The AMEDD HISTORIAN

Army Medical Department Center of History and Heritage, Fort Sam Houston, Texas Number 46 Summer 2024

Contents

Medical Support for Operation Overlord

The Allied invasion of Normandy took place 80 years ago. The airborne drop and beach invasion were the most dramatic moments of Operation Overlord, and we have stories, reports, and analysis of those intense actions, but medical support for the operation started far earlier and continued well beyond just June 6. Planning included medical care on the beaches for the 20% estimated casualties, stabilizing them for evacuation, evacuating them, and providing hospital care in England. Care would need supplies, and there was a buildup of medical supplies – hundreds of tons arrived just in the spring of 1944. Hospital ships would be needed to take patients who would not return to duty back to the U.S., and the Army commissioned more of them. Medical replacements would be needed for the officers and men who would be killed, wounded, and captured. And the medical system would return many of the wounded to duty, helping win the fight against Nazi Germany.

Most of these activities were out of sight of the troops preparing for the invasion. The acres of hospitals – tens of thousands of beds just southern England alone – were the broad base of a pyramid, carried forward to keep troops healthy to invade (including outpatient clinics at the embarkation camps) and treat the inevitable casualties. Each division landing had an extra medical company attached, much as they had extra riflemen attached to their platoons.

The reports here will have different perspectives and information because there is no one account of all the Medical Department did in supporting Operation Overlord.

An Airborne Surgeon

Interview with MAJ Albert J. Crandall, M.C., 8 June 1945

[Major Crandall graduated from the medical school of the University of Vermont in 1933; his reserve commission lapsed in 1938. He volunteered and was inducted into the service 29 June 1942. He volunteered for overseas duty and was assigned to the 3d Auxiliary Surgical Group.]

…

In December 1943, we were recalled to the headquarters of the Third Auxiliary Surgical Group, in preparation for the coming invasion of the Continent. In February a call was issued for volunteers to be trained for parachute and airborne operations. I volunteered and was assigned as leader of the First Airborne Surgical Team. In March 1944, we were attached to the 101st Airborne Division. From then until D-Day we spent our time organizing and training a small surgical group to serve this division. Training consisted of orientation and airborne tactics, designed to develop a surgical unit that could work efficiently when isolated, that is, without channels of evacuation. The orientation was given on airborne transportation, training in the loading and dispersal of equipment in preparation for flight, maneuvers, and problems, until the last week in May, when we were sent to the marshaling area in preparation for the invasion of Normandy.

Little was known at that time about the problems of airborne surgery, and all that we had or did was based on theory rather than on actual knowledge. My team was the first surgical team ever to be attached to on airborne division, and up to that time the 101st Division had never been committed in actual combat. This sur-

gical team was composed of the usual personnel, except that there were no nurses. Our equipment consisted of two general surgical sets. We also requisitioned specialized instruments, such as neurosurgical instruments and orthopedic instruments, which we knew we would need, because we were the only surgical team accompanying the clearing station in the invasion. Our equipment was not adequate; after the first operation we made some slight changes.

We had expected that most of the clearing company would be airborne in the invasion. Instead, because of the military situation, at the last minute all the gliders except one were eliminated. The clearing company was to be seaborne or else to go in on a second airborne wave, which meant that our team would be the only medical unit to accompany the assault wave in the invasion of Normandy. In order to accomplish this, it was necessary to pack all our equipment in a single 1/4-ton trailer, which in turn was put into the glider. Three of the medical personnel were also in this glider. The others were dispersed among other planes. It was planned that the seaborne and later airborne elements would get in touch with us as soon after landing as possible. (The 82d Airborne also had a surgical team attached, but they came in the night of D-Day. Therefore, ours was the only team to accompany the assault wave.)

We landed near Hiesville in Normandy at approximately H-4, or 0300, on D-Day. Our mission was, first, to cover all landing zones and to render emergency treatment in the zones in which we leaded and nearby zones. Next, the team members were to assemble at a designated point. Following that we were to establish a surgical station and operate it until contacted by later elements.

The plans worked out very well, considering the difficulties involved. All the landings were made on small fields and in total darkness. It was inevitable that they should all be crash landings. The planes were scattered over a wide area. Our plane landed approximately two miles from the spot selected, in a location surrounded by enemy positions. I believe that it was truly remarkable that I was able to reach the rendezvous point, for this meant crossing enemy-held territory in the dark. Between 0300, when we landed, and 0500, I made my way across the enemy territory and arrived at the rendezvous point. Another of my men was four miles from the rendezvous point, so that he had an even more difficult task. Every member of the team was injured, some severely. Captain Rodda, for instance, received a costochondral separation of three ribs, which must have been very painful. When I first saw him, at approximately 1200 on D-Day, he seemed to be in very severe pain. I received a neck injury in the crash, an injury to my right eye, and a severe contusion of the back of the neck. The landings were made in small fields surrounded by trees twenty to forty feet in height. Our glider was the first one onto the field on which we landed; there had been no friendly troops there before us.

As far as the infantry operations were concerned, I believe that this phase of the invasion was entirely successful. Without this airborne landing it would have been difficult to secure the beach.

On my way to the rendezvous I noted much small-arms and mortar fire and plane activity. When I arrived, two other officers and three technicians were already there. With the exception of one officer, they had landed at the designated location. The glider carrying our equipment landed in the assembly field in a crash-landing. The equipment was not damaged. We were able to remove it by hacking away the side of the glider; this was done under mortar fire. Fortunately, we were near a ditch, close by a hedgerow. When the mortar fire was heavy, we stayed in the ditch. One dud landed directly under the glider. If it had exploded, we would have lost the glider, equipment, and probably part of our personnel.

We had depended on our 1/4-ton truck (jeep) to transport our trailer from the assembly point to a chateau in Hiesville that had been selected from aerial photographs as a good location for us. However, the glider carrying the jeep crashed upon landing, and the jeep was totally destroyed. Two occupants of the glider were killed, the pilot suffered two broken legs, and one occupant received a severe head injury. Therefore, we had no organic transportation. Luckily, there was a small artillery group coming in at this time who were using jeeps to tow their 37s [37mm anti-tank guns]. They had lost one gun, and consequently had an extra jeep, which they lent to me.

One of the enlisted men and I got in the jeep and set off for the chateau. In order to get there we had to travel the rough fields rather than the highways, because the instructions to our Air Force were to blast anything that moved on the highways. All this area was still in the hands of the enemy. We had to bypass enemy machine-gun positions and other enemy concentrations, so that our route was very circuitous. We had no reconnaissance, of course; we were entirely on our own.

We reached the chateau shortly after 0700 and immediately set up a surgical station, the first one of the invasion. About 1200 three other members of the team arrived at the chateau and by 2030 or 2100 the station was in operation and doing major surgery. We were operating three tables continuously, doing all types of surgery. We established a definite system for priority on cases; first we did the heads and chests and next the abdomens and extremities, by 1400 all our personnel had arrived, so that we had our full complement. However, this proved entirely too small a group to handle such a large number of casualties. This was our main problem.

Gliders fly some of the second wave of the 101st Airborne into action. U.S. Army photo.

Before we took off for Normandy, we had felt that transportation would be a big problem. We couldn't quite visualize how the casualties would reach us. We certainly would have no transportation to go out to get them and bring them in. However, this proved no problem at all. The casualties came in in every conceivable way. We used our own truck whenever it could be spared. Captured enemy vehicles ware used, as well as horses, improvised litters and drags, and any other available means. Within an hour after we opened our station, the entire courtyard was filled with casualties awaiting treatment.

We estimated that at the landing fields alone we treated 125 casualties. At the station we cared for 250 to 300.

Our food situation was not very good--all we had was the "D" rations (chocolate bars)–but we managed well enough on these. We used a lot of benzedrine also to keep us going. The night of D-Day the second airborne echelon arrived. Casualties were not as heavy as in the first wave, although some of the gliders landed on the same fields that we had used that morning. Some men were captured and many were killed, because the enemy was still occupying the same positions.

However, enough medical personnel came in with the second wave to enable us to operate five tables continuously. (Three were men from the 326th Airborne Medical Company.) The seaborne echelon arrived that night also. The men in this wave made their way up and across the beaches and made contact with the paratroopers who had landed further inland and then made their way toward the beaches. Thus a corridor was established there. The newly-arrived medical personnel had no equipment with them, and so it was necessary for them to use ours. This proved to be fairly satisfactory. However, even with the additional men from the clearing company our main problem was still personnel. There just weren't enough hands to do the work. We had to maintain a careful priority system, operating on those who were most in need of surgery and giving the others emergency treatment. All patients received excellent treatment for shock; we were very careful about that.

The casualties were held there until evacuation was established. The first evacuation of any consequence took place just before noon on 9 June. If we had had more surgical help in the intervening period, I feel sure that we could have. saved more patients. However, the surgical mortality rate not excessively high. I checked later with all the general hospitals in England that I could, and from all reports our mortality rate compared favorably with that found in any field or evacuation hospital. We were in France for thirty-seven days; by the time I returned to England our casualties were scattered throughout the British Isles, and in fact, many of them were back in the United States. Therefore, it was very difficult to get a report on casualties.

We operated at the chateau until 2345 on 9 June. At that time we were attacked by dive bombers and the entire station was destroyed. There was one direct hit, and a delayed-action bomb that struck twenty-five or thirty yards from the hospital. This was a 1,000-kg bomb, and when it exploded, it totally destroyed the chateau.

I was performing an operation at the time the first bomb struck. Fortunately, we had evacuated most of

our patients that afternoon, so that there were very few patients left in the hospital. However, we lost a lot of equipment and also some personnel. None of the surgical team were killed, although three were injured.

The following day we moved to another site, borrowed some tentage from other units, and set up again. We pieced together our equipment as best we could until we could be resupplied. On 10 June the 101st took Carentan and in that town there were several hospitals, formerly German-occupied, from which we obtained some instruments. We operated at that location for approximately three weeks, and then we moved to a point just south of Cherbourg, where we operated in a clearing station until the division was relieved. This occurred, I believe, on 13 July.

Then we returned to England, to the same barracks we had previously occupied. At this time we began a period of reorganization. We had learned many things from our experiences in the Normandy Campaign. For example, we had learned that a well-organized surgical service is absolutely essential to such an operation. The ordinary setup of the medical clearing station is not adequate. It cannot handle the medical care for an airborne mission, because when the unit is isolated, it must act as a field or evacuation hospital. It is essential to set up the various departments–triage, shook, preoperative, operative, and postoperative (because there is no way of estimating how long the unit will be isolated).

…

OBSERVATIONS AND RECOMMENDATIONS

Airborne Medical Operations.

I believe that in an airborne operation early surgery is essential, and therefore there should be adequate personnel committed early in the operation. This means that there is definitely a place for the airborne surgical team, which I think should be permanently attached to the medical clearing company or whatever medical group is serving that combat unit. They should be permanently attached, because it is essential to have a smoothly functioning, well-organized surgical section in a station when it is isolated and even after it is no longer isolated. Evacuation may not be good, the non-transportables must always be operated, and the medical unit is way out in front of the non-airborne troops.

… Our team once worked for one hundred hours straight, without rest, but that is too long. …

Source: National Archives

Medic of the 101st preparing to board with his stick, 5 June 1944. Courtesy National Archives.

Extract from 101st Airborne Division Report

Operations:

1. Operation Neptune commencing 6 June 1944: …

b. The 326th Airborne Medical Company entered combat with nineteen officers and one hundred eighty-one enlisted men. Attached to this unit was Team #15 from the 3rd Auxiliary Surgical Group, consisting of four officers and four enlisted men. The Company had twenty-three jeeps and twenty trailers which had the dual function of carrying equipment and evacuating casualties. One element of the Company, four officers and forty-five enlisted men, landed in the combat zone by parachute. Another, consisting of seven officers and twenty-one enlisted men, four jeeps and four trailers, came in by glider. The remainder of the Company constituted the seaborne echelon. The Company retained its platoon organization as required by the authorized T/O 8-37. The surgical equipment of the Company was entirely revamped by making each medical chest a functional piece of equipment and devising methods of pre-combat sterilization of the medical equipment.

c. The Division Surgeon's Office combat echelon consisted of four officers and one enlisted man. In addition to their assigned duties this personnel supplemented the personnel of the Medical Company.

d. The Division Medical Supply was allocated one 2-1/2 ton truck for combat use to carry in a minimum of three days medical supply and to arrive in the combat zone on D+1.

e. The aerial medical resupply calculated for three days requirements was set up in one hundred twenty A-5 aerial delivery containers at United Kingdom airdromes.

f. The Medical Detachments of the 501, 502 and 506 Parachute Infantry Regiments and the 377th Parachute Field Artillery Battalion dropped on the Cotentin Peninsula between Montebourg and Carentan at approximately H-4. The marked scattering of medical personnel made it almost impossible to collect this personnel into anything like its functional sections until many hours after daylight. Less than 10% of medical equipment bundles dropped could be recovered initially because of marked scattering of the bundles, and the small arms fire encountered while trying to collect them. The parachute elements of the Medical Company dropped at approximately H-4. They performed first echelon medical service for the unit to which they were attached. The glider echelon of the Company came in in two waves. Two CG-4A glider loads landed near Hiesville, France at approximately H-3. Three Horsa loads landed at H+14. The seaborne element with the Division Surgeon`s Section landed at "Utah" Beach at H+3 and worked its way up unescorted to Hiesville. The Company proceeded to the Chateau Columbierre some six hundred yards north of Division Headquarters, which had been selected as the location of the Clearing Station. The platoon organization of the Medical Company was disregarded at this time and a functioning field hospital was set up.

g. The excessive number of casualties immediately arriving at the Clearing Station required setting up tentage outside the chateau. The 2-1/2 ton truck allocated to the Division Medical Supply supplemented the Company vehicles for the evacuation of casualties to the 261st Medical Battalion at Utah Beach, about five miles distant. On D+2 additional trucks from the 3807th Quartermaster Company were used until Corps evacuation (one platoon of the 574th Ambulance Company) arrived. On 9 June 1944 the Clearing Station was bombed by aerial bombs. Evacuation of casualties was temporarily halted at that time as most vehicles were partially damaged or overturned and the remaining, including vehicles of the Ambulance Platoon, were covered by debris. Five Medical Department officers and nine enlisted men were injured and eight enlisted men killed as a direct result to the bombing. The following day the VII Corps Surgeon was contacted and the Division was loaned six officers and sixty-one enlisted men, and three ward tents from the 42nd Field Hospital. The care of sick and wounded and the evacuation continued through 25 June 1944. No problems in the function of medical equipment were confronted. The evacuation system worked well, harassed only by sporadic bombing and small arms fire.

h. Casualty Rates:

1. Appendix 1 shows the number of individuals by day treated in medical installations of the division from 6 June 1944 to 25 June 1944. The graph is broken down into Battle Casualties, Injuries (non-battle), and Disease. The totals for this period are as follows:

Total Battle Casualties	2322
Total Injuries	85
Total Disease	297

Aggregate 2704

2. The total number of exhaustion cases (Neuropsychiatric) sustained during this period was eighty (80) and is contained in the above figures under "Disease". The other diseases were ordinary "run of the mill" type seen in garrison.

