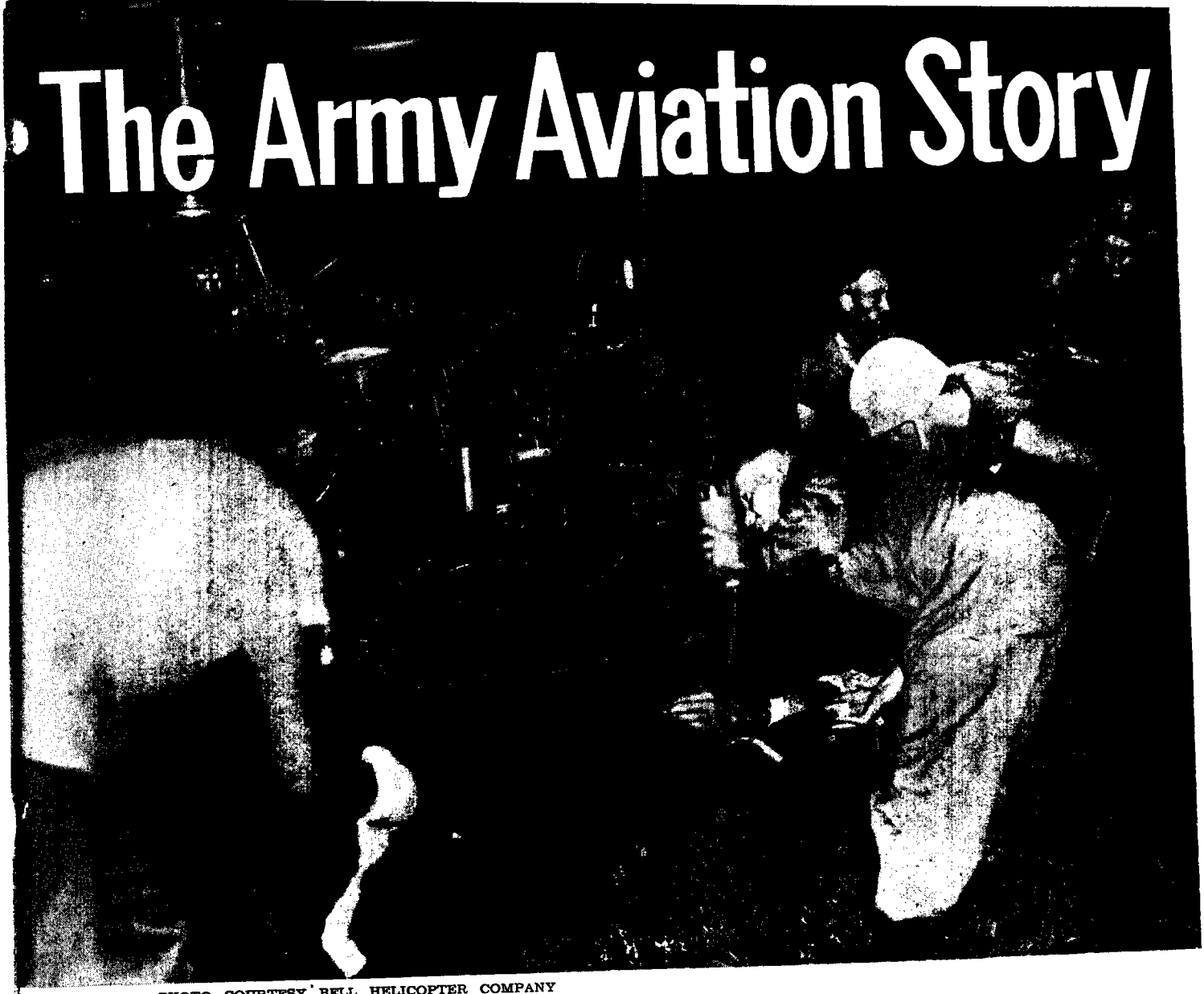
The Army Aviation Story



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Part IX, Medical Evacuation

Col Spurgeon H. Neel and Maj Roland H. Shamburek

This is the final chapter in The Army Aviation Story. The nine-part series started in June 1962 to commemorate the 20th anniversary of Army Aviation. Over a year of research, interviewing, and cross-checking of material to ensure accuracy, plus innumerable rewrites preceded publication. This is the most comprehensive treatment of the subject to date. Admittedly, some discrepancies exist, but we trust that our readers will continue to channel into our office pertinent authentic data which will complete the story.

