A NAVY NURSE IN BRAZIL
In June 1943, the Army Air Force established the School of Air Evacuation at Bowman Field, Ky. to offer specialized training for its flight nurses. Among the first graduates of this school were two Navy nurses--Dymphna van Gorp and Stephany Kozak. Van Gorp and Kozak would be instrumental in overseeing the development of the Navy’s own aeromedical evacuation program as well as those of other nations. In 1944, these nurses travelled to South America to train the Brazilian Air Force’s first flight nurses. In our cover story, Dymphna van Gorp offers a glimpse of this unique tour of duty.

Fleet Surgical Teams (FST) as we now know them today were the result of the Navy Medical Blue Ribbon Report of 1988. But the idea of deployable surgical units was nothing new in the Navy by 1988 and long before there were FSTs, there were MTF-sponsored augmented surgical teams. In our second feature article we look back at the history of these teams and their early applications.

In his original article, "Why a Navy Surgeon?," McMaster University's Dr. James Alsop examines the fascinating and peculiar career of Navy Surgeon Benjamin Rush Mitchell and his role in the Mexican War. We follow these original stories with the next installment of the "CAPT Jack" chronicles, a history of the Naval Medical Research Unit No. 2, and look back at the experiences of a Navy dentist deployed with the Marines in the Pacific War in 1943.

As always, we hope you enjoy this tour on the high seas of Navy Medicine’s past!
THE GROG
A JOURNAL OF NAVY MEDICAL HISTORY AND CULTURE

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THE GROG is a publication of the Communications Directorate dedicated to the promotion and preservation of the history and culture of the Navy Medical Department. Articles and information published in THE GROG are historical and are not meant to reflect the present-day policy of the Navy Medical Department, U.S. Navy, and/or the Department of Defense.

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Reflections, 1943-1945

By Cmdr. Dymphna van Gorp, NC, USN

After attaining a degree in nursing from Marquette University (BSN) and serving as a civilian public health nurse, Dymphna Petronilla van Gorp entered the Navy Nurse Corps in January 1943. Later that year, she would be one of only two Navy nurses sent to the Army Air Force School of Air Evacuation at Bowman Field, Ky., and by the end of 1943 she was one of only three certified flight nurses in the entire Navy. In January 1944, she was ordered to Brazil to serve as a flight nurse instructor at the Brazilian Air Force School in Rio de Janeiro. She and fellow flight nurse Lt. Stephany Kozak would later be credited for training Brazil’s first flight nurses.

The following account of her experiences as a flight nurse in Brazil is excerpted from a recording made by van Gorp in 1990. It has never been published.

H ow did I go about joining the Navy? It took a long time. Shortly after taking state boards in Wisconsin, I joined the Red Cross, which was acting as a recruiting effort for both Army and Navy nurses. I regularly received postcards from the Red Cross in Washington asking my preference. The return card was addressed to their local office. I returned the cards each time with my choice marked “Navy,” but was never contacted. A year later, I learned that it was local policy to keep nurses working in public health as long as possible.

In the meantime, I received orders from the Army Sixth Service Command to report to Fort Sill, Oklahoma and be prepared for overseas deployment. I had no official contact with the Army and most certainly had not taken their oath of office. I had visited nurse friends at Fort Sheridan as I had at [Naval Training Center] Great Lakes; both bases were near where I was living. I also received some very strong letters later from the Army representative when I didn’t respond to the orders.

In the fall of 1942, I wrote to Captain Sue S. Dauser, Director of the Navy Nurse Corps, and as a result I had my physical examination at Great Lakes Naval Station in November of 1942. Then in January 1943, I received the oath of office as a reserve nurse. This was executed on 6 January 1943 by a notary at Milwaukee. I became an ensign.

I look upon my first tour as the most pleasant and memorable introduction to the Navy. It was at the U.S. Naval Hospital at Sampson, New York that I reported to on the 9th of March, 1943—a new base, not yet completed, six miles of barracks and mud in the lovely Finger Lakes area 17 miles

1. Cmdr. Dymphna van Gorp was a first generation Dutch-American. She served in the Navy Nurse Corps from 1943 to 1966.
2. The Chief of Staff, GEN George C. Marshall, had inherited an Army staff organization that was unsuited to the advent of global war and with some 61 direct reporting agencies and officers was unwieldy. Consequently, on 12 March 1942 the Army was reorganized into three commands reporting to him: the Army Ground Forces and the Army Air Forces, and the Army Service Forces (ASF) for anything that didn’t fit into those two commands. The ASF included five components of the Army General Staff (especially G-4), the Office of the Under Secretary of War, eight administrative bureaus, nine corps areas (which became service commands, and six supply arms and services, which became the technical services, one of which was the Office of the Surgeon General.
3. CAPT Susan Dauser, NC, USN, was the fifth Superintendent of the Nurse Corps (1939-1946) and the first Navy nurse to serve as Captain (0-6).
4. Naval Base Sampson NY, named for RADM William T. Sampson, located in the east side of Lake Seneca, NY, was constructed in 1942, and continued in use until 1955. Over 410,000 Navy recruits were trained there, and the hospital was closed in 1946.
from Geneva, New York. Although there were wings of empty wards, the hospital was operational.

The chief nurse was Lieutenant Junior Grade Sylvia Koller, a calm decisive person I will always remember with great fondness. Except for Miss Koller, Captain [Claude] Carr, and the executive officer, most of the hospital officers were Navy Reserve.

At the time, there was a need for a school for hospital corpsman, and I was assigned to this project with another nurse. There was the wartime sense of urgency. No guidelines for the organization of the school were available, nor were there any educational materials—no books, charts, equipment, or instructors. Miss Koller said the [Hospital] Corps manuals would arrive sometime, but I never saw one. Interviews with doctors reporting in from sea duty gave me an idea of what a corpsman needed to know aboard ship. A curriculum evolved; classroom space and supplies had to be negotiated. All this gave me a chance to draw on past experience in the business world before college, and as a nurse in public health, where I had learned to improvise equipment, and we needed to improvise here. I wrote a small procedure manual with simple diagrams and looked for a way to duplicate it. I was in luck when someone called the “roving chief,” who was really the night security watch, investigated the light under my office door. The fellow wore thin tennis shoes and rode a bicycle over what seemed miles of ramps. The entire hospital, all on ground level, was new to me. It was spread over acres of land, and of course, there was wartime black out. The chief told me of a store-room of equipment no one yet knew how to use.

To my joy, I found a new A.B. Dick Mimeograph, far superior to the one I had learned to use at the age of 16. It never occurred to me to ask permission to use it. Miss Koller had told us that we belong to the Navy 24 hours a day, and somehow I felt that it was all about me—stencils, styli, everything I needed—so I produced my little manual.

Nurses interested in teaching were assigned to the school. Students arrived at intervals of two or three days in various-sized groups, and we had to work around that too. Procedures were at first learned on the wards. The instructors contributed from their experiences. We worked under the su-

5. Koller, Sylvia M., CDR, NC, USN (1900-1989)
6. Carr, Claude W., CAPT, MC, USN, commander U.S. Naval Hospital, Sampson, NY. He commissioned the 1,500 bed hospital on 27 February 1943; the hospital treated 15,000 patients in its first year.

Mimeograph is a duplicating machine that forces ink through a stencil onto paper in a process based on Thomas Edison’s patents for “auto graphic printing” in 1876, and later the Edison mimeograph in 1889. A variety of styli (styluses) were used to render illustrations, signatures, etc., on the stencil. The mimeograph became obsolete with the development of xerography in 1938, and by the 1960’s true office copiers emerged and Xerox became a phenomenal success. A.B. Dick Company was founded by Albert Blake Dick in 1883; it filed for bankruptcy in 2004.
pervision of a medical officer, but for the most part I was left alone to do my job with minimal interference. Corpsmen were shipped out immediately on completion of a final exam, and we had, at one time in the beginning, 150 corpsmen and 50 WAVES. We put a good deal of effort in projects to help motivate learning, even if that meant unorthodox methods of teaching. The idea was to make this learning experience unforgettable. Many students had little choice—had requested Torpedo Squadron or some other branch. Their ages varied as did backgrounds, from the helper at a grocery store to the optometrist who was used to being called “doctor”; now he was called by his last name only.

With on-the-job improvements, the school was soon running in good order—nothing spectacular, although it was not as simple as it sounds. At the end of nine months, I left nurses who were a joy to work with and a sense of a job well done. You don’t always end this way.

FLIGHT NURSING IN BRAZIL
The only military school I attended was the Army Air Force School of Air Evacuation at Bowman Field, Kentucky, December 1943. It was on 14 January 1944 that I received a Flight Nurse Certificate and a pair of Army Flight Nurse Wings.