3. Of the total number wounded 30% had multiple wounds and 70% single wounds. …

6. The jump casualties sustained made up only 1% of personnel jumping.

7. Casualties that died while being treated in a medical installation of the division totaled only thirteen.

8. The above figures do not include those casualties of the division treated by medical personnel outside the division.

i. Loss of Medical Personnel:

1. The strength of medical personnel committed to combat was as follows:

71 officers - 535 enlisted men

2. Of the total number of officers, the losses sustained are as follows:

Killed in action	0
Evacuated	9
Missing in action	5
Captured	0
Total	14
Percentage Loss	20%

3. The enlisted personnel lost in combat are as follows:

Killed in action	18
Evacuated	50
Missing in action	37
Captured	1
Total	108
Percentage	20%

4. Although the percentage loss of medical personnel is comparatively high, in view of the mission of this division it is less than calculated prior to combat. Since the small number of medical personnel within the division does not permit for reserve personnel for replacement of front-line losses, the evacuation of casualties was definitely hampered by the loss of the above personnel.

Source: National Archives

Medical officer of the 82d Airborne handing a cigarette to an injured paratrooper, Ste Mere Eglise, France, 7 June 1944. Courtesy National Archives

Extract from 82d Airborne Division Report

MEDICAL SERVICE IN OPERATION NEPTUNE

1. Medical service for operation Neptune was planned on the following basis:

a. Organic detachments would accompany their units. Supplies would be dropped or carried by glider, dependent upon the mode of transport of the parent unit.

b. The division medical company would be glider-borne and travel as a unit and to arrive with the first glider lift. …

2. Organization of the division medical company was the formation of four collecting detachments, one for each regiment of infantry, and one central clearing station. All to be transported by air. Heavy equipment and transport to be carried in by sea. Attached to the clearing station was a general surgical team.

3. The parachute elements of the division were landed H minus on D-Day. Accompanying this lift was a small number of parachute aid men from the medical company. A small glider lift went in at this time and was accompanied by the Division Surgeon and the surgical team. Early in the afternoon of D-Day the lift containing the medical company was dropped. Many of the gliders landed in flooded areas, so it was the morning of D+1 before the unit was organized for functioning. The Commanding Officer of the medical company was killed by shellfire just after landing.

The first elements of the division dropped were scattered badly over a large area. About 50% of the medical officers were unaccounted for during the first 72 hours. There were pockets of our troops isolated from each other, all with wounded, and every effort was being made to consolidate these groups. By the morning of D+1 it was possible to begin evacuation of casualties to our clearing station. The afternoon of D+1, the final glider lift arrived and many glider injuries occurred further loading the medical service. Evacuation to the rear was possible and every available vehicle was used to move the transportable cases to the rear. By D+3 the tactical situation was such that the operation of the division as a ground unit actually began.

After this phase of the operation began the medical service operated as any ground division, but was somewhat handicapped by having only one clearing station. As a result displacement was somewhat awkward but was always accomplished without interfering with the service.

Location of the clearing station was no great problem. Sites suitable for such an installation as generally conceived, were not to be had. The space on the ground was limited as the build up progressed; almost every available field was occupied by some type of unit or installation. Therefore the station was located where it best suited our need for prompt and efficient operation. It was quickly found that buildings or towns were good places to stay away from as invariably they ware shelled. In all locations the station was surrounded by artillery, but fortunately no damage was sustained by overs and shorts of counterbattery fire.

In the early phase the unit surgeons and medical men, whenever they contacted a group of the combat troops, set-up and collected and held patients until the division service could get to them. It was found that the very small amount of supplies they could carry and the complete lack of transport were the weakest links in their particular chain. In spite of this they, without exception, did an astounding amount of work and undoubtedly saved many lives.

4. The Division was in combat for thirty-eight consecutive days. During this time the following casualties were sustained: WIA - 2610, glider injuries - 348, jump injuries - 290, neuropsychiatric - 237, disease - 464, injury - 247, a total of 4196 casualties, of these 3618 were evacuated. Malaria, recurrent, was the leading disease producing casualties.

5. The following conclusions were draw from this operation:

a. There is a definite need for parachute elements to have transportation and a greater quantity of medical supplies.

b. Gliders can be landed early in an airborne operation.

c. The reorganization of the medical service proved sound in principle.

d. A small medical battalion will give a more elastic medical service.

MAJ Charles Tegtmeyer, MC, Regimental Surgeon 16th Infantry Regiment

Part of E Company, 16th Infantry, 1st Infantry Division, assaulting Omaha Beach. U.S. Coast Guard photo.

As we neared the beach machine gun bullets beat a tattoo against the plate of the LCM and whistled angrily around our heads. The men instinctively crouched toward the floor. The craft stopped suddenly on command from the colonel's LCVP which was alongside us and began to back water. A lane through the mines and beach obstacles had not been cleared in this area. The boat turned toward the west following the beach line. The din of exploding artillery shells to our left along the shore and in the water was terrific. Suddenly, the LCM moved sharply to the left toward the beach and gathered speed. A few minutes later we grated along the sandy bottom, the ramp dropped, and the men passed down in the water. I yelled to Sergeant Goldberg to lead my men into the water and keep going, I would meet him on the shore. I then urged my men to hurry and to bring along the extra medical supplies. The men ahead of me thinned in density as I worked my way forward in the LCM, reached the edge of the ramp, carefully descended it, and finally found myself in icy cold, rough water which reached my lower chest.

Slowly, I struggled to work my way shoreward. I first passed a Belgian Gate obstacle with a large Teller mine attached to it. Moving on, I then banged my knee against a steel rail tetrahedral beneath the angry foam. Anxiously, I felt about for a mine or a booby-trap wire, while cold, clammy sweat suddenly oozed from under my helmet band. …

As my oxygen debt decreased, the explosions of shells and the sharp whistle of bullets forced their sounds on my consciousness. I lifted my head and crawled up the shale bank to just below its upper edge, then rolled over and sat up. The shelf on which I rested was about ten yards in width sloping upward from the waters edge to a height of about two to ten feet at various locations, and at an angle of roughly thirty-five degrees. Face downwards, as far as eyes could see in either direction, were the huddled bodies of men, living, wounded, and dead, as tightly packed together as a layer of cigars in a box. Some were frantically, but ineffectually, attempting to dig into the shale shelf, a few were raising themselves above the parapet-like edge and firing toward the concrete protected enemy below the bluffs, as well as those on the cliff above, but the majority merely huddled together face downward. Artillery shells and mortar shells landed on the beach and in the water with sharp explosions, throwing fragments in all directions. Overhead uncomfortably close, machine gun and rifle bullets grazed the top of the ledge with the buzz of a million angry hornets and plunged into the water behind us with unnumerable sharp hisses, or whined away into the distance as they ricocheted off the stones of the beach. At the water's edge, floating face down with arched backs, were innumerable human forms eddying to and fro with each incoming wave, the water around them a muddy pink in color. Floating equipment of all types, like flotsam and jetsam, rolled in the surf and mingled with the bodies.

Our infantry and the amphibious engineers were inextricably mixed together. Officers without men and men without officers lay perplexed and awaiting orders. The enemy gun emplacements of reinforced concrete, untouched by the aerial and naval bombardment, located at the base of the cliff-like slope, continued to pour artillery and machine gun fire across the beach and into figures struggling through the obstacles and surf. Decimating the ranks of the assaulting troops with every fusillade, snipers and gunners picked off every head, whether officer or enlisted man, that lined up in their sights. Everywhere, the frantic cry "Medics! Hey med-

ics!" was heard above the horrible din.

I called Sergeants Goldberg and Bailey over to me and the three of us crept about rounding up our detachment. Within a very few minutes, all of our group, except Captain Tierney my dental surgeon, were accounted for. Colonel Taylor had landed fifty yards to the right of us. He passed us walking erect, followed by his staff and yelled for me to bring my group along. I instructed my men to follow me up to the beach and to render aid to the wounded as we passed. Crouching, running, crawling, and stumbling over the prone tightly packed bodies, we slowly worked our way up the beach, answering the cry "Medic!" as we went. My men were superb as time and time again they plunged into the surf, regardless of the hail of steel fragments whistling about, to pull the wounded ashore. The wounded were hastily dressed and pulled to the shelter of the shale shelf and left with instructions to call to the landing craft for help as they grounded. I examined scores as I went, telling the men who to dress and with whom not to bother. The number of dead – killed by mines, shell fragments, machine guns and sniper bullets – was appalling. Sergeant Goldberg, who brough up the rear, supervised the aid work as he moved. No doctor could have done more or could have done it better.

Every man who lifted his head above the level of the shale was asking to be short and every man who moved along the beach had little regard for his own personal safety. We followed the colonel and covered about a thousand yards of it, just asking for it. Father Deery was having a busy day too, for many of the men had more need of him than of me.

When we reached the extreme western edge of the 16th's sector of the beach, the colonel called a halt. He called for three radios to be brought up and soon their antennae shot into the air while the operators frantically sought contact with the battalion commanders. Staff officers and messengers were sent out to locate officers and bring them back. Slowly the reorganization of the regiment was started. As officers arrived, Taylor issued them orders and the moved out to take action. Soon, despite the withering enemy fire, squads and platoons began to get reorganized. Small groups began blowing out the aprons of wire at the top of the ledge and columns began to crawl over it through the gaps. The attack was launched, albeit slowly, and the men moved forward. …

Around Colonel Taylor and his three radios the bullets began to whistle more viciously than ever. I yelled at the colonel, "For Christ's sake colonel get down, you're drawing fire." He just grinned at me, ordered the antennae pulled down and said, "There are only two kinds of men on the beach – those who are dead and those who are about to die, so let's get the hell out of here." It was a refrain he would repeat often that morning. He now started back along the shale to the west with the headquarters group trailing behind him. I told Sergeant Goldberg to take the lead while I followed the rear of the crouching file.

The tide had come in during this interval and the shelf had narrowed to about seven yards. We worked our way westward alternately on the shale and knee-deep in water. My men continued giving aid to the new crop of wounded that had been reaped since our trip eastward. A hundred yards from our starting point, I stumbled over an engineer, fell on my face and stayed there, too exhausted to get up. …

MAJ Tegtmeyer received the Distinguished Service Cross for his actions on June 6:

for extraordinary heroism in connection with military operations against an armed enemy while serving as Regimental Surgeon, 16th Infantry Regiment, 1st Infantry Division, in action against enemy forces on 6 June 1944, in France. When Major Tegtmeyer landed with his Medical Section, the assaulting troops were still pinned down on a narrow beachhead. Due to the devastating fire of the enemy, numerous casualties had been sustained. With complete disregard for his own safety, Major Tegtmeyer covered the length of the beach, administering aid to the wounded lying all along the shore. Time and gain, he went into the mine-strewn waters and pulled the wounded in to comparative safety behind a shale barrier. Major Tegtmeyer, heedless of the heavy fire, worked unceasingly in rendering aid to the wounded under the most hazardous conditions. Major Tegtmeyer's fortitude, personal bravery and zealous devotion to duty exemplify the highest traditions of the military forces of the United States and reflect great credit upon himself, the 1st Infantry Division, and the United States Army.

Source: Charles Tegymeyer, A Doctor's War: The Memoir of Charles E. Tegtmeyer, Combat Surgeon in the 1st Infantry Division, 1940-1945, Cantigny, IL: First Division Museum, 2015.

Extract from 1st Infantry Division report

INVASION AND NORMANDY CAMPAIGN, 6 JUNE 1944 TO 19 JULY 1944

On 6 June 1944, the 1st US Infantry Division and attached [units] landed on the continent (Normandy). A heavy naval and air bombardment preceded the assault on the beach which was carried out by one combat team of the division and by one combat team of the 29th Division attached. The naval bombardment had failed to knock out several enemy concrete emplacements which were situated and built in such a manner as to resist all heavy gun fire except a direct hit. In addition unfavorable weather had reduced the effectiveness of certain 'secret' support weapons. The fire directed against the assaulting troops was so intense as to prevent a penetration of these emplacements until anti-tank weapons could be landed. H-hour had been 0630 and it was not until 1000hrs that the enemy positions on the cliff overlooking the beach were destroyed or captured. Although the enemy continued to resist fiercely, the assault troops and supporting troops were finally able to secure the small key village of Colleville-Sur-Mer. By the 9th June 1944 the hard shell of enemy resistance had been broken. Although the enemy began to dig in, set up roadblocks, erect wire entanglements, and sow numerous mine fields, he was unable to prevent the division's advance to Caumont. Throughout the entire period enemy air activity was negligible except for single enemy bomber attacks occurring after dark. The division remained in a defensive position at Caumont until the 15th July 1944 when it was relieved by the 5th U.S. Infantry Division. …

EVACUATION:

The medical plan for D-Day had anticipated the following evacuation plan:

1. The company aid men to go ashore with their respective companies to tag the wounded, render first aid, and if possible mark the location of the casualties.
2. The Battalion Aid Station sections to follow with certain equipment and twelve litter-bearers, and support the assaulting battalions. They would render further medical treatment and attempt to group casualties to collecting points for later evacuation to the beach.
3. The Naval Medical Sections (Shore Party) to land approximately at the same time as the Battalion Aid Stations, establish a Beach Evacuation Station, receive casualties from the beach, administer first-aid, and effect seaward evacuation.
4. The Collecting Companies to land next at a time when the attack had moved off the beach; the litter bearer platoons to land first to aid the evacuation of the Battalion Aid Stations. The Collecting Station Platoon to follow, proceed to a station site and receive all casualties from the front. The Ambulance Section to land next.
5. Soon after the landing of the Collecting Company, medical [personnel] of the Engineer Special Brigade to come ashore with its equipment and personnel intact, and perform the following services: (a) Receive casualties from Collecting Stations (b) Provide treatment for non-transportables thru its attached surgical teams, and the treatment and seaward evacuation of transportable casualties. To cooperate with the Shore Party in loading all craft used for ship-to-shore evacuation. (c) To operate a medical supply dump. The Naval Beach Evacuation Station and the Medical Company of the Engineer Special Brigade to remain in the beach area regardless of the movements of the Army Medical units. The Medical Company of the Engineer Special Brigade at this phase of the operation to substitute for the Division Clearing Station.
6. The Division Clearing Station to land as soon after the Medical Company depending upon the forward progress of the infantry. Once this had landed and set up, medical service of the division became normal.
7. The rear evacuation was to be kept under control of higher headquarters …

In spite of the pre-invasion planning and exercises, the medical service and evacuation on D-Day until D+3 was quite confused. Many of the beach medical units and also medical units of the division were not put ashore according to plan and others were landed by mistake on wrong beaches. Likewise, the tactical situation failed to progress as anticipated and this served to alter the landing tables of the medical units. Many of the medical units of the division and of the amphibious medical battalion were unable to bring their supplies and equipment ashore, which were lost in the sea or damaged by enemy activity. Within the division medical service the first-aid to the wounded was provided by the company aid men who had come ashore with the assault infantry companies. Litter bearers from the Battalion Sections and Collecting Companies followed close behind and collected the casualties and prepared them for their evacuation.

