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### **Welcome**

to issue #37 of the *AMEDD Historian*! This issue begins with serious problems for the Army Medical Department during World War II. The campaign in North Africa produced unexpected casualty numbers and issues. Read how patient evacuation challenges and hospital proximity are resolved to provide more efficient care as the war progresses. Forward treatment and evacuation at the beginning of World War II, are also analyzed further.

Do you remember REFORGER exercises or have you heard about Warm-Base hospitals? Created during the Cold War to rapidly move large numbers of troops to Europe, REFORGER was practiced from the late 1960s through early 1990s. Similarly, the warm-base hospital plan saw prepackaged hospital material staged at marshaling areas and with personnel expansion in crisis.

We've learned about WarDocs, a podcast that interviews military medical personnel to learn their stories and about the system. Other issue features include the Army Medical Specialist Corps' 75th Anniversary, the 18th Medical Command and its history, Hospital Ship Platoons, and an overview of tourniquets. We have included a book review as well as excerpts from "Letters from a Physician-Soldier in the South Pacific."

(continued on page 14)

### **The AMEDD's First Battles of WWII**

*Two issues ago we looked at the first battle in the Pacific. This issue we look at the first battle against the Germans, and draw some conclusions about the two campaigns.*

### **NORTH AFRICA**

In mid-1942 the British and Americans agreed they were too weak to invade Western Europe and strike to Berlin, and clearing the Mediterranean was the best option for the available forces. Landing in Algeria and Morocco would provide bases to drive into Tunisia, and from there they would cut enemy lines of communication from Italy to the Italian colony of Libya. It took months to organize the landings, and on 8 November 1942 Operation TORCH saw British and American forces land against (fortunately) light opposition. The campaign would take six months, and broke into three phases. The first was from the landings to late December 1942; the Allies advanced into western Tunisia, but culminated as the enemy built up quickly. The second was January to March 1943, as both sides contested the initiative; the Kasserine Pass battles showed flaws in the U.S. Army. The third was April-May 1943, as the Allies drove to victory over stout enemy opposition. Each phase saw more casualties than the last, and the AMEDD adapted its resources.

With the whole landing force limited, medical support was "on a shoestring" and involved joint Army-Navy planning. Equipment for several hospitals was lost when a transport was sunk, fraying that shoestring. Once ashore, the main problem

was ports over 400 miles from the front lines, compounded by the limited communications routes. The poorly-maintained single-track railway could handle only eleven trains per day, while on the main “highway” convoys averaged 6mph. Allied forces reached western Tunisia, but could not push through hardening German resistance.

The next phase had far more opposition, including enemy attacks at Kasserine Pass that inflicted thousands of casualties, including most of a regimental combat team captured. Allied resources did not match the mission, and the people that suffered the most were the troops in the line. Units could not be relieved for weeks at a time, with troops living in foxholes, eating cold food, and under fire for days at a time. It is little wonder that hundreds became psychiatric casualties or wounded themselves, as they heard their wounded comrades getting weaker by the hour, and smelled the dead decomposing. Medical problems broke into three main categories: forward treatment, evacuation, and hospitalization.

Treating the wounded was limited by period technology and training. In theory, a medic got twelve or thirteen weeks specialty training and continuous on-the-job training. In practice, replacement medics could be anyone coming off a troopship when the need was for medics. Equipment was as scanty, with pressure bandages and pre-measured morphine syrettes the most elaborate equipment. Even at a battalion aid station, where a doctor could at least supervise care, there was only plasma and bandages; they might close a sucking chest wound or complete a traumatic amputation, but nothing more. There was no forward treatment of combat stress: the Army had looked at WWI data and practices, and thought it could screen out all soldiers who were prone to breakdown. Instead, 20-34% of casualties were from combat or operational stress (then termed “combat exhaustion”) and since they had to be evacuated to rear-area hospitals for treatment, only about 3% returned to duty.

Evacuating soldiers to care was a problem. Tactically, it might be hours before the firefight was over and it was safe for litterbearers (in TOEs so combat soldiers could focus on combat) to carry a wounded man back. Jeeps proved useful across the rough terrain where ambulances (with a medic to provide en-route care) could not go. The roads were few and rutted, and German aircraft were a threat to strafe any moving target, but distance was the real problem: the hospitals were 50, or 100, or even 145 miles in the rear along rutted dirt roads. The surgical hospitals had been organized with one operating section and two ward sections so they could leapfrog behind an advancing division. Instead, the problem was supporting a wide front, and the OR section had to be split into two improvised pieces. The distances meant more hours of delay before surgery (up to 24) and a hospital bed to recuperate in, and the long drives meant more ambulances were needed, and also forced use of jeeps and trucks without medics on board – CASEVAC.

Evacuation from the tactical hospitals to recover in rear areas was also problematic. Again, distance was a problem, and a hospital train was used on the one narrow-gauge railroad, but it lacked enough capacity. Air evacuation was used instead, going beyond doctrine to do what was necessary, and sometimes moving up to 400 patients per day. The Army Air Forces were flying cargo forward, and the empty C-47s were used to fly patients back; even a B-17 had litter racks rigged in the bomb bay. The AMEDD had been planning its School for Air Evacuation, but not had time to graduate any personnel, so the 802d Medical Air Evacuation Squadron was extemporized and operational in mid-March. These squadrons had no aircraft, only personnel. Flight surgeons would select which patients were stable enough to fly, and flight nurses and enlisted medics accompanied them. When bad weather stopped evacuation flights, a British ambulance convoy was borrowed to shuttle groups of 180 patients at a time. Through the second phase of the campaign, some American units were under British operational headquarters, and evacuated their patients to British hospitals. They received good care, and sooner than if evacuated to an American hospital, but the lack of liaison officers meant they got lost in the British system and return to duty was delayed.

The forward hospitals also had problems. There were too few of them, and the wrong types. The Army



2LT Aleda Lutz, a flight nurse, checking patients on a C-47 being used for air evacuation, 4 April 1943. National Archives.

had different mobile hospitals for different places, but the 750-bed evacuation hospitals that were supposed to be in the army area, not forward in a corps zone, and the 400-bed surgical hospital was supposed to support one division. Instead, they were all supporting a corps, and it was operating on a front of over 100 miles. Sometimes the hospitals were overwhelmed with casualties and had to send them to the rear before individual patients were really ready. At times, however, the rear hospitals were too full and patients had to be held forward longer. Putting hospitals where they could be supplied (and evacuated) also meant they were far from the front lines. When the front lines moved, the hospitals should have moved, but the 750-bed hospitals had no organic transportation. On the other hand, the surgical hospital was 100% mobile and once when the Germans were advancing a 200-bed section of the 48th Surgical Hospital cleared its 125 patients, packed, and was moving in 4.5 hours. But the lack of hospital elements meant some surgical teams were assigned forward to medical companies, and low-priority areas had no hospitals, only reinforced medical companies. The hope was to stabilize patients before what they acknowledged as “real surgical attention.” (For the third stage of operations, there were six hospitals, enough to support all the divisions and have them closer to the front, only 5-20 miles.)

Clinically, the hope had been that plasma and sulfa drugs would allow delays before surgery, and thus forward hospitals would not be needed. Plasma proved useful, but not as useful as forecast. Local blood banks and fresh draws, including from the lightly-wounded, were used, and the Army started work on a cold chain to take whole blood forward to hospitals. Sulfas also proved limited, perhaps reducing the need for forward surgery but not eliminating it, and it needed to be thorough surgery, not hasty ‘tailgate surgery’ with patients evacuated back to a hospital while still under anesthetic. That meant hospitals would be needed forward, not just medical companies with surgeons attached but no effective post-operative care. The Army had another kind of hospital recently organized, the field hospital, intended as a mobile but low-acuity hospital that could be split into three 100-bed platoons. When surgical teams were attached, they could handle the surgery while the wards provided post-operative care.



Patients on the shock ward of the 48th Surgical Hospital receiving plasma. National Archives

In the Tunisian Campaign the AMEDD coped with clinical misconceptions, limited numbers of units, and force structure that did not fit the mission. These required different solutions. Developing clinical concepts required changing practices (more forward surgery) that drove force-structure changes (both forward psychiatry and forward surgery) and also development of a blood supply chain. Getting more units needed line commanders to realize the requirement, and that promptly came. It doubtless helped that the logistic limitations of the TORCH invasion were temporary, and that AMEDD leaders were not asking for much – some small hospitals and a few psychiatrists went a long way in returning soldiers to duty. The force structure problems could be solved by taking existing units and using them in different ways. Changes were made after the North African campaign that proved durable throughout WWII. While the AMEDD did not get it right the first time, one round of changes was all that was really needed.

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## The AMEDD In The First Campaigns

There was hardly a pause as these campaigns ended and WWII continued. We can, however, look back at how the AMEDD coped with its responsibilities of treatment, evacuation, and hospitalization in the first campaigns.