CRITICALLY wounded PFC Gene A. Thaxton didn't realize it, but as he was being carried down the back side of a battle-scarred Korean hill in early 1952, a helicopter was already en route to evacuate him. Within minutes he was being administered whole blood at an aid station bunker directly behind the front line. Almost simultaneously Capt Hubert D. Gaddis arrived in his H-13, picked up Thaxton, and immediately left for a Mobile Army Surgical

Hospital (MASH).

Captain Gaddis had fastened the bottle of whole blood to the inside of the helicopter and continued to administer blood during the flight. Thaxton lay in an evacuation bag in an externally mounted litter and was shielded from the biting wind by a transparent pod covering his head. In less than half an hour he entered surgery, still receiving blood from the same bottle the battalion medical officer had started at the front.

Later Thaxton had some well deserved praise for medical evacuation helicopters and the men who flew them. "They're pretty wonderful..." he recalled from his hospital bed. "I guess they've saved a lot of lives—I guess they've saved mine."

This is a true story, and, while it is no more or less representative than thousands of others, it is significant in that Thaxton was the 10,000th helicopter evacuee of the Korean War. Indeed, the Army's concept of frontline aerial evacuation of casualties had come a long way, but it had also traveled a long, rough road since the early 1900s when it was not only considered mechanically impossible but also militarily unfeasible.

THE FIRST EXPERIMENTS

In 1910 appeared the first known report of an aircraft equipped for the transport of patients. Captain George H. R. Gosman and Lt A. L. Rhoades, both Army officers at Fort Barrancas, Fla., modified at their own expense and flew an airplane for transporting patients. Captain Gosman reported their findings, hoping the War Department would authorize funds for further improvements and recommend such aircraft for the transportation of medical supplies and patients. However, he was unable to arouse any interest. Two years later the Surgeon General recommended to the Secretary of War that specially modified aircraft be used for such purposes, but this proposal was similarly denied because airplanes were not considered to be sufficiently improved.

During World War I the airplane was used spasmodically to evacuate patients. In 1918 Maj Nelson E. Driver, Medical Corps, and Capt William C. Ocker of the Air Service converted a JN-4 (Jenny) into an airplane ambulance, which was used principally for return of patients from aircraft accidents. Usually the flight surgeon would fly out to a crash site with the "Jenny" pilot. There he would do what he could for the patient and help load him into the "Jenny." Then while the patient was being flown out, the surgeon would wait for either ground or air transportation.

In 1920 the first Army plane with a fuselage designed primarily for transportation of sick and wounded was built and flown at McCook Field, Ohio. This was a DH-4 model and carried a pilot, two litter patients, and a medical attendant. Several of these were used in operations on the Mexican border.

The Medical Field Service School at Carlisle Barracks, Pa., also experimented with aircraft for use in patient evacuations when in 1936 it field tested an autogyro as a forward evacuation vehicle. However, the idea was discarded, due more to engineering and budgetary reasons than for any defect in the basic concept.

In World War II the transportation of casualties within the forward combat zones was seriously limited by the availability and capabilities of existing aircraft. This is not meant to minimize the use made of converted L-4 and L-5B aircraft in the transport of casualties; rather it is to emphasize that it was not until the development of the helicopter that it became feasible to regularly evacuate wounded from the most forward installations.

In early 1943 a proposal to organize helicopters into air ambulance units was submitted to the Air Surgeon. But personnel involved could not reach a decision on whether to transport patients internally or externally in pods. The urgent wartime need for materials for other purposes caused this project to die a slow death.

However, units in combat soon discovered the helicopter's potential as a medical evacuation vehicle. On 3 May 1943 Col Philip D. Cochran, commander of the 1st Air Commando Group at Hailakandi, India, reported that his unit was using a two-place helicopter [R-4] daily to evacuate casualties from columns fighting in North Central Burma. This is the first known use of the helicopter for medical evacuation, certainly from behind enemy lines.

The first helicopter evacuation accomplished by Colonel Cochran's unit occurred late in 1942 or early in 1943 [exact date unknown] when a light airplane was forced down behind Japanese lines. The pilot and three casualties he was evacuating were not injured. A message was dropped to the group informing them to burn their aircraft and climb a nearby ridge, where food and supplies were dropped.

Realizing it would be impossible to rescue the group by light airplane, Colonel Cochran called on his helicopters. An R-4 was sent from Lalukhet, India, to Jorhat, Ledo, and Taro [India], the latter a base for light plane operations in North Burma. At Taro the R-4 was fitted with an L-5 gasoline tank and then flown non-stop across the mountains to a forward base about 25 miles from the downed group.

Another message drop instructed the isolated men to make their way to a rice paddy, from which the helicopter rescued them one by one. Thereafter the R-4 was placed in regular use as a medical evacuation vehicle in that area, and in the next several days 18 missions were flown.

