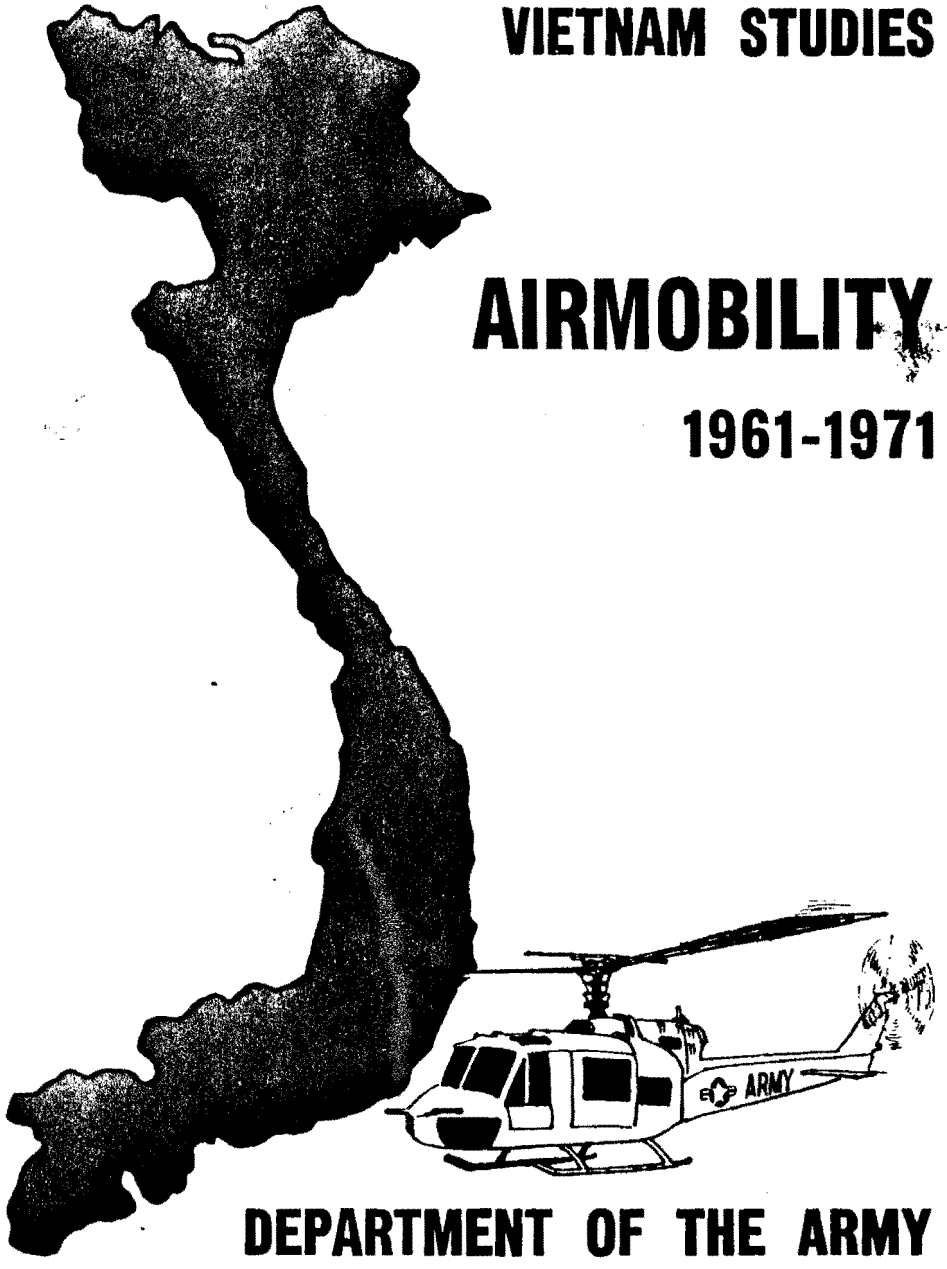
VIETNAM STUDIES

AIRMOBILITY

1961-1971



DEPARTMENT OF THE ARMY

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AIRMOBILITY

1961-1971

by

Lieutenant General John J. Tolson

DEPARTMENT OF THE ARMY

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Dedication

This study is humbly dedicated to the memory of the following airmobile battalion commanders who were killed in action during the period I commanded the 1st Cavalry Division in Vietnam:

Lieutenant Colonel Bob L. Gregory
Lieutenant Colonel Herlihy T. Long
Lieutenant Colonel Howard P. Petty
Lieutenant Colonel Robert L. Runkle

These gallant men—and all the honored dead of that war—will be always in the thoughts and prayers of their comrades-in-arms.

requisitioning systems would occur in common items, but the resultant responsive support warranted this approach. The next problem was to determine where the group should be placed in the overall command structure. Assignment to the Aviation Brigade would place it under the control of the operator for the highest aircraft density. However, this would reduce the probability of equitable support to divisional units and non-divisional–non-Aviation Brigade units such as signal and engineers. The assignment of the group to the 1st Logistical Command had the major advantage of concentrating logistical support under a single commander who would answer to the U. S. Army, Vietnam, G–4. The last alternative, having the group respond directly to U. S. Army, Vietnam, with no intervening layer, seemed in line with the critical nature of aviation assets.

The above alternatives were presented to General Norton and his staff by the ad hoc committee in September 1965 with a recommendation to adopt the separate group structure and have it report directly to U. S. Army, Vietnam. General Norton accepted the recommendation and directed implementation of the plan.

Recommendations for a management structure to provide aircraft support from a single-point, in-theater, aircraft repair parts inventory control center evolved into the Aviation Material Management Center concept. The Aviation Material Management Center Tables of distributions and allowances and the Combat Development Command Transportation Agency's proposed Table of Organization and Equipment for the General Support Group were forwarded for approval. U. S. Army Vietnam directed formation of a provisional group headquarters in November 1965. Lieutenant Colonel Ellis became the Group's commander and, using the assets of the old U. S. Army Support Command Aviation Detachment and the Aviation Supply Point, formed a skeleton staff. Personnel and equipment resource requirements were levied on the 14th and 765th Transportation Battalions to provide a minimal functional base.

The formal approval authorized the proper staffing of the headquarters but gave no relief in the critical day-to-day management requirements to expand the old Army Supply Point and establish a separate inventory control center to support the fast-growing aircraft fleet. The Supply Division of Group Headquarters performed this function until more help arrived. The 241st Transportation Company (Depot) arrived in February 1966, giving the Aviation Material Management Center the capability of operating two depots. In April the 58th Transportation Battalion arrived

and assumed operational control of Aviation Material Management Center.

The Army's "Aircraft Carrier"

On 12 April 1966 the most unusual Army aviation maintenance battalion of the 34th General Support Group steamed into Cam Ranh Bay. The unit was the 1st Transportation Corps Battalion (Depot) (Seaborne), the only Floating Aircraft Maintenance Facility in the Army. The idea for this floating facility originated during military operations in the Pacific Theater during World War II, when combat areas switched rapidly from island to island and sudden changes in the combat zones made ground aircraft maintenance facilities almost useless.

As early as 1962 the floating aircraft maintenance facility concept was being developed for use in the Vietnam combat zone, but it was not until 1965 that the Navy seaplane tender USS *Albermarle* was actually selected for conversion to this facility. On March 27, 1965 it was rechristened the USNS *Corpus Christi Bay*. An energetic Army aviator, Colonel John Sullivan, scurried from the Pentagon to the shipyard to the Aviation Materiel Command to consolidate the many facets of this unusual undertaking. The Army, which had been accused by the Air Force of beginning another "Air Corps" now was getting strange looks from the Navy with its attempts to get its own "aircraft carrier."

When the red tape had been cut (lengthwise), the ship was modified to carry approximately 370 Army maintenance personnel and supporting technicians and 130 civilian maritime crewmen to operate the ship. Thirty-seven different production and support services were established aboard the ship enabling the facility to perform all maintenance functions of a depot level repair facility, including overhauling and rebuilding aircraft components. One of the most remarkable innovations was a technical data library on board which contained a complete file of 180,000 engineer drawings on film of aircraft systems, components, and special tools. In its library they had 785,000 images that could be broadcast throughout strategic areas on a closed circuit TV. In a sense, the ship represented an extension of the large aircraft maintenance facility at Corpus Christi, Texas, directly to Military Assistance Command, Vietnam.

When the *Corpus Christi Bay* first arrived at Cam Ranh Bay, extensive security precautions were taken to protect the ship from enemy action. The most serious threat was envisioned to be sabo-

tage and guards periodically threw concussion grenades over the sides to discourage enemy underwater swimmers. A scuba team periodically checked the hull. On 21 September 1966 the *Corpus Christi Bay* moved out of Cam Ranh Bay and sailed to the harbor at Qui Nhon to be near the 1st Cavalry, the unit it primarily supported.

While the Floating Aircraft Maintenance Facility was a useful and unique addition to the U. S. Army's helicopter support capability, the more important, if less dramatic, support was performed in the open rice paddies and jungle clearings. There the maintenance personnel lived in constant danger, with practically none of the amenities, and performed daily, casual miracles on the complex aircraft. Never sure when the necessary bright lights would become an aiming point, they used the knowledge gleaned from Fort Rucker and Fort Eustis classrooms under the most primitive conditions. As one supervisor gruffly understated, "They done good!"

The 1st Cavalry Division in Binh Dinh

During the first half of January 1966 the 1st Brigade of the 1st Cavalry Division conducted Operation MATADOR to find and destroy the enemy in Pleiku and Kontum Provinces. During this operation, the 1st Cavalry saw the enemy flee across the border into Cambodia, confirming that the enemy had well-developed sanctuaries and base camps inside that country.

