FROM THE EDITOR

MEDICS

Doctors early in World War II had their own war to fight. The evolving specialty of air medicine was not widely accepted by traditionalists in American medicine. Flight surgeons, like flight crews, had to learn about war and war injuries by experiencing the unique and yet unknown conditions airmen faced in a bombing war. Medical policies and treatment techniques themselves had to be established rapidly and effectively.

In 1941 Major General David N. W. Grant was designated Air Surgeon of the newly formed Army Air Forces. For the first two and a half years of the war, all combat by American Army soldiers was fought in the air – a new strange and hostile environment not previously known in warfare. Injuries of combat crewmen were diverse, a challenge to the flight surgeons, medical technicians, and nurses of the medical dispensaries at air stations in East Anglia. Regional hospitals, initially established by the British forces, quickly filled with injured American fliers. Frigid temperatures of high altitudes during missions over German territory caused half of the casualties suffered by the 8th Air Force during the first two years of the war. Anoxia from damage to oxygen systems in the bombers and fighters were yet another silent danger.

Doctors and medics at each airbase were fixtures on the runways during their airmen's return from combat missions. Aircraft with injured aboard would signal with flares to those waiting by ambulances marked with their big red crosses on a white background – known to all as the "meatwagons." These airplanes would drop out of formation landing with their wounded crewmen before the rest of the Group came in. Plasma would frequently be given on the scene to replace blood losses to those fliers in shock; analgesics were a source of comfort to the wounded. The badly injured were taken to area hospitals as rapidly as possible where surgical teams working around the clock awaited their arrival.

The existence of effective medical services were vital to the fighting men of the 8th air war. Group and squadron commanders worked closely with flight surgeons to keep the crews in the air. Sick call reports indicated how many men would be ready to fly the next day's mission. Emotional effects from the strain of combat also confronted the medical teams at every base. Some Group commanders directed their flight surgeons to fly at least one combat mission in order to acquaint them with the effects of a mission on his airmen. One commander states that he "worked closely every day with his Group doctors. These dedicated men were among the most important factors in our ability to put up aircraft to fly combat missions day after day."

Nurses were primarily stationed at the larger area hospitals. They were all volunteers who went through rigorous training programs such as that at Camp White in Medford, Oregon, before going overseas. Their duty hours were

unending; their work was essential in the recovery of post-surgical and injured airmen. Col. Florence Blanchfield, Superintendent of the Army Nurse Corps, stated that "Our nurses are actuated by the ideal of service. They want to help others and are willing to make sacrifices to accomplish that." Army nurses were the quintessential morale-builders for the 8th Air Force troops away from home.

Medics, technicians, and supply units were equally important. Establishing and setting up area hospitals had to be done rapidly during the early war years. Herbert Moon of Americus, Georgia states that he helped set up and supply five initial area hospitals for the Eighth. After finishing one, he would move on to another to help get it into action. Moon, at age 23 one of the "old men" in the Army, wound up volunteering to become a medic. He spent six months in southern England being trained by an experienced British Commando Unit, before landing on Omaha Beach in the first wave on June 6th, 1944. He says that of the forty medics in his outfit landing with him on the beaches of D-Day, only five survived the war.

Injuries in the air were a different matter. Air crews wounded by flak or fighters knew that they may have as long as six to eight hours before receiving medical care. Wounds could not be adequately examined by their fellow crewmen because of their layers of heavy clothing and the cold atmosphere present in the unheated bombers. Treatment in the air consisted primarily of using the morphine analgesic ampules issued to each crewman, along with an occasional tourniquet to stop blood loss. On not a few occasions, seriously wounded airmen bailed out or were bailed out over enemy territory by their buddies, with hopes of receiving medical care on the ground. There was, however, some comfort to the fliers in knowing that good medical care awaited them if they could make it back to their base. These feelings reached all the way back to the home front. General Malcolm Grow, Air Surgeon Commander of the 8th AF, was an early advocate of effective professional medical care of wounded airmen. Grow extended his range to that of establishing a first rate air/sea rescue service. Pilots of damaged aircraft became aware of the fact that their chances of being picked up after ditching in the cold waters of the North Sea and English Channel rose from 1.9% in the first year of the war to 49% in 1944.