Although designed to carry only one passenger, R-4s in North Burma evacuated two at a time; it also accommodated stretcher cases, which were carried on the outside of the fuselage. In May 1943, Colonel Cochran stated, "We want people to know that it's not just a stunt. It really works. Just imagine what we could do with a couple hundred of them [R-4s]...."

SLOW GROWTH

Between World War II and the Korean War only occasional use was made of reconnaissance and utility aircraft for medical evacuation; procedures and modifications were developed on a local basis. There was no real organized aeromedical evacuation capability, due largely to the absence of the stimulus of active combat. Extreme competition for the limited organic air support available pushed medical evacuation well down the priority ladder when requested for training and field exercises. In essence, air evacuation was limited to that provided by Air Force elements located near or adjacent to Army troop concentrations.

Finally, the National Security Act of 1947 (and subsequent documents clarifying roles and missions) made the Army responsible for

> "Aeromedical evacuation within the Army combat zone to include battlefield pickup of casualties (except those from an airhead or airborne objective area which is supported by Air Force air landed logistical support), air transport to initial point of treatment and any subsequent moves to hospital facilities within the Army combat zone."

These words provided Army Aviation with the frontline medical evacuation mission, but at that time the hardware needed to effectively perform this mission still had to be procured.

By 1949 helicopter development had progressed to the point that several types of helicopters became available to the Army for field testing. In the summer of that year a board was convened at the 82d Airborne Division, Fort Bragg, N. C., in conjunction with Army Field Forces Board No. 1 to conduct tests and make recommendations relative to medical evacuation by helicopter. The test vehicle was an early Sikorsky H-18 helicopter with forward clamshell doors. It was capable of transporting two internal litters and a medical attendant in addition to the pilot. After extensive tests, this board concluded that helicopter evacuation was both feasible and desirable, and it made specific recommendations concerning further development.

Organized use of helicopter ambulances and the development of a real aeromedical evacuation capability by the Army was delayed until the onset of war in Korea in mid-1950. The helicopter had been accepted as an organic vehicle by the Army, and the stimulus of active combat reawakened command interest in the evacuation of battle casualties. Korea is considered the beginning of Army aeromedical evacuation.

The origin of helicopter evacuation in Korea was not the result of any preconceived plan; it was more the result of expediency (a most common cause of military progress). During the early days of the war (June 1950), helicopter detachment F [H-5s] of the Third Air Rescue Squadron (USAF) began to receive requests from forward ground elements for the evacuation of patients from areas difficult to reach by ground vehicles. Inasmuch as this unit was not fully occupied with its primary mission of rescue, it responded to those calls and flew many heroic sorties. By August 1950, this detachment was answering so many calls that it found itself in the medical evacuation business.

Quick to note the advantages of helicopter evacuation in the mountainous Korean terrain, the Eighth Army developed a keen interest in the operations of this Air Force helicopter detachment. On 3 August 1950,

Army and Air Force representatives tested the concept of helicopter evacuation in the school yard of the Taegu Teachers College. As a result, the Army accepted helicopters for aeromedical evacuation and developed the first procedures to use. Shortly thereafter, the Surgeon General of the Army (then on tour of the Korean theater) urgently requested Department of the Army to send a substantial number of helicopters to Korea for use in medical evacuation. Simultaneously, a senior representative of the Surgeon General of the Navy urged that helicopter landing pads be constructed on the fantails of all Navy hospital ships to allow aerial evacuation direct from the battlefield.

In November 1950, the Second Helicopter Detachment arrived in Korea to be used for medical evacuation. Initially assigned to the 47th Light Aviation Maintenance Company at Taegu, members of this unit spent the remainder of the year assembling their newly arrived H-13s. Since the aircraft were not equipped to carry external litters, the group obtained Stokes litters from a Navy hospital ship and modified and mounted them on their H-13s to externally carry patients. On 1 January 1951, the Second Helicopter Detachment became operational and flew from Taegu to Seoul, where it was attached to the 8055th Army Unit.

Credit for the first Army helicopter evacuation in Korea is shared by 1st Lts Willis G. Strawn and Joseph L. Bowler. On 3 January 1951 Strawn and Bowler flew their H-13s from Seoul to an area about 60 miles northeast of Seoul. Each picked up one wounded American soldier and returned to an Army hospital at Seoul.

The Second, commanded by Capt Albert C. Sebourn, actually received its first baptism of fire on 14 January when its four pilots and four H-13s evacuated 23 critically wounded soldiers from a surrounded battalion. Despite enemy small arms fire, in 2½ hours all of the wounded were evacuated 25 miles. The four pilots who flew this mission —Captain Sebourn and 1st Lieutenants Bowler, Strawn, and Joseph Hely—were later each awarded the Distinguished Flying Cross for their work in Korea.

