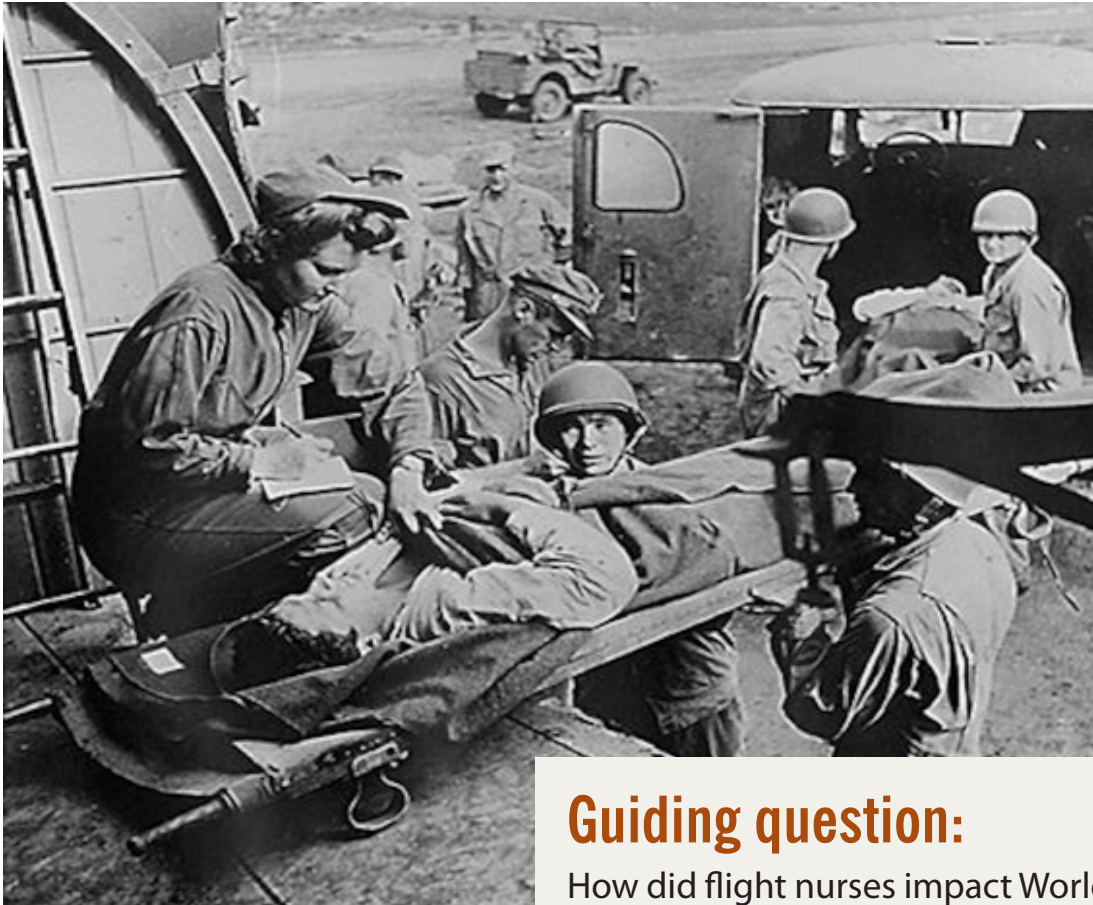




UNDERSTANDING
SACRIFICE

Activity: Under their Wing: Impact of Flight Nurses in the Pacific



Guiding question:

How did flight nurses impact World War II in the Pacific Theater?

DEVELOPED BY AMANDA REID-COSSENTINO

Grade Level(s): 9-12

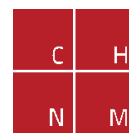
Subject(s): Social Studies

Cemetery Connection: Manila American Cemetery

Fallen Hero Connection: Second Lieutenant Eloise M. Richardson



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New Media

Overview

Using interactive technology from the American Battle Monuments Commission as well as primary and secondary source analysis, students will understand how flight nurses played a crucial role in World War II.

Historical Context

The Pacific Theater posed unique challenges for both service members and the medical personnel who cared for them. During World War II, expanded air transportation routes permitted the military to fly injured servicemen to better equipped hospitals far from the front lines for treatment. The U.S. Army Air Corps began training medical personnel to be able to provide the specialized care required on these evacuation flights. An instruction program for flight nurses, surgeons, and medical technicians was established at Bowman Field near Louisville, Kentucky. Service members learned crash procedures, survival techniques, and the ways high altitude evacuation flights could pose challenges for their patients' care. The need for the first contingent of nurses was so great that they were actually sent to North Africa in December 1942 before they could complete the program. The first class of nurses graduated from Bowman Field on February 18, 1943. During World War II, about 500 flight nurses served their country on 31 air evacuation transport squadrons. Seventeen flight nurses were killed in the line of duty, but of the nearly 1.2 million patients they carried, only 46 died en route. The incredible care delivered by medical personnel no doubt contributed to Allied success.

“The story of Eloise Richardson inspired me to research flight nurses in World War II. Many discussions on the war revolve around military operations. This lesson seeks to push students to take a wider look at the conflict and to understand the integral roles played behind the front lines, specifically by nurses.”

— Amanda Reid-Cossentino

Reid-Cossentino teaches at Garnet Valley High School in Glen Mills, PA.

Objectives

At the conclusion of this lesson, students will be able to

- Describe the history of flight nursing and the training received by prospective nurses at Bowman Field;
- Evaluate the importance of nurses' efforts in the Pacific Theater; and
- Understand the particular challenges of providing medical care to the wounded during World War II.

Standards Connections

Connections to Common Core

CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.

CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.

CCSS.ELA-Literacy.RH.11-12.9 Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.

Connections to C3 Framework

D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place as well as broader historical contexts.

D2.His.2.9-12. Analyze change and continuity in historical eras.

D2.His.16.9-12. Integrate evidence from multiple relevant historical sources and interpretations into a reasoned argument about the past.

Documents Used ★ indicates an ABMC source

Primary Sources

Army Air Forces School of Air Evacuation, Bowman Army Air Base, 1944

U.S. Army Air Forces School of Air Evacuation

Republished and digitized by the World War II Flight Nurses Association, 1989

<https://archive.org/details/TheStoryOfAirEvacuation>

The Army Nurse, 1945 (0:00-1:32)

U.S. Army Pictorial Service

<https://archive.org/details/ArmyNurs1945>

Flight Nurse's Creed, Excerpted from a Speech by Major General David N.W. Grant, November 26, 1943

National Museum of the U.S. Air Force

<http://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/196420/flight-nurses-creed/>

Newsreel, *U.S. Turns to Japan After German Defeat*, May 1945

U.S. Office of War Information

National Archives and Records Administration (39062)

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Poster, *From Now on It's YOUR Job*

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National Archives and Records Administration (513498)

<http://www.womenofwwii.com/images/recruitingposters/recruitingposter70.jpg>

Poster, *More Nurses are Needed!*, 1942

Office of War Information

<http://www.womenofwwii.com/images/recruitingposters/recruitingposter69.jpg>

Poster, *You Are Needed Now*, June 1943

Office of War Information

University of North Texas Library (Poster 710-A)

<https://digital.library.unt.edu/ark:/67531/metadc365>

Oral History Interview, Dorothy Davis Thompson, June 13, 2006

National Museum of the Pacific War

<http://digitalarchive.pacificwarmuseum.org/cdm/ref/collection/p16769coll1/id/1661>

Oral History Interview, Laura Newland Moller (9:05-11:54)

Veterans History Project, Library of Congress

<http://memory.loc.gov/diglib/vhp/story/loc.natlib.afc2001001.04285/>

Oral History Interview, Norma Mae Harrison Crotty (3:45-5:30, 6:31-7:46, 9:53-11:17)

Veterans History Project, Library of Congress

<http://memory.loc.gov/diglib/vhp/story/loc.natlib.afc2001001.20935/>

Secondary Sources

The Army Nurse Corps

U.S. Army Center of Military History

<http://www.history.army.mil/books/wwii/72-14/72-14.HTM>

Eloise Richardson Fallen Hero Profile ★

American Battle Monuments Commission

<https://abmceducation.org/understandingsacrifice/soldier/eloise-richardson>

Mae Mills Link and Hubert A. Coleman, "The History of Air Evacuation," 1955 (excerpt)