Many wounded 8th AF fliers owe their lives to those who manned the base dispensaries and area hospitals during the war. Empty bunks in the barracks were made easier to face by those returning from missions knowing that their crewmembers and buddies were under the competent care of these professional medical personnel. They remember with appreciation the men and women who were often unrecognized for their courageous efforts and their devotion to those who faced injury and death on every combat mission. These dedicated men and women are a distinguished part of the legacy of those who fought for our country's freedom, and peace.

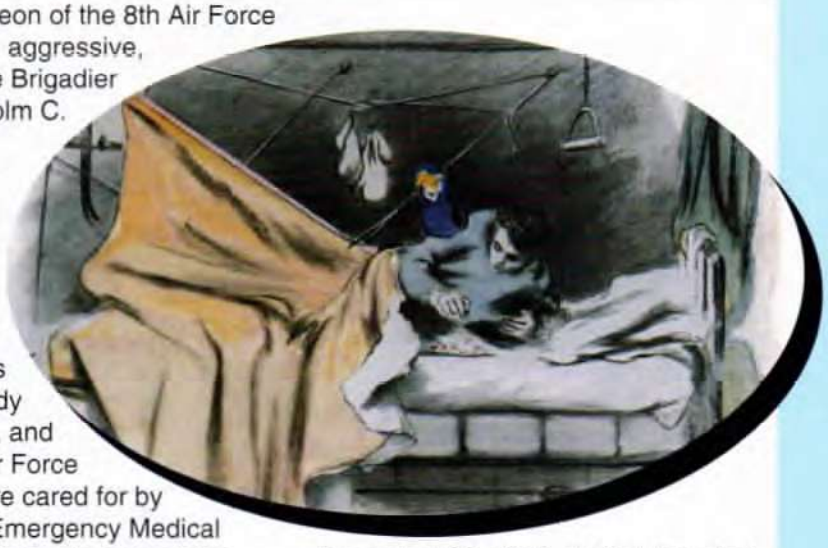
COVER STORY

HOSPITALS THAT SERVED THE 8TH AIR FORCE

Ivan W. Brown, Jr., M.D. and Christopher B. Pluck

The 8th Air Force lost over 26,000 men killed in World War II. In addition, over 7,000 flying personnel were wounded in aerial combat. Thousands of other air crewmen and non-flying personnel were injured in crashes and accidents or suffered severe illnesses. Perhaps not all remember that during WW II the U.S. Air Force was the Army Air Force (AAF) and not the separate branch of the U.S. Armed Forces that it is today. Thus, 8th Air Force casualties cared for by U.S. Army hospitals located throughout East Anglia.

However, because of the special medical problems associated with flight, the Air Force did have its own, but limited, medical division. In addition to aerophysiologists, this division had specially trained flight surgeons who acted as general physicians at each Air Force base, responsible for the health and medical problems of the air crews as well as the base ground force personnel. The flight surgeons operated small dispensaries of up to 25 beds where patients could be treated with minor illnesses or injuries that required only short-term care. The head of the Air Force Medical Division was Air Surgeon Major General David N.W. Grant. His subordinate and Chief Air Surgeon of the 8th Air Force was the feisty, aggressive, and innovative Brigadier General Malcolm C. Grow.



When the 8th Air Force began operations on August 17, 1942, no U.S. Army hospitals were then ready in East Anglia, and the first 8th Air Force casualties were cared for by British EMS (Emergency Medical Service) hospitals. In spite of the high priority given by the British Ministry of Works to the construction of hospital plants in East Anglia, their completion fell far behind schedule due to the shortage of skilled workers and materials. The first U.S. hospital site in East Anglia to be turned over to the American forces was at Diddington in Huntingdonshire in what was previously a public park. It was opened for patients on December 26, 1942, staffed in its first months of operation by the U.S. 2nd Evacuation Hospital, supplemented with Auxiliary Surgical Team personnel.