After Operation MATADOR, the 1st Cavalry Division shifted its weight toward Binh Dinh Province. Some of its forces had been committed into this area soon after its arrival in Vietnam in the summer of 1965, but the major effort in the Ia Drang Valley occupied most of the 1st Cavalry's attention throughout 1965.

The heavily populated rice plains in this area had a population of nearly half a million people of which at least 200,000 or more were still under the domination of the Viet Cong infrastructure. The South Vietnamese Government was attempting to extend its control north from Qui Nhon, along National Highway One, through the rich plains area up to Tam Quan in northeastern Binh Dinh. In this effort, the 22d Army of the Republic of Vietnam Division was being assisted by the Capitol Republic of Korea Infantry Division based near Qui Nhon. Only the southern part of the area was truly under government control.

Beyond the northern border of the Phu My District, and as far as the edge of the abrupt mountain range which walled off the plains on the north and west, there were only isolated islands of

refugees. The rest of the rice bowl belonged to the enemy and was presided over by the 3d North Vietnam Army Division. Its three regiments—the 2d, the 18th, and the 22d—operated from mobile base camps hidden in the mountains. From there they sent small forces throughout the lowlands to terrorize the farmers, manipulate the cycle of rice growing and harvesting, and generally controlled the lives of the people of Binh Dinh.

The 1st Cavalry's initial major operation in this area was called MASHER in its first phase, and WHITE WING in its second, third, and fourth phases. The fighting covered a full circle around Bong Son. The 1st Cavalry Division, in close coordination with the 22d Army of the Republic of Vietnam Division, began with air assaults into the Cay Giep Mountains, then moved to the Bong Son Plains, the An Lao Valley, the Kim Son Valley, and finally back to the Cay Giep Mountains. As a result of MASHER-WHITE WING, the airmobile division and the Army of the Republic of Vietnam infantry forced the North Vietnamese Army regulars out of the area and temporarily broke their hold on the population. As it turned out, the 1st Cavalry would find itself preoccupied in this area on and off for a long time to come.

In the after action report of the 3d Brigade when it concluded Operation MASHER-WHITE WING on 17 February, they were able to report that 893 enemy had been killed by actual body count. A large quantity of equipment and small arms had been captured along with 24,000 rounds of ammunition. Friendly losses were 82 killed in action and 318 wounded.

The Brigade had been supported throughout this operation by the 133d Assault Support Helicopter Company with 16 Chinooks. The CH–47 Chinook had proved essential in moving artillery and resupplying the Brigade with ammunition and supplies. Night resupply was often required. On 28 January seven Chinooks made an emergency resupply mission during weather conditions consisting of extremely low ceilings and poor visibility, and six of the seven committed helicopters were hit by enemy ground fire. The company commander, Major Taylor D. Johnson, was killed while attempting to recover a downed OH–13 scout helicopter. Despite the weather and the enemy fire, the 16 Chinooks assigned to this company during the period 1 January through 31 January flew 526 hours transferring 3,212 passengers and over 1600 tons of cargo.

Lieutenant Colonel Max A. Clark, the commanding officer of the parent organization for this company, the 228th Assault Support Helicopter Battalion, made special note of the difficulty in supporting Chinook operations so far away from the An Khe base

with the current shortage of pilots and maintenance personnel. It took a major effort of his entire battalion to maintain an availability rate of 58 percent.

The Role of the Chinook

The story of airmobility is essentially one of men and machines. If the Huey helicopter became the cornerstone of airmobility, then the Chinook must be considered one of the principal building blocks.

Late in 1956 the Department of the Army announced plans to replace the H–37 helicopter, which was powered by piston-driven engines, with a new, turbine-powered aircraft. A design competition was held and, in September 1958, a joint Army–Air Force source selection board recommended that the Army procure the Boeing Vertol medium transport helicopter. However, the necessary funds to proceed with full-scale development were not available and the Army vacillated in its design requirements. There were those in the Army who felt that this new helicopter should be a light tactical transport aimed at the mission of the old H–21's and H–34's and, consequently, sized for approximately fifteen troops. Another faction believed that the new transport should be much larger to serve as an artillery prime mover and have minimum interior dimensions compatible with the Pershing Missile system. This "sizing" problem was a critical decision.

The first Vertol prototype, called the YHC–1A, was tested by the Army to derive engineering and operational data. Three aircraft were built with a maximum troop capacity of twenty. This model eventually became Vertol's commercial 107 and the Marine Sea Knight. However, the YHC–1A was considered by most of the Army users to be too heavy for the assault role and too light for the transport role. The decision was made to procure a heavier transport helicopter and at the same time upgrade the Huey as a tactical troop transport. This decision was to determine the pattern of airmobile operations for the next decade. As a consequence, the Army concept of air assault operations differed from the Marines because, among many reasons, the very nature of the equipment demanded different methods of employment.

The "sizing" of the Chinook was directly related to the growth of the Huey and the Army's tacticians' insistance that initial air assaults be built around the squad. There was a critical stage in the Huey program when the technicians insisted that we should not go beyond the UH–1B model with Bell; that there should be

a new tactical transport "between" the Huey and medium transport helicopter. Major General von Kann and I fought a rear-guard action in a Pentagon battle to keep the Huey program viable. When it was decided to go to the UH–1D (after an awkward pause on the original "C" design), the proper Chinook size became apparent. By resolutely pushing for the Huey and the Chinook, the Army accelerated its airmobility program by years.

The Army finally settled on the larger Chinook as its standard medium transport helicopter and as of February 1966, 161 aircraft had been delivered to the Army. The 1st Cavalry Division had brought their organic Chinook battalion with them when they arrived in 1965 and a separate aviation medium helicopter company, the 147th, had arrived in Vietnam on 29 November 1965. This latter company was initially placed in direct support of the 1st U. S. Infantry Division.

The most spectacular mission in Vietnam for the Chinook was the placing of artillery batteries in perilous mountain positions that were inaccessible by any other means, and then keeping them resupplied with large quantities of ammunition. The 1st Cavalry Division found that its Chinooks were limited to 7,000 pounds pay load when operating in the mountains, but could carry an additional 1,000 pounds when operating near the coast. The early Chinook design was limited by its rotor system which did not permit full use of the installed power, and the users were anxious for an improved version which would upgrade this system.

As with any new piece of equipment, the Chinook presented a major problem of "customer education." Commanders, pilots and crew chiefs had to be constantly alert that eager soldiers did not overload the temptingly large cargo compartment. I feel quite confident that Hannibal had the same problem with his elephants. It would be some time before the using troops would be experts at sling loads and educated in such minor details as removing the gunner's sight from the artillery pieces. The Chinook soon proved to be such an invaluable aircraft for artillery movement and heavy logistics that it was seldom used as an assault troop carrier. The early decision to move to this size helicopter proved to be indisputably sound.

Operation CRAZY HORSE

The origins of many of the major operations in Vietnam can be traced to some minor enemy contact which was quickly exploited by airmobile forces. Often this was the only way the elusive enemy

port with outbound cargo. Communications with Tan My varied from poor to nonexistant. It was necessary for members of the Division G–4 staff to make several flights per day to Tan My to keep information updated and to properly move cargo forward based on the actual loading situation.

Container express containers were utilized to the utmost in packing cargo for sea movement. Units which had insufficient container express containers were provided pallets on which to load cargo. Incidentally, the Division had been urged for months by U. S. Army, Vietnam, to turn in a substantial number of on-hand container express containers. As it turned out, if these containers had been disposed of, the sea movement would not have been possible within the prescribed time frame.

Combat elements of the Division's 3d Brigade were the first to move and upon closing in the new area were placed under the operational control of the 1st Infantry Division, while combat elements of the 1st Brigade on closing were placed under the operational control of the 25th Infantry Division. The Division Headquarters deployed to Phuoc Vinh on 7 November and operational control of the 3d Brigade was returned to the 1st Cavalry Division. On 9 November, the Division assumed operational control of the 1st Brigade and combat elements of the 2d Brigade closed in the area under Division control on 12 November. The last combat essential equipment of the Division closed into III Corps Tactical Zone on 15 November 1968. Combat elements of the Division immediately began extensive reconnaissance in force operations throughout Tay Ninh, Binh Long, and Phuoc Long Provinces in an effort to stem enemy infiltration along the Cambodian border.

During Operation LIBERTY CANYON the 1st Cavalry Division used 437 C–130 sorties to move 11,550 passengers and 3,399 short tons of cargo. Additionally, a total of 31 LST's, three LPD's, three LSD's, and one aircraft carrier were used to transport 4,097 passengers and 16,593 short tons of cargo. The 1st Cavalry Division had moved on 24 hours notice over 570 miles by land, sea, and air, and immediately took over a large area of operations during a critical time. With the exception of thirty aircraft which were moved on the aircraft carrier, the remaining 415 aircraft flew all the way south. Many of them had been hastily repaired for a one-time flight.

However, the move was not without certain problems. Colonel William C. Dysinger, Commander of the Support Command for the Division, did not have enough movement control personnel to cover eight departure and arrival airfields and four seaports. However, he and Lieutenant Colonel Guinn E. Unger, the Division G–4, made up provisional teams that proved invaluable. The Saigon Support Command provided a liaison team at Phuoc Vinh with established special telephone circuits which became essential.

Theater support from all Services was timely and effective. General Irby was later to recall:

> The 1st Aviation Brigade did an outstanding job. They set up refueling, over-night stops, and food stations enroute. Our people could stop and get a rest break and something to eat and spare parts if they needed them . . . The Air Force and Navy were very responsive on the move. We coordinated on a minute-to-minute basis on the availability of C–130's, and the departure airfield control by the Air Force was outstanding.

