

ESSAY CONTEST
ON MILITARY
INNOVATION

1998-1999

SECOND PRIZE

TIE

Assault by 1st Air
Cavalry Division
(Airmobile), 1965.



U.S. Army (Gilbert L. Meyers)

The Evolution of Air Assault

By KEVIN J. DOUGHERTY

Commenting on the “Army after Next” project, one observer noted that “Today’s aviation allocations to light infantry divisions are inadequate for the fast-paced operations of the future.”¹ Battlefield agility must be strengthened if the force “is to truly achieve full spectrum dominance.” Likewise, as another writer stated, “In the wars of the future, there is simply no point in deploying highly trained light infantry without mobility and protection.”² The integration of infantry mobility and target acquisition capability with the speed, agility, and firepower of helicopters is a potent combination; but the current force structure does not realize that

potential. Nor does it capture the helicopter’s air cavalry possibilities. Airmobility has not fully realized the opportunities created by technological innovations following World War II.

Different Responses

Veterans of World War II airborne operations were particularly impressed by the promise of the helicopter, and by 1945 the Army had acquired 22 R-6 utility helicopters for rescue, courier service, medical evacuation, and observation. The Army and Marine Corps bought several two-seat YR-13s. The Marines experimented with helicopters to augment amphibious operations and, by the end of 1946, the Commandant authorized a test squadron. Yet as late as 1947 no helicopter could carry more than a couple of combat-loaded passengers. Perhaps for that reason as well as the difficulty in coordinating helicopter development

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H-13 during joint maneuvers at Fort Hood, 1952.



U.S. Army

Testing H-19G before deploying to Korea, 1953.



U.S. Army

15 H-19 Chickasaws that could carry six fully equipped troops. The squadron progressed from resupply operations to troop transport to embryonic air cavalry in antiguerrilla operations.

These successes led the Army to step up operations and to establish the 6th Transportation Company (Helicopter) which deployed to Korea in late 1952. The next March this unit flew its first resupply mission and in May conducted its first major troop haul. By the end of the war, the Army had fielded two helicopter companies organized as a light battalion while the Marines had ten helicopter squadrons.

After the armistice the Army and Marine Corps continued to refine helicopter operations. The Army emphasized the air cavalry role and began to use the smaller, turbine-driven UH-1 Huey to supplement strong ground force maneuver by mechanized and armored units. The Marines saw the primary mission as combat mobility for assaulting an objective which required a preponderance of large transport helicopters to land self-sufficient forces quickly. Accordingly, the Marine Corps organized around large single-rotor Sikorski helicopters with front clamshell doors, later followed by a turbine driven, twin-rotor model.

with the Air Force, the Army focused its aerial mobility developments on the airborne division, while the Marines continued to experiment with the helicopter.

When a provisional Marine brigade deployed to Korea in August 1950 it took along seven utility helicopters. And, during the Inchon landing, the commander of Fleet Marine Force Pacific told Washington that “No effort should be spared to get helicopters . . . in any form, to the theater at once, and on a priority higher than any other weapon.”

The helicopter was primarily used to evacuate casualties when the first transport squadron arrived in Korea during the summer of 1951 for service with the 1st Marine Division. It included

H-21 Shawnee
in Panama, 1961.



U.S. Army

the Army pursued a more mobile structure that proved ideal for its tactical requirements

Both services were taking unique paths with new technology. This would have a profound effect on operations in Vietnam. The Army pursued a more mobile, decentralized, and integrated structure that proved ideal for its tactical requirements. The Marine emphasis on relatively larger assault helicopters, with centralized control under an air wing commander, resulted in a much more cumbersome and unresponsive structure.

The Howze Board

General James Gavin, who commanded the 82^d Airborne Division during World War II, was an early supporter of air assault. He wrote a landmark article in 1954 analyzing the inability of Eighth Army to exploit the return to maneuver warfare engendered by the Inchon landing in Korea. He concluded that the type of forces needed to conduct long-range reconnaissance, rapid advance, and bypass of obstacles did not exist.