Medical Support of the Army Air Forces in WWII

United States Air Force Medical Service

<https://archive.org/details/MedicalSupportOfTheAAFInWWII-nsia>

Materials

- Computer with internet capability
- Projector
- A Brief History of Air Evacuation Handout
- A Nurse's Life Question Sheet
- *The Army Nurse* video clip
- Nine folders to create station resource packets (three per station).
 - Station One: Recruitment and Training Resource Packet
 - Station Two: Duties Resource Packet
 - Station Three: Risks & Results Resource Packet
- Students working on stations two and three will need one laptop per group to listen to interviews from nurses recorded for the Library of Congress Veterans' History Project.
- Exit Ticket Handout

Lesson Preparation

- Print and assemble Resource Packets for each station (Recruitment & Training, Duties, and Risks & Results). For most classes, three sets of each station's material, gathered in a folder or binder clip, will be enough.
- Set up classroom technology and test all online resources before class.
- Download a copy of *The Army Nurse* video clip to project to the class.
- Make one copy of A Brief History of Air Evacuation Handout, A Nurse's Life Question Sheet, What Would You Do? Worksheet, and Exit Ticket Handout for each student.
- Preset or cue audio and video clips for students in stations two and three.

Procedure

Activity One: Bell Ringer - Nursing in the Pacific (10-15 minutes)

- Project the clip from the opening scene of the the 1945 government film, *The Army Nurse*. The film clip runs from 0:00-1:32.
 - Ask the students, *What needs to happen to help ensure that the fallen soldier in the clip will survive?* Discussion may include ideas about transportation, hospitalization, blood transfusions, medicines, care from surgeons and nurses, etc.
 - Ask the students, *What special concerns regarding the medical treatment of men and women exist in the Pacific Theater?* Students should be encouraged to consider factors like inadequate/absent health facilities in the field of battle, the need to move patients great distances for treatment, dangers inherent in trying to administer aid in a combat zone, tropical diseases, and climate concerns.
 - Tell students that today they will be focusing on the role that World War II flight nurses played in the Pacific Theater.
 - As a group, read A Brief History of Air Evacuation Handout.

Activity Two: Stations on a Nurse's Life (60 minutes)

- Divide class into small groups of three to four students for station work. Students will become more familiar with World War II flight nurses by examining three sets of sources: Recruitment & Training, Duties, and Risks & Results. Hand each student a copy of the A Nurse's Life Question Sheet, which contains questions related to each set of sources. This sheet will guide their study at every station.
- Explain that working cooperatively in their group, students will utilize the first source packet they are given to answer the corresponding questions on their A Nurse's Life Question Sheet. All groups at the same station should have a copy of the same source packet. Inform students that they will have 15 minutes to work on the materials at each station.
 - Teacher should circulate, assisting any student groups that might need help. He or she should also provide a time warning when five minutes remain at each station.
- Return the materials to their folders after the first 15 minutes have elapsed and move students to the next station. Make sure that all students see all documents by the end of the third rotation.
- Direct students to tackle the next set of questions on the A Nurse's Life Question Sheet.
 - As before, teacher should circulate freely to troubleshoot and provide a five minute warning as time elapses.
- Move the sources one more time between student groups. Students should now have their final set of sources and questions.
- Discuss the A Nurse's Life Question Sheet as a large group if time permits. If the teacher is short on time, this activity may also be collected.

- Ask students to return to their seats to complete the final activity, the exit ticket.

Assessment: Exit Ticket

- Distribute the Exit Ticket Handout. Students will respond to two prompts that force them to call upon their learning from class.
 - In your opinion, what was the most crucial element of the flight nurse's training? Why?
 - Imagine that you have been tasked with designing a memorial to commemorate World War II flight nurses in the Pacific Theater. Based on your station activities today, which area of their service would you choose to commemorate - Recruitment & Training, Duties, or Risks & Results - and why? Where would you build the memorial (be specific!) and what would it look like? Describe at least three features that you would incorporate and why. If you are artistically inclined and want to sketch out your idea, feel free!
- Teacher should collect the completed ticket from students as they depart.
- The Exit Ticket Rubric can be used to score the response.

Methods for Extension

- Students interested in the role of women in the U.S. military may examine the service of women in the WAAC (Army), WAVES (Navy), or SPARS (Coast Guard).
- Students might also like to examine the role that WASPs (Women Airforce Service Pilots) played in transporting planes both within the U.S. and abroad, or the recent debate over why female pilots like Elaine Harmon should be permitted to be buried as veterans at Arlington National Cemetery.
- Advanced students may also enjoy looking at the role that gender plays in World War II nurse recruitment materials.
- Teachers can enhance students' interest in women in World War II by exploring this related lesson plan on ABMCEducation.org:
 - [*Congressional Debates Over the Women's Army Corps*](#)

Adaptations

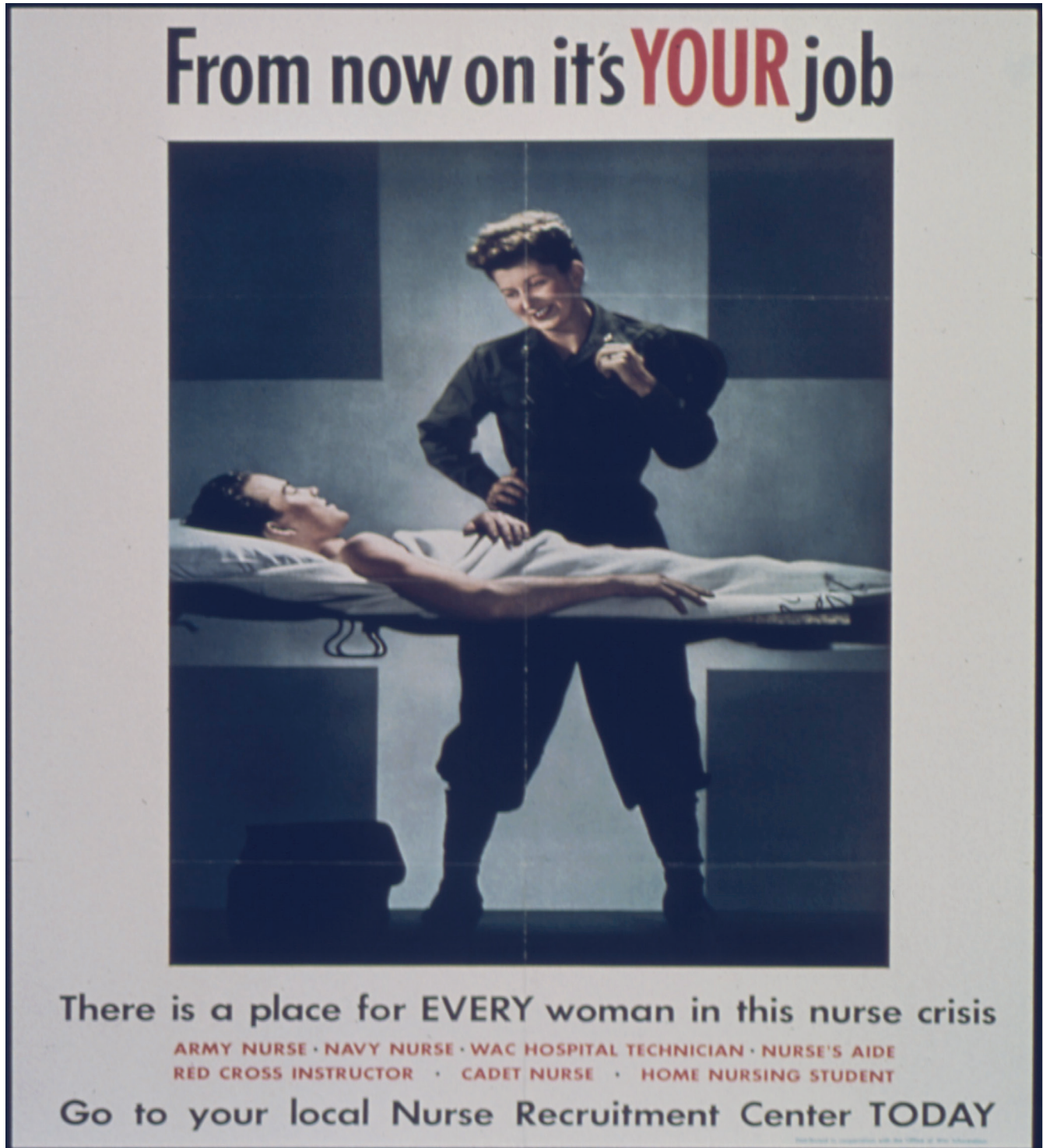
- Teachers can adapt the project to younger students or English language learners by reducing the requirements on the A Nurse's Life Question Sheet and by limiting the sources analyzed to one per station.
- Teachers can group students in several ways, by ability in heterogeneous or homogeneous teams, depending on student needs and teacher preference.