After the Army school, I was one of two flight nurses in the Navy and we were on our way to Brazil in a small two-engine propeller plane operated by a commercial airline. We boarded at Miami, had two overnight stops—the first at Trinidad and the other at Belém, Brazil at the mouth of the Amazon River. While landing at Belém, a large man came aboard announcing that he was from the [Brazilian] Ministry of Health and it was his duty to make sure travelers did not bring diseases into his country. From his shirt pocket, he drew six mouth thermometers, which he quickly thrust into the mouths of the first six passengers. When he retrieved them, he put them back into his pocket for a minute it took to speak to his assistant, who was taking notes, then he continued to the next passengers.

The two of us Navy nurses arrived in Rio de Janeiro on the 30th of January 1944. It was still summer there where the seasons were reversed from ours. We were members of the Navy delegation of the Joint Brazil/United States Military Commission. Our immediate task was to introduce Brazilian nurses to the methods of transporting patients by air. This was to be done while the Brazilian Air Force started the preliminary process for the organization of their Nurse Corps. We met the director of the School of Nursing, Donna Leis Netados-Ruiz, and nurses from this school were to be our students. We particularly sought out one of the senior nurse instructors, Donna Olga Lachurke, a woman of particular charm who had been in the United States and spoke to us in our native tongue. She was married with a family and was a part-time instructor who would assist us in setting up our program. We also had access to classrooms at the school, although our first

8. WAVES: Women Accepted for Volunteer Service, the WWII women’s branch of the U.S. Naval Reserve established 21 July 1942. It numbered over 84,000 women, including some 8,000 officers during the war.

9 By 1941 the Grumman Aircraft Company had begun supplying the Navy with the NAVY TBF/TBM Avenger torpedo bomber; 9,837 planes were produced from February 1942- March 1945. George Herbert Walker Bush, the 41st President, was assigned to torpedo squadron VT-51 aboard the USS San Jacinto, and was shot down on 2 September 1944 over Chichi-Jima. He parachuted and was rescued. He was awarded the Distinguished Flying Cross for successfully delivering his bomb load after he had been hit.

10. Army Air Force School of Air Evacuation, Bowman Field, TX. A detailed account of the school, including photos of the school staff and all members of each graduating class is in The Story of Air Evacuation, 1942-1989, The World War II Flight Nurses Association, Dallas, TX: Taylor Publishing Company, 1989. While this is an account of Army Air Force air evacuation, it provides good insight into the training accomplishment of air evacuation nurses. The first class graduated 18 February 1943, and 1,049 nurses completed the course before it closed in 1944. The book includes a memorial section that includes names of the nurses and enlisted technicians who were killed in action.

11. The east side of Bowman Field Airport was expanded in 1940 to become the Bowman Field Air Base. It was a training facility with 124 buildings used by the U.S Army Air Force throughout World War II. [Source Kentucky Marker “Bowman Field East,” presented by the WWII Flight Nurses Assoc., Inc., 1992.]
The Brazilian Air Force Base at Campo dos Afonsos some 50 miles from the city, was the site of our training activities. We were provided with a physical education instructor and a swim coach and used an Olympic-sized pool to teach swimming and to practice ditching drills with life rafts. We were also provided with a mock-up of the cabin of a plane in the beginning. Later, in practice of loading patients on litters, we used a cargo plane, which we had outfitted with straps and brackets for holding litters and equipment such as oxygen bottles and air-evac medicine chests.

Nurses learned the fundamentals preparatory to getting patients aboard a plane such as triage and smooth ambulance travel and positioning of patients on the plane according to need for specialized nursing care. On the plane, patients on litters were spaced 18 inches apart. Space had to be allotted for turning a Stryker frame and so forth. Later, Brazilian corpsman were added to the practice sessions with the cargo plane.

Classes began at six o’clock in the morning, and on days when they were scheduled at the airfield, we had to leave the apartment at four o’clock [a.m.] or earlier to get to the commercial airport in the city. There we would catch a bus for a bumpy ride to the base. Pilots and instructors were also passengers.

Once or twice we were all lucky and went by a small plane that had to be at the base too. On arrival, the bus left us off at the dining room, where we were each served a thin steak with a fried egg on it with a mound of farina on the plate to absorb any juices. There was also toast, fruit, and coffee. Huge bushes of gardenias under the windows gave the food an exotic fragrance.

What I consider a unique experience is on-the-job learning of a foreign language, Portuguese in this case. With modification, we taught what we had learned at the Army School at Bowman Air Field in Kentucky, including desert, jungle, and sea survival for patients and crew. Later, after my companion had married and left the area, another Navy nurse and I directed a training film of air transportation of wounded featuring Brazilian nurses and corpsmen. At the same time, the two of us covered 24 hours of hospital duty with American patients at the Brazilian Air Force Hospital, when it was required.

At the airfield we formed a routine where we simulated the processing of patients by ambulance to the plane, where a loading crew was standing ready. From a balcony running the length of the two-story communications building, pilots observed our every move. One day we had a new

13. Type of medical bed invented by orthopedic surgeon Dr. Homer Stryker used to turn patients with serious back injuries, while keeping the spine immobilized.

14. Per guidelines at the time which forbade Navy nurses from being married, Kozak resigned her commission in 1946.
ambulance driver and his driving was erratic enough to scare the rest of us. Small planes were parked nearby and at one time it looked like he would shear the tail off one of them. By that time, I had some lessons in the language, but he was from the Amazon region. I spoke karaokê vernacular by that time, a noticeable difference in the language, and I couldn’t make him understand that he should vary his routes slightly, so I got in and drove the ambulance to show him how to better avoid the small plane. Then I saw that all activity had stopped; corpsmen were holding patients on litters in mid-air for one thing. They had never seen a woman drive before and certainly not a bulky machine like that.

At the 60-bed hospital, a section was set aside for the care of American patients. Areas like the operating room and the delivery room were used jointly with few changes. All food trays came from the general kitchen—again with only a few changes necessary. A room selected for us to use was outfitted with a wooden closet for our hospital uniforms. The first time I changed to go on duty in a hospital uniform, I was out the door and started down the passageway when I put my hand in the pocket and a lizard ran up my sleeve. Everyday brought a little surprise!

My uniforms and insignia were of special interest everywhere, especially on the street, and for two years we were never out of uniform. Ceremonies and official functions seemed numerous and we were expected to attend. We learned that an invitation from a high ranking official was an order. Some ceremonies took up a hot, sunny day with troops marching in review and long, long speeches. We were always seated with dignitaries in a prominent place.

Our various duties made it imperative that just one of us would attend some functions. This was often the case when we were busy at the hospital. No corpsmen were assigned there. One day, in the morning, we were notified by phone that we were invited by Admiral [William] Halsey15 to a reception that afternoon. We were finishing three grueling weeks at the hospital and were in no mood for a party. Our last patients were to be discharged the next morning. We were both expected at the reception and assumed we would be back in about two hours. As a guest of the Brazilian government, the admiral was staying in the only house on a small island in the bay. With other guests, we went by captain’s gig and on arrival were welcomed by the admiral who was wearing an “aloha” shirt. We were the only ones in uniform until later when the admiral made a broadcast and wore his for the cameras. Besides the radio broadcast, there were speeches and a birthday party for one of the Brazilian guests. After a very late dinner, and more talks, we were finally on our way back. We came ashore at two o’clock in the morning. That same evening, I attended an embassy function; both the ambassador from the United States and Mrs. [Caffrey]16 knew me from my nursing duties at the embassy, and of course, I was in the dress white uniform, the only person so dressed in a room full of prominent people. The ambassador and Mrs. [Caffrey] were the first in the receiving line, as expected. When I came to Admiral Halsey, he leaned over and in a loud, husky voice asked, “Did you get home alright last night?” My most embarrassing moment seemed hours long.

Every Friday, I submitted a report on our activities on the previous seven days. One Friday morning after night duty, I went to the Naval Operating Base to write the report. The spacious room was empty except for a large desk directly opposite the door, a chair and a typewriter. I was barely started when the ragged shoe-shine boy came in. I was in the blue uniform, kicked off my pumps and continued to type. The boy, as usual, sat in the middle of the room, flat on the deck, with his legs spread out and started his work. Suddenly, the door flew open and at the same time I heard a loud, “Attention.” By habit I jumped up, acutely aware that the big opening in the desk revealed my stockinged feet. In the doorway stood General Eisenhower.

15. Halsey, William F. “Bull” Halsey, Jr., 1882-1959; Fleet Admiral (5 star), USN; Commander, 3d Fleet May 1944 – January 1945. Halsey retired from the Navy in March 1947, but was retained on active duty. Halsey was one of ten 5-star officers in WWII: 4 Navy Fleet Admiral, 5 General of the Army, 1 General of the Air Force.
16. Caffrey, Jefferson, attorney and career diplomat from Lafayette, LA, was ambassador to Brazil 1937-44.
He quickly took in the scene, smiled broadly and said, “Carry on.”