General Forsythe summarized Operation LIBERTY CANYON as follows:

> From northern I CTZ to the jungle frontier areas of northwestern III CTZ, the Division moved and deployed to interdict the movement of four enemy divisions as they attempted to move souhward for an attack on the heartland of South Vietnam. The move was completed with great speed—(the first unit was in combat in III CTZ within 48 hours after it was alerted to move, and the Division was closed in 12 days)—and with strategic surprise (the enemy was confronted suddenly with a major force air assaulted astride his avenues of approach and into his prepared base areas with no prior warning). During the first nine days of the twelve day move, one brigade concurrently conducted and completed a major combat operation in northern I CTZ to penetrate the My Chanh Valley VC base area. In III CTZ the Division was given an immense area of operations (4,800 square miles); was based where existing space and facilities could be found (occupying 9 bases for our aircraft fleet); was given broad mission-type orders ("constitute the II FFV covering force"); and was given wide latitude and freedom of action to maneuver. In addition, care was taken not to fragment the Division or its assets, to permit the full range of its power, to find the enemy and to be shifted to fight him wherever he was found. It was proven beyond doubt that the total power of an airmobile division is greater than the sum of its parts. In short, we were given the opportunity to test the "theory of design and concept" of the airmobile division and we found it to be sound and practical.

proper terrain. Many procedures had now become standard to the point (re complex operations, that would have required detailed rehearsal and briefings, could be done as a matter of routine.

Immediately following this operation, the 173d Airborne began Operation CRIMP in a drive through the Ho Bo Woods region in Binh Duong Province in an attempt to destroy the politico-military headquarters of the Viet Cong Military Region 4. After six days of tedious fighting through bunkers and tunnels, the mission was accomplished and the headquarters was found and destroyed. An enormous quantity of enemy documents and weapons were captured. The brigade commander, General Williamson, made special mention after this action of the role played by his support battalion. "The Support Battalion makes the 173d a truly separate brigade. Its performance has been exceptionally fine and represents a major contribution to our combat power by standing behind the infantry and those who support the infantry with supplies, transportation, maintenance and medical support." The Brigade was supported throughout these operations by the 145th Aviation Battalion (Reinforced). This battalion, seldom mentioned by name, had become almost completely identified with the 173d Brigade total force.

Airmobile Logistics

Even the most enthusiastic protagonist of the airmobility concept would readily admit that the introduction of hundreds of complex helicopters to a combat environment brought, along with its advantages, many unavoidable headaches, not the least of which was the maintenance requirement. In 1966 the helicopter was still in its adolescence from a technical standpoint. The yet unreached goal of one hour of maintenance per hour of flight was far in the future. In reality, even the simplest machine required approximately ten hours of maintenance per hour of flight. The fact that we were willing to pay that price was mute evidence of the intrinsic worth of airmobility.

The story of airmobility must include the fantastic individual efforts of crew chiefs and mechanics who worked practically every night, all night, to enable the helicopters to fight the following day. With the geometric increase in aircraft during the U. S. Forces buildup, it is important to take a brief look at the aircraft maintenance structure.

A milestone in aviation maintenance occurred with the formal approval of the organization of the 34th General Support Group by U. S. Army, Pacific General Order Number 6, dated 17 January 1966. This approval authorized a strength of 145 personnel for the Headquarters and Headquarters Company which (that time, actually had a strength of only two officers and five enlisted men. This formal approval was the culmination of many earlier decisions on the best alternative solution to the growing aviation maintenance problem in Vietnam.

In July 1965 Army aircraft maintenance in Vietnam was provided by three direct support companies and one general support company. Aviation supply was managed by a special Aviation Supply Point in Saigon. All of these units were part of the 12th Aviation Group (Provisional) which in turn reported to the U. S. Army Support Command. At this time in 1965, about 660 Army aircraft were in Vietnam; but, plans were already firm to expand this aircraft population to over 2,000 by early 1966. General Norton, then Commanding General of U. S. Army Support Command, formed an ad hoc committee to study possible alternatives for dealing with this growing maintenance requirement. General Norton's objectives were to provide one-stop maintenance and supply support to Army aircraft (including airframe, engine, avionics and armament); and, to provide an organization that had the ability to grow with the requirement.

At that time, three organizational alternatives were possible. First, the aircraft maintenance and supply units could be integrated into the 1st Aviation Brigade structure. Second, these units could be integrated into the 1st Logistical Command structure. Third, a special separate command organization could be formed to control all non-divisional aircraft maintenance and supply units. This group could be assigned to either the 1st Aviation Brigade, the 1st Logistical Command, or directly under U. S. Army Vietnam Headquarters as a separate major command.

Major Rudolph D. Descoteau and Major Charles L. Smith, as members of the ad hoc committee, developed matrices which considered all alternatives including span of control, flexibility, and responsiveness. This committee also solicited opinion of their potential customers to include the 1st Cavalry Division. On 27 August 1965 the ad hoc committee submitted their new plan of the organization of aircraft maintenance and supply. This plan marked the conception of the 34th General Support Group though it was yet unnamed. A separate command organization to provide the aircraft maintenance and supply support seemed to offer the best solution. With this organizational structure the requirements to provide one-stop maintenance and supply support could be more easily satisfied. It was realized that certain duplication in their

CHAPTER XII

Organizational Changes and Laos, 1970-1971

Organizational Changes

With the exception of decentralizing its maintenance, the organization of the 1st Cavalry Division had remained essentially unchanged since its deployment to Vietnam. Indeed, General Howze would find its organization very similar to the proposed plan his Board had prepared in 1962. However, after the Cambodian campaign, the ever-increasing area of operation, and the requirement to support more Army of the Republic of Vietnam operations, General Putnam was prompted to examine means to increase his air cavalry capability.

In August 1970, General Putnam directed an analysis of the productivity of the aircraft assets of the 1st Cavalry Division. This analysis disclosed that airlift escort by a section of two Cobras from the gun company of the airlift battalions was the least productive mission being flown by the division. It was determined that the escort at that time could be forgone since aerial rocket artillery ships were always at the critical points, the pickup zones and landing zones. The analysis also revealed that essential general support missions normally flown by the OH-6A could be supported by fewer aircraft if careful controls were maintained. Based on these findings, two provisional air cavalry troops were formed using the Assault Weapons Companies of the 227th and 229th Assault Helicopter Battalions and attaching necessary OH-6's and personnel from other Division units. This enlarged the air cavalry squadron to five troops and greatly increased the Division's capability to cover its farflung operations.

A short time later, the 1st Cavalry Division was given operational control of a separate air cavalry squadron, the 3d Battalion 17th Cavalry. General Putnam commented:

> I then had two and two-thirds squadrons of air cavalry. Our ARA battalion had always been responsive to fire support requirements from the air cav. But when we began supporting ARVN divisions with air cav (and the air cav under my OPCON), I then gave the ARA battalion the additional mission of supporting this air cav. What I had in essence was an Air Cavalry Combat Brigade as originally conceived by the Howze Board. This proved to be tremendously successful in supporting the ARVN in Cambodia.

During this same period in late 1970 the 1st Cavalry Division introduced new airmobile tactics in using the 81-mm mortar. The 81-mm mortar, long a valuable weapon to the Infantry, was used by the 1st Cavalry to support strike operations outside of tube artillery range. The mortar, which required a smaller security element than an artillery base and could be supported by the Huey, was established in a temporary mini-base located on the periphery of regular artillery range to extend indirect fire in support of ground troops. This became increasingly important as the number of squad and platoon-size operations increased.

After the Cambodian Campaign, it became the rule rather than the exception to conduct small unit operations down to separate squad and platoon-size forces, rather than the multi-battalion operations of previous years. In this way the Cavalry could cover a larger area more thoroughly, but this method of operation brought with it the requirement for a high caliber of leadership at the lowest level. The young Cavalry lieutenants and sergeants more than adequately proved they were up to the job. These small unit operations were enhanced by the inherent capability of the division to reinforce rapidly and the great flexibility and variety of firepower at its disposal.

As an example of the firepower available at this time, the standard armament of the Cobra now included the 2.75-inch rocket with a 17 pound warhead, the very effective 2.75-inch Flechette rocket, and the SX-35 20-mm cannon. The firepower of the division was enhanced by the intelligence gathering capability of the Seismic Intrusion Devices which were dropped by UH-1H helicopters along known infiltration routes. Once enemy movement had been detected, a small unit was lifted into an area well ahead of the enemy's determined course of movement and established an effective ambush with artillery and gunships standing by.

Into Laos

The final airmobile operation to be included in this study was given the code name of LAMSON 719. This combined operation took place in Laos from 8 February to 9 April 1971. LAMSON 719 was

unique in many ways, but of principal concern to this study was the impression, generated both in and out of the military by the early reports of severe helicopter losses, that the airmobile concept had "fallen flat on its face"—that airmobility brought unacceptable risks when subject to any threat more than low-intensity antiaircraft fire in the "permissive" environment of South Vietnam. As is so often the case, the impact of the initial headlines remained uncorrected by the later objective review of the facts. Many believed that this operation was nothing short of a disaster when, in fact, it proved again the basic soundness of the airmobile concept and scored a devastating blow to the enemy's logistics sanctuary in Laos.

In the next few pages I've made no attempt to relate the full story of LAMSON 719—the detailed ground battle between the communist forces and the Army of the Republic of Vietnam. That is properly a Vietnamese story—to be recounted elsewhere. For the record, the Army of the Republic of Vietnam fought tenaciously against ever-increasing odds and reached their objective. The Laos operation was a tactical and strategic success, as well as a psychological success, for the Republic of Vietnam.

Before one draws any comparisons between the Laos operations and airmobile operations conducted by the U. S. Army, it must be realized that LAMSON 719 was a very special operation in which strict rules governed U. S. military operations across the Laotian border. While the Republic of Vietnam Armed Forces could operate freely on the ground and in the air within Laos, U. S. Forces were restricted to air operations under specific rules of engagement and were prohibited from fighting on the ground.