- Rather than running stations, teachers may also opt to have students jigsaw the assignment within their small group. This means that each student becomes an expert on one specific topic - Recruitment & Training, Duties, or Risks & Results. Students will then teach the other students in their peer group about the topics they read about.
- Teachers can expand the exit ticket into a full assignment and have students draw out the memorials they create in detail and then describe their design choices in paragraph form.

Station One Resource Packet: Recruitment & Training

Poster, *From Now on It's YOUR Job*

Office of War Information
National Archives and Records Administration (513498)



Station One Resource Packet: Recruitment & Training cont.

Poster, *More Nurses are Needed!*, 1942

Office of War Information



Station One Resource Packet: Recruitment & Training cont.

Poster, *You Are Needed Now*, June 1943

Office of War Information
University of North Texas Library (Poster 710-A)



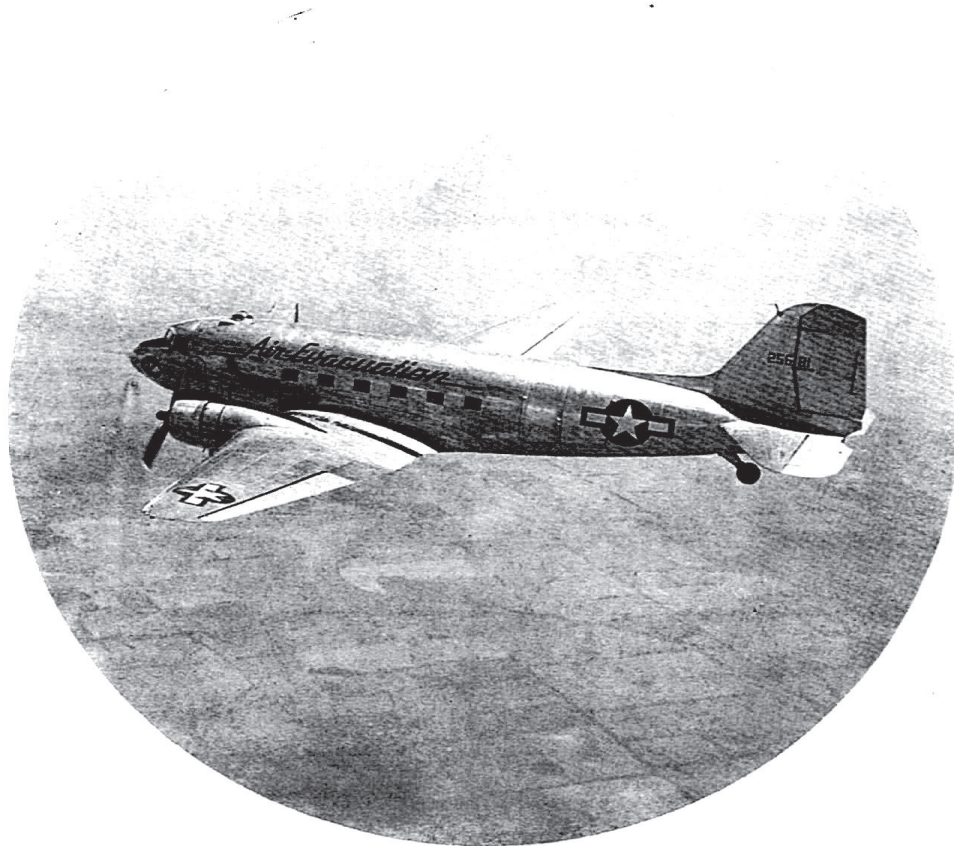
Station One Resource Packet: Recruitment & Training cont.

Army Air Forces School of Air Evacuation, Bowman Army Air Base, 1944, p1

U.S. Army Air Forces School of Air Evacuation

Republished and digitized by the World War II Flight Nurses Association, 1989

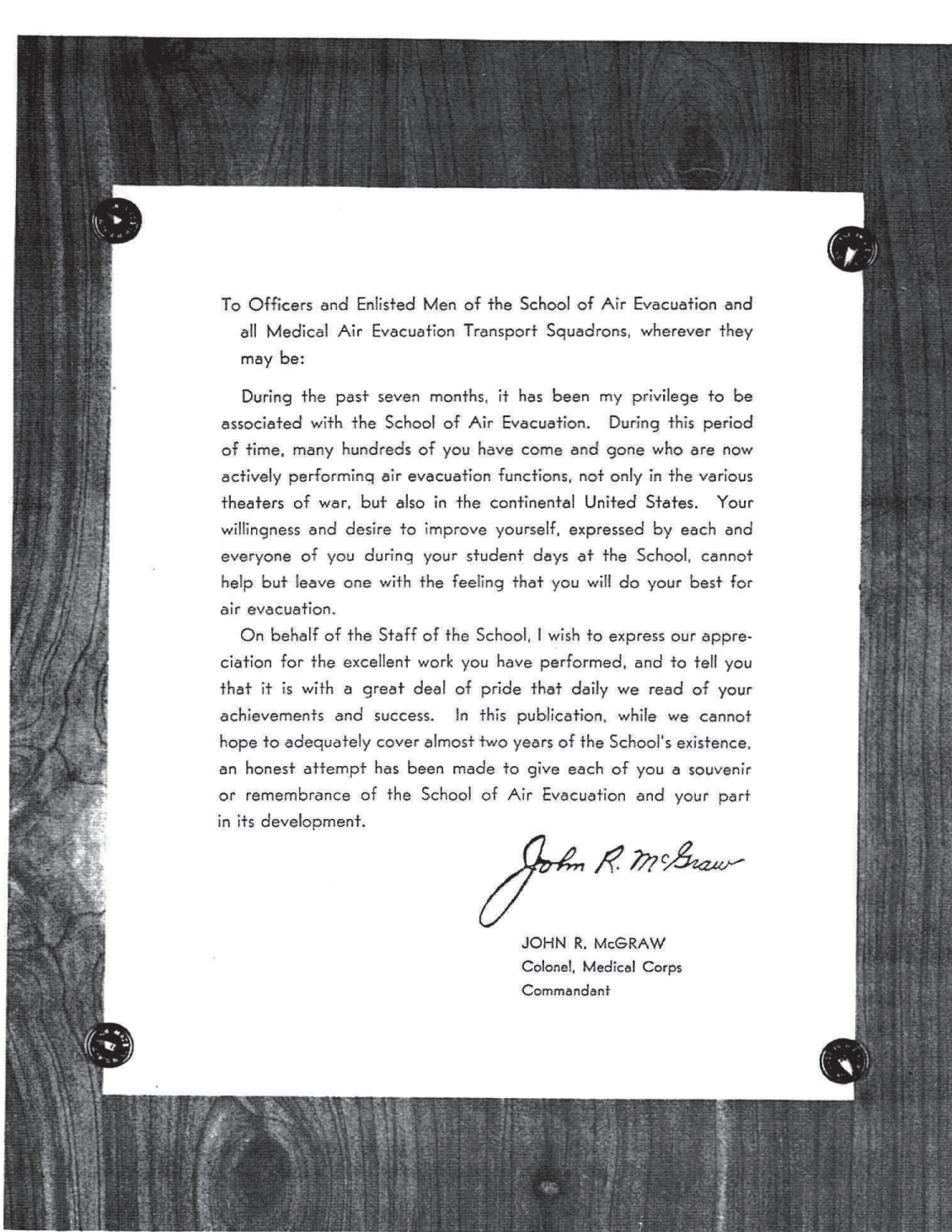
ARMY AIR FORCES SCHOOL OF AIR EVACUATION



BOWMAN ARMY AIR BASE

Station One Resource Packet: Recruitment & Training cont.

