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#### Note on U.S. Military Unit Organization

The following chart summarizes the general organizational structure of the U.S. Army and Marine Corps in Vietnam, with the approximate number of men in each unit. One notable difference between the Army and the Marine Corps was their use of the regiment command structure. After World War II the Army eliminated the regiment (except in the case of a more cavalry) and replaced it with the comparatively sized brigade, composed of various battalions former regiments. The battalions retained their regimental designations for purposes of historical continuity (for example, 1st, 2d, and 3d battalions, 2 Infantry) but were usually scattered to different brigades. Marine Corps battalions remained organized into regiments except for a few unusual circumstances, though Marines did not officially use the word "regiment"; hence the 1st Marines (a regiment) comprised the 1st, 2d, and 3d battalions, 1st Marine

#### Army and Marine Corps Structure

Unit	Size	Commanding Officer
Division	12,000-18,000 troops or 3 brigades	Major General
Brigade/Regiment	3,000 troops or 2-4 battalions	Colonel
Battalion/Squadron	600-1,000 troops or 3-5 companies	Lieutenant Colonel
Company/Troop	150-160 troops or 3-4 platoons	Captain
Platoon	40 troops or 3-4 squads	Lieutenant
Squad	5-10 troops	Sergeant

## 2d Air Division/7th Air Force\*

Arrived Vietnam: October 8, 1962 (2d Air Division) Departed Vietnam: March 29, 1973  
(Seventh Air Force superseded 2d Air Division  
April 1, 1966)

### Unit Headquarters

Tan Son Nhut, South Vietnam Oct. 1962–March 1973

### Commanding Officers

Brig. Gen. Rollen H. Anthis Oct. 1962  
Brig. Gen. Robert R. Rowland Dec. 1962  
Brig. Gen. Milton B. Adams Dec. 1963

Lt. Gen. Joseph H. Moore Jan. 1964  
Gen. William W. Momoyer July 1966  
Gen. George S. Brown Aug. 1968

Gen. Lucius D. Clay, Jr. Sep. 1970  
Gen. John D. Lavelle Aug. 1971  
Gen. John W. Vogt, Jr. April 1972

### Major Subordinate Units

2d/13th Air Force (Udorn, Thailand)  
7th/13th Air Force (Udorn, Thailand)  
Air Force Advisory Group  
834th Air Division  
3d Tactical Fighter Wing  
8th Tactical Fighter Wing  
12th Tactical Fighter Wing  
14th Air Command Wing (14th Special Ops. Wing in Aug. '68)  
31st Tactical Fighter Wing  
35th Tactical Fighter Wing  
37th Tactical Fighter Wing

56th Air Commando Wing (Special Ops. Wing in Aug. '68)  
307th Strategic Wing  
315th Tactical Airlift Wing (formerly 315th Air Commando Wing)  
355th Tactical Fighter Wing  
366th Tactical Fighter Wing  
388th Tactical Fighter Wing  
432d Tactical Reconnaissance Wing  
460th Tactical Reconnaissance Wing  
483d Tactical Airlift Wing  
553d Reconnaissance Wing  
633d Special Operations Wing

4258th Strategic Wing (307th SW in April '70)  
6234th Tactical Fighter Wing (388th TFW in April '66)  
6251st Tactical Fighter Wing  
6252d Tactical Fighter Wing  
3d Aero Rescue & Recovery Group  
315th Troop Carrier Group (315th Air Commando G in March '65)  
504th Tactical Air Support Group  
505th Tactical Control Group  
552d Airborne Early Warning Task Force  
1964th Communications Group  
1974th Communications Group

1,737 KIA

3,457 WIA 941 MIA (2/85)

12 Medals of Honor

\*Air operations were also conducted from Guam under control of the Strategic Air Command.

deeply involved in Southeast Asia produced steps toward disengagement. The first contingent of Air Force personnel left Vietnam at the end of 1963, and by March 1964, planning for the withdrawal of the 19th Tactical Air Support Squadron and the 1st Air Commando Squadron was completed. Two months later, Secretary McNamara ordered Air Force pilots to stop flying combat missions and to restrict their activity to training. At the same time, the growing infiltration of men and supplies down the Ho Chi Minh Trail persuaded Kennedy's successor, Lyndon Johnson, to consider bombing North Vietnam.

When North Vietnamese patrol boats and U.S. destroyers tangled in the Gulf of Tonkin in August 1964, Johnson ordered retaliatory air strikes carried out by the Navy and dispatched additional USAF aircraft to South Vietnam and Thailand. The only effect this show of force had on the Vietcong guerrillas who roamed the South Vietnamese countryside was to provoke a series of assaults on American installations, including a November 1 mortar attack on Bien Hoa airfield that left four Americans dead, five B-57 Canberras destroyed, and fifteen more heavily damaged.

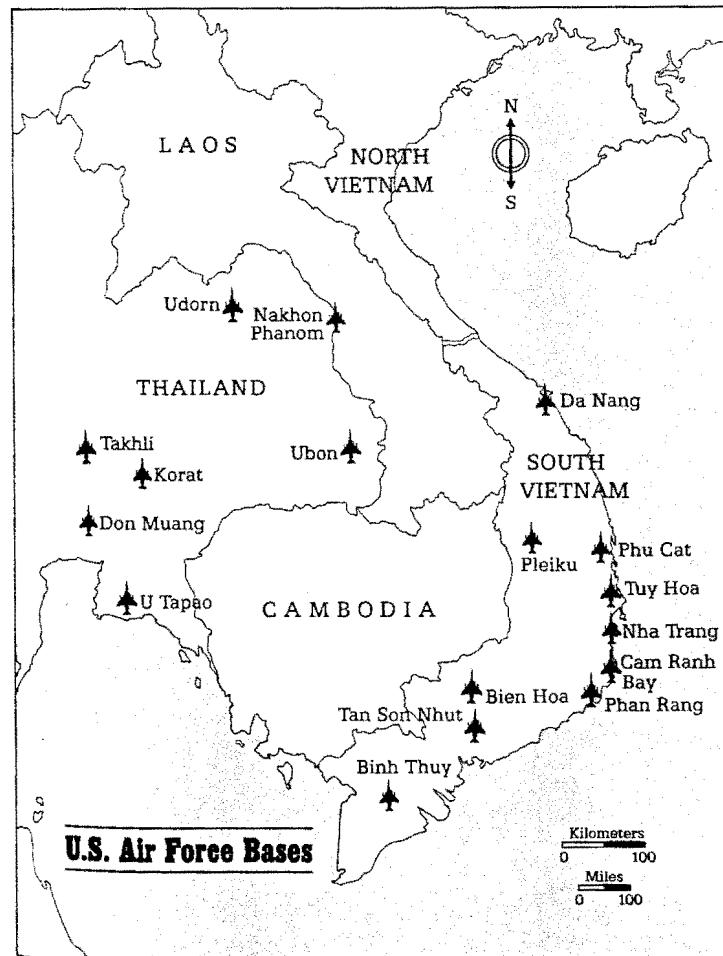
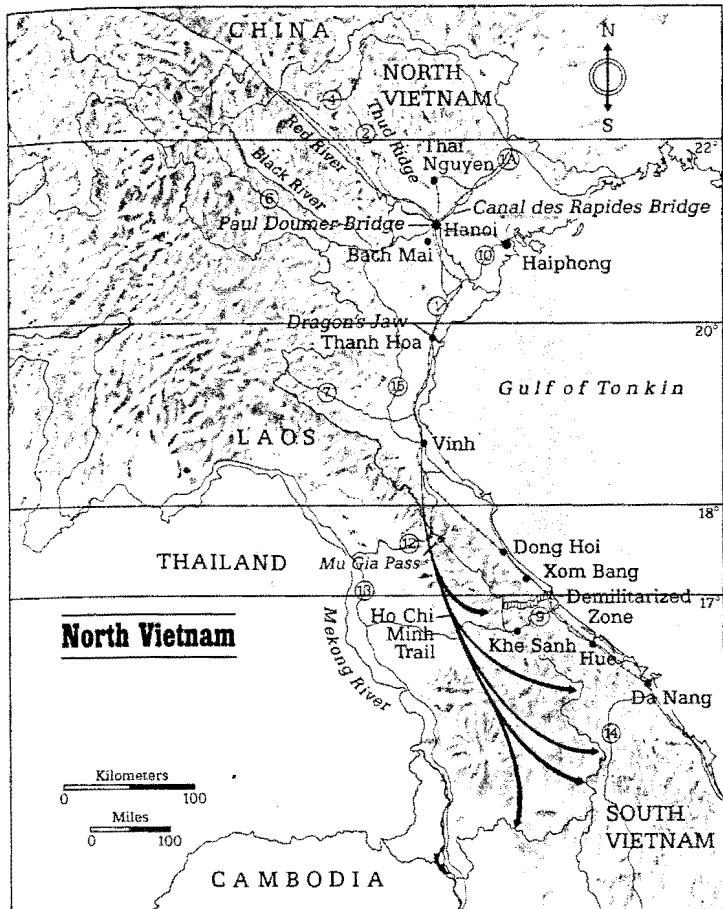
Despite demands for a swift response from the Joint Chiefs of Staff, Johnson set up an interdepartmental working group under Assistant Secretary of State for Far Eastern Affairs William P. Bundy to review the president's options. The Bundy group rejected Air Force Chief of Staff General Curtis LeMay's call for massive air strikes, endorsing instead a program of tit for tat air reprisals against

the North that could be gradually escalated at a controlled rate. Two more enemy attacks against U.S. installations and the continued success of Vietcong military campaigns produced limited retaliatory air strikes in the North and a major policy decision. Convinced that Hanoi was "moving in for the kill," Johnson approved a program of "measured and limited air action against selected military targets in North Vietnam south of the nineteenth parallel." The operation was code-named Rolling Thunder.

### Rolling Thunder

On March 2, 1965, twenty days after Johnson's approval, 104 Air Force fighter-bombers from airfields in South Vietnam and Thailand struck an ammunition depot at Xom Bang, sixty kilometers north of the DMZ. The coordinated assault virtually obliterated the target. But heavy enemy fire, compounded by confusion in the air, cost the Air Force six planes. Five of the pilots were rescued. The sixth, Lieutenant Hayden Lockhart, Jr., became the first USAF airman captured by the North Vietnamese.

Because of bad weather, the second Rolling Thunder mission did not take place until March 15. During the next two weeks, Air Force and Navy pilots divided their time between armed reconnaissance missions against transportation targets and the larger Alpha strikes against bridges and radar sites. Although successful, these sporadic assaults in the southern panhandle were frustrating



times increased the danger of their missions. As the war went on a host of other problems dogged the fliers, including equipment and ammunition deficiencies, mismatched ordnance, pilot shortages, and interservice rivalries.

The biggest problem, however, was the enemy. In the South the Vietcong fought air power with camouflage, underground storage areas, dispersal of troops, an efficient early warning system, and, after their first brushes with American firepower, a strategy that avoided major engagements. Many of the same techniques were used by the enemy north of the DMZ. To minimize the impact of U.S. air superiority, Hanoi ordered factories taken apart and reestablished away from urban centers, sometimes underground; petroleum stores distributed around the country; truck convoys divided into small groups that traveled at night along unmarked roads; camouflaged way stations and sunken concrete bridges difficult to make out from the air. To repair the damage done by the constant air strikes, North Vietnam mobilized an army of civilian workers armed with picks and shovels who rebuilt bridges and reconstructed roads almost as fast as the airmen could destroy them. And to make America pay a heavy price for its air offensive, the North Vietnamese covered their country with one of the most sophisticated air defense systems the world had ever seen.