Late in 1951 Lieutenant Bowler established a Korean War medical evacuation record. In 10 months he had accomplished 824 medical evacuations in 482 sorties. One year later at the Army Medical Field Service School at Fort Sam Houston, Texas, Lieutenant Bowler met Lt William P. Brake, an old friend and rival who was en route to Korea. Brake, who arrived in Korea in March 1952, vowed that he would remain until he broke his friend's mark of 824 evacuees. It became necessary to extend his stay, but Lieutenant Brake flew his 824th and 825th evacuees on 22 April 1953. He decided to remain in Korea until he reached the 1,000 mark, but on the morning of 14 May 1953 Brake flew his 900th evacuee in the Chorwon area and decided it was time to go home. While establishing this record he flew 545 missions and accumulated 700 hours.

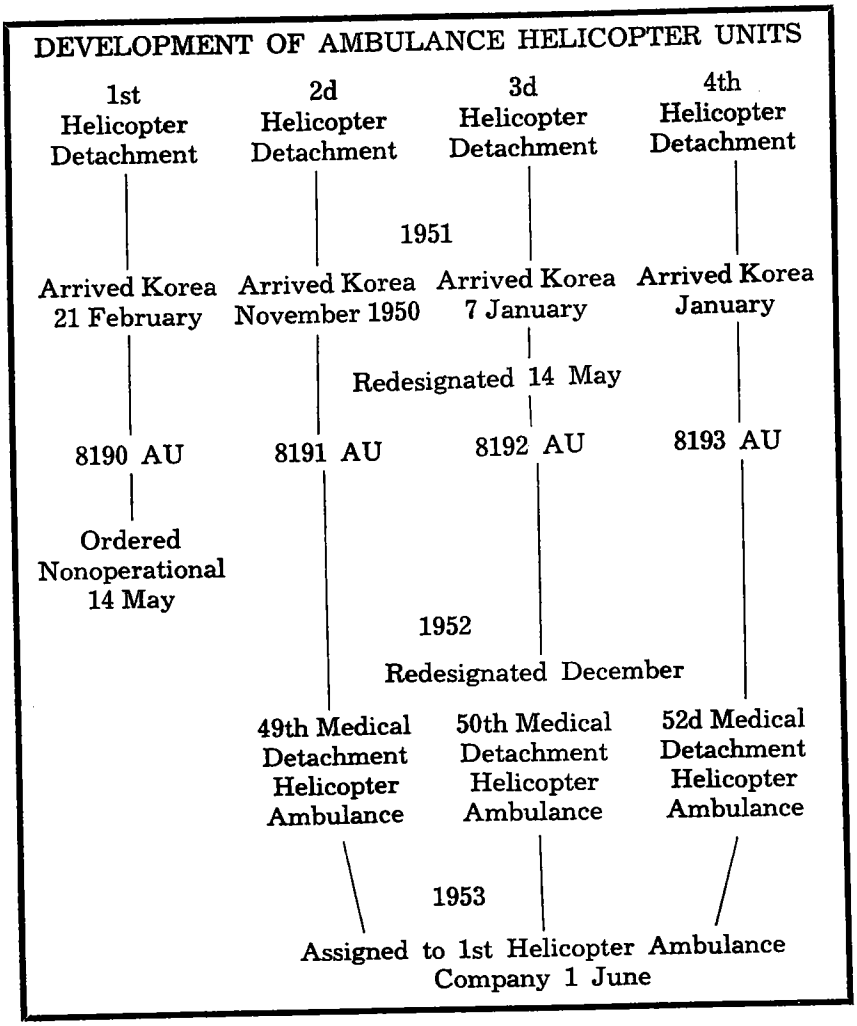
In January 1951, the Third and Fourth Helicopter Detachments arrived in Korea with minimum operating personnel and four H-13 aircraft each (see box). In February 1951 the First Helicopter Detachment arrived. At that time all helicopter detachments used for medical evacuation were assigned to the 8085th Army Unit, Eighth Army Flight Detachment. They were attached to forward surgical hospitals, but were under the operational control of the Eighth Army surgeon.

The early days of these helicopter evacuation detachments were quite stormy, reflecting the chaos of Korea in early 1951. The Fourth Helicopter Detachment suffered a complete breakdown of all its aircraft and was returned to a rear area for reequipping. It did not become operational again until March 1951. The First Helicopter Detachment never became operational. The three operational detachments, despite recurrent maintenance problems, especially shortages of high octane gas and inadequacy of spare parts, performed exceptionally well. With only eleven reconnaissance helicopters, the detachments evacuated 1,985 patients during the first six months of 1951. This record is even more remarkable when it is realized that only one or two patients could be evacuated per sortie.