Army Air Forces School of Air Evacuation, Bowman Army Air Base, p2



14

Station One Resource Packet: Recruitment & Training cont.

Army Air Forces School of Air Evacuation, Bowman Army Air Base, p3



Colonel Stevenson, First Commandant of the School.

HISTORY OF AIR EVACUATION

Often referred to as one of medicine's outstanding developments of World War II, Air Evacuation has expanded during World War II with the same speed that has marked the development of our "Astronomical" air force. Today it is saving lives and alleviating suffering on all of our far-flung fighting fronts. Organized at Bowman Field, Louisville, Kentucky, on October 6, 1942, the first Air Evacuation training program was a realization of a dream which medical officers of the Army Air Forces had for many years to train Flight Surgeons, Flight Nurses and surgical technicians. It was still in the experimental stage when Major Scott M. Smith, then Commanding Officer of the School, and his staff of officers and nurses constantly sought new systems and ways to increase the speed and efficiency of the science of evacuation by air. First known as the 349th Air Evacuation Group, and later redesignated the Army Air Forces School of Air Evacuation on June 25, 1943, and placed under the direct control of the Commanding General, Army Air Forces, this School has during its short history, trained numerous squadrons of officers, nurses and enlisted technicians who are now serving on all major battle fronts of the war. Instrumental in the development of the School and its training program has been Colonel Ralph T. Stevenson, former Commanding Officer of the School, who assumed command of the organization soon after its establishment. Formerly a Dayton, Ohio, general physician, Colonel Stevenson received the rank of Lieutenant Colonel in December, 1942, and was promoted to the rank of full Colonel in October, 1943. He joined the Army in 1933 and after training

Lieutenant Elsie S. Ott, the first nurse to receive the Air Medal, is shown below receiving the award from Brigadier General Fred W. Borum, who made the presentation at Bowman Field.



Station One Resource Packet: Recruitment & Training cont.

Army Air Forces School of Air Evacuation, Bowman Army Air Base, p4

AT BOWMAN FIELD

at numerous Army Schools served in the Philippines from 1938 to 1940.

Present Commanding Officer of the School is Colonel John R. McGraw, 32, former Executive Officer, Surgeon's Office, Second Air Force Headquarters, Colorado Springs, Colorado, who relieved Colonel Stevenson on January 1, 1944. On that date, Colonel Stevenson was transferred to Headquarters, First Troop Carrier Command, Stout Field, Indianapolis, Indiana, where he assumed the duties of Command Surgeon.

An integral part of the program of the Army Air Forces School of Air Evacuation is the training of Flight Nurses, the Angels of Mercy who ride the skyways to care for the sick and wounded while in flight from battle zones to hospitals far behind the combat lines. A class of these nurses is now graduated from the School of Air Evacuation every eight weeks.

Today the Air Evacuation Nurse receives instructions in more than a dozen different courses which range from aircraft identification to oxygen indoctrination. Upon successfully completing this course she is presented with a diploma and a pair of gold wings which officially designate her as an Air Evacuation Nurse. Although numerous nurses were trained at the School of Air Evacuation and sent to active duty overseas prior to the establishment of a definite curriculum of study, the first class of nurses was not formally graduated until February 18, 1943.

The curriculum at the school is designed to acquaint the three classes of personnel involved—flight surgeons, flight nurses and enlisted men of the Medical Department—with their special responsibilities for administering emergency medical treatment, classifying patients, loading patients on the plane, and treatment while in the air. Training courses are carried along concurrently for each of these three groups so that, at the conclusion of the training period, complete tactical organizations with their complement of doctors, nurses, and enlisted personnel are ready for assignment to overseas duty.

The curriculum of the School has been set up with one primary purpose: to equip each nurse for the vital hours she spends in the plane. All the courses are practical.

Core of the Flight Nurse's course is training in subjects that specially pertain to her work under flying conditions. Her instructors at the School are Flight Surgeons—graduates of the School of Aviation Medicine at Randolph Field, Texas, which has long been famous for its experimentation with the effects of flying on the human body. Effects of high altitude on a patient's condition must be taken into account; dosage of certain medicines must be increased; others sharply reduced.

The activities of the School of Air Evacuation and its comprehensive training program has attracted international notice and

Lieutenant Ruth M. Gardiner of Indianapolis, Indiana, was the first nurse to be killed in a theater of operation in this war. Lieutenant Gardiner graduated from Philadelphia General Hospital in 1935.

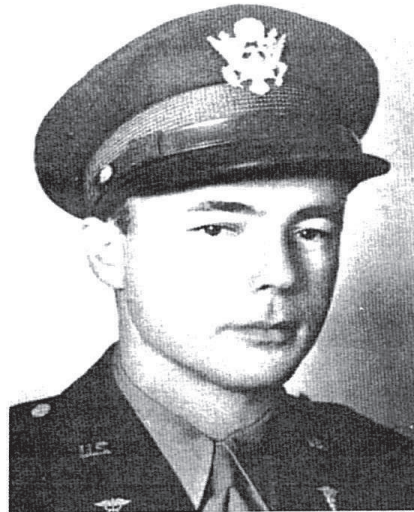


THE COLOR GUARD

acclaim. Many prominent personages have visited the School to inspect its training curriculum. These include Mrs. Franklin D. Roosevelt, General H. H. Arnold, Commanding General of the Army Air Forces, Senora Anesia Machado, Brazilian aviatist, and Lieutenant Colonel Nellie V. Close, Chief Nurse in the Air Surgeon's Office.

Latest figures released from Army Air Forces offices show that 250,000 casualties from every major theater of operation have been successfully evacuated since the outbreak of the war. Playing no small role in this vital function have been the hundreds of pretty, competent Lieutenants of the Army Nurse Corps whose names appear on the following pages of the history of the Army Air Forces School of Air Evacuation at Bowman Field.

First Lieutenant Burton A. Hall was the first flight surgeon from the School of Air Evacuation lost in action in the South Pacific area. Lieutenant Hall graduated from Hahnemann Medical School in 1938.



Station One Resource Packet: Recruitment & Training cont.

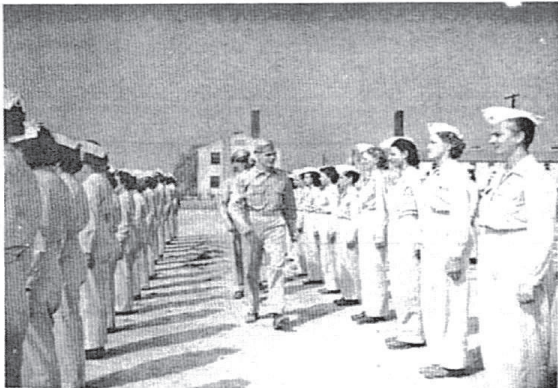
Army Air Forces School of Air Evacuation, Bowman Army Air Base, p5



BIVOUAC

Explaining the compass during bivouac of the fourth graduating class (upper left) are, left to right, Lieutenant Colonel Stevenson, Second Lieutenants Mary R. Svehula, M. Elizabeth Binkley and Beatrice E. Roberts. During bivouac one may expect to crawl through the most inaccessible places (upper right). There are no beauty parlors on bivouac. The girls shown at the lower left are not primping for dates. The idea is to make oneself look as much as the surrounding terrain as possible. Hard work brings on a tremendous thirst, and the old lister bag (lower right) comes in handy. Coca-Cola wasn't there that time, but the good old drinking water was.

The Air Evacuation nurses line up for inspection (upper left). A different but more popular lineup is that for mess (upper right). During a lull in the seventh inning, the nurses indulge in the pause that refreshes (lower left). During off-moments a popular place with nurses is the Post Exchange (lower right).