Treatment at the front, by medics, was as good as it could be given the limitations of training and equipment. Those look primitive in comparison to today's capabilities, but they were the state of the art. When the bravery and dedication of the medics, litter-bearers, and forward doctors is added to the capabilities, they were the equal of any in the world. The same is true at battalion aid stations and forward medical companies. They did their best within the limits of equipment, supplies, and the tactical situation. Because of a flawed understanding of psychological stress as a breakdown due to character weakness, there was no provision to treat it, other than far away from the battlefield. Thus many soldiers were lost to duty, and those men were stigmatized as psychiatric cases through treatment.

Evacuation was a problem in both campaigns. The problem started with the battle continuing: there were many times when it was hours or even days before a casualty could be evacuated. There was no training nor equipment for that, and it was simply part of how war. The Army had not thought about jungle operations, and lacked equipment. But vehicles were not the answer in a swampy jungle, and having litter-bearers built into the Table of Organization provided the manpower for tactical evacuation. (How many litter-bearers only did that is unknowable; likely most became medics as casualties mounted.) In Tunisia there were two problems: there were too few ambulances (a risk taken during invasion planning), and they were not as mobile as the jeeps. Thus many times jeeps had to be used to bring casualties back to an aid station, or doing so was faster than having litter-bearers carry the wounded man back. The lack of ambulances to move treated casualties back from aid stations and medical companies to hospitals was a larger problem, and trucks and other vehicles had to be used for CASEVAC. To mitigate the risks, sometimes additional aid points were established where the trucks could stop and the wounded were checked again. Clearing the forward hospitals was sometimes a problem for two reasons: there was not enough space in the rear hospitals, or there were not enough evacuation assets even though road, rail, and air were being used. That was due to the number of casualties stressing the "shoestring" medical system. Air evacuation changed the game in both theaters. Without air evacuation, operations at Buna would have been severely slowed if hospitals had to be moved forward, or many patients would have deteriorated (including dying) if they had been evacuated by the slow small boats. In Tunisia air evacuation was less important, but still vital for some patients. The AMEDD had anticipated the need for air evacuation units, but not how soon they would be needed, and the first units deployed in the spring of 1943, not the winter of 1942.

Hospitalization was a substantial problem in both theaters. Before the war, the Army's guesses about the operating environment had been wrong, and thus hospital design had been wrong. The different theaters had different answers. In the Pacific, personnel were detached from existing hospitals, minimal equipment was provided, and the 25-bed "portable" "hospitals" – that were hardly either – were thrown into action as being better than nothing. They did well at various things, but were seldom capable of independent operations as a hospital. In North Africa existing units were taken apart and reassembled to fill the gap – not unlike Lego bricks. The solutions identified in North Africa were promptly implemented in the invasion of Sicily, and analysis at the time showed they were largely right. Part of why the pre-war hospital designs had been wrong was clinical misunderstandings. If surgery and hospitalization could be delayed due to plasma and sulfa drugs, the Army didn't need forward surgery and hospitalization. The problems were quickly diagnosed, but the solution was not easy: push surgery forward. Getting people forward, and supplying them especially when a cold-chain proved necessary, was harder than a material solution.

Between the wars the AMEDD had built a solid basis. Various details turned out to be wrong, but there was time to fix them because the Allies soon had the initiative. Part of the solution was the Army providing more resources to the AMEDD, everything from preventive medicine units to medical companies to hospitals. To actually *Conserve Fighting Strength* (and save lives) the AMEDD needed somewhat more resources, and the Army saw the value in both objectives.

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## 18th Medical Command: From Korean Peninsula to Indo-Asian-Pacific Region

The 18th Medical Brigade (MED BDE) was activated at Fort Lee, Virginia on 18 August 1967, consisting of only a Headquarters and Headquarters Detachment. It never departed the United States and was inactivated at Fort George Meade, Maryland on 16 December 1970.

The 18th MED BDE was redesignated the 18th Medical Command (MEDCOM) and its Headquarters and Headquarters Company was activated at Yongsan Garrison in the Republic of Korea on 16 August 1984. It replaced the 8th MEDCOM (Provisional). After the Vietnam War in 1973, the United States had reduced the size of its contribution to the United Nations defense forces in South Korea, but after the presidential election in 1980, the U.S. Forces Korea/Eighth U.S. Army (USFK/EUSA) began to be reinforced. The 18th MEDCOM arrived with a four-fold mission: improve the quality and availability of health care, improve medical readiness, plan for and react to operational contingencies at both corps and theater levels, and smooth the transition to war should hostilities break out. The commander of the 18th MEDCOM also acted as the surgeon for USFK/EUSA and commander of the 121st Evacuation Hospital (the largest American hospital in South Korea). The 18th MEDCOM staff served in the USFK/EUSA Surgeon staff, which also had Navy and Air Force personnel making it a joint staff responsible for peacetime planning and wartime operations. By 1987, the 18th MEDCOM had subordinated under it a preventive medicine unit, a veterinary detachment, a medical supply, optical, and maintenance unit, a surgical hospital, an evacuation hospital, two dental detachments, two medical detachments, two general dispensaries, and a provisional medical battalion with an air ambulance company and a ground ambulance company. Most of its units were “fractionalized” to carry out missions across the width and breadth of South Korea. The 18th MEDCOM became responsible for providing health care to 90,000 beneficiaries through tri-service medical facilities for ambulatory care and the Seoul Army Community Hospital (the augmented 121st Evacuation Hospital including referrals to Korean medical specialists) for inpatient treatment. The smallest medical command in the Army had to balance quality of care with military readiness in one of the most threatened regions in the world.

The 18th MEDCOM fulfilled its mission with distinction. It earned the Navy Meritorious Unit Commendation in 1989 for its superb support for Team Spirit '89, a joint training exercise that involved 200,000 U.S. and Korean troops. The end of the Cold War following the collapse of the USSR in 1991 accelerated an ongoing drawdown of the U.S. military – predicated on an assumed “peace dividend” – that also affected the USFK/EUSA. Nevertheless, the number of U.S. soldiers, sailors, and airmen in South Korea remained substantial as diplomatic negotiations with North Korea proved unfruitful and tensions between the two countries remained high. The 18th MEDCOM received the Army Superior Unit Award in 2003 for its distinguished service in the Korean peninsula. That same year, the U.S. government announced that U.S. forces would be pulled back from the demilitarized zone on the border, and the next year it decided to reduce the number of U.S. troops in South Korea. The U.S. military argued new technology, weapons, and doctrine could compensate for a smaller USFK/EUSA. Consequently, after 24 years of service, the 18th MEDCOM cased its colors on 15 October 2008.

The 18th MEDCOM was reactivated as the 18th MEDCOM (Deployment Support), also known as the 18th Medical Deployment Support Command (MDSC), at Fort Shafter, Hawaii on 25 November 2008. It became the first such command in the Army. The mission of the 18th MDSC was nested in the missions of the U.S. Army Pacific (USARPAC) Surgeon and Regional Health Command Pacific – although USFK/EUSA had operational control and shared administrative control with the U.S. Army Medical Command (USAMEDCOM) over it. The 18th MDSC's roles included: planning for current and contingency operations, providing force health protection expertise, deploying additional medical support as needed (including to other services), maintaining visibility and utilization of medical infrastructure and treatment capabilities, training medical personnel of other countries, and coordinating the movement of patients across the Indo-Asian-Pacific Region. Its responsibility now extended to about half the globe including 36 countries, five of which were treaty allies of the United States. The 18th MDSC was initially an understrength Headquarters and



Headquarters Company, but it reached full operational capability in 2011 after adding a clinical services team, a force health protection team, and a theater patient movement team. An optometry detachment was also subordinated to it that same year, which was immediately divided into two optometry teams that then deployed sequentially for a rotation each in Afghanistan. Meanwhile, 18th MDSC personnel, joining other medical specialists from the Navy, Air Force, and militaries of other countries, joined medical civilian assistance projects in Thailand, Vietnam, India, Indonesia, Sri Lanka, and other places across the Indo-Asian-Pacific Region. Additionally, military medical personnel of other nations came to Hawaii for training organized by the 18th MDSC at the Tripler Army Medical Center. The optometry detachment was inactivated in 2013 after an Army realignment. Nonetheless, the 18th continued to provide outstanding support including in a wide range of exercises held by USARPAC to increase readiness for both military operations and humanitarian relief efforts across the Indo-Asian-Pacific Region.

The 18th was reassigned from USAMEDCOM to USARPAC on 16 September 2020, severing its relationship with Regional Health Command Pacific. This was part of a reorganization of the U.S. military to create the Defense Health Agency, which had important ramifications for the unit, eliminating the complex chain of command. Its current responsibility for the entire Indo-Asian-Pacific Region fully replaced its legacy focus on South Korea. It gained a new medical detachment, a forward surgical team that had previously been under the Headquarters and Headquarters Battalion of the USARPAC. Finally, the 18th MEDCOM commander (now a major general) also became the USARPAC Surgeon.

The “Pacific Knights” of the 18th Medical Command remain prepared to provide mission command, administrative assistance, and technical supervision for the Indo-Asian-Pacific Region. While it still functions as a deployment support medical command, it is a divisional headquarters with the capability to lead multiple deployed medical brigades if that becomes necessary.

