

## Chapter Two

# From Korea Through Vietnam

*“Getting the casualty and the physician together as soon as possible is the keystone of the practice of combat medicine. The helicopter achieved that goal as never before...”*

Col. Spurgeon Neel<sup>1</sup>

As the United States disengaged from the Korean conflict, the lessons learned from the effort were collected and digested. The Aviation Section in the Surgeon General’s office worked tirelessly in the early post-war years to protect the creation of the MEDEVAC force and turn those lessons learned into corrective actions. The need for centralized control of MEDEVAC assets was an accepted fact. Follow-on discussions determined that although the H-13 was unacceptable as a long-term MEDEVAC aircraft, it was not necessary to design and purchase a specific specialized aircraft just for MEDEVAC. The smarter path was to ensure that all future aircraft would be capable of patient transport. Such fleet commonality would lead to reduced training, supply, and maintenance costs, and ultimately an overall better use of resources.<sup>2</sup>

More units were also formed. In early 1954, the 56th Medical Detachment (Helicopter Ambulance) (Med Det [HA]) was moved to Camp Zama, Japan, to transport soldiers evacuated from airfields in Korea to area hospitals. The 274th Med Det (HA) was activated at Fort Sam Houston, Texas, and when trained and equipped was transferred to Vainingen, Germany, later that year. The new 63d Med Det (HA) replaced it at Fort Sam Houston. Additionally, in Germany another unit, the 47th Med Det (HA), was activated at Bremerhaven to serve the large U.S. community in that area.<sup>3</sup>

At about the same time, the Army launched a design competition for a new utility and MEDEVAC helicopter. By now, Lt. Col. Spurgeon Neel had returned from Korea and was assigned to the Army Surgeon General’s Office in the Pentagon to establish the aviation medicine branch. When he discovered that a new helicopter was being proposed for MEDEVAC duties, he wrote, “The AMS [Army Medical

Service], which is the only agency in the Army with any real valid experience in air or surface evacuation, should participate in the development of aircraft as well as logistical support policies and procedures.” Neel was assigned to lead the assessment team.<sup>4</sup>

Under Neel’s leadership, he and several Medical Service Corps (MSC) officers in the Aviation Section became intimately involved in Army efforts to conceptualize, design, and procure a new fleet of helicopters. Working with engineers, transportation specialists, and communicators, they insisted that the aircraft have a cabin with enough space for a medic to provide onboard care, thus making it truly MEDEVAC by today’s definition. Post-Korea studies showed that patients who could most benefit from the speed and versatility that helicopters provided also required en route patient care and emergency intervention at the same time. One report stated, “If they needed to go by air, they also needed to be treated en route or else they had little chance of survival.”<sup>5</sup>

Neel and his team reviewed 12 proposals from six different manufacturers. In their design plans, all gave first priority to MEDEVAC use. Their efforts were so sustained and persistent that the new helicopter was unofficially called a helicopter ambulance. Later, when the Army had to go before Congress to procure the funds for production of the selected helicopter, Neel was consulted to script briefing papers to explain the medical necessity of the selection as a MEDEVAC vehicle. He liked to remind them that the MEDEVAC helicopter was “...an obstacle crosser, whether it is enemy territory, or traffic in San Antonio, or the Rhine River.”<sup>6</sup>

In 1955, several units were pulled out of Korea. The 37th was sent to Fort Benning, Georgia. The 52d was moved to Japan and shared duties with the 56th until that unit was transferred to Fort Bragg, North Carolina, in early 1956. It then converted to H-19 helicopters. The 52d inactivated within a year. The units remaining in Korea still had missions to fly. In February 1957 an Air Force C-124 was forced to ditch at night in the Han River, north of Seoul. Two crews from the 54th Med Det, led by 1st Lt. Charles Heath and 1st Lt. Hugh Beebe, headed up a force, ultimately consisting of 26 Army and Air Force helicopters, which recovered all 137 passengers and crew from the frigid waters of the river.<sup>7</sup>

Again in 1955, another unit, the 82d Med Det (HA), was activated at Fort Sam Houston. It replaced the 63d that was subsequently transferred to Landstuhl, Germany. Located just down the ramp from the 57th, the 82d immediately struck up a strong rivalry with the older unit. At the end of the year, the 58th—still in Austria—was inactivated and its personnel and aircraft dispersed to other units in Europe.<sup>8</sup>

The new helicopter competition was intense, and Neel and his assistants were in the midst of it. The contract ultimately went to the Bell Helicopter Corporation for its XH-40 in February 1955. Designated the HU-1 “Iroquois” in 1957, it garnered the nickname “Huey.” It was redesignated the UH-1 (utility helicopter) in 1962, but the nickname remains. By 1962, 158 UH-1As had been built under a general Army contract. All were initially equipped with the Lycoming T53-L-1A

turbine engine that produced 800 horsepower. The UH-1's designed useful load lift capability was 2,000 lbs, and it had a predicted range of 115 miles at a cruise speed of 140 mph. It would be the new MEDEVAC helicopter.<sup>9</sup>

During this time, the various units were relatively stable. Most active was the 57th at Fort Sam Houston. Equipped with H-19 helicopters, it supported several Texas communities during heavy flooding. In late 1957 the unit moved to Fort Meade, Maryland.

One year later, the 52d Med Det (HA) reactivated in Germany. The 37th Med Det (HA) moved from Fort Benning to Fort Ord, California, in June 1959. A short while later, it was redesignated as the 47th Medical Platoon (AA) [Air Ambulance], but completely inactivated in 1961.<sup>10</sup>

In 1959 the U.S. Army Reserve (USAR) formed its first MEDEVAC unit when it activated the 317th Medical Company (Med Co) (AA), at Miami, Florida, with its platoons located at Orlando and Tampa, and Atlanta, Georgia. It was equipped with old H-13s. Another active duty unit, the 21st Medical Platoon (AA), was formed with six H-19s at Fort Benning.<sup>11</sup>



The first YH-40 prototype.  
Source: Army Medical Department Museum.



A new UH-1A and old H-19 helicopter in the early 1960s.  
Source: Army Medical Department Museum.

This same year, a future MEDEVAC pilot, Doug Moore, graduated from Arkansas State University as a Distinguished Military Graduate of the Reserve Officers' Training Corps and commissioned as a Regular Army 2d Lt. in the MSC. While at Fort Sam Houston for the branch basic course, he requested flight training. However, the tactical units in Germany needed young officers, and he was assigned to the 34th Medical Battalion there. During his tour he commanded the 95th Med Co, which gave him a strong basis of knowledge about Army medicine. Subsequently, he was accepted for flight training and was ordered to report to flight school in 1963.<sup>12</sup>

The 57th Med Det (HA) was reequipped in early 1960 with five new UH-1 helicopters while still maintaining its H-19s. The 56th was also given UH-1s. In May both units were deployed to Chile to provide emergency relief after a series of devastating earthquakes and tsunamis rocked that nation. While the 56th and 57th were in Chile, all medical detachments (HA) were redesignated as platoons (AA). When the two units returned to their home bases, both the 56th and 57th Medical Platoons (AA) were awarded the William J. Kossler Award for 1961 by the American Helicopter Society "for participation in the rescue operations in the earthquake-stricken region of Southern Chile in May and June of 1960." Respective platoon commanders, Capt. Donald Wall and Capt. John Temperilli, accepted the award at the society's annual awards banquet.<sup>13</sup>

A few months later, all medical platoons were again redesignated as medical detachments with a specific identifier (RA) assigned if the unit had been converted to the new UH-1 helicopter. Additionally, when the 56th Medical Platoon (AA) returned from Chile, it was ordered to inactivate. The 45th Med Co (AA) was being formed at Fort Benning and absorbed the 56th personnel and aircraft as well as those of the 21st Medical Platoon (AA).<sup>14</sup>

In 1958 and 1959, the Army Medical Service (AMS) conducted a full review and study of aeromedical evacuation focusing on doctrine, organization, and equipment. Its Combat Development Group was tasked to perform the following:

1. Review and evaluate current doctrine, procedures, and techniques for aeromedical support of joint and service operations.
2. Collect and evaluate experience data relative to current doctrinal, organizational, and operational concepts of aeromedical support.
3. Develop additional or new doctrine, techniques, and procedures for aeromedical support during the time frame 1960–65.
4. Develop future qualitative and quantitative army aeromedical evacuation requirements by type, for the time frame 1960–1965.<sup>15</sup>

Several factors affected the problem:

