 36 Months with the Army Aviation School, June 1954–June 1957,” U.S. Army Aviation School Library, Fort Rucker, Alabama, p. 151.
13. “Interview with Vanderpool,” p. 161.
14. Hutton, “Without Trumpets and Drums,” p. 152.
15. *Ibid.*
16. “Interview with Vanderpool,” p. 161.
17. Colonel Jay D. Vanderpool, U.S. Army, Retired, “We Armed the Helicopter,” *U.S. Army Aviation Digest*, June 1971, pp. 5–6; and “Interview with Vanderpool,” p. 161–63 (the quotation comes from p. 162).
18. “Interview with Vanderpool,” pp. 162–63 (the quotation comes from p. 162), and Vanderpool, “We Armed the Helicopter,” p. 6.
19. Hutton, “Without Trumpets and Drums,” p. 154.
20. Vanderpool, “We Armed the Helicopter,” p. 29.
21. “Interview with Vanderpool,” pp. 165–66.
22. Hutton, “Without Trumpets and Drums,” p. 160.
23. The memoranda are reproduced in Alain C. Enthoven and K. Wayne Smith, *How Much is Enough?: Shaping the Defense Program, 1961–1969* (New York: Harper Colophon Books, Harper and Row, Publishers, 1971). The first, “Memorandum for the Secretary of the Army, Sub: Army Aviation,” is on pp. 101–03, and the second, “Memorandum for Mr. Stahr,” is on pp. 103–04. Each is dated 19 April 1962. See also Senior Officers Oral History Program, The History of U.S. Army Aviation, U.S. Army Military History Institute, “Interview with Robert R. Williams, Lieutenant General, Retired,” 1978, pp. 53–56, and Senior Officers Oral History Program, The History of U.S. Army Aviation, U.S. Army Military History Institute, “Interview with Brigadier General E.L. Powell, Retired,” 1978, pp. 46–52.
24. “Memorandum for the Secretary of the Army,” quoted in Enthoven and Smith, *How Much is Enough?*, p. 102.
25. “Memorandum for Mr. Stahr,” quoted in Enthoven and Smith, *How Much is Enough?*, pp.103–104.
26. John J. Tolson, *Airmobility, 1961–71* (Washington, D.C.: Department of the Army, 1973), pp. 21–22.
27. John R. Galvin, *Air Assault: The Development of Airmobile Warfare* (New York: Hawthorne Books, Inc., 1969), p. 279.
28. Quoted in Tolson, *Airmobility*, p. 24.
29. For detailed discussion of the Howze Board’s work, see: General Hamilton H. Howze, “Airmobility Becomes More Than a Theory: Howze Board II,” *ARMY*, March, 1974, pp. 19–24, and “Winding Up a Great Show: Howze Board III,” *ARMY*, April 1974, pp. 18–23; Bonin, “Combat Copter Cavalry,” pp. 131–36; Galvin, *Air Assault*, Chapter 32; and Tolson, *Airmobility*, pp. 16–24. This account is derived from these sources.
30. Senior Officers Oral History Program, U.S. Army Military History Institute, “Interview

with General Hamilton H. Howze,” Section 4, p. 57; and Howze, “Winding Up a Great Show,” p. 21.

31. Speech by Brigadier General John J. Tolson, Director of Army Aviation, to Order of Daedalous, Bolling Air Force Base, Washington, D.C., 22 September 1964, “Army Aviation and Air Mobility,” Speech File Service, U.S. Army Command Information Unit, #10-2-64, Washington, D.C. Copy in HRB, CMH.
32. Quotations from Howze, “Winding Up a Great Show: Howze Board III,” p. 20. See also Senior Officers Oral History Program, U.S. Army Military History Institute, “Interview with Harry W. O. Kinnard, Lieutenant General, Retired,” 1983, p. 75 (hereafter cited as “Interview with Kinnard”).
33. For quoted words see “Interview with Kinnard,” p. 76. Kinnard tells the story with a slightly different twist during another interview in 1977. See Senior Officers Oral History Program, The History of U.S. Army Aviation, U.S. Army Military History Institute, “Interview with Lieutenant General Harry W. O. Kinnard,” 1977, pp. 12–13 (hereafter cited as Army Aviation, “Interview with Kinnard”). See also Kinnard, “Airmobility Revisited,” Part I, *U.S. Army Aviation Digest*, June 1980, p. 3.
For more detail on how Kinnard and his staff prepared for the tests, see Army Aviation, “Interview with Kinnard,” pp. 11–21; J. D. Coleman, *Pleiku: The Dawn of Helicopter Warfare in Vietnam* (New York: St. Martins Press, 1988), Chapter 1; Galvin, *Air Assault*, Chapter 33; Kinnard, “Air Mobility Revisited,” Part I; Shelby L. Stanton, *Anatomy of a Division: The 1st Cav in Vietnam* (Novato, Calif.: Presidio Press, 1987), Chapters 1 and 2; and Tolson, *Airmobility*, Chapter 2.
34. Army Aviation, “Interview with Kinnard,” pp. 10–11.
35. Kinnard, “Airmobility Revisited,” Part I, p. 4.
36. They were: the 2d Battalion, 23d Infantry; the 1st and 2d Battalions, 38th Infantry; the 1st Battalion, 187th Infantry; the 1st Battalion, 188th Infantry; and the 1st Battalion, 511th Infantry.
37. Stanton, *Anatomy of a Division*, pp. 28, 30; Tolson, *Airmobility*, p. 54.
38. In the spring of 1964, the division carried out Air Assault I, a preliminary test of airmobile command and control techniques involving an airmobile battalion and a skeleton brigade in charge. Because it was a success—and part of a series of related successes—Kinnard could move on to Air Assault II.
39. Stanton, *Anatomy of a Division*, p. 32; Tolson, *Airmobility*, pp. 54–55.
40. Coleman, *Pleiku*, pp. 14–15 (the quotation comes from p. 14).
41. Information and quotations in the paragraph come from Tolson, *Airmobility*, pp. 55–56. See also “Interview with Kinnard,” p. 19.
42. “Chronology of Significant Events—Airmobile Division,” n.d., attached to “Chronology of Army Air Mobility Concept,” n.d., Historians Files, CMH.
43. Army Aviation, “Interview with Kinnard,” p. 20.
44. Quoted in Tolson, *Airmobility*, p. 61.