The fact that U. S. personnel were forbidden to go on the ground in Laos required modification of normal procedures for supporting firepower, coordination and conduct of airmobile operations, and rescue and recovery of downed crews and aircraft. The absence of U. S. advisors with the ground forces and the language difficulties added further complications.

Furthermore, LAMSON 719 was a combined operation in which Lieutenant General Hoaug Xuan Lam, the Commanding General, I Corps, Army of the Republic of Vietnam, planned and conducted the ground operations in Laos while Lieutenant General James W. Sutherland, the Commanding General, XXIV Corps, U. S. Army, planned, co-ordinated, and conducted airmobile and aviation operations in support of Republic of Vietnam Armed Forces ground operations. Though these two commanders developed a high order of co-operation and mutual confidence, there was an absence of the unity of command of ground and airmobile forces that characterized airmobile operations conducted unilaterally by the United States Army.

By late September and early October 1970 it had become obvious from various enemy actions and intelligence sources that the North Vietnamese Army planned to strangle Phnom Penh and overthrow the Lon Nol Government. At the same time, there was ample evidence that the North Vietnam Army would continue its aggression against South Vietnam and rebuild its bases along the Cambodian border adjacent to III and IV Corps Tactical Zones. The key to these enemy operations was an intensified resupply and reinforcement operation in southern Laos during the dry season which would last from mid-October to mid-April 1971.

December 1970 and January 1971 brought a sharp increase in the amount of supplies moved into the southern Laotian area known as Base Area 604, adjacent to Quang Tri Province in I Corps Tactical Zone. The intelligence community further noted that only a small portion of these supplies had been moved further to the south. In previous years the enemy had reached his peak efficiency in February and March in moving supplies down the Ho Chi Minh Trail. Accordingly, an attack against the base areas in Laos during these months presented the highest probability of inflicting the greatest damage to the enemy. Operation LAMSON 719 was conceived, developed, and implemented to react to this intelligence information.

Air interdiction of the entry points from North Vietnam into southern Laos had intensified since October 1970 and the 7th Air Force had been very effective in destroying enemy trucks. A new record of kills was reached in December and January. Army of the Republic of Vietnam operations into Cambodia were started in November 1970 with the mission of opening land and water routes to Phnom Penh. The Vietnamese forces had successfully expanded their area of operation and demonstrated their ability to conduct a major campaign without any advisory supervision.

In early February 1971 the Government of Vietnam decided to commit more than three Army of the Republic of Vietnam divisions to interdict the enemy's supply and infiltration routes in southern Laos and to destroy his logistical facilities and supplies. The broad objective was to reduce the North Vietnam Army capability for waging war in the south and to advance the security of the people of the Republic of Vietnam.

The operational area of LAMSON 719 covered an area roughly thirty-five to sixty kilometers. The geography of this area varied

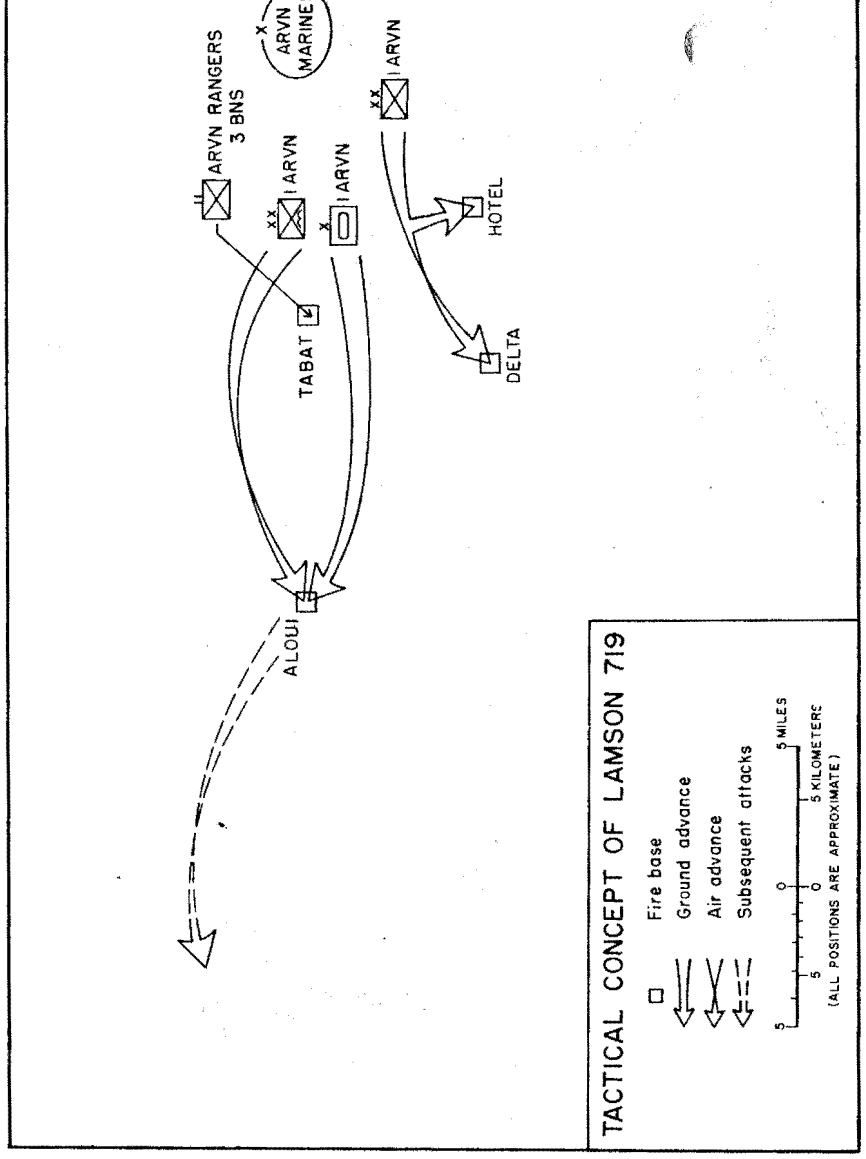
dramatically. The Xe Pon River split the area and was roughly parallel[illegible]oy Highway Nine. Vegetation was mostly single or double canopy jungle along the river. Just south of the river rose a sheer escarpment leading to rugged mountainous terrain. Natural clearings were rare throughout the area and landing zones usually had to be carved out of the dense undergrowth. Intelligence indicated that the natural landing zones would be heavily defended.

The airmobile operations of LAMSON 719 were spread through three areas: the coastal base camps where most of the helicopters were kept at night; the forward staging area at Khe Sanh, where only a few helicopters remained overnight; and the operational area over Laos. Weather conditions at any one or all three locations could have a major effect on helicopter support. The right combination of weather conditions had to exist before helicopters could take off from the coastal bases, land at Khe Sanh to refuel and be briefed for missions, and fly into the operational area over Laos.

Early morning fog, rain and cloud cover, sometimes delayed airmobile operations until late morning or early afternoon. Rarely did weather conditions preclude operations all day throughout the operational area. On occasion, airmobile operations were conducted under ceilings and weather conditions that precluded employment of tactical air support. The smoke and dust raised by artillery combined with natural haze sharply reduced the visibility and frequently caused flying safety hazards. The highest degree of professionalism was required from all pilots.

The terrain features in the area, especially the higher elevation of the Annamite Mountain chain in the operational area, combined with the marginal weather to have a decided effect on airmobile operations. The river valleys, in particular the east-west oriented Xe Pon, became natural flight routes due to navigational requirements in marginal weather. This in turn focused enemy antiaircraft fire on obvious air routes.

The enemy forces in southern Laos were logistics organizations of Base Area 604, with reinforcements from regular North Vietnamese Army units. Besides the permanent service force of engineers, transportation, and antiaircraft troops, the North Vietnam Army forces included elements of five divisions, twelve infantry regiments, a tank regiment, an artillery regiment, and nineteen antiaircraft battalions. Each of the divisions had previously fought in South Vietnam and most of the enemy had taken part in the large-scale operations around Khe Sanh and Hue in 1967 and 1968. In summary, the enemy consisted of large conventional forces of



infantry, tanks, and artillery capable of sustained mid-intensity conflict lacking only air support.

The major Army of the Republic of Vietnam forces assigned to LAMSON 719 were the 1st Infantry Division, 1st Airborne Division, the Marine Division, three battalions of Rangers, and the 1st Armored Brigade with three cavalry squadrons. The U. S. elements operating in direct support of the Army of the Republic of Vietnam troops inside Laos consisted of the 2d Squadron, 17th Cavalry with four Air Cavalry troops, the 101st Aviation Group, with a number of aviation units under their operational control from the 1st Aviation Brigade, and one squadron of Marine medium transport helicopters.

The tactical concept for LAMSON 719 envisioned the Airborne Division, with the 1st Armored Brigade attached, making the main attack by air assault and overland movement astride Highway Nine to Aloui, and then proceeding in subsequent attacks to Tchepone. (*Map 11*) Highway Nine was to be opened as the main supply route. The 1st Infantry Division, according to the concept, was to attack on a parallel axis to the main attack along the high ground south of the Xe Pon River and protect the left flank of the Airborne Division. The Ranger group would establish a fire base, near the Laotian border north of Tabat, and protect the right flank of the Airborne Division. A Marine brigade was to be the reserve in the vicinity of Khe Sanh.

As early as January 1971, a planning group consisting of key staff officers from the U.S. XXIV Corps and Army of the Republic of Vietnam I Corps was established at Da Nang. Information on the operation was tightly held and, in some instances, this restriction of information complicated the preparation for LAMSON 719, especially in those areas where a long lead time was necessary. Though control and coordination procedures were agreed upon, it would not be until three weeks after Vietnamese troops had crossed the Laotian border that a combined tactical command post at Khe Sanh became a reality.