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In Brazil there was the custom of the “little coffee”[17] [which was] available throughout the day at what looked like soda fountains scattered between shops everywhere in the city. In the work place, the so-called “hour of the little coffee” was actually a 15-minute coffee break usually starting at mid-morning. No matter where you were at the time it was served, even if consulting a lawyer, banker, or even at the dentist, every person present took the little coffee. At the base office, the person dispensing this stuff was usually a small, barefoot boy who had been outfitted with a tray and whatever else could be found to complete it. The tiny cups were half filled with very fine sugar. The hot, black coffee was poured in at the last second just before being served. The first time I was stirring with a tiny spoon when the boy wanted to continue on his rounds as he still had two empty cups with saucers. I was using the only spoon he had, so politely he asked me to return the spoon to the tray with the explanation that he was the “only son of an honest widow,” meaning that in all probability, there wouldn’t be another one.

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The only scary incident was at the time of political unrest in the fall of 1945 when the dictator-type president, Getúlio Vargas,[18] was forced by military leaders to resign. During the coup d’état, armed soldiers were stationed at various places and other Americans had been told to stay at home. En route to the hospital, my driver was stopped and asked to state his business. A second soldier thrust his head, shoulders, and rifle through the open window and confronted me in the back seat. It seemed a long time, but was probably only a few minutes when all was resolved.

It didn’t take us long to discover that some words don’t translate well, so instead of evacuation of patients by air, we said, “Air Transportation of Patients.” Also, there were many jokes or humorous stories that to us seemed to always land “butter side down.” Going over the Reader’s Digest[19] published in Portuguese, we had the feeling that the humorous stories were not funny at all. The dictator-type president had been in office for many years, and every store and place of business displayed a large photograph of him in a prominent place. People assumed this would never change. One story was about the foreigner who came to a beauty shop but couldn’t make clear what she wanted. After several tries with Portuguese words, she suddenly pointed to the picture of the president, “‘Oh,’ said the manager, ‘You want a permanent.’”

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17. Little Coffee or cafezinho

18. Vargas, Getúlio (1882-1954), Brazil interim president 1930-34, elected president 1934-37, dictator 1937-45 (overthrown by a coup), 1951-54 (elected presidency ended by suicide).

19. Readers Digest, a general interest magazine published ten times a year since 1922, and for many years the best selling magazine in the U.S. It was started by Dewitt Wallace with the idea of publishing a sample of articles from various magazines and condensing them into one magazine, and for many years printing condensing 30 articles in each issue (one per day each month).
**LIVING CONDITIONS**

On arrival, we stayed at the Gloria Hotel until an apartment became available in an area approved by the military. Other Americans told us that we had to hire servants or suffer finding a dead chicken on the doorstep as a sign that we refused to help the economy. However, our apartment was furnished complete with a combination maid/cook selected by the landlady who occupied the flat below. All our food was purchased at small stores in the neighborhood, and variety was limited. We also had a laundress, who did the laundry at her place. Everything was so expensive that we counted sheets and towels closely and when things weren’t returned for a month, discovered that the laundress was renting them out. Also, the maid did a job of babysitting in the place when we were not there. The second maid was much better, but there were always little things for us to learn.

At times, we went to Uruguay to hold clinic for the large diplomatic staff at Montevideo, and once I returned to Rio with a large beef tenderloin, as meat, like groceries, had been limited in variety. We invited friends in for filet mignon and were all much in anticipation when Morales [the cook] set a platter of meatloaf on the table. She explained that meat with no bone in it was always ground up! We were still in blackout—the entire city without light—when one evening a friend came to take me to a house-warming in her new penthouse apartment. She took me around, then gave me a glass of wine and went to welcome other guests; so I went out on the long balcony to look at the stars. I didn’t see any because the sky was so dark. I suppose that everyone knows of the 100-foot statue of Christ with arms outstretched on the summit of Corcovado,19 one of the highest peaks overlooking the city. We had become used to seeing it only by daylight, but as I stood there alone, suddenly flood lights opened upon it and it appeared to be floating in mist, the rest of the world in darkness. A few minutes later, the city lights went on; World War II was over. My hosts, welcoming other guests at the door, had missed the show.

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Brazil was, for me, the most challenging duty in the light of what we set out to get done. I remember many things from Brazil, probably because I was there so long. However, much more meaningful for me was flight duty in the Pacific, where I was senior Navy nurse and the naval adjutant of the Air Force 1453d Medical Air Evacuation Squadron at the start of the Korean War and for over a year after. The occasion of greatest importance to the history of the Navy Nurse Corps, which occurred during my time in the Navy, was most surely the granting of permanent rank. I was in Rio de Janeiro at the time and didn’t know about it the day the dispatch was received until that evening. Among our patients was a man from the USS Memphis,20 and the medical officer aboard visited the hospital and invited me to dinner on the cruiser that evening. He was Dr. William Ryan, who had been physician for students when I was at Marquette University. After dinner, and a movie on deck in [the] pouring rain, several of his fellow officers watched as he handed me my hat. My little anchor was gone, and in its place the doctor had fastened his own big eagle insignia. I received congratulations from all.

### ABOUT THE AUTHOR

Dymphna van Gorp would continue serving as a Navy nurse until 1966. Nearly half of her 23 years in service was as a flight nurse based on Guam, Alameda, Calif., Naples, Italy, and Rio de Janeiro, Brazil. In her retirement she lived in Tucson, Ariz. She died in 1995 at the age of 84.

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20. USS Memphis (CL-13) Omaha-class light cruiser, commissioned 1924, decommissioned 17 December 1945, struck 8 January 1946. President Amenzoga of Uruguay and President Lavas of Brazil visited the ship in January 1944.
The Lebanon Crisis of 1958 and the Development of the Navy Fleet Surgical Team Concept

Marines land from a USS Chilton (APA-38) LCVP on Red Beach, Beirut, Lebanon, 16 July 1958

Courtesy of Naval History and Heritage Command
It is July 1958. Lebanon is on the brink of a civil war between the Western-leaning government of President Camille Chamoun¹ and an opposition faction aligned with the United Arab Republic.² With threats to the upcoming election looming and Chamoun’s pleas for assistance, President Eisenhower orders the deployment of U.S. forces to Beirut as part of Operation Blue Bat.³

To medically support the effort, Bureau of Medicine and Surgery (BUMED) sends the first of its newly formed augmented surgical teams into action.

The concept of augmented medical units was far from new in 1958. Deployable Navy surgical teams have been utilized as far back as 1943. In the Pacific War, the Navy began to assign medical personnel—typically three medical officers and 10 to 11 hospital corpsmen—aboard LSTs (Landing Ship, Tanks) to oversee evacuation and emergency medical treatment of casualties. In June 1944, at the invasion of Normandy, 16 of these teams were employed aboard LSTs—several of these teams included Army doctors and even British and Australian medical professionals.

At Iwo Jima in February 1945, four LSTs were converted for the reception of combat casualties and assigned surgical teams. Later utilized on Okinawa and designated “LST (H)s” (Landing Ship, Tanks - Hospitals), these ships were able to render services under “circumstances that would make the use of hospital ships inexpedient.”⁴

During the Korean War, Capt. Eugene Hering, 1st MARDIV Medical Officer, advocated for the use of deployable surgical teams to assist in “emergency Marine actions” overseas. At the Inchon Invasion of September 15, 1950, a surgical team aboard LST(H) 898 would attend to 32 casualties.⁵ Throughout the war, 25 surgical teams of various sizes were placed in operation augmenting medical capabilities aboard hospital ships, at base hospitals in Japan and with medical units of the Marine Corps in the field. In periods of high activity anyone of these teams could be flown to any part of the front to supplement the regularly assigned

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2. Short-lived Muslim political union lead by Egypt and Syria.
medical personnel. As with their World War II forebears, the team complement typically included three medical officers (covering anesthesia, orthopedics and general surgery) and about 10 hospital corpsmen.\(^6,7,8\)

Recognizing the value of mobile surgical teams postwar and the need to have a means of augmenting capabilities in emergency conditions, BUMED issued Instruction 6440.1 on December 27, 1955, the first formal guidance on the designation, organization and administration of what were now termed, “augmented surgical teams.”\(^9\)

Under the guidance, ten surgical teams were organized at Naval Hospitals St. Albans, N.Y. (No. 1), Philadelphia, Pa. (No. 2), Bethesda, Md. (No. 3), Camp Lejeune, N.C. (No. 4), Charleston, S.C. (No. 5), Great Lakes, Ill. (No. 6), Oakland, Calif. (No. 7), Camp Pendleton, Calif. (No. 8), San Diego, Calif. (No. 9), and Yokosuka, Japan (No. 10). An additional ten would be established at other military treatment facilities (MTFs) by 1963.

The team complement would remain the same,\(^10\) but would now report directly to the commanding officer of each “sponsoring” hospital. And if a team member was unable to be deployed for a mission it would be the hospital’s responsibility to find a replacement.

