

THE US ARMY QUARTERMASTER AIR DELIVERY UNITS AND THE DEFENSE OF KHE SANH

The following published article includes ALL known US Army Quartermaster Corps Aerial Delivery units that made contributions to air delivery at Khe Sanh from January 21, 1968 to April 1968. Previous articles were written about the 109th Qm Co (AD) role only. This article ties all the QM units together.

Research of retired Warrant Officer Lowell Hammel USA (383rd Qm Det., 1st. Sergeant) and retired Lt. Col. Charles Williford USA (AD Officer, 1st Logistical Command, Captain) allowed all these units to be documented. Also veteran Ray Anderson searching for documents with retired Col. Al Lanier (Company Commander, 109th QM CO (AD), Major) received documentation from the National Archives, 1st Logistical Command collection, to further document this article.

MEMOIRS

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In 1993 a monument was dedicated in Arlington National Cemetery to the Marines who fought at Khe Sanh, arguably the longest and most bitterly contested battle of the Vietnam War. This formally acknowledged the enduring relationship between Khe Sanh and the Marine Corps. However, it was not only Marines who faced the North Vietnamese Army. The defense of Khe Sanh was very much both a joint and combined effort by various American and South Vietnamese forces.

The combination of air support and firepower provided the key to the defense of Khe Sanh. Before the siege was over, over 100,000 tons of bombs were dropped by aircraft of the U.S. Air Force, Navy, and Marines, as well as planes of the South Vietnamese Air Force. To the forces on the ground, however, air support meant more than the massive numbers of B-52 and tactical bomber sorties. Aerial supply was crucial to the defense of Khe Sanh. This article describes how U.S. Army Quartermaster Air Delivery (AD) units played a vital role in the defense of the Khe Sanh Combat Base.

The mission of the AD units was to provide parachute packing, storage, and rigging of supplies for drop by aircraft of all services as well as assisting in loading and ejecting of these supplies. In 1955 personnel of the 109th QM participated in the development of a new air delivery technique. This low-altitude parachute extraction system (LAPES) required cargo planes to fly a few feet above ground level. A parachute was released, pulling the palletized cargo out of the aircraft and onto the drop zone. A related system was the ground proximity extraction system (GPES) in which the cargo was yanked from the aircraft by a hook which snagged a cable traversing the runway.

In 1965 General William C. Westmoreland, the commander of U.S. forces in Vietnam, requested the deployment of an air delivery unit. In May 1965, 64 men were assigned from the 109th QM (Air Delivery) at Ft. Lee Virginia to form the 383rd QM Detachment. The 383rd was sent to South Vietnam and the 109th QM was sent to Fort Campbell, Kentucky, under the operational control of the 101st Airborne Division. LAPES/GPES training continued.

In June 1966 the 109th QM received overseas movement orders. On July 23, the unit embarked onboard the USNS *General John N. Pope* at Tacoma, Washington. The main body arrived at Cam Ranh Bay, South Vietnam, on August 12 1966. By November 7 the 383rd moved from Saigon to Cam Ranh Bay and was attached to the 109th. The 623rd QM Company with resources to repair air delivery items also shared the 109th QM Company facilities. The establishment of the 109th's operational area was complete; General Westmoreland now had the air delivery assets in place that he requested the previous year.

The summer and fall of 1966 saw the buildup of large North Vietnamese Army (NVA) units in the area along the Demilitarized Zone (DMZ). In response, General Westmoreland ordered Marine units northward to meet this threat. Positions were established

just south of the DMZ to act as blocking forces to impede NVA infiltration. Khe Sanh was the western anchor of this defensive line.

General Westmoreland stated, "There is no more important airfield in Vietnam from a tactical standpoint than Khe Sanh." Navy Seabees were ordered to undertake a crash program to upgrade the base's airstrip. Still, Khe Sanh was proving difficult to resupply. During December and January there were only six days when the weather was good enough for aerial resupply. Rations and fuel occasionally were reduced to less than one day's needs. Rain made road travel almost impossible. April 1967 saw bitter fighting around Khe Sanh between the Marines and NVA forces, illustrating the seriousness with which both sides viewed the area.

In the second half of 1967 American intelligence learned that large numbers of NVA were deploying into the A Shau Valley and the area around Khe Sanh. To help meet this threat, a heavy drop platoon composed of men from both the 109th and 383rd AD units stationed in Da Nang men undertook airdrops to supply the Navy Seabees at Khe Sanh with materials to rebuild the airstrip.

To meet the threat in the A Shau area an offensive into the valley was planned for early 1968. The plan called for the 1st Calvary division to be supplied by airdrops for the first three days of the offensive. This operation would require seven hundred short tons a day of air delivered supplies. To accomplish this more riggers were needed. In December 1967 the 1st Logistical Command ordered the 383rd QM Detachment to Bien Hoa to establish another separate Air Delivery Unit .