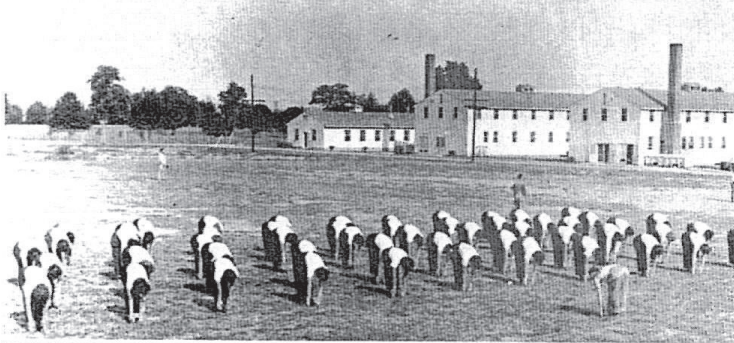


Station One Resource Packet: Recruitment & Training cont.

Army Air Forces School of Air Evacuation, Bowman Army Air Base, p6

CLASSES

Classroom work keeps them occupied for a considerable portion of the time during the courses at the School of Air Evacuation at Bowman Field. Many and varied are the subjects covered, and all tend to condition the pupils for the circumstances they will face on the flying fronts. Nurses are briefed before flight (upper left); trained in a mock plane to attend wounds during flight (upper right); given the old one-two-three for added pep (lower); instructed in the proper manner in which to load casualties (center); and are taught to identify planes immediately upon sight (bottom).



Below: Unloading ambulance plane.
Lower: Nurses march after retreat parade.



Station One Resource Packet: Recruitment & Training cont.

Army Air Forces School of Air Evacuation, Bowman Army Air Base, p7



Graduation day finds them eager and ready to go on their first mission. Shown, upper left, flight nurse and surgical technician simulate the evacuation of wounded from the battle zone. Flying nurses go on the air in more ways than one (upper right), while others, in flying togs, scan the horizon with maps in hand (lower left). A nurse cuts her cake while they sing "Happy Birthday" (center), while another proudly displays her wings (lower right).



The nurse fully realizes the importance of discipline in Army life as she stands rigidly for inspection.

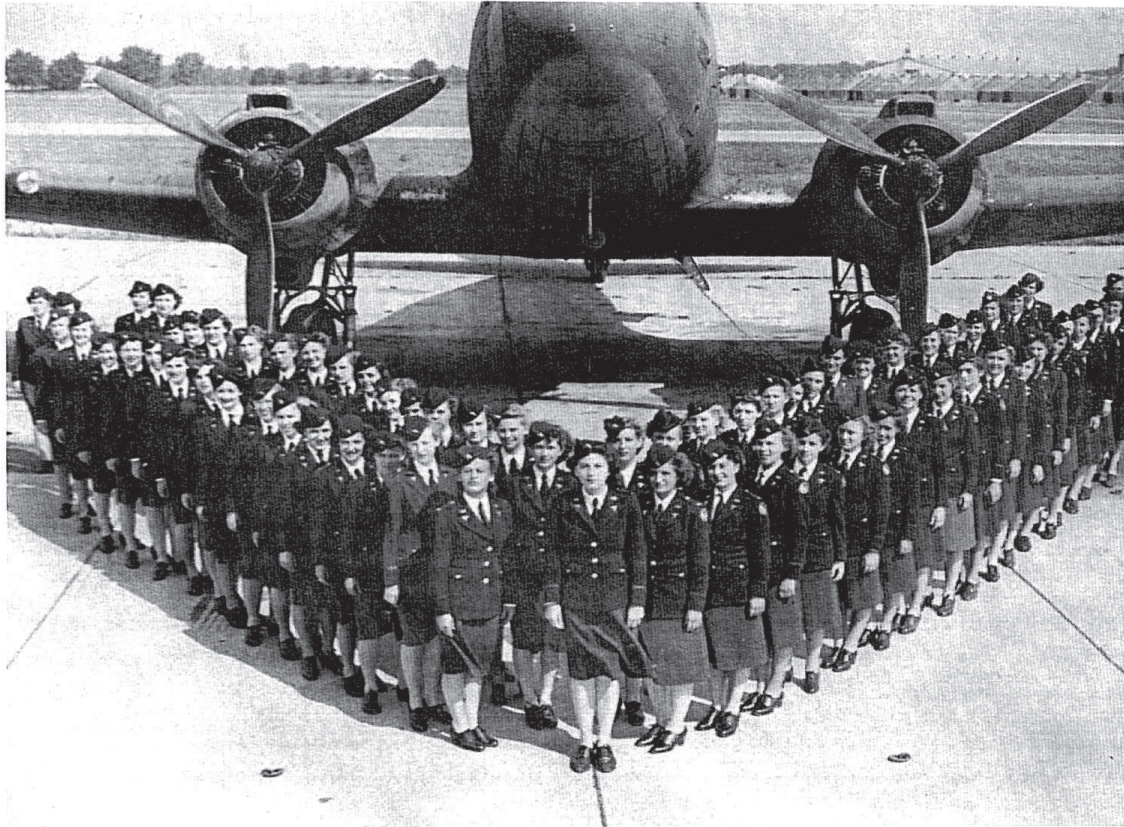
Wings for

Four riotous weeks of training ended, gold Flight Nurse's wings were waiting for these nurses, the first official air evacuation group graduated from Bowman Field, as they were told to prepare for immediate call to foreign duty. Flying nurses wear flying togs, but her hospital uniform is the traditional white dress.



Station One Resource Packet: Recruitment & Training cont.

Army Air Forces School of Air Evacuation, Bowman Army Air Base, p8



Flying nurses, angels of mercy to the men on the battlefronts, line up in V formation before a giant plane of the type that will take them to the battlefronts to evacuate the wounded, giving the professional medical attention en route to the hospitals behind the lines. The lives of many soldier boys who otherwise might have been lost are saved by brave nurses who risk their lives regularly that others might live and fight.

Flying Nurses

What do you think of your flight nurses' wings? "Naturally, I'm proud," says Lieutenant Cleo M. Swann of Washington, Indiana.

"Hut-two-three-four, hut-two-three-four." Garbed in natty blue flight suits, graduates of the first class for air evacuation prepare to parade before Brigadier General Borum, commanding general, First Troop Carrier Command, who presented diplomas. Soon after they were flying over the front lines, evacuating the wounded from foreign battlefronts.



Station One Resource Packet: Recruitment & Training cont.

Flight Nurse's Creed, Excerpted from a Speech by Major General David N.W. Grant, November 26, 1943

National Museum of the U.S. Air Force

Note: The Flight Nurse's Creed first appeared in a speech given by Major General David N. W. Grant, the Air Surgeon of the U.S. Army Air Forces, on November 26, 1943, to the seventh graduating class of flight nurses of the Army Air Forces School of Air Evacuation at Bowman Field, Kentucky.

Flight Nurse's Creed

I will summon every resource to prevent the triumph of death over life.

I will stand guard over the medicines and equipment entrusted to my care and ensure their proper use.

I will be untiring in the performances of my duties and I will remember that, upon my disposition and spirit, will in large measure depend the morale of my patients.

I will be faithful to my training and to the wisdom handed down to me by those who have gone before me.

I have taken a nurse's oath, reverent in man's mind because of the spirit and work of its creator, Florence Nightingale. She, I remember, was called the "Lady with the Lamp."

It is now my privilege to lift this lamp of hope and faith and courage in my profession to heights not known by her in her time. Together with the help of flight surgeons and surgical technicians, I can set the very skies ablaze with life and promise for the sick, injured, and wounded who are my sacred charges.

...This I will do. I will not falter in war or in peace.

Station Two Resource Packet: Duties

What Would You Do?

Directions: Read the following scenarios. Real life flight nurses likely faced challenges like these during World War II. Look at the options and pick the one that you think would be the correct answer or response in that particular situation.

1. You are stationed in the Pacific Theater as a flight nurse. You have been assigned to pick up injured patients from Guadalcanal. Upon landing, you talk to the flight surgeon in charge at the makeshift tent hospital. He has already decided which of his patients are ideal candidates for transport. As usual, you are traveling in a C-47. How many non-ambulatory soldiers can return with you today?

- A. 10
- B. 18
- C. 20
- D. 35

2. The soldiers have been loaded onto the C-47 and the plane has successfully taxied and taken off. The sights of Guadalcanal are quickly fading away. Now that you are airborne, who is in charge of the cargo area?