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## WarDocs



WarDocs is a not-for-profit podcast developed and hosted by three Army surgeons. They look into the unique opportunities and experiences told firsthand from current and former military medical professionals and provide content about the mission, history, contributions, and achievements of military medicine from all the members of the team. Their website is at [www.wardocspodcast.com](http://www.wardocspodcast.com) and also can be followed on Facebook, Twitter, and Instagram.

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## Hospital Ship Platoons

In WWII, the U.S. did not have enough hospital ships to transport all patients. Ordinary troop transports were used to fill the gap when augmented with Hospital Ship Platoons. These provided adequate care for patients and reduced the number of hospitals that were needed overseas.

All troop transports were assigned one doctor and twelve medics; medical supplies were also stocked based on the number of troops aboard. This was obviously inadequate for a transport with potentially several hundred patients aboard. The initial plan was for AMEDD personnel to be assigned to a 'pool' at each Port of Embarkation; when a transport sailed, the POE surgeon would estimate how many patients would return on that ship and attach appropriate AMEDD personnel. The Theater of Operations would fill any shortage, and provide any necessary equipment. The advantage to this was not wasting personnel time on the outbound voyage. The drawbacks were that not enough AMEDD personnel were assigned to the pools in the first place (thus draining the operational theaters); it was not possible for POE surgeons to accurately forecast how many patients would be returning; and ships were diverted to return to another POE so gaps grew.

By the late summer of 1942 (even before major ground operations) the problem was significant enough that the Army recognized that 'pools' would not work. Instead, Hospital Ship Platoons (HSPs) were organized with various TOEs, based on caring for 25, 50, 75, 100, 250, or 500 patients. Each would have one doctor and variable numbers of medics, with more personnel allotted for larger-capacity units, including dentists and nurses. HSPs would ride outbound (with the transports pre-stocked with medical supplies for the outbound troops and one-quarter the ship's berthing capacity of patients) and perform their duties in-bound. Equipment was provided, although the details (beyond dental equipment for larger HSPs) is unclear, but at least it reduced the drain on operational theaters.

By October 1943 there was more demand, and steps were taken for more efficient use. Nurses were deleted from TOEs, as the patients were generally low-acuity. More common sense was used in assigning HSPs: ambulatory patients needed far less care than bed patients or psychiatric patients who were so serious they needed evacuation from theater, and thus the number of patients did not necessarily match the size of the HSP assigned. Operational theaters were also directed to form provisional HSPs from AMEDD personnel who were rotating to the U.S. for one reason or another, with 'formal' HSPs used only when necessary.

In early 1944 capacity was again inadequate. The small HSPs had proven a waste of resources, and had extra medics (and dentists) assigned to convert them all to 100-patient units. By the fall of that year, when U.S. casualties were mounting as operations in Europe and the Pacific increased, there were further steps to manage HSPs effectively. Instead of being assigned to POE, they were centralized under the Chief of Transportation, so they could be dispatched to whatever operational theater needed them at the moment. HSPs were also flown abroad rather than sailing out, saving the journey time.

Some HSPs were also assigned to the operational theaters for intra-theater patient movement, for instance across the Mediterranean or between Pacific islands. At times this included British ships lent to the U.S. for short-term use; the HSP provided care aboard, while the British crew handled the ship. These were sometimes used on other duties, for instance operating a hospital train, supplementing medical care at a Prisoner of War camp, sorting medical supplies, or sorting mail. They were routinely attached for short periods of duty to hospitals overseas. Unsurprisingly, the theaters were pressured to use them for their intended purpose.

The hospital ships returned the great majority of patients from the overseas theaters. Since the 'white' (or Geneva Convention protected) hospital ships were mainly used for intra-theater moves, the 'grey' (not Geneva protected) hospital ships with HSPs on them cared for the large majority of Americans evacuated from WWII.

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## Warm-Base Hospitals during a Cold War

### Scott C. Woodard, ACHH

Addressing the problem of hospital bed capacity in Europe in the face of feared Soviet westward expansion required advanced planning. Shortly after the end of World War II, the United States and her allies formed the North Atlantic Treaty Organization (NATO) in 1949 in a mutual defense agreement to contain the influence of the Soviet Union and other Communist countries of the Eastern Bloc. Because there was never actual large scale combat between the superpowers, but rather smaller proxy wars, the “cold war” terminology has been used to describe the often intense standoff.

In the late 1960s the US brought some troops home, but retained readiness in Europe through exercises to rapidly return them to Germany – RETURN of FORces to GERmany, REFORGER. The first one, in 1969, provoked an outcry from the Soviet Union as an act of military provocation. The REFORGER exercise rehearsed units deploying to Europe with some organic equipment, reception in theater drawing upon pre-positioned equipment and supplies termed Prepositioning of Materiel Configured to Unit Sets (POMCUS), and onward movement to established positions for exercise and maneuvers.

In 1983, the warm-base hospital concept was developed to improve wartime readiness. In 1989 Senate testimony, Lieutenant General Frank F. Ledford Jr. recalled his service as the commander of the 7th Medical Command in Europe:

Warm basing is a rapid method of rendering wartime general hospitals fully operational in a short notice of war. We can do this by partially establishing a 1,000 bed general hospital medical equipment set at its intended wartime site. Existing facilities, such as former warehouses or factories are ideally suited for this purpose and significantly shorten the time necessary to make these hospitals operational at the start of hostilities.

The idea of warm-basing a hospital in Europe was initially controversial. The proposed caretaker, Combat Equipment Group, Europe (CEGE) was not staffed or equipped to for medical equipment, as the US Army Medical Materiel Center, Europe (USAMMCE) was. Additionally, it was uncertain whether the warm-basing of medical materiel should fall under an Army Materiel Command POMCUS mission.

The first site was opened in the Netherlands in June 1987 followed by another in the United Kingdom (Chesington, England) in August 1987. Six warm-base general hospitals (representing 6,000 beds) were planned by 1994 in locations such as Belgium, the Netherlands and the United Kingdom.

Of the warm-base hospitals, the De Beitel hospital, the Netherlands, is the best known. Described by General Ledford, it was the “crown jewel of the preparedness side.” During the testing of medical regulating and patient evacuation systems in REFORGER '87, the 323d General Hospital, from Southfield, Michigan, was the first general hospital to occupy the De Beitel hospital. The former textile factory's conversion began three years before with a total cost of \$6 million (\$15 million including a long-term storage lease), which the

Dutch paid to partially offset the cost of Patriot missiles. The unit identified structural and patient-care deficiencies, began work on standing operating proce-



The 323d General Hospital exercising the ‘warm base’ hospital at de Beitel. Above, unpacking equipment. Right, moving “patients” during the Tactical/Strategic Medical Evacuation Exercise portion of REFORGER ‘87. U.S. Army photos





dures, drew, inventoried and set-up the equipment contained in 60 railroad cars weighing 923 tons taking up 152,000 cubic feet. It held 1,000 beds, a triage area, seven rooms for x-ray, six operating rooms, and a 100-bed intensive care unit. It could be augmented with Deployable Medical Systems equipment if required. When the unit departed back to the US, 300 beds were stationed in the wards with 700 more in storage. Planning factors for a fully operational facility were 10-days with the personnel to move in and receive the potency and dated items that were not kept in long-term storage on site. The prepositioning of the hospital sets saved the time and expense of shipping over 300 rail cars from England. By this time, it was determined that the warm-base hospital (the largest single item in the POMCUS system) was a valid POMCUS mission and operated by the 21st Support Command. The storage and maintenance of the hospital was managed by the CECE with technical surveillance of the medical equipment and materials by USAMMCE, and six full-time Dutch maintenance, supply, laboratory, and administrative staff on site.

Continued buildup of military hospitalization in Europe, like combat power, stalled with the final collapse of the Soviet Union on 26 December 1991 from its downward spiral beginning in late 1988. With the drawdown in Europe, the decision to end the POMCUS for warm-base hospitals was terminated by the Chief Surgeon, US Army Europe (USAEUR), Major General Richard T. Travis on 30 July 1990.

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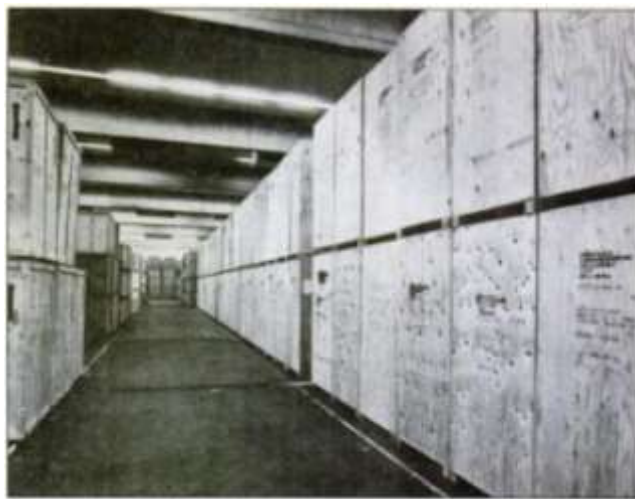
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Left: the old factory building provided large spaces for an intensive care unit.  
Below: some of the crated equipment that needed unpacking and inventory.  
U.S. Army photos



## Mother of the Medical Specialist Corps: Emma E. Vogel

### Grant T. Harward, PhD

As the U.S. Army Medical Specialist Corps (AMSC) celebrates its 75th anniversary, it is worth looking back at the life and career of Emma E. Vogel who was appointed as the first chief of the corps soon after its authorization on 16 April 1947 – when it was initially organized as the U.S. Army Women’s Medical Specialist Corps (WMSC). Although Vogel was quick to recognize the pioneering work of the women who came before her, fate determined that she was in a leadership position during the late interwar period, World War II, and early post-war years, so she became the “mother” of the AMSC. An educator, practitioner, and administrator, Vogel offers an inspirational example for her successors in today’s AMSC.