Casualties were evacuated from shore-to-ship by whatever means available (assault boats, DUKWs, and any other available craft). Priority was given to non-transportables. Of necessity many of the casualties remained on the beach under care of the Division Clearing Company personnel and of medical personnel from other units. Although one platoon of the Division Clearing Company came ashore at 1730hrs on D-Day and the second platoon joined it at 2130hrs, neither of the platoons failed to function [sic] on this day. The entire company personnel assisted in clearing the beach of casualties and thereby functioning as an emergency collecting unit. On D+1 at 0630hrs, the Division Clearing Station was established and opened on the bluffs just east of Vierville-Sur-Mer. From this time on division medical service was normal, namely from Battalion Aid Stations through Clearing Station. Furthermore, there were no facilities on the beach for handling non-transportable casualties or other seriously wounded patients. To effect this evacuation and treatment, the following plan was put into effect. Two of the auxiliary surgical teams, which were ashore at this time but which were unable to operate because they lacked equipment, were secured and set up at the Division Clearing Station, using the Division Clearing Station surgical instruments, supplies, tentage, etc. They proceeded to care for the wounded and continued to do so until D+3 at which time they were able to join their parent unit. To prevent the casualties from piling up at the Clearing Station and to facilitate the evacuation to shore and to ship, Clearing Station personnel were used as litter bearers to carry litter patients to the shore where the amphibious medical battalion had set up small collecting points. Walking wounded were likewise directed to the same shore points and in some cases were drafted as additional litter bearers. The litter haul from the Clearing Station site was approximately one thousand yards down the bluff and over rather difficult terrain. To supplement the litter bearers, twenty-four German prisoners were obtained from a nearby prison cage. The shore collecting points at this stage took over the responsibilities of getting casualties to the ships; DUKWs were brought to the Clearing Station, loaded up with litter patients and dispatched directly to the ships. The evacuation of the Clearing Station from D-Day to D+3 remained under division control, after which it passed into the hands of the amphibious medical battalion which had meanwhile been able to locate its equipment and set up.

After D+3, the tactical progress of the division was rapid, moving in the direction of Caumont and arriving in that vicinity on June 12, 1944. From D+3 on evacuation was normal and the Division Clearing Station was evacuated by First Army Collecting Companies.

After a few days in the vicinity of Caumont when it became apparent that the division was to occupy a defensive position, the Clearing Station expanded to its full capacity and instituted the policy of holding minor casualties and diseases which could be returned to duty within five days. Soon after the arrival at Caumont, a Field Hospital Platoon was set up close to the Clearing Station and in support of the division. Their primary function was to handle non-transportable casualties. In this situation evacuation in the division was rapid due to the proximity of the Collecting Stations, (within five miles) and also because of the good road network. It was in this position that the Clearing Station came under enemy artillery fire for the first time. Apparently, the enemy fire was directed at artillery located in the vicinity of the Clearing Station. Late in the afternoon of July 9, direct hits were recorded, causing no casualties. Some damage to vehicles resulted. On the 15th July, the entire division was relieved at Caumont by the 5th U.S. Infantry Division and moved to the vicinity of Columbiers. Here, it reorganized and reequipped, completing this on 19 July 1944. One platoon of the 47th Field Hospital which was in support of the division moved to this site also but did not operate. Evacuation during this short period was normal.

…

PERSONNEL:

No changes in T/O occurred at this time. For the first time since being overseas and in combat the division suffered two fatal casualties among Medical Department Officers due to enemy action. Both of these were Captains, MC, and both were Battalion Surgeons. The first one was seriously wounded on D-Day and subsequently died in a hospital in the United Kingdom; the second was killed by a mortar shell in the Caumont area.

Source: National Archives

Medics administering plasma on Omaha Beach. U.S. Army photo

Extract from 634th Medical Clearing Company report

(1) Mission: To provide definitive surgical care to casualties and to provide holding facilities for casualties to be evacuated by sea and air to the UK. [The unit was task-organized for the landing.] …

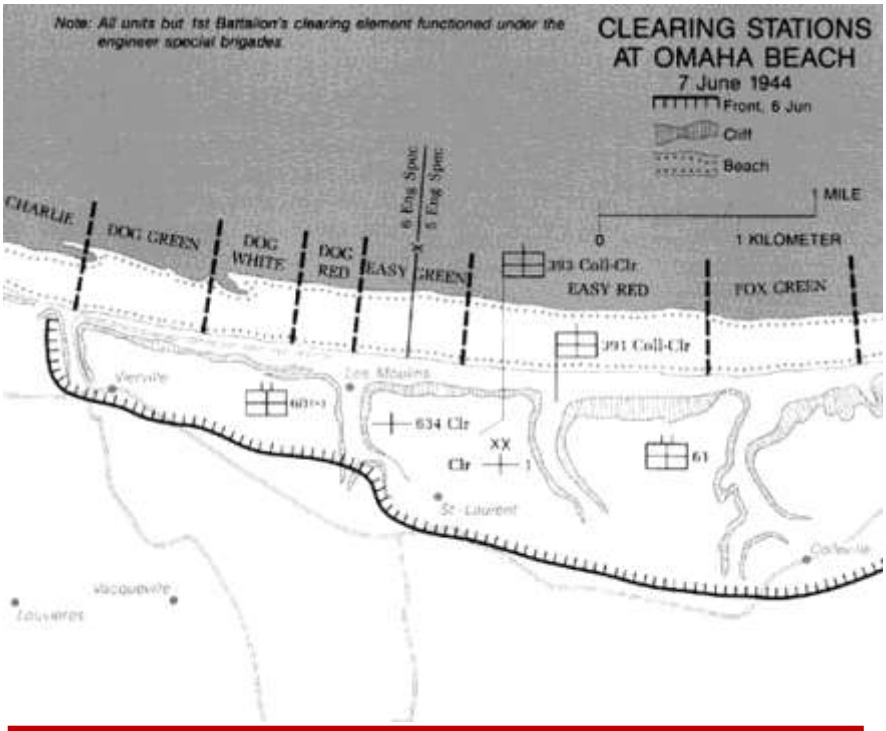
D-Day. The 1st Platoon began to debark from the APA to available LCTs and LCMs at 0930 6 June 1944, on approaching the shore however, it was found that the beaches were not clear for approach and under heavy enemy fire so a rendezvous was maintained, a few miles off shore until the situation cleared. One group aboard a British LCM found themselves approaching the British Beach far to our left, Captain Arthur Kleinmen, DC, failing to recognize any landmarks ordered the British Coxswain away to the proper beach. While enroute to Easy Red Beach, this craft began to ship water due to heavy seas and was in danger of swamping and sinking. The personnel aboard were transferred to an LCT, but this craft also began to sink and the personnel again transferred to another LCT which finally beached. At approximately 1300, a call for medical personnel was made from the beach and the 1st Platoon began to land, mostly near Exit E-3. Immediately began to treat casualties from the beach who were in danger of drowning from the rapidly rising tide, collecting points were established and casualties were evacuated by any available means to ships. The beach at this time was under constant artillery, mortar and sniper fire. One enlisted man was killed, one seriously wounded and died of wounds and two were lightly wounded by shell fire while working on the beach. After the beach was cleared of casualties, the clearing station was established in a captured German pillbox on the hillside near Exit E-3. Clearing of casualties from surrounding areas including mine fields was carried on through darkness.

Great difficulty was encountered in finding craft to haul casualties to ships in the harbor. Tec 4 William J. Bomford in charge of a squad loading patients near Exit E-l found that landing craft could not approach the beach because of the lack of signals from the beach; the beachmaster and all his assistants were casualties. He assumed control of this portion of the beach, clearing obstacles, directing landing craft and landing casualties. He continued this excellent work throughout the day and night and is to be commended.

The 2d Platoon began to debark to a LCT at 1030, being on the same craft with the clearing platoon and one collecting company of the 1st Infantry Division. An attempt was made to land on Dog White Beach, but the attempt was discontinued because the craft came under heavy artillery and machine gun fire as it approached the beach. The LCT rendezvoused about 3 miles from shore until approximately 1230 when it again approached the shore and beached at Dog White Beach. The craft again drew heavy artillery fire, four enlisted men were wounded and one officer was knocked unconscious by shell blast as they left the LCT; one shell hit the craft as the platoon cleared, injuring several of the 1st Division Medical Battalion. The 7 enlisted men and 1 officer, 2d Platoon, debarked the USS Thurston and landed per LCM on Easy Red Beach at approximately the same time. One enlisted man was killed and two were wounded by shell tire immediately after hitting the beach. All men and officers of this platoon also went to work clearing the beaches of casualties and evacuated than by landing craft or DUKWs. One DUKW was hit by an enemy artillery shell (88) and exploded immediately after being loaded by members of this platoon, the driver and casualties were blown to pieces and the loaders were hit by flying debris.

The tactical situation at the time the company came ashore was fluid. Enemy snipers were located in pill boxes, tunnels and cliffs just a hundred yards from the high tide mark. The furthest advance by our infantry was 500 yards, men were dug in and firing from the beach. Heavy fighting was going on for the control of St Laurent. Artillery observation by the enemy on the beach was superb. By 2000 the enemy had been cleared from St Laurent and a defense line established about 800 yards from the beach in our sector.

At about 1700, a clearing station was established by this 2d Platoon in an anti-tank ditch on Easy Red Beach near Exit E-1. Treatment of casualties continued throughout the night using whatever equipment and supplies that could be salvaged from the beach. One enemy plane strafed the area and dropped a light bomb at approximately 2400 but no casualties resulted.



By June 7, several aid stations were organized on Omaha Beach. From Medical Service in the European Theater of Operations, 217.

The trucks containing the equipment of the platoons were debarked from the LSTs to Rhino Ferries but they could not be beached due to underwater obstacles and heavy shell fire. One truck and its equipment was hit and destroyed by shell fire while on a Rhino Ferry.

D+1: Both platoons continued to operate clearing stations in the same locations. The beaches wore still under artillery and mortar fire from enemy batteries located on the flanks and about 2000 yards to the rear. Those working near Fox Green Beach were subjected to sniper fire from the woods in that sector. Casualties were still being picked up in isolated places on the beach and brought to the stations. No equipment was available for definitive surgical care but ample supplies of sulfa powder, battle dressings, splints and plasma were at hand and many casualties were made transportable and evacuated to ships. In addition, the platoons received casualties for evacuation from divisional medical units. During the day, the 1st Platoon received one truck with two ward tents which were immediately pitched to provide shelter for the casualties. The estimated number of casualties treated and evacuated by the two platoons during the first two days was 1000.

D+2: During the night of June 7th and 8th, the trucks containing the equipment of the company were loaded and it was decided to set up two clearing stations on the beach along main arteries of communication. The 1st Platoon station was to be on Easy Red Beach along road E-2 and the 2d Platoon station was to be on Easy Red Beach along road E-2 near an emergency air strip being built.

The 2d Platoon began to receive and operate on casualties at 1400 8 June 1944 and by midnight had admitted 104 casualties, 79 of which required definitive surgical care.

D+3 to D+10: The 1st Platoon began to receive casualties at 1600 9 June 1944 and admitted 66 casualties by 2400 44 of which required definitive surgical care, in the period from D+2 through D+10 the 1st Platoon treated 352 casualties approximately 75% of which required definitive surgical care. In the same period the 2d Platoon treated 1544 casualties approximately 65% of which required definitive surgical care.

The 2d Platoon on D+4 was also given the mission of an Air Holding Unit for casualties which were to be evacuated by C-47 from the nearby air strip. On D+4 an impromptu evacuation of 13 casualties was made. Weather permitting, this air evacuation was carried on each day thereafter in gradually increasing numbers.

The work of the 2d Platoon was greatly facilitated by several volunteers, chiefly advance liaison officers from various hospitals. These officers worked long and herd hours preparing patients for surgery and in the post-operation care. Major Haynes, neurosurgeon for First Army, performed 21 major brain operations with the 2d Platoon 19 of which survived and were evacuated.

During this period nightly air raids by the enemy continued, the flak barrage was tremendous and although casualties on the beach resulted, none was suffered by this command due to falling flak.

D+11 through D+83: The elements of the 61st Medical Battalion were brought together on D+11 to

form a 750-bed holding unit for sea and air evacuation on the 2d Platoon site along road E-l, Easy Red Beach and approximately 100 yards from the St Laurent Air Strip. The 634th Medical Clearing Company was the basic unit.

The primary mission was to provide space for casualties until they could be evacuated to the UK; included in this mission was the proper triage of casualties for sea and air evacuation. The policy involved in proper triage being laid down by Surgeon, First Army. Several problems arose and had to be dealt with, hospitals in front of us apparently had not been informed of this triage. Casualties with chest and abdominal wounds which could not be evacuated for 7 days were received within a few hours of their injury; 100 beds were finally reserved for these patients and special nursing teams of technicians organized to care for them. Many compound fractures of the femur were received with only a battle dressing and army leg splint, these patients were definitely not transportable. Eighteen were received in one afternoon from one evacuation hospital. Since auxiliary surgical teams were no longer assigned us, surgical teams were formed from members of this command to deal with cases requiring further definitive surgical care. During most of this period, our surgery was in operation 24 hours a day. Approximately five percent of all cases received required further definitive care.

On 17 July 1944 the Holding Station was moved to a new site near the Colleville airstrip and enlarged to a capacity of 1000 beds. Due to several days of inclement weather, this capacity was often increased to 2300 beds. The problem of treating and feeding these patients was great and taxed our limited personnel to the utmost. The kitchen especially carried a great burden, often preparing a second meal because of great influxes of casualties at or shortly after mealtime. The Holding Station was discontinued 29 August 1944. The total number of casualties evacuated 31,041 of which 25,615 went by air and 5,426 by sea. All were litter cases. The task involved in keeping proper and correct records of the patients who passed through this station was tremendous. Approximately 30 men were assigned to this task alone under the guidance of a few key men, that the task was performed well on reflects great credit on these key men, Sgt Casimir Krakowski, Cpl. Robert Duchon and Cpl Samuel Ruefly.