*Where [were] helicopters and light aircraft to lift soldiers armed with automatic weapons and hand-carried light antitank weapons, and also lightweight reconnaissance vehicles, mounting antitank weapons the equal of or better than the Russian T-34s. . . ? If ever in the history of our Armed Forces there was a need for the cavalry arm—airlifted in light planes, helicopters, and assault-type aircraft—this was it.*³

Gavin's contribution to the air assault concept should not be underestimated. As one report portrays it, "[his] article reflected the vision of a few cavalry and helicopter enthusiasts and proved to be the catalyst [for] forward-thinking officers."⁴ Among them was General Hamilton Howze, director of Army aviation who, shortly after Robert McNamara became Secretary of Defense, was asked to reexamine the Army posture and, in effect, ordered the implementation of airmobility.

The impetus for this significant development was a memo from McNamara to the Secretary of the Army in 1962: "I have not been satisfied with Army program submissions for tactical mobility. I do not believe that the Army has fully explored . . . technology for making a revolutionary break with traditional surface mobility."⁵ Because of this failure, McNamara directed that the "reexamination of [Army] aviation requirements should be a bold 'new look' at land warfare mobility. It should be conducted in an atmosphere divorced from traditional viewpoints and past policies." McNamara stated his expectation and stifled bureaucratic naysayers, concluding that he would be disappointed if the "reexamination merely produces logistics-oriented recommendations to procure more of the same, rather than a plan for implementing fresh and perhaps unorthodox concepts which will give us a significant increase in mobility."

McNamara's frustration can be attributed in part to a growing helicopter industry groping for direction. The military had not decided what it wanted and had thus failed to take advantage of the technological advances that were readily available.



U.S. Army (Carlos Ruiz)

H-34 demonstrating pickup system at Fort Eustis, 1961.

Among those McNamara thought capable of grand vision was Howze, and within a week of the Secretary's memo, he was appointed president of the Army Tactical Mobility Requirements Board (Howze Board). As one author noted, "Seldom has there ever been such a broad and open-ended charter in military history,"⁶ and Howze called the Secretary's memo the "best directive ever written."⁷ Howze would take full advantage of the strong mandate presented him.

After just 90 days the board recommended that five reorganization objective Army divisions (ROADs) be replaced by airmobile and air cavalry units. Howze saw the advantage of airmobile forces as mobility, utility in delay operations, ability to ambush, and direct

firepower capability. A month after the board reported, the Army deployed 15 Hueys to Vietnam with a concept team to evaluate their effectiveness in counterinsurgency operations.

Then in January 1963 the Army began organizing and testing the 11th Air Assault Division. The effort gained momentum, and in September an airmobile battalion was tested at Fort Stewart. The results were promising. By 1964 the Army was contemplating an airmobile division as part of its force structure.

The 11th Air Assault Division was activated in February 1964 at Fort Benning to expand the test program. Under General Harry Kinnard, who had served with the 101st Airborne Division during World War II, it conducted a second test (Air Assault II), demonstrating that the "advantages of

increased mobility and maneuverability inherent to the air assault division offers a potential combat effectiveness that can be decisive in tactical operations." Based on this success, McNamara authorized the organization of the 1st Cavalry Division (Airmobile) in July 1965.⁸

Interservice Rivalry

The Army and Air Force had been at odds over aviation long before the Howze Board. To set boundaries, Secretary of the Army Frank Pace and Secretary of the Air Force Thomas Finletter had signed a memorandum of understanding in October 1951, but the issue of roles and missions remained unresolved. The Army was dissatisfied with Air Force close air support and was forming its own air arm. Its growth was rapid. In 1950 the Army inventory included 668 light fixed-wing and 57 rotary-wing aircraft. By 1960 it had over 5,000 aircraft of 15 varieties. The Army, not the Air Force, was becoming the acknowledged leader in vertical flight and ground-effects assets.

The helicopter filled a dual purpose for the Army but was a sinister threat to the Air Force. Although rotary-wing aircraft offered the Army a credible means of increasing air support, it placed great pressure on the Air Force to enhance ground support capabilities or risk losing that mission and the attendant budget to the Army.