That system, provided nearly in its entirety by the Soviets, was divided into three parts. The most important was an array of antiaircraft guns, from 37MM and 57MM able to fire up to 18,000 feet in the air to long-range 85MM and 100MM radar-directed guns capable of shooting down aircraft at altitudes up to 45,000 feet. Starting with less than 1,500 at the beginning of 1965, a year later there were more than 5,000, and the numbers kept climbing. Less troublesome at first were the fifty-three Korean War-vintage MiG-15s and 17s that constituted the North Vietnamese Air Force. The addition of more advanced MiG-21s carrying infrared-homing air-to-air missiles in mid-1966, and the penetration of American aircraft into the Hanoi area in early 1967, precipitated an escalating series of aerial battles and the loss of several dozen U.S. aircraft before the remaining enemy planes were driven over the border into China. Long before that, American airmen had to contend with Russian-built SA-2 surface-to-air missiles (SAMs) that could blast a plane out of the sky 60,000 feet above the earth. Like the MiGs, these "flying telephone poles" were dangerous less on their own account than because the measures necessary to avoid them—that is, flying at low altitudes—made American pilots more vulnerable to enemy aircraft and AAA fire. Indeed, this multiplicity of threats forced such wide-ranging countermeasures—fighter escorts, orbiting electronic reconnaissance aircraft, early warning radar planes, and special "Wild Weasel" SAM-suppression aircraft among others—that the cost of air operations over North Vietnam rose out of all proportion to the damage being inflicted.

VNAF—now grown to nine tactical wings and some 40,000 officers and enlisted men—was flying more sorties in South Vietnam than all American air units combined.

Nonetheless, Saigon remained seriously dependent upon American air power, a fact made graphically apparent in February 1971 when South Vietnamese troops were routed with heavy losses during an incursion into southern Laos. Only mammoth support by U.S. fighter-bombers and B-52s—9,000 sorties delivering more than 50,000 tons of ordnance—prevented total disaster. In the aftermath of the ARVN debacle, American aircraft resumed interdiction strikes along the Ho Chi Minh Trail, but after two years of gradual cutbacks the momentum of withdrawal had caught up with the Air Force. By December 1971, less than 300 attack aircraft and less than 29,000 personnel remained in South Vietnam.

The Air Force attempted to bridge the gap between its continuing responsibilities and diminishing numbers of men and machines by relying on technology: advanced AC-119G Shadow, AC-119K Stinger, and AC-130 Spectre gunships; "Black Crow" ignition detectors, which could pick up static from gasoline engines as far as ten miles away; and the 20,000 acoustic and seismic sensors seeded along the Ho Chi Minh Trail since late 1967 as part of an interdiction operation called Igloo White. There was considerable doubt about the value of the sensor system, however, and in any case it was no substitute for pilots and planes should the North Vietnamese mount a new offensive. That grim prospect became all too real during the first weeks of 1972 when Task Force Alpha technicians monitoring the sensors from their computerized center at Nakhon Phanom recorded a major increase in enemy traffic moving south.

## Linebacker

Spearheaded by tanks and mobile armor units, 40,000 North Vietnamese regulars poured across the DMZ on March 30, 1972, and advanced on the provincial capital of Quang Tri City. Despite ample warning, U.S. military officials were unprepared for the massive invasion. At the time of the North Vietnamese assault, the Air Force had only eighty-eight combat aircraft left in South Vietnam. Poor weather and heavy fire from enemy antiaircraft guns and mobile SAM sites initially neutralized what American air power there was in country as well as the Thailand-based fighter-bombers and B-52s diverted to Da Nang and Bien Hoa. By the second week of April, when the weather finally began to clear, the North Vietnamese had opened up two more fronts—one in the central highlands near Kontum and the other around An Loc northwest of Saigon. Although U.S. pilots were soon flying more than 500 sorties a day, it was not enough. More aircraft were desperately needed, and more aircraft is what the Air Force delivered.

Beginning with the 35th Tactical Fighter Squadron from

Kunsan, Korea, the Air Force poured 700 planes and 70,000 men into the war zone. There they found a conventional, mechanized enemy force vulnerable to air attack and pounded it into submission. Between May 1 and June 30, USAF B-52s, fighter-bombers, and gunships flew 18,000 combat sorties, frequently against formidable antiaircraft fire, with the loss of only twenty-nine planes. The aerial onslaught stopped the North Vietnamese invaders, and by the beginning of July the ARVN had taken the offensive. Richard Nixon had not waited that long. On May 10, while the battle for South Vietnam was still in the balance, the president unilaterally suspended the ongoing Paris peace talks and authorized the resumption of full-scale bombing against North Vietnam. The operation was code-named Linebacker. The target for the first strike was the frequently hit, never destroyed, Paul Doumer Bridge.

On the morning of the tenth, thirty-two F-4 Phantoms from the 8th Tactical Fighter Wing based at Ubon, Thailand, rocketed untouched through heavy antiaircraft fire and an estimated 160 SAM missiles to destroy completely one span of the redoubtable bridge and badly damage several others. The following day, four more Phantoms dropped the remaining three spans, putting the bridge out of action for good.

The initial Linebacker raids were indicative of what was to come. Over the next eight weeks, Air Force and Navy fighter-bombers carried out strikes against targets from one end of the country to the other: fuel dumps, warehouses, marshaling yards, rolling stock, trucks, petroleum pipelines, and power plants. While the Navy mined Haiphong Harbor, the Air Force blasted SAM missile sites near the DMZ and bridges along the northeast rail lines to China. By the end of June, nearly 40 percent of existing POL stores had been destroyed. The raids crippled North Vietnam's transportation network and cut off supplies from its Communist allies.

Analyzing the effects of the renewed air campaign over the North, Major General Robert N. Ginsburgh suggested that Linebacker "had a greater impact in its first four months of operation than Rolling Thunder had in 3-1/2 years." The reasons why were not far to seek. Chief among them was the development of laser-guided and electro-optically guided bombs, also known as "smart" bombs. Powerful, extremely accurate, they were easily demolishing targets that had resisted tons of traditional "dumb" bombs. Another important factor was the continued development of electronic countermeasure equipment such as radar homing and warning (RHAW) gear and specialized ECM aircraft filled with radar detection and jamming devices. Linebacker also saw the revival of "chaff," strips of metal foil or metalized fiber glass that masked incoming bombers from enemy radar.

A third element was a general improvement in air-to-air combat tactics and refinements in early warning radar systems. In June, North Vietnamese pilots shot down more

U.S. aircraft than they lost themselves. By August, however, the Air Force's kill ratio had improved markedly, a development underlined on August 28 when Captain Richard S. "Steve" Ritchie downed his fifth MiG to become the first Air Force ace of the Vietnam War. Finally, Linebacker was conducted with fewer restrictions and less civilian control than previous bombing campaigns. Because there was no longer the same concern over Soviet or Chinese reaction, Nixon could leave the tactics, timing, and strength of each mission to his commanders, reducing the predictability and enhancing the intensity of attacks.

With its offensive in the South rolling backward and American bombs continuing to devastate the North, Hanoi opted for negotiations. The stalled peace talks resumed in Paris on July 19. By October the negotiations had progressed to the point where a provisional accord appeared imminent. On the twenty-third, as a gesture of good faith and with an eye to the national elections now only two weeks away, President Nixon ordered the bombing halted. "Peace," Secretary of State Henry Kissinger told reporters three days later, "is at hand."

But peace in Vietnam was like a mirage receding before the negotiators, even as they reached out to grasp it. Unable to nail down final terms, the two sides wrangled over who had promised what to whom until at last on December 13 the talks collapsed. The following day President Nixon demanded that Hanoi return to the negotiating table within seventy-two hours. When no reply was forthcoming, Nixon ordered another mining of Haiphong Harbor and a resumption of the bombing. But this time, there would be no target restrictions imposed by Washington. This time, B-52s would be sent over the heavily defended heartland of North Vietnam. This time, read the directive issued by the JCS informing field commanders of Operation Linebacker II, there would be "maximum effort, repeat maximum effort" to compel Hanoi to yield.

On the night of December 18, 1972, one-hundred twenty-nine B-52s struck five targets in and around Hanoi in the largest heavy bomber operation since World War II. Flying ahead were radar-jamming, missile suppression, and chaff planes. Along the way they were met by KC-135 refueling tankers. Accompanying the B-52s when they neared their targets were Phantoms flying anti-MiG escort, and behind them waited search and rescue teams to pick up any airmen unlucky enough to need their help. As the first bombers reached the outskirts of the North Vietnamese capital, the red flames of SAM rocket engines, fired in salvos of three or more at a time, lit up the sky in front of them. Over 200 of the missiles were launched that night, but only three of the B-52s were lost. The rest delivered their heavy loads on power plants, docks, communication facilities, POL stores, and transportation targets. By the time the last wave of bombers returned to base, the aircraft scheduled for the following day's mission were already warming up their engines.

Although the tactics and plan of attack for the second strike were virtually identical to the initial assault, the results were even better. But by the third night the North Vietnamese gunners were waiting for the Americans. Six of the multimillion-dollar aircraft were shot down in flames by surface-to-air missiles, provoking a wave of criticism from officials in Washington and air crews who saw in the predictability of the attack patterns a recipe for disaster. While SAC commanders tried to figure out a solution, Washington ordered the raids continued. For the next four nights the B-52s concentrated on SAM sites while F-111s—the newest and most sophisticated warplane in the Air Force arsenal—pounded MiG airfields ahead of the bombers. During the day, Air Force, Navy, and Marine aircraft struck bridges, railroad yards, and spur lines.

After a thirty-six-hour Christmas cease-fire, the attack resumed. This time, however, ten waves of B-52s—120 bombers in all—converged from seven different directions in a simultaneous assault designed to overwhelm the North Vietnamese air defenses. Two of the bombers were brought down, but the remaining B-52s obliterated their targets with 4,000 tons of high explosives. Bombs hitting one major petroleum storage area set off thirty large secondary explosions, the concussions ripping apart two warehouses and sending geysers of flame shooting into the night sky. At Bach Mai airfield, the attack destroyed thirty-one buildings.

The magnitude of the destruction and in particular the razing of a portion of the Bach Mai hospital sparked charges of "terror bombing." That the raids did result in civilian deaths there can be no doubt, some due to accident or miscalculation, others the inevitable result of proximity to military targets. Yet given the enormous weight of bombs that were dropped, the total of 1,624 civilian casualties reported by the North Vietnamese was surprisingly low—indeed, several magnitudes removed from what was experienced in comparable operations during World War II—and wholly insufficient to sustain charges of deliberate attack on the civilian population.

For their part, the North Vietnamese defended themselves ferociously, hurling everything they had into the sky in a vain attempt to stop the onslaught. On the twenty-seventh, the B-52s were met with barrage firings of SAM missiles that brought down two more of the bombers, but it was their last gasp. By the twenty-eighth, the North Vietnamese had exhausted their supply of 1,000 SAMs, leaving the Stratofortresses free to deliver their bomb loads unmolested. Far below the American aircraft lay the ruins of 1,600 military structures and 372 pieces of rolling stock, blasted airfields, rail lines cut to pieces, storage stockpiles scattered, and missile launchers destroyed. An estimated 80 percent of North Vietnam's electrical power production capacity had ceased to exist along with more than a quarter of its POL stores. Also left behind were the remains of fifteen bombers, all victims of SAM missiles, and eleven

tactical aircraft; thirty-three air crewmen taken prisoner, four who died in crash landings; and twenty-nine reported missing. On December 29, Linebacker II came to an end. The following day, President Nixon announced that Hanoi had agreed to return to the negotiating table.

After eight long years of conflict, the talks, which resumed shortly after the New Year, moved swiftly to their culmination. On January 23, Henry Kissinger and Le Duc Tho initiated a formal cease-fire agreement. Under its provisions, Hanoi undertook to repatriate the 653 prisoners of war, including 325 members of the U.S. Air Force, held by the Communists. B-52s would continue to fly missions over Laos until April 17 and over Cambodia until August 15, but with the release of the final prisoner of war contingent on March 29, 1973, the American war in Vietnam came to an end.