In May 1951, all helicopter

THE ORIGINAL THIRD & FOURTH HELICOPTER DETACHMENTS

Third	*Fourth*
Maj Arne Eliasson, CO	Capt James E. Childers, CO
Capt Homer Johnson	Capt Henry J. Lamar
Capt Douglas Moody	Capt Harry W. Wiltse
Capt Elbert Drane	Capt Dayton L. Warren
This detachment evacuated 77 wounded from Heartbreak Ridge during that bitter engagement.	This group set an intra-detachment record of 68 evacuees in one day.



ambulance detachments were redesignated (see chart) and their organization standardized (at least within Korea). The First Helicopter Detachment was inactivated and its personnel and equipment transferred to the three operational detachments, bringing them to five reconnaissance helicopters each. Despite all difficulties encountered, the three operational detachments evacuated 5,040 casualties during the first year of operation and logged a total of 4,421 flying hours.

Meanwhile, the Surgeon General was making efforts to establish a specific Table of Organization and Equipment (TOE) for aeromedical evacuation units. Based on the Korean experience (and certain staff expediency), decisions were made in favor of the cellular detachment organization rather than the larger self-sufficient company organization adopted by transportation cargo helicopter elements. In August 1952, Department of the Army authorized the Helicopter Ambulance Unit, TOE 8-500R, Cell RA. This detachment contained five reconnaissance helicopters, seven Medical Service Corps officer pilots, and essential supporting personnel and equipment. With minor modifications, this unit is still the basis for field organization of such a cellular detachment.

In December 1952, the operating detachments in Korea were reorganized under TOE 8-500R, were designated Medical Detachments, Helicopter Ambulance, and became medical units for the first time. In the spring of 1953 two additional helicopter ambulance detachments were organized in Korea, one operational and the second a "paper" organization.

Army Aviators played prominent roles in Operation Little Switch, which involved the exchange of wounded or sick prisoners of war from 20 to 26 April 1953. Helicopter pilots of the 50th Medical Detachment, Helicopter Ambulance, evacuated repatriated United Nations' prisoners from the exchange site at Panmunjom to field hospitals near Munsan-ni (dubbed Freedom Village). The exchange wounded were then taken from Munsan-ni to other rear areas by H-19s of the 6th Transportation Co.

Captain Gaddis, CO of the 50th Medical Detachment, evacuated the first two wounded in Operation Little Switch—one a Turkish soldier and the other an American. General Mark Clark met both at Munsan-ni; within minutes he welcomed two more, who were flown into the area by Capt Earl Russell.

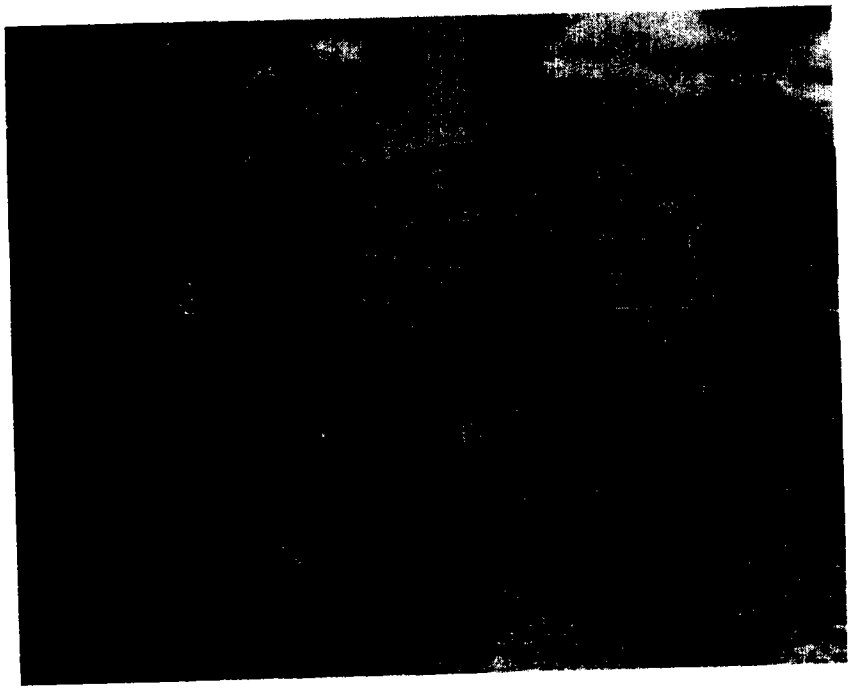
In May 1953, shortly before the cessation of hostilities in Korea, the First Helicopter Ambulance Company (Prov) was organized by Eighth Army. This unit, organized and commanded by Captain Gaddis, consisted of the four operating detachments, with the fifth being used as the company headquarters. Even in the short combat period that remained, the operational, administrative, and logistical advantages of the company versus detachment organization became obvious. This provisional unit was retained even

after the end of hostilities. It served as the prototype for the present day medical air evacuation companies.