The first U.S. hospital site to be turned over to American forces was at Diddington in Huntingdonshire...

In the late spring of 1943, another East Anglian U.S. hospital site was completed at White Court, Braintree, Essex, and operated initially by the U.S. 12th Evacuation Hospital.

Finally, in the summer and early fall of 1943, all but one of the remaining hospital plants scheduled for East Anglia were completed. These sites were soon occupied by U.S. Army Station Hospitals immediately upon

Destroyed and damaged surgical wards at 121st Station Hospital, Braintree, Essex after bombing by the Luftwaffe April 19, 1944.

View of the 231st Station Hospital near Wymundham, Norfolk on the grounds of what was previously the Mid-Norfolk Golf Course.

their arrival in the U.K. In July 1943, the 121st Station Hospital took over the hospital site at White Court, Braintree, Essex from the 12th Evacuation Hospital. The following month, the 2nd Evacuation Hospital turned over its 317 patients at Diddington, Hunts to the 49th Station Hospital which before its transfer to England had been stationed in Iceland.

During September 1943, the 136th Station Hospital opened the hospital plant at Acton Place, an estate 3 miles north of Sudbury, Suffolk. In the same month, the 303rd Station Hospital took over the hospital site at Lilford Hall, Thorpe, Northants in the midst of the 8th Air Force 1st Division, and the 77th Station Hospital occupied the new hospital site at Morley Hall near Wymondham, Norfolk, in the area of the 2nd and 3rd division.

President Roosevelt's star studded investigation team arrives at 65th General Hospital, Botesdale, Suffolk, March 11, 1944.
Front L-R: Maj. Gen. Hawley, Maj. Gen. Kirk, Maj. Gen. Grant, Dr. Strecker, Brig. Gen. Grow.
Back L-R: Lt. Col. Stevens (65th), Lt. Col. Persons (65th), Col. Clapp (65th), Lt. Col. Whittington (65th), Col. Thompson, (AF) Maj. Manning (65th), Maj. Upchurch (65th), Lt. Col. Erickson (65th), Brig. Gen. Cutler (A Hdq), Maj. Alexander (65th), Lt. Col. Gardner (65th), Lt. Col. Olson (AF), Lt. Col. Murphy (65th), Col. Wright (AF).

In October 1943, the 12th Evacuation Hospital turned over its 250 patients at the hospital site at Redgrave Park, an estate outside of Botesdale, Suffolk, to the newly arrived 231st Station Hospital. This was in the center of the 2nd and 3rd Divisions of the 8th Air Force.

The last of the East Anglican Hospitals to become operational was the 163rd General Hospital. It opened for patients in October 1944, at Wimpole Hall near Meldreth, Cambridgeshire. Later, it became an assembly center for patients from other hospitals being sent back to the states (Z of I).

A Small War Within A War

From the time the medical division of the Air Force was established in 1941, Air Surgeon Grant began agitating for complete autonomy of the Air Force Medical Service with its own Air Force hospitals and Medical Supply Service. This was strongly opposed by the Army Surgeon General's office as well as later by Major General Paul R. Hawley, the newly appointed Army Surgeon General of the European Theater. With the establishment of the 8th Air Force in England in June 1942 and with Gen. Grow as the 8th Air Force Surgeon, both Gen. Grant and especially Gen. Grow stepped up their persistent campaign for separate hospital facilities and medical supply.

General Grow had considerable prestige and was highly respected. He was one of the pioneers in aviation medicine with a brilliant mind and a daring nature, making him an advocate not easily denied. Surgeon General Hawley frequently leaned over backwards to appease Grow's complaints about medical supply shortages and delays in hospital construction. However, Hawley's deputy, Col. Spruitt, known to be abrasive, so angered Grow's staff that they tried unsuccessfully to have him replaced.

On maps recovered from downed German planes, The locations of the allied hospitals in East Anglia were clearly noted.