A surgical team supply block would be made available upon request to the Field Branch, BUMED in Brooklyn, N.Y.\(^11\) Sponsoring hospitals would not be responsible for cost of surgical team’s supply block, but would take responsibility over its maintenance and disposition in supporting training or operating purposes. In addition, the sponsoring hospital commanding officer would take the responsibility for administrative and logistical support of surgical team while they are based at hospital and for cost of transportation when deployment was ordered.

Surgical teams would deploy upon request of the Chief of Naval Operations and the Chief of BUMED would personally direct hospital CO to deploy team(s). The team’s senior medical officer will serve as team’s Officer in Charge.

Proof of the augmented surgical team concept could be called a gradual process. It would take

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6. Ibid
10. Requirement called for team to consist of medical officers trained in general surgery and anesthesiology and at least six operating room technicians, one field medical technician and one laboratory technician.
11. Formerly the Naval Medical Supply Depot and would later evolve into today’s Naval Medical Logistics Command in Frederick, Md.
political unrest in Lebanon before the first of these surgical teams was deployed.

On July 15th, 1958, the 2nd Bn, 2nd Regiment, USMC made an unopposed landing on the beaches of Lebanon. They were soon joined by the 3rd Bn of the 6th Regiment (July 16th), the 2nd Bn, 8th Regiment (July 18th) as well as the 1st Bn, 8th Regiment (July 18th). Medical complement included eight Navy physicians, four dentists and 180 hospital corpsmen, but no trained surgical staff.

As the presidential election in Lebanon approached and with the tensions rising, the Commanding General, Fleet Marine Force, Atlantic (FMFLANT), requested the services of a surgical complement as outlined by BUMEDINST Instruction 6440.1.12

By order of the Rear Adm. Bartholomew Hogan, Surgeon General of the Navy, two Navy surgeons attached to Naval Hospitals Philadelphia, and Newport were ordered to Lebanon where they would serve aboard amphibs Taconic and Pocono.13 Additionally, Surgical Team No. 1 attached to Naval Hospital St. Albans was flown to Lebanon on July 26th where it would augment the amphibs.13,14,15 The unit would be joined in Lebanon by Capt. William Lawlor, MSC, USN, a preventive medicine consultant, the Environmental and Preventive Medicine Unit (EPMU) No 7, then based in Naples, Italy,17 and finally an Army evacuation hospital.18

Overall, the operation would comprise over 15,000 deployed Marines, Navy and Army personnel and supported at sea by 70 ships and over 40,000 sailors.

MEDICAL CARE IN THE CRISIS

The civil war in Lebanon was suspended when the opposing factions agreed upon the election of the moderate Gen. Fuad Chehab (1902-1973) as Chamoun’s successor. Chehab would be sworn into office on September 23, 1958.

U.S. Forces, however, would

Location of Marine Units, July 1958.

Map courtesy of the U.S. Marine Corps History Division

12. Services were requested through the 2nd Division Medical Officer and The Medical Officer of the Marine Corps (TMO).
13. CDR Starzynski (NH Philadelphia) and CDR Van Petten (NH Newport) were assigned to USS Taconic and USS Pocono, resp.
14. 2nd MARDIV would also request five additional physicians and 150 hospital corpsmen with the purpose of bringing medical companies to full strength.
15. This team was considered the only surgical unit then readily available for deployment.
16. Surgical Team No. 1 would be comprised of Lt. Vernon Pritchett, MC, USN (General Surgeon), Lt. W.P. Gibbons, MC, USN (Orthopedic Surgeon), Lt. G.A. Johnson, MC, USN (Anesthesiologist) and 10 hospital corpsmen (including 5 OR Technicians)
17. Chief medical issue during Beirut mission was the control of fly-borne diarrhea which had become widespread among forces.
18. "The Medical Department’s Role in the Lebanon Crisis." EF84/A4-2, 9 December 1958. BUMED Correspondence Collection (RG 52), National Archives II, College Park, MD.
remain in Lebanon to help oversee the peaceful transition of power. Through the period of occupation there were no combat casualties. Principal medical difficulties were enteritis, fevers of undetermined origin, salt and water depletion syndrome, as well as minor injuries and infections.

The presence of the surgical team did not go unnoticed. Capt. William Queen, MC, USN, 2nd Division Surgeon would comment that “While there were no field hospital facilities ashore at the time, this [surgical] team was a source of great comfort to all hands.”

Deployment of the team, however, did not go without a hitch. Lt. Vernon Pritchett, surgical team’s OIC, would report, “To this observer, the medical facilities in Lebanon lacked basic planning and foresight before the landing took place. After the landing there seemed to be a large amount of inertia which could not be entirely overcome for the provision of adequate supplies and medical care for the men in the field. . . I was shocked when I found out how very poor the medical and surgical facilities were when the Marines landed in Lebanon, and how the inadequacies existed throughout the entire operation.”

In addition to the lack of medical facilities, the surgical team could not operate under full capacity in part because of the most rudimentary of logistical issues—their supply block never made it to Lebanon. Surgical Team personnel were used to augment medical facilities board the Pocono and Taconic as well as the 58th Evacuation Army Hospital which would handle all surgical treatment cases during operation.

In reviewing medical lessons learned after the operation, BUMED leadership would note lack of medical coordination, a collecting and clearing company, lack of trained corpsmen who had been through Field Medical Service School, Medical Service Corps officers to oversee casualty disposition, as well as an absence of adequate and qualified surgeons.

It was also noted that the surgical team had no training prior to deployment and Naval Hospital St. Albans bore an “unfair burden” by deploying its surgeons and corpsmen.

POSTSCRIPT

Over the next five years the number of hospital-sponsored surgical teams expanded to twenty and surgical teams would be deployed in support of an assortment humanitarian and opera-

19. Queen, W.F. "Report on Medical Department Affairs in Lebanon as Seen from the Second Marine Division." EF84/A4-2, BUMED Correspondence Collection (RG 52), National Archives II, College Park, MD.
20. Pritchett, Vernon to Commanding General, Second Marine Division, FMF. "Medical Critique of Operations in Beirut, Lebanon, 13 August to 8 September 1958." BUMED Correspondence Collection (RG 52), National Archives II, College Park, MD.
21. They arrived without autoclaves, tentage, operating lights, x-ray, transportation and generators.
22. Ibid
23. Queen Recollections.
24. May, Romulus. "Medical Department Affairs in Lebanon comments on recommendations in Enclosures (1) and (2), 30 March 1959." (P16-1). BUMED Correspondence Collection (RG 52), National Archives II, College Park, MD.
tional efforts.

In 1962, a Navy surgical team was sent to the Caribbean during the Cuban Missile Crisis. As was the case in 1958, the team was deployed without adequate supplies and could not act as an independent medical unit. Out of this hard lesson, Navy medical leadership began to emphasize that surgical teams needed to be properly trained and more familiar with the existing regulations governing their teams.

Four surgical teams from naval hospitals at St. Albans (no. 1), Philadelphia (no. 3), Bethesda (no. 5), and Portsmouth, VA (nos. 12) would participate in amphibious medical training exercises at Camp Lejeune, N.C., in May 1964. This marked the first time surgical teams were trained in disaster control measures and familiarized with the medical support needs of the Fleet Marine Forces.

By January 1980, the surgical team model would be absorbed into the Mobile Medical Readiness Augmentation Team (MMART) concept. MMARTs were catch-alls of deployable “rapid response” medical assets. Eventually they would include all deployable medical units from multiple commands including surgical units, surgical support units, preventive medicine/sanitation teams, ancillary support units, SPRINTs and disaster support teams. MMART personnel were typically mobilized from multiple MTFs and medical duty stations from around the world and deployed as an individual team or combination of specialty teams by direction of BUMED to meet specific operational or disaster missions.

In 1988, the Navy Medical Blue Ribbon Panel (BRP) recommended the adoption of Fleet Surgical Teams (FSTs) as an alternative to the larger MMARTs. Unlike MMARTs or the surgical teams of the 1950s and 60s, the FSTs would be billeted for full-time personnel and placed under operational control of the Fleet CINCs to meet routine Amphibious Ready Group (ARG) deployment requirements.

The first of the BRP directed Fleet Surgical Teams (FST) were established on each coast in 1989. FST 1 (San Diego, CA) and FST 2 (Portsmouth)—originally 21-person teams—were designed to “increase the effectiveness of fleet medical and surgical support by creating fully dedicated medical assets to support peacetime forward presence missions and contingency operations.” FST 3 and 4 would be stood up soon after in June 1989. Additional teams would be established in 1992 (FSTs 5 and 6), and 1996 (FSTs 7, 8 and 9).

Today FSTs—those successors of the Augmented Surgical Teams of yesteryear—are regularly in deployment supporting diverse operational missions across the globe.

25. Medical equipment used by the Surgical Team. In the 1960s, the Surgical team was packed in 40-plus field medical chests (each weighing less than 200 pounds) and combination of these chests could be stacked and stored in the OR or Central Supply Room. Material typically consisted of instruments, sutures, linen, dressings, IV fluids, medications and basic operating equipment like OR tables, spotlight, anesthesia machines, suction apparatus. Total weight was about 5,500 pounds.