- A. Flight surgeon
- B. Surgery technician
- C. Bombardier
- D. Flight nurse



A C-47 air evacuation team from the 803rd Air Evacuation Transportation Squadron, Lieutenant Pauline Curry and Technical Sergeant Lewis Marker, check a patient on a flight over India. U.S. Air Force photograph, courtesy of the National Museum of the U.S. Air Force.

Station Two Resource Packet: Duties cont.

3. The grisly reality of war sometimes took not only a physical toll on soldiers, but also a psychological one. What is the procedure for handling a potentially combative patient who might be suffering from neuropsychiatric trauma?

- A. Travel with an extra technician.
- B. Travel with fewer patients.
- C. Use sedatives to knock out the traumatized individual.
- D. Use a special compartmentalized C-47.

4. Midflight, you notice that one of your charges - a young Marine wounded by shrapnel - is turning pale. Concerned, you cross the cabin and take his wrist to get a pulse. His skin is cool to your touch, yet his pulse is rapid. What should you do?

- A. Monitor the Marine closely for the duration of the flight.
- B. Radio to the flight surgeon back at the hospital for his opinion.
- C. Administer a unit of plasma and oxygen - the Marine is going into shock.
- D. Immediately administer penicillin - the Marine's leg wounds appear to be infected.

5. Another patient on your flight has no obvious physical wounds, but exhibited a high fever at the field hospital. You notice he is now shaking uncontrollably and sweating profusely. You still have several hours to go before you will be near a hospital. What should you do?

- A. Administer quinine immediately; the patient has malaria.
- B. Administer penicillin immediately; the patient has typhoid fever.
- C. Administer an IV; the patient has dysentery.
- D. Administer fluids, as well as an IV and oxygen if needed. Monitor patient closely until landing.

Station Two Resource Packet: Duties cont.

How Did You Do?

Directions: Score your responses using the key below. Give yourself one point for each correct response:

1. B - The C-47 could accommodate 18 litter (stretcher) patients. If patients were ambulatory (the "walking wounded") up to 24 could be accommodated. The larger C-54 Skymaster was used to move injured service members great distances; its preferred load was 18 litter patients AND 24 ambulatory patients.
2. D - You! Typically physicians did not make the flight. As a second lieutenant, the flight nurse would outrank the male surgical technician and he would work under her authority.
3. A - When a potentially traumatized individual was amongst the patients, an extra male emergency technician would be sent along on the flight to help ensure the safety of all on board.
4. C - The cabin of the medical evacuation vehicles were not pressurized and thus often became very hot or cold. It was also common for patients to have adverse effects from the limited supply of oxygen at higher altitudes. The young Marine's coloring, rapid heartbeat, and temperature indicate shock, possibly triggered by internal bleeding. You should administer oxygen and use the plane's one bag of plasma to help stabilize the patient until you land.
5. D - The patient's symptoms are common to several tropical diseases, including both malaria and typhoid fever. Unfortunately aboard the C-47, you lack the ability to properly assess the patient, and if he indeed appears to have malaria, you have no medication to administer. The best you can do at the moment is keep him hydrated and supply oxygen to help keep him stable until he can be transferred to a more sophisticated hospital for proper treatment.

Station Two Resource Packet: Duties cont.

Scoring

0-1 = You need to hit the books! Check out your notes from Bowman Field again...your actions may have put the lives of soldiers in jeopardy.

2 = First flight? Learn from your mistakes and save lives!

3 = Not too shabby! Good work. You have room for improvement, but your performance has impressed your superiors.

4 = Nearly flawless!! You really know your stuff. A little more real-life experience and you will be a model nurse.

5 = Incredible performance!!! You are a credit to the nursing profession, keep saving lives. The Army Air Corps is lucky to have such a smart and confident nurse.

Station Three Resource Packet: Risks and Results

Oral History Interview, Dorothy Davis Thompson, June 13, 2006

National Museum of the Pacific War

Transcript of Interview with Dorothy Davis Thompson, Civilian Nurse POW, Santo Tomas, Manila, Philippines

Mrs. Thompson: In December the Japanese had already started to fool around with the Philippines and one night we were disturbed by bombing. It seemed like hundreds of planes were flying over and bombing. As soon as it was daylight I walked to the hospital and checked in. We were so busy we didn't get much sleep. We would go at least seventy-two hours without sleep...

[after Japanese occupation...]

That evening when it was getting dark they loaded us up in these trucks again and took us to Santo Tomas. It was obvious that no plans had been made at Santo Tomas. It had been a university, which the Philippine Army had used prior to their leaving Manila and they had left it in total shambles. There were maybe six or ten bunk beds that had been left. Other than that there wasn't even a cot. Floors were dirty, everything was dirty and no signs of where to put anything. That is how we spent the first night...Of course being a nurse I was very concerned about the ones I could see that were already in trouble. I decided I would open up a place to treat patients.

[on conditions at Santo Tomas...]

For instance when I was on line we were fed two meals a day. In the morning we had some mush that mostly worms. Then about four o'clock in the afternoon we had a watery soup with something in it. Once I found about an inch of meat of some sort in it.

Dorothy fell ill and was repatriated with the second group of POWs in 1943.

Station Three Resource Packet: Risks and Results cont.

Eloise M. Richardson

Second Lieutenant Eloise M. Richardson was one of seventeen World War II flight nurses to lose their lives in the conflict. She grew up in Marseilles, Illinois. Richardson was an excellent student who graduated high school a year early. She attended a local nursing school and then enlisted in the U.S. Army Nurse Corps in October 1942. She attended flight training school at Bowman Field, Kentucky.

After graduation, the Army assigned Richardson to the 801st Air Evacuation Squadron. She left San Francisco in March 1944 for a post at Guadalcanal. In the field, Richardson was responsible for medical evacuations of wounded soldiers.

The C-47s used on these flights were frequently utilized for multiple purposes, and sometimes even carried military supplies on the rescue flights. This practice prevented the planes from being designated with the Red Cross as medical vessels. The crew and patients aboard therefore faced the same risks as if the plane carried a combat crew. For this reason, the U.S. Army only accepted volunteers to serve as flight nurses and medical technicians. As compensation for taking on these dangerous responsibilities, Second Lieutenant Richardson earned \$150 dollars a month. Women received less pay than men of equivalent rank when the war began; nurses were not granted full retirement privileges, dependents' allowances, and equal pay until June 1944.