Emma Elva Vogel was born on 18 September 1889 to Charles and Emma Vogel. She was the second oldest in her family of two brothers and six sisters and grew up in Mankato, Minnesota, the fourth most-populous city in the state. Vogel’s father was a native of New York who had married a local. He was the janitor of School No. 3, so all his children received an elementary education. After attending Mankato High School, Vogel enrolled in Mankato Normal School (today Minnesota State University Mankato). A “normal school” trained high school graduates, primarily young women between the ages of 17 and 19, in pedagogy and curriculum to become teachers. In addition, Vogel became a musical vocalist. She taught high school for nearly a decade until the United States joined World War I on 6 April 1917. This event changed the trajectory of Vogel’s life from civilian education to military medicine.

Miss Vogel patriotically volunteered to train as a physical therapist for the Army. A study had revealed the United States lacked physical therapists. (Terminology has changed, but this article will use the current term.) Those skills would be in great demand as casualties returned from battlefields in France, so Surgeon General MG William C. Gorgas appealed for help. He approved plans for emergency physical therapy courses at six institutions with existing physical education programs including Reed College in Portland, Oregon. In June 1918, the president of Reed College asked for assistance from Gorgas because of the great number of students, including the now nearly 30-year-old Vogel, who had enrolled at his school. Miss Mary McMillian, the first physical therapist hired by the Army Medical Department (AMEDD) just a few months earlier, took a leave of absence from her job at Walter Reed General Hospital (WRGH) in Bethesda,

Maryland, to be an instructor and the director of the reconstruction center at Reed College. Vogel attended the first 3-month emergency physical therapy course. Subsequently, she became one of McMillian’s assistants and helped teach the second emergency physical therapy course – which was the largest of any such course with 200 students from 31 states. “I vividly recall her enthusiasm, her interest in maintaining high professional standards, her warm personality, and her indomitable spirit,” Vogel said of McMillian decades later. Vogel emulated McMillian in her own career. After the armistice on 11 November 1918, emergency physical therapy courses ceased, following the completion of those still in progress. With no one left to teach, Vogel was appointed as a physical therapist in the AMEDD.

Miss Vogel quickly rose to the top of the Army physical therapy program. Her initial assignment beginning in January 1919 was as the first physical therapist assigned to General Hospital No. 24 near Pittsburgh, Pennsylvania. Vogel was kept very busy as the patient load in Army hospitals in the United States peaked in April 1919. Thereafter, the number of patients shrank. The AMEDD reduced the number of physical therapists as well. Vogel recalled, “Many Army medical officers were exceedingly skeptical of the value



COL Vogel as Chief of the WMSC. U.S. Army photo

claimed for this new profession, but reconciled themselves, saying that this intruder into the medical world was but a passing fad." As a consequence of the Army's rapid demobilization, the AMEDD decided to close General Hospital No. 24 and transfer its remaining patients. In July 1919, Vogel accompanied her patients to WRGH, so she had another chance to work for Miss McMillian. By June 1920, most patients requiring physical therapy had been discharged. Therefore, the number of Army hospitals with reconstruction centers had declined from 46 to 11, staffed by 175 physical therapists, so McMillian believed her wartime service was finished and resigned. Vogel was chosen to take over McMillian's position as Supervisor of Physical Therapists at WRGH.

Miss Vogel oversaw the transition of physical therapy from a temporary to a permanent specialty of the AMEDD. With the Army continuing to shrink the number of hospitals with reconstruction centers (down to six by June 1921) and civilian hospitals offering better pay, the AMEDD soon faced an acute shortage of physical therapists. By now, it was clear that some patients would need continued treatment for battle injuries and that physical therapy was effective, so Surgeon General MG Merritte W. Ireland approved a request to create a basic physical therapy course at WRGH. Vogel helped MAJ James B. Montgomery (one of only two Medical Corps officers trained in physical therapy during the interwar period) to create a 4-month course that began in fall 1922. Applicants needed at least two years of education at an accredited school of physical therapy. In addition to her duties at WRGH, Vogel oversaw physical therapists at other hospitals and advised the Surgeon General (OTSG) on physical therapy issues.

Miss Vogel faced an uphill battle during the interwar period. She successfully pushed for higher educational requirements and more training "to produce the high type of professional woman the Army needed to keep pace with this fast growing profession." Vogel found it impossible to increase the pay and status of physical therapists, however. In 1931, she sent the new Surgeon General MG Robert U. Patterson a study arguing for higher salaries to retain personnel (pay for physical therapists, occupational therapists, and dietitians was almost unchanged since 1919) and urging the establishment of a Medical Auxiliary Corps and a Medical Auxiliary Reserve Corps consisting of physical therapists, occupational therapists, and dietitians. Various supervisors had periodically recommended creating a corps for their respective specialty since 1919, but Vogel was the first to propose uniting all three specialties into a single corps. Physical therapists, occupational therapists, and dietitians would be entitled to the same rank, rights, and salary as accorded to nurses in the Nurse Corps. Patterson liked the idea, but the Army lacked funds for even a modest pay raise, much less the creation of a new corps for the AMEDD, as the United States was in the grip of the Great Depression.

Miss Vogel worked hard to maintain high standards despite the grim budgetary situation facing the Army. She took a keen interest in the training of the small classes of physical therapists at WRGH. Vogel often told her students, "You can't know everything, but you can know where to find it and you can always answer a question by saying, 'I don't know but I can find it.'" She was quick to praise accomplishments but just as quick to reprimand mistakes. Due to the continued budgetary crisis, the AMEDD canceled the basic physical therapy course during 1933. When training resumed in 1934, it had been lengthened to twelve months. Furthermore, four years of physical education was now required as a prerequisite. The new course included nursing and occupational therapy training as well, but Vogel continued to teach the physical therapy classes. The AMEDD further reduced the number of physical therapists due to the shortage of funds. Vogel remembered, "Physical therapists who remained on duty at greatly reduced salaries often worked long beyond the normal working hours, not only to maintain professional standards, but also to sustain the morale of the patients." By August 1938, there were only 37 physical therapists spread thinly in Army hospitals across the continental United States, Hawaii, and the Philippines.

The outbreak of World War II presented Miss Vogel with new challenges but also fresh opportunities. The AMEDD started to reassess its requirements for physical therapists, occupational therapists, and dietitians to following the declaration of a limited national emergency on 8 September 1939. Vogel helped design an emergency physical therapy training course consisting of six months of didactic instruction followed by six months of supervised clinical experience. The education requirement was reduced to only two years of college or university. Nevertheless, the training for physical therapists remained rigorous once the course began in July 1941. In total, the AMEDD organized 33 emergency physical training courses for civilian students and 28 more for enlisted students in Army hospitals across the United States before the end of the war. These efforts meant the Army had a well-functioning rehabilitation program.

The AMEDD initiated sweeping changes to its physical therapy and dietitian programs after the at-

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tack on Pearl Harbor on 7 December 1941. In January 1942, Miss Vogel was assigned part-time to the Office of the Surgeon General (OTSG), tasked to organize a Physical Therapy Branch, while still fulfilling her duties at WRGH. In August, she joined the OTSG full-time as the Superintendent of Physical Therapists, working closely with Miss Helen C. Burns the Superintendent of Dietitians. Now with physical therapists and dietitians serving overseas, the OTSG pushed for legislation to grant military status to women serving in these fields. Vogel remembered great excitement when Public Law 77-828, which did exactly that (as well as other things), passed on 22 December. "Now [physical therapists and dietitians] could be a part of the Army, not merely serving *with* it. The first milestone in the long struggle for military recognition had been passed." The law excluded male physical therapists, however. The total number of physical therapists dramatically expanded from 275 to 1,688 by the end of the war. On 12 January 1943, Vogel received a commission with the relative rank of major (but with the pay and allowances of a captain) and was promoted to the Director of the Physical Therapy Branch. Now-MAJ Burns became the Director of the Dietitian Branch. From January to March 1945, Vogel and Burns departed for an inspection of Army hospitals across Europe. They discovered that many AMEDD commanders were unfamiliar with the capabilities and requirements of physical therapists and dietitians. Moreover, each Army hospital often only had one physical therapist or dietitian, so they were isolated and unable to learn about new techniques or practices. There was still much to be done to improve the situation of physical therapists and dietitians in the AMEDD when the war ended on 2 September 1945.