This continuing feud between the Army and Air Force over hospital and medical supply came to a head in early February 1944 at a time when the 8th Air Force was sustaining a marked increase in combat casualties.

In Washington, word reached President Roosevelt, whose son Elliott was in the Air Force, that the Royal Air Force casualties were getting better care in their British hospitals than the casualties of the 8th Air Force were getting in the American hospitals. When Roosevelt heard this he "hit the ceiling" and immediately phoned the Army Surgeon General, Major General Norman T. Kirk and Air Surgeon Major General David Grant, ordering them to go to England and investigate these allegations. He ordered them to take with them as a neutral observer, Dr. Edward A. Strecker, a noted civilian medical consultant to the Armed Forces.

Word of this coming investigation quickly reached Hawley's office in London. To improve the image of care the 8th Air Force was receiving,

Hawley immediately ordered the 65th General Hospital to move from Malvern, Worcestershire to the hospital site at Redgrave Park near Botesdale, Suffolk. They were to replace the 231st Station Hospital and convert the site to a general hospital. The 231st Station Hospital was moved to Morley Park, Wymondham replacing the 77th Station Hospital.

The 65th General Hospital was an affiliated reserve hospital of the Duke University Medical School and Hospital. Comparatively, it had an abundance of skilled medical talent. Its medical and surgical staffs were composed largely of specialists from the Duke Medical School faculty and other specialists who had recently completed their residency training at Duke University Hospital. An advanced party of the 65th General Hospital arrived at Redgrave Park on 10 February 1944 and the remainder of the hospital followed on March 4.

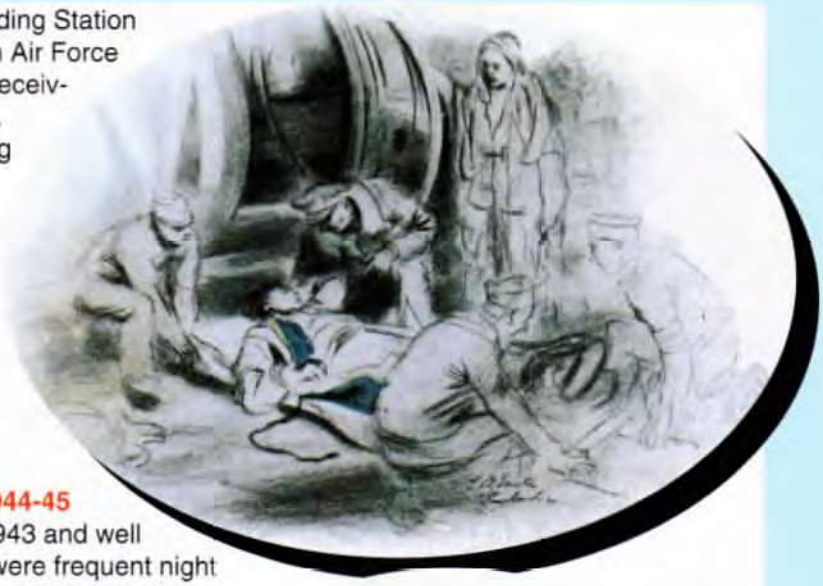
The average time from wounding to arrival at one of the hospitals was five and a half hours.

The Redgrave hospital census at the time was over 500 patients, many convalescing from severe wounds. The 65th General Hospital arrived the day of the 8th Air Force's first air raid on Berlin. The hospital received 23 freshly wounded airmen that night. At daybreak the next morning, two bombers crashed on take-off at a nearby air base and their severely injured survivors were received before the previous night's work had been completed.

It was only one week later on March 11 that Roosevelt's star-studded inspection team arrived from Washington, accompanied by General Hawley and his consulting staff.

Their inspection with ward rounds throughout the hospital was rigorous.