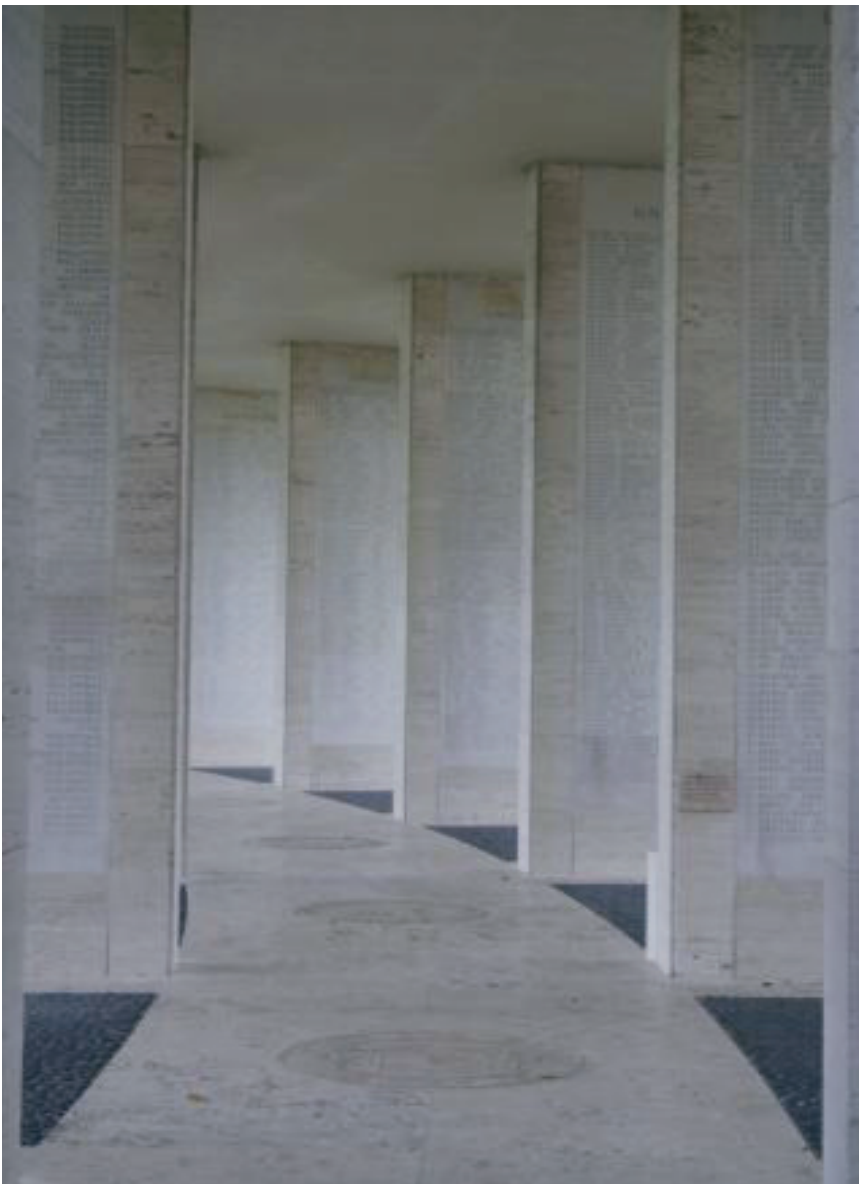


Photograph of Second Lieutenant Eloise Richardson, serving in the South Pacific, 1944. National Archives and Records Administration (54361).

Station Three Resource Packet: Risks and Results cont.

Eloise M. Richardson cont.

On May 18, 1944, Richardson was making a routine flight between Bougainville and Guadalcanal. Her plane took off under “threatening weather conditions” and never reached its destination. No wreckage from the plane or remains from the 23 on board were ever found. The Army declared Richardson dead one year and one day after her disappearance, but her parents never had the closure of burying their daughter.



Today, Second Lieutenant Eloise M. Richardson is remembered at the Walls of the Missing at Manila American Cemetery. The name of one other flight nurse, Second Lieutenant Beatrice H. Memler, also appears amongst the 36,286 names on the Walls. Additionally, the Manila American Cemetery also houses the grave of flight nurse Second Lieutenant Martha F. Black.

Walls of the Missing at the Manila American Cemetery in the Philippines.
American Battle Monuments Commission.

Station Three Resource Packet: Risks and Results cont.

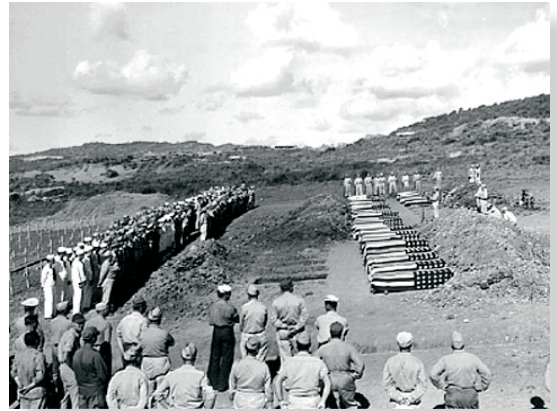
The USS *Comfort*

The Army Nurse Corps (excerpt)
U.S. Army Center of Military History

“Hospital ships operated under the terms of the Hague Convention which meant that those vessels could carry only military personnel on patient status accompanied by attending Medical and Transportation Corps personnel. The white hospital ships with large red crosses painted on either side were forbidden to carry cargo of any kind and were subject to enemy inspection at any time. Nevertheless, the Axis Powers did not always spare hospital ships, which were bombed in at least three different incidents...In the Pacific, Japanese pilots attacked the USS *Comfort* off Leyte Island in April 1945, seriously damaging the ship and killing twenty-nine people, including six Army nurses.”



Damage to the USS *Comfort*. Courtesy of Dorene Lynch.



Burial at Guam for those killed aboard the USS *Comfort*, May 3, 1945. Courtesy of Dorene Lynch.



Photographed at Guam, Army Nurse First Lieutenant Mary Jensen of San Diego, California, looks up through the hole in the concrete and steel deck of the Navy hospital ship *Comfort*, May 3, 1945. Courtesy of the National Museum of the Pacific War.

Station Three Resource Packet: Risks and Results cont.

World War II Nursing Success by the Numbers

Adapted from *The Army Nurse Corps*

U.S. Army Center of Military History

- More than 59,000 American nurses served in the U.S. Army Nurse Corps during World War II. Additionally, more than 10,000 nurses served in the U.S. Navy Nurse Corps.
- Within the "chain of evacuation" established by the Army Medical Department during the war, nurses served under fire in field hospitals and evacuation hospitals, on hospital trains and hospital ships, and as flight nurses on medical transport planes.
- As the flight nurse on the first intercontinental air evacuation flight, Second Lieutenant Elsie S. Ott demonstrated the potential of air evacuation in January 1943...she successfully oversaw the movement of five seriously ill patients from India to Washington, D.C. This six-day trip would have normally taken three months by ship and ground transportation. For her actions on this historic flight, Ott received the first Air Medal presented to a woman, and she also received formal flight nurse training.
- Overall, fewer than four percent of the American soldiers who received medical care in the field or underwent evacuation died from wounds or disease.
- Although it admitted only a small number of black nurses at the start of World War II, due to unfavorable public reaction, the Army scrapped racial quotas for nurses in 1944.
- A field hospital could perform approximately eighty operations a day, and over 85 percent of those soldiers operated on in field hospitals survived.
- Critically wounded patients needing specialized treatment were air evacuated to station and general hospitals. Stable patients requiring a long recuperation were sent on via hospital ship.



Brigadier General Fred W. Borum presents the Air Medal to Lieutenant Elsie Ott. National Museum of the U.S. Air Force.

Station Three Resource Packet: Risks and Results cont.

World War II Nursing Success by the Numbers cont.

- Flight nurses accepted that there would always be unexpected dangers. A transport plane en route to Guadalcanal with twenty-four litter patients and one flight nurse [First Lieutenant Mary E. Hawkins] ran out of fuel over the Pacific. The pilot spotted an island on which there was a 150-foot-square clearing...During the landing, one passenger's windpipe was severed, although his jugular vein remained intact. The attending nurse quickly devised a suction tube from a syringe, a colonic tube, and the inflation tubes from a life jacket. With these tools, she was able to keep the man's windpipe clear of blood until help arrived nineteen hours later.
- More than 50 percent of admissions for disease between 1942 and 1944 were malaria patients.
- Eventually, about 500 Army nurses served as members of 31 medical air evacuation transport squadrons operating worldwide.
- It is a tribute to their skill that of the 1,176,048 patients air evacuated throughout the war, only 46 died en route.



First Lieutenant Mary L. Hawkins. National Museum of the U.S. Air Force.

A Brief History of Air Evacuation

Mae Mills Link and Hubert A. Coleman, "The History of Air Evacuation," 1955 (excerpt)

Medical Support of the Army Air Forces in WWII

United States Air Force Medical Service

The origin of air evacuation of the sick and wounded by military air transport is rooted in the period when the Wright Brothers developed the airplane. The first known report of aircraft to be used in transportation of patients was made by Capt. George H.R. Gosman...and Lt. A. L. Rhoades... United States Army, to the Surgeon General of the Army in 1910...

During WWI, the service type evac planes were unsatisfactory as the patient was wedged into the narrow cockpit of the open plane. In Feb. 1918, at Gerstner Field, La., Major. Nelson E. Driver... and Capt. William C. Ocker, Air Service (as the Air Force was then known) converted a "Jenny" airplane into an airplane ambulance by changing the rear cockpit so that a special type litter with patients could be accommodated. They are credited with the first transportation of patients in an airplane in the U.S. and aided in demonstrating the practicability of transporting patients by air. July 6, 1918 an improved airplane ambulance was designed at Ellington Field in which the standard U.S. litter could be used...



Photograph of an Aero Ambulance, c. 1918-1928. Courtesy of the Library of Congress (LC-DIG-npcc-33247).

In the Spanish Civil War (1936-1938), the Germans transferred Nazi casualties of the Condor Legion in transport planes. These evacuations made an impression on Dr. Richard Meiling, a young American doctor studying in Germany. Returning to the states, he was commissioned in the army and became the first and only "Air Evacuation Officer" in the Office of the Air Surgeon. In 1940, Headquarters AAF proposed the organization of an ambulance battalion to consist of an AT Group together with medical personnel. The Medical Air Ambulance Squadron was authorized Nov. 19, 1941...