Both services made half-hearted attempts to resolve their differences, taking a stab at a joint testing program using the 11th Air Assault Division. However these efforts were characterized by competition rather than cooperation. One example of this rivalry was an exchange in summer 1964 between General Curtis LeMay, Air Force Chief of Staff, and General Harold Johnson, his Army opposite number. In response to the Army's use of armed Hueys in Vietnam, LeMay challenged Johnson to an aerial duel. Pulling a cigar from his mouth and gesticulating wildly, he screamed, "Johnson, you fly one of these damned Hueys and I'll fly an F-105, and we'll see who survives. I'll shoot you down and scatter your peashooter all over the ground." This episode can be seen as a microcosm of the overall situation. The new concept was "generally supported by the Army but opposed at every turn by the Air Force."⁹

In the midst of passion and in response to the Howze Board, the Air Force created its own board whose findings not surprisingly refuted the Army's. In contrast to the airmobility concept, the Air Force suggested a joint service combat team structure.

Central to the Air Force concept was an assumption that in a joint force, ROAD—supported

the Army was dissatisfied with Air Force close air support and was forming its own air arm



U.S. Army (Luis Dacuro)

1st Cavalry Division,
Khe Sanh.

by Air Force tactical air—offered more practical and economical means of enhancing the mobility and combat effectiveness of Army units than Army air assault divisions. The Air Force proposed that the selective tailoring of ROAD could permit varying degrees of air transportability and combat capability, from a relatively light mobile force to one capable of sustained combat. According to the Air Force, this could be accomplished without specialized airmobile units. Neither Army fixed-wing aircraft or medium helicopters would be required for tactical movement of troops or resupply because C-130s could accomplish most transport missions while other Air Force aircraft provided reconnaissance and firepower.

The Air Force concept was tested in October and November 1964 in exercise Goldfire I, but it was quickly evident that nothing new was being offered with regard to close air support of ground forces. The concept merely streamlined existing procedures and demonstrated that, given heavy dedicated tactical air support, an Army division had increased firepower. After evaluating both the

Army and Air Force concepts, Johnson tactfully summed up his service's dissatisfaction: "I had the rare privilege of seeing the 11th Air Assault one week and the other concept at the early part of the following week, and I would make a comparison of perhaps a gazelle and an elephant. The two are not comparable."¹⁰

The uninspiring results of Goldfire I and the success of Army tests led in January 1965 to a recommendation by the Joint Chiefs, with the Air Force dissenting, to cancel Goldfire II. McNamara approved the cancellation, and the Joint Chiefs responded, again with the Air Force in dissent, by recommending approval of the Army request for an airmobile division. In June 1965, McNamara authorized the organization of the 1st Cavalry Division (Airmobile). It was activated in July 1965 and was made up of resources from the 11th Air Assault and the 2^d Infantry Divisions. The division's advance party arrived in Vietnam in late August of that year.

As "a sacrifice on the altar of accord with the Air Force," Johnson was forced to withdraw Army plans to use Mohawks as attack aircraft, confining it to reconnaissance. Later Johnson was also compelled to concede the third issue and give up

Search and destroy mission, 1967.



U.S. Army (Howard C. Breedlove)

C-119 Caribou transports. The armed Huey, however, remained an essential component of the airmobility concept.

The 1st Cavalry Division proved valuable in Vietnam and, in June 1968, the Army began to convert the 101st Airborne Division to an airmobile configuration. The next month, the 1st Cavalry was redesignated the 1st Air Cavalry Division and the 101st Airborne became the 101st Air Cavalry Division. This designation was brief: in August the units were renamed the 1st Cavalry Division (Airmobile) and the 101st Airborne Division (Airmobile). With the U.S. withdrawal from Vietnam the 1st Cavalry was reorganized as a triple capability (tricap) division in May 1971, combining armor, airmobile, and air cavalry brigades. The tricap experiment became mired in bureaucratic ineptitude and, by August 1980, the 1st Cavalry was transformed into a heavy armored division.

The post-Vietnam War curtailment of airmobile capabilities was reflected in the 1976 edition of FM 100-5, *Operations*, and the concept of active

defense. Such doctrine had focused “airpower thinking on close air support and anti-armor roles to the detriment of more flexible and independent applications.”¹¹ In a system so fixed on the close-in battle, the utility of air cavalry was limited.

The 1982 edition of FM 100-5 and its doctrine of AirLand battle were much more promising for a reinvigorated airmobile and air cavalry function. Its emphasis on deep attack and interdiction created “an exciting time for Army aviation, equal or greater in importance than that which occurred two decades ago with the Howze Board.”¹² Within this doctrine, air assets could be used to guard the flanks of armored and mechanized forces, create deeper penetrations, interdict enemy reserves, and provide force protection and aerial fire support in the event of counterattack. FM 100-5 also expanded the ground commander’s areas of responsibility and interest, which put greater emphasis on aerial reconnaissance, surveillance, and target

Cobra attack helicopter in Vietnam, 1971.