1. The movement of patients by air to the rear of the combat zone is the primary means of evacuation for all of the military services. Surface transportation is used to supplement aerial movement.
2. Interservice responsibilities for aeromedical evacuation within the army combat zone are prescribed by Department of Defense Directives and include battlefield pickup of casualties, air transport to initial point of treatment, and subsequent moves to hospital facilities within the army combat zone.
3. The feasibility of aeromedical evacuation has been demonstrated clearly during the Korean conflict and confirmed by numerous postwar exercises.
4. To the extent possible, all army aircraft are being developed with the capability of transporting sick and injured as an ancillary mission. (The report noted, as an assumption, that the Bell HU-1A helicopter was scheduled for the medical air ambulance units.)
5. Medical helicopter ambulance detachments are currently organized as per Table of Organization and Equipment (TO&E) 8-500C, dated 30 July 1956, and 2.33 detachments are allocated per corps. They are authorized five helicopters with seven MSC aviators, dually qualified as rotary wing pilots and medical assistants, and 22 enlisted personnel who perform administrative, maintenance, and medical functions. All aircraft are marked with the Geneva Convention Red Crosses and are also used for the emergency resupply of critical medical items such as whole blood.
6. A new TO&E, 8-137D, is being staffed. It will designate a medical AA Company equipped with 25 helicopters and an allocation of one per corps. The company can be divided into platoons. Within a theater, it will be under the operational control of the army surgeon. With this structure, the earlier mentioned detachments could be used for augmentation or to support independent task forces of division size or smaller.<sup>16</sup>

The long and detailed report included 15 conclusions that recognized five main points:

1. Warfare of the future will see the increased use of organic army aviation for emergency and routine aeromedical evacuation.
2. The AMS has the basic technical responsibility for all medical evacuation and timeliness of treatment. The medical service must retain control over all evacuation. This is better than control by nonmedical aviation units that—although it may provide for better aviation economy—places the welfare of the patient secondary to other logistical or administrative considerations; reduces medical control over the movement of the patients; precludes the most effective utilization of critical medical means, doctors, and facilities; and does not provide for the movement and exchange of required and consumable medical supplies and equipment.
3. Medical ambulance aircraft should be special purpose in the sense that they will not be used for any other purpose. They should be manned with medical pilots and crewmembers.
4. The company type organization is superior to the current cellular detachment concept.
5. Medical air evacuation companies should be assigned to a field army or independent corps force. The rotary wing units should be further attached to major medical command headquarters to facilitate decentralized operations and integration with surface evacuation and other medical service support functions.<sup>17</sup>

These points were consolidated into six recommendations:

1. The conclusions should be the basis for the development of army aeromedical evacuation techniques, concepts, procedures, and types of organizations.
2. The AMS should retain the mission and capability of rapid aerial evacuation of severely wounded casualties directly to medical treatment facilities, properly staffed, equipped, and situated for their care.
3. Nonmedical army aviation units should maintain a capability of aeromedical evacuation of routine patients, when required and upon the request of the AMS.
4. The AMS should maintain mission control over all aeromedical evacuation.
5. The AMS should be provided sufficient aircraft for the aerial evacuation of all patients within the combat zone.
6. Organic medical aviation should be reorganized into company type units for the 1960–65 time frame.<sup>18</sup>

On 11 January 1960, The Surgeon General approved the study as the “latest approved organizational and operational concepts of the Surgeon General for the 1960–1965 time frame.”<sup>19</sup>

## Doctrine

### *Field Manual 8-55, Army Medical Planning Guide, October 1960*

Army doctrine was the basis for all Army operations and organizations. All medical doctrine was encapsulated in Field Manual (FM) 8 series documents. Based on the AMS study, FM 8-55, *Army Medical Service Planning Guide* was rewritten to reflect the increasing use of helicopters. It directed the actual flow of casualties and patients. Efforts would be focused on the movement of those who most needed immediate care, and ground vehicles would be used for those patients considered more transportable. No casualty would be evacuated farther to the rear than necessary to handle his or her medical condition, with the priority being placed on returning those still combat capable to their units as soon as possible. All helicopter MEDEVAC units would be reorganized as necessary, under the new detachment and company TO&Es.<sup>20</sup>

### *Army National Guard MEDEVAC Units*

At about the same time the Department of the Army decided to spread the MEDEVAC mission into the Army National Guard (ARNG). In May 1959 the 123d Med Co (AA), Mississippi ARNG, was formed from a unit that had—at various times—been an armor, aviation, and cavalry unit. Unit lineages belonged to the individual National Guards (there are actually 54 different National Guards), and such combinations were not unusual. The next conversion created the 24th Med Co (AA), Nebraska ARNG, which formed in February 1960. Both units were initially equipped with a mixed fleet of older H-13, H-23, and H-19 helicopters, and small, fixed wing aircraft. Many of the pilots were veterans of service in World War II and Korea. Two months after forming, the 24th flew relief missions under state tasking when spring floods ravaged the eastern portion of the state.<sup>21</sup>

## The Berlin Crisis

As 1961 began the MEDEVAC force was still in a state of growth and realignment because of planned relocations and real world events. The 45th Med Co (AA), then commanded by Maj. Rex Medcalf, was moved from Fort Bragg to Germany. Its four platoons were spread out to dispersed locations. Additionally, the 421st Med Co (AA) was also formed in Germany and absorbed the assets and personnel of the 47th, 52d, 53d, and 274th Med Dets. Concurrently, the 15th Med Det (HA) was activated, also in Germany.<sup>22</sup>

In that summer tensions between the United States and its European allies and the Soviet Union and its allies escalated significantly over access to Berlin. East Germany was concerned about the flow of refugees out of its country into the

West. On 13 August 1961, East Germany began to erect a wall along its border and restrict access to Berlin. In response, President John F. Kennedy took strong diplomatic steps supported by firm military measures to protect the right of the Western Allies to freely travel to and from Berlin. He called to active duty almost 150,000 Reservists and Guardsmen—both as members of 113 units and also as individual augmentees—and dispatched reinforcing forces to Europe. The 24th and 123d Med Cos (AA) from the ARNG and the 317th Med Co (AA) from the USAR were activated and reported to their mobilization stations. The 24th reported to Fort Leonard Wood, Missouri, and was equipped with two H-23s and eight H-19s. They performed base support and responded to several local rescue calls as they awaited deployment orders. However, before they or the other mobilized units could be deployed, the crisis was resolved through diplomacy, and all units were released in early 1962.<sup>23</sup>

## **The Vietnam Era**

Europe was not the only area where confrontation was brewing. At the same time, President Kennedy also took the initial steps that led to the U.S.'s lengthy and divisive involvement in the Vietnam War. Long a colony of France, Vietnam had been granted its independence in 1954 after a bloody guerilla war. Two Vietnams were formed. Communist forces controlled North Vietnam, and a western leaning government formed in South Vietnam. However, a residual insurgency in the South turned against the government and attempted to overthrow it. A few American military advisors were dispatched to work with the military forces of the South.

In May 1961, President Kennedy publicly reaffirmed U.S. support for the South Vietnamese government. Over the next few months, the communist guerillas known as the Viet Cong—or VC as they came to be called—launched major attacks against South Vietnamese units. These successes showed that the military forces of South Vietnam were not capable of defending the nation. The President queried his top military advisors who recommended dispatching U.S. combat troops. He was not prepared to do that and instead sent more military advisors to train the Army of the Republic of Vietnam (ARVN) and the South Vietnamese Air Force (VNAF). However, he did send some combat support units to assist the effort.

### **First MEDEVAC Unit to Vietnam**

By December, transport helicopter units and aircraft for the VNAF began to arrive. The next year, the flow of support troops and advisors reached 8,000. They worked directly with the ARVN and VNAF units who sought out the enemy forces. The increased fighting led to an increase in casualties, and Army medical units were designated for deployment. The 8th Field Hospital went first, with several

specialty detachments in support. To provide MEDEVAC, the 57th Med Det (HA) would deploy.

Stationed at Fort Meade, the unit was commanded by Capt. John Temperilli, Jr. He and his officers and noncommissioned officers scrambled to prepare their five UH-1 helicopters and unit personnel for the assignment. They deployed in April 1962 and arrived in Nha Trang, a beautiful coastal port town, where they set up next to the 8th Field Hospital. The 57th was assigned to the U.S. Army Support Group, Vietnam (USASGV), which controlled all U.S. Army units in the country and was directly responsible for their administrative and logistical provision. Lacking any support assets, the 57th relied on a collocated aviation unit for its direct logistical support, as well as specialized aviation weather information and flight clearance filing capabilities.<sup>24</sup>

Additionally, planners at the USASGV intended to disperse their aircraft and pilots in single helicopter detachments throughout the country, which was divided into four Corps (I through IV) areas from north to south. Temperilli interceded to prevent this, as well as ensured that the JP-4 fuel that his turbine-powered aircraft burned was available in enough locations for his helicopters to operate. He also asked to have his unit moved to the Saigon area, which was 300 kilometers to the



The 57th Med Det (RA) operations building in 1965.  
Source: Jim Truscott.