The Battle

The attack into Laos was initiated on 8 February from bases established on the Khe Sanh Plain. The Army of the Republic of Vietnam 1st Armored Brigade Task Force crossed the border at 1000 and advanced nine kilometers to the west along Route Nine on the first day. Three battalions of the 3d Regiment, 1st Army of the Republic of Vietnam Infantry Division, air assaulted into landing zones south of Route Nine while two battalions of the 1st Army of the Republic of Vietnam Airborne Division air assaulted north of Route Nine. Some 105-mm howitzer batteries were airlanded in both areas on D-day.

On 9 February, all air moves were cancelled due to adverse weather; however, the armored task force was able to move two kilometers further to the west. On 10 February, the 1st Army of the Republic of Vietnam Airborne Division air assaulted a battalion into Objective Aloui and the armored task force linked up with this battalion at 1555. On the same day, the 1st Army of the Republic of Vietnam Division landed a battalion at landing zone DELTA and the initial objectives of LAMSON 719 had been seized.

After the attack on 8 February the enemy reacted violently to the allied offensive. He aggressively employed his weapons and troops already present in Southern Laos and he reinforced heavily his forces and committed a variety of weapons including tanks to the battle. Reinforcements came from North Vietnam, South Vietnam, and other parts of Laos.

By 19 February the Rangers in the north were receiving frequent attacks by medium artillery, sappers, and infantry and resistance was stiffening in the area of the 1st Army of the Republic of Vietnam Airborne Division. Resupply and medical evacuation became increasingly more difficult. When weather precluded the employment of tactical air, as it often did until noon, and emergency resupply and medical evacuation was urgently required, the availability of helicopter gunships became even more critical.

By 22 February attacks against Fire Bases 30 and 31 and the Ranger positions were becoming more frequent and more intense. Enemy mines, ambushes, and the severe lack of maneuver room combined to slow the movement of the armor columns and they were unable to reach the Rangers to relieve the pressure. Consequently, it was decided to extract the Rangers on 25 February to a less hostile area near the Republic of Vietnam border. However, by this time, enemy supply bases one and two kilometers square had been found and a major petroleum, oils, and lubricants pipeline had been found and cut by Air Cavalry gunships. Tons of ammunition and food stocks had been destroyed. Six hundred and eighty weapons had been captured.

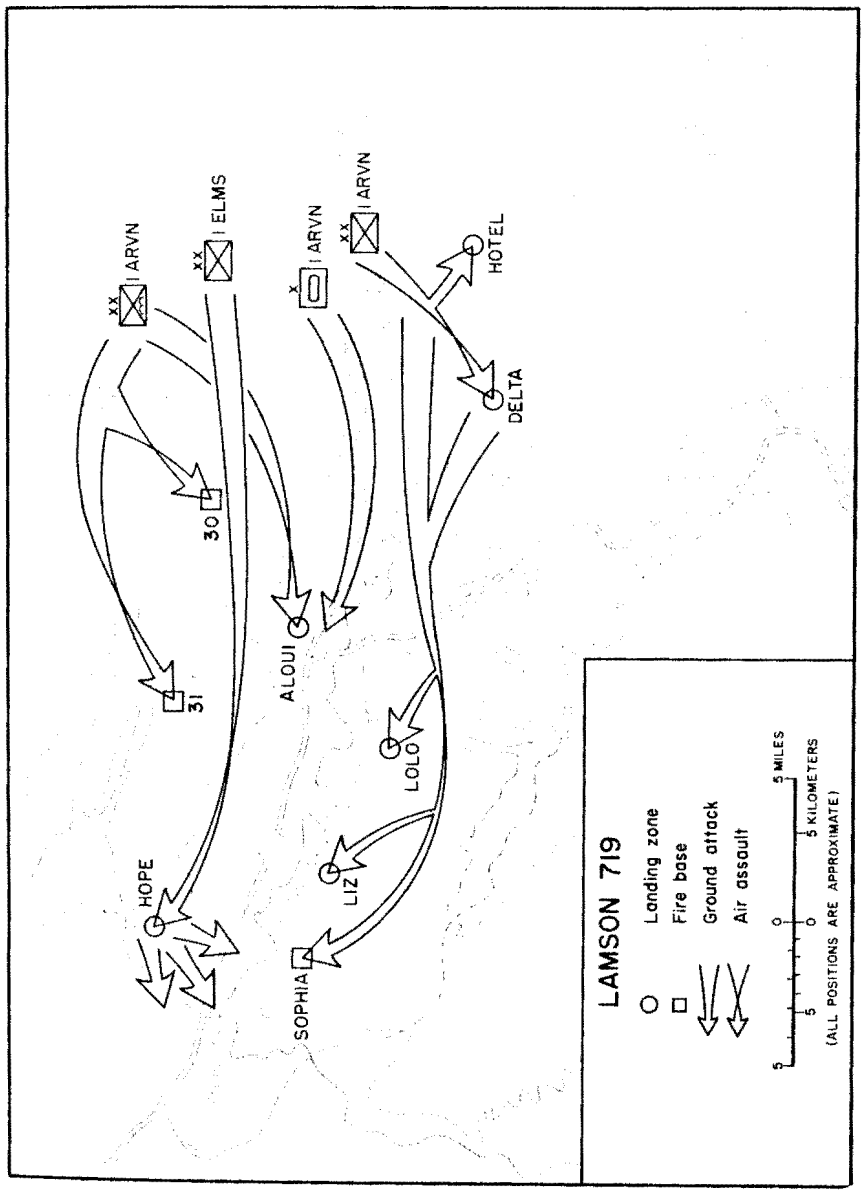
On 25 February the enemy made a classic armor attack against Fire Base 31. They had moved their armor stealthily over concealed routes to final assault positions before being discovered. Then the tanks with supporting infantry launched a violent daylight attack against the fire base. The defenders, supported by U. S.

tactical air, threw back the first and second waves of the enemy attack; but, on the third wave, three Soviet-made T–34 tanks made it to the top of the Base and forced the withdrawal of the defenders. This was to be the first and last success of enemy tanks during LAMSON 719 and the only friendly fire base to be completely overrun in Laos.

Three Army of the Republic of Vietnam armored cavalry squadrons and four infantry battalions had not proved sufficient to provide ground security for the 20 kilometers of road in Laos. Consequently, General Lam had reassessed his plan of attack after the disappointing results of friendly armor in keeping open Highway Nine. Obviously he could no longer plan to use this as a secure main supply route. Capitalizing on his airmobile support, he decided to attack the main objective of Tchepone with a series of rapid air assaults along the high escarpment to the south of the river using the 1st Infantry Division.

From 3 to 6 March, the 1st Army of the Republic of Vietnam Division had accomplished a series of airmobile assaults to the west along the escarpment overlooking Route Nine. The first Army of the Republic of Vietnam units air assaulted successfully into landing zones LOLO, LIZ, and Fire Base SOPHIA WEST. After a very effective preparation of the area by B–52's, on 6 March two infantry battalions were lifted by 120 Hueys for 65 kilometers to air assault into landing zone HOPE north of Tchepone. *This large combat assault was carried out in what was considered to be the most hostile air defense environment ever encountered in the entire war, yet only one Huey was hit and it made a safe landing in the objective area.* The Army of the Republic of Vietnam units attacked south and west controlling the town. (*Map 12*) Tchepone was the objective of the allied drive to the west and was the natural communications hub of the enemy's logistics system in Laos. The enemy immediately increased his pressure in the Tchepone area and attacked the Army of the Republic of Vietnam fire bases on the escarpment viciously.

The I Corps Commander decided that most of the objectives of LAMSON 719 had been accomplished and ordered a timed withdrawal from Laos before weather worsened. During the extraction to the east from the Tchepone area, new enemy forces brought heavy pressure to bear on the Army of the Republic of Vietnam all along Route Nine. Extremely heavy antiaircraft fires were encountered along routes to or from the Army of the Republic of Vietnam fire bases. Enemy pressure was also felt at the primary U. S. Forward Support Area at Khe Sanh which received heavy



MAP 12

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attacks by fire and sappers. All and all, the enemy used every means at his disposal to make the allied withdrawal as difficult as possible.

The last elements of the 1st Infantry Division were extracted on 21 March and the remaining Vietnamese forces withdrew back into South Vietnam over the next few days. The major airmobile actions in Laos were terminated by 25 March even though some Army of the Republic of Vietnam forces continued to operate across the border. Two highly successful airmobile raids of battalion size were conducted between 31 March and 6 April.

Thousands of tons of ammunition, petroleum, oils, and lubricants, and other supplies and equipment were destroyed by LAMSON 719 forces including U. S. air assets. In addition to the destruction of these stockpiles, supplies from the caches of Base area 604 were at least partially consumed by the North Vietnam Army forces opposing LAMSON 719. Initial reports of supplies and equipment destroyed or captured include over 4,000 individual weapons; more than 1,500 crew-served weapons; 20,000 tons of ammunition; 12,000 tons of rice; 106 tanks; 76 artillery pieces; and 405 trucks. The effectiveness of B–52 strikes, tactical air, helicopter gunships, and artillery is further indicated by over 9,700 secondary explosions.

As a minimum, it can accurately be stated that the enemy lines of communication in Base Area 604 were severed, and that supplies and equipment ceased to move south through this area during the inclusive dates of the operation. This was particularly significant, for in past years the enemy has reached his peak efficiency in moving resources south during the months of February and March. Additionally, the detailed knowledge obtained concerning the location of depots, trail networks, truck parks, and the fuel pipeline would permit more precise targeting in the future.

Enemy personnel losses were very heavy. While these losses might eventually be replaced, the requirement to replace losses in such regiments as the 1st Viet Cong, 29th, 36th, 64th, 102d, and 803d would, in all probability, draw off replacement personnel programmed for other units. Combined air-ground operations in Base Area 604 resulted in a reported total of 13,914 enemy killed in action. Air and ground attacks inside the five depot areas reportedly accounted for 5,357 of these casualties. An additional 69 enemy soldiers were captured.