In statements to the press, the administration strongly implied that the bombing had forced Hanoi back to the table. In fact, the North Vietnamese maintained throughout Linebacker II that they would return to the talks only when the bombing ceased. Moreover, the provisions of the cease-fire agreement achieved in January represented if

anything a net loss for the United States from what had already been agreed to in October.

The controversy over the role that bombing played in 1972 suggests the ambiguous legacy of air power in the Vietnam War. The Air Force argued from the beginning that if its pilots had been allowed to operate without restrictions they could have forced Hanoi to sue for peace. It was an assertion that underestimated the determination of the North Vietnamese and overlooked the fact that air power alone had never won a war. If the offensive capabilities of American air power in Vietnam remain subject to debate, however, what is indisputable is its vital role as a defensive weapon. Not only in South Vietnam but also in Laos and Cambodia, American air power, and in particular the United States Air Force, prevented the Communists from achieving victory. This was as true in 1972 as it had been in 1968 and 1965. Only when that weapon was finally withdrawn did North Vietnam triumph.

---

*Lt. Col. Robert L. Stirm, a POW since October 1967, is greeted by his family at Travis Air Force Base, California, on March 17, 1973, three days after his release.*



## 3d Marine Division

Arrived Vietnam: May 1965

Departed Vietnam: November 1969

### Unit Headquarters

Da Nang May 1965–Oct. 1966

Phu Bai Oct. 1966–Jan. 1968

Dong Ha Jan. 1968–Nov. 1969

### Commanding Officers

Maj. Gen. William R. Collins May 1965  
Maj. Gen. Lewis W. Walt June 1965  
Maj. Gen. Wood B. Kyle March 1966

Maj. Gen. Bruno A. Hochmuth March 1967  
Maj. Gen. Rathvon McC. Tompkins Nov. 1967

Maj. Gen. Raymond G. Davis May 1968  
Maj. Gen. William K. Jones April 1969

### Major Subordinate Units\*

3d Marines (1/3, 2/3, 3/3)  
4th Marines (1/4, 2/4, 3/4)

9th Marines (1/9, 2/9, 3/9)  
26th Marines (1/26, 2/26, 3/26)

12th Marines (Artillery) (1/12, 2/12, 3/12,  
4/12, 1/13, 2/13)

13,065 KIA

88,633 WIA

27 Medals of Honor

These figures reflect total Marine Corps casualties for the Vietnam War. The USMC does not keep casualty figures for individual divisions.

\*Marine divisions are organized by regiment, and each regiment has its own numerical designation. In USMC nomenclature the word *regiment* is not used, thus the 3d Marines always refer to the regiment, not the division. The 3d Marine Division is always referred to by its full title.

Regiment in a multipronged land, air, and sea assault under the operational control of the 1st Division's newly arrived 7th Marines. Dug into entrenched positions, the surprised enemy troops fought back furiously, killing 46 Marines and wounding 204 more. But the VC were no match for the Americans' mobility and firepower. Vertical envelopment and aggressive infantry tactics trapped the Vietcong against the sea, where Marine air and naval gunfire tore them to pieces. During the first two days of the operation the insurgents lost nearly 1,000 men\*, the battered survivors fleeing from the coastal plain where up until now they had found ready sanctuary.

In Starlite, PIRNHA, and other operations during the latter part of 1965, the Marines demonstrated to the Vietcong the futility of engaging in standup battles and the danger of remaining in the populated area along the coast. Their efforts pushed the VC west into the mountain valleys where they remained for the time being, avoiding major engagements. Meanwhile, with the enemy Main Force units held at arms' length, the Marines turned their attention to the VC guerrilla and the sea of people in which he lived.

### Hearts and minds

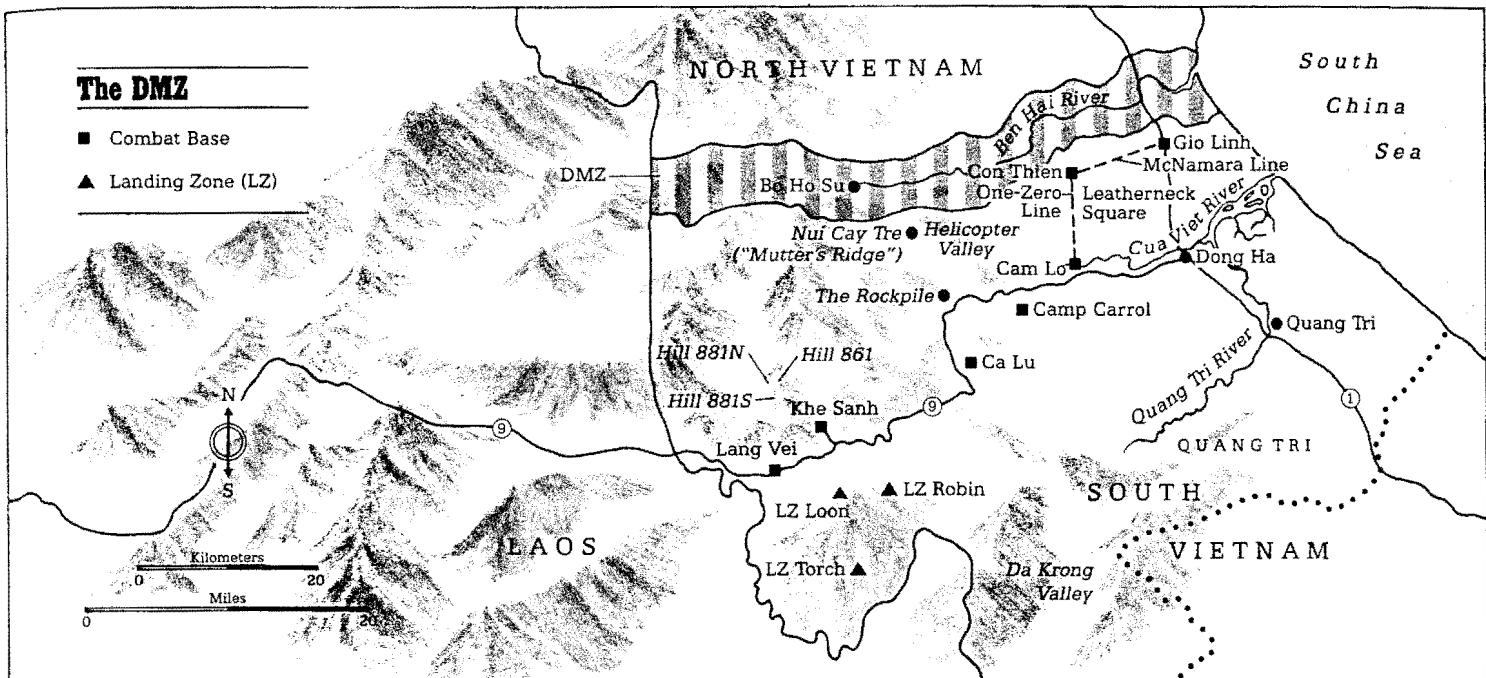
The Marine coastal enclaves in central I Corps were surrounded by hundreds of villages, each of them serving as potential staging areas for Communist guerrillas whose political apparatus had long dominated the region. Security alone dictated that III MAF gain some measure of tactical control over the rural population. But General Walt was also convinced that the key to the war was the people—their allegiance and support. For both reasons the Marines very quickly found themselves deeply involved in "the pacification business."

Their first efforts were northwest of Da Nang, where the 3d Marines attempted to secure the Cu De River valley, and south along the coast toward Hoi An, where the 9th Marines operated. In each case the guerrillas reacted sharply to the American intrusion, fighting back with snipers, booby traps, and ambushes. But the Marines persisted, clearing the hamlets, establishing some measure of security from renewed Communist attack, encouraging the reintroduction of government control. Simultaneously, they initiated a coordinated program of self-help, medical assistance, and community development they called civic action.

In villages visited by Marine patrols, this effort might include the distribution of food, clothing, soap, and other relief supplies. Particularly effective were MEDCAP teams led by Navy corpsmen who treated the villagers, dispensed medicine, and trained local volunteers in rudimentary health care practices. In those areas actually occupied by Marine units, they helped to erect schools, dig wells, repair bridges, construct granaries, rebuild marketplaces, and stock experimental pig farms. The money to pay for all this came from the Marines themselves and from a civic action fund supported by Marine reservists in the United States.

Beyond these expanding "people-to-people" activities, the Marines employed a variety of innovative military and political techniques in their efforts to root out the Communist infrastructure in the villages. "Golden Fleece" operations were designed to protect hamlet rice harvests from Vietcong tax collectors. Marine infantry units patrolling the rice fields during the weeks of harvest not only reduced

\* Note: Throughout this book, Communist KIA figures are based on the controversial official body count, a method subject to human error and, at times, exaggeration. Comparable figures for enemy wounded are generally not available.



weeks earlier), set out from Con Thien on Sunday morning, July 2, kicking off a search-and-destroy operation code-named Buffalo. They had marched barely four kilometers north up the hedgerow-lined Route 561 when the lead elements of Company B encountered enemy sniper fire. As the remainder of the company maneuvered to outflank the snipers, the road erupted in a furious barrage of mortar and artillery fire. Company A, attempting to come to the rescue, was driven back by intense small arms fire. The "snipers" were in fact two battalions of the 90th NVA Regiment, which systematically destroyed Company B.

Flame throwers drove the Marines into the open where they were cut down by automatic weapons and from massed artillery inside the DMZ. Within minutes of the ambush the company commander was dead, the 3d Platoon wiped out. Radio contact between the remaining platoons had been lost. Trying desperately to consolidate their position, the Marines inched back down the road, propping up the wounded so they could fire their weapons at the hundreds of enemy soldiers who steadily closed in. Only the sudden arrival of air support—including napalm dropped within twenty yards of friendly positions—prevented total catastrophe. The air strikes temporarily disrupted the enemy assault, allowing the 1st and 2d platoons to link up. After several hours a USMC tank and infantry relief force crashed through the North Vietnamese ring, guns blazing. "Sir," reported Staff Sergeant Leon R. Burns to the incredulous commander of the rescue column, "this is the company, or what's left of it." Out of 300 men, only 27 walked out of the ambush, one of the worst battle disasters the Marines suffered during the Vietnam War.

By the time the shaken survivors reached Con Thien, the remainder of the 1st Battalion, plus the entire 3d Battalion, were already in the field, joined on the following day by

the 1st Battalion, 3d Marines. For twelve hours on July 3 Marine air and artillery, plus the eight-inch guns of the 7th Fleet, mounted a continuous bombardment of suspected enemy positions in preparation for a counterattack on the fourth. But the NVA had added some new weapons of its own to the battlefield equation including large-caliber, long-range artillery, high-quality bazookas and rockets, and Russian surface-to-air (SAM) missiles. Almost as soon as it began, the Independence Day attack encountered heavy resistance and by dusk had ground to a halt.

As had been the case at Khe Sanh, however, the enormously powerful combination of American supporting arms was more than the North Vietnamese could long withstand. During July 5 and 6, artillery and tactical air struck again and again at large concentrations of enemy troops with devastating results. On the night of the sixth the NVA attempted to overwhelm the 3/9 and 1/3 with a massed regimental assault preceded by a thunderous bombardment of more than 1,500 rounds of artillery fire. For six hours the two sides traded blows, waves of attacking North Vietnamese hurling grenades and fuzed blocks of TNT into Marine positions, the Marines counteracting with flareships, attack aircraft, helicopter gunships, naval gunfire, and a storm of artillery. The next morning, the Communists began to withdraw back across the DMZ. Stretched out for thousands of yards in front of the American perimeter were more than 800 enemy dead.