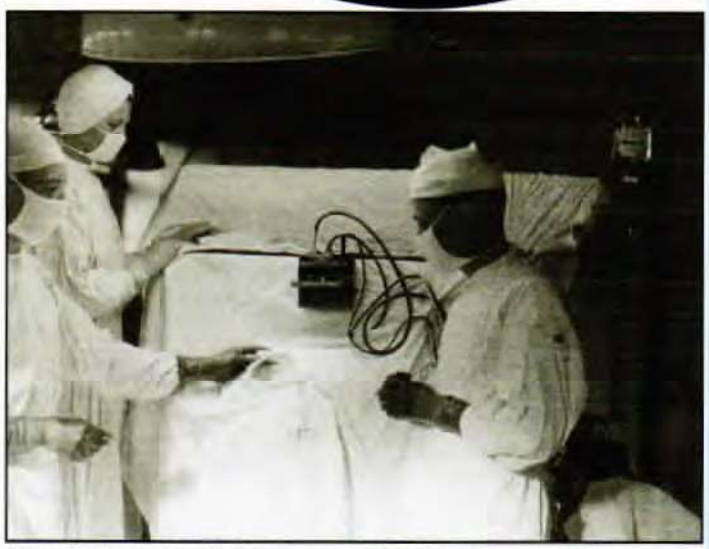
As it turned out, the investigating team was very pleased with the functioning of the hospital and impressed with the fine care the patients were receiving. In their report, they noted that here, as well as in the surrounding Station Hospitals, the 8th Air Force casualties were receiving superior care. This was a ringing vindication for Gen. Hawley's stand, and it ended for the rest of the war the Air Force-Army feud over control of these hospitals.



Activities 1944-45

Throughout 1943 and well into 1944, there were frequent night air raids by the Luftwaffe on the surrounding East Anglian airfields. During these raids each medical officer and nurse went to their respective wards to be with the patients. With two or three raids occurring on some nights, a lot of needed rest was sometimes lost by the medical staff's repeated arousal and rushing to their posts.

None of the British or American hospitals were marked as such. On maps recovered from downed German planes, the locations of the allied hospitals in East Anglia were clearly noted. In spite of this, the 121st Station Hospital at Braintree, Essex, was struck with three incendiary bombs and one high explosive bomb about 1 a.m. during a Luftwaffe raid on April 19, 1944. The incendiaries fell in an open area. The high explosive bomb leveled two surgical wards and severely



Just before start of an operation (craniotomy) to remove "flak" fragment from the brain, that had entered thru head wound seen exposed in surgical field. Left, Capt. W. H. Bridgers and Lt. Josephine Johnson (later Mrs. Bridgers); Right, Capt I. W. Brown (co-author).

damaged many others. Amazingly, no one was killed and most of the injuries were minor. Two of the hospital personnel, one nurse and one corpsman, received minor wounds. Another bombing incident close to a hospital occurred near the end of the war when the strict blackout had been partially lifted to the so-called "Brown-Out." About midnight on March 4, 1945, a German JU88, dropped over 500 anti-personnel bombs on the village of Botesdale just outside the gate of the 65th General Hospital. One tipsy and AWOL 65th corporal seeing his girlfriend home, received a minor bomb fragment wound.

Because of its many senior medical specialists, the 65th General Hospital became a referral center for the surrounding hospitals for complicated cases in general and thoracic surgery, neurosurgery, orthopaedics, plastic surgery, burns, and hand injuries. Like some of the surrounding station hospitals, the 65th supplied several medical officers and enlisted corpsmen on detached service to the marshalling yards and aboard landing crafts for the D-Day invasion of Normandy.

Army nurse officers from all the American East Anglian hospitals were very popular with the young Air Force officers. A number of Army nurses married Air Force officers before the war ended. Living conditions for these young women were sometimes far from ideal. Their quarters were often crowded with no privacy, sometimes eight nurses to a tar-paper hut, and their ablution facilities frequently ran out of hot water. In spite of all this, with their duty of twelve hour shifts, they were some of the hardest working and most devoted of all the medical personnel. They were eagerly sought after and invited to the 8th Air Force base parties and dances.