Cartoon portrait presented to the 57th Med Det (RA) in 1965 by artist Milt Caniff.  
Source: Jim Truscott.

southwest. Most of the fighting occurred south and west of there, and he wanted to be as responsive as possible. But his request to move was denied. The Saigon area was overrun with units, and there was just no room for the 57th. Temperilli also asked the USASGV staff for a defining mission statement for his detachment. He was promised that one would be developed.<sup>25</sup>

The UH-1s with the 57th were the first of their type in the theater. The aircraft were adorned with the red medical cross on a white background as directed by the Geneva Conventions and U.S. Army directives. Some of the pilots questioned the value of the crosses, citing Intelligence reports that quoted the Viet Cong instructing their fighters that “It is good to fire at ... the red crosses if [a helicopter] is picking up wounded.”<sup>26</sup>

The first mission call for the 57th came on 12 May 1962 from Tuy Hoa, another seaside post, about 60 kilometers up the coast, to pick up a Special Forces advisor with a dangerously high fever. He was brought back to the 8th Field Hospital. Soon they were getting regular calls for pickups.<sup>27</sup>

The technical manual for the UH-1 aircraft specified that even though there were positions for two pilots, only one pilot was required to perform the mission, as had been the case with the H-13s in Korea. However, the 57th had more pilots than aircraft and requested a waiver to always fly two pilots. Their request was refused. They believed that the risks of pilot incapacitation by enemy fire outweighed the manual recommendation, and they usually flew with two pilots. Later arriving units would do the same, and eventually the rule changed to allow two pilots aboard at all times. It was overt recognition of the danger of combat MEDEVAC.<sup>28</sup>

### **Unit Realignments and Activations**

While the war in Vietnam was slowly growing, Army MEDEVAC units were being realigned in other areas. In Korea, the personnel and aircraft of the 49th, 50th, and 54th Med Dets (HA) were consolidated into the 377th Med Co (AA) in August 1962. A few months later, the 50th Med Det (RA) was reconstituted at Fort Polk, Louisiana, and the 54th was reconstituted at Fort Benning.<sup>29</sup>

### **Vietnam Buildup**

As the war in Vietnam progressed, the threat only increased. Eventually, the aircraft were upgraded with more armor plating and even body armor to protect the crewmembers.

As U.S. Army Lt. Col. (ret) John Cook later wrote, “The enemy had been quick to learn that the pilots were nothing more than sitting ducks until the patients were loaded. These were lessons that could only be learned in the harsh environment of combat.”<sup>30</sup>

The MEDEVAC crew included a crew chief who performed routine maintenance on the aircraft and oversaw the repair of larger discrepancies. He was joined

in the back of the aircraft by the medic, a medical technician who actually tended to the casualties. He ensured that essential medical supplies were onboard and provided care for the patients en route back to the hospitals. Most medics also “trained” the crew chief to perform certain basic medical functions, which greatly benefited them when they were carrying more than one casualty or the medic himself was wounded. The medic was the “med” in MEDEVAC.<sup>31</sup>

Noting the necessity of close coordination between the crewmembers, Cook later wrote, “The secret was teamwork. All the good crews had one thing in common – they worked smoothly and efficiently, like four well-oiled parts of a complex machine. The helicopter became an extension of the crews...”<sup>32</sup>

Being the first UH-1 equipped unit in Vietnam also presented unique logistical challenges because the pipeline of replacement parts and supplies was very long. The situation improved somewhat as the U.S. buildup continued, and other UH-1s were shipped in. Then the other units competed with the 57th for the limited parts and supplies available. At one point when a large operation was planned south of Saigon, Temperilli was ordered to ground his aircraft by removing the starter generators and deliver them to other units for the operation. His unit could not fly for a month and only got one of their generators back.

At the same time, the Commander of the USASGV Brig. Gen. Joseph Stilwell considered transferring the 57th from the Medical Service to the Transportation Corps element in Vietnam, which then commanded all Army aviation units in the country. His deputy commander was Col. John Klingenhagen, a career aviator. He managed all aviation units and advised Stilwell that the MEDEVAC helicopters were underutilized as compared to his general service aircraft. Accordingly, he recommended that to spread the utilization rate more evenly the MEDEVAC unit should be combined with the general aviation units. His philosophy was that “aeromedical evacuation is an aviation operation which entails the movement of patients.”<sup>33</sup>

This would have violated the hard-learned lessons of Korea, revalidated by the AMS Combat Development Group Study. Temperilli, accompanied by Lt. Col. Carl Fischer, the USASGV Surgeon and commander of the 8th Field Hospital, visited Stilwell and argued that aeromedical evacuation was “a medical operation which entails the use of aircraft.” They convinced him to not carry out the reassignment. This was not the last time that this debate would occur.<sup>34</sup>

In January 1963, to better support the increasingly heavy fighting occurring south of Saigon, the 57th was finally moved to Tan Son Nhut Air Base in Saigon. The next month, Temperilli passed command of the 57th to Maj. Lloyd Spencer, and Temperilli and his experienced troops rotated home. As they were leaving, Spencer had his welcoming visit with Stilwell. The unit still had only one aircraft flyable. Stilwell told him that brand new UH-1Bs would arrive soon, and the 57th would get the first five. These aircraft had an upgraded 1,100 horsepower engine that gave it greater lift and climb capability as well as higher speed. It also had a larger cabin and reflected many lessons already learned in this war. By March, the 57th was fully operational again with the new aircraft, and very soon had aircraft

on alert in Saigon and upcountry at Qui Nhon and Pleiku.<sup>35</sup>

In August 1963 Headquarters, U.S. Army Vietnam published a mission statement for the 57th Med Det (HA). It expanded on the definition of priority of casualties as urgent, priority, and routine, and had additional rules for personnel based on nationality and civilian–military status. Strict rules dictated the use of MEDEVAC aircraft for nonmedical, administrative, or logistical purposes. It defined a formal format and procedure for a ground commander to request a MEDEVAC. This mission statement was subsequently updated several times throughout the war and applied to subsequent MEDEVAC units as they arrived. However, it was never sufficient to handle the myriad situations that would arise for the MEDEVAC crews.<sup>36</sup>

Sensing an increased need for MEDEVAC capability, the Army created several more units. The 159th Med Det (RA) formed at Fort Riley, Kansas, with five old H-21 helicopters. At Fort Carson, Colorado, the 254th Med Det (RA) formed, and the 283d Med Det (RA) formed at Fort Lewis, Washington.<sup>37</sup>

In Vietnam taskings began to increase. Neither the ARVN nor VNAF had yet developed any MEDEVAC capability. Their MEDEVAC requests were handled by regular aviation units on an “as-available” basis. They began to call the 57th. Spencer sent his crews. On 10 September 1963, they MEDEVACed 197 wounded Vietnamese after VC units destroyed three villages in the Delta region south of Saigon.

Inadvertently, Spencer also established a small but important part of MEDEVAC history. He selected a standard radio call sign for his aircraft—“Dustoff”—after reviewing a list of precoordinated choices. The UH-1 aircraft were known for kicking up quite a bit of dust when they landed or took off, so he grabbed the call sign. It was a natural fit and became the general call sign for their aircraft, although there were some specific exceptions, that is, some aircraft still used the call sign of “MEDEVAC” to honor their heritage from Korea.<sup>38</sup>

In early 1964, Maj. Charles Kelly replaced Spencer. Within days of his arrival, Kelly was ordered to move his aircraft from Qui Nhon and Pleiku back to Saigon and set up a detachment at Soc Trang in the middle of the Delta. Aviation battalions at each location supported the unit. More than 16,000 Americans were involved in the war, and MEDEVAC missions mounted steadily. His crews were increasingly called to fly at night. Based on the lessons learned in Korea, the aircraft were fully capable of doing so.

The USASGV again queried Kelly about removing the red crosses on his aircraft and utilizing the machines for general support missions. He fended off this second attempt to turn his detachment into a utility unit and arranged for the USASGV Surgeon to provide medical supervision to the 57th. He realized that he and his men had to prove the value of aerial MEDEVAC beyond all doubt, and he sent his crews out to look for business. He scheduled single-ship night runs that flew over remote outposts and called them to offer MEDEVAC. The recovery numbers increased, and Stilwell dropped the idea of removing the crosses.<sup>39</sup>

The enemy did not respect the red crosses. Kelly discovered that several times

when he listened to the rounds hit the aircraft. Despite the enemy fire, weather, or terrain, if there were casualties to be brought out, he flew. That was his credo. He drilled it into his men and led by example. That dedication cost him his life.

On 1 July 1964, he was on alert duty when an emergency call came in from an ARVN unit near Vinh Long in the Delta region. Kelly and his crew flew to the area. The battle was still raging as Kelly flew low and slow over it to spot the wounded. One advisor called him on the FM radio and told him to leave the area because it was just too dangerous.