26. Team is not briefed on the regulations governing augmentation. Team is supposed to pick up Surgical Supply Block in Panama (sent there by an East Coast supply depot). Team was supposed to act as an independent supplemental medical unit. Out of this experience BUMED leadership suggests that augmented surgical teams attached to naval hospitals should be better briefed as to their functions and how they fit in the medical support organization. This experience would lead to the reformulation of regulation regarding medical augmentation (a publication produced in 1962).


28. Department of the Navy. Final Report of the Medical Blue Ribbon Panel, Washington, DC, November 1988. It was acknowledged in the report as it has been thirty years previously that deployment, training takes medical providers and support staff away from beneficiary care leaving an unfair burden on the sponsoring activity.


30. Ibid.
Why a Navy Surgeon?

Battle of Vera Cruz Night Scene. Drawn by H. Billings. Engraved by D. G. Thompson. Published by S. Walker, Boston, New York & Philadelphia. Courtesy of Naval History and Heritage Command
Dr. Benjamin Rush Mitchell and the Mexican War

By James Alsop, PhD

Why did nineteenth century American men trained in medicine enter the United States Navy? This question may be asked for all, but answered (as far as the known, extant, information allows) for only a few.

There is a second question: why did some stay on, becoming the "naval surgeon" of historical record and institutional memory, while others decamped for civilian careers in American medicine? I intend to offer a series of brief biographical case studies, each addressing one, or both, of the afore-mentioned questions. In all instances, I wish, as far as possible, to have the individual historical actor express his motivation in his own words.

Benjamin Rush Mitchell was born in Philadelphia, Penn., the son of Dr. Thomas Duché Mitchell (1791-1865). The father, also Philadelphia born and bred, was educated at the Friends’ Academy, worked first at Dr. Adam Seybert’s drugstore and chemical laboratory, undertook an apprenticeship with Dr. Joseph Parrish, and in 1812 graduated M.D. from the University of Pennsylvania. He was first employed as professor of vegetable and animal physiology at St. John’s Lutheran College, Philadelphia, and then as Lazaretto Physician to the port of Philadelphia. In 1831 Dr. Thomas D. Mitchell became Professor of Chemistry, and subsequently Dean of Medicine, at the Medical College of Ohio; in 1837 he accepted the chair in chemistry at Transylvania University, Lexington, Kentucky, where he served as Dean of Medicine, 1839-46. There followed several years at the Philadelphia College of Medicine, and an appointment, 1852-54, at the Kentucky School of Medicine, Louisville. From 1857 until his death, the elder Dr. Mitchell was Professor of Materia Medica and General Therapeutics at Jefferson Medical School, Philadelphia. He was a prodigious author in the medical press and periodicals, and a well-known academic figure of his time.

Dr. Thomas Duché Mitchell never married, but he was the father of Dr. Benjamin Rush Mitchell. The elder Mitchell closely identified with Dr. Benjamin Rush while undergoing his medical training at the University of Pennsylvania, where he specialized under Rush in medical chemistry.

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2. Mitchell was doing little or no business in his private practice, because there was little sickness in the town.
had been stated that he made Rush his “model for life.” Mitchell acknowledged Benjamin Rush Mitchell as his son on a number of occasions, including in print in the 1857 edition of his *Materia Medica and Therapeutics.*

The younger Mitchell’s early life is obscure. He has been wholly ignored by his father’s biographers and the date of his birth has not been established with certainty. He was educated in Cincinnati, where his father was on the faculty of the Medical College of Ohio, and is stated to have been valedictorian in both the law school and later in the medical school. Mitchell took his M.D. degree in 1840, followed by postgraduate studies for 1840-41 also at the Medical College. Although born in Pennsylvania, he entered the U.S. Navy in 1847 as a citizen of Missouri. On 12 May 1847 his appointment was announced as an Assistant Surgeon of the U.S.N.; he had placed sixth out of seven successful applicants at the recent examination in Philadelphia.

Why the Navy? We may answer this question due to the survival of seven personal letters, 1846-1852, which Mitchell wrote to his friend and former fellow medical student, Dr. John W. Gatewood of Assumption Parish, Louisiana. It is clear that the Mexican War was the essential stimulus. On 14 May 1846 – five days after Mexican troops crossed the Rio Grande and three days after President Polk’s war message to Congress – Mitchell, then resident in St. Louis, wrote a very lengthy, chatty, letter to Gatewood. Mitchell adopted the tone of a superior, young man-of-affairs for whom many career doors were ajar and professional life – stagnant at the moment – full of promise.

I expect to be able to obtain the post of physician to the City Hospital, salary $1000, or that of [city] Health Officer, salary $500, but I am not certain. I may become medical lecturer on Medical Jurisprudence in Mr. Howell’s school next winter. I have been sounded about doing it! The sound of martial music is around about me, calling up volunteers to march to the aid of General Taylor at Metamoros. We will send 600 from here, & I do not know but that I shall go too, as Surgeon to the forces. If I could get a Captaincy, I would prefer it, but as I anticipate a call to the Navy very soon now, I am inclined to defer going now, waiting until the next call shall be made on Missouri. The war will be no child’s play. The Mexicans are sadly underrated, as you will find out very soon. We have no other expectation than that [Gen. Zachary] Taylor has been captured, or cut to pieces. He committed a great blunder in allowing the Mexicans to cross the river; & intercept his supplies; one that will bring him to a Court Martial.

Mitchell in 1846, thus, possessed some opportunities, or at least hopes. A captaincy in the state militia? The post of physician to the St. Louis Hospital? Who may say how far these were mere aspirations, without immediate substance. He stated that he was largely on his own, for most of his friends had gone east. The pay of an Assistant Surgeon in the Navy was $950 per annum while on active duty. This was superior to some of his suggestions, and the position had permancy. Mitchell was ambitious and he possessed no desire (he stated) to settle down. He informed Gatewood that he would never follow his
friend into marriage (Gatewood was recommending marriage upon him). He emphasized, instead, his “ardent imagination” and “aspiration.” Urging his friend not to deem him vain, nor proud, nor egotistical, Mitchell stated, “I feel a premonition of greatness,” which could be traced back to “childhood’s days.” Beyond doubt, “I was born to fill a large place in the world’s eye, I feel within myself, a capacity for perfection.” This was, he observed, “not a desire to do great things for the benefit of self, but to do them simply because they are great, because they may benefit my species, enlarge the boundaries of their mental range, minister to their comfort & happiness, raise them nearer to the point on which Adam stood. I know not why nor how it is, but from earliest years I have heard an inward voice, saying be great thou canst.” In this pursuit, he first thought of, and prepared for, a career in the law, but then decided (for reasons left unspecified) upon medicine.

Mitchell was clearly idealistic; how did he fare in the U.S. Navy? Two letters are extant for his service during the Mexican War, the first written on board U.S. Schooner Falcon at Alvarado, Mexico, on 26 July 1847, and the second from the U.S. Naval Hospital on Salmadina Island, off Veracruz, 24 September 1847. With one exception, these communications are devoid of his earlier exalted ambition and zeal for life. In the July letter Mitchell expressed his desire “that this infernal war will soon come to a close” so that he could return “home.”

This was in spite of the fact that he considered Alvarado to be “the most pleasant station” in the Gulf Squadron. The only spark of enthusiasm appeared in the September message, when the assistant surgeon observed that “I shall probably write out a history of the Yellow Fever of the [Gulf] Squadron on my return home.” (As far as is known, no such publication ever appeared). Mitchell emphasized the severity of the medical problems in the fleet, his own pivotal role, and his professional competence. Before arriving at Alvarado, he had briefly “acted as Hospital Surgeon” at Salmadina. In July, “I am the only Medical Officer here, I rank as Surgeon of the Alvarado Squadron.” This comprised the schooners Reefer (to which Mitchell was attached as the assistant surgeon) and Falcon, and one steamer, with a total of 85 or 90 officers and men. Of these, 33 had been under his medical care since July first. Mitchell had suffered his first casualty, to yellow fever, and had himself contracted that disease. On September 24th, yellow fever was once again at the fore: he had experienced his second attack, followed by acute dysentery, had served “on duty alone in this Hospital, with from 80 to 140 cases since August 29th. I have therefore seen & felt Yellow Fever enough to satisfy me thoroughly [sic].”

Mitchell was proud that he in very trying circumstances had never lost a case where the patient arrived under his care within twenty-four or thirty-six hours of the onset of the fever. Moreover, “Out of some 4 or 500 cases of all sorts of diseases & injuries that I have had under treatment since I joined the Squadron, I have lost but 4, 2 from Yellow Fever, 1 from Intussusception’s, 1 from softening of the Brain.” In this record of accomplishment there

was no mention of the suffering of the servicemen (nor of the state of health in the fleet as a whole), but attention was paid to the lot of the medical personnel: “We have now but 10 Medical Officers, having lost 4 by death since August 15th, & of those that remain, at least 4 are as debilitated as to render their return to a Northern clime a matter of absolute necessity.”