Combat Wounds

Of the wounds sustained during aerial combat by the 8th Air Force flying personnel, 64 percent were due to flak, 6 percent due to 20-mm cannon shells, and 2 percent due to machine gun bullets. The average time from wounding to arrival at one of the hospitals was 5-1/2 hours. The largest number of wounds were of the extremities, and many of these involved severe fractures or other bone injury. Twenty percent involved the head or neck, and only eleven percent the trunk. The relatively lower percentage involving the chest and abdomen is attributed to the body armor (flak vests) designed by General Grow and worn by air crews during combat.

The hospital mortality rate for Air Force personnel wounded in aerial combat was only 0.4%. Put another way, if the wounded airman reached the hospital alive, he stood a 99.6% chance of surviving. While this remarkably low mortality rate was partially due to the youth and vigor of most airmen, it still remains equal to or better, for comparable wounds, than for many of the modern hospitals today.

After D-Day each hospital received its share of wounded patients from the continent from frequent hospital trains bringing 200-400 patients at a time. As example, the 231st Station Hospital at Wymondham in Norfolk received 3,250 wounded by hospital train between July 12, 1944, and its closing in June 1945.

During 1944 and early 1945, many of the hospitals, like the 65th General, operated at full capacity of 1,450 beds. By the end of the war and during its 20 months of operation, the 65th General Hospital had handled over 17,250 bed patients and over

Location of U.S. Army Hospitals in East Anglia that cared for the 8th Air Force casualties.

30,000 in its outpatient clinics.
During the war, a number of medical advances and surgical firsts were established by the American Army hospitals stationed in England. Some of these were:

A lifesaving emergency treatment for meningococcus meningitis.

Recognition of the limitations of plasma treatment of shock and its hazard of hepatitis.

The importance of penicillin in the treatment of wound and venereal infections.

The successful removal of shell fragments from within the beating heart. This, years before the invention of the heart/lung machine and open heart surgery. Three such successful intraheart operations were performed at the 65th General.

The freeing and complete re-expansion of the nonfunctional compressed lung from scarring entrapment after chest wounds and infection (empyema).

After VE day and the re-deployment of the American hospital units, the East Anglian hospital sites reverted back to the British. The site near Wymondham, Norfolk, eventually became Wymondham College where some of the 231st Station Hospital buildings are still in use. The hospital site at White Court, Braintree, Essex is now a housing development.

For a time after the war, the hospital site at Botesdale, Suffolk, became a British Prisoner-of-War hospital. Among those hospitalized there were a number of the ailing German High Command. Now cleared farmland, the site's only reminder of its WW II role is the historical marker at its entrance. Most of the East Anglian hospital sites were on the grounds of requisitioned English estates. Only two of the manor houses of these estates remain today; Lilford Hall in Northampshire and Diddington Place in Huntingdonshire.

Manor House, Acton Place, Sudbury, Suffolk used as a part of the 136th Station Hospital.

Diddington Place, Hunts used as part of 49th Station Hospital.

The camaraderie that developed among the personnel of many of these hospitals has endured. For example, the surviving 65th General Hospital veterans, including some of their former patients, have continued to hold an annual reunion for the last 54 years. Now in their late seventies and eighties, they plan their final reunion next year in Durham, North Carolina. At this final reunion Duke University will dedicate a memorial monument to the 65th General Hospital on the Duke University Medical Center Campus.