“When I have your wounded,” Kelly answered firmly. Moments later, a fusillade of rounds hit the aircraft. One of them passed through the side door and struck Kelly cleanly in the heart. “My God,” he whispered and then died. The aircraft rolled to the right and crashed.<sup>40</sup>

The rest of the crew survived uninjured and crawled from the wreckage, dragging his body along. They were eventually rescued by another Dustoff. When Stilwell heard of Kelly’s death, he wept.

Kelly was awarded the Distinguished Service Cross for his efforts. From that act he received larger recognition. His words and indomitable courage and determination represent the spirit of Dustoff. Capt. Paul Bloomquist assumed command of the 57th.

### **The Buildup Continued**

Back in the United States, the Army published orders to activate another MEDEVAC unit. An entire company, the 498th, formed at Fort Sam Houston that was equipped with 25 UH-1D helicopters and commanded by Lt. Col. Joseph Madrano. Four times larger than a standard medical detachment, it was designed to support an entire corps. Personnel and equipment began arriving in the fall, and by early 1965, the unit was fully formed and ready for any required deployment.<sup>41</sup>

### **Trouble in the Dominican Republic**

While these events occurred in the United States and Vietnam, American attention was diverted for a short period by events closer to home. In the early spring of 1964, long simmering civil unrest in the Dominican Republic, just 500 miles southeast of Miami, Florida, exploded into open warfare between leftist rebels and an interim government installed when a long-term dictator had been assassinated four years earlier. Initially, President Lyndon Johnson ordered U.S. Marines ashore to establish order and protect American citizens and interests. They were joined a few weeks later by a brigade of troops from the 82d Airborne Division. The brigade team was supported with a robust medical task force that included the 54th Med Det (HA).

Security operations were brief and limited, and order was quickly established. As evacuation operations were conducted for all who wanted to leave, the MEDEVAC helicopters supported civic action projects as the medical teams moved out to help the local population.<sup>42</sup>

## **More Units to Vietnam**

Back in Vietnam, the 57th Med Det (HA), later that year, was joined by the 82d Med Det (HA), which deployed from Fort Sam Houston. It was part of increasingly larger numbers of units and men being deployed to the war. Capt. Doug Moore deployed with the 82d. After flight school, he had initially been assigned to the 45th Med Co (AA) at Fort Bragg before coming to the 82d. When he arrived in Vietnam, however, he transferred to the 57th as some of the 57th's experienced personnel helped the 82d quickly come up to speed. Subsequently, he spent his entire tour with the 57th.<sup>43</sup>

1st Lt. Jim Truscott joined Moore in January 1965. Truscott, a 1962 Reserve Officers' Training Corps graduate from Oklahoma State University, received a regular commission and requested the MSC branch and flight school. He was selected into the MSC, but instead of flight school, was assigned to a ground medical unit at Fort Campbell, Kentucky, with the 101st Airborne Division. Two years later, he received his orders for flight school and completed the program at Fort Wolters, Texas. Upon graduation, he was assigned to a MEDEVAC unit in Korea. Most of his classmates received orders for Vietnam. He wanted to go with them and called the Chief of the MSC directly. The Chief asked him if he was volunteering. "Yes sir," Truscott replied. He had his orders within two days.<sup>44</sup>

When the personnel of 82d Med Det (HA) arrived in Saigon, the unit was assigned to the U.S. Army Support Command, Vietnam, which had just replaced the USASGV. They were issued five UH-1B aircraft and dispatched to Binh Thuy, where they replaced the detachment from the 57th, which rejoined its unit at Tan Son Nhut Air Base. Truscott watched the new crews arrive and was not impressed. He started calling his unit "the originals" to differentiate them from the "latecomers." Soon his unit mates joined him, and they even put it on their aircraft. The moniker stuck, and the 57th became known by that title.<sup>45</sup>

In late 1965, though, another type of aeromedical evacuation unit was sent to Vietnam. The 1st Air Cavalry Division (Airmobile) deployed to the Central Highlands region. This unit was unique. Based on studies and tests done before the war, it was created and built around the tactical mobility provided by a fleet of helicopters. This included an air ambulance platoon of 12 new UH-1D MEDEVAC helicopters assigned to the headquarters and support company organic to the 15th Medical Battalion. This platoon did not have an area general support mission. Instead, it was in direct support of the division that also commanded and provided for it.<sup>46</sup>

The platoon also reflected another innovation. Many of the division helicopter pilots were warrant officers. Several were assigned to the air ambulance platoon. Eventually, warrant officer pilots flew in all MEDEVAC units throughout the war, and, as the need for MEDEVAC units increased, they eventually outnumbered the commissioned MSC pilots.<sup>47</sup>

The UH-1D helicopters were a further improvement to the Huey fleet. They had the same engine as the UH-1B model, but longer and larger blades produced more lift that almost doubled the payload. They could carry 4,000 lbs of cargo.<sup>48</sup>

More Med Det (RA) units arrived. On 1 September 1965, the 283d Med Det (RA) deployed from Fort Lewis to Tan Son Nhut Air Base with the 57th, and it provided general support to tactical units in the III Corps area. Two months later, the 254th Med Det (RA) also arrived in Saigon. When its aircraft were delivered, it joined the other two detachments at Tan Son Nhut. It provided direct support to the 173d Airborne Brigade, which also operated in the III Corps area.<sup>49</sup>

More units formed to go to Vietnam. The 498th Med Co (AA) received orders to Vietnam in July 1965. The commander, Lt. Col. Joseph Madrano, flew over early with an advance party and was told that his company would cover all of the III Corps area in general support under the 43d Medical Group. He picked his base locations based on his needs and placed his company at Nha Trang, with platoons at Qui Nhon, Pleiku, and Ban Me Thuot. Such dispersion created logistical challenges, but it provided for the necessary coverage.

The unit had only been in the country a few days when it suffered its first loss. The detachment at Qui Nhon scrambled its alert bird to help a unit in the mountains just to the west. The weather was bad, with low clouds and fog in the valleys. While trying to get into the requesting unit, the crew flew into a mountain. The helicopter was destroyed and burned furiously. The crash killed the crew chief and medic. The two badly injured pilots were recovered the next day. This crash, once again, illustrated that physical limits such as restricted in-flight visibility restrict what helicopters and their crews can do.<sup>50</sup>

While the 498th settled into its mission, the surgeon of the U.S. Army Support Command in Vietnam, Lt. Col. James Blunt, developed a plan to form a new provisional Medical Company that consisted of the 57th, 82d, 254th, and 283d Med Det (RA), all of which operated in the III and IV Corps area. It possessed 22 helicopters and 160 officers and enlisted personnel. Initially named the 436th Med Co (Provisional), it was eventually renamed the 658th. However, the unit never established effective control over the highly individualized medical detachments that had already developed habitual relationships with other aviation and tactical units. It was eventually disbanded and the detachments were spread to other parts of South Vietnam.<sup>51</sup>

As the buildup of American forces in South Vietnam continued, the medical force correspondingly expanded. In January 1966, with 184,000 Americans in the war, the 44th Medical Brigade activated and assumed control of all nondivisional medical units in Vietnam. The brigade commanded subordinate groups, the 67th in I Corps, the 43d and 55th in II Corps, and the 68th in III and IV Corps. Each eventually commanded all of the Med Det (RA) and Med Co (AA) units that served in general support of all of the tactical units in their assigned area.<sup>52</sup>

Back at Fort Sam Houston, another MEDEVAC company formed, the 507th Med Co (AA). Given a collection of older aircraft, it supported training operations all over the United States and became, *de facto*, a training unit for MEDEVAC crews. The two flight training centers at Fort Wolters and Fort Rucker, Alabama, also expanded pilot output to meet the larger Army needs for pilots in all

specialties. All MEDEVAC units experienced the increase in training requirements as the turnover of personnel assigned to Vietnam steadily increased.

Additionally, the 587th Med Det (RA) formed at Camp Zama, Japan. Many wounded were sent there for care, but the bus rides to the local general hospitals lasted—in some cases—several hours. When Gen. Johnny K. Waters, the Commander of the U.S. Army Pacific Command, discovered this problem, he directed the deployment of an air ambulance unit to reduce the transfer time. Moore was a member of the initial cadre. After his tour in Vietnam with the 57th, he had returned to Fort Sam Houston for the MSC nine-month advanced course. To facilitate an earlier return to Japan, he was placed in a shorter reserve component course so that he could join the unit as it formed. When they arrived in Japan, Moore and his compatriots received three UH-1Bs from the 25th Infantry Division, which was deploying from Hawaii to Vietnam. They were subsequently reinforced with five of the newer UH-1Ds direct from the factory.<sup>53</sup>

The flow of wounded soldiers from Vietnam was constant and heavy. Many were evacuated from field hospitals to Japan by strategic airlift. The crews of the 587th would pick up the wounded at the arrival airfields and transport them to the five general hospitals in Japan, similar to the duty performed by the 56th Med Det (RA) in the later stages of the Korean War. The biggest challenge for the pilots was the frequent terrible weather. All had to be excellent instrument pilots by necessity. According to Moore's personal logs, the unit flew 6,450 hours on MEDEVAC missions and carried 62,525 patients during his two-year tour.