During 1847, Dr. Mitchell appeared to be in two minds on the topic of marriage and romance. In July he told Gatewood, “Henceforth women and I are things apart – I have chosen my lot & will adhere to it. Once it might have been otherwise, but now it cannot be, [and] I like a sea life much.” The phrase, “chosen my lot” is suggestive of some regret. In September he complained that a woman in St. Louis (known to both men) refused to answer his letters to her. He also took pleasure in telling Gatewood about another female acquaintance in St. Louis who had “enquired very eagerly after me” and upon being informed of the naval appointment and the departure into service expressed “both surprise & sorrow.” The interesting point is the internal struggle between a private married state and a public life. Clear-ly, Mitchell considered marriage and the Navy as incompatible, at least for a junior medical officer. Or, perhaps he liked the idealistic dualism: the ‘I am this, not that’ way of encapsulating his life.

Mitchell’s sea service in the Mexican War concluded in August 1848. Following a brief period of employment at the Naval Hospital Chelsea Hospital, Mass., he was ordered to the coastal survey of California, sailing on the U.S. schooner Ewing from New York on 10 January 1849. His comment to Gatewood was: “Behold me then, a California Gold Hunter, manufactured to order, by the Honorable Secretary of the Navy.” Mitchell would remain on duty in California until 1852. On 15 January 1852 he complained bitterly to Gatewood:

The Tenth of this month completed three years since I sailed from New York in the Ewing, upon a promised two years tour of duty; yet here I am still, with no very certain prospect of leaving this region of country yet. Provoking, is it not! It may, however, be advantageous to me hereafter, since a record of the Job like meekness & patience it has caused me to display, cannot but prove a passport to the affections of the fair sex, because they would be sure to find in me a faithful, uncomplaining, all suffering husband …. [hopefully soon] I will shake off of my shoes the dust of this city [San Francisco], and depart to return not again. And, I assure you I never will have left a place with fewer regrets.

Earlier, in 1849, Mitchell had dismissed Rio de Janerio: stating that the city was filthy, with miserable architecture. It is striking that the sea service seemingly never brought Mitchell to a place which he enjoyed and could praise, with the exception of a brief visit to Los Angeles.15

Virtually as soon as the war with Mexico was concluded, Dr. Mitchell had mixed thoughts on leaving the service. In March 1849, on the way to California, he wrote:

When I think of what I am, & what I used to mean, I feel a good many regrets. Just think of it! If one female had but kept her faith, I would now be at home, amongst friends, with a fond wife, & all the enjoyments of one’s fireside around, instead of vagabond-izing it over sea & land, to the four quarters of the world. And the worst of it is that this sort of life has become to me a second nature, so that I would not give it up, even for a pretty wife.16

In his letter of 14 May 1846, Mitchell had indeed dwelt upon the on-going unhealed wound of a broken engagement of marriage. However, even on that date he was contemplating career appointments which would have kept him in St. Louis, so naval service could not have been merely a flight from a failed romance. This assessment in March 1849 re-ordered the past, in order to accomplish a present purpose. In this correspondence Mitchell was always posing: the reasons given for “why navy” were part of an answer, with the remainder left unstated.

Almost immediately upon arrival in California in August 1849, the assistant surgeon declared that he will “give up the service & return to the land, which I shall do after this cruise.”17 No explanation was given, though he appeared intent upon
Mitchell contemplated and entered the Navy in 1846-47 as an idealistic young physician resident in a city gripped by war fever. His enthusiasm for the War rapidly disappeared as he confronted the challenging conditions in the Gulf Squadron; his idealism and ambition dissipated as Mitchell matured and became used to the routine of naval medicine. Marriage or a solid opportunity in civilian medicine could have taken him from the service during his immediate post-war years as an assistant surgeon, but the timing was never right. By 1852 Mitchell was preparing for promotion and the professional life of a “nomadic career.” Promotion was exceptionally slow during this decade. In 1853, Mitchell was number 38 out of 41 Passed Assistant Surgeons in seniority. By 1858 he had progressed to number 15, and in 1859 to number 12; however, this latter year saw the promotion to Surgeon of four Passed Assistant Surgeons who had entered the Navy after Mitchell. By 1858, every one of the five physicians who had entered the service in the same 1847 examination as Mitchell, and who scored higher than him, were no longer in the Navy. Mitchell, however, hung on. In 1860 his seniority placed him ninth out of the 37 Passed Assistant Surgeons, and at the opening of 1861 he was eight out of 43 - but there were now eight Surgeons who had been promoted with less service.  

ABOUT THE AUTHOR

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17. 23 August 1849, at sea: ibid., no.50.
18. Ibid., no.53
21. The foregoing is taken from the Registers cited in notes 17 and 18.
”So long U.S.A.”

Guest, Field, Holmes, JFK, Willson, Galbraith, Manwaring.

Quarle, deck - Tennessee, 1908.

All photos courtesy of author
As usual the Doctor Jack Kaufman almost never writes about the things he has pictures of and almost never has pictures of the things he writes about. The word “Samoa” never appears in his memoirs yet there are pages and pages in his photo album. Fortunately for us the trip is well documented elsewhere.

Late in his Presidency Theodore Roosevelt decided to send sixteen Navy battleships on a voyage to circumnavigate the globe. Their hulls were painted white, the Navy's peacetime color scheme, decorated with gilded scrollwork with a red, white, and blue banner on their bows.

The stated purpose was to show American goodwill as they visited countries and harbors. The voyage of the Great White Fleet, as a secondary benefit, would demonstrate both at home and on the world stage that the U.S. had become a major sea power with possessions all over the world. Japan had also arisen as a major sea power and, coincidentally, the voyage placed an additional force of ships in the Pacific that could potentially support the Fleet during any conflict. This group included the USS West Virginia, USS California, USS South Dakota, and the USS Tennessee. Actually, due to some needed repairs, Tennessee didn’t leave San Francisco until August 24th. She was towing a destroyer named USS Wipple. The idea of the tow was to see if armored cruisers could help destroyers which had run out of steam. Each of the cruisers was towing a “torpedo boat destroyer,” a much smaller craft than the general purpose ship that destroyers grew into later.

NOTE. This is the third installment of the series on Capt. John B. Kaufman, MC, USN.
Tennessee arrived in Honolulu on September 2nd and departed six days later headed for Samoa. On the 20th, she, Whipple, Washington, and Hopkins (Washington’s tow) arrived at Apia, Samoa. These two ships out of the fleet had been designated to visit the German controlled parts of the island chain.

One of the reasons for the visit to Samoa in particular was the slightly tenuous situation there and the thought that a demonstration of American power might bring some sense to the situation. In 1898, Germany, the United Kingdom, and the United States had a dispute over who should control over the Samoan Islands. American and British warships shelled Apia on 15 March 1899. Soon after the Samoa Tripartite Convention, a joint commission of the United States, Great Britain, and Germany, gave control of the islands west of 171 degrees west longitude to Germany.

In exchange for United Kingdom ceding claims in Samoa, Germany transferred their protectorates in the North Solomon Islands and other territories in West Africa. The United States accepted the eastern islands of Tutuila and Manu’a. Starting in 1908, the Western Samoans (the German section) began to assert their claim to independence.

After a three day visit, the ships moved on to Pago Pago in American Samoa where they stayed for two weeks. Then it was back to Honolulu, still towing the two destroyers, and then on to Magdalena Bay for a month of Target Practice.

In Australia the arrival of the rest of Great White Fleet on 20 August 1908 was used to encourage support for the forming of Australia’s own navy. When the fleet sailed into Yokohama, thousands of Japanese schoolchildren waved American flags to greet navy officials as they came ashore.

The 14-month long voyage was a grand pageant of American seapower. The squadrons were manned by 14,000 sailors. They covered some 43,000 nautical miles (80,000 km) and made twenty port calls on six continents. The fleet was impressive, especially as a demonstration of American industrial prowess (all eighteen ships had been constructed since the Spanish–American War), but already the battleships represented a suddenly outdated "pre-dreadnought" type of capital ship. Even as they circumnavigated the globe to impress the locals, the U.S. Navy’s first dreadnought, South Carolina, was fitting out, the American navy’s response to the new class of warships about to take over.

When the Tennessee and others of the fleet arrived in San Francisco, they found it still recovering from the earthquake that only occurred a bit over two years before. To mark their time there and to raise the moral of the San Franciscans they staged a parade.

Tutuila is the largest island in American Samoa. Pago Pago, the capital, is located on it. Most of the population of American Samoa lives on this island and the best harbor is at Pago Pago. Apia was the capital and the largest city of “German” or “Western Samoa.” It is located on the central north coast of Upolu, Samoa’s second largest island. The Tennessee visited only about eight years after a Samoan civil war whose ending had split the island chain between the United States and German mandates.