Between 1 January 1951 and the cessation of active hostilities on 27 July 1953, helicopter detachments under the control of the Army Medical Service evacuated a total of 21,212 casualties. The availability of forward helicopter evacuation (along with whole blood) contributed considerably to achieving the lowest mortality rate of wounded reaching medical channels of any major war to date.

The preceding paragraphs are not intended to imply that these small units represented Army aeromedical evacuation in its entirety. Division aviation elements evacuated many patients throughout the campaign, particularly during the early hectic days of combat when organized medical air evacuation was not available. Medical evacuation was considered an ancillary mission of these units, and operating procedures were developed on a local basis. It is difficult to measure their contribution in terms of specific numbers of patients moved, as record keeping was secondary to more immediate problems. The First Marine Division placed specific emphasis on helicopter evacuation; and it perfected the technique of direct evacuation to U. S. Navy hospital ships, a technique later exploited by Army helicopter evacuation units.

Toward the end of the Korean War, two Transportation Corps helicopter companies, the 6th and 13th, were operational. These companies, each containing twenty-one H-19 helicopters, achieved an enviable record in mass aeromedical evacuation in support of medical aviation units. They moved casualties at the request of medical staff agencies and patient regulation was smoothly effected. Similarly, helicopters of the U. S. Air Force Air Rescue Service continued to perform special missions at the request of the Eighth Army surgeon. These aircraft, equipped with special communications and navigational means, as well as flotation gear, were especially suited for overwater evacuation in support of isolated Army units operating on off-shore islands.



A wounded infantryman is loaded into an H-19 in Korea in 1953

While helicopter evacuation units became medical detachments after December 1952, the first Medical Service Corps pilots were not trained until 1953 and did not arrive in Korea until one month after the end of hostilities. During the entire combat period, aeromedical evacuation missions were flown by line pilots of the Artillery, Infantry, Armor, Transportation Corps, Corps of Engineers and Signal Corps. These officers were dedicated to their mission, and several of them subsequently transferred to the Medical Service Corps.

DEVELOPMENTS AT HOME

Army interests and activities in aeromedical evacuation were not limited to the Korean battlefields; nor did it cease with the end of that war. In November 1952, an Army Aviation Section was established in the Medical Plans and Operations Division of the Office of the Surgeon General. This staff agency, redesignated the Aviation Branch in August 1956, is responsible for monitoring and supervising overall aviation medicine and aeromedical evacuation activities within the Office of the Surgeon General.

In late 1952, Brooke Army Medical Center, Fort Sam Houston, Texas, was selected as the site for activation, training, and

ARMY AIRCRAFT MEDICAL LOADS		
Rotary Wing		
OH-13	2 Litters	External
OH-23	2 Litters	External
UH-19	6 Litters	Internal
UH-1A	2 & 1 Ambulatory	Internal
UH-1D	6 Litters	Internal
CH-21	12 Litters	Internal
CH-34	8 Litters	Internal
CH-37	24 Litters	Internal
CH-47A	24 Litters	Internal
O-1	1 Special Litter	
Fixed Wing		
U-6	2 & 2 Ambulatory	
U-1A	6 & 3 Ambulatory	
CV-2A	14 & 8 Ambulatory	

deployment of medical helicopter ambulance detachments. On 15 October 1952, the 53d Medical Detachment, Helicopter Ambulance, was organized from the 53d Malaria Control Detachment. Historically, this unit was the first medical helicopter ambulance detachment organized; the redesignation of operating detachments in Korea followed by some two months. Within one year, five helicopter ambulance units had been activated at this center.

Even during the Korean War it was decided that while there was a need for direct medical control of ambulance aircraft, there was no requirement for special purpose ambulance aircraft from the design or procurement standpoint. Instead, the policy was adopted that whenever practical all Army aircraft would be designed to incorporate a capability of transporting patients as an ancillary function. Therefore, the aeromedical evacuation mission is included in the development of military characteristics for all Army helicopters and utility airplanes.

In January 1955 a design competition was held to select the new standard Army utility helicopter. Each proposal was subjected to complete medical evaluation before being considered for any of the other functions for this aircraft. Such emphasis was placed on the aeromedical evacuation function that the winning proposal (Bell's HU-1) is frequently referred to as a "helicopter ambulance," in spite of the fact that it is a general purpose utility helicopter with a variety of functions.