Moore recalled, "It was one of those rare assignments where people felt good about themselves nearly every day because we could see the end result of our efforts. Rather than subjecting critically wounded patients to a ride of four to six hours in a bumpy ambulance through horrendous Japanese traffic, we moved them in about 20 minutes, quickly and much more comfortably."<sup>54</sup>

MEDEVAC crews returning from duty in Vietnam enriched units in the United States and Europe. The 421st Med Co (AA), assigned to the 7th Medical Brigade and stationed at Nelligen, Germany, received now Maj. John Temperilli and other veterans. They were the core element in extensive training programs that qualified most pilots in mountain operations and instrument flight qualifications. During 1965, the unit flew almost 4,600 hours and evacuated 1,021 patients while supporting training operations and the local military communities. The unit also maintained platoons at Illesheim, Grafenwöhr, and Darmstadt.<sup>55</sup>

After a tour with the 57th Med Det in Vietnam, Truscott reported for duty as the commander of the 63d Med Det at Landstuhl, Germany. As a high-time UH-1 pilot, he was very comfortable flying the unit-assigned UH-1Bs. However, the weather was much worse than in Vietnam, especially in the winter when the snow and ice made flying especially challenging. After 18 months, his replacement arrived, and he again volunteered for duty in Vietnam. More MEDEVAC pilots were needed there, and his orders arrived expeditiously.<sup>56</sup>

The steady increase of the MEDEVAC fleet in South Vietnam reflected the larger buildup of American forces in the war. In late 1966, the 436th Med Co

supported a combined U.S. and Vietnamese force of more than 20,000 troops as they attacked infiltrating enemy forces northwest of Saigon. In the operation, the Dustoff helicopters recovered 3,000 wounded, injured, and sick soldiers. Fourteen of the helicopters were hit by enemy fire, and one was actually shot down. The operation highlighted a problem. Each of the four detachments involved was supporting specific units, and there was no central clearinghouse for the overall control and maximum utilization of assets. So the commander of the 436th developed a command and control net so that all requests for Dustoff flowed through two central dispatch agencies. The centralized control was more effective at coordinating missions and reduced duplication of effort.<sup>57</sup>

The suite of radios aboard the UH-1 consisting of VHF-AM, VHF-FM, UHF, and HF radios facilitated the centralization of control. Using them the pilots or medic onboard could talk to the tactical units in the field making the MEDEVAC request, the control centers, or specific hospitals. This ensured that as soon as the helicopters were airborne with the casualties, they could be routed by a medical regulating officer tied into the overall theater medical system, directly to the specific hospital best equipped to handle the needs of that specific casualty. Additionally, it allowed casualties to be moved directly from the point of injury to those rear area specialized facilities, thus, in many cases, bypassing company or battalion aid stations. It reduced the time necessary to get the casualty to the surgeons, who could now be concentrated in the hospitals.<sup>58</sup>

Additionally, the standard format for requesting MEDEVAC support was further refined. All requests needed to include the following:

1. Location of landing zone;
2. Number and condition of casualties, and types of wounds;
3. Radio frequency of unit involved;
4. Special needs including oxygen and blood;
5. Terrain;
6. Enemy activity at the location; and
7. Weather.<sup>59</sup>

The MEDEVAC crews responded to incoming calls at the command center and tried to be airborne within three minutes of the call.

Another lingering problem was determining when a landing zone was safe enough for MEDEVAC. This was also a subjective call, usually made by the local commander, who—as was to be expected—wanted to get his wounded out of the area. The determinant decided upon—almost ad hoc by the MEDEVAC units—was that if it was “safe enough” for the troops on the ground to be up and moving the wounded, then it was safe enough for the helicopter to land. This put a premium on the helicopter crews establishing radio contact with the requesting unit before arriving.<sup>60</sup>

As ground combat spread throughout the nation, more of it occurred in jungle areas. The natural foliage was thick, and—in many cases—the trees were 200 feet

high. Engaged units taking casualties were faced with moving their wounded to open areas while in combat. Such movement rapidly drained a unit of fighting personnel as soldiers left their fighting positions to move the casualties, and it further exposed themselves to enemy fire.

Lt. Col. Hal Moore, at the battle of Ia Drang, noted this when he wrote, "I lost many leaders killed and wounded while recovering casualties. Troops must not get so concerned with casualties that they forget the enemy and their mission. Attempting to carry a man requires up to four men as (litter) bearers, which can devastate a unit at a critical time."<sup>61</sup>

Recognizing the need to bring the MEDEVAC helicopter to units in the jungle, hoists were developed and fitted on the helicopters. They used either a special harness called a "jungle penetrator" or a wire litter if the patient was not ambulatory. However, the hoist created a new dilemma because—to properly use it—the helicopter had to be held in a hover while the litter or penetrator was lowered, the casualty was loaded, and then raised into the aircraft. While doing this, the helicopter was a perfect target for enemy gunners, and several MEDEVAC birds were lost this way. Many crews requested escort attack helicopters for hoist missions. Moore hated hoist missions. He remembered that:

You are probably hovering 200 feet in the air, dangling a cable down to the ground, trying to get that thing centered where you have no frame of reference... and then once you get somebody hooked up on the ground ... the last thing you want to do is lose control and drag him into the trees and kill somebody by catching him in the fork of a tree or else catching the cable and having it break. In the meantime, when you are sitting 150–200 feet in the air, you are clearly visible to everybody for a quarter mile in any direction who has an AK-47.<sup>62</sup>

Interestingly, the U.S. Air Force rescue helicopters, responding to downed aviators all over Southeast Asia, faced a similar problem. They developed the same solution, that is, they dispatched the rescue helicopters as part of a task force that included A-1 attack aircraft or other fighters to provide the necessary close-in support. Then, the recovery helicopter was held in the hover and the hoist lowered to the survivor on the ground.

As 1967 began, American forces continued to increase in South Vietnam to 450,000. An analysis of overall theater needs indicated that for predicted casualty expectations, the Army in Vietnam needed 120 MEDEVAC helicopters. Yet the fleet consisted of only 64 aircraft. The Commander Gen. William Westmoreland addressed his needs to his higher commanders. At the same time, within theater, his subordinate commanders used non-MEDEVAC helicopters with medics on-board as a stop-gap measure.

Another MEDEVAC unit, the 571st Med Det (HA), activated at Fort Meade and subsequently moved to Nha Trang, Vietnam. Almost concurrently, the 45th Med Co (AA) at Fort Bragg was ordered to Vietnam. It had been equipped with old H-19 helicopters, remaining from Korea. These were replaced with 25 UH-1H helicopters, the newest variant of the Huey, direct from the factory. These aircraft had more powerful engines and were fully equipped with instrumentation

for night flight. Additionally, all were also eventually equipped with a hoist for jungle recoveries. After receiving their aircraft, the 45th was based at Long Binh, just north of Saigon.

One of the first pilots to join it was Capt. Jim Truscott. When he arrived, he was asked what call sign he wanted to use. The unit pilots used “Dustoff” with a numerical suffix. Jim stated that he wanted to be “Dustoff 13.”

The operations officer was taken aback. “That is an unlucky number,” he responded. Truscott explained his logic. “Wait a minute, I volunteered to come back for my second tour. Every mission we go on we get shot at. Most of our missions are at night in bad weather, and a call sign is going to be bad luck? Give me a break!” He flew as “Dustoff 13” throughout another full tour and logged about twice as many hours as he had on his earlier tour with the 57th. He then returned in early 1969 to Fort Sam Houston for the MSC Advanced Course as a new major.<sup>63</sup>

Almost simultaneously, several more medical detachments also deployed. The 159th Med Det (RA) went to Cu Chi in III Corps in a general support role. The 50th Med Det (RA) arrived at Phu Hiep in southern II Corps. It provided general support for the 173d Airborne Brigade and Republic of Korea units in the area.<sup>64</sup>

The 54th Med Det (RA) deployed to Chu Lai on the northern coast in the southern portion of I Corps and provided direct support for the 23d (Americal) Division. The unit included 1st Lt. Jerome (Jerry) Foust. Foust entered the Army in 1966 when he received his draft notice. As a college graduate, he opted instead for a direct commission into the MSC. His first assignment was to a medical holding company at Fort Sam Houston. After being detailed to manually pay 770 soldiers, he volunteered for flight school. He graduated in June 1967 and reported to the 54th at Fort Benning, which was commanded by Capt. Bob McWilliam. Two months later, the unit—newly equipped with six UH-1H helicopters—departed for Vietnam, and flew missions by the end of August.