…

(2) Treatment of battle casualties:

In the period from D+2 to D+10 during the Normandy Campaign this company admitted to its clearing stations 1896 casualties of which approximately 65% required definitive surgical care before becoming transportable: any required surgery was done ranging from brain surgery to minor debridements. The largest percentage of operative cases were those of the lower extremities, followed by those of the upper extremities, then in order chest wounds, abdominal wounds, head injuries and burns Although the number of burn cases treated by the company was never great, the percentage did increase as the campaign became more mechanized.

All patients with wounds received penicillin, sulfadiazine by mouth or intravenously if necessary and a booster dose of tetanus toxoid. The majority of the patients required plasma and whole blood before surgery.

There were only six deaths among the patients admitted to the clearing stations. …

In the period up to D+89, the Holding Station of which the 634th Medical Clearing Company was the basic unit admitted 31,041 patients for evacuation to the UK, an estimated 5% of those required further definitive surgical care. All of these casualties were supposed to be transportable before release from forward installations but many went into shock or hemorrhaged badly due to long ambulance rides; others such as compound fractures of the leg were received with a simple battle dressing and army leg splint. Very few Tobruk Splints were soon among these patients.

Patients with the mandible shot away were a special problem because of the respiratory distress. One such patient who was deemed transportable when examined in the station died enroute to the air strip from acute respiratory failure. After this incident, all these patients received a tracheotomy routinely and easily survived evacuation by sea and air. …

Source: National Archives

Extract from 3d Auxiliary Surgical Group report

GENERAL SURGICAL TEAM NO. 14, 3D AUXILIARY SURGICAL GROUP
[The team was attached to the 634th Medical Clearing Company, 60th Medical Battalion, 6th Engineer Special Brigade, on Omaha Beach.]

II. Beach Landing
A. The 4 surgical teams embarked at Weymouth on an LST 5 days prior to D-Day. Our companions were part of the 116th Infantry, a group of attached artillery, and 2 officers of the 634th Clearing Company. … At H+7 orders were received to attempt landing on Dog Red beach, our originally designated beach (Dog White) still being untenable. Approach to Dog Red brought artillery shells in our direction when we were a few hundred feet offshore. A strong wind and tide were running parallel to the beach and our craft became entangled with the stern of another Rhino attempting to beach. On all sides were wrecked and burning craft and shells were falling frequently within a 100-yard distance.
B. The Rhino was manipulated away and made another attempt to beach. Once again the Ensign in charge made his approach at an angle from downwind and down current, in spite of my pleading, and the inevitable result was that the barge hit the beach sideways. A Rhino next to us was in the same predicament and the entire row of its vehicles, near the beach, had toppled over into the water. We were stuck sideways and our Rhino tug had disappeared. Shells began landing all around, one explosion wounding 3 men on our barge.
C. The situation was serious. I asked the Ensign what he was going to do and he replied, "there is nothing we can do, we're stuck." I asked an air corps lieutenant colonel and an artillery major, that were on board, if they would help rectify the situation, but both refused. Therefore I stepped over my authority and ordered the ensign to give command of the barge to a petty officer whom I had noticed for several days was very efficient. Within 10 minutes this petty officer, in spite of one motor being damaged by an underwater obstacle, had worked the barge off. He did an excellent piece of maneuvering and undoubtedly saved the barge, its equipment and personnel from being battered to pieces by artillery shells.
D. After pulling off and pausing we made one more start to the beach when orders came from the beach that no Rhinos were to come in until further notice. Our Rhino tug was gone, one engine was out of commission and the landing gear was damaged. There were 3 wounded men aboard, one a perforating wound of the abdomen, so a short run was made to a nearby LST where the wounded were transferred.
E. We moored to this LST for the night, a very wretched night, all of us wet and cold and the best beds being on ammunition trucks. ...
F. The next morning at dawn we contacted a nearby vessel which had LCVPs and arranged to have 2 of them bring our 4 teams and the clearing station officers in, leaving the Rhino and its passengers at the LST. 3 teams (Major Williams, Campbell and my own) were on one. It was a short but wet run to shore where we attempted to land on Easy Green (Dog Red was still under heavy fire). We got stuck on 2 underwater obstacles but got off. Stuck firmly on a third there was nothing to do but hit for shore. ... All made it safely and without incident except for one man who went under, lost his full equipment, but was pulled out by an officer.
G. On the beach a few paused to assist in first aid to wounded men lying in a tank trap. Then we proceeded

Damaged Rhino barges and a petrol barge being hammered by waves on the Normandy beaches. U.S. Army photo.

inland 500 yards where the 1st Division Clearing Station was set-up. They were in need of surgical personnel, so our teams started operating and I attempted to go around back of Dog Red in an attempt to find our clearing station personnel and equipment. After proceeding about 1 mile and reaching St. Laurent-Sur-Mer I was stopped by the enemy troops fighting with our infantry. At noon Major Bauer of the clearing station informed me that Lt. Col. Bullock, Commanding Officer of the 60th Medical Bn., had been fatally wounded. He said that our most important vehicle had gotten ashore, had been captured, but now was believed to be on the road just off of Dog Red Beach. With him, Sgt Mitcham and I started out to find it. Sniping was still abundant but we found the vehicle approximately 200 feet off the beach in the cluster of houses called Les Moulins. Two of the clearing station enlisted men were there and one British first aid man giving first aid to about 25 wounded Americans and British in the garden of a shattered house. Major Bauer took the vehicle up the road 1/2 of a mile to an alternate place to set up the hospital. Sgt. Mitcham and I remained, to give first aid to these men, some of whom were seriously injured and to get them ready for transportation to the 1st Division Clearing Station. Plasma, morphine, and bandages were available from our truck. This was a rather hot spot with several snipers around. Two of the less severely injured men persisted in hopping up and taking shots at them which only drew return fire.

H. By late afternoon our Clearing Station Platoon was set up with the equipment from this one truck. In the evening another truck was found, the third had been lost. Once set up, the teams which had been doing excellent work at the 1st Division Clearing Station in spite of inadequate material, joined up and work started. Captain Smazal and Captain Torrado had given shock therapy to about 15 patients and operated on 2 at the 1st Division Clearing Station.

I. The next 5 days were extremely busy. All types of cases were handled, a total of approximately 1150 cases passing through the clearing station during this period. Our 4 teams did all of the surgery, most of the shock therapy and a good bit of the minor dressings and triage. This team performed 32 major operations in addition to the other work. The one truck which was planned to carry supplies for 24 hours lasted for 48 hours and then the second platoon joined us and we carried on without any deficiencies for another 48 hours. After this 4 days however, supplies, particularly linens were running out and we were forced to use jackinette and rubber sheeting for drapes and make other compromises. On the whole, our planning in Torquay justified itself completely.

…

L. On June 12th, D+6 we moved with Major Hurwitz`s team to the 3rd platoon of the 51st Field Hospital near La Cambe. This was a wonderful relief to land in an outfit which was well organized and well run. Many of our headaches immediately ceased even though there was very heavy work to be done. At first this outfit had to act as an evacuation hospital, handling all cases coming down the line but within a few days it returned to its primary function of treating only the non-transportable cases. Here we did all of the surgery, much of the shock therapy and triage and supervised the post-operative care.

M. During the next 3 weeks-up until D+30 we operated on 96 cases, the majority being major cases. This necessitated very long hours of work but most of all a persistent period of work, since frequently when work became lighter in our platoon, we were temporarily transferred to another platoon or to another outfit (24th Evac Hosp) to assist them in heavy periods. The maximum time we have worked without pause was 36 hours. On several occasions we went 24 hours straight but on the whole have found it not wise to persist in operating for more than 16 hours straight.(At times the persistence of heavy hours of work has been staggering – One's mind becomes dulled, his knees weak, his head dizzy and aching and his disposition very touchy.) Work with this Field Hospital was performed fairly far forward, frequently in advance of our artillery and within hearing distance of rifle and machine gun fire from the front but except for frequent night flak, and an occasional nearby bombing or strafing we have not been in much danger.

N. The followings are some figures - a preliminary report - which are self-explanatory:

Estimated cases given first aid on the beach and during preliminary phases - 50

Estimated cases given shock therapy and first aid at Clearing Station - 60

Number of cases operated on until D+7 - 32

Number of cases operated on D+7 to D+30 - 96
Number of cases operated on D-Day to D+30 - 128
Number of cases operated on D-Day to August 7 - 295
…
Of the 295 cases treated approximately 250 were major and 45 minor.

COMMENTS:
1. In this campaign we believe the greatest single blessing from the medical point of view, has-been the availability of blood bank blood. In contrast to the African and Sicilian Campaigns we are now being able to operate upon and save patients that could never have survived on plasma alone.
2. Rapid evacuation, and good treatment by medical personnel in forward areas has been another important factor in lowering mortality rates.
3. Penicillin and sulfanilamides have been helpful in combating infection but in our opinion should be continued for more than 48 or 72 hours on serious cases. Not infrequently we have had infections flare up after their discontinuation and are now continuing both in abdominal and chest cases for at least 5 days with definite success.
4. The presence of shock teams from general hospitals in the past 3 weeks has been of great value and in our opinion the policy should be started again, if in any way possible. It is impossible for one surgical team to be doing 2 major operations and be running the shock tent simultaneously without great slowing in our surgical output.

SURGICAL TEAM NO. 16, 3D AUXILIARY SURGICAL GROUP

[Team 16 was attached to the 61st Medical Battalion, 5th Engineer Special Brigade, and landed at Omaha Beach.]

(b) BEACH LANDING:
Our troop ship sailed out of Portland harbor at 1700hrs 5 June 1944 taking its place in the convoy and making the English Channel crossing without incident. This ship reached its rendezvous opposite Ste. Honorene off Omaha beach on the Cherbourg peninsula lying about 10 miles offshore at the appointed time. From aboard our ship while proceeding up the coast and while at anchor we witnessed the air activity and naval bombardment from before H hour until we left the ship. The first troops left the ship at 0300hrs 6 June 1944 in LCA boats for the initial landings. Team 16 was scheduled to leave at 0800hrs, but only 11 of the 18 small craft returned to our ship. The sea was very rough, so an American LCT was finally secured, we climbed down the side of our ship at 1130hrs in company with two other 3RD AUX SURG teams and the personnel of the medical battalion to which we were attached. Aboard this smaller craft were two jeeps with attached trailers carrying observation aeroplanes and the bodies of seven American soldiers who had been killed in attempting the earlier landing.

Our first attempt to land was repulsed by shell fire and the naval ensign in charge of the LCT brought us two miles offshore out of range of enemy gunfire where we remained until 1730 hours when the landing was made. During this interval, several suffered severe *Mal de Mere*. We waded ashore at low tide in water waist deep amid Teller mines perched on piles driven into the beach. Beyond lay mine fields.

Apparently, we were the first medical personnel on the Dog Red section of Omaha beach that ay for everyone sought our aid. This section of the beach was littered with the dead and dying, filled with broken bodies, wrecked equipment, beached boats and was the picture of despair and utter confusion. This section of Omaha beach was being shelled at regular intervals by heavy artillery using high explosive shells.

We had not been on the beach ten minutes before we were greeted by shellfire. Major Stahler and I had paused a moment to ask directions of General Hoge and his aide. A moment later a bursting shell wounded General Hoge, his aide and Major Stahler and knocked me to the ground. A few minutes later, while I was

dressing the General and getting his aide (who had a compression of his spinal cord) on to a litter, another shell struck a beached vessel loaded with tanks and ammunition setting the ship and its cargo afire. A whole series of explosions continued from this ship for over two hours and I was penned in by the tide, the burning ship and the mine field and unable to join the other members of my team who were giving first aid and picking up the wounded between bursts of shell fire on another sector of the beach.

The officers and enlisted men of team 16 joined in carrying litters to DUKWs and out thru the water to smaller craft for evacuation to the ships lying offshore. They also worked in an aid station set up to the shore for several hours. As the tide has stated to come in, many wounded men had to be carried to higher ground to prevent drowning. It was 2200 hours before I left the beach to join Captain Simons and the men who shortly before had left the beach and were working with the Medical Bn. personnel at a First [Division] Aid Post. This post had been set up in a pill box that had previously housed a German battery and was some 300 yards off-shore about 50 feet above sea level. This pill box had a concrete and steel roof accommodated 50 litter patients at one time. Captain Twarog cared for Major Stahler some 500 yards away as well as working in the aid station on the beach on 7 June 1944. We did not locate each other until 48 hours later following our separation caused by the burst that wounded Major Stahler. ...

(c) Early Medical Work On The Beach.

During the night of D-Day 6 June 1944 all day and night 7 June 1944 our team worked giving plasma and morphine until 2000 hours 8 June 1944 and also dressing the wounded in this pillbox so that these patients could be evacuated to ships offshore. Until the early hours of 8 June 1944 this pillbox and section of Omaha Beach was under constant shell fire and the concussion from the high explosives landing all about was sufficient to blow clouds of sand and dust thru our pillbox and knock personnel off their feet. Unless one were present it is impossible to appreciate the difficulties and dangers here. Special recognition is due the litter bearers who picked up these wounded and who evacuated them to the ships under shell fire.

Plasma was given during the night only under the greatest difficulties. It was impossible because of the blasts from shell fire to completely blackout the entrances to the pillbox so that both patient and doctor had to be covered with a blanket to conceal the flashlight while an intravenous was started or a hypodermic given or a wounded examined or a dressing done.

The equipment of Company C, 61st Medical Battalion had been lost so only, the plasma units and dressings carried in by the battalion aid men were available for use. During this period this company with the aid of the surgical teams treated and evacuated approximately 140 patients thru this station. I am positive that several times this number of wounded men were evacuated the evening of D-Day direct from the beach by this group as I personally helped load two DUKWs five different times in the three-hour period between 1900 and 2200 hours on D-Day. Each DUKW carried from 6 to 10 patients each trip. It was impossible to keep accurate records of individual cases treated on D-Day. A conservative estimate would be that Team # 16 in conjunction with the other surgical teams attached to Company C of the 61st Medical Battalion helped in evacuating direct from the beach and thru the clearing station post set up in the pill box at least 350 wounded of whom 50 were seriously wounded on the 3 days 6-7-8 June 1944.

The real problem was to get the wounded off the beach out of the way of the incoming tide and out of shell fire to some ship where definitive care could begiven. Team # 16 devoted its efforts to this rather than to keeping records and there was no rest for over 48 hours.