Since the Korean War major efforts have been devoted to the development of improved field organization and procedures for the accomplishment of the Army's aeromedical evacuation mission. While this function is an accepted mission of Army Aviation, there has been less consensus as to the most effective organization for its accomplishment. Consequently, considerable attention has been given this mission in all major maneuvers and field tests conducted since the Korean War.

In addition to planned exercises utilizing and evaluating the capability of Army aeromedical evacuation, on numerous occasions Army helicopters have been called upon to assist in emergency rescue or evacuation missions. In the wake of Hurricane DIANE in 1955, Army helicopters and fixed wing aircraft helped rescue 900 persons, in addition to delivering 223,000 pounds of cargo. During this period over 900 flying hours and 109,000 miles were registered by the involved aircraft.

Also noteworthy is the record compiled by the 56th Medical Detachment (Fort Bragg, N. C.) and the 57th Medical Detachment (Fort Meade, Md.) during Operation Amigos (see DIGEST, August 1960) after the series of Chilean earthquakes and subsequent tidal waves in 1960. These units, each with five HU-1A helicopters, were flown by Air Force cargo carriers to the site of the disaster in Chile. In less than one week, the HU-1s were flown over 4,000 miles on rescue, evacuation and supply missions. During the first 3 days, approximately 8½ tons of relief supplies were hauled to remote regions. Almost every medical helicopter ambulance detachment or installation possessing helicopters has performed similar mercy missions but on a smaller, less-publicized scale. The helicopter has truly taken its place among rescue and evacuation vehicles in peacetime, as well as in wartime.

With the reorganization of Army field units, which began in 1955 and is continuing to date, a substantial aeromedical evacuation capability has been built into a variety of nonmedical units. Division aviation companies (infantry, airborne, and armored) contain utility and reconnaissance helicopters and utility airplanes, all capable of transporting patients. Corps and Army Aviation companies include a similar aeromedical evacuation capability. Utility air-

planes and cargo helicopters contained in Transportation Corps aviation companies, battalions and groups, provide a substantial supporting aeromedical evacuation capability. Medical control of the movement of patients by nonmedical aviation means is ensured through normal staff organization and procedure. An Army Aviation medical officer is included in each major command, and his duties include regulation of aeromedical evacuation by organic means.

Medical helicopter ambulance detachments have changed little since the end of the Korean War. There have been adjustments in unit dispositions but no reduction in their number, even during considerable cutbacks in supported troop strengths. This relative increase in the Army's aeromedical evacuation capability is a reflection of the increased reliance and emphasis placed on this type of evacuation by medical planners.

Recently, several medical air ambulance companies have been activated. Each of these companies consists of 25 utility helicopters of the UH-1 type, and are allocated on a basis of one per Army corps and one per field army. The current cellular detachment is being retained for the support of smaller task forces and as augmentation elements. Efforts are being made to secure fixed wing ambulance aircraft for the Army Medical Service, and selected Medical Service Corps aviators have qualified as fixed wing pilots.

In 1956 Department of the Army authorized the use of organic aircraft for the movement of patients between adjacent Army installations and from the sites of off-post accidents. No additional aircraft are justified on the basis of this mission, and local procedures are developed by appropriate medical and aviation officers. This use of Army aircraft for aeromedical evacuation within the continental United States accomplishes two primary objectives:

- It improves the caliber of the Army's medical service by providing a quick means of transportation to specialized military and/or aviation medical facilities.

- It provides medical and aviation elements with experience and training in the evacuation of actual patients. A prime example of this procedure is that in effect at Brooke Army Medical Center. Its helicopters ferry patients from the Military Air Transport Service terminal at Kelly Air Force Base to Brooke Army Hospital; they also pick up severely injured personnel within a 150-mile radius of San Antonio. This use of available Army Aviation is not considered an infringement on MATS, as the situations and numbers of patients involved are beyond MATS' scope of interest.

BASIC DEFINITIONS

Before summarizing current Army Medical Service policies regarding forward aeromedical evacuation, certain basic definitions are in order. The term "forward aeromedical evacuation" has a double connotation. *Geographically* it refers to the air movement of patients within the Army combat zone only. Here, immediate responsiveness to requirements and complete integration with other tactical and logistical operations are of the essence. This phase of aeromedical evacuation functions forward of the support provided by tactical aeromedical elements of Air Force troop carrier units. *Medically* it refers to that portion of the aerial chain of evacuation occurring forward of the first medical facility able to provide definitive medical treatment. Here timeliness of treatment, reduction of trauma, selectivity in evacuation, and complete medical control are essential.