U.S. Army

acquisition. The edition which appeared in 1993 continued this trend by emphasizing the fast-paced, nonlinear battlefield.

Army aviation seems to have made a doctrinal resurgence from its diminished role just after Vietnam under the rubric of active defense. A commensurate force restructuring should reflect this increased role. Unhappily, however, the force structure designed to support the airmobility and air cavalry concept has never regained the prominence it enjoyed during the Vietnam conflict.

One division, the 101st, has been steadily refining air assault. In October 1974 it dropped its parenthetical title of *airmobile* in favor of *air assault* and accepted the implied doctrinal change. That doctrine sought to fuse manpower, weapons, and aerial transport with cavalry doctrine while air assault integrated attack, transport, and observation aircraft with the

air assault integrated attack, transport, and observation aircraft with the fighting elements of the division

fighting elements of the division. By maintaining organic helicopter assets, the division ensures continuous availability of aviation responsive to unique tactical requirements. But it is not an air cavalry division.

Although joint operations have advanced dramatically since Vietnam, basic issues remain. There will always be tension between the Army and Air Force over close air support. Douglas Macgregor recognizes this fact: “[Army] reconnaissance and attack helicopters have been developed to acquire permanently a close air support capability that receives low priority in the U.S. Air Force.”¹³ He sees the trend continuing: “Modern air defense systems

will drive jet-driven aircraft to higher and higher altitudes with the result that stealthy, rotor-driven aircraft along with unmanned strike aircraft will gradually supplant traditional airframes in the close air support role.” If the Army truly wants an acceptable degree of close air support, it should provide part of the capability.

Not Finished Yet

A single air assault division does not meet the needs of nonlinear battlefields. One of the unadopted recommendations of the Howze Board was the reorganized airmobile infantry division, a configuration that would help address concerns about our current light infantry. That unit was envisioned as an infantry division with organic aircraft to provide essential airlift and logistical services. In addition, it would be able to furnish sustained, aerial-delivered combat power, exceptional reconnaissance and target acquisition, and intrinsic aerial fire support. It could simultaneously airlift a third of its combat power 100 kilometers, a revolutionary distance in Howze’s day but easily managed today.

Aviation efforts within the Army modernization plan address the difficulties that made such a concept previously unworkable. Modernization will give helicopters the digital connectivity needed for the nonlinear battlefield. Increased ranges will allow regular aviation units to self-deploy over long ranges like special operations aviation. New programs such as the RAH-66 Comanche and AH-64D Apache Longbow will provide reconnaissance and security and attack overmatch. Range and payload concerns will be corrected by structurally efficient helicopters such as the UH-60L Blackhawk and remanufactured CH-47D Chinook that will more than double the vision of the Howze Board for a 100-kilometer mission radius. Certainly the technology is available today to realize the board’s more ambitious recommendations.

But technology is only part of the equation. The full realization of a revolution in military affairs has three preconditions: technological development, doctrinal innovation, and organization adaptation.¹⁴ Therefore what is also needed is the decision to move forward boldly and apply the technology to an upgraded light infantry, organized along the lines of the reorganized airmobile infantry division. Such a reorganization and associated revision of doctrine, tactics, techniques, and procedures would alleviate the concern that our light infantry divisions cannot keep pace with future operations.

If such a course is charted, why stop there? Another recommendation of the Howze Board invites a reexamination of the air cavalry concept. The board considered cavalry as a different arm than armor. Cavalry traditionally excelled at pursuit, screening, raiding, exploiting, and flexible response. Such operations preserve friendly surprise and deny it to an enemy. As Stanton noted:

*While the tank inherited the mantle of the dragons, the Howze Board innovators viewed air cavalry as the resurrection of the bold, slashing light cavalry; the aerial rocket artillery as the modern equivalent of the horse artillery; and the airmobile infantry as the successor of mounted rifle troops.*¹⁵

The Army consciously moved away from this concept, even the name, when it designated the 1st and the 101st Air Cavalry Divisions as airmobile in 1968. While the 101st Airborne Division (Air Assault) clearly uses helicopter flexibility and maneuverability to great effect, it falls short of adopting cavalry doctrine in routine operations. The Howze Board urged three kinds of brigade-sized air cavalry formations organized to “fight from a mounted position and perform the traditional role of cavalry in exploitation, pursuit, counterattack, delay, and flank protection.” But again, ongoing helicopter modernization programs make a genuine air cavalry role a promising prospect for incorporation into all divisions. In addition, if the light infantry division assumes the role filled by the 101st, the latter unit then could be transformed into a true air cavalry division.