(d) Professional Care of Patients and Long Hours of Work in

(1) Clearing stations.

The evening of 8 June 1944 Company C of the 61st Medical Battalion had secured enough equipment from other sources to set up a Clearing Station between Colleville and the Easy Red Section of Omaha Beach not far from the pill box where we had been up to that time. We began operating casualties that same evening at 2200 hours 8 June 1944 with Major Sutton`s team of the 3rd Aux. Surgical Group. We remained in this station until 14 June 1944 when we were ordered to the 120th Evac Hospital off Utah beach between Boutteville and St

Marie du Mond.

During our stay with Company C of the 61st Medical Battalion we worked with Major Sutton's team. A large part of these 6 days the leader of Team # 16 spent in triage of patients for both teams. The anesthetists and other personnel of the two 3d Aux. Surgical teams interchanged and worked together as the specific needs arose. Our team did not function as a distinct entity during much of this 6-day period. However 32 patients were operated upon either by Captain Twarog or Major Findlay at this location. On 11 June 1944 two 4th Aux Surgical Teams joined us and Captain Twarog and Major Findlay triaged cases for these groups, who were new to the field, and assisted these teams in pre- and post-operative care of the more seriously wounded as well as helping with the operation in 15 additional cases.

A large percentage of the patients handled here were German Prisoners of War, there were several French civilians but the majority were wounded American soldiers. Only about a third of the patients operated on were strictly speaking non-transportable. But because of the tactical situation and limited facilities for evacuation surgery for these men was necessary at this location at the time.

All during this period there were evening air raids and bombing each night with accompanying anti-aircraft fire as well as sniping from adjacent edges both night and day but fortunately for us no members of Team #16 was injured. A few American soldiers were killed or wounded in nearby fields by air bombs and flak and each day others were blown up by land mines.

We operated 12 hours out of each 24 hours during this period and on two occasions we worked 28 hours at a stretch to clear up the wounded list. The pre-and post-operative wards required much additional time because of lack of female nursing personnel.

(2) Evacuation Hospitals.

a. Team # 16 travelled from Omaha beach to the 120th Evac Hosp on 14 June 1944 by way of Douve pontoon bridge, beyond Katz, as Carentan was still under shell fire. We arrived at the 120th Evac Hosp between Boutteville and Ste Marie du Mond at 1630 hours 14 June 1944. We began to operate at 2400 and worked in the operating tent a 12-hour shift from midnight till noon each 24-hour period. As we had the full responsibility for the after care of our operated cases, we usually spent from 2 to 4 hours on the wards on our off time and on two occasions when we had some severe fulminating gas [gangrene] cases, we spent almost the entire 24 hours on duty in the wards or operating tent.

b. At this Evac Hosp, we did 42 operations upon 37 patients in the 6 days we were there. These patients included four with gas gangrene and the injuries were chiefly badly compounded fractures as most of the chest and abdominal cases during that period were operated by the staff of the Evac Hosp. At this hospital we operated the cases as sent to us as triage and preoperative treatment were handled by the chief of Surgery. This hospital was very busy during this period with many major cases. We worked with 3 other 3rd Aux. Surg teams during this period: Maj Allen Boyden, Maj Robert Coffey and Maj Frank Wood.

…

(3) Field Hospital

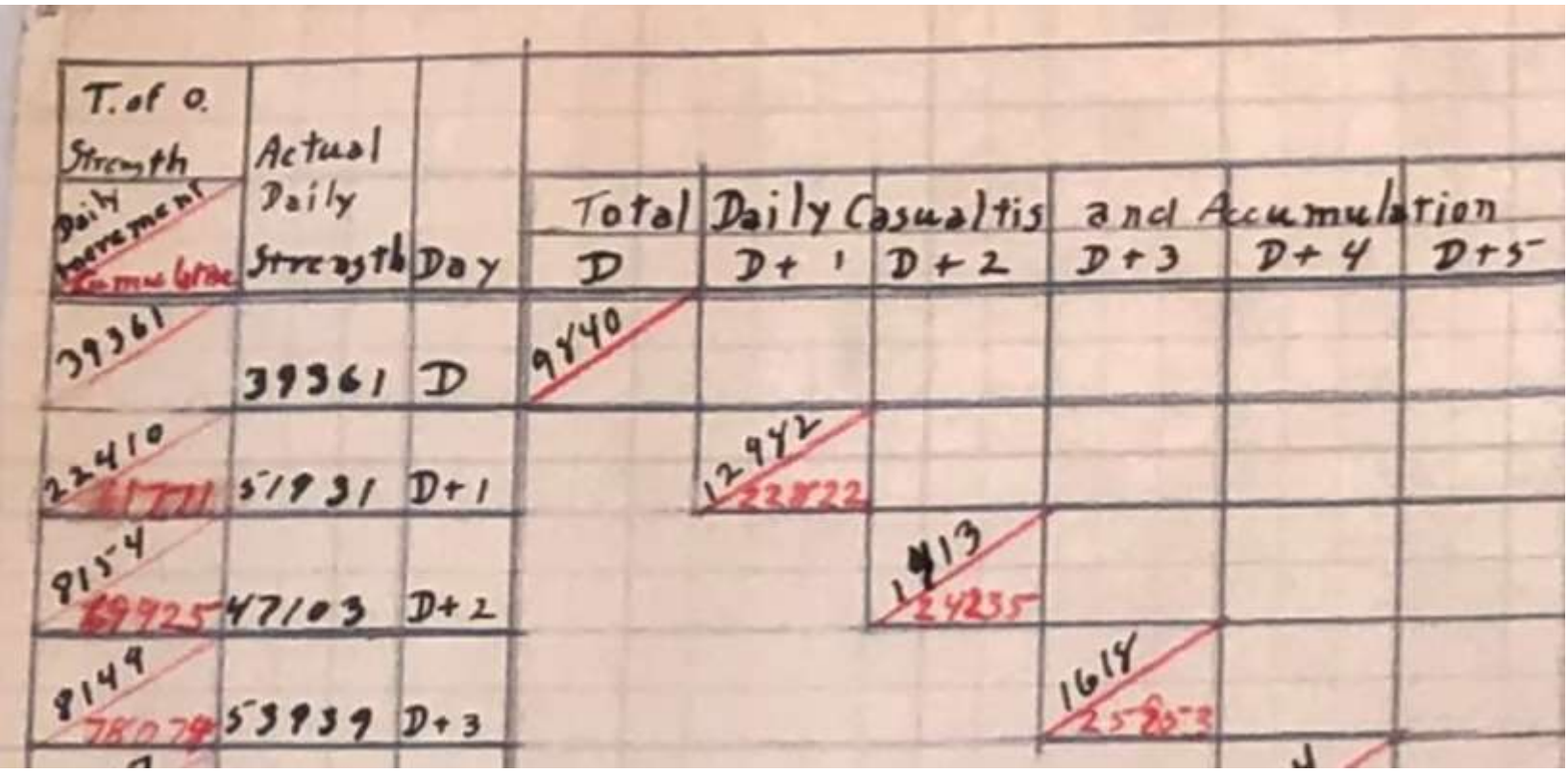
a. On 28 June 1944 Team 16 was ordered from the 67th Evac to the 45th Field Hospital near Valognes. Upon reporting, we were assigned to the 2nd Platoon who were in bivouac near Ste Mere Eglise. On Monday, 3 July 1944, this platoon moved to a field next to the 90th Division Clearing Station near Orglandes. That afternoon we received 14 badly wounded, non-transportable cases in a few hours.

Field Hospitals came ashore on June 7 and 8, two at each beach, and were soon operational. U.S. Army photo.

b. Team 16 started operating as soon as the first patient was in condition and with the help of` Captain Stone's team of the 4th Aux Surg Group, these patients were all handled without confusion or delay. Two of these patients were received in a semi-conscious condition, in shock, and died in less than hour in spite of all measures employed to resuscitate. Team 16 operated 8 of the remaining12 patients. The facilities and help given our team by the 45th Field Hospital were excellent.

c. On 7 July team 16 was ordered to the 1st Platoon of the 45th Field Hospital to help their cases. When we arrived, there were 39 patients in the pre-operative tent. After a night's work, we left the platoon with only 8 unoperated cases remaining. The two teams attached to the platoon were refreshed after a night`s sleep, while all the other patients, either had been operated or treated for shock, so that they could be safely evacuated. The leader of team 16 spent this period in triage for all 3 teams while the other members of Team 16 operated 4 severe and difficult cases.

Source: National Archives

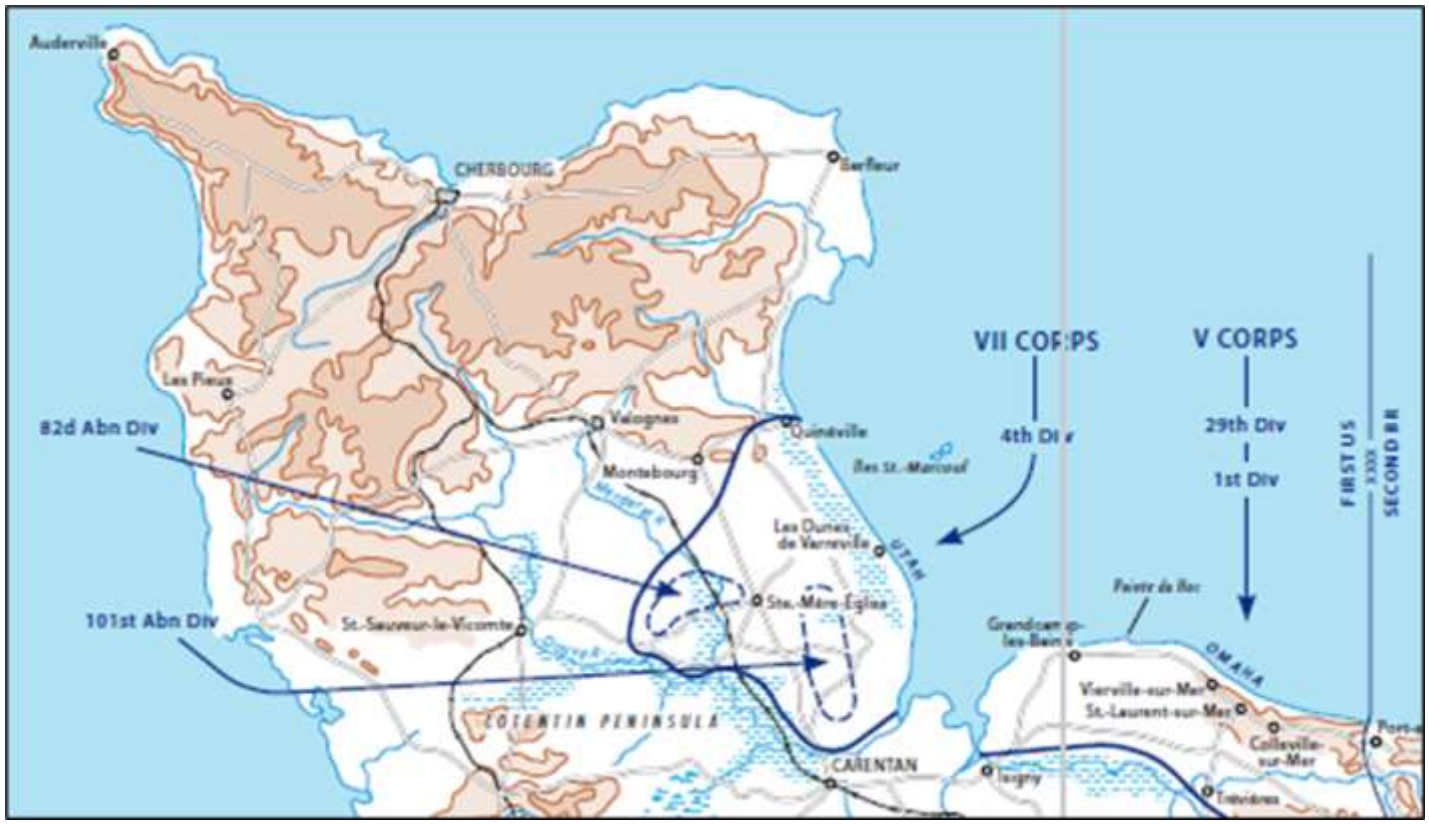


Section of the medical planning spreadsheet for casualties in Overlord. The first two days were estimated at 25% casualties, with 20% of those being dead. Later planning cut the projected D-Day losses to 12%, and both D+1 and D+2 to 6.5%. Regardless, there would be thousands of patients to treat on the beaches, evacuate to England, and hospitalize there. Courtesy National Archives.

First United States Army Medical Operations in Normandy: Planning, Executing, and Exploiting

Scott C. Woodard, ACHH

This review of First United States (US) Army medical operations details events specific to the medical story of the preparation (Operation Neptune) for the Normandy beach landings (Operation Overlord) and follow-on operations (Operation Cobra) until 1 August 1944. The incredible take away from this operation is the combat power given back to the commander. During the time of this report, battle casualties (killed, wounded, missing, and captured) for the 1st Army were 87,459. Within those numbers, the wounded were 65,871 and non-battle injuries were 16,602. In view of possible large scale combat operations in the future, the number of patients returned to duty during the almost two months of combat in Normandy should be noted by medical planners and combatant commanders. From 6 June to 1 August 1st Army hospitals treated and returned to duty (RTD) 22,942 patients. That volume is quite impressive if one remembers that a 10-day evacuation policy was not instituted until 21 June (D+15). Before that time, essentially all patients were evacuated to England, and medical units still returned 26% of patients to duty. The number of RTDs translates to about 1.5 infantry division's-worth of combat power given back to commanders. This is how it was done.



Operation Neptune, Planning for the Invasion

Under the initial joint plan, the 1st Army objective was to "secure a lodgement on the Continent from which further offensive operations can be developed" working under the 21st Army Group alongside the Second British Army all under the Supreme Headquarters Allied Expeditionary Force (SHAEF). Colonel John A. Rogers served as the 1st Army Surgeon throughout this period. Interestingly, like the other special staff section chiefs, Rogers was given "operational control" of all special troops assigned from his branch – medical. In addition to the authority to direct personnel transfers and effect efficiency reports, special staff section chiefs were authorized to issue "normal operating orders and instructions necessary to the accomplishment of the

mission" to subordinate units of their respective branches in the name of the Army Commander. Thus, Rogers was delegated responsibility to prepare, publish and supervise the execution of technical matters. Additionally, he was given authority to relocate supplies and units to accomplish the Army Commander's mission.