A Brief History of Air Evacuation cont.

Within three months the country was at war and it became a matter of military necessity to evacuate patients by air, even though it was not an accepted practice. The first mass movement of patients occurred in Jan. 1942, during the construction of the Alcan Route to Alaska. C-47 type aircraft were utilized in evacuating these patients over long distances to medical installations. The medical personnel involved were largely untrained and on a volunteer basis. The second mass evacuation of personnel by air, occurred in Burma in April 1942. Ten C-47s evacuated 1,900 individuals from Myitkyina, Burma to Dinjan, India in a ten day period...In June 1942, the 804th MAES arrived in New Guinea to aid in air evac operations...

On June 18, 1942 the AAF was given responsibility for developing the air evacuation system, with primary planning responsibility delegated to the Air Surgeon. There was a need for transport planes capable of mass evacuations, yet there was an acute shortage of aircraft. Experience demonstrated that regular transport planes using removable litter supports (brackets) could be successfully used for air evac as well as for transporting material and combat troops to theaters of operation. This is how the AAF came to decide the troop and cargo airplanes would have not only their primary mission, but the secondary mission of providing air evacuation.

On May 25, 1943, the AAF activated the 38th Air Ambulance Battalion at Fort Benning, Ga...the personnel of the cadre consisted of a commanding officer and 17 enlisted men. Because of the proximity of Bowman Field, Ky. to First Troop Carrier Command in Indianapolis, Ind., it was decided to establish a training program there using the 38th Air Ambulance Battalion organization as the nucleus for the first unit...

The early training afforded these units was haphazard and consisted of basic training, squadron administration, the use of the litter and loading of air evac aircraft...The personnel of the 801st and 802nd MAES...were desperately needed for overseas evacuations of war casualties, necessitating cutting their training short. They continued to train and improve their skills and techniques in the theaters of operation...On Christmas Day 1942, the first of the squadrons departed for the North African Combat Zone. Similar units followed to every area where American fighting men were engaging the enemy and to overseas stations along the global routes of the ATC.

A Brief History of Air Evacuation cont.



The flight nurse emerged as the counterpart of the flight surgeon. Credit for the original idea of the flight nurse belongs to Miss Laurette M. Schimmoler, who as early as 1932 envisioned the Aerial Nurse Corps of America. She suggested an organization composed of physically qualified and technically trained registered nurses, who would be available for duty in "air ambulances," as well as other aerial assignments...November 30, 1942, an urgent appeal was made for graduate nurses for appointment to the Army Air Forces Evacuation Service...

An evacuation plane could be loaded and airborne within 10 minutes, usually with one flight nurse and one medical technician. A flight surgeon briefed the nurse on each patient's condition prior to takeoff, and during the flight she was responsible for the safety and comfort of the patients. Here, Lt. Katy Swope checks patients being evacuated from Sicily to Africa for further medical treatment in July 1943. U.S. Air Force photograph, courtesy of the National Museum of the U.S. Air Force.

On Feb. 18, 1943 the first formal graduation of nurses of the 349th Air Evac Group was held at the base chapel at Bowman Field, Ky. The 30 members of this group had completed a program of instruction that was definitely in the experimental stage. The 4 week course included class work in air evac nursing, air evac tactics, survival, aeromedical physiology, mental hygiene in relation to flying, training in plane loading procedures, military indoctrination, and a one day bivouac.



At the AAF School of Air Evacuation at Bowman Field, Ky., student flight nurses learned how to handle patients with the aid of a mock-up fuselage of a Douglas C-47 transport. U.S. Air Force photograph, courtesy of the National Museum of the U.S. Air Force.

A Nurse's Life Question Sheet

Station One: Recruitment & Training

Recruitment Posters

1. Look at the three sample posters in your source pack - what techniques were employed to encourage women to join the military as a nurse? Give specific examples from each poster.
 - a. From Now on It's YOUR Job:
 - b. More Nurses are Needed!:
 - c. You Are Needed Now:
2. How are the nurses in the posters portrayed? Why do you think this might be?
3. Do you think these posters would be effective during World War II? Why or why not?
4. Brainstorm other reasons that a nurse might be motivated to enlist in the service. List at least three ideas.

A Nurse's Life Question Sheet cont.

Army Air Forces School of Air Evacuation, Bowman Army Air Base

5. Summarize the history of the air evacuation training program at Bowman Field.

6. What trainings and courses would a prospective flight nurse need to take?

7. At the time this book was published (1944) how many successful evacuations had occurred?

8. Check out the "Bivouac," "Classes," and "Wings for Flying Nurses" yearbook photos and captions - what skills are the nurses being taught and why?
 - a. What do you make of the caption for the bivouac photos? Why do you think it is written in this style?

Flight Nurse's Creed

9. What does Major General David N. W. Grant stress about flight nursing to the new graduates? What traits from their training at Bowman must they call upon as they enter the field?

A Nurse's Life Question Sheet cont.

Station Two: Duties of a Flight Nurse

You will start out by listening to the words of real flight nurses in your groups!

Norma Mae Harrison Crotty

<http://memory.loc.gov/diglib/vhp/story/loc.natlib.afc2001001.20935/>

3:45-5:30

10. What was a typical mission like for a flight nurse?

11. How were patients selected for transport?

6:31-7:46

12. What limitations/challenges did flight nurses face en route?

9:53-11:17

13. What supply concerns existed on the ground? What were medical facilities like in combat zones?

A Nurse's Life Question Sheet cont.

Station Two: Duties of a Flight Nurse cont.

You will start out by listening to the words of real flight nurses in your groups!

Laura Newland Moller

<http://memory.loc.gov/diglib/vhp/story/loc.natlib.afc2001001.04285/>

9:05-11:54

14. What were the planes used for medical evacuations like? What special concerns for patients on high altitude flights did the nurses need to consider?

Now we will test YOUR skills - as a group, check out the "What Would You Do?" scenario sheet. With each situation, decide what the appropriate answer or response might be. When you are finished, score your selections using the key.

How did you do? Did you save lives or jeopardize them?!

A Nurse's Life Question Sheet cont.

Station Three: Risks

Read the interview transcript of Dorothy Davis Thompson and the story of Eloise M. Richardson. Watch World War II newsreel clip U.S. Turns to Japan After German Defeat [4:29-5:35].

15. Keep track of the types of risks/hardships faced by World War II nurses in this chart as you read the stories collected in this resource packet. Cite the source where you found the information in the second column.

Risks and Hardships	Which source?

16. Why might the kamikaze attack on the USS *Comfort* have been particularly alarming for the medical community as well as civilians back home?

Exit Ticket

World War II Flight Nursing

1. In your opinion, what was the most crucial element of the flight nurse's training? Why?

2. Imagine that you have been tasked with designing a memorial to commemorate World War II flight nurses in the Pacific Theater. Based on your station activities today, which area of their service would you choose to commemorate - Recruitment & Training, Duties, or Risks & Results - and why? Where would you build the memorial (be specific) and what would it look like? Describe at least three features that you would incorporate and why. If you are artistically inclined and want to sketch out your idea, feel free!

World War II Flight Nurse Exit Ticket Rubric

Advanced	Proficient	Basic	Emerging
<ul style="list-style-type: none"> Students answer both questions in the prompt completely and thoughtfully. Ample evidence is used to support opinions. The proposed memorial relates to one of the three areas of study (training/duties/risks). Three components of the memorial are described. 	<ul style="list-style-type: none"> Students answer both questions in the prompt. Some evidence is used to support opinions. The proposed memorial relates to one of the three areas of study (training/duties/risks). At least two components of the memorial are described. 	<ul style="list-style-type: none"> Students answer both questions in the prompt, but answers need more specificity or detail. Minimal or scant evidence is used to support opinions. The proposed memorial relates to one of the three areas of study (training/duties/risks). Only one to two components of the memorial are described. 	<ul style="list-style-type: none"> Work is incomplete. Not all questions are completed and/or lacks support. Student's proposed memorial does not relate to one of the three areas of study (training/duties/risks). Design components are not described.