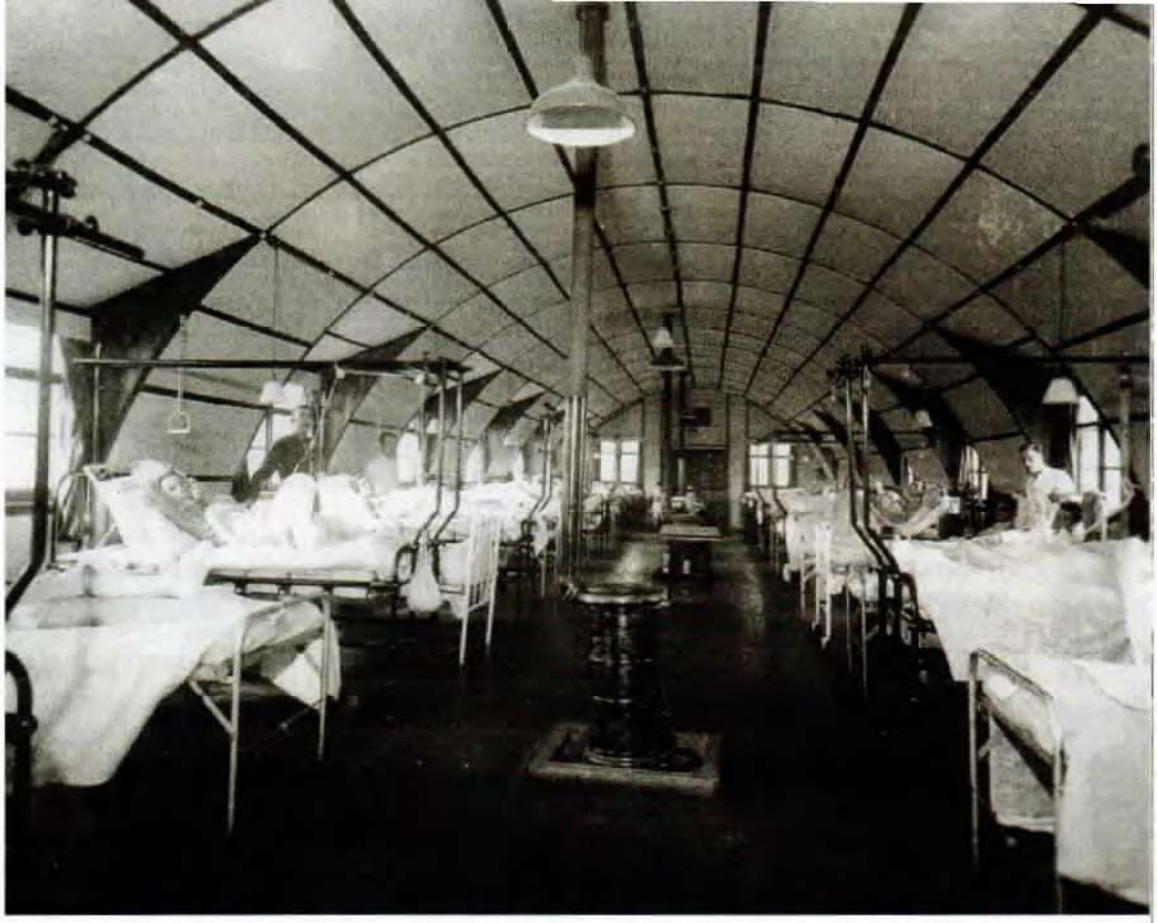
Dr. Ivan Brown is a retired cardiovascular surgeon and former James B. Duke Professor of Surgery at Duke University. During WW II he was a Captain on the neurosurgical service of the 65th General Hospital. He remains the 65th General Hospital historian.
Mr. Christopher Pluck is a native of Braintree, England, the site of the 121st Station Hospital. He has been a historian and collector of information about the hospitals that served the 8th Air Force. He resides in Lakeland, Florida.