While building combat power in the United Kingdom (UK), 1st Army medical units trained, specifically focusing on the invasion aspects from January 1944 until D-Day. Instructors were pulled from veteran units to train units with no combat or amphibious landing experience. Planning at the Army-level and joint exercises with the Navy enabled identification of critical faults to correct before the actual invasion. This all-important joint planning relationship with the Navy began as troops rehearsed amphibious landings off the British coast. 1st Army planners saw the need to augment the Navy's medical personnel (two medical officers and 20 corpsmen) escorting returning landing craft with Army medical teams (two surgeons and two enlisted surgical technicians). The total 1st Army investment for surgical and medical care on Landing Ship, Tank (LSTs) back to the UK – 300 medical officers and 2,200 medical and surgical technicians.

1st Army personnel losses were estimated at 43,586 in the first ten days of fighting on the European continent. The 1st, 2nd, 4th, and 29th Infantry Divisions were purposively overstrength by about 10,000 soldiers. These "built-in" replacements enabled personnel requisitions to be about 33,586, planned to begin arriving on D+5. Medical supply consumption estimates also reflected the loss of soldiers. Sets were the primary method of resupply. Later, it was found that certain items were in greater demand and components of these sets were adjusted. Medical resupply plans were based upon estimated casualty rates and not pounds per man. Because tonnage was limited, one challenge was the phasing-in of critical items (blankets, litters, and splints) for the planned evacuations in the initial stages. Special coordination was made with the LSTs to bring in 30,000 litters and 96,000 blankets for the first 14 days.

Operation Overlord, Initial Landing, 6 June 1944 (D-Day)

Elements of V Corps (1st Infantry Division, 29th Infantry Division, Rangers, followed by the 2nd Infantry Division) were given the eastern objective for US forces, the area codenamed Omaha Beach. The VII Corps (4th Infantry Division, 82nd Airborne Division, 101st Airborne Division, followed by the 90th Infantry Division) objective was the western area codenamed Utah Beach. This was a force of approximately 30,000 for each beachhead.

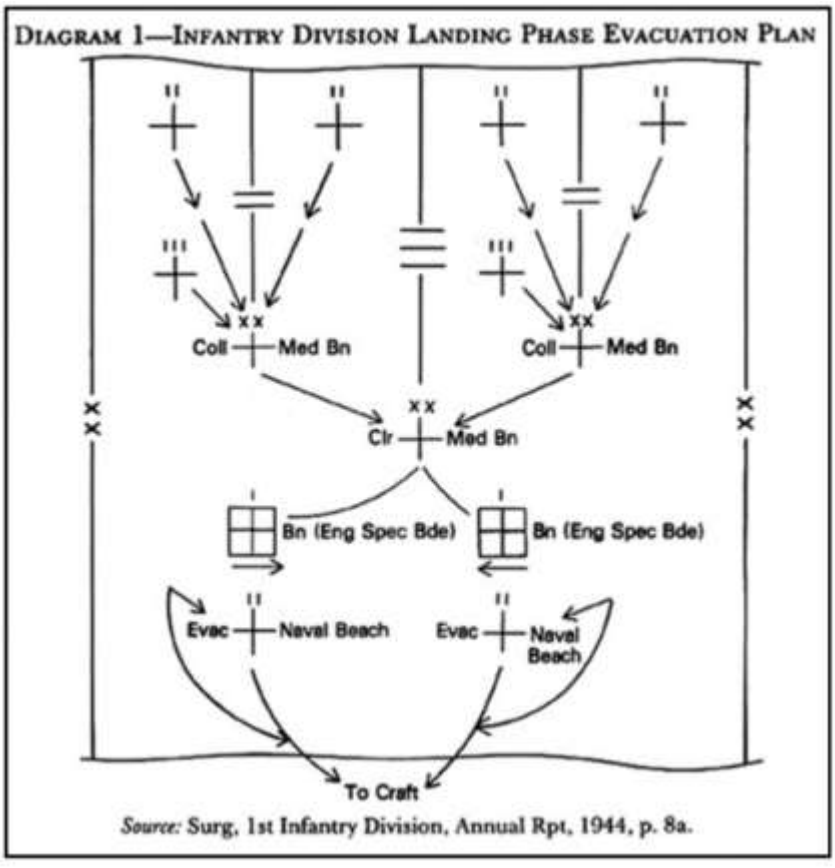


DIAGRAM 1—INFANTRY DIVISION LANDING PHASE EVACUATION PLAN

Source: Surg, 1st Infantry Division, Annual Rpt, 1944, p. 8a.

The infantry battalion medical sections had to limit themselves to provide only aid, tag, and mark patients for evacuation. They closely followed their units and did not linger on the beach. Organic divisional medical assets (consisting of regimental medical detachments operating the three battalion aid stations and line medics, the regimental aid station, and the divisional medical battalion of three collecting and one clearing company) directly supported and moved with their unit. Sections of collecting companies were right behind the battalion medical sections in the beach landing and were responsible for assisting in evacuation. The naval medical section of the shore party landed at the same time, or very soon after, the Army infantry battalion medical sections and was responsible for procuring landing craft, other than DUKWs (amphibious all-wheel drive vehicle), for evacuation to ships. They established an evacuation station and provided medical services for

the beach until the arrival of the medical battalion of the corps engineer special brigade. Attached to the medical battalion of the engineer special brigade were six surgical teams and a medical depot advanced section. They established an aid station for patient treatment and assisted in collecting from the beach and loading them into landing craft along with the Navy medical section. Returning landing craft were used for evacuation back to ships, or LSTs (stocked with blankets, litters, splints, surgical dressings, and plasma) beached. However, these craft were not protected by the Geneva Convention. The surgical teams were to treat severely wounded patients, who would likely be held on the beach until field hospitals were operational.

It should be noted, however, that the six surgical teams on Omaha Beach were only able to render aid because their equipment was not on the beach (The 1st Army Deputy Surgeon claimed the surgical teams were operating that night). The first major surgical operation was performed on Utah Beach at H+10. After consideration, the official report recommended any future amphibious landing should only prepare a patient for evacuation for the first 24 to 48 hours: when a patient is transportable, no definitive treatment should be given. Additionally, it was recommended that the engineer special brigade medical battalion (with their surgical augmentation) was an essential part of the task force and should land just before the division clearing station no later than H+4. It was from these surgical teams and their equipment that field hospitals were able to perform as "surgical hospitals" on Omaha Beach the next day 7 June (D+1).

Planned Landing of Medical Units, 6-14 June 1944

Utah Beach	June	Omaha Beach	June
6 auxiliary surgical teams	6	12 auxiliary surgical teams	6
1st Med Depot Co, Adv Platoon	7	1st Med Depot Co, Adv Platoon	6
42d Field Hospital	7	13th Field Hospital	6
45th Field Hospital	9	51st Field Hospital	8
3 auxiliary surgical teams	9	449th Collecting Company	11
463d Collecting Company	10	450th Collecting Company	11
564th Ambulance Company	11	577th Ambulance Company	11
464th Collecting Company	11	5th Evacuation Hospital	11
91st Evacuation Hospital	11	24th Evacuation Hospital	11
565th Ambulance Company	12	451st Collecting Company	12
493d Collecting Company	12	452d Collecting Company	12
128th Evacuation Hospital	14	575th Ambulance Company	12
566th Ambulance Company	14	41st Evacuation Hospital	12
501st Collecting Company	14		

Establishment of the Beachhead, 7-10 June 1944 (D+1 through D+4)

Much needed evacuation came from Geneva Convention Red Cross-bearing British hospital carriers that arrived on 7 June (D+1). The *Naushon* began taking patients that evening off Omaha Beach and had a 1st Army medical unit aboard. The priority of support for supplies replenishment went to ammunition, fuel, and rations, but medical supplies came in bulk when the first medical depot was established at Colleville-sur-Mer off Omaha Beach on 9 June (D+3), beating the ammunition supply point by one day. On 10 June (D+4), V and VII Corps elements made contact near Carentan, barely uniting the two beachhead landings and the 1st Army headquarters was established ashore. Also, at this time patient evacuation became "regularized" and more surgical teams landed. Air evacaution was established along with holding capability near Omaha Beach. It was through close coordination with the Air Force liaison embedded with the 1st Army surgeon's staff that predesignated airfields and collection points were identified, and they planned to use every C-47 for casualty transport when required. Additionally, when aircraft began bringing troops from the UK, the planes were loaded with medical supplies for delivery to the 1st Army. Parts of field hospitals were established on each beach. Up to this point it was estimated that 6,677 casualties were evacuated in total (Omaha 2,824 and Utah 3,853).

Cutting off the Peninsula and Capture of Cherbourg, 11-26 June 1944 (D+5 through D+20)
After the beachheads were secured, 1st Army rapidly increased in size and began sweeping north toward Cherbourg. With the capture of Cherbourg, the Allies gained a vital seaport adding a critical logistical foothold to the ever-increasing appetite of the advancing forces.

More space in the beachhead allowed more units to come ashore, and responsibilities shifted. When medical groups arrived they took evacuation responsibilities from medical battalions, and on 12 June (D+6) all patient evacuation responsibilities were under 1st Army control. V Corps was mainly evacuating by air while VII Corps mostly utilized boats from Utah Beach. Logistical operations on the beach were turned over to the Advance Section, Communication Zone on 18 June (D+12). Until 21 June, the policy for evacuation was to evacuate every transportable patient. After this date, 400-bed evacuation hospitals were operational, and COL Rogers implemented a 10-day evacuation policy.

There were major disruptions in care because personnel were landed separate from their vehicles and medical supplies and equipment were separated from both. The official report lamented that "an item which was urgently needed had to be sought by beach combing tactics" by the medical logisticians. Colonel Rogers was able to monitor bed status and flex patient movement though evaluation of reports coming from 1st Army medical units.

1st Army hospitals were not operational until the second week of June 1944. Those evacuation and field hospitals would be the preponderance of hospitalization care through 1 August 1944. Nurses arrived on 10 June (D+4) and demonstrably improved patient care. Except for two surgical teams continuing to operate in a holding area of the beach, field hospitals assumed major definitive surgical care on 11 June (D+5) removing that burden from the clearing stations of the amphibious battalions. Because the field hospitals received all patients (not just non-transportable), they acted as evacuation hospitals. The three field hospital platoons adjacent to division clearing stations failed when all three were employed simultaneously or when movement required stay-behind personnel: there was no rotation or recovery for the limited personnel. Yet field hospitals were important because they saved patients who could survive longer evacuation. This foreshadows the development of forward surgical teams in the 1980s.

The evacuation hospitals were as close to the front as possible. Battle casualties often reached the evacuation hospital quickly. One such hospital received casualties (a ten-day average), 4 hours after injury and 80 percent of patients admitted were on the operating table within 20 hours of admission. The surgical backlog faced by the evacuation hospitals was mitigated by adding surgical teams from the auxiliary surgical group and pulling staff from other hospitals. Additionally, lightly wounded (15 – 35 percent) were evacuated without definitive care.

Medical unit allocation for direct support to 1st Army:

3 Medical Groups (HHD only)	11 Collecting Companies
8 Medical Battalions (HHD only)	6 Clearing Companies
5 Field Hospitals (400 beds each)	1 Medical Gas Treatment Battalion
1 750-bed Evacuation Hospital	1 Auxiliary Surgical Group
10 400-bed Evacuation Hospitals	1 Medical Laboratory
1 Convalescent Hospital	1 Medical Depot Company
7 Ambulance Companies	

Regrouping of Forces 26 June-24 July 1944 (D+20 through D+48)
During the capture of Cherbourg XIX Corps and other troops came ashore. There was steady pressure on the Germans, but no breakthroughs to the southwest from the initial beach landings as the Germans defended amid the hedgerows of Normandy.

More surgical teams were needed, and improvised by pulling personnel from general hospitals before they were operational. The 1st Army's auxiliary surgical group landed on 28 June (D+22) and was operational the next day. They mostly assisted evacuation hospitals and some field hospitals. Averaging 500 pints each day

for the first two weeks, whole blood was never short. One surgical team leader commented, "In this campaign we believe the greatest single blessing from the medical point of view has been the availability of blood bank blood. In contrast to the African and Sicilian campaigns, we are now being able to operate upon and save patients that could never have survived on plasma alone."

Medical personnel set up two 250-bed combat exhaustion centers. As the fight continued, one expanded to 750 and the other 1,000 beds. The sole gas treatment battalion converted to a 1,020-bed center for malaria and various contagious diseases. Three neuro-surgical centers were formed at evacuation hospitals.

Operation Cobra, 25 July-1 August 1944 (D+49 through D+56)

1st Army forces pushed south and edged toward the coast mopping up enemy resistance along the way while encircling German units. Devastated by air bombing, German forces were mostly disrupted with occasional entrenched resistance from elite all-volunteer units. German resistance cracked suddenly, and the US forces would "fan out west and east to capture the Brittany Peninsula on the one hand and swing toward Paris and the Seine [River] on the other" while British forces headed along the Channel coast and north of Paris.

More hospitals arrived 3d Army units began arriving on 26 June. When they moved, they typically hospitals leapfrogged, going as far forward as tactically viable, usually the corps rear. 1st Army supported 16 combat divisions with 22 evacuation hospitals and 6 field hospitals through 1 August. By 31 July 1st Army had evacuated 65,998 patients: 19,966 by air, 10,071 by ground, and 35,961 by boat.

Conclusion

The ability to build back combat power is an important aspect of Army Medicine. COL J. L. Snyder, deputy surgeon of 1st Army, commented on the one convalescent hospital utilized during the Normandy Campaign, "the utilization of the convalescent hospital is great because it has a large [3,000-] bed capacity, it affords a man rehabilitation and training, and most important, retains him with the combat area." By the end of the war in Europe, there were 365,390 casualties in the 1st Army alone. Of those, 173,728 were wounded. During the 11 months and 2 days of fighting on the continent, the 1st Army hospitals returned to duty 101,000 soldiers – approximately 6.7 divisions and 58% of the wounded. Today's infantry one-station unit training takes 22 weeks to convert a recruit into an infantry soldier, and the AMEDD could make the difference in combat power by returning soldiers to duty.

In closing remarks on COL Snyder's presentation on the Normandy invasion, the Commandant of the Army and Navy Staff College reminded the students about future logistics war planning:

> There are…three things that are fundamental to any supply in war and the maintenance of troops in action. First, food; second, ammunition; and third, provision for the care of the sick and wounded. Of the three, the last requires provisions for evacuation from the front, because of the three, the supply of men is the only one that returns to the firing line. That is the only element that returns and provision must be made for sending the man up, bringing him back and returning him; that is hospitalization and evacuation.