In 1914, New Zealand, at the behest of Great Britain, invaded Western Samoa and threw the Germans out, taking over the mandate.

Siva is a Samoan word for dance. The Siva is also a particular dance performed by women using graceful hand movements to act out an everyday...
activity. The Siva dance was usually performed by those who ranked high in Samoan society or their daughters. For performing a Siva dance, the performers wore particular dance dresses and head dresses made out of human hair and feathers.

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After the trip to Samoa, it was back to Honolulu, still towing Whipple, and then on to Magdalena Bay for a month of Target Practice.

As early as 1868, the United States had established a coaling station at Magdalena Bay, Baja California Sur in her waters. That had ended around 1907. The U.S. was not the only power interested in the area. In 1902 and 1903 both Germany and Japan had sought to establish naval bases there. The end of the lease did not stop the Great White Fleet from being sent there for gunnery practice in 1907 and 1908.

Jack Kaufman did not write about the bay but Franklin Matthews in his *With the Battle Fleet* (B. W. HUEBSCH, 1909) sets the tone and talks about the experience. “Shooting is what a navy is for.”

So far as this fleet is concerned this cruise was chiefly for this purpose. Aside from mere cruising and getting shaken down the officers and men had their minds and their energies centered on shooting guns. No matter what was the reason why the fleet was sent to the Pacific, the officers and men passed it by as something that concerned them only incidentally. They take their orders to go here or there with simply passing interest. They obey. Their one idea, their chief work, mentally and physically, during the entire cruise has been to prepare for this target shooting. To them it was the business end of the cruise.

Matthews describes Magdalena Bay as “a splendid sheet of water, in a general way about fifteen miles long and ten wide, with a narrow entrance and water just deep enough for safe maneuvering and good anchorages everywhere. A line of sharp crested hills shuts it in from sight of the Pacific” and as “a desolate, barren region . . . designed apparently by nature for the very purpose of modern target shooting.”

Each ship's crew had been working on targets for their guns for several weeks. They had to make 25 to 50 from rolls of canvas. They cut them into strips of specific lengths and then sewed them back together with the edges wrapped around a rope about an inch thick.

The Navy offered a prize to the best crew on the fleet for each kind of gun fired and a ship’s prize for the best gun and crew. It was possible to win $20 to $60 in official prizes and more possible in bets between crews.

Matthews points out that: The Captain naturally wants his ship to come out first when you get down to the real business of a warship; the division officers want the ship to win and their own division to be first; the gun crews, with money at stake for them and with the great pride that Uncle Sam's sailors have, down to the last man, to excel in any contest, are more eager, if that were possible, than the officers to get the shooting record.

His description sounds much like a ball game: Just before the shooting begins a calm, a stillness, comes over the ship. Men steady themselves with a supreme effort to keep cool, and the spirit of do or die takes possession of the ship, and as the guns go bang, bang and boom, boom you'd think these officers and men had done nothing else all their lives but shoot off projectiles and it was as much a matter of course with them as getting their breakfasts . . . (W)hen the target is brought on board between the runs to be repaired for use again you can understand why the men crowd around it while the umpires examine the rents to see if they made any mistake in...
The first roar of a gun sends a thrill through the ship. The man who has fired it is nervous. If it's a miss, he steadies himself at once. Rare is it that the second shot is a miss. The gun-shy part of that man's career is over. He is now as cool as if he were whistling Yankee Doodle. Bang and crack go his shots. Perhaps the gases obscure his vision to some extent. He waits an instant from time to time before he fires. Pump, pump, goes the trigger: He's got the range, he's got his nerve, he knows when he hits and when he misses. It's a big contest, and his tools of trade are the confined elements of destruction with the accumulated scientific skill of decades behind him, and the result depends upon his clear vision and steady hand. The task inspires him, his face is drawn tense, he forgets everything else. He becomes part of that machine of destruction, an automaton.

In December 1909, after her time in Magdalena Bay practicing shooting with the rest of the fleet, Tennessee was detailed to pay an official visit to Honduras. This would be best described as a “show the flag” effort to remind the Hondurans of the goodwill of the United States and to make sure that they remembered that the United States had the power to enforce that goodwill.

During my cruise on the Tennessee in 1909, we entered Central American waters and anchored some distance from the Honduran town, Amapala. We rendered our salute of 21 guns to the Honduran Government, and broke their national emblem at our foremast. For a long time we waited for the return recognition, and finally we could see the smoke and hear the boom of a cannon, from what was a fort on the beach.

This salute consisted of eleven guns. When all firing ceased our national emblem was broken from the solitary mast at the fort. There our flag remained the rest of the day, and all night, and at eight the next morning the boom of the saluting gun started again, and continued until we had counted ten distinct ‘booms.’ There were no further salutes, and then our flag was hauled down.

An hour or so later we made out a rowboat, proceeding from the shore, and apparently headed for our ship. We noticed that one man would row for a while with another sitting in the stern sheets, and then they would change places. When within about a mile of the ship, we noticed the oarsman at the time, was a ragged clad barefoot native, while the other was a dark complexioned native in a black frock coat with epaulettes and gold-like stripes on his sleeves.

They finally came to the starboard gangway, and up came the General, or whatever he was, with his friend. The General was a picture, with his antique sword, old leather belt, badges pinned all over the front of his coat, many of which I recognized as having been made for fraternal and other conventions in the United States. He could speak no English and his associate; just enough go be very brief in his translation. They were invited below, but either this, did not penetrate, or else they did not desire it. Shortly they left, and it was amusing to see the General trying to navigate the gangway and not trip over his sword.

They shoved off in their rowboat, and the General was standing up in the stern, when the saluting guns crew fired their salute. Why he did not go overboard, is beyond me, as the concussion staggered him with each shot. I shall always believe that the gun crews deliberately waited until the row boat came directly under their gun before firing.

We learned from the interpreter that they had run out of gunpowder, after the first eleven shots had been fired, the day before, and had to send to the
capital for more, which did not arrive until the next day.

After the official visit to Amapala, Honduras, Tennessee headed for Panama to join the Pacific fleet. The Tennessee joined the fleet in Panama from the 13th of December until the 22nd. In 1904, the United States purchased the French equipment and excavations, for US $40 million and took control. The leftovers from the French effort a few years before included some excavations and a vast jumble of buildings and equipment, much of it in poor condition. Everything needed to be rebuilt and thousands of workers to do the rebuilding were needed. For example re-establishing and enlarging the railway in the canal was important just to getting the dirt out of places they didn’t want it and into places that they did.

Conquering disease was high on the list of needs. Yellow fever had been a major factor in the defeat of the French attempt. Colonel Gorgas’ story of defeating the mosquito-borne has been told other times and in other places.

In 1906, it had been decided that a canal using a lock system to raise and lower ships from a large reservoir would work better than the sea level canal that the French and tried to build. New large, railroad-mounted steam shovels, enormous steam-powered cranes, giant hydraulic rock crushers, cement mixers, dredges, and pneumatic power drills, were brought in from the United States.

It is not clear when specifically the doctor and his companions visited the unfinished canal, but it is obvious that he did. The pictures have 1908 as a date, but no particular month or event. As usual, having pictures with captions, he does not write about the diggings. It should be noted that this not writing about things pictured does not seem to be a conscious effort. The scrapbook appears to have been created a good twenty to thirty years before the memoirs.

January to March of 1909 was spent cruising up and down the West Coast of South America, visiting such places as Talcahuano and Coquimbo, Chile, Callao, Peru, Stephen’s Bay, Chatham Island (in the Galapagos), Panama, and Punta Arenas, Costa Rico. Then it was back to Magdalena Bay, Mexico on March Seventeenth for a month of Target Practice.

As you read through J. B. Kaufman’s memoirs and look at the pictures that accompany them it is useful to think of events that are happening in medicine at the time. And thinking about these events, one should also remember how long it takes from the first mention of something to its acceptance in the world of medicine. Jack’s experience with the medical association being unfamiliar with the stethoscope in 1906 is not unusual.

It is only in 1908 that Mount Sinai Hospital, New York City figures out how to use a blood test for compat-
ibility before human blood transfusion. This will be of vast importance in future wars although it will take a scheme for preserving blood to make it truly useful. Among other things they discovered is that O type blood can be given to A and B type patients. It wasn’t until that same year that all milk sold in the city of Chicago was required to be pasteurized. Large numbers of people died in those days of diseases easily spread by milk and other liquids like tuberculosis, diphtheria and scarlet fever. Although unknown at the time the process also kills salmonella, listeria, E coli and the like. It will take a long time for pasteurization to be the norm for all milk in America.

In 1909, Sigmund Freud made his one and only trip to the United States to lecture at Clark University. Even though the New York Times found almost nothing worth reporting in his visit except his departure, his theories and treatments would capture and dominate psychiatric thinking and practice for generations.