Since the 383rd was but a single platoon, it was augmented with a platoon of riggers from the 549th QM Company (Air Supply) in Japan, a platoon of riggers from the 173rd Airborne, and another platoon from the 101st Airborne. An additional platoon of 101st Airborne riggers joined the 109th to replace the 383rd platoon of men lost during their move to Bien Hoa.

General Westmoreland estimated the forces size around Khe Sanh at between fifteen and twenty thousand men. This buildup caused the U.S. command to conclude that reinforcing Khe Sanh was the only feasible alternative to abandoning it. Westmoreland ruled out abandonment because a presence at Khe Sanh blocked the ability of the North Vietnamese to circumvent the DMZ barrier and bring the war into the populated coastal plain.

In fact, General Westmoreland wanted to fight the North Vietnamese. The area around Khe Sanh was relatively unpopulated by civilians. This would allow unrestricted use of U.S. firepower and further the U.S. strategy of attrition by killing large numbers of enemy soldiers. By January the allied force at Khe Sanh totaled about 6,000 men.

Before the offensive into A Shau Valley could be implemented, the siege of Khe Sanh and the 1968 Tet Offensive began. The large number of riggers accumulated for the A Shau offensive soon became fully engaged supplying Khe Sanh and other isolated outposts. Consequently, the offensive into the A Shau Valley had to be delayed until April of 1968, after the end of the siege at Khe Sanh.

On January 21 1968, the NVA began their attack of Khe Sanh. At approximately 0530 hours that morning Communist gunners scored a hit on the main ammunition dump. 98 percent of the dump's munitions, 1,500 tons, was destroyed in the ensuing explosions. This caused an immediate request for emergency air supply. Available U.S. aircraft included C-130's plus smaller C-123's and C-7A's. The C-130's were the logical choice to quickly replenish ammunition stocks. However, the fact that shrapnel from the ammunition dump explosion covered half the runway precluded their use. C-123's delivered 130 tons of supplies in the next 36 hours, even flying and unloading at night by the light of Marine artillery flares. By January 23 the runway was cleared of debris, permitting the return of the C- 130's.

Through February 10, seven Air Force C-130's were hit by gunfire or shrapnel. Air Force commanders felt these airplanes, at \$2.5 million each, were too valuable to risk unnecessarily. C-123's and C-7A's were used instead, but proved unable to deliver a sufficient volume of supplies. Enemy gunners and bad weather simply would not permit a sufficient number of landings of these aircraft. In order to survive, the Marines would have to be supplied in the same manner as the French at Dien Bien Phu—by parachute.

Initially, bulk cargo such as ammunition, rations, and fuel was delivered using the container delivery system. A C-130 could transport 14 to 16 of these loads. At a height of 600 feet over the drop zone the restraints holding the loads were cut. The pilot raised the nose of the plane and applied power to the engines. The cargo moved rearward on floor rollers and then out of the

plane. A large cargo parachute carried the one-ton bundle to the ground. Riggers often flew with the cargo planes to ensure proper delivery. Several 109th personnel landed at Khe Sanh in order to retrieve parachutes for future use.

The 109th was rigging supplies at Da Nang and Cam Ranh Bay. The 383rd and its attached platoons were rigging supplies at Bien Hoa. Cam Ranh Bay was the safest of these locations, as Da Nang and Bien Hoa were frequently under rocket or mortar attacks. Riggers often worked during the night, using flood lights in order to rig loads for aerial delivery.

The 383rd rigged CDS (Container Delivery System) while the 109th rigged both CDS and extraction systems (LAPES and GPES). The riggers of the 109th QM geared up to meet the challenge posed by events at Khe Sanh. Initially, riggers at Cam Ranh Bay worked three days and two nights continuously without rest. This was followed by shifts consisting of 24 hours on duty followed by a six hours rest break. Similar schedules were followed by the 383rd.

These loads were not dropped within the main base perimeter. To do so would necessitate the complete closing of the airstrip during drops. The area chosen for the drop zone (DZ) was a small area beyond the end of the runway. Supplies were parachuted into this DZ with good accuracy. Still, some drops missed the DZ and drifted into enemy territory. These loads were destroyed by airstrikes or Marine artillery to prevent their utilization by the enemy.

The constant enemy shelling forced the Marines to dig underground for protection. To further this move, the Marines requested an emergency supply of large timbers for bunker construction. Because of the size and handling difficulties involved, low level extraction was chosen over airland or container delivery.

On February 16 a C-130 loaded with timbers flew down the long axis of the Khe Sanh runway. The pilot maintained an airspeed of 130 knots at an altitude of five feet. A parachute, constrained to a 48" diameter, was attached to the load and projected out the rear of the cargo door. Upon reaching a precisely calculated point, a crewmember fired a device that allowed the parachute to open to a diameter of 28 feet. This sudden force broke the restraints attaching the timber load to the floor of the aircraft. The plane continued, essentially flying out from underneath the palletized timbers, which coasted to a stop close to the proposed bunker construction sites. This was the first of 52 LAPES missions as perfected by the 109th QM. Larger scale use of LAPES was not possible due to the lack of sufficient LAPES components as well as concern over damage to the runway by the heavy LAPES pallets. Logistics specialists then turned to the ground proximity extraction system.