Sources

"Medical Services in the Invasion of Normandy," Film Bulletin No. 146, Record Group 111: Records of the Office of the Chief Signal Officer, https://catalog.archives.gov/id/24540

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Black Medics On Omaha Beach
Sanders Marble, ACHH

The first Black soldiers ashore on D-Day were 320th Anti-Aircraft Barrage Balloon Battalion (Very Low Altitude), and the units' medics all received the Bronze Star for their gallant actions on Omaha Beach.

Army policy in the 1940s mirrored national law: Black soldiers were in segregated units. The Army generally put them into low-profile units in rear areas, such as ordnance and quartermaster, or even just labor units. Only about 9% of Black troops based in Britain were in combat units. There were a handful of Coast Artillery units (which then included anti-aircraft units) manned by Black soldiers, including four VLA barrage balloon battalions. These highly specialized units were important to protect amphibious landings: amid the confusion of an opposed landing, even a few air attacks could be very disruptive. Balloons were not the only defenses; friendly aircraft would help, as well as the Navy ships and eventually Army AA guns would be landed. Cables hanging from the balloons would either snag low-flying bombers and strafers, or that risk would force the enemy pilots to fly higher, where other AA units would have a better chance to engage them. Balloons were not a dramatic part of the air defense umbrella, but they were a necessary part.

Balloons of the 320th protecting a Normandy beach. U.S. Army photo.

It was clear Operation Overlord would need a barrage balloon battalion, and the 320th was the only one available. It had been organized in late 1942, trained through 1943, and moved to England in November. They continued training into the spring of 1944, including an amphibious landing exercise in May. On 2 June, 1944, they loaded around 150 balloons (one per landing craft to be sure most would reach shore regardless of losses) and waited. On the morning of 6 June, 1944, the first element to reach the shore was part of the battalion medical detachment: Capt. (Dr) R.M. Bevitt and the four Black enlisted men, SSG Alfred Bell, CPL Eugene Worthy, Tec/4 Waverly Woodson Jr., and PFC Warren Capers.

Woodson's landing craft hit a mine, killing most of the Navy crew and killing or wounding many of the Army passengers. Disabled, the craft drifted ashore with the tide and the men jumped over the side and waded to land. They set up their aid station and worked for the next 30 hours. Woodson had taken a fragment in the thigh, but continued ashore, was bandaged, and worked alongside his buddies; he later recalled "It hurt like hell." The little aid station treated over 300 patients (over 10% of American wounded on Omaha Beach), ranging from simple abrasions to abdominal wounds and worked until the beach was secure.

Medic of the 320th treating a wounded soldier. Courtesy National Archives.

The 320th lost three men killed that day, and at least two wounded, as they got their balloons ashore and aloft under artillery, MG, and rifle fire. All four medics received the Bronze Star.

Sources

Unit records, 320th Anti-Aircraft Barrage Balloon Battalion (Very Low Altitude), National Archives.
Linda Hervieux, Forgotten: the untold story of D-Day's Black heroes, at home and at war. New York: Harper, 2015.

Even as the Allies built up in Normandy and pushed inland, evacuation was still back to the beaches for LSTs to collect casualties for the short trip to England, where patients would recuperate for return to duty.
Photos courtesy National Archives.

German resistance at Utah Beach was less than at 'Bloody Omaha,' but the troops still suffered hundreds of casualties.
Photos courtesy National Archives.

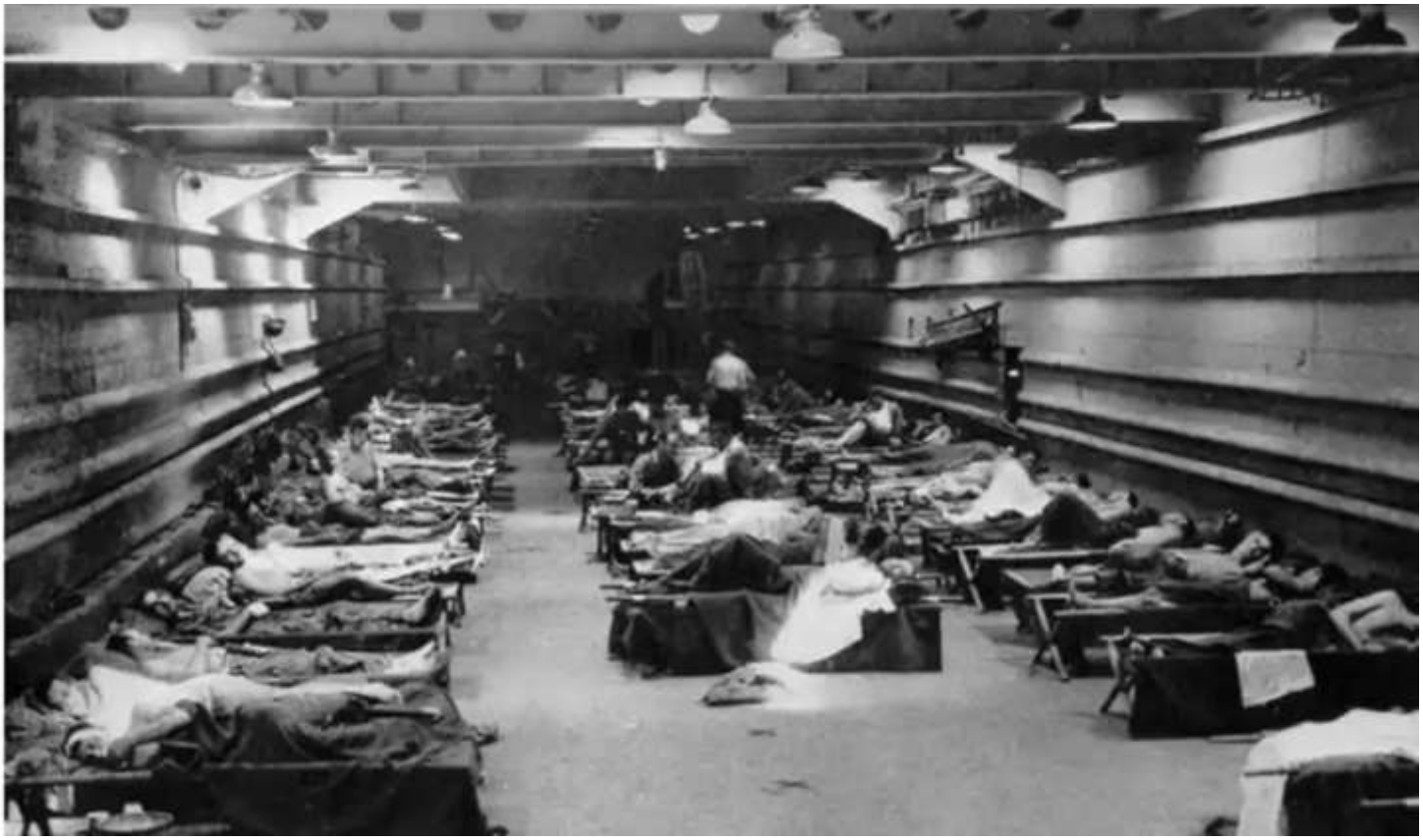
Beachhead Evacuation

The planners for Overlord predicted 9,840 casualties on D-Day and 12,942 on D+1 since they were not sure the beaches would be cleared. After that, casualty estimates dropped rapidly but were still well over 1,000 per day. Subtracting the killed and captured, and assuming all the wounded were treated, there was a huge evacuation problem. They also recognized that not all the wounded would be treated, and some would need urgent care during evacuation. It was a huge problem.

Hospital ships would have the best quality. They were protected by the Geneva Convention, removing even the slight risk of German air attack. With operating rooms and nurses, they had the best en-route care, and could reduce the amount of treatment needed in the beachhead. But they were ships, and there was nowhere to dock them in France; loading them from landing craft would be slow. There were also few hospital ships available, and they could not use the closest English ports since the right docks were not available; traveling to -distant ports would reduce their per-day evacuation capability.

On the other hand, many LSTs (Landing Ship, Tank) would be in the invasion fleet. They would be beaching in France to unload tanks and other vehicles, and they could just as well beach at nearby English ports. Thus those problems were addressed. And there were lots of LSTs, providing plenty of capacity. But each LST only had five Navy corpsmen, with two doctors provided per twelve LSTs. They were only equipped and trained to take care of their crewmen, creating a serious qualitative problem. Nobody wanted what was essentially CASEVAC for that many wounded.

From February to April 1944 British and American medical planners debated. Finally, they decided how to augment the medical care on LSTs. Some LSTs would have 200 cots stowed away on the outbound voyages, plus surgical teams (only two doctors and 20-25 enlisted men). This was better than CASEVAC, and probably the best possible in the circumstances. Since D-Day was originally scheduled for May, the April decision left a little time for training.



An LST with cots assembled, evacuating casualties from Normandy. Hundreds of casualties could be carried, with some en route care. U.S. Navy photo.

On D-Day the landing forces used any LST for evacuation, not just the ones with surgical teams on board. Evacuation to safety was apparently considered better for the casualty (and better for the tactical situation on the beach) than waiting for a medically-augmented LST. Navy Pharmacist's Mate Second Class Frank Feduik was on LST 338 on D-Day and recalled:

> We were mostly applying tourniquets, giving morphine. When you ran out, you just went and got somebody else's kit and hoped you could find morphine. Then we would mark the patients, what time you had given the morphine… I remember one soldier, he was about 19 or 20. I knew he was in pain so I checked him right out. His leg was missing, he had stepped on a mine right on the beach. He told me he was an Iowa farmer. I gave him a morphine shot and told him he would be OK for a couple of hours and he jumped up and looked at the stump. I don't know where he got the strength, he grabbed for the stump and said "I'm a farmer, what am I going to do?" I pushed him back and told him he would be OK. He just screamed.

The LSTs were used for months. Air evacuation was available within a week (and sooner than expected), and once ports were available hospital ships were used. But there were convenience factors to using the LSTs. As more hospitals were established in Normandy and other evacuation methods were available the en-route care on LSTs was reduced, ultimately back to the basic Navy crew. A survey of doctors who had been detailed to LSTs for Normandy had the mixed results you would expect from dozens of individuals: 84.8% said medical care on the LSTs was adequate, 13.4 inadequate, 1.8% even said it was excessive.

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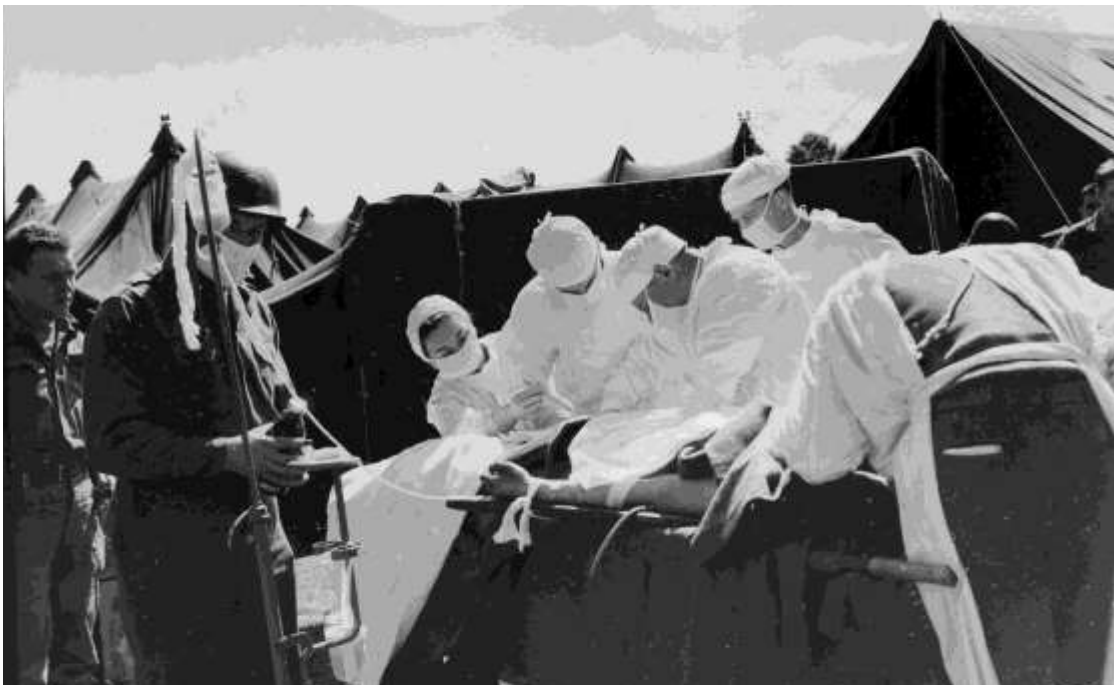
Tracy D. Cuttle and John N. Marquis, "Medical Problems in Amphibious Warfare: The LST in Evacuation of Casualties," *Naval Medical Bulletin* 43/5 (November 1944), 922-929.
Frank Deduik oral history, U.S. Navy Bureau of Medicine and Surgery history office.

Carrying wounded on litter off a beached LST in England. Using LSTs, which could beach, avoided the bottleneck of dock capacity in English ports.
U.S. Army photo



This surgical team at the 24th Evacuation Hospital took advantage of good weather to operate outside, increasing operating room capacity. 17 June 1944, Combe, France.
U.S. Army photo.

War artist Lawrence Beall Smith painted "Normandy Wash" to highlight the contrast of children amid the bloody business of war. Children often traded flowers rather than just begging for gum, candy, or food.
Oil on canvas, circa 1944. Courtesy U.S. Army Art Collection.

Nurse uniforms were based off civilian nursing white uniforms, and included caps. For field use, they adopted GI fatigue uniforms and steel helmets, which were authorized in July 1943. 2LT Margaret Stanfill (right) was recognized as the first nurse ashore in Normandy. U.S. Army photo.

Medical support for the invasion continued into England. The AMEDD planned for 95,000 fixed beds (not mobile units) in Britain, to support the various units there and casualties coming back. Equipment and supplies were also stored there

Below: two of the fixed hospitals. Photos courtesy National Archives.

Bottom: Gas decontamination equipment stockpiled as a precaution against a German gas attack. Three medical gas decontamination battalions served in Europe just in case. U.S. Army photo

Memories from Normandy
Paula Ussery, AMEDD Museum

MAJ David Thomas, 508th Parachute Infantry Regiment

Major David E. Thomas, MC, served as surgeon of the 508th PIR (Parachute Infantry Regiment) at Normandy during the initial landing and campaign. Thomas graduated Western Reserve College of Medicine in 1937 and was commissioned as a 1st Lieutenant United States Army Reserve, then began active duty on 8 November 1939. In 1940 and 1941 he attended the Army Medical Officer's Basic Course and Parachute Training at Ft. Benning. He was promoted to Captain in October 1941 while serving as the Surgeon of the 503d Parachute Infantry Battalion. It is believed that he was in the first class of medical officers to become parachute qualified. He joined the 508th PIR in 1943 and Normandy was his first combat jump with them.