The 54th’s operations officer was Capt. Pat Brady, who returned to the war for a second tour. He pushed his crews hard and wanted them off of the ground within two minutes of receiving a MEDEVAC request. On 29 September 1967, the unit had all six aircraft and another borrowed from a sister unit shot down while supporting ARVN units sweeping an enemy-controlled area. To compensate for the losses, the unit was assigned older UH-1C and Ds until new aircraft were available. Foust flew with the 54th until March 1968 when he switched over to the 45th Med Co (AA) to complete his tour.<sup>65</sup>

Additionally, all MEDEVAC units converted to the newer more powerful UH-1H helicopters.

### **Helicopter Comparison**

Through 1968, all MEDEVAC units converted to the UH-1H. It was a definite improvement over the earlier models. During the War, the U.S. Army used four variations of the UH-1 for MEDEVAC duties:

<b>Model</b>	<b>Engine/Horsepower (hp)</b>	<b>Seats/Litters</b>	<b>Range (nautical miles)</b>
UH-1A	T53/860 hp	6/2 + medic	230
UH-1B	T53L5/960 hp	7/3 + medic	260
	T53L11/1100hp		
UH-1D	T53L11/1100hp	12/6 + medic	230
UH-1H	T53L13/1400hp	14/6 + medic	276 <sup>66</sup>

## Second Combat Tours

As the war continued, more of the men who earlier served in the war began to return for second tours. Moore returned to serve with and command the 159th, still stationed at Cu Chi. He was promoted to Major and moved over to the 45th Med Co (AA), serving as the unit operations officer. Chief of the Medical Service Corps Brig. Gen. William Hamrick visited Moore's unit and advised him to get a master's degree. Moore then applied for and was accepted to Baylor University upon his homecoming.<sup>67</sup>

More MEDEVAC units were also activated. The 68th Med Det (RA) formed at Fort Bragg as did the 236th Med Det (RA) at Fort Polk, Louisiana, the 237th at Fort Meade, and the 247th at Fort Riley.<sup>68</sup>

## Reserve Component Units

As the overall MEDEVAC fleet expanded, the Department of the Army also provided helicopters to several states so that they could form more MEDEVAC units within their National Guards. By the summer of 1968, the following units activated, although equipped mostly with older H-23 helicopters and a few small fixed wing aircraft:

Alabama	133d Med Co (AA)
Arizona	997th Med Co (AA)
Maine	112th Med Co (AA)
Mississippi	123d Med Co (AA)
Nebraska	24th Med Co (AA)
New York	249th Med Co (AA)
Oklahoma	245th Med Co (AA)
South Dakota	1085th Med Det (HA)
West Virginia	146th Med Det (HA) <sup>69</sup>

However, some units began to receive newer equipment. That summer, the 24th Med Co (AA) received 25 UH-1D helicopters, making it the largest MEDEVAC unit in the ARNG. Additionally, under a U.S. Department of Transportation test project called Operation SKY-AID, the unit signed letters of agreement with several local hospitals to provide neo/natal transfer flights and on-call MEDEVAC for the recovery and transport of highway crash victims to the emergency rooms

at those hospitals.<sup>70</sup>

Through 1970, the Department of the Army continued the buildup of MEDEVAC units in the ARNG. The following units were added, again with a mixture of older H-23 and H-19 helicopters and small, fixed-wing aircraft:

Hawaii	2929th Med Det (HA)
Kentucky	441st Med Det (HA)
New Hampshire	397th Med Det (HA)

In addition, the USAR continued to recruit soldiers for the 317th Med Co (AA), at Miami, Florida, with its platoons located at Orlando and Tampa, and Atlanta, Georgia. It was still equipped with old H-13s, but received replacement H-34s within the year.<sup>71</sup>

### **A Medal of Honor**

On 6 January 1968, Maj. Patrick Brady of the 54th Med Det (RA) flew a mission to rescue wounded U.S. and ARVN soldiers in the mountains west of Chu Lai. On a previous MEDEVAC tour, he flew with Maj. Charles Kelly and was impressed with his professionalism and desire to accomplish the mission regardless of weather, terrain, or enemy. Flying through thick fog, he made several trips to several different locations and, despite heavy enemy ground fire, recovered all of the wounded. When his aircraft was damaged, he procured another and flew to a different site to recover soldiers trapped in a minefield. When that aircraft was damaged by a mine detonation, he launched in a third helicopter and recovered 51 seriously wounded men, many of whom would have perished without prompt medical treatment. For his actions, he was awarded the Medal of Honor.<sup>72</sup>

### **Last MEDEVAC Deployments**

In early 1969, the last iteration of MEDEVAC units deployed to South Vietnam. The 68th, 236th, 237th, and 247th Med Det (RA) all joined those units operating in the theater, and the fully matured MEDEVAC fleet reached its peak in late early 1969, as did the overall U.S. force in Vietnam by March, when 540,000 Americans were fighting in that country. Fifteen MEDEVAC units—two companies, two divisional platoons, and 11 detachments—were deployed to and operating in South Vietnam.

At this time, the overarching medical command in Vietnam was the 44th Medical Brigade. It commanded four medical groups: the 43d, 55th, 67th, and 68th. They subsequently controlled a plethora of medical units that consisted of numerous specialty detachments, support battalions, and 23 field, surgical, and evacuation hospitals. The groups controlled all air ambulance detachments and companies, except for the air ambulance platoon of the 15th Medical Battalion, 1st Cavalry Division. However, the actual command and control structure was in constant flux as units came to and then departed from the theater during the war.<sup>73</sup>



Maj. Patrick Brady, Medal of Honor.  
Source: Office of the Chief, MSC

This left only one active duty unit—the 507th Med Co (AA) at Fort Sam Houston—that effectively acted as a training site for MEDEVAC. To address the shortage, another unit, the 212th Med Det (RA), activated at Fort Meade. Assigned six UH-1D aircraft, the unit was rapidly filled with Vietnam veterans and assigned to provide general support to Army hospitals and units in the central Atlantic seaboard area.<sup>74</sup>

### **Other Theaters**

While the ongoing operations in Vietnam filled the headlines, MEDEVAC operations were being conducted in other areas of the world. On 15 March 1969, a MEDEVAC helicopter from the 377th Med Co (AA) in Korea crashed near the DMZ between South and North Korea at night after recovering three wounded soldiers. The four crewmembers were killed, but another Army helicopter recovered the patients. Unfortunately, that helicopter then crashed, killing those soldiers. The MEDEVAC personnel killed in the double loss were Maj. J.C. Rothwell, Capt. Benjamin Park, S.Sgt. Carrol Zanchi, and Sp4c. Edwin Stoller of the 377th.<sup>75</sup>

In Europe, the various MEDEVAC units were consolidated as the 15th Med Det (HA) and 63d Med Det (HA) were placed under the control of the 421st Med Co (AA). Additionally, the units were full of Vietnam veterans like Foust who served as the 421st operations officer. He enjoyed his time in Europe and became a fully qualified instrument pilot. He also shared his experiences with

the younger pilots. That year, the units also received improved UH-1D aircraft to replace their UH-1Bs and ancient CH-34s. They flew a regular regimen of intra-theater transfers, field casualty pickups, and blood supply runs through some very demanding weather.<sup>76</sup>

### **Vietnam High Point**

From 1969 on, the MEDEVAC units in Vietnam constantly redeployed all over the country to support operations as necessary. In another reorganization, the 50th Med Det (RA) inactivated, but reconstituted as the Air Ambulance Platoon of the 326th Medical Battalion, 101st Airborne Division (Airmobile), and relocated to the division main base at Camp Eagle, near Hue. The commander of the 326th, Lt. Col. Bernard Mitemeyer, became Lt. Gen. and served as the Army Surgeon General from 1981 to 1985. The platoon quickly picked up the moniker of “Eagle Dustoff” and worked in direct support of that division similar to the air ambulance platoon assigned to the 15th Medical Battalion, 1st Cavalry Division.<sup>77</sup>

The buildup of MEDEVAC units in Vietnam mirrored the larger growth of aviation forces in general. To provide them with necessary air traffic control and coordination, an extensive system of air traffic navigational aids and control centers was established throughout the country. It allowed for extensive traffic control under instrument conditions when the weather dictated it and for procedural control at other times, which provided for positive flight monitoring. This system also advised aircrews of dangerous and restricted areas. The MEDEVAC commanders had to ensure that their crews received the daily updates and were trained and prepared to utilize the traffic control system controlled and operated by the 125th Aviation Company.<sup>78</sup>

### **Vietnam Drawdown**

The drawdown of U.S. forces in Vietnam began in 1969, and the long process that saw the growth and maturity of the MEDEVAC force shifted into reverse. Slowly at first, the various combat and medical commands were inactivated or sent home, and unit consolidations were commonplace. In general, as the major field forces left, the MEDEVAC units followed, although at a somewhat slower pace since they still had to cover the remaining forces. Yet, there was still much hard fighting to do in South Vietnam, Cambodia, and even Laos. Wherever the fighting was, MEDEVAC was there.