Review of Airmobile Support During Lamson 719

The precise impact of LAMSON 719 on the enemy's long-range goals must be left for future studies. The important issue here is whether the airmobility concept failed or succeeded in this important test.

The average American citizen could not help but conclude from the headlines that the helicopter had proved to be an unacceptable combat vehicle. Many reporters picked up random stories from anyone willing to talk and the overall picture was grim. The following excerpt from *Newsweek,* 15 March 1971, was more objective than most:

> To the modern American cavalryman of the air, the plunge into Laos has been something like an old-time charge on horseback: admirably heroic, stunningly effective—and terribly costly. For four weeks now, American helicopter pilots have flown through some of the heaviest flak in the history of the Indochinese war. One day alone last week, the Army admitted to losing ten aircraft to the unexpectedly heavy North Vietnamese ground fire, and there were reports from the field that the actual losses had been much worse. As a result, the customary bravado of the American chopper pilot was beginning to wear a bit thin. "Two weeks ago," said one gunship skipper, "I couldn't have told you how much time I had left to serve in Vietnam. Now I know that I've got 66 days to go, and I'm counting every one." Another flier added anxiously: "The roles are reversed over there. In Vietnam, you have to hunt for the enemy. But in Laos, man, they hunt for you.
>
> Despite the risks, it was inevitable that U. S. helicopters should be deeply involved in the Laotian campaign, for more than any other artifact of war, the chopper has become the indelible symbol of the Indochina conflict. Helicopter pilots were among the first Americans killed in the war a decade ago, and, under President Nixon's Vietnamization program, they will probably be among the last to leave. In the years between, the chopper's mobility and firepower have added a radically new dimension to warfare, and the daring young American pilots have scooped up their Silver Stars, Distinguished Flying Crosses and Air Medals by the bushel—along with Purple Hearts. In the opinion of many military experts, the helicopter has been the difference between a humiliating U. S. defeat in Vietnam and whatever chance remains of attaining some more satisfactory outcome.

To put the story of airmobility during LAMSON 719 into focus, it's necessary to examine the threat. With the exception of enemy air, it could be said that the environment in Laos was as hostile and as sophisticated as most of the probable areas of employment of U. S. forces throughout the world. The North Vietnamese Army had skillfully deployed an extensive well-integrated, highly mobile air defense system throughout the entire operational area. Whereas in Vietnam and Cambodia we had operated against 7.62-mm and limited 12.7-mm fire, with occasional concentrations of the latter, operations in Laos had been regularly opposed by 23-mm, 37-mm and 57-mm weapons, while the 12.7-mm guns were employed in

multiple mutual supporting positions. The enemy not only had large numbers of antiaircraft weapons of several calibers, but he used these weapons in a manner specifically designed to counter airmobile operations.

The North Vietnamese Army soldier enjoyed a considerably greater fire support in Laos than he had previously experienced in South Vietnam and his antiaircraft weapons had been carefully positioned over a period of years. The 12.7-mm weapons were often employed in triangular or rectangular formations in the vicinity of high ground approximately 1,000 meters from a potential landing zone. The 23-mm guns were employed in circular or triangular formations, though on occasion a single gun was used to protect storage sites or vital road networks. The extensive enemy threat was compounded by the fact that his antiaircraft weapons were continually redeployed, usually on a day-to-day basis.

One enemy tactic that proved most difficult to counter was the North Vietnamese Army technique of employing 10- to 12-man combat teams—on or near every piece of critical terrain—protected by bunkers and trenches. These small teams, armed with one or two machineguns and 82mm mortar and one or two rocket launchers, attacked allied aircraft and infantry on virtually every landing zone, pick up zone, and friendly troop position within the range of their weapons.

The enemy also used their "hugging" tactic which had proven effective in earlier encounters. Using this tactic, North Vietnamese Army forces sometimes moved to within 10 to 20 meters of friendly units manning perimeters and securing positions. Friendly forces were often reluctant to bring supporting fires close enough to their own positions to harm the enemy and, consequently, the close-in enemy could direct a heavy volume of short-range small arms, antiaircraft weapons, and rocket launcher fire against helicopters flying in and out of friendly positions. On occasion, helicopters were fired at and hit by North Vietnamese Army riflemen lying on and back *inside* of barb wire barriers surrounding a friendly position.

Because of the ever-present enemy threat, every airmobile operation in LAMSON 719—even single ship resupply and medical evacuation missions—had to be planned and conducted as a complete combat operation. This entailed a separate fire plan, allocation of escorting armed helicopters, and contingency plans for securing and recovering downed crews and aircraft.

The 101st Airborne Division (Airmobile), under the command of Major General Thomas M. Tarpley, was given the mission to

provide support and assistance to the U. S. and Vietnamese forces participating in LAMSON 719 operations in western Quang Tri Province and in Laos, while still continuing the Division's winter campaign in Thua Thien Province. Furthermore, the Division would take over operational and security responsibility of the areas previously covered by the 1st Army of the Republic of Vietnam Division in Quang Tri Province and along the Demilitarized Zone. They would also conduct diversionary operations from the Hue area into the A Shau Valley along route 547. LAMSON 719 would receive top priority in all cases.

The support provided to I Corps Forces in Laos as well as to the U. S. forces operating in the northern provinces could not have been maintained at a high level throughout LAMSON 719 had not U.S. Army, Vietnam, devoted a major portion of its assets in support. Damaged or destroyed aircraft would be quickly replaced and maintenance support given priority to those aviation units assigned to or under the operational control of the 101st Airborne Division.

A special aviation task force organization was created to provide the extensive aviation support required by LAMSON 719. This aviation task force was built around the structure of the 101st Airborne Division (Airmobile) by supplementing the division's organic assets with aviation and air cavalry units from other divisions, the 1st Aviation Brigade, and from units scheduled for deactivation or redeployment. The division's 2d Squadron, 17th Cavalry, took operational control of supplemental air cavalry troops. The Division Support Command provided logistic and maintenance support for supplemental and organic units and established forward refueling and rearming points to support the operation. The 101st Division used its command and control structure to command the aviation and air cavalry units and to plan and conduct the airmobile operations in support of LAMSON 719.

One of the key U. S. commanders during LAMSON 719 was Brigadier General Sidney B. Berry, Jr. the Assistant Division Commander (Operations) of the 101st. He had a dual role as coordinator of U. S. aviation resources and defacto aviation officer to the Vietnamese I Corps Commander. These two hats made it possible for him to carry out the key position of senior commander aloft. In this position, he was separate from, and senior to, the ground and air mission commanders.

The availability of armed helicopters for the escort role was a major limiting factor in just how many different airmobile operations could be conducted simultaneously. To meet the demand for armed helicopters, many of the older UH–1C armed Hueys were

committed to the action. However, this aircraft complicated the planning on armed helicopter support, for the older Huey could not keep up with, or perform as well as, the preferred Cobra.

With all its limitations, the armed helicopter proved the most important fire-support weapons system during LAMSON 719. Armed helicopters provided the capability for *detecting* and *immediately engaging* battlefield targets of opportunity close to friendly troops on the ground—a system unmatched by any other weapons system in the United States inventory. Armed helicopters, operating with the air cavalry, aerial rocket artillery, and escorting troop-lift, heavy-lift, and support aircraft, literally covered the battle area with their ability to respond immediately and accurately with their fire against known and suspected enemy weapons and positions. Armed helicopters often operated under low ceilings and weather conditions that restricted or precluded use of tactical air in close support of ground units or airmobile operations. Armed helicopters, particularly those of the air cavalry, played a key role in acquiring targets, directing artillery fire and tactical air strikes against them, and conducting battle damage assessments.

One can not overstate the importance of the air cavalry in this operation. They seemed to be omnipresent; they found most of the targets; and they were generally the first on the scene and the last to leave. All that I have said before about the merits of this organization was exemplified in Laos.

Air cavalry performed two principal missions during LAMSON 719—reconnaissance to the flanks and front of ground operations and reconnaissance and security of landing zones before and during combat assaults and extractions. Lieutenant Colonel Robert F. Molinelli, the Commanding Officer, 2d Squadron, 17th Cavalry was the principal reconnaissance officer for the operation.[1] Directing his four air cavalry troops, he took his assigned tasks directly from the Commanding General, I Corps, and delivered his reports back through both Army of the Republic of Vietnam and U.S. channels.[2] This system of assigning tasks and multiplicity of reporting channels testifies to the critical role played by the Air Cavalry. As the battle progressed it became evident that, because of their great confidence in the Air Cavalry, the Vietnamese units tended

[1] To be replaced by Lieutenant Colonel Archie A. Rider on 5 March.

[2] Colonel Molinelli put it this way: "I took my directions directly from General Lam, with General Sutherland supervising our operations on a daily basis. He (General Sutherland) was pretty much the on-the-scene commander until the combined tactical command post was established at Khe Sanh."

to employ the Air Cavalry in the close fire support role rather than in the reconnaissance role.

During LAMSON 719, the 2d Battalion 17 Cavalry encountered PT–76 tanks, a target new to the squadron.[3] Initially, anti-tank rockets were not available; engagement was made with ordnance on hand. Upon sighting a tank the Cobras would initiate contact at maximum range with 2.75-inch flechette rockets. This served to wipe personnel off the vehicles and their immediate proximity. As the gun run continued, the AH–1G pilots would begin firing a mixture of high explosive and white phosphorous rockets, breaking off the run at approximately 500 meters and, indeed, often overflying the target.

When available, the XM–35 20-mm cannon was used. This weapon was extremely accurate, and afforded a theoretical standoff distance of 2,000 to 2,500 meters; however, adequate ammunition was not available for this weapon. When high explosive, anti-tank rockets became available, results were mixed. This rocket was capable of penetrating armor, but direct hits on the target were required. Accuracy dictated that engagements be made at ranges of 500–1,000 meters from the target, thus exposing the gunship to the tank's 12.7-mm and to supporting enemy infantry in the area.