On March 30 a C-130 began rolling down the runway at Khe Sanh. Attached to the cargo pallet was a boom with a hook at the free end. The rear cargo door was open. The airplane rolled across the arresting cable which traversed the runway and was moored to the ground at each end. The cable rose, engaged the hook, and yanked the cargo out of the plane. The pilot applied power and took off. In all, 15 loads of cargo, mostly construction materials, were delivered to Khe Sanh using the GPES.

American logistics personnel showed impressive ingenuity and versatility in accomplishing the airlift to Khe Sanh. The combination of airland, container drop, parachute and ground extraction delivery techniques meant the garrison could hold out indefinitely. Large-scale Communist infantry movements were constantly disrupted by allied air and artillery firepower.

During the period from January 21 until April 8, 1968, Air Force C-130's made 273 landings at Khe Sanh, 496 container drops, 52 LAPES and 15 GPES deliveries. These accounted for over 90 percent of the 12,430 tons of supplies delivered by the Air Force. Over 8,000 tons of the total amount were delivered by parachuting. As early as March 15 the number of supply drops into Khe Sanh exceeded the total for all of Vietnam up to that time.

On April 1, Army airmobile units working in concert with Marine infantry and engineers began Operation PEGASUS to reestablish the overland supply link to Khe Sanh. This force linked up with the base on April 6. The Marine logistics support area was allowed to deteriorate. By July 1968 the base has dismantled and abandoned.

Army riggers continued supporting U.S. military operations in Vietnam. The 109th supplied the Cambodia invasion and also rigged the extraction of captured enemy supplies and weapons. The 109th QM rigged 350 tons of fuel, rations, and ammunition for the 1971 invasion of Laos. The 549th Quartermaster Company, by now in Okinawa, sent 76 men TDY (Temporary Duty) to Vietnam to aid in dropping 4,853 tons of supplies in 369 sorties into An Loc during the 1972 Easter Offensive. Like Khe Sanh before it, the defenders at An Loc held their ground. The US Army riggers pioneered the use of fuel air explosives by rigging 55 gallons drums of aviation fuel onto skids of which were then loaded onto C-130's. Each of the sixteen skids consisted of 2 barrels of AVGAS and 2 barrels JP4 fuel. The skids would free fall with smoke grenades attached to assured they would ignite upon ground impacted. In terms of destructive power, these drops compared to napalm drops but at one-tenth the expense. The 109th and 383rd both rigged the famous 15,000 pound "Daisy Cutter" bomb used to clear helicopter landing zones.

In general, the Army favored delivery by helicopter over delivery by parachute. But Khe Sanh was a special case. The advent of cheap surface-to-air missiles meant the situation would not repeat itself. Before 1968 the Communists had never concentrated their forces to the degree they did at Khe Sanh. The base garrisoned a large number of U.S. personnel. The siege lasted eleven weeks. It would have been impossible to resupply the base solely by using slow-moving helicopters. Once encircled by the North Vietnamese, there was nothing the Marines could do except dig in and fight. Certainly there was no quick way out: the overland supply route was cut again in mid-1967.

Supply levels at Khe Sanh are better described as adequate for survival rather than abundant. The Marines sometimes went weeks without hot meals. Rations were frequently limited to two meals per man per day; some Marines ate one meal per day for several days at a time. Artillery firing patterns were also affected. Initially, the Marines tried to prevent NVA forces from getting too close to the base. Overwhelming volumes of artillery could have blocked them. It was not possible to air deliver this volume of artillery shells. Consequently, the enemy was allowed to move in close to the base in order to provide more concentrated targets for the shells available to Marine artillerymen.

It would not have been possible to evacuate the American garrison overland. According to General Philip B. Davidson, Jr., Westmoreland's intelligence chief, a single reinforced Marine regiment cannot fight its way on foot through two or three NVA divisions when the latter have the initiative, superior numbers, and every terrain advantage. Emergency evacuation by air would have resulted in a sacrifice of half the garrison. It was the flexibility, technical expertise, and untiring efforts of aircrews and logistics personnel such as the Army air delivery units that enabled the Marines to successfully resist the Communists' best efforts: the ongoing attacks against the Khe Sanh Combat Base during the Tet Offensive of 1968.

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As the defense of Khe Sanh was a joint effort, so too is the writing of this article. Ray Anderson, who served with the 109th Quartermaster Company in Vietnam, provided much of the research upon which this article is based. Peter Brush was with a Marine heavy mortar battery on the ground at Khe Sanh during the siege. Versions of this article previously appeared in *Army* and *Vietnam* magazines. *Army Magazine* April 1997; *Vietnam Magazine* December 199

¹ <http://www103.pair.com/adsd/riggers/airdrop.html>