MAJ Vogel played a central role in forming post-war AMEDD policy regarding physical therapists, occupational therapists, and dietitians. The OTSG initiated a series of conferences attended by COL Florence A. Blanchfield, Chief of the Nurse Corps; MAJ Vogel; MAJ Burns; Miss H. Elizabeth Messick, Chief of the Occupational Therapy Branch; and representatives from the Personal, Legal, and Planning Divisions of the OTSG. Surgeon General MG Norman T. Kirk firmly believed nurses, physical therapists, dietitians, and occupational therapists were essential members of the AMEDD who had earned the right to be part of the Regular Army. Meanwhile, on 5 February 1946, Vogel received the Legion of Merit for her outstanding service in the AMEDD and contribution to her profession by establishing the most expansive physical therapy training program in the history of the country. Finally, on 16 April 1947, President Harry S. Truman signed Public Law 80-36, known as the Army-Navy Nurses Act, into law. Among other things, it authorized the formation of the WMSC and a WMSC Section of the Officer's Reserve Corps. Vogel was selected as the WMSC's first chief. On 5 December 1947, she was promoted to colonel taking the oath from the new Surgeon General MG Raymond W. Bliss who was assisted by the former Surgeon General Kirk.

COL Vogel now had the difficult task to try to run the WMSC while the details of the organization of the corps and of the role of the corps chief were debated. On 23 December, MG Bliss appointed a board of officers to make recommendations about the WMSC. It was quickly agreed that the WMSC would consist of three sections: Dietitian Section, Physical Therapist Section, and Occupational Therapist Section. (The Army-Navy Nurses Act also extended military status to occupational therapists.) An assistant chief would head each section. Vogel wanted all three assistant chiefs to be co-located in the office of the chief of the WMSC to facilitate cooperation and foster *esprit de corps* as a united group rather than three separate specialties. The OTSG rejected her idea. Vogel also suggested using an "S" superimposed on a caduceus as the insignia of the WMSC, but the OTSG said this was not possible because the "S" was still allocated to the defunct Sanitary Corps. Instead, an intertwined "W" and "S" affixed to a caduceus became the WMSC's insignia. The biggest debate was over the WMSC chief's role. The OTSG board divided between those who argued the chief's responsibilities should be solely administrative and others who thought the position's duties should also include maintaining her professional specialty. In the end, the former option was chosen. On 29 September 1948, after ten months of conferences, the WMSC was finally established with an authorized minimum strength of 409 officers.

There were still a lot of details about the WMSC that COL Vogel had to work out, however. She consulted the OTSG about training programs; tables of organization and equipment; and procurement, assignment, and promotion of officers of the WMSC. Much of Vogel's time was spent developing career paths for



WMSC officers culminating in the creation of the WMSC Career Management Program. A key part of this program was that it allowed outstanding WMSC officers to undertake graduate study at a civilian institution in their respective specialty. Following an initial surplus of physical therapists, occupational therapists, and dietitians, the AMEDD now faced a shortage of WMSC officers in all three specialties because of separations, transfers into the Reserve, or reassignment to the newly independent Air Force. The AMEDD resumed courses in physical therapy, occupational therapy, and dietetics – now located at the Medical Field Service School (MFSS) at Fort Sam Houston in San Antonio, Texas – to refill the ranks of the WMSC. After finishing the AMEDD Female Officers' Course, newly commissioned WMSC officers undertook twelve months of training consisting of classroom instruction at the MFSS followed by clinical practice under supervision at an Army hospital. Vogel regularly visited the MFSS to lecture on the history of physical therapy in the AMEDD while she was chief of the WMSC.

As often as possible, COL Vogel went away for the weekend to her cottage at Lake Jackson, Virginia, to relax. She enjoyed swimming, canoeing, chopping firewood, and cooking. Vogel often invited several friends to accompany her. One of her students before World War II recalled the experience fondly. "The hours we enjoyed preparing meals with her, walking through the woods, or sitting around a lighted fireplace were most unforgettable. Like dry sponges we unconsciously soaked up her gracious congeniality and deep consideration for the welfare of others." Thus, it is no surprise that in January 1949, Vogel enthusiastically participated in a field test of clothing for WMSC, Nurse Corps, and Women's Army Corps officers on Mount Washington, New Hampshire. She declared "that she had enjoyed every minute, including breaking trail through deep snow." New summer and winter uniforms for female Army officers were approved a year and a half later.

COL Vogel helped push through legislation to amend the Army-Navy Nurses Act to correct problems facing the WMSC. WMSC officers could not retire because their previous service as civilian employees in the AMEDD did not count toward the 20-year requirement. Moreover, WMSC officers' integration into the Regular Army was taking longer than expected, so an extension was required. Opposition from the General Staff, G-1 (Personnel) ended when it was pointed out that seven of the senior WMSC officers, including Vogel, would not be eligible to retire until age 60 at the earliest. Public Law 81-514 traveled slowly through Congress, but the president finally signed the legislation on 16 May 1950. Around that time, Vogel recommended that WMSC officers be assigned to regional headquarters to facilitate the procurement of WMSC personnel in case of a national emergency. Surgeon General Bliss did not approve the idea. Neither had any idea of how prescient Vogel's suggestion would prove to be.

"Peacetime was short-lived," COL Vogel remembered later. She guided the WMSC through the first, most difficult year of the Korea War that erupted on 25 June 1950. The understrength WMSC only had 149 Regular Army and 191 Reserve officers (including 23 student officers unavailable for duty), so a call went out for the voluntary return of Reserve officers to active duty. The results were disappointing in the extreme as few reservists were willing to leave civilian careers or families. On 30 August, Vogel recommended an involuntary recall. The AMEDD prioritized selecting reservists that had not yet seen or had limited military service. Any reserve officer with dependents 18 years old or under was deemed ineligible. Physical therapists, occupational therapists, and dietitians in important administrative or teaching positions in civilian hospitals were supposed to be exempted. Eventually 82 Reserve officers entered the WMSC this way. Vogel resubmitted her recommendation of four months earlier, so in October 1950 and in January 1951 a WMSC officer responsible for procurement was appointed to most regional headquarters. A second voluntary recall of Reserve officers initiated by the new Surgeon General MG George E. Armstrong failed miserably. By June 1951, only 55 out of a goal of 572 women had volunteered for the WMSC. This personnel issue occupied most of Vogel's time while the fighting in Korea seesawed back and forth before settling into stalemate.

On 30 November 1951, the 62-year-old COL Vogel retired after completing her statutory 4-year tenure as chief of the WMSC. She served a combined 32 years in the AMEDD as a civilian employee and an officer and was the first WMSC officer to have a full military retirement ceremony. Vogel retired to Melrose, Florida, a small town on Lake Santa Fe, where she pursued her love of the outdoors. Nonetheless, she continued to serve the WMSC, which was renamed the AMSC in 1955 after it was opened to men. In 1956, the OTSG asked Vogel to join the editorial board tasked with writing a history of the AMSC. She wrote much of the portion on physical therapists. Surgeon General LTG Leonard D. Heaton awarded Vogel a special commendation for her contribution when the history was eventually published twelve years later. In 1967, she was awarded an honorary membership in The American Physical Therapy Association. Vogel remained a frequent

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guest lecturer and graduation speaker for the physical therapy course at the MFSS. In 1968, she established an award for the outstanding student in each class of physical therapists. In 1975, due to her declining health, Vogel moved to St. Petersburg, Florida, where she died aged nearly 92 on 8 August 1981.

COL Vogel was buried with full military honors in the Fort Barrancas National Cemetery in Pensacola, Florida. Her remains were later reinterred at Arlington National Cemetery in Arlington, Virginia. Vogel's surviving sisters created a scholarship in her memory. Today the Emma E. Vogel Scholarship is still awarded to a meritorious pre-physical therapy undergraduate student at Minnesota State University Mankato who plans to pursue advanced studies in physical therapy.

From humble beginnings, Vogel rose to national recognition. She served her country in three wars as a healer, teacher, and leader. Vogel's efforts improved the lives of countless soldiers who required rehabilitation for wounds or injuries suffered while at war. She acted as a mentor to several generations of students during very difficult years for the AMEDD. Vogel advanced the field of physical therapy in the United States. She laid the foundation for today's AMSC. Finally, Vogel's legacy still influences each and every physical therapist, occupational therapist, dietitian, and physician assistant now serving in the AMEDD.