Upon sighting a tank or group of tanks, the Cavalry gunships would engage them to maintain contact, then normally turn the target over to the Air Force and continue reconnaissance missions. If Tactical air was not available, the gunships would engage tanks until their ordnance was expended; but they rarely had enough ordnance to destroy every tank in a particular sighting. Between 8 February 1971 and 24 March 1971, the Cavalry *sighted 66 tanks, destroyed* (*burned*) *six,* and *immobilized eight.*[4] Three of the destroyed tanks were hit with flechettes, High Explosive and White Phosphorous; and the other three were destroyed by combinations of flechettes, High Explosive, White Phosphorous, and High Explosive Antitank. The majority of the other tanks not destroyed or damaged by the Cavalry were turned over to the U. S. Air Force.

[3] The PT–76 cannot be truly classified as a "tank." It is better described as a lightly armored gun carriage. The Cavalry troops also sighted, but did not engage, T–34 tanks. In addition, there were reports (unconfirmed) from tactical air of an even heavier tank—the T–54.

[4] The following criteria were established by the 2d Battalion, 17 Cavalry to claim a tank destroyed or damaged. To classify a tank destroyed, the tank had to explode or burn; whereas a damaged tank was immobilized, parts were blown off and the tank was incapable of further movement without repair.

In summing up the exploits of his air cavalry troops, Colonel Molinelli said: "I think that the use of air cavalry in Laos pretty much proved two major points that those of us in Aviation have always maintained. One, our aircraft are not as vulnerable as many people think in a mid-intensity environment; two, we certainly proved that Army aircraft are capable of attacking enemy armor."

Describing the limitations of current armed helicopters, General Berry commented on 20 March 1971 as follows:

> . . . We need now tank-defeating armed helicopters. Had we entered LAMSON 719 with a helicopter armed with an accurate, lethal, relatively long-range anti-tank weapon, we would have destroyed many more NVA tanks and would have rendered more effective close support to Vietnamese ground forces. As I consider our experience against NVA tanks in LAMSON 719 and ponder what would face us on a European-type battlefield, I am absolutely convinced that the US Army must field immediately an armed helicopter with an effective tank-killing capability. If the AH–1G "Cobra" mounting the TOW gives us that required capability the soonest, fine. I hold no brief for any particular weapons system, but I do hold the firm conviction that we need now the armed helicopter tank-killer.

On this same date, General Berry commented on several other aspects of LAMSON 719. These comments—which were made before the actual close of the operation and right where the action was happening—bear repeating:

> . . . Our experience in conducting airmobile operations in support of LAMSON 719 confirms the soundness of the concept and principles of airmobility developed by the U.S. Army. We have, of course, modified and adapted specific tactics and techniques to cope with the operational environment. But airmobility principles and concepts have proven sound and valid.
>
> . . . Living and operating in the ground soldier's environment, the armed helicopter escorts troop-lift helicopters flying the soldier to and from his operations, escorts helicopters delivering ammunition, food, water, supplies, and mail to the soldier, and escorts the medical evacuation helicopter rescuing the wounded soldier from battle. The armed helicopter flies underneath ceilings measured in hundreds of feet to locate targets threatening or attacking the soldier to deliver timely, responsive, accurate fire within tens of feet of the soldier's position.
>
> The fighter-bomber has a unique capability to place heavy firepower and a variety of ordnance in close support of the ground soldier. The fighter-bomber's most distinctive characteristic is its ability to deliver heavy bombs in support of the ground soldier. The fighter-bomber flies underneath ceilings measured in thousands of feet, to deliver heavy bombs within hundreds of feet of the ground soldier's position and lighter ordnance even closer.
>
> The armed helicopter and fighter-bomber team works effectively in LAMSON 719. Armed helicopters of the air cavalry reconnoiter objective areas, landing and pick up zones, and their approach and departure routes; acquire and mark targets on which the forward air controller directs air strikes; conduct low-level bomb damage assessments; and work with the forward air controller in developing additional targets for air strikes. Armed helicopters and tactical air work together to prepare the objective area, landing and pick up zones and approach and departure routes for safe passage and landing of the troop-lift helicopters. The armed helicopters then escort troop-lift and heavy-lift helicopters in and out of the landing zone while the forward air controller directs air strikes into adjacent target and danger areas.
>
> . . . The helicopter and its crew have proven remarkably hardy and survivable in the mid-intensity conflict and hostile air defense environment of LAMSON 719. We have lost remarkably few helicopters and crew members in view of the heavy small arms, antiaircraft, and mortar and artillery fires our aircraft and crews have experienced while conducting extensive airmobile operations on NVA home ground. This is even more remarkable in view of the numerous airmobile operations conducted in support of Vietnamese ground units located in small perimeters, surrounded by NVA units and weapons, and often in heavy contact with the enemy.
>
> To assess and evaluate properly our aircraft and crew losses, one must measure these losses against the campaign plan, mission, total sorties, and number of exposures to enemy fire, and accomplishments. When viewed in this perspective, we have fared better than the most optimistic prophet would have dared predict.

One of the great stories of LAMSON 719 is the magnificent effort to recover downed aircraft. Wherever possible, an immediate effort was made to extract any downed aircraft and crew, even in the face of hostile fire, and with the knowledge that the North Vietnames often used downed aircraft as bait with which to draw more equipment and personnel into an ambush. In some cases, the downed aircraft had to be destroyed because the tactical situation precluded recovery.

Research analysts will be working with the data base from LAMSON 719 for a long time, particularly on the vulnerability aspects of the helicopter. It would take several volumes to summarize their parameters and permutation alone. For the purpose of this monograph, I think it is fair to say that the loss rate experienced by Army helicopters compared favorably with the loss rate of high performance aircraft in Southeast Asia for the same period. Most importantly these loses were not considered unacceptable in view of the mission accomplished.

There is always the temptation to fall back on the trite statement that "war has never been a particularly safe business" and dismiss further discussion of loss in combat. However, no professional leader ever takes any of his losses lightly and the lessons

learned from Laos will be studied intently for years to come to find better and safer means to carry out the airmobile mission. The general reaction of the Army aviator after LAMSON 719 was "if we could pull this off under these conditions, we can do it anywhere in the world." The senior commanders on the scene seem to share this conclusion.

In the context of the enemy's highly developed antiaircraft defense capability, can we make a valid judgment of the airmobile concept from the results of LAMSON 719? Let's be candid. Our total helicopter losses during this operation were 107 aircraft. Taken by itself, that figure seems a de facto indictment of the concept. But the last statistic does not tell the whole story—indeed, it is totally misleading if left unqualified.

The basic fact is: LAMSON 719 would never have been undertaken, much less successfully completed, without the support of thousands of helicopter sorties. *And for every thousand sorties the loss rate was only one quarter of one percent.* Granted, every helicopter loss was regretable; however, this ratio does show a very high rate of accomplishment versus attrition. Most of these losses were troop transport Hueys—and more than half of these were lost just as they approached landing zones. This again points out in the strongest way that the helicopter is most vulnerable as it comes to a hover over an unsecured or partially secured area. In other words, the safety of the helicopter pilot depends very much on the infantryman on the ground who he supports.

Not unexpectedly, the older Huey gunships did not fare as well as the Cobra in this intense air defense environment. The higher attrition rate of the armed Huey's proved that the move to the faster and better protected Cobra was timely and necessary. Many of the Cobras were hit by 12.7-mm fire but managed to return to base and, eventually, return to combat.

I recognize that this account of LAMSON 719 focuses on the airmobility aspects and does not pretend to tell the entire story of this important battle, a battle that is perhaps too recent to put into true historical perspective. One thing is certain. Without the air support of the U.S. Army, Air Force, and Marines, LAMSON 719 would never have even been planned, much less would it have succeeded.

CHAPTER XIII

Conclusions

The story of airmobility has been long—so my summary will be short. I've tried to interject my honest opinion where it seemed appropriate in the text. Only a few final observations are necessary.

For the reader who has borne with me through this account of ten years of airmobility in Vietnam and the fundamental decisions in the decade preceding that, the obvious question is, "What does all of this mean?" The one inescapable conclusion is that the airmobility concept is irreversible. The thousands of officers who have learned to think and fight and live in three dimensions will never allow themselves to be restricted to two dimensions in the future. Airmobility will change and grow, but it is here to stay.

In the first chapter we learned that the growth of the airmobile concept did not take place in the framework of guerrilla warfare. It was conceived out of the necessity to disperse on the modern battlefield under the threat of nuclear weapons and still retain the ability to mass quickly for decisive actions, then disperse again. The actualities of Vietnam have since obscured these origins and have led many people to the assumption that airmobility was designed for and limited to counter-guerrilla contingencies. The very nature of the terrain in Vietnam with its jungles and mountains has led many to connect helicopter operations to this type of terrain. Indeed, the opposite is true. Airmobility worked in Vietnam *in spite* of the tremendous problems of working in the jungles and the mountains of an undeveloped country. The helicopter overcame the obstacles of limited landing zones, primitive road nets, restricted observation, and high density altitudes as no other vehicle could. But, in the open countryside of Europe or a desert in the Middle East, the airmobile force has far greater flexibility and many more options than even the armored forces of Rommel in North Africa. Vietnam represented only a fraction of the possibilities for airmobile tactics.