By the time Buffalo was concluded on July 14, the Marines had lost a total of 159 dead to the enemy's 1,290 KIA. Yet within a month, the North Vietnamese returned to the attack, now committed to the elimination of Con Thien. During late August and early September, the NVA stepped up rocket and artillery strikes on Marine installations across the eastern half of the DMZ, including a ferocious

## 1st Marine Division

Arrived Vietnam: March 1966

Departed Vietnam: April 1971

### Unit Headquarters

Chu Lai March 1966–Nov. 1966

Da Nang Nov. 1966–April 1971

### Commanding Officers

Maj. Gen. Lewis J. Fields Aug. 1965  
Maj. Gen. Herman Nickerson, Jr. Oct. 1966  
Maj. Gen. Donn J. Robertson June 1967

Maj. Gen. Carl A. Youngdale June 1968  
Maj. Gen. Ormond R. Simpson Dec. 1968

Maj. Gen. Edwin B. Wheeler Dec. 1969  
Maj. Gen. Charles F. Widdecke April 1970

### Major Subordinate Units

1st Marines (1/1, 2/1, 3/1)  
5th Marines (1/5, 2/5, 3/5)

7th Marines (1/7, 2/7, 3/7)  
27th Marines (1/27, 2/27, 3/27)

11th Marines (Artillery)  
(1/11, 2/11, 3/11, 4/11)

13,065 KIA

88,663 WIA

24 Medals of Honor

These figures reflect total Marine Corps casualties for the Vietnam War. The USMC does not keep casualty figures for individual divisions.

favor of the mountain valleys to the west, where for more than a month they assiduously avoided the Marines. Although III MAF increased the number of battalion-size operations against VC Main Force elements, the enemy refused to give battle. With the coming of the monsoon season in October, however, the insurgents launched a new offensive featuring sapper and mortar attacks against U.S. installations and operations against ARVN units. The main targets of the monsoon attacks were isolated district capitals and market towns garrisoned by local militia units. Overwhelming these scattered outposts, then ambushing the South Vietnamese forces that came to the rescue, the VC sought to grind the ARVN down before the continuing American buildup tipped the military balance in the government's favor.

On the night of October 27, VC raiders attacked airfields at China Beach, east of Da Nang, and at Chu Lai, destroying 26 aircraft, killing 2 Americans, and injuring nearly 100 more. Three weeks later, with the monsoon rains now averaging an inch a day, the refitted 1st Vietcong Regiment overran the district capital of Hiep Duc, the western gateway to the heavily populated, strategically vital Que Son Valley. Two battalions of the 5th ARVN Regiment recaptured Hiep Duc the following day after fierce fighting, but because of a shortage of troops they had to abandon it almost immediately. The ARVN withdrawal encouraged the VC, now reinforced with North Vietnamese heavy weapons units, to continue to move eastward into the Que Son Valley. When enemy pressure mounted on government garrisons at Viet An and Que Son during the first week of December, the Marines launched Operation Harvest Moon with the double objective of relieving the embattled outposts and trapping the 1st Vietcong Regiment between the two pincers of a combined South Vietnamese and American assault.

The operation kicked off on the morning of December 8 when units of the 56th ARVN Regiment and the 11th

Vietnamese Ranger Battalion marched into the valley from the east. Anticipating no resistance until the following day, the South Vietnamese troops were unprepared for a sudden ambush by a full regiment of enemy soldiers. "They attacked in a mass and hit us from all sides," remembered an American adviser with the ARVN force. "People were dropping around us right and left." Within fifteen minutes the Ranger battalion had lost nearly one third of its men, including the battalion commander, who was wounded. Marine air support and the commitment of an additional ARVN unit temporarily drove the attackers off. But next morning the VC struck again, this time killing a battalion commander and sending the South Vietnamese reeling backwards.

It was now that the Marines entered the battle, the 2d Battalion, 7th Marines, and 3d Battalion, 3d Marines, flying by helicopter to landing zones on either side of the beleaguered ARVN. The 2/7 landed without incident, but the 3/3 ran into a substantial enemy force almost immediately. The ensuing firefight raged into the early evening before the VC broke contact. When the 2d Battalion, 1st Marines, attempted to close an avenue of escape to the south on the following day, they too were met with machine-gun, mortar, and small arms fire that left twenty Marines dead and eighty wounded by the time men from the 2/7 came to the rescue. The three battalions spent December 11 consolidating their positions only to discover that the enemy had vanished, presumably into the Phuoc Ha Valley, a Communist base area ten kilometers to the southeast. For the next three days the 3/3 and 2/1 scoured the new objective behind four B-52 strikes, the first delivered in direct support of Marine operations. The two battalions discovered large amounts of enemy supplies and equipment but not the 1st VC Regiment.

As the 3/3 and 2/1 began to leave the valley on December 16, Lieutenant Colonel Leon N. Utter's 2/7 Battalion searched the Khang River to the south with equal lack of

## 1st Aviation Brigade

Arrived Vietnam: May 25, 1966

Departed Vietnam: March 28, 1973

### Unit Headquarters

Tan Son Nhut May 1966-Dec. 1967

Long Binh Dec. 1967-Dec. 1972

Tan Son Nhut Dec. 1972-March 1973

### Commanding Officers

Brig. Gen. George P. Seneff May 1966  
Maj. Gen. Robert R. Williams Nov. 1967  
Brig. Gen. Allen M. Burdett, Jr. April 1969

Brig. Gen. George W. Putnam, Jr. Jan. 1970  
Brig. Gen. Jack W. Hemingway Aug. 1970

Brig. Gen. Robert N. Mackinnon Sep. 1971  
Brig. Gen. Jack V. Mackmull Sep. 1972

### Major Subordinate Units

11th Aviation Group (227th; 228th; 229th)  
12th Aviation Group (11th; 13th; 145th;  
210th; 214th; 222d; 269th; 308th; 3d Squadron,  
17th Cavalry)  
16th Aviation Group (14th; 212th)

17th Aviation Group (10th; 14th; 52d; 223d;  
268th; 7th Squadron, 17th Cavalry)  
160th Aviation Group (101st; 158th; 159th;  
2d Squadron, 17th Cavalry)\*

164th Aviation Group (13th; 214th; 307th;  
7th Squadron, 1st Cavalry)  
165th Aviation Group (replaced the  
58th Aviation Battalion)

1,701 KIA

(Casualty figures are "Vietnam Era.")

5,163 WIA

4 Medals of Honor

\*160th Aviation Group was redesignated 101st Aviation Group on June 25, 1969, and made organic to the 101st Airborne Division (Airmobile).

In October 1961, McNamara initiated a study of Army aviation. The study revealed the staunch conservatism that had stifled the development of airmobility for more than a decade. On April 19, 1962, McNamara issued a memorandum to the secretary of the Army ordering a review of its aviation plans. "I shall be disappointed," he warned, "if the Army's reexamination merely produces logically oriented recommendations to procure more of the same, rather than a plan for employment of fresh and perhaps unorthodox concepts which will give us a significant increase in mobility."

In response to McNamara's memorandum, the Army appointed a board, headed by Lieutenant General Hamilton H. Howze, to review Army aviation. The board delivered its report to McNamara on August 20. The primary tactical innovation proposed by the Howze Board was the establishment of an air assault division with its own organic aviation assets. However, the board also argued for the organization of an air cavalry brigade and pointed out the necessity of expanding all Army aviation personnel programs to make these proposals work. In particular, it argued for a major upgrading of the warrant officer program, which became the chief source of helicopter pilots.

The report concluded with an emphatic declaration of approval for the airmobile concept. "Adoption by the Army of the airmobile concept—however imperfectly it may be described and justified in this report—is necessary and desirable. In some respects the transition is inevitable, just as was that from animal mobility to motor."

The Howze Board paved the way for the reemergence of Army aviation, in eclipse since the transformation of the Army Air Corps into the Air Force in 1947. Initially, its proposal for an air assault division took shape as the 11th Air Assault Division, which engaged in several very suc-

cessful tests in the United States before deployment to Vietnam in 1965 as the 1st Cavalry Division (Airmobile). Less directly, but just as surely, the Howze Board also helped lay the groundwork for the establishment of the 1st Aviation Brigade. It not only opened the eyes of many Army leaders to the possibilities of the airmobile concept but also initiated the expansion of army aviation that culminated in the formation of the brigade.

## Onto the battlefield

While in the U.S. the Howze Board helped to open the minds of many officers to airmobility, in Vietnam, Army aviators had already begun proving the concept on the battlefield. Following the deployment of the first company-sized unit—the 57th Transportation Company, Light Helicopter—in December 1961, the Army steadily increased its aviation commitment, expanding its presence on the battlefield and gradually changing the face of the war.

With few precedents to follow and no tactical handbook to guide them, these early helicopter crews developed the new concept of airmobility through trial and error. In the beginning, they spent much time teaching the South Vietnamese soldiers how to enter and exit helicopters. They found their efforts further hampered by ARVN leaders who insisted upon using the helicopters primarily on large, ineffective operations that one senior U.S. adviser, Colonel William "Coalbin Willie" Wilson, described contemptuously as "rattle-assing around the country." However, working in conjunction with U.S. advisers and several more innovative ARVN leaders, these American crews soon developed much more sophisticated tactics.

They experimented with arming the helicopter, attaching M60 machine guns on movable door mounts manned



ground as reinforcements. Aerial reconnaissance, however, was not restricted solely to the cavalry squadrons as many of the helicopter companies already in Vietnam performed these operations on a regular basis.

In developing the art of aerial reconnaissance, the brigade made full use of its extensive arsenal of weapons and aircraft. The various aircraft employed on these missions included the several models of the Huey series; the OH-6A Cayuse, a light observation helicopter (LOH), commonly called a "Loach" by the soldiers; the Cobra; and the OH-58A Kiowa, another LOH. The Army also used two fixed-wing reconnaissance aircraft: the O-1 Bird Dog and the various models of the OV-1 Mohawk. Brigade units employed these aircraft in combinations as diverse as the craft themselves, dependent only upon availability and the imagination of unit leaders.

Generally, an aerial reconnaissance patrol consisted of a reconnaissance craft and an attack craft—a so-called Hunter-Killer team (also called a Pink team). The most common combination consisted of a Cobra gunship and an OH-6A Cayuse observation helicopter. While the Cobra hovered above at an altitude of 1,500 feet or more, the Cayuse skimmed across the treetops searching for the

*A hunter-killer team in action. With the target spotted by the hunter, a Light Observation Helicopter, or Loach (below), the killer, a Huey Cobra (above), swoops down on the enemy.*

enemy. If the Cayuse made contact, it summoned the Cobra, which swooped down on the target.

Initially, the VC/NVA soldiers fired upon helicopters immediately upon sighting them, thereby revealing their position. However, they soon learned to hold their fire once they recognized the helicopters' intent. To counter this, the LOH pilots resorted to tactics such as "reconnaissance by fire." By shooting into a suspected VC/NVA location, the pilots hoped to make the enemy soldiers believe that they had been spotted and return fire. As Warrant Officer Don Purser, an LOH pilot with C Troop, 7th Squadron, 17th Cavalry, explained, "We would go in 'hot,' start the shooting ourselves. Then they don't hesitate about throwing lead, and we can get a definite location on them."

It became a deadly game of hide-and-seek with the pilot of the observation craft, suspended only 100 feet or so above the ground, betting his team could kill the enemy before the enemy could kill them. The trial, as WO Wayne Forbes of Galveston, Texas, described it, was "to go in

deep enough to get the enemy to commit himself by opening fire but not so deep that you can't get out."