As the forces were being drawn down, another innovative reorganization was attempted. To provide better command and control for the disparate detachments, a proposal was sculpted for a medical evacuation battalion. Such a unit commanded several MEDEVAC units in an integrated and coherent fashion. In February 1970, the 44th Medical Brigade redesignated the 61st Medical Battalion as an evacuation unit. It lost its ability to treat patients and took control of all nondivisional ambulances in the northern half of South Vietnam. That included

six helicopter ambulance detachments, one bus ambulance detachment, two ground ambulance detachments, and one air ambulance company. Its defined mission was to command and control air and ground transport to move not only patients, but also medical personnel, supplies, equipment, and whole blood as a coherent system.

The reorganization proved successful as aircraft availability rates rose 20%, and all units passed all command inspections. In May 1970, the 58th Medical Battalion was similarly converted to an evacuation unit with a like assignment of companies and detachments and designated responsibility for the southern half of the country. The two units subsequently performed their designated functions until June 1971, when both were inactivated and the 67th and 68th Medical Groups assumed their responsibilities. The concept was short-lived, but a seed had been planted that would return full bloom in the future.<sup>79</sup>

### **A Second Medal of Honor**

On 2 October 1969, Chief Warrant Officer Michael Novosel from the 82d Med Det (RA) flew a mission to Kien Tuong Province in response to a request for MEDEVAC. He arrived in the midst of an ongoing battle. Disregarding frequently intense enemy fire, which damaged the aircraft and eventually wounded Novosel, he made 15 extractions and saved the lives of 29 allied soldiers. For his actions, he received the Medal of Honor.<sup>80</sup>



CW3 Michael Novosel, Medal of Honor.  
Source: Office of the Chief, MSC



S. Sgt. Louis Rocco, Medal of Honor.  
Source: U.S. Army

### **A Third Medal of Honor**

On 24 May 1970, a MEDEVAC helicopter from the Air Ambulance Platoon of the 1st Cavalry Division responded to an emergency call from an ARVN airborne unit operating a few miles inside Cambodia. Sfc. Louis Rocco served as a medic advisor with the ARVN unit and volunteered to go as an additional medic. Enemy fire shot down the helicopter as it approached the pickup zone. Rocco survived the crash, but sustained a fractured wrist and hip. Seeing that the other four crewmembers were all more severely injured and in some cases unconscious, he repeatedly returned to the burning aircraft to recover them, even though he was severely burned. He carried them to the safety of an ARVN fighting position and cared for them until all could be rescued. His actions saved the lives of three countrymen and earned him the Medal of Honor.<sup>81</sup>

### **Stateside**

After graduating from the MSC Advanced Course, new Maj. Jim Truscott was assigned to the 18th Medical Brigade at Fort Meade as the S-1 (personnel officer). Still on flight status, he flew with the 212th Med Det (RA), also stationed at Fort Meade, to maintain his currency. The unit regularly flew missions moving patients from Andrews Air Force Base to the Walter Reed Medical Facility in Washington, DC, or to other regional hospitals. On occasion, he flew the Army Surgeon General to locations outside Washington. A year later, he was trans-

ferred to the Surgeon General's staff and worked on avionics and navigational equipment upgrades for the MEDEVAC helicopters. He further enhanced his career when he was selected to attend the Army Command and General Staff College at Fort Leavenworth, Kansas. He remained in Kansas for another year to complete a master's degree at the University of Kansas. He was being prepared for bigger and better things.<sup>82</sup>

## **Doctrine**

### *FM 8-10, Medical Support Theater of Operations, April 1970*

Based on its experiences in Vietnam, the Army Medical Department updated its doctrinal manuals. The FM that defined and directed support for an army in the field was FM 8-10, which was out of date and revised in April 1970. The manual described concepts of operation in broad terms. From it would cascade more specific guidance to lower echelon units, primarily in the form of tactics, techniques, and procedures, for specific equipment or the accomplishment of specific missions. It defined aeromedical evacuation as "...the movement of patients to and between medical treatment facilities by aerial vehicles that are specially crewed and equipped to accommodate patients and to provide required in-flight medical care."<sup>83</sup>

It also detailed eight principles for care and treatment including the following:

1. Health services must be continuous for best chance of survival.
2. Higher echelon commands will evacuate patients from the lower echelon units.
3. No soldier will be evacuated farther to the rear than his physical condition warrants or the military situation dictates.
4. Control of medical support resources must rest with the medical staff officer or commander having responsibility for providing health services within the command.
5. The medical means must be as close to the casualties as time/distance factors and the tactical situation permits. Early collection, sorting, and treatment of patients must be provided.
6. Medical support must be flexible and adaptive to changes in tactical plans or operations that may require redistribution of medical resources.
7. Medical units must have mobility comparable to that of the units they support.
8. Medical support must conform to the tactical plan and should be provided adequately at the right place and right time.<sup>84</sup>

This manual indicated that in a theater of operations, a medical brigade would be assigned to the field army support command. The brigade would command, control, plan for, and operate the field army medical support system. It could command and control as many medical groups as necessary to provide needed medical support. Normally, the 25-ship air ambulance medical

companies would be assigned to the various groups. Helicopter ambulance medical detachments would be assigned at the brigade, group, or subordinate battalion level as necessary to provide necessary evacuation support. The air ambulance companies and detachments would be responsible for evacuating all categories of patients to designated medical facilities and would be on an “on-call” basis, with priority given to those most seriously wounded. Aeromedical evacuation was the preferred means of evacuation, as part of an overall integrated evacuation system that was designed quickly to move the wounded to needed medical care.<sup>85</sup>

FM 8-35, *Transportation of the Sick and Wounded*, which was published in 1970, further amplified the guidance in FM 8-10. This FM, which focused on patient movement, was a “how to” manual that provided specific and detailed tactics, techniques, and procedures for the manual carrying of patients and their transport using rotary-wing and other vehicles.<sup>86</sup>

Based on the updated doctrinal guidance, over the next year, the AMS also developed updated TO&Es for the various MEDEVAC companies and detachments. The detachments could be equipped with up to six aircraft and generally be assigned to a field army medical brigade, theater army medical command, or an independent corps, division, task force, or special action force. Their specific mission was to perform medical evacuation functions where units of less than company-size were needed, or to increase the evacuation capabilities of fixed-strength units where increments of less than company-size were needed. Generally, one detachment was allocated for each division or equivalent force supported and two for each corps or equivalent force supported. They were designed for highly mobile operations, but required a great deal of logistical support from supported units.<sup>87</sup>

The companies were assigned up to 25 aircraft and could be subdivided into as many as four platoons, each similar to a detachment. The companies generally were assigned to a field army medical brigade or a major medical command of an independent corps or task force on a one-per-one basis. The companies were robust units and could maintain 24-hour operations as well as perform their own organizational maintenance on all equipment except medical items and aircraft avionic equipment. They also relied on higher echelon units for more general support.

Their specified tasks for both the detachments and companies were to provide the following:

1. Aeromedical evacuation of selected patients;
2. Emergency movement of medical personnel and accompanying equipment and supplies; and
3. Uninterrupted delivery of whole blood, biologicals, and medical supplies.<sup>88</sup>

All companies and detachments were organized under these two TO&Es. Again, there was one organizational exception. Units like the 101st Airborne Division (Airmobile) that were designed around the air mobility inherent in helicopters,

would maintain—within its medical battalion—its air ambulance platoon of 12 aircraft that were organic to the unit and integrated into the medical structure. The platoon was usually located near the battalion headquarters for quick response, but could be forward-located with maneuver units. The platoon also had an aircraft maintenance section for organizational maintenance. Division aviation maintenance units provided higher level maintenance to the air ambulance platoon.<sup>89</sup>

### **More New Units and Redeployments**

In 1971, several MEDEVAC units were formed. The 32d Med Det (RA) activated at Fort Ord under the command of Capt. Merle Snyder; the 78th Med Det (RA) activated at Fort Carson; and the 151st Med Det (RA) activated at Fort Bragg. Additionally, units started returning from Vietnam. The 498th Med Co (AA) redeployed to Fort Stewart, Georgia. Throughout the year, the flow of units coming back to the United States was continuous. Many of the units inactivated or consolidated with others.<sup>90</sup>

Foust left his assignment with the 421st Med Co (AA) in Germany and reported to Vietnam in June 1970 for a second tour. Initially, he served as a safety officer with a medical battalion. In April 1971, he was assigned as the commander of the 237th Med Det (RA). The unit was based near the ancient city of Hue, not far below the Demilitarized Zone. Initially, his crews supported units throughout Military Region One. When other units departed for home, the 237th was given four more aircraft and crews and functioned as a company minus. His unit supported the Vietnamese incursion into Laos called Lamson 719, and had one aircraft shot down and many shot up. Foust logged more than 2,000 hours of combat flying and returned home after 18 months when his unit was subsequently redeployed to the United States. He reported again for duty at Fort Sam Houston.