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## “The Letters from a Physician-Soldier in the South Pacific”

Michael P. Gabriel

The following letters are from *Physician Soldier: The South Pacific Letters of Captain Fred Gabriel from the 39th Station Hospital* (Texas A&M University Press, 2020). Born in 1914 in rural northern Pennsylvania, Gabriel earned his medical degree at Thomas Jefferson Medical College in Philadelphia in 1940. In August 1942 he entered the Army Medical Corps and was assigned to the newly-created 39th Station Hospital at Camp Barkeley, Texas. After training there, the Army Desert Training Center in Yuma, Arizona, and Shepherd Field, Texas, the 39th deployed to Guadalcanal in January 1944. Once on the island, the 39th was not operational and most of its personnel were assigned to other units. Gabriel was part of a small cadre that maintained the 39th's area and equipment. After eight months, however, the 39th left Guadalcanal to participate in the invasion of the Palau Islands, landing on Angaur on October 13, while fighting was still taking place. It began to function as a unit eight days later when it received 373 patients from the 17th Field Hospital. The 39th remained on Angaur until June 1945, having treated nearly 3,500 in-patients and over 11,000 out-patients. The hospital was then sent to Saipan, and, as on Guadalcanal, was not activated. Instead, Gabriel served with the 148th General Hospital, heading its laboratory's clinical microscopy and parasitology area. The 39th remained on Saipan until the war's end, with Gabriel serving as its last commanding officer, during which time he oversaw its deactivation.

Gabriel's letters, which total over three hundred accompanied by approximately five hundred photos, are mainly to his parents, and he clearly tries to reassure them of his safety. The letters cover a wide range of topics. These include the varied responsibilities of medical officers; a Bob Hope USO show; the end of the war in Europe; the atomic bomb; and growing frustration with the slow return of troops from the Pacific. Collectively, they provide a revealing look into day-to-day life in the World War II Pacific theater from the important, but often overlooked, rear areas.

Camp Barkeley, Tex.  
Sat. Sept. 19. 1942. P.M.

Dear Folks:

*This is a wet and windy Texas day. Rain prevents our usual Saturday afternoon jaunt into town, so I am spending this afternoon here in the Camp library, writing letters and looking up some material on the Big Dipper. We had a discussion about it last evening, and I want to see who is wrong....*

So far I haven't received my pay for August. And the bond won't begin to appear for 8 or 10 weeks I have been told. Whenever you mention receiving a check, please mention the amount so I'll know just which one you refer to....

This course I am taking in Chemical Warfare hasn't changed my status with the 39th at all. Each unit sends a couple men to it so that they in turn can teach the fundamentals to their fellow officers. It would be impossible for us all to take it. The course is only a short one – about 3 ½ weeks. My taking it won't send me anywhere necessarily, nor is it any clue where the 39th might go. It is taught to all soldiers.

I am not working hard. In fact, I sometimes wish I had more to do, which I probably will get. When we have classes in the evening, I spend the day reading and listening to the radio. Last Saturday I was tired because the previous day we had been in the field all day long, but I really wasn't very tired....

No, I have no idea where we will go, or even if we go. The latest rumor – we call them outhouse rumors because most of them originate there – has us going to a Station hospital in one of the New England states or Middle Atlantic states. However, I seriously question if we'll move before next spring. What I am telling you is unofficial. I can get into trouble for writing things like these....

The idea of living in Abilene has occurred to me and there are several reasons why I continue to live on the Post. In the first place – Abilene is a good 10 miles away and there is the question of time and transportation. Then, rooms there are extremely hard to get. Finally and the biggest reason – I like it here and I enjoy this. Living in a tent is a bit inconvenient but it is not hardship – at least it hasn't been so far. We have fun there and I might just as well get to know my fellow-officers as well as I can. Another thing – within the next two weeks hutments (ply-wood buildings, I think) are to be erected for us. Our enlisted men have already moved....

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I would like to be home now, naturally, but there is no use moaning over my present situation. In fact – it's a good one. I feel sorry for these other devils. I am lucky and I know it.

Well, that about covers everything....

Love,

Fred.

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Wed. 19 Jan. 1944

[U.S.S. *West Point*]

Dear Folks –

I know this letter probably will not be very satisfactory but it the best I can do at present. About all I am permitted to write is that I am at sea, and am well, happy and having fun. Concerning where and when we left, where we are going and when we expect to get there, I can say nothing. In fact, some of that information I do not know; even our C.O. does not know yet where we are going.

This trip is a pleasant experience for me. The first couple days I was quite seasick, but since then everything has been fine.

I do not know where this will be mailed, and because I know how anxious you are for some word from me, I am now sending you two similar letters. This one by V-mail; the other by Air Mail. This way I am doing what I can to have word reach you at the earliest possible moment. Just for the fun of it, let me know when you get each letter.

Well, I must close now. Please don't worry about me, for all goes well with me. And remember that it may be some time before you hear from me regularly or even again. However, I will write when I can. So love to you all.

Fred.

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South Pacific Area [Guadalcanal]

Sun. Feb. 6. 1944.

Dear Folks –

This is a beautiful Sunday morning. I have just returned from Mass, where I received Communion, and from holding Sick Call. Sick Call doesn't amount to much these days. The usual cases seen being sun-burn, athlete's foot and minor things like that.

Things continue to go well here. I am fine and having fun, so please do not worry about me. Our setup is not bad at all. We are living in tents but are enjoying it; the food is good; we have set up a small PX, where toilet and laundry articles, tobacco, playing cards, etc. are readily obtained. Also they occasionally stock candies and cookies. The stock is rationed on the strength of the unit, but adequately. I believe the only time they sell out completely is when a shipment of beer or coke comes in, when everybody wants his own share.

I still am not permitted to write very freely. The ship we traveled on was a good one, as you'll agree when I can name it. Meals were good. We were a bit crowded but no one minded. The weather for the most part was good. The ocean never was very rough; I guess the Pacific generally is not. The water was beautiful – sometimes green or a green-blue; usually it was an indigo blue, though at times it was lighter like a Prussian blue. Sometimes at sunset when there were small waves, the water just glistened gold in the sunlight. I did tell you I visited briefly somewhere on the way.

We aren't functioning as a unit yet. I spend my time writing letters or building little things around to make this place a little more livable. I am developing into quite a carpenter. Every day I do a little laundering, though drying the wash is a problem because of the frequent rains. Nearby is a nice sandy beach, where I swim daily in the ocean. There are plenty of palm and coconut trees around and all have eaten our fill of coconuts. Generally we are in bed by seven-thirty or eight, though last night I went to a movie. There are a couple nearby and the movies shown are recent. Yesterday I played volleyball, but usually it is too warm for that....

I have seen many native men so far but only one woman. These natives are neither ferocious nor spectacular. The average adult male is five feet or under tall, and quite muscular. Many are red-haired, which looks funny, and they seem to go for pipes. None wear shoes; they wear only cloths, usually colored, around

their waists....

I have written quite a few letters lately and now am sitting back awaiting returns. A person really wants mail when overseas – no fooling.

Funny thing about being abroad – life here isn't on a different plane, as I had imagined, but maybe that is because this place is so Americanized. Things seem the same as they were in Washington, Texas or Arizona. And except for the realization that I am so damn far from home, I would think I never had left the States. Of course I reserve the right to change my mind if someone starts shooting at me....

Love to all,  
Fred.

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THUR. FEB. 10 1944.

Dear Folks -

*This is a wet morning, so I am staying in and writing a few letters. I just finished washing some clothes. I rigged up a little fire place to boil the water. Drying them, as I wrote you, is quite often a problem because of the frequent rain. Clothes here soon begin to mold and smell sour so I sun them every chance I get....*

One of the officers in my tent has a radio, which we turn on evenings. We get San Francisco and Radio Tokyo. This Jap broadcast is fun to listen to; their news reports sound like they are just eating the American forces. Then they play American music – to make us want to get home, I suppose. The announcer refers to us as the “orphans of the Pacific.” Try to pick them up some time; we get it in the evening – I don't know when that would be in Pennsylvania.

I'll sign off now....

Love,  
Fred.

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WED. 9 AUG. 1944

Somewhere in Guadalcanal

Dear Folks -

.... Last nite I was too tired to write you. I sat for five hours straight at the show. Boy! was there a mob there to see Bob Hope! I estimated the crowd at 8,000. It started at 7:30 but some were there already at 1:30 just to make sure of a seat. By 3:00 the regular benches were filled. Those coming after that brought their own benches, chairs, boxes, etc. We went over at 4:30, just right after supper. Fortunately, I had a swell seat. No one could sit or stand in front of me and I could see everything fine. Besides Bob Hope, there were Frances Langford, Patty Thomas, Jerry Colonna, Tony Romano (guitarist) and Barney Dean. Frances Langford sang and Patty Thomas, the other woman, was the dancer. The show, which lasted about an hour, was good and I enjoyed it very much. However, I doubt that I would again wait 3 hours to see it – not in less than a couple years, at least. Still, I am glad I saw it this time and would have felt that I missed something if I hadn't. Bob Hope is a good comedian. Some of the jokes he told were dirtier than most of us expected....

This afternoon I played ping pong for a while and then went down to the library at the Service Club. T/4 Strippy, who helps me with Orientation, and Cpl. Winterland went along. We were looking for material for the next week's lecture, which will be on the Electoral College, election of President and other federal office-holders. I thought this subject will be appropriate in view of the coming election. No electioneering understood; the Army absolutely prohibits that....

Love,  
Fred.