"While the enemy is still hiding below, he has all the advantages over us," noted Captain Douglas M. Bohrisch, a scout platoon leader for B Troop, 3d Squadron, 17th Cavalry. "He knows pretty much where we are, what we're doing there and what we're capable of. We don't know how many of the enemy are there, how they are armed or even if they are down there."

As a matter of survival, scout pilots became excellent trackers, working in much the same capacity as Jim Bridger and William "Buffalo Bill" Cody had for the U.S. Army during the Indian Wars. Forbes maintained that he could tell how recently someone had passed by the state of his footprint. "If the print is indistinct, and the water in it is still muddy, you can tell that the guy was here recently. But if the print has eroded and the water is clear, then he went through some time ago."

## Bring on the night

Although aerial reconnaissance proved effective during the day, at night it gave the Army an entirely new capability. The night had traditionally belonged to the VC and NVA. It was a time for them to attack, using the cover of darkness and their knowledge of the terrain to overcome America's superior firepower and support. U.S. military leaders recognized this fact, and they turned to Army aviation to help fight this war for the night.

In their earliest operations, dubbed Firefly missions, Army aviators simply mounted a cluster of seven landing lights from a C-130 transport plane in the door of a Huey. With these lights illuminating the ground below, the Huey searched through the night followed closely by a gunship just outside the light's halo. If it discovered any guerrilla activity, the lightship would hold its light on the enemy until the gunship could attack.

As the war progressed, however, the Army developed more and more advanced weaponry to pierce the darkness and find the enemy. Nighthawk teams employed a single UH-1H Huey armed with an infrared night observation device, a xenon searchlight, and a 7.62mm minigun. Operations given the code name Nighthunter did not use normal light at all, relying instead on sniper's starlight light amplification scopes to locate the enemy. Other detection systems included FLIR (forward looking infrared radar) and low-light-level television, an image amplification system similar to the starlight scope.

Perhaps the most advanced pairing of ships was the Snakehunt team. This coupled a Cobra gunship with the electronically advanced OV-10 Mohawk. Outfitted with either SLAR (side looking airborne radar) or IR (infrared sensing devices), the Mohawk scouted ahead for the enemy. When it detected activity, it dropped a flare to mark the spot for the Cobra, which dove down to attack. The



307th Combat Aviation Battalion employed the Snakehunt team extensively in Operation Delta Falcon from March to June 1968 with impressive results. A final tally for the three-month operation included 417 VC killed and 721 sampans either destroyed or damaged.

Despite the tremendously advanced technologies that the Army brought to its night operations, they were never entirely successful. The Mohawk, for example, while effective over flat, open marshland, produced disappointing results when used over the thickly canopied jungles and forests that covered much of Vietnam. Another of the Army's night operations, the insertion and extraction of long-range patrols, also suffered occasional problems. Although these patrols used radios, flares, and signal panels to guide the helicopters to their position, all too often the helicopters failed to locate them.

The pilots on these night operations also faced a number of problems not encountered during daylight operations. Flying through the darkness while focusing upon the intense brightness of the lights carried on Firefly missions

U.S. Depending upon the situation, medevacs could deliver a wounded soldier to a medical station within half an hour of being hit. And the pilots flew anywhere at any time to pick up the wounded. Warrant Officer Stephen B. Peth evacuated 242 wounded to hospitals over one four-day span. Another medevac pilot, Major Patrick H. Brady, evacuated 51 wounded during a single day's action, braving heavy enemy fire throughout and later received the Medal of Honor. At the peak of the war, medevac crews carried more than 22,000 wounded per month.

The medevac was often one of the most dangerous helicopter missions in Vietnam. Usually, they were forced to land in the midst of a battle, and the loading of wounded required them to remain on the ground much longer than a troop or supply ship. The enemy also singled out the helicopters as prime targets. Knowing that ground forces always called for both gunships and medevacs during a battle, they waited for the helicopters to arrive and then attacked.

On March 26, 1969, 1st Lieutenant William D. Bristow of the 14th Combat Aviation Battalion settled into a landing zone near the village of Tien Phouc to medevac a wounded soldier from the 23d Infantry Division. As the helicopter departed the landing zone, however, it began taking fire. Bristow's crew chief, Private First Class Robert Wilhelm, and his door gunner, Specialist 4 Boyd L. Kettle, responded to the enemy fire immediately with their door-mounted M60 machine guns. Bristow pushed his craft for more altitude. Suddenly, the helicopter lurched forward. They had been hit. Flames spread through the cabin. As Bristow dropped the burning craft into the nearest open area, his copilot, Warrant Officer Paul E. Lunt, issued a distress signal giving their sign and location.

Hitting the ground, the crew, carrying their medevac patient with them, abandoned the Huey just before its fuel cells exploded. Pulling away from the burning wreck, Bristow checked his situation. Stranded in hostile territory with darkness approaching, they had only one M16 rifle with thirty-five shells and a .38-caliber pistol with twenty rounds. He hoped someone had heard their distress call.

Only one-half hour after the crash, three Huey "slicks" and two gunships from the 176th Assault Helicopter Company circled the crash site searching for signs of survivors. Overhead, after his first several passes turned up empty, the 176th's commanding officer, Major Ronald C. Metcalf, concluded that no one had survived the crash. However, with enemy fire increasing as the helicopters searched lower and lower, another of the pilots sighted a strobe light blinking from the middle of a nearby rice field.

Lying on his back, Lunt had crawled into the paddy and, using Bristow's strobe light, signaled to the helicopters overhead. Immediately the three ships pulled into formation, and with two acting as cover the third dropped down to the stranded crew. Despite heavy ground fire, Lieutenant Bristow and his men reached the helicopter safely, and

the aircraft quickly lifted off, successfully completing the rescue. Twenty aviators received medals for their heroic efforts in the battle.

## A new breed

Although the helicopter proved an invaluable asset to the Army in Vietnam, flying proved a dangerous occupation. By the end of 1971, nearly 4,700 helicopters had been lost in Vietnam. Enemy soldiers had gunned down nearly half of these, mostly by rifle fire or hand grenades, while accidents or mechanical failure had claimed the other half. The losses, which cost nearly \$1.75 billion, also included the lives of 5,289 American soldiers. Military officials repeated that the number of deaths was extremely low in comparison to the number of sorties flown. For example, in the month of April 1969, forty-six helicopters were lost in combat out of a total of 588,700 sorties. But pilots still strapped themselves into their cockpits each day certain that they were performing one of the most dangerous jobs in the war.

Despite the risks, helicopter pilots welcomed the opportunity to fly. "Army aviators are different from other people," explained Major Charles J. Mix, commander of the 117th Aviation Company. "It's the challenge, the danger, taking chances. When you're flying and you hear one of your own men at night on the ground, whispering messages into his radio set because the enemy is nearby that's when the adrenalin really flows."

In the flying-by-the-seat-of-your-pants atmosphere that prevailed for much of the Vietnam era, many helicopter pilots saw themselves as throwbacks to an earlier era in aviation. "We go about the same speed as the Spads [in WW I] did," said one gunship commander, "and that's the kind of flying a man can comprehend." Close contact was especially appealing to many pilots. "We're the last of the hand-to-hand warriors," boasted one pilot. "We can see the enemy and he can see us. The jet jockeys and even the infantry often don't get that chance."

For the pilots in Vietnam, many of them barely twenty years old, flying seemed the most glamorous job in the war. Very few wanted to make the Army their career. They wanted only to fly. But, as Warrant Officer Wayne Forbes pointed out, you needed a lot more than glamor to survive. "Some guys think this job is glamorous, but they find out pretty fast that it isn't. They see people getting messed up and then they're afraid. But me, I've been afraid the whole goddamned time, and that's why I'm alive."

In 1969 the U.S. announced its plans to begin withdrawing its troops from Vietnam and to allow the South Vietnamese to assume responsibility for the war under the new Vietnamization program. While ground troops began leaving almost immediately, the 1st Aviation Brigade still faced four more years of war. Once the U.S. troops left, the brigade assumed the responsibility for providing air sup-

port for the ARVN troops and also for training the South Vietnamese pilots who would eventually replace them.

The brigade first began training South Vietnamese pilots in August 1966. Over the next three years they trained an average of sixty pilots per year in four three-month courses. In 1969, as the Army initiated its Vietnamization program, the brigade quickly expanded its training program. By October, more than 130 South Vietnamese were receiving training from brigade units. The Army also began sending Vietnamese pilots to the U.S. for training at Fort Rucker, Alabama, and Fort Wolters, Texas.

In September 1969, the Army completed the first phase of the South Vietnamese Air Force (VNAF) Improvement and Modernization Program, which consisted of the conversion of four VNAF squadrons from the older model CH-34 to the Huey. Phase II of this program, completed in July 1971, added eight more Huey squadrons to the VNAF and one CH-47 squadron. Phase III, begun in November 1971, allowed for the conversion of one CH-34 squadron to the latest model Huey, the UH-1H, and the activation of three more UH-1H squadrons and a single CH-47 squadron. In all cases, the 1st Aviation Brigade provided both the aircraft and trained the Vietnamese crews in their use, flying approximately 180 hours with the Vietnamese to familiarize them with the new machines. By the end of 1972, the VNAF helicopter fleet boasted more than 500 new helicopters—a major improvement over the 75 outmoded CH-34s that constituted the VNAF helicopter force in early 1968. More than 1,600 VNAF pilots had completed training at Forts Rucker and Wolters.

Despite the program's impressive appearance, many within the 1st Aviation Brigade felt those figures belied the truth of the situation. At the end of 1969, as the VNAF Improvement and Modernization Plan moved into full swing, the brigade's commanding officer, Major General Allen M. Burdett, Jr., declared it "replete with problem areas which will grow in complexity." By 1971, those problems had surfaced on the battlefield.

In February of 1971, a helicopter flying out of Bien Hoa air base carrying South Vietnamese General Do Cao Tri, eight other Vietnamese, and *Newsweek* correspondent Francois Sully crashed shortly after takeoff, killing everyone aboard. An investigation revealed that the crash was the result of shoddy maintenance by South Vietnamese mechanics. Only two days before the crash a maintenance expert from the 1st Aviation Brigade, Sergeant First Class John Keith, had inspected several other helicopters from the same squadron and found their condition "worse than the worst U.S. helicopters" he had ever seen.

Less than a month later, photographers Larry Burrows of *Life*, Henri Huet of the Associated Press, Kent Potter of the United Press International, and Keisaburo Shimamoto, on

assignment for *Newsweek*, all died when their helicopter, flown by a Vietnamese pilot, was shot down over Laos. Observers attributed the crash to pilot error, charging that he lost his way and strayed over an enemy stronghold.

Both of these incidents pointed out the problems in the Army's attempt to Vietnamize the helicopter war. On the most basic level, the problem of language hindered efforts to train South Vietnamese pilots. Cadets chosen to learn to fly helicopters first had to undergo English language training at Tan Son Nhut Air Base in Saigon, followed by another six weeks of intensive study in English at Lackland Air Force Base in Texas. Even then, most only attained a limited proficiency in English. One U.S. instructor put the whole process in perspective: "I couldn't imagine myself going over there to learn Vietnamese and fly."



*Soldiers from the 1st Infantry Division launch an air assault into War Zone D in June 1967.*

In addition to the language barrier, most South Vietnamese lacked the technical training and background necessary to become a good pilot or mechanic. Lieutenant General James Gavin viewed the whole idea of equipping the Vietnamese with the sophisticated Army helicopters as ludicrous. "I don't see leaving sophisticated helicopters and continuing to replace them. That would be like dropping them in the Pacific Ocean." Supporters of the plan contended that the Vietnamese only needed more time. But time was one thing they did not have. After watching South Vietnamese pilots commit a number of accidents during Operation Lam Son 719, the ARVN invasion of NVA strongholds in Laos, one frustrated U.S. pilot observed, "I wish the clowns would catch on—then I could leave."