Period artwork by noted artist Lawrence Beall Smith

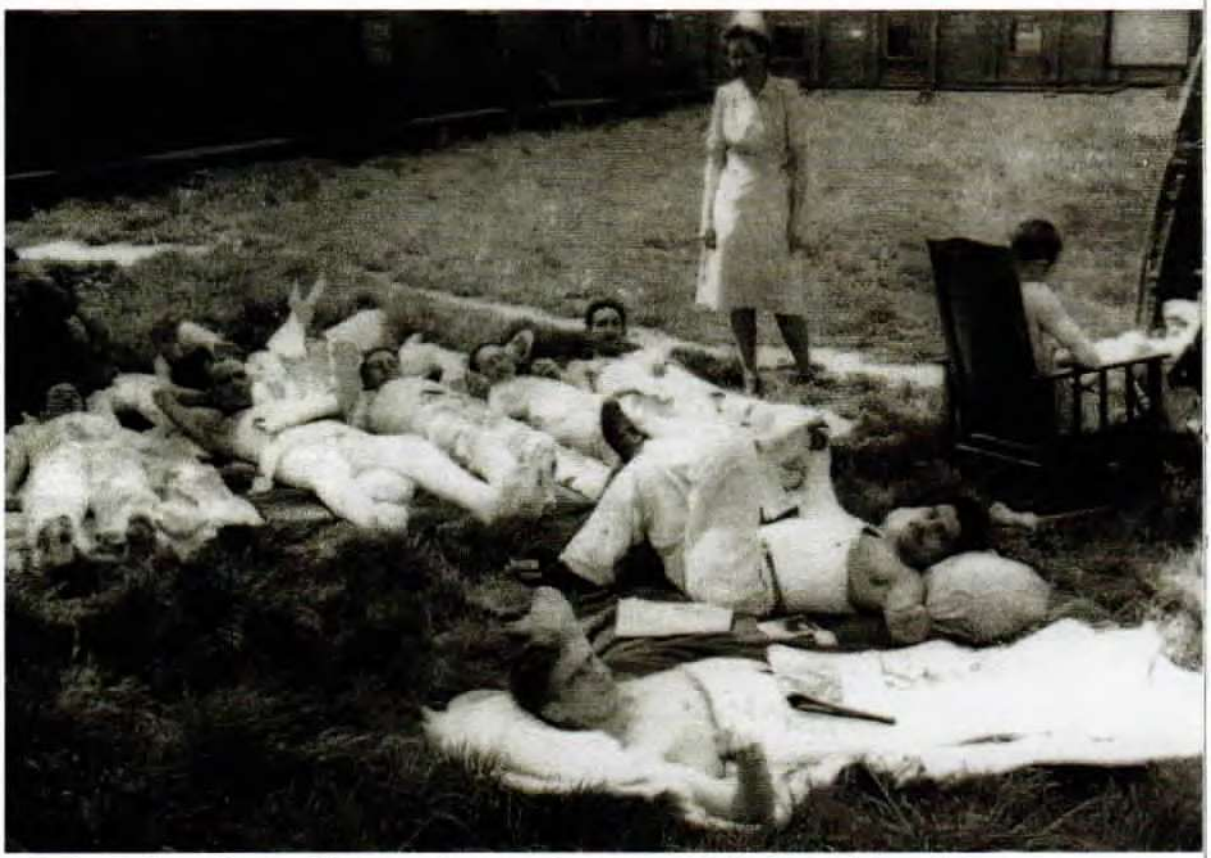
WAR WOUNDS

My mind turns back to our days in the interrogation room after combat. We sit here waiting. The place gets empty after a while. You look for faces and they are not here. They did not come back. The men who return that day talk about the mission. You look at the plane; you see the hole in the plane as big as a dinner plate right next to where a man stood in the B-17. Or, a big hole next to the cockpit. It missed the pilot by a hair. You see where the jagged shrapnel grazed his shoulder; struck the instrument panel. Then you see the ugly hole right next to the co-pilot, the bullet that hit him and cut off his head. You helped our buddies remove your fallen comrade from the plane. The atmosphere in the interrogation room is sad beyond words. I have actually seen the members of the crew crying. I see men's faces when they walk off alone. I walk over and stand by a man's side. Perhaps I do not say a word. I just walk out of the building with him. And we sit at his side in the truck. We go back to his barracks. And sometimes we just sit there on the bed, without saying a word. There are moments when silence, prolonged and unbroken, is more expressive than any words that may have been spoken. The sad day ends. I walk back to the room in the chapel. I don't feel like eating supper.

J. Good Brown, Chaplain
381st Bomb Group
Ridgewell



One of several orthopedic wards at 65th General Hospital. Note the small coke stove in foreground, the only source of heat. Ward floors were asphalt, kept waxed.



Orthopedic patients with extremity wounds in casts, 65th General Hospital Botesdale, Suffolk taking advantage of an infrequent sunny warm day.