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Pacific Area [Angaur]  
Mon. 23 October 1944

Dear Folks –

*.... Things continue to keep us rushing around here but are we coming along fine. The people [17th Field Hospital] from whom we took over left yesterday and the going is smoother because of it. They just congested the mess halls, etc. and delayed our moving over into this area.*

The lab is doing better than I expected at this early date. We haven't all the equipment set up; in fact, our present quarters are not big enough for all of it. My medical ward is full and humming. None of the patients are very ill but they require plenty of attention anyways once they get into a bed. However, I have good ward boys and we have things systematized the way we want them, which always helps out plenty.

Today a new medical ward was opened and it was "given" to me, though actually it will be run by another officer who is on Detached Service with us. The type of patients who will go to the new ward are like those who are sent to mine – general medicine.

Having patients is really fun. I enjoy caring for them. Then, too, it is nice to be working again. Loafing is all right if it is taken for short intervals frequently, but 8 months of doing nothing is something else.

I am Medical Officer of the Day today and am now on duty at the Dispensary. The night force is here now, too, and are making so much noise that I can hardly concentrate on this letter. I now know what the patients mean when they say they cannot sleep at night because of the noise from here....

Mail service is a bit irregular again, as it has been every time there is a campaign on in this area, as you may have noticed. I haven't heard what this evening's radio news is, but the last I heard the Philippine push was ahead of schedule. I knew it was coming up but had heard it was scheduled for a month later than its actual date; I heard November 20th, whereas October 20th was that "D" Day.

Love,  
Fred.

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Wed. 7 March 1945.  
Somewhere in the Palaus.

Dear Folks –

I won't be writing you many more letters from this particular building, as tomorrow, Friday and Saturday we move into the new hospital area. Tomorrow will be for moving the enlisted and officer personnel. Friday the departments – like Lab, Pharmacy, Surgery, the Clinics, etc. and finally Saturday the patients! By doing it that way things should move smoothly and we will have a little time to get all set for the patients before moving them....

Things continue to go well here. These past couple weeks have been a bit busier for me than preceding ones but I manage okay. My ward is less than half full; consequently I am able to devote most of my time to the Laboratory. That is well, for one of the lab men being a patient left the others a bit rushed. However, so far all has worked out very well. I am hard to please, huh?

An evening newscast is now on, and they are telling about the fall of Cologne. Really, I fail to understand how Germany can hold out much longer. The American, Canadian, French and British armies in the West seem all-powerful right now and getting tougher all the time. The way they are eating up the miles, they should be in Berlin even before the Russians are.

I believe I told you how I have been kidded by the other officers because Syria officially entered the war on the side of the Allies, and how they called me "Co-belligerent." Come to think of it – this coming conference of the Allies in San Francisco in April is pretty wonderful. Don't you agree?...

Love,  
Fred.

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Saipan  
Thurs. 9 Aug. 1945.

Dear Folks -

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Last night a practice blackout, a stage show and a couple movie shorts kept me from writing you. By the time we got back here it was eleven – our bedtime....

I thought that news of the atomic bomb had caused a lot of optimism here but how it has jumped with the announcement of Russia warring on Japan! Some people, from the way they are talking, must have started to pack already. Estimates as to how long Japan will hold out range from 6 days to 6 months.

The B-29s alone had the Air Corps fellows saying “3 months.” My own opinion is about 5 weeks. The negotiations alone will take almost that long. This new bomb is rugged, and I hope we don’t live to regret its invention.

This hospital [139th General Hospital] is having a party tomorrow nite to celebrate 1 year here. Don’t know whether I’ll go – I have been invited – because it’ll more-or-less be a family affair, I believe. We didn’t have our 3rd anniversary party on July 20th because we 39’eres were spread out too much.

We have lost several men and a few officers during the past few weeks by illness, discharge, etc. One officer was a medical evacuation and 2 more are up for it, besides which we lost a couple some time before we left Angaur. My roommate Heyde may leave this hospital (not our unit) within a few days. There isn’t much of his work here right now, and a nearby hospital does need a man. I’ll hate to see him go as he is a fine fellow and he and I get along swell. Still – that is how things often go, huh?

Love,  
Fred.

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Saipan  
Thurs. 13 Sept. 1945

Dear Folks –

Just returned from our meeting of the Saipan Medical Society, which was held at the Navy Military Government Hospital. It was an interesting meeting, especially since cases of filariasis, leprosy and yaws (native) were shown. There was quite a nice turnout and afterwards we were taken over to the Club for refreshments....

Love,  
Fred.

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Saipan  
Wed. 31 Oct. 1945.

Dear Folks -

Well, today we were informed that our deactivation date would be the 16th. That is the first definite date we have had and it gives us 2 weeks to “get ready.” About a couple days will clean up the supplies: I am not sure how long it will take to dispose of the records and close headquarters.

This morning 53 of our men left on the first leg of the trip home. I ran around like mad last night and early this morning getting them ready, especially one fellow, who was in the hospital. He is an Indian and strangers don’t understand him so I wanted him to go with the rest and not alone a day later.

My classmate, Brogan, is back on the island from Marcus Island, where he went with the Marines and CB’s who accepted the Jap surrender. He was around for a few minutes this afternoon and will be here again tomorrow. He’ll probably have some stories to tell me, if he is around long enough. He expects to be ordered back to the States any day now.

Tonite an officer from the Surgeon General’s Office in Washington will be here to give us a chance to air our “grievances” about getting home, etc. From what I have heard from several local officers, this man will have plenty to explain. The officers here are plenty tired of the bungly way medics are being discharged. It seems like someone is doing everything they can to keep us over here. It is a shame how many doctors and nurses here have no business being here, since there is nothing for them to do. I believe the public would be pretty disgusted if they knew the true facts.

Love,  
Fred.

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**Rush to Danger: Medics in the Line of Fire** by Ted Barris, Toronto: Harper Collins (Patrick Crean Editions), 2019. 406 pp., \$26.99. Reviewed by G. Alan Knight

Prolific author of 12 popular works of military history, Canadian broadcaster and professor of journalism Ted Barris has authored a book that is both a record of his father's WWII U.S. Army service as a medical NCO, and a collection of vignettes illustrating the experiences of military medical personnel from the Civil War through Operation Iraqi Freedom. The lasting contributions to field medical evacuation and care by Civil War U.S. Army surgeon Jonathan Letterman is included. Although it is scant, Korea and Vietnam receive mention. The contents are rather evenly divided between U.S. and Canadian personnel.

Barris uses the WWII experiences of his father, an NCO with the 319th Medical Battalion, principally around the Battle of the Bulge, as a framework for the narrative. Into this he has woven a plethora of accounts highlighting a vast spectrum of medical providers, all characterized by their dedication to duty and often their heroism in a variety of adverse operational environments. The providers include medics who retrieved the wounded and evacuated them by litter under enemy fire, and provided life-saving battlefield care.

The reader will also find accounts of nurses serving at hospitals in the field, both under tentage and in improvised facilities under hostile fire. The author's accounts include those of medical officers ranging from battalion surgeons under fire to surgeons in various echelons of medical care ranging from evacuation hospitals during WWII to a forward operating base (FOB) in Iraq in 2008. An account is included detailing the casualty care provided by flight surgeons. Last but not least, Barris includes accounts of ambulance drivers.

The author, an exceptionally diligent researcher, has mined a massive array of sources, both primary and secondary. These include 34 interviews he conducted and 4 by others, published and unpublished manuscripts including memoirs, diaries and, organizational histories both official and unofficial. Barris also makes extensive use of patient logs individual service records, award citations, newspaper accounts, medical journals, biographies and autobiographies. Use of these sources is meticulously end-noted.

For the reader who is interested in locating accounts of front-line medical care by American and Canadian personnel, primarily from WWI through recent operations in Afghanistan and Iraq, the author has provided a superb list of sources for further reading. This bibliography constitutes an invaluable guide and most importantly highlights the role and service of many enlisted personnel which has too often been inadequately portrayed. With the exception of coverage of combat medical care in Korea, Vietnam, Iraq and Afghanistan, the accounts exclusively center on Northern Europe.

While it is true that the book deals with uniformed military medical care-givers, it should be noted that the reader will find the occasional non-military provider providing care to Allied wounded during both world wars. . Such a provider, assisting a US Army medical officer under combat conditions is the heroic civilian Belgian nurse, Augusta Chiwy of African and Belgian parentage, who distinguished herself at Bastogne, Belgium The heroism of British civilian nurse, Edith Cavell, is also documented. Working in Belgium during WWI, she was executed by the German authorities when she was discovered in 1915 to have facilitated the escape of British soldiers to neutral Holland enroute to their return to Britain.

Also interspersed in narrative are stories not commonly known, These include the Canadian medical officer who invented a gas mask in response to the battlefield introduction of chlorine gas by the German Army in 1915. Barris also relates the story of a mascot, a horse acquired by medics of a New Brunswick regiment in Italy who at war's end was decorated for her wartime service and with bureaucracy vanquished, was shipped to a more tranquil life in Canada.