As the war progressed into 1972, the pilot received at

least half of his wish. From July 1971 to July 1972, more than 19,000 of the brigade's 24,000 personnel redeployed out of Vietnam. At the same time, it reduced its number of aircraft through redeployment and transfer to the VNAF from 3,200 to 984. On March 29, 1973, the last members of the brigade departed, carrying the unit's colors to its new home at Fort Rucker.

The 1st Aviation Brigade was the last major U.S. combat unit to leave Vietnam. Although formed officially in 1966, its units had participated in U.S. operations in Vietnam from 1961 onward. In that time, the brigade and its many units not only flew more than 30 million sorties ranging from medevac missions to air assaults to close air support but also helped to develop the concept of airmobility that drastically altered modern warfare.



## 1st Cavalry Division (Airmobile)

Arrived Vietnam: September 11, 1965

Departed Vietnam: April 29, 1971

### Unit Headquarters

An Khe Sep. 1965-June 1967

An Khe/Bong Son July 1967-Jan. 1968

An Khe/Hue Feb. 1968

An Khe/Phong Dien March 1968-April 1968

An Khe/Quang Tri May 1968

An Khe/Phong Dien June 1968-Oct. 1968

An Khe/Phuoc Vinh Nov. 1968-April 1969

Bien Hoa/Phuoc Vinh May 1969-April 1971

### Commanding Officers

Maj. Gen. Harry W. B. Kinnard July 1965

Maj. Gen. John Norton May 1966

Maj. Gen. John J. Tolson III April 1967

Maj. Gen. George I. Forsythe July 1968

Maj. Gen. Elvy B. Roberts May 1969

Maj. Gen. George W. Casey May 1970

Maj. Gen. George W. Putnam, Jr. July 1970

### Major Subordinate Units

1st Battalion, 5th Cavalry

2d Battalion, 5th Cavalry

1st Battalion, 7th Cavalry

2d Battalion, 7th Cavalry

5th Battalion, 7th Cavalry

1st Battalion, 8th Cavalry

2d Battalion, 8th Cavalry

1st Battalion, 12th Cavalry

2d Battalion, 12th Cavalry

1st Squadron, 9th Cavalry

11th Pathfinder Company

Company E, 52d Infantry

Company H, 75th Infantry

11th Aviation Group

227th Aviation Battalion

228th Aviation Battalion

229th Aviation Battalion

11th Aviation Company

17th Aviation Company

478th Aviation Company

2d Battalion, 17th Artillery

2d Battalion, 19th Artillery

2d Battalion, 20th Artillery

1st Battalion, 21st Artillery

1st Battalion, 30th Artillery

1st Battalion, 77th Artillery

Battery E, 82d Artillery

1st Personnel Service Battalion

8th Engineer Battalion

13th Signal Battalion

15th Medical Battalion

15th Supply & Service Battalion

15th Transportation Battalion

27th Maintenance Battalion

15th Administrative Company

371st Army Security Agency Company

545th Military Police Company

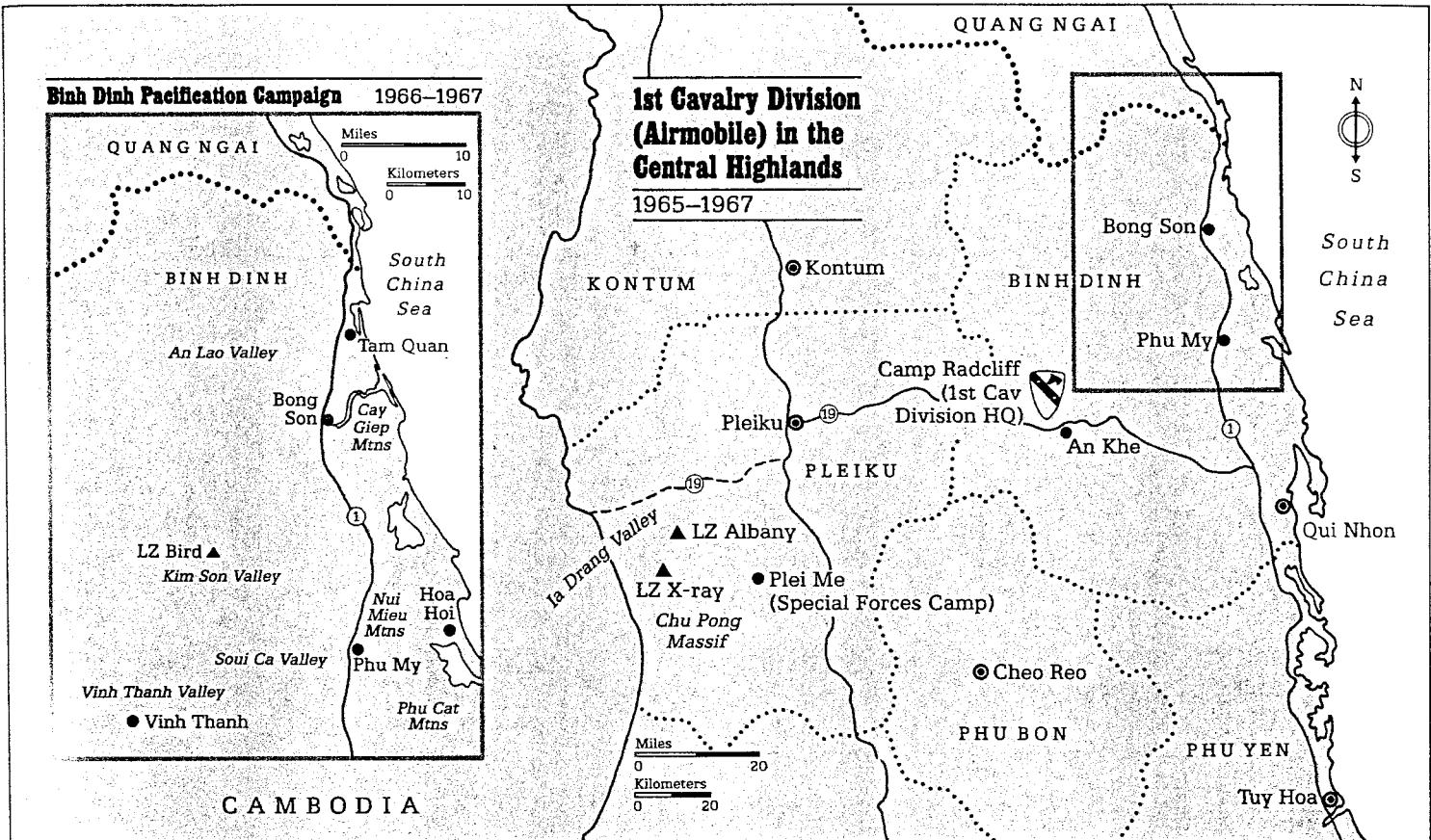
5,444 KIA

26,592 WIA

25 Medals of Honor

(Casualty figures are "Vietnam Era.")





sprang their trap on an unsuspecting NVA heavy weapons company, only to fall prey to a ferocious battalion-sized counterattack less than an hour later. Though the Americans managed to fight off the enemy's initial assaults, that night they were in danger of being overrun when Company A, 1st Battalion, 8th Cavalry, staged an assault and reinforced their position. By morning the attack had been broken and the perimeter secured by the arrival of the rest of the "Jumping Mustangs" of the 1/8 Cav, backed by the 105MM howitzers of Battery B, 2d Battalion, 19th Artillery. The battle of the Ia Drang Valley, the first major confrontation between regular soldiers of the American and North Vietnamese armies, was now joined.

During the next three weeks the soldiers of the 1st Air Cav took on the NVA in a series of bloody clashes that were, in the words of General Westmoreland, "as fierce as any ever experienced by American troops." In the biggest battle of the campaign, the fight for LZ X-ray at the base of the Chu Pong Massif, elements of three battalions from the division's 3d Brigade held their ground for three days in the face of savage attacks from two North Vietnamese regiments. The battle nonetheless ended on a somber note when men of the 2d Battalion, 7th Cavalry, stumbled into an ambush near LZ Albany on November 17 and were nearly annihilated; only 84 of the original 500 men were able to return to immediate duty. By the time Operation Silver Bayonet (its official code name) came to an end ten days later, 240 air cavalrymen had been killed in action. Enemy losses, however, had been far more severe. In

addition to the nearly 1,500 KIAs established by body count, as many as 2,000 more NVA soldiers were estimated to have died on the battlefield.

While MACV was quick to publicize the 1st Cavalry Division's victory in the Ia Drang, General Kinnard was even more pleased by the extent to which the campaign "established the validity of a new concept of land warfare." During the course of the thirty-five-day operation, entire infantry battalions and artillery batteries had been moved by helicopter and inserted into otherwise inaccessible terrain. Division aircraft had also delivered over 5,000 tons of supplies to troops in the field and extracted approximately 2,700 refugees to safety. Perhaps most impressive of all, some 50,000 helicopter sorties had resulted in only fifty-nine ships hit by enemy fire, four shot down, and one unrecovered. Helicopters, it seemed, were not quite so vulnerable to ground fire as many skeptics within the military establishment had long presumed.

Yet if the bloody Ia Drang campaign clearly demonstrated that airmobility had come of age, it also taught the soldiers of the 1st Air Cavalry some hard but invaluable lessons about the nature of the Vietnam War. Time and again the enemy's "hugging" tactics frustrated American efforts to bring the full weight of their vastly superior firepower to bear on the battlefield. As a result, much of the fighting in the Ia Drang Valley took the form of pointblank shoot-outs and vicious hand-to-hand combat in which the North Vietnamese showed themselves to be well trained, highly disciplined, and ready to fight to the death. At the

## 101st Airborne Division (Airmobile)\*

Arrived Vietnam: November 19, 1967  
(1st Brigade: July 29, 1965)

Departed Vietnam: March 10, 1972

### Unit Headquarters

Bien Hoa Nov. 1967–Feb. 1968  
Bien Hoa/Phu Bai March 1968–April 1969

Bien Hoa/Gia Le May 1969–Sep. 1969  
Bien Hoa/Hue/Phu Bai Oct. 1969–Nov. 1969

Hue/Phu Bai Dec. 1969–March 1972

### Commanding Officers

Maj. Gen. Olinto M. Barsanti Dec. 1967  
Maj. Gen. Melvin Zais July 1968

Maj. Gen. John M. Wright, Jr. May 1969  
Maj. Gen. John J. Hennessey May 1970

Maj. Gen. Thomas M. Tarpley Feb. 1971

### Major Subordinate Units

1st Brigade (1/327; 2/327; 2/502; 3/506)  
2d Brigade (1/501; 2/501; 1/502)  
3d Brigade (3/187; 1/506; 2/506)  
2d Squadron, 17th Cavalry  
Company F, 58th Infantry  
Company L, 75th Infantry  
101st Aviation Group  
101st Aviation Battalion  
158th Aviation Battalion  
159th Aviation Battalion  
163d Aviation Company  
478th Aviation Company

2d Battalion, 11th Artillery  
1st Battalion, 39th Artillery  
4th Battalion, 77th Artillery  
2d Battalion, 319th Artillery  
2d Battalion, 320th Artillery  
1st Battalion, 321st Artillery  
Battery A, 377th Artillery  
5th Transportation Battalion  
326th Medical Battalion  
326th Engineer Battalion  
426th Supply & Service Battalion  
501st Signal Battalion

801st Maintenance Battalion  
101st Administration Company  
265th Army Security Agency Company  
10th Chemical Platoon  
20th Chemical Detachment  
36th Chemical Detachment  
22d Military History Detachment  
101st Military Intelligence Company  
25th Public Information Detachment  
34th Public Information Detachment  
45th Public Information Detachment

4,011 KIA

(Casualty figures are "Vietnam Era.")