While serving with the Provisional Parachute Group at Ft. Benning, GA, Major Thomas wrote an article for the *Army Medical Bulletin* in July 1942 entitled "Medical Service with Parachute Regiments." He discussed the unique challenges for medical personnel serving with airborne units. As Thomas stated

> [For] where our fighting troops go, the Army 'medico' accompanies them, and in these hard-hitting units the only way to keep up is to jump when they jump and run when they run... As constituted at present, there are nine officers, and sixty enlisted men in the medical detachment of a parachute regiment. This personnel is divided into three battalion sections and a regimental headquarters section. It is commanded by a major, and every member is a jumper.

Thomas stressed that airborne medics must be intelligent, well trained, and trusted with morphine and surgical instruments. Airborne medical personnel were likely to find themselves

> in many tactical situations, [where] there will be no medical officer present, and what aid the line troops receive must be given by our enlisted men... Even when the entire regiment is employed, it will initially be scattered over an area so large that a majority of the casualties will not be seen by a medical officer until the action is terminated... In the standard infantry regiment, attached medical personnel is protected by riflemen in front and can be reinforced by supporting troops in the rear. Parachutists have no rear, and the medical soldier has no protection other than what he can provide by staying with his unit. For this reason, the medical soldier with a parachute regiment must be as thoroughly indoctrinated in the tactics of parachute infantry as is the rifleman.

MAJ Thomas' jump jacket from Normandy. AMEDD Museum

As it turned out Major Thomas' words were prophetic as the 508th PIR was widely scattered during their predawn jump on 6 June. As Thomas later described it, "At Normandy it was simply a matter of rounding up a bunch of guys and going to war." That comment was echoed by a fellow member of the 508th who recalled, "We were in the air for seconds but it seemed like an eternity. The whole ground came up at us. I mean everything! Thes sky was full of tracers." Heavy German resistance meant that organizing personnel and retrieving additional equipment bundles was essentially impossible on that first night.

Thomas' oral history interview is now lost, but it is known that three days after he landed he was captured by the Germans. "Some good soldiers caught me in the moonlight and that was all she wrote. I was a prisoner." In line with the Geneva Convention, the Germans put him to work in one of their hospitals. American shelling allowed him to escape after four days. According to Thomas the German rear area was in chaos. Thomas

traveled after dark to avoid detection and eventually encountered an American artillery unit. Since he did not know the current password, and had no identification, they held him until his identity could be confirmed. After being released by the Americans Thomas returned to the 508th and continued to serve with them in Normandy until the division was relieved on 8 July 1944.

PVT William A. Lewis, 2d Medical Battalion

June 6 is one of the most significant days in World War II, but it was just the first day of the invasion. Other units and supplies streamed to the beachheads in the days, weeks and months that followed. One of those units was the 2d Infantry Division. The 2d Infantry Division, a Regular Army Division, had served in World War I in France. Once WWI ended, the 2d Division returned to the United States and resided at Ft. Sam Houston, Texas for the next 23 years.

In 1942 the division was ordered to Camp McCoy, Wisconsin. From there they sailed for the European Theater (ETO) in October 1943, and trained in Northern Ireland until April 1944 when they moved to Swansea, Wales. The 2d was assigned to Omaha Beach, to follow up the 29th and 1st Infantry Divisions, as part of LTG Omar Bradley's First Army. On 6 June 1944 the division loaded and began sailing for France.

Among the enlisted men serving with the 2d Infantry Division at Normandy was Private William A. Lewis. Lewis, like millions of other Americans, found his life upended by World War II. A native of Wichita Kansas, he was drafted in June 1943 at the age of 19. After processing at Ft. Leavenworth, which he described as "hotter than h- - - - up here in these barracks and there aren't any trees to be found," he was shipped to Camp Barkeley, Texas in July 1943 to train as a medic. He described his training at Camp Barkeley as consisting of "hiking and caring for the wounded in the battle front. But we don't get a gun to defend our self with, it will be just like going in to a fight without any hands."

Lewis at Camp Barkeley. To speed construction of training camps, the Army built temporary buildings with wooden frames and tar-paper walls. Hot in the summer, cold in the winter, drafty all year round, they were the bare minimum Lewis Collection, ACHH.

On 20 November he proudly wrote his fiancé, "Well honey, my training ended today." After a seven-day furlough, Lewis returned to Camp Barkeley and waited for his orders. He boarded a train on December 26th and embarked for Europe around January 1, 1944. Assigned to Co. B., 2d Medical Battalion, 2d Infantry Division in April 1944, Lewis served with this unit until his discharge in October 1945. An infantry division medical battalion at this time consisted of 35 officers, 2 warrant officers, 429 enlisted men, and 90 vehicles.

Lewis' shoulder-sleeve insignia. He would remain with the 2d Medical Battalion through the war. AMEDD Museum.

Although the 2d Infantry Division landed on D+1, the beachhead was still under heavy German fire. The 2d landed at St. Laurent-sur-Mer but due to the German resistance and the overall confusion, its heavy weapons and communications equipment didn't land until D+4. On 8 June the last infantry regiment in the division landed. On 9 June the 2d attacked Trevieres. The 2d Medical Battalion set up its clearing station at St. Laurent-sur-Mer, but quickly established a collecting station near Trevieres, which was liberated the next day. Forward progress ground to a halt in the hedgerows in mid-June after an unsuccessful assault on Hill 192. This attack cost between 1,200 and 1,250 American casualties.

In a letter dated 20 June Lewis wrote, "You ought to see me now, mud all over me, there was about 2 inches of mud in my slit trench when I went to bed. A slit trench is ... as long as I am and about 2 foot wide and about 2 or 3

foot deep..." The 2d would resume its assault on Hill 192 on 11 July 1944 and continue its service in the European Theater until the German surrender.

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William A. Lewis collection, ACHH

Lewis later in 1944 with a jeep modified to carry litters (left) and an ambulance (above). Lewis Collection, ACHH.

Jeeps were modified many ways for various unit missions. This unidentified unit has a wooden rack on the hood as it loads in England for the trip to France. Courtesy National Archives.

Medical Equipment for Normandy
Charles Franson, AMEDD Museum

When the troops waded ashore (or dropped out of the sky) in Normandy on 6 June 1944, they had the benefit of a well-organized medical infrastructure. Each member of the invasion force caried, as part of his basic equipment, a "First Aid Packet, Carlisle Model" in a pouch attached to his equipment belt. This was for the immediate care of a wound. It could be applied by the soldier, or a buddy in the field. (See AMEDD Historian #7.) If a medic came to the aid of the wounded man, he would first use the soldier's own dressing rather than depleting his own supply. Airborne personnel also carried a "Packet, First-Aid, Parachute." This contained, in addition to a Field Dressing, a morphine syrette, a field torniquet, sulfa tablets, and a packet of sulfa powder to sprinkle in the wound. The packet was usually carried tied to the netting of the helmet.

Medical personnel were equipped with a pair of medical pouches, carried on a special carrying yoke, or "suspender." The poches contained extra field dressings, a tourniquet, and items for general patient care, such as APC and laxative tablets, iodine swabs, adhesive plasters ("Band-Aids"), supplies for burns and eye injuries, and a book of Emergency Medical Tags to attach to casualties to help track them through the evacuation system. NCOs carried the same pouches, but with fewer field dressings, and the addition of morphine syrettes (as the war progressed, junior medics also received morphine for use on casualties). Officers only carried one pouch, with dressings, bandages, medical tags, and a minor surgery case. The officer's pouch also had a larger supply of medicines, as well as morphine. Officers and men assigned to medical companies were equipped with the same pouches.

Airborne personnel had to have everything they would need for a potentially prolonged period of treatment until the seaborne troops could advance to their positions. In addition to their pouch, they often carried an extra pack with additional equipment, including plasma. These were often made by riggers in their home units. A "Pouch, Medical, Parachutist" was later standardized based on lessons learned in Normandy. Along with the packs carried on the individual medic, medical supplies were made up into drop containers which would be dropped along with the men. Unfortunately, many of these went astray, landing behind German lines, or in flooded, marshy ground, and were unrecoverable. The 101st, for instance, recovered only 30 percent of its air-dropped supply containers.

The Parachutist Medical Pouch, top view and opened.. AMEDD Museum.

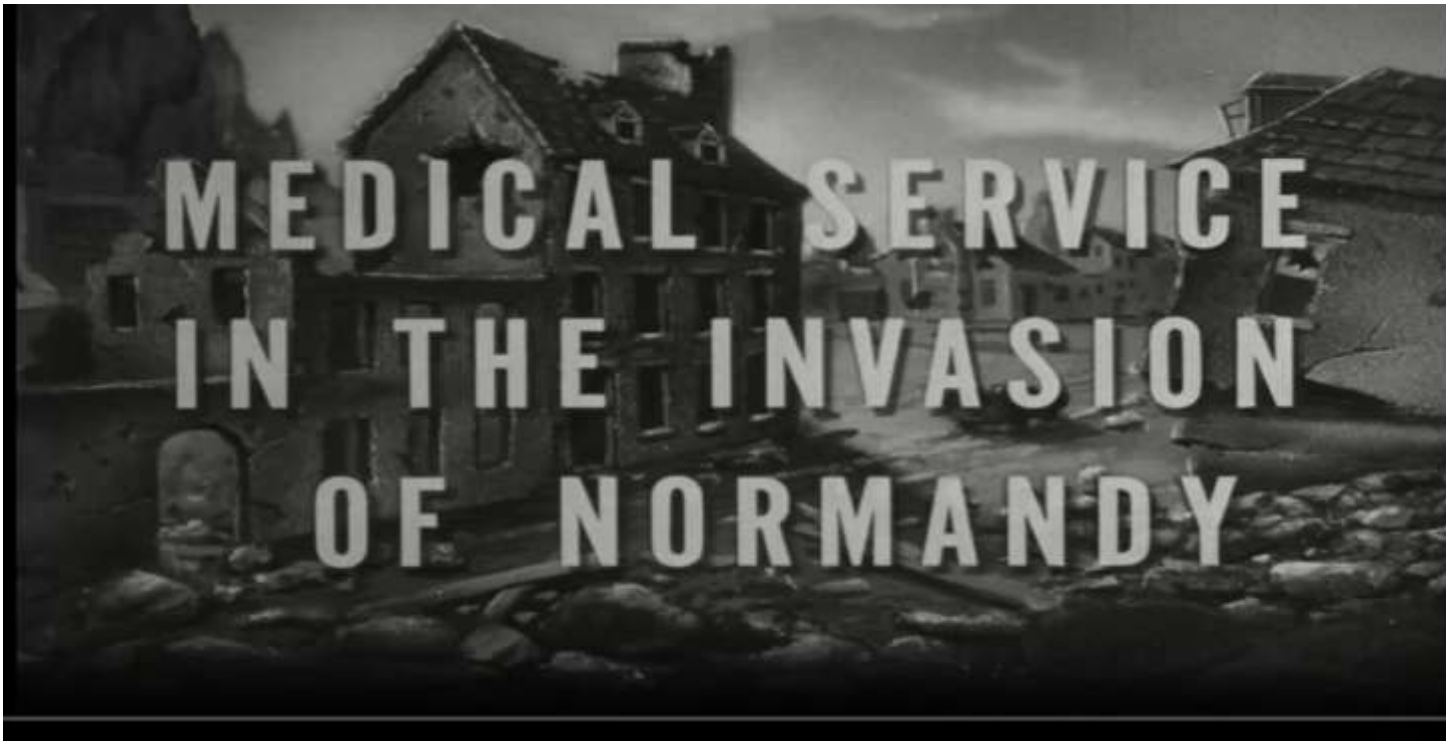
Evacuation of wounded from forward airborne units was difficult, as they did not have ready access to the beaches. This occasionally resulted in unconventional solutions. For instance, LTC Patrick Cassidy, commander of the 1st Battalion, 502d Parachute Infantry, a 101st Division unit, and his surgeon, CPT Frank Choy, MC, secured a small cart and a horse to pull it and drafted a dental technician to drive it. "All day long this boy drove up and down the roads, exposing himself to sniper fire, working like a Trojan, to bring in the wounded and the parachutists who had been hurt on the jump; his energy saved countless lives."

The greatest part of medical equipment and supplies came across the beach as medical units landed. Utilizing a variety of amphibious vessels, trucks laden with supplies and equipment for collecting and clearing companies came ashore on June 6th and set up on the beach. Initial evacuation was back across the English Channel in recently emptied ships. Casualties were at first gathered by litter bearers. As forces moved inland,

ambulances and jeeps were used to transport casualties to the beach area. The beach area itself was managed by Naval Beachmaster units and Army Engineer Special Brigades which had organic medical units, the 60th and 61st Medical Battalions. These units were equipped with Chest, Medical Department Number 1 and Number 2, which provided most of the equipment and supplies for immediate patient care. In addition, there were supplies of blood plasma for treatment of shock.

In practice on D-Day and D+1, the use of distinct collection and clearing units proved impracticable due to the short depth of the beachhead resulted in "Collecto-clearing" stations, where litter bearers from battalion aid stations would bring casualties for evacuation, or further stabilization. By 1500 on D+1 the 500th Collecting Company received permission to establish a clearing station 300 yards northwest of St. Laurent. Enough tentage and supplies had been landed to provide three wards and a surgery unit. Instruments (packed in canvas rolls to save space) and a portable sterilizer made emergency surgery possible.

Right: A Navy aid station (2nd Navaly Beach Battalion) ready to hold patients before evacuation, Utah Beach.
U.S. Navy photo.
Above: 1st Army medical personnel readying patients for sea evacuation by providing lifebelts for flotation, 11 June 1944.
U.S. Army photo.



Want to watch a 1944 film about this?

This is in the National Archives catalog https://catalog.archives.gov/id/24540

And in YouTube https://www.youtube.com/watch?v=OqusJQ0CpYY

And C-SPAN has it here https://www.c-span.org/video/?461006-1/medical-service-invasion-normandy

Medics with litters boarding a landing craft "somewhere in England" as they prepared to move to Normandy. U.S. Army photo.

Writing for *The AMEDD Historian*

We are seeking contributions! We believe variety is the way to attract a variety of audiences, so we can use:

- Photos of historical interest, with an explanatory caption
- Photos of artifacts, with an explanation
- Documents (either scanned or transcribed), with an explanation to provide context
- Articles of varying length (500 word minimum), with sources listed if not footnotes/endnotes
- Book reviews and news of books about AMEDD history

Material can be submitted usarmy.jbsa.medical-coe.mbx.office-of-medical-history@army.mil Please contact us about technical specifications.

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