After attending the MSC Advanced Course, he joined the 507th Med Co (AA) for an 18-month tour as the operations officer and became an instructor in the Academy of Health Sciences. He used his combat experiences to instruct, mentor, and mold another generation of both rising Medical Corps and MSC officers.<sup>91</sup>

As 1972 began the 236th Med Det (RA) redeployed from Vietnam to Fort Sam Houston. 1st Lt. Art Hapner, who had been drafted into the Army in June 1969 just as he graduated from college, joined the 236th. While training to become a preventive medicine specialist, he had a chance encounter with Capt. Ray Salmon, a Vietnam MEDEVAC pilot veteran, who asked him if he had a college degree and wanted to become a MEDEVAC pilot. Hapner answered in the affirmative and within six months he was a brand new MSC 2d Lt. Then he attended flight school at Fort Wolters and Fort Rucker and returned to Fort Sam Houston as a pilot with the small flight detachment at the Brooke Army Medical Center. He met and flew with several Vietnam veteran pilots like Capt. Hank Tuell, who took him out on several missions and taught him the finer points of flying. Tuell and those senior highly experienced warrant officers also taught him the value and importance of mentoring.<sup>92</sup>

By February 1972, only five detachments—the 57th, 159th, 237th, 247th, and the 571st—remained in Vietnam to provide general support to the rapidly

decreasing combat and support units. The air ambulance platoons left with their divisions. The 101st Airborne Division realigned as an air assault unit and retained the air ambulance platoon assigned to its 326th Medical Battalion. The 1st Cavalry Division restructured as an armored division, and its 15th Medical Battalion lost its air ambulance platoon.<sup>93</sup>

The remaining detachments continued to fly combat, especially when the North Vietnamese Army invaded South Vietnam in March. The enemy brought with them the very deadly SA-7 heat-seeking missile that directly threatened low flying aircraft such as the UH-1. This missile dictated a change in tactics. No longer could MEDEVAC helicopters hold a hover for any time for jungle recoveries. They had to stay in motion at very low altitude until landing. Until countermeasures could be developed for the aircraft, this was their only defense.

## **Europe**

In May, disaster struck the MEDEVAC community in Europe. A series of terrorist bombs exploded in front of the officer's club at the headquarters of the V Corps in Frankfurt, Germany. Thirteen people were wounded in the blast that also killed Lt. Col. Paul Bloomquist, veteran of two MEDEVAC combat tours in Vietnam and a former commander of the 57th Med Det (RA). He had been honored as the Army Aviator of the Year in 1965 and selected by the U.S. Chamber of Commerce as an outstanding young American. A few years later, the medical headquarters in Ziegenberg, Germany, was named for him.<sup>94</sup>

## **Last Units Out of Vietnam**

Later that year the 159th Med Det (RA) redeployed back to the United States. In February 1973, the 237th, 247th, and 571st ceased operations. Three weeks later, the 57th flew the last American MEDEVAC mission of the war when it picked up a patient with a severe appendicitis. The 57th—known forever as the “Originals”—was there from first to last.

In tribute to the contribution of the MEDEVAC units in the conflict, Gen. Creighton Abrams, then the commander of U.S. forces in Vietnam, said of them:

Courage above and beyond the call of duty was sort of routine for them. It was a daily thing, part of the way they lived, and it meant so much to every last man who served there. Whether he ever got hurt or not, he knew ‘Dustoff’ was there.<sup>95</sup>

Before Vietnam, Lt. Col. Spurgeon Neel had written recommendations for MEDEVAC employment based on experiences in Korea. Vietnam validated some and discredited others. He had recommended company-sized organizations as opposed to cellular detachments. The first two MEDEVAC units that went to Vietnam were the 57th and 82d, both cellular detachments, which depended on collocated aviation units for sustenance, logistics, and some maintenance. Eventually, two independent companies were deployed. However, they

were broken into dispersed platoons and suffered some of the same problems. Two air ambulance platoons were created within the medical battalions assigned to the 101st Airborne and the 1st Cavalry Divisions. They called on the resources of those larger units for necessary logistical support. Overall, it seemed that the arrangements for support for the MEDEVAC detachments were ad hoc and depended on whatever arrangements the commanders could orchestrate at their assigned location.<sup>96</sup>

Neel had also written that there was no real requirement for a separate communications net for the control of MEDEVAC. Events in Vietnam contradicted this. It was clear that the radio suite provided to the UH-1 gave the crews and medical regulating officers the ability to speak with whoever was necessary to facilitate the movement of the wounded or sick soldier directly from point of injury to the facility best able to provide for him.<sup>97</sup>

Additionally, Neel wrote, "...helicopter evacuation within the combat zone is the responsibility of the [AMS]." In Vietnam, initially, the first two units were assigned to the U.S. Army Service Group, Vietnam. Both were collocated with aviation units that provided their support. During this period, proposals were made at least twice to use them as general purpose units. It was not until 1966 that the 44th Medical Brigade activated and assumed control of all Army medical units in the country. It operated until all units were finally withdrawn in 1973. The two air ambulance platoons assigned to divisions were under division control. The officers within these platoons were MSC officers and knew how to plug their units into the medical system within the country. No patients were delivered to a hospital without talking to a 44th Brigade medical regulating officer.<sup>98</sup>

## **Results**

How did MEDEVAC do in Vietnam? The numbers are staggering and suggest that the system worked beyond all expectations.

- From May 1962 to March 1973:
  - 496,573 Dustoff missions were flown,<sup>99</sup> and
  - 900,000 casualties/patients were airlifted.<sup>100</sup>
- The Medical Department lost 199 helicopters in Vietnam from all causes. The loss rate of MEDEVAC versus non-MEDEVAC helicopters was 1.5 times higher. Hoist missions were the most dangerous with one of 10 hits reported on MEDEVAC helicopters occurred on hoist missions. Four hundred seventy pilots were killed or injured by enemy action or crashes. Of the crew chiefs and flight medics, 121 were killed and 545 were wounded.<sup>101</sup>
- Two officers, one warrant officer, and two enlisted soldiers are still listed as missing-in-action.<sup>102</sup>
- Two MEDEVAC pilots and one medic were awarded the Medal of Honor for their heroic actions:
  - Maj. Patrick H. Brady, for actions near Chu Lai, Republic of Vietnam on 6 January 1968.

- CW4 Michael J. Novosel, for actions in Kien Tuong Province, Republic of Vietnam, on 2 October 1969.
- Both pilots were on their second MEDEVAC tours.
- Sfc. Louis R. Rocco, for actions near Katum, Republic of Vietnam, on 24 May 1970.
- Three MEDEVAC officers, three warrant officers, and three enlisted soldiers were awarded Distinguished Service Crosses.
- One MEDEVAC officer was awarded the Navy Cross.

Perhaps the best single analysis of MEDEVAC in Vietnam was written—again—by now Maj. Gen. Spurgeon Neel, who noted toward the end of the conflict in 1972:

Getting the casualty and the physician together as soon as possible is the keystone of the practice of combat medicine. The helicopter achieved that goal as never before.... The technical development of the helicopter ambulance...the growth of a solid body of doctrine and air evacuation procedures, and the skill, ingenuity, and courage of the aircraft crewmen and medical aidmen who put theory into practice in a hostile and dangerous environment made possible the hospitalization and evacuation system that evolved in Vietnam.<sup>103</sup>

To those who had argued that “Aeromedical evacuation is an **aviation mission** which entails **the movement of patients**,” the actions of men like Charles Kelly, Patrick Brady, Mike Novosel, Louis Rocco, and so many others counterargued and proved through their actions that no, aeromedical evacuation was really “a **medical operation** which entails the **use of aircraft**.”<sup>104</sup>

These accumulated experiences brought to fruition the vision of Neel. They established MEDEVAC as a military medical mission that needed its own doctrine and units of detachment and company size, and all under medical control—very possibly in the form of a medical evacuation battalion structured to treat MEDEVAC as a system designed to bring forth the best of the combination of medicine and aviation. They showed that the ever improving helicopter could be a key element in the evacuation process that brought wounded soldiers into the hands of those medical specialists and physicians who could properly treat his wounds. They showed that a cadre of officers and soldiers who were well founded in the intricacies of both elements of that system was needed to forge that “togetherness between medical and aviation” advocated by Neel.

\* \* \* \*

It was a proud heritage, one that would carry the MEDEVAC community into the future with confidence and pride, as rising young officers like Doug Moore, Jerry Foust, Jim Truscott, Pat Brady, and so many others mentored the newer troops and made MEDEVAC and the Army even better. It was the kind of heritage that could attract young soldiers into selfless service.

But the MEDEVAC community as well as the Army at large needed time to recover from the strain of the long Vietnam War before addressing new challenges that would arise.