18,259 WIA

7 Medals of Honor

\*Officially redesignated 101st Airborne Division (Airmobile) on December 15, 1968.

be scrapped or grounded. The force left stranded on the ground had to stave off three attacks before they were rescued the following day. The U.S. finally landed the 1st Brigade's 2d Battalion, 327th Infantry, and two companies of the 23d ARVN Ranger Battalion 3,000 meters to the east that afternoon. However, the rough terrain prevented them from linking up with the 2/502 before nightfall.

When day dawned, the relief force finally reached the 2/502. The enemy, however, had fled under the cover of darkness. As the soldiers searched the area, they discovered the bodies of 257 enemy soldiers and an extensive bunker system that they identified as a major base camp. U.S. commanders estimated that the paratroopers had faced a force of more than 600, nearly three times as large as the American unit on the ground. However, the heavy and accurate air support, which included more than 100 air strikes and 11,000 rounds of artillery, effectively evened those odds. U.S. losses in the battle amounted to thirteen killed and twenty-eight wounded. For its actions in the battle, the 2/502 received the Presidential Unit Citation.

Although Operation Gibraltar provided the 1st Brigade its first major contact of the war, it also marked the only large-scale encounter for the year. As the year-end neared, the Screaming Eagles developed new tactics to locate the increasingly elusive enemy. In October 1965 they moved to Phan Rang, where they established a base camp. There, under the command of Lieutenant Colonel Henry "The Gunfighter" Emerson, the men of the 2/502 employed a saturation patrolling technique dubbed "checkerboard

patrols." In a checkerboard operation, Emerson deployed his men in multiple small patrols across a small square of terrain that they searched thoroughly before moving on to another square. Each man carried with him three to five days' rations and as much armament as he could manage. By equipping his men in this manner, he hoped to make them self-sufficient, able to sustain themselves for several days in the field without need of resupply, in much the same way as the guerrillas did. Thus, Emerson became one of many American commanders to declare that he would "beat the damned guerrilla at his own game."

Emerson's emphasis upon guerrilla tactics received active support from the brigade's new commander, Brigadier General Willard Pearson. Pearson assumed command of the brigade on January 28 from Col. Timothy. A veteran of WWII and Korea, Pearson increased the brigade's night operations, both ambushes and airmobile assaults, and its reconnaissance operations. Under his supervision, each battalion developed its own reconnaissance unit in addition to the brigade's long-range reconnaissance patrol (LRRP). Every member of these units volunteered to serve in them, and as Pearson noted they were all "men who enjoy a good firefight."

Expanding upon one of Emerson's innovations, Pearson occasionally allowed his men to carry rice and powdered soup in place of the heavier C rations. As one platoon leader explained, "There is nothing worse for a trooper's morale than to be handed a week's supply of C-rations weighing upwards of 30 pounds." The new brigade com-

On March 1, MACV launched Operation Massachusetts Striker, the first of three operations into the A Shau that were conducted under the overall name of Kentucky Jumper. Encountering only light resistance, the Screaming Eagles conducted a nine-week search of the southern end of the valley, which ended on May 8. MACV immediately decided to launch a second, larger operation into the A Shau. On May 10, the 101st's 3d Brigade, in conjunction with the 9th Marines and 3d ARVN Regiment, initiated Operation Apache Snow. Air-assaulting into an area along the western edge of the valley near Laos, the 101st ran headlong into fierce enemy resistance near Hill 937, called by the Vietnamese, Dong Ap Bia. For ten days the 3d Battalion, 187th Infantry, joined later by the 1st Battalion, 506th Infantry, and the 2d Battalion, 501st Infantry, sought to capture this heavily fortified and staunchly defended mountain. When they finally gained the top on May 20, the enemy had withdrawn.

The battle for Dong Ap Bia, or Hamburger Hill as the men of the 101st dubbed it, quickly became one of the most controversial of the war. Although they killed 630 enemy soldiers in taking the hill, the 101st lost 56 men of their own in addition to 420 wounded, and these came in a battle for a hill whose only significance, as Gen. Zais admitted, "was the fact that there were North Vietnamese on it." Coming at a time of growing sentiment in the U.S. to withdraw from the war, the battle outraged many Americans and led some angry 101st soldiers to place a \$10,000 reward in an underground division newspaper for anyone who assassinated an officer ordering a similar attack.

## Winding down

Hamburger Hill revealed a number of problems that had begun to trouble U.S. military leaders in Vietnam. As the U.S. effort wound down, soldiers became more and more reluctant to place themselves in danger to fight a war from which their country had already decided to disengage. Still, commanders were forced to fight a war while at the same time limiting casualties, both with few concrete directions on how to accomplish their mission.

Gen. Wright, who succeeded Zais as commander of the 101st only five days after Dong Ap Bia, recalled, "In commanders' conferences General Abrams stressed minimizing casualties. But I didn't need to be told this. I always looked to minimize casualties. But with all that, if you're facing an armed enemy you have to take some casualties. I could have minimized casualties by not fighting but we would have failed in our job. The enemy was very willing to take casualties. It was a matter of judgement and balance, what you will gain against losses."

The winding down of the war also brought other problems. The rapid withdrawal of forces and the lack of qualified replacements plagued the 101st during its final two years in Vietnam. To alleviate this problem among the

ranks, MACV transferred to the 101st more than 3,400 enlisted men from other units in Vietnam. However, the majority of them had only two or three months left on their one-year tours, and as the 101st's new commander, Major General John J. Hennessey, noted, they "were not motivated for continued service in Vietnam. They felt they had done their job and often avoided giving their full support to their unit's mission."

The shortage of qualified personnel became particularly acute among the ranks of the division NCOs. Throughout 1970 and into 1971, the division consistently operated with only 60 to 75 percent of its authorized NCO strength. This resulted in the promotion of increasingly junior enlisted men to fill their ranks. Often, officers just out of OCS found themselves assigned to units with NCOs scarcely older or more experienced than themselves.

As disaffection grew within the ranks and days of inactivity increased, drug abuse rose dramatically, as it tended to do throughout the military in Vietnam. Gen. Hennessey admitted that drug abuse was "a serious problem in the division," and he expended considerable time and energy to combat it. Every trooper coming into the 101st received a one-hour class on drug abuse, and mobile training teams conducted periodic refresher courses for the division's units. Headquarters established a drug hot line in the office of the division psychiatrist, and the division Leadership Council was redesignated the Human Relations/Drug Control Council to focus the council's discussions upon drug abuse.

While combating these problems, the division continued to wage a war. Following Operation Kentucky Jumper, which came to a close on August 5, the 101st turned its attention to pacification and Vietnamization. The division emphasized combined operations with South Vietnamese units and measured success not by body count but by advances in pacification efforts. In Operation Randolph Glen, which began in December 1969 and ended in March 1970, the entire division devoted its efforts to the pacification of Thua Thien Province. At all times during Gen. Wright's tenure as commander, which ended in May 1970, at least one of his nine battalions was fully engaged in pacification efforts. Under Wright's successor, Gen. Hennessey, the 2d Brigade maintained twenty-two mobile training teams that traveled across the province training RF and PF forces as part of Operation Texas Star.

From late 1969 until the division's departure from Vietnam, the firebase was the center of military operations for the 101st. Located primarily along VC/NVA infiltration routes away from the heavily populated coastal lowlands, these firebases provided a first line of defense against infiltrating NVA. Although isolated, the firebases were

*Soldiers from the 101st watch their supply helicopter depart before continuing their patrol in the A Shau Valley during Operation Apache Snow in June 1969.*

usually located within artillery distance of other firebases, making them mutually supportable. They could also be opened and closed as quickly as the military situation dictated, and the division commonly reopened bases several months after abandoning them.

Although the firebases appeared to be an effective tactical answer to the problems of a fluid war, they actually encouraged a more static, defensive mode of operation. Soldiers stationed at firebases tended to patrol less aggressively and for shorter distances. The NVA also recognized them as fixed targets, giving them the opportunity to inflict heavy casualties. This was the case during their 1970 summer offensive when they launched a series of attacks on the division's firebases. In three weeks of fighting at Firebase Ripcord alone, the NVA killed 61 soldiers from the 101st and wounded another 345.

As the U.S. troops fought the war from within their isolated firebases, the South Vietnamese assumed control of the remainder of the fighting. However, while the U.S. troops could easily turn their areas of operations over to the ARVN troops, they could not so easily transfer their expertise and support assets, particularly their aviation equipment. During Gen. Hennessey's eight months as commander of the 101st, his division aviation companies flew over 22,000 hours in support of ARVN forces in their area. The extent of ARVN's reliance on the 101st's aviation became glaringly apparent during the 1971 invasion of Laos.

## Operation Lam Son 719

In early 1971, South Vietnamese and MACV planners decided to launch an invasion of the North Vietnamese base areas located just across the border in Laos—Operation Lam Son 719. Although no American troops were allowed to cross the border on the ground, U.S. pilots and helicopters, primarily from the 101st, formed the backbone of the air support for the operation, ferrying ARVN troops into Laos and providing close air support. At the same time, infantry battalions from the 101st assumed responsibility throughout the operation for the areas in South Vietnam vacated by ARVN troops.

From the start, the U.S. pilots discovered that operating in the skies over Laos was a dangerous mission. Employing more than 200 antiaircraft weapons, ranging from 23MM to 100MM, and an even larger number of 12.7MM machine guns, the enemy barraged any U.S. aircraft entering within their range. One unnerved pilot from the 101st exclaimed, "They've got stuff out there, man, we don't even know what it is. I had things flying past me as big as basketballs." Another more laconic but no less amazed pilot, Major Burt Allen of Obion, Tennessee, said, "I've been flying for six months, took my first hit yesterday and since then I've taken 13."

As a consequence of the heavy antiaircraft fire, Brigadier General Sidney B. Berry, Jr., assistant division com-

mander of the 101st and coordinator of the U.S. and ARVN aviation operations for Lam Son 719, noted, "Every airmobile operation, even single-ship resupply and medical evacuation missions, had to be planned and conducted as combat operations complete with fire plan, escorting armed helicopters, and plans for securing and recovering downed crews and helicopters." Berry described the anti-aircraft fire during Lam Son 719 as the most intense fire experienced by helicopter pilots during the entire war. The U.S. lost 108 helicopters during the operation and another 618 were damaged. The 101st alone suffered 68 killed, 261 wounded, and 17 missing in action.

General Berry insisted that these casualty figures were remarkably low in light of the more than 164,000 sorties flown during the operation and the heavy enemy fire. However, to the men flying the missions, waiting for the end of their tour of duty or the end of the U.S. effort in South Vietnam, whichever came sooner, they seemed extremely high, especially since they came in support of a South Vietnamese operation. "This is supposed to be a South Vietnamese Army show," said one pilot, "but we're still getting our tails shot off over there, and I'd like to know why." Another pilot, David Anderson, stated the situation even more explicitly: "Face it, I'd rather hang it out for my own people—all of us would."

For the South Vietnamese, forced into retreat by the North Vietnamese, Lam Son 719 was a near total disaster. It also required the U.S. to reassess its Vietnamization program, but with plans for the American withdrawal already well under way, little time remained for major changes. Soon after Lam Son 719, the 101st, under its new commander, Major General Thomas M. Tarpley, adopted an essentially defensive posture. Although the division continued to provide combat support to the South Vietnamese, the 1st ARVN Infantry Division assumed responsibility for all offensive operations. Gradually, the 101st also turned over its firebases to ARVN troops as the division began to redeploy and pull back from outlying areas.

The withdrawal began on May 17, 1971, with the redeployment of the 3d Battalion, 506th Infantry. Other withdrawals and pullbacks followed in December and January of 1972. By February, only the 2d Brigade remained in Vietnam, where it provided security for the base at Phu Bai. A month later the 2d Brigade also departed, completing the withdrawal of the 101st and its return to its state-side base at Fort Campbell, Kentucky.