Despite the author's diligent efforts, structuring the content around his father's service does not appear to work well. While individual vignettes are interesting, of varying length and rather readable, the jumping around between accounts of different soldiers in different wars is frankly annoying. While at times the experiences of T/Sgt Barris lead smoothly into those of a different medical provider in a different war, such is not always the case. In some instances the writing style of the author sometimes reflects either a surprising lack of knowledge about medical care in the U.S. Army or is simply the lens through which care is viewed in a distinctly Canadian manner. The author all too often does not effectively capture the stress of medical operations in combat. The reader frequently encounters all-too-casually worded and understated accounts.

Though an easy read, as a collection of inspirational accounts and as a perspective on Canadian military medicine in wartime, *Rush to Danger* is of some value but it is appreciably lessened by the faults mentioned.

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## To Save a Life-An Overview of Tourniquet History

### Chuck Franson, AMEDD Museum

A significant cause of death in cases of trauma is blood loss, resulting in hemorrhagic shock. The quest to prevent blood loss led to such techniques as cautery (using either a heated iron or boiling oil), styptics, and ligation of the vessels. Another method was the use of tourniquets, defined as a “device for stopping the flow of blood through a vein or artery, typically by compressing a limb with a cord or tight bandage.”

Although the origins of the tourniquet are lost to antiquity, an early documented use was in 1674, when a French surgeon Etienne J. Morel used one during the Siege of Besançon. Over the years, various techniques of tourniquet application were developed, mostly in the context of amputations. These consisted mostly of tight bands, occasionally with the use of a stick to wind it tighter.

In 1718, French surgeon Jean-Louis Petit made a breakthrough in tourniquet design with his screw-actuated tourniquet. The Petit tourniquet consists of a cloth band attached to a metal framework housing a screw clamp. The band is drawn snugly around the limb, with the metal frame atop a firm pad over the major vessel to be occluded. The screw was then tightened until full occlusion was achieved, based on distal pulses. The Petit tourniquet remained a standard part of a surgeon’s equipment for nearly two centuries.

While the Petit, and other mechanical tourniquets, continued in common use in “formal” surgery, tourniquet use on the battlefield remained limited to a tight bandage, often made tighter by twisting with a stick or rod, a technique often referred to as a “Spanish Windlass.” Tourniquet use on the battlefield remained controversial however due to imprecise protocols for application. During World War I tourniquets were frequently applied and left for prolonged periods of time, with the predictable result of limb loss due to tissue ischemia. An official British manual, republished by the U.S. Government in 1918, entitled Injuries and Diseases of War, made several very negative statements about tourniquets. For instance: “The systematic use of the elastic tourniquet cannot be too severely condemned. The employment of it, except as a temporary measure during an operation, usually indicates that the person employing it is quite ignorant both of how to stop bleeding properly and also of the danger to life and limb caused by the tourniquet ... If an orderly [i.e. medic] has applied a tourniquet, it is the duty of the medical officer who first sees the patient to remove it at once, and to examine the limb so as to ascertain whether there is any bleeding at all, and if there is, to employ proper measures for its arrest.”

After World War I the Army’s Handbook for the Medical Soldier emphasized using pressure points to stop bleeding. Tourniquets were discussed, along with methods of use, including the “Spanish windlass.” The rules for tourniquet use remain valid doctrine today: “1. Never cover over or bandage a tourniquet. 2.

Write plainly on the emergency medical tag the word ‘tourniquet.’ 3. If the injured man is conscious, he should be instructed to tell every medical officer with whom he comes in contact that he has a tourniquet on. 4. Lastly, remember, if a tourniquet is left on a wound for 6 hours the limb will surely die.”

Again in World War II accounts mention the misuse of tourniquets, with instances of them being inadvertently concealed under a blanket, not monitoring duration, etc. It was acknowledged, however, that a properly applied tourniquet, with time and date on the wound tag (and often marking “T” and the time on the casualty’s forehead), was beneficial in saving lives, frequently without loss of limbs.

Although “pneumatic tourniquets” (essentially an inflated blood pressure cuff) began



Above: an example of the Petit-type tourniquet

Below: an example of a ‘Spanish Windlass’ tourniquet.



WWII strap tourniquet, with nothing to provide further compression.



to be used in hospital surgery early in the 20th Century, the issued field tourniquet remained a strap and buckle arrangement, drawn tight by pulling on the strap. If a more effective tourniquet was needed, a cravat bandage and a handy stick remained the only alternative into the early 21st Century.

Case studies during our involvement in Iraq and Afghanistan indicated that, given both proper training in tourniquet application and timely evacuation, a tourniquet was effective in combatting blood loss, without unduly risking an otherwise viable limb. Up until this time, tourniquets were issued only to medical personnel and not to individual soldiers. A policy change occurred from the recognition of the importance of stopping bleeding at the earliest possible moment after injury, at the self-care or buddy-care level.

A search for a more effective (yet easily applied) tourniquet led to the evaluation and distribution of commercially-manufactured tourniquets between 2004 and 2006. This ultimately led to the adoption and issue of the “Combat Action Tourniquet” (CAT) to Special Operations Command personnel in 2004 with issue to conventional soldiers in 2005. The CAT was included in the revised Individual First Aid Kit. The adoption of the CAT resulted in an 85% decrease in mortality from bleeding out from an extremity. Tourniquet training combined with hemostatic dressings and the “Israeli Bandage” provide means of quickly halting blood loss from a traumatic injury on the modern battlefield.



Combat Action Tourniquet. The windlass can be used one-handed, and includes fasteners to keep it in place once tightened. The red tab was used to show which pocket it was in for buddy aid.

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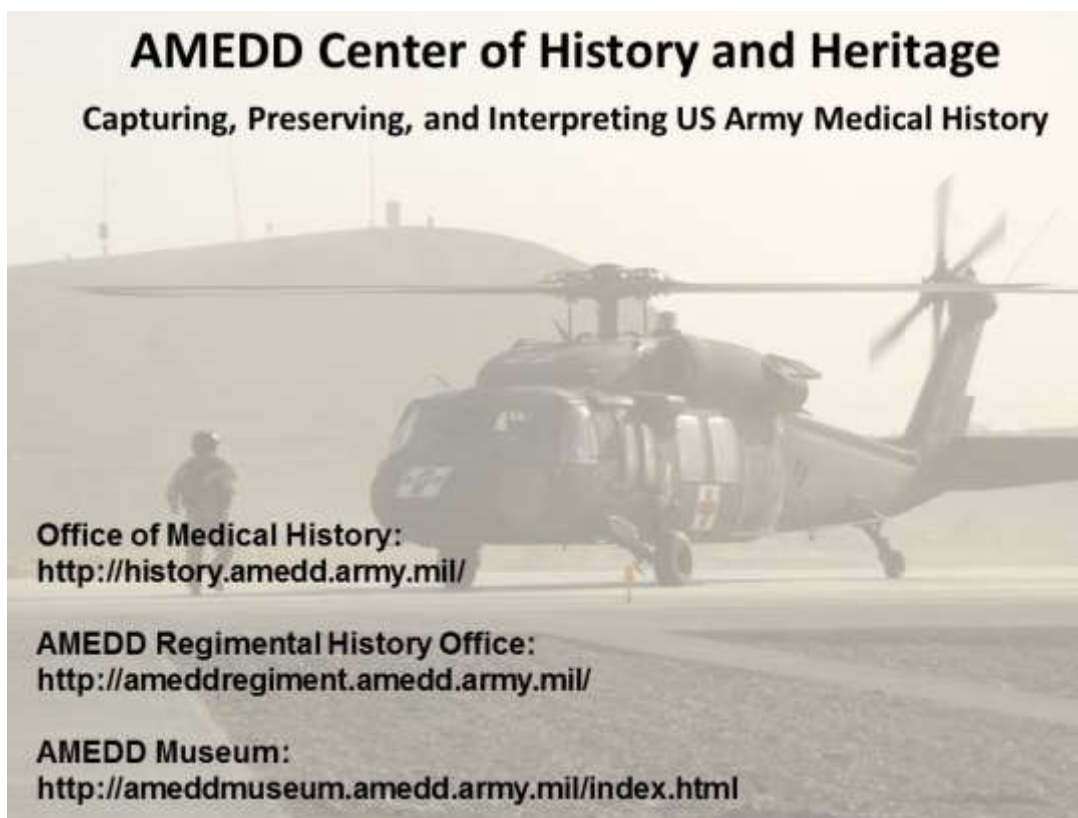
### **New ACHH Archival Donations:**

Papers documenting the service of William A. Snodgrass, M.D. during WWI. Also included is a draft copy of *Notes from the Surgical Suite: Operative Report, World War I* written and edited by Dr. Snodgrass.

### **New to the Research Library:**

21 publications from the Gorgas Memorial Library  
7th Medical Battalion yearbook, 1970

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### 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](mailto:usarmy.jbsa.medical-coe.mbx.office-of-medical-history@army.mil) Please contact us about technical specifications.

**The opinions expressed in The AMEDD Historian are those of the authors, not the Department of Defense or its constituent elements. The bulletin's contents do not necessarily reflect official Army positions and do not supersede information in other official Army publications or Army regulations.**

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