A casual observer of Army aviation in Vietnam could easily have arrived at the conclusion that there was no need for special-

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CHART 2—1ST AVIATION BRIGADE ORGANIZATION, 1 AUGUST 1968

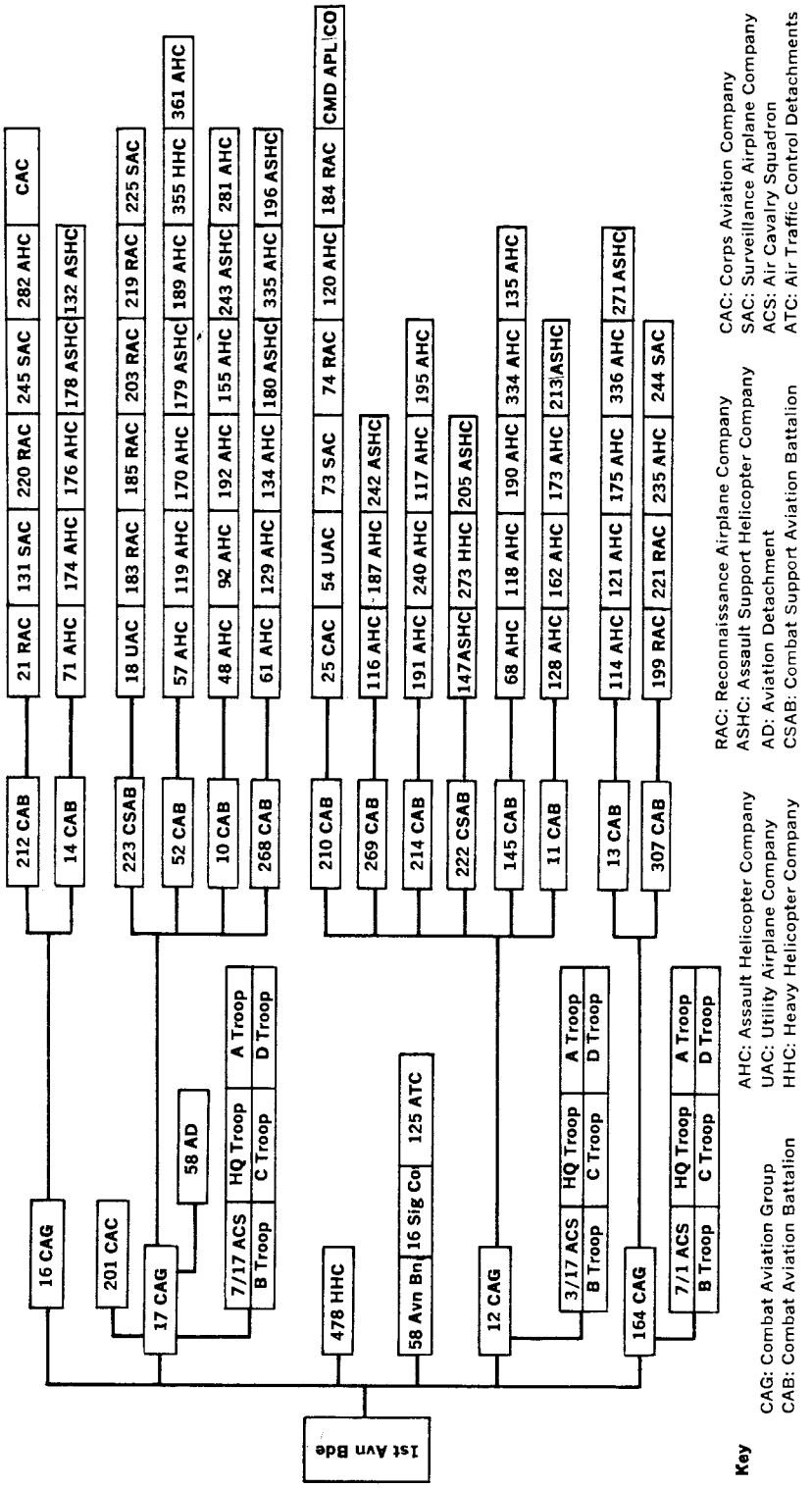

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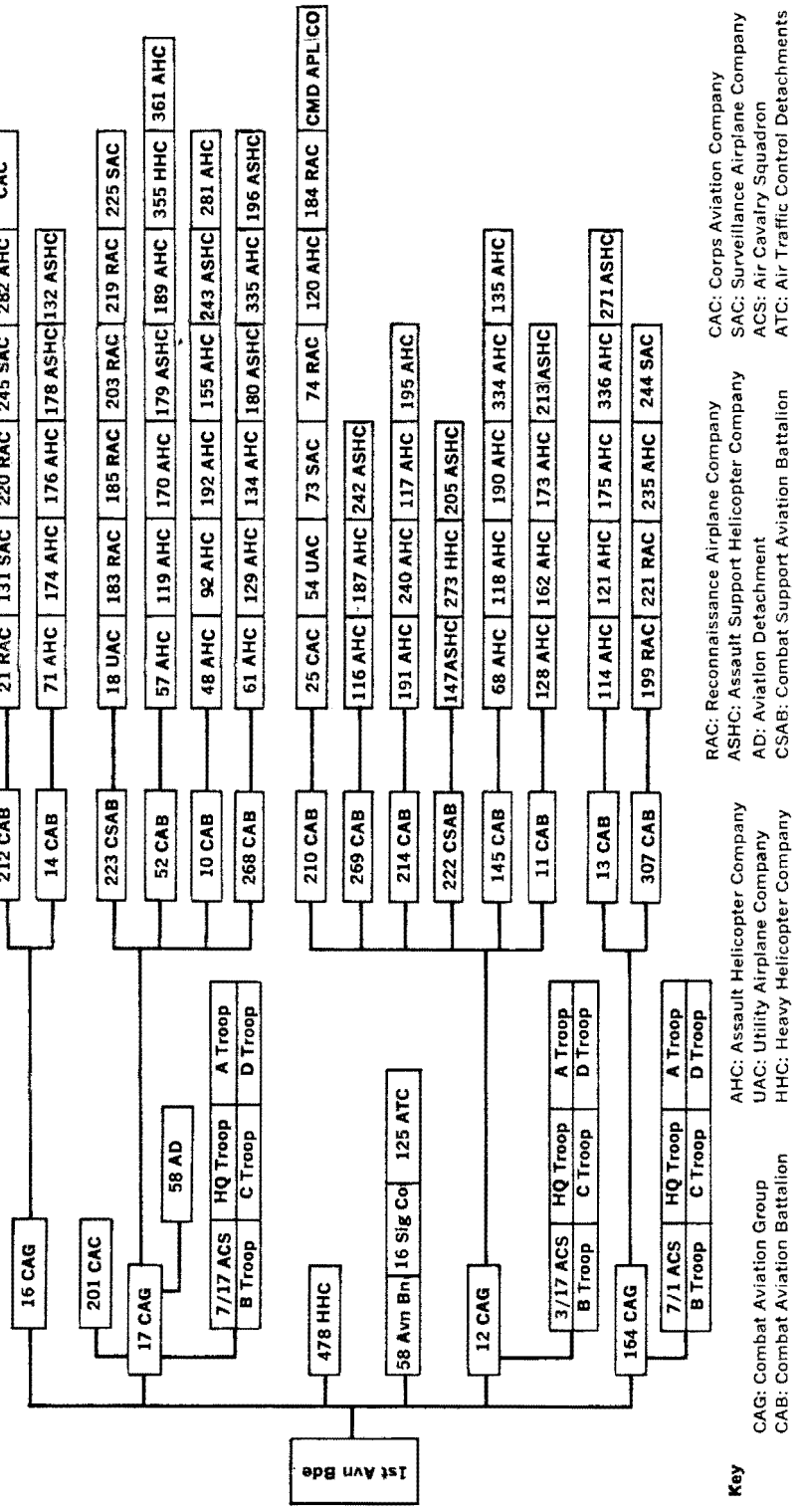
CHART 2—1ST AVIATION BRIGADE ORGANIZATION, 1 AUGUST 1968



more diversified assignments to fill out their career pattern.

In Southeast Asia, the Army aviator had become the *sine qua non* of combat operations. No major plan was ever considered without first determining the aviation assets available to support it. Nowhere was this better exemplified than in the 1st Aviation Brigade.

On the second anniversary of this unit back on May 25th, General Abrams, Deputy Commander, U. S. Military Assistance Command, Vietnam, summed up the feeling of the non-rated officers this way: "It has always been interesting for me to note that the aviators and men of this Brigade have been taken into the brotherhood of the combat arms. Not by regulation, not by politics, but they have been voted in by the infantry, who are the chartered members of that secluded club, the combat arms." During this same organizational day ceremony, noting the presence of General Cao Van Vien, Chairman of the Joint General Staff, General Abrams added, "They are heroes to the district chiefs; they are heroes to the province chiefs; and they are heroes to soldiers of every nation that fights here."

During the same ceremony, General Vien presented the Brigade its second Vietnamese Cross of Gallantry with Palm, an award earned by the men of the Brigade for their outstanding aerial support of such operations as JUNCTION CITY and JEB STUART, and their opposition to the *Tet* offensive. General Williams, the Commanding General of the 1st Aviation Brigade, listed a few of the Brigade's accomplishments during 1967 when they airlifted more than five million troops—the equivalent of 313 infantry divisions—in more than 2.9 million sorties. In that year Brigade aircraft flew more than 1.2 million hours—the equivalent of 137 years. The Brigade was credited for killing 10,556 Viet Cong, sinking nearly 10,000 supply sampans, and destroying more than 10,400 enemy structures and fortifications.

It is very difficult to properly document the accomplishments of the pilots and crews of the 1st Aviation Brigade since their deeds have been interwoven in the combat operational reports of the units which they supported. This support almost became accepted as routine.

I have tried to spare the reader the series of inevitable "wiring diagrams" so beloved by many students of military organizations. However, the organizational structure of the Brigade as of 31 July has a special impact in the sheer number of separate aviation units that were supporting the Free World Forces at this time. (*Chart 2*)

CHART 2—1ST AVIATION BRIGADE ORGANIZATION, 1 AUGUST 1968