Forward aeromedical evacuation may be further categorized as either "emergency" or "routine." These arbitrary categories establish the medical requirements to be met by organic Army aeromedical evacuation.

Emergency aeromedical evacuation is concerned with the rapid movement of seriously wounded soldiers where timeliness of treatment will determine whether they live or die. These men must be picked up quickly (on an individual basis) and evacuated directly to hospitals located *within* the combat zone. There must be no initial nor intermediate delays nor transloading. The selection of casualties for this type of evacuation and the designation of the treatment element to which individual patients should be taken are based on medical considerations related to the individual patient and the status of supporting medical facilities. These patients normally require detailed medical care during flight, and aircraft transporting them normally cross one or more Army tactical boundaries.

Routine aeromedical evacuation is indicated when surface means are either nonexistent, inadequate, or inefficient. Within the combat zone, these are patients who, other factors being equal, could well be evacuated by surface ambulance. In these cases, time is not of the same essence as in the emergency category. If adequate facilities are available in forward combat areas for collection, treatment, and holding, these patients may be held for reasonable periods

pending necessary arrangements for their evacuation. Such patients are usually moved by air only to the point where surface evacuation is available and further disposition and treatment can be accomplished. If properly selected and prepared before evacuation, routine air evacuees do not normally require detailed medical care during flight. Normally, air evacuation of routine cases is made only from units largely dependent upon air transport for resupply and other logistical support. This type of forward aeromedical evacuation resembles that provided by U. S. Air Force troop carrier and MATS elements to the rear of the combat zone.

In 1957 the Surgeon General of the Army authorized the issuance of certain policy statements as guidance for all medical and nonmedical agencies concerned with Army aeromedical evacuation. These policies are based on extensive experience gained in combat, field exercises, and operational analyses. Developed in a formal staff study (classified) they have been disseminated via several unclassified publications. (See box for statements of policy that have been guidelines in the organization and use of Army aircraft in aeromedical evacuation.)

The organization and procedures developed by the Army Medical Service apply specifically and exclusively to forward aeromedical evacuation of emergency casualties within the combat zone. They would be impractical and uneconomical if applied to tactical and strategic supporting aeromedical evacuation provided by the Air Force on MATS.

Today the United States Army stands on the threshold of a new era of airmobility which will meet the challenge of awesome weapons systems and rapidly changing strategic and tactical concepts. Whether our forces might become engaged in a general nuclear war over great land masses, or in counterinsurgency operations in a tiny, distant land, or in a combination of both, it is certain that the agonizing cry of the wounded will be heard. Army surgeons have gone about as far as they can in reducing the death rate of the wounded who reach their hospitals. To further reduce this mortality rate, we must turn to improved medical evacuation from combat areas. The only answer is the constant betterment of Army Aviation and the aeromedical evacuation program.

- Aeromedical evacuation within the combat zone is an accepted mission and capability of organic Army Aviation.
- Warfare of the future will be characterized by an increased use of organic Army Aviation for both emergency and routine aeromedical evacuation within the combat zone.
- Within the Army, the Army Medical Service has the basic technical responsibility for all medical evacuation, whether by surface or aerial means.
- The Army Medical Service requires sufficient organic aviation of the proper type to enable it to accomplish its continuing mission of rapid evacuation of the severely wounded directly to appropriate medical treatment facilities.
- In the future, both fixed and rotary wing ambulance aircraft will be required for the combat zone aeromedical evacuation mission.
- Ambulance helicopters are required for the forward pickup of casualties and their transportation to initial points of treatment and to hospitals capable of resuscitative surgery.
- Ambulance airplanes are required primarily for the longer lateral and rearward movement of patients needing special surgical treatment that may not be available in every forward hospital, or to bypass intermediate hospitals with long surgical lags.
- The company-type organization for the aeromedical evacuation function is superior to the current cellular detachment concept.
- Medical air evacuation units, either fixed or rotary wing, should be assigned to the field army to permit full exploitation of their capabilities and to facilitate shifting of evacuation support to meet actual requirements.
- The current procedure for requesting emergency aeromedical evacuation missions is adequate, but electronic means need considerable improvement to increase their reliability.
- The Army Medical Service does not require sufficient organic aviation for the entire Army aeromedical mission. The movement of nonemergency patients by air can be accomplished economically by making use of utility and cargo aircraft in conjunction with normal logistic missions, provided there is adequate medical control over the movement of patients.
- The Army Medical Service must maintain jurisdiction over all Army aeromedical evacuation, regardless of the category of patient or the source of the aircraft.