After more than six and a half years at war, the 101st had finally returned home, the last Army division to leave. During that time, the division suffered almost 20,000 casualties. It also distinguished itself with a number of individual and unit awards and as the second entirely airmobile division helped to prove and improve the airmobile concept. By the mid-1980s it was the only remaining airmobile division in the Army.

# U.S. Navy

Arrived Vietnam: Seventh Fleet: August 1964  
Naval Forces, Vietnam: April 1, 1966

Departed Vietnam: Seventh Fleet: April 1975  
Naval Forces, Vietnam: March 29, 1973

## Unit Headquarters

Seventh Fleet: Honolulu

Naval Forces, Vietnam: Saigon

## Commanding Officers

### Seventh Fleet

V. Adm. Roy L. Johnson June 1964  
V. Adm. Paul P. Blackburn, Jr. March 1965  
V. Adm. John J. Hyland Dec. 1965  
V. Adm. William F. Bringle Nov. 1967  
V. Adm. Maurice F. Weisner March 1970  
V. Adm. William P. Mack June 1971  
V. Adm. James L. Holloway III May 1972  
V. Adm. George P. Steele July 1973

### Naval Advisory Group, Vietnam

Cpt. William H. Hardcastle May 1964  
R. Adm. Norvell G. Ward May 1965

### Naval Forces, Vietnam

R. Adm. Norvell G. Ward April 1966  
R. Adm. Kenneth L. Vest April 1967  
V. Adm. Elmo R. Zumwalt, Jr. Sep. 1968  
V. Adm. Jerome H. King May 1970  
R. Adm. Robert S. Salter April 1971  
R. Adm. Arthur W. Price, Jr. June 1972  
R. Adm. James B. Wilson Aug. 1972

## Major Subordinate Units

### Seventh Fleet

Task Force 71 Vietnam Patrol Force  
Task Force 73 Mobile Logistic Support Force  
Task Force 76 Amphibious Task Force  
Task Force 77 Carrier Striking Force  
Task Unit 70.8.9 Naval Gunfire Support Task Unit

### Naval Advisory Group, Vietnam,

and Naval Forces, Vietnam  
Task Force 115 Coastal Surveillance Force  
Task Force 116 River Patrol Force  
Task Force 117 River Assault Force  
Task Force 194 Sealords Task Force

2,511 KIA

10,406 WIA

14 Medals of Honor

attention on the tiny Vietnamese navy that the French had activated in 1952. Between 1954 and 1964, the strength of this force grew from 1,500 men with 4 seagoing ships and 20 riverine vessels to 8,150 men with 44 ships and 208 riverine vessels.

The outcome of the advisory effort did not fulfill American expectations; the Vietnamese navy failed to reach the envisioned level of efficiency. In the words of an official U.S. Navy history: "Political intrigue, cultural differences, and seemingly petty personal disputes divided the officer corps. Senior officers were relatively young and inexperienced. Lack of motivation also pervaded the enlisted ranks. The lack of a modern technological heritage in South Vietnam was reflected in poor maintenance of already-obsolete World War II-vintage ships. All of these factors resulted in a mediocre operational performance."

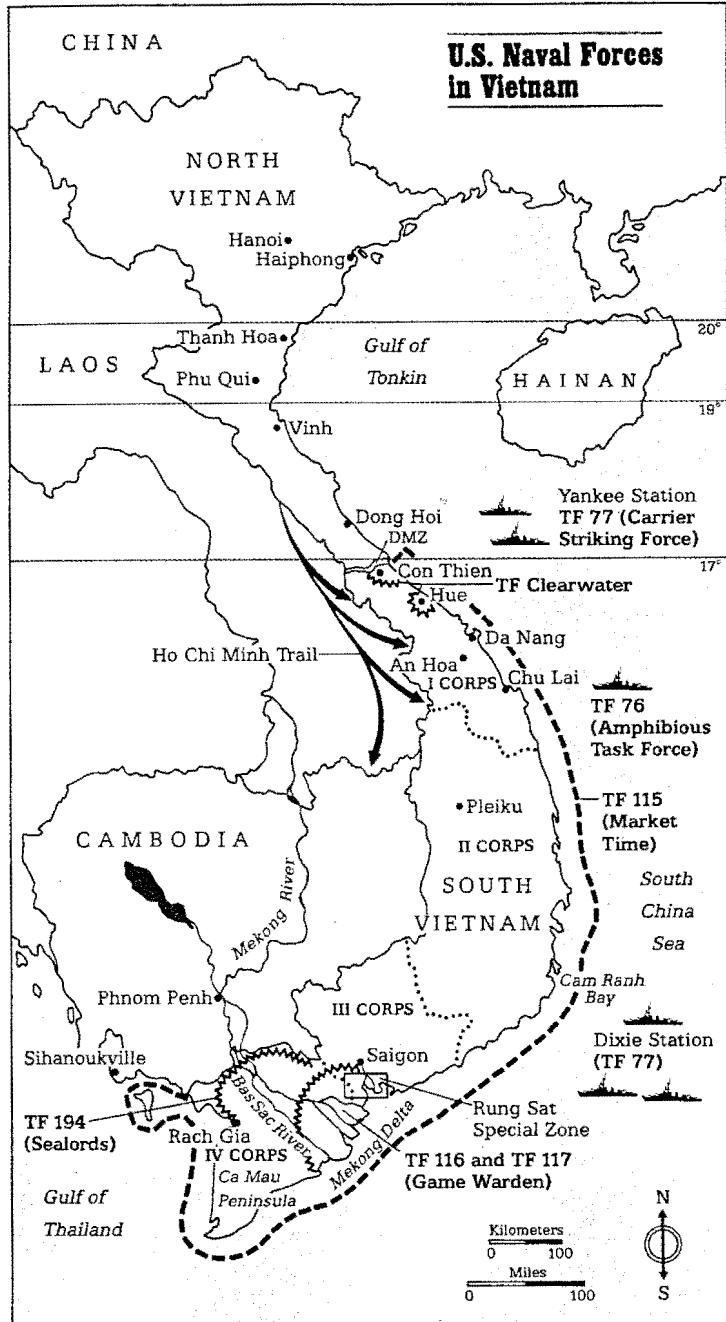
The frustrations Navy advisers encountered typified the American experience in Vietnam. By late 1959, the South Vietnamese government was steadily losing popularity and the Vietcong were rapidly gaining strength. When John F. Kennedy became president in January 1961, South Vietnam was challenged by a full-scale insurgency.

Kennedy moved to stabilize the situation in South Vietnam by a major expansion of the U.S. advisory and assistance program. By the end of 1963, there were more than 17,000 servicemen in Vietnam. They included 750 naval personnel, including elements of the Pacific Fleet SEAL (SEa, Air, Land) Team. An elite force founded in January 1962 to conduct unconventional warfare at sea and in amphibious environments, SEALs instructed South Viet-

namese frogmen and commandos in their special, deadly skills. In addition MACV had been established in February 1962 to coordinate all U.S. military activities inside Vietnam. It included the Naval Advisory Group, which eventually replaced MAAG's Navy Section.

Despite the escalation of American assistance, the military situation in South Vietnam did not improve during the Kennedy years. There was, nevertheless, no change in policy upon Lyndon Johnson's assumption of the presidency in November 1963. The advisory effort continued to grow, as it had in the past, but with the same disappointing results; always enough to avert disaster, never enough to attain solid success. Then, late in the summer of 1964, an event occurred that ultimately provided the legal basis for the commitment of American combat troops to Vietnam.

In February 1964, South Vietnamese forces began a new program of raids on the coast of North Vietnam, called Operation Plan 34-A, using American-supplied PT boats maintained by advisory personnel. Around midnight on July 30, four boats shelled a pair of North Vietnamese islands in the Gulf of Tonkin. The next morning the destroyer *Maddox* entered the gulf on a Desoto patrol, an intelligence-gathering operation routinely conducted off Asian Communist coasts. Apparently associating the ship's presence with the 34-A raid, on August 2 North Vietnam dispatched three P-4 torpedo boats that attacked the *Maddox* in international waters east of Thanh Hoa. Foreseeing such a possibility, U.S. intelligence had earlier alerted the destroyer to be on the lookout for trouble. At 4:08 P.M., the *Maddox* opened fire on the approaching P-4s and



month went by without the transfer of a unit, a base, or a mission to South Vietnamese forces. Between 1968 and 1970, the strength of Naval Forces, Vietnam, decreased from 38,000 to 16,750 men, while that of the South Vietnamese navy increased from 18,000 to 32,000. The Mobile Riverine Force ended its service in June 1969, and the River Assault Force was deactivated in August. Full responsibility for SEALORDS began to fall on the South Vietnamese in March 1970. Task Force Clearwater turned over the last of its inshore combat vessels in July. Market Time did so in September. In December, the River Patrol Force was disestablished and COMNAVFORV's remaining riverine craft—517 in all—were transferred to South Vietnam. Solid Anchor, the last American element of SEALORDS, changed hands in April 1971.

Like the riverine forces, the blue water navy remained active as ever in the immediate aftermath of Tet. Its punch was strengthened by the appearance of the battleship *New Jersey* in September 1968. A veteran of World War II and Korea, the ship had been recommissioned to add the weight of its nine sixteen-inch guns to the bombardment forces. Each of those guns could hurl a shell weighing up to 2,700 pounds for twenty-three miles with great accuracy. Together with other secondary armament, the *New Jersey* had eight times the firepower of a heavy cruiser. That firepower was put to particularly good use in the six hours before dawn on February 22, 1969, when nonstop shelling broke up a heavy attack on a Marine outpost just south of the demilitarized zone. In his thanks to the battleship's skipper, the post commander concluded, "If it hadn't been for the *New Jersey*, they would have zapped our ass."

Beginning in 1969, however, the Seventh Fleet began to reduce the scale of its operations. When the *New Jersey* went home for a routine refit in April, the ship wound up back in mothballs. The Amphibious Task Force made its last landing in September. By 1971 the usual strength of the Gunfire Support Unit had dwindled to three ships, the number of carriers on station to two, and monthly attack sorties from the 1968 average of 5,000-6,000 to 1,000-2,500. An exception occurred in March of that year, when 5,000 missions were flown in support of South Vietnam's disastrous thrust into Laos, Operation Lam Son 719, but the trend was clearly down.

Meanwhile, the Vietnamization of the land war was all but complete. The last Marines withdrew from I Corps in 1971, and by March 1972 fewer than 10,000 U.S. combat troops were left in Vietnam. Then on March 30, North Vietnam launched its Easter offensive, a massive, conventional invasion across the DMZ into South Vietnam. As the extent of the onslaught became evident, U.S. forces moved to aid ARVN by air and naval action, and on April 2, President Nixon authorized the first sustained bombing of North Vietnam since November 1968.

The Seventh Fleet contributed powerfully to the sudden expansion of the American war effort. While forces already

Task Force Clearwater, a command organized in February 1968 to maintain control of the most important rivers in I Corps. Two months later SEALORDS entered the struggle for the Michelin Plantation north of the capital by patrolling the Saigon River. In June it also expanded its presence in the Ca Mau Peninsula by establishing a mobile pontoon base, Sea Float (later renamed Solid Anchor), on the Cua Lon River. At the end of its first year, SEALORDS had captured or destroyed more than 500 tons of enemy supplies and killed 3,000 troops at a cost of 186 friendly KIAs and 1,451 wounded. The following spring SEALORDS units participated in the attack on North Vietnamese staging areas during the American and South Vietnamese incursion into Cambodia.

Even as these operations were taking place, ACTOV was winding down the Navy's brown water war. Hardly a