Thus the optimal exploitation of emerging helicopter technology requires not only new and improved equipment, but doctrinal and organizational revisions to support it. The Army has begun the task with mechanized forces. Experimental force tests conducted by the 4th Infantry Division at Fort Hood have been successful enough for 1st Infantry in Germany to transition into a limited conversion division. However, critics argue that the experiment simply involves putting fancy digital equipment on weapons and keeping the same basic organizational structure:

*A revolution in military affairs has to be more than merely adding new weapons and converting to digital devices. Previous such revolutions have produced significant changes in organization and tactics to suit new weapons and technology and to maximize combat potential. Indeed, previous revolutions in military affairs have been epitomized by major changes in organizational structure.*¹⁶

Advances in aviation technology allow the Army to take such a bold step with light forces, which it has not done with its mechanized forces. Doctrine and tactics built around an organization of air assault deployable light infantry and air

cavalry brigades would be more in line with a true revolution in military affairs.

As the Army determines how to incorporate advances in helicopter technology into its force structure, the Howze Board is a laudable model for putting technology into practice. Its mandate, leadership, innovative approach, streamlined process, and focused recommendations are worthy of emulation. The subsequent test program involving the 11th Air Assault Division was likewise exemplary. Airmobility advanced in 1962, although some imaginative recommendations were not adopted. If it chooses to do so, the Army has another opportunity to exploit helicopter technology in a bold and dramatic way. **JFQ**

NOTES

¹ Billy Wells, “The Future of Infantry: Maneuver in the 21st Century,” in *AY97 Compendium: Army After Next Project* (Carlisle: U.S. Army War College, Strategic Studies Institute, 1998), p. 17.

² Douglas A. Macgregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century* (Westport, Conn.: Praeger, 1997), p. 77.

³ James M. Gavin, “Cavalry, and I Don’t Mean Horses!” *Armor*, vol. 67, no. 3 (May/June 1958), p. 18.

⁴ Shelby L. Stanton, *Anatomy of a Division: 1st Cav in Vietnam* (Novato, Calif.: Presidio, 1987), p. 11.

⁵ *Ibid.*, pp. 15–17.

⁶ John J. Tolson, *Airmobility, 1961–1971*, Vietnam Studies (Washington: Department of the Army, 1973), p. 20.

⁷ Stanton, *Anatomy*, p. 17.

⁸ Andrew F. Krepinevich, Jr., *The Army and Vietnam* (Baltimore: The Johns Hopkins University Press, 1986), pp. 118–24.

⁹ Bruce Palmer, Jr., *The 25 Year War: America’s Military Role in Vietnam* (Lexington: The University Press of Kentucky, 1984), p. 27.

¹⁰ *Ibid.*

¹¹ Robert Hamilton, “Green and Blue in the Wild Blue: An Examination of the Evolution of Army and Air Force Airpower Thinking and Doctrine Since the Vietnam War,” thesis, School of Advanced Airpower Studies, Air University, Maxwell Air Force Base, 1993.

¹² William R. Richardson, “Airmobility in the 1980s,” *U.S. Army Aviation Digest*, vol. 27, no. 8 (August 1981), p. 4.

¹³ Macgregor, *Phalanx*, p. 51.

¹⁴ James R. FitzSimonds and Jan M. van Tol, “Revolutions in Military Affairs,” *Joint Force Quarterly*, no. 4 (Spring 1994), pp. 24–31.

¹⁵ Shelby L. Stanton, “Lessons Learned or Lost: Air Cavalry and Airmobility,” *Military Review*, vol. 69, no. 2 (January 1989), pp. 75–76.

¹⁶ John R. Brinkerhoff, “The Brigade-Based New Army,” *Parameters*, vol. 27, no. 3 (Autumn 1997), pp. 60–72.