The year 1910 is recognized for the “discovery” of sickle cell disease. Discovery is in quotes because it had been in Africa for at least five thousand years. A young dental student studying in Chicago ended up being treated by a resident Dr. Ernest Irons who examined the blood under the microscope and saw red blood cells he described as “having the shape of a sickle”. As is often the case, describing the disease and figuring out what to do about it are not the same thing.

In this era about 75,000 people died of cancer every year but the word “cancer” scared people and was never said. It is only in 1913 that what becomes the American Cancer Society thirty years later was founded. Fifteen doctors and business men decided that it was time to educate the public about cancer and help de-stigmatize the disease.

About this time the electro-cardiograph (EKG) machine was brought to the United States and the University of Michigan Medical Center pioneered the use of it. It would take a long time for these appear in Naval Hospitals.

This appears to have been a good time for the founding of things because what would later be renamed as the American Heart Association, was founded in 1915.

Even as these things were implemented in normal medicine some would take a long time to get out to “the Fleet.”

It was not that the United States Navy was not trying. It began publishing the Naval Medical Bulletin about “professional matters as observed by medical officers at stations and onboard ships in every part of the world, and pertaining to the physical welfare of the Naval personnel” in 1907.

The first volume was quite professional and touched on such topics as apoplexy, appendicitis, bedbugs, gonorrheal joint disease, leprosy in Japan, methods of suturing the abdominal wall typhoid fever, gastric ulcers, gunshot wounds to the stomach and spine, an operation for hemorrhoids, influenza, and dengue fever in the tropics, radium therapy.

While it did not discuss the voyage of Tennessee or the “Great White Fleet,” it is interesting that the first article in the first edition was on the “Gross Pathology of Samoa.” It discusses “devil doctors” (the native healers), elephantoid fever and yaws at great length.

On another level the Bulletin also reminded its readers that “The Navy exists against the ever-present possibility of one emergency, viz, that of war; and every drill, every exercise,
every improvement in personnel or materiel has its objective in the highest attainable state of efficiency for that event.” It followed that the “raison d’etre” for the Medical Department, no matter what its peacetime good, “lies in the care of the wounded during and after action.”

On each ship “the organization of the surgeon's division; the drilling of the members of the surgeon's division in the part each is to play and of all hands in first-aid methods and transportation, etc., and the sooner this subject is given the thought its importance deserves the better. We can not afford to go placidly along feeling that somehow chance will abridge the absence of specific preparation. . . .

Whatever the problem, it must engage the medical officer's most painstaking attention. It is an old subject, but the changes in construction, armament, and tactical maneuvers, as they influence the probable number of wounded and the methods of their management, are constantly making it a new and interesting and ever urgent subject.”

On April 1, 1909 J.B. Kaufman detached from Tennessee and was ordered to the Naval training station at Yerba Buena Island to be the assistant in its hospital. This was a relatively new station only open for about ten years.

Since the first days of American occupation of San Francisco, Yerba Buena had been given over to an immense band of goats, from where it got the name of “Goat Island.” The infantry took it over first and, in the early 1870’s, it became an artillery post. A fire burned down its buildings and Goat Island no longer was part of the defense of San Francisco. Only a lighthouse remained. The army still owned the island, though people had tried to buy it.

By 1898, with war brewing, it became obvious that America needed more sailors and that a naval training station on the Pacific Coast would be very useful. Eventually Congress agreed and San Francisco Bay was selected. Goat Island was both isolated from and close to San Francisco.

On April 12, 1898, President McKinley signed an executive order setting aside what was now officially termed “Yerba Buena Island” as the naval training station on the Pacific. In March of 1899 the USS Pensacola sailed from Mare Island and anchoring in the bight before Yerba Buena took over the command of the station. At this point the “station” consisted of a half-finished dock, a partly completed roadway to the location of the barracks and large amount of material. On board the Pensacola were five apprentices who had been enlisted for training.

The Navy first had to build the barracks. When finished it could house 500 apprentices. It had a clear “drill hall” 300 by 60 feet. Around it were places for young men to hang their hammocks, a way to accustom them to navy life. Next was an immense parade and drill ground above which slopes to the west a series of beautiful terraces. On top of which the officers’ quarters were built.

Construction did not slow enlistments. By June 30, 1899, before completion of the barracks, there were 62 apprentices living on board Pensacola. By the completion of the barracks there were 392 apprentices.

“In July 1909, Mother and I were married in San Francisco, while I was on duty at the Naval Training Station, Goat Island, California” is a far too simplistic statement of what happened. “Mother” is Kathryn Leslie Metcalfe, the daughter of John Metcalfe, the San Francisco Lloyds of London agent.

John Metcalfe was of some passing interest himself. He had been born in Maryport, England and had come around the horn as the 30 year old captain of the White Star Line ship Oceanic which was quite innovative for the time. She was powered by a combination of steam and sail. Her hull was iron and divided into watertight compartments.

The Oceanic carried 166 Saloon Passengers and 1,000 Steerage Passengers. She took care of them with a crew of 143. The Saloon cabins were amidships, away from the vibration
of engines. Steerage was the bow and stern of the ship. The White Star Line was among only a handful of Transatlantic Passenger lines to segregate their steerage accommodations into two sections; berthing for Single Men was located in the Bow, while berthing for Single Women, Married Couples and Families was in the Stern.

In 1879, he had married a San Francisco woman, Kate Wooster, who bore him four daughters; Kathryn was the youngest. He then sailed back and forth to Hong Kong until he retired from the sea in 1889. He went to work for Lloyds. Kate died in 1900 at the Hotel del Coronado on Coronado island in San Diego harbor.

He became an important fixture in San Francisco. In his obituary in the San Francisco Chronicle he was described as “well known in marine circles.” That article also detailed his kinship to the Ismay family which owned “White Star Lines” and the Titanic. Kate, John, and their children were listed in the San Francisco Social Register well into the 1970s.

The year after Kate died, he married Anne Cave North who, according to family story, was so difficult that she drove all the girls from the house. At the time J. B. Kaufman met Kathryn Metcalfe, she had run away from home. Kathryn was living with a girlfriend who was married to a young naval officer stationed at Goat Island. The family story says that this girlfriend and husband were having a dinner party and invited the eligible young Assistant Surgeon of the station to fill out the numbers.

When Thanksgiving Day was approaching, the other junior and I cut the cards to see who would take Thanksgiving Day duty, and at the same time, included Xmas and New Years. My luck was with me, and I won to the extent of having to stand only Thanksgiving duty. Mother and I spent Thanksgiving Day on the Island, and make our plans for Xmas and New Years in San Francisco. The luck reversed itself about a week before Xmas, when my associate developed Scarlet Fever, and I was stuck for the other two holidays. To add to our discomfort, I stood day duty and no off duty for fifty-seven days, until the co-worker returned, and during this entire time, the senior who lived on the island did not volunteer to relieve me for a single watch.

The fact that they were married in the house of Sara Dix Hamlin, a premier educator of the time and not out of the Metcalfe family home tends to validate the “running away” story. The upshot is that these two, Jack and Kathryn, were the children of immigrant fathers who settled in the United States and made good and mothers whose families had been here for multiple generations.

How Mother ever stood conditions without a complaint, is beyond me. Another officer and I stood day on and day off watches, and this meant I lived on the Island one day and in San Francisco the next, as there were no quarters assigned to me. On my duty days, Mother came over and the Commandant allowed us to occupy a room, with bath, in the vacant Executive officers quarters. All officers, who did not have quarters, formed a mess, and this they carried on in these same quarters, so that we were able to get our meals here.
to be qualified for in Washington. I was getting well fed up, “boning” all the collaterals, like Geology, Botany, Zoology, History, Literature and so forth, in addition to my professional subjects, and furthermore, we were expecting an addition to our family around May.

In January I made an official request to be ordered to Washington for the examination. In due course the reply came stating no relief available. In February I repeated with the same luck, so in March I made out a request that I be left indefinitely at Goat Island and handed it to the Commandant. This officer was a close friend of ours and broke out in a hearty laugh when he read my request. He led me to believe he would forward it but I never knew whether or not he did but I do know that in twelve days from the date of my request I was ordered to Washington.

We made our reservations, including Drawing Rooms all the way across and left by the Union Pacific in April. We had a very comfortable Drawing Room but when we reached Ogden, Utah, the Pullman Conductor informed me they had to take our car off as it had a cracked axle. I replied that I was glad they found it out and asked what car we could move into. He told me he had no Drawing Room and he would have to put us in an upper and lower to Chicago.

I showed him my orders, called attention to Mother's condition and in every way tried to work on his sympathy but all I reaped was his expressed sorrow. Then I happened to notice a Masonic Pin on the lapel of his coat. Before I came into the Service my mother induced me to take the first three degrees in Masonry in the same lodge in Virginia where my father had been a prominent member for many years. I respect Masonry but admit I have taken no active part in it since entering the Navy. For this reason I did not like the idea of using my membership now but I felt I was in actual distress so made known to the conductor I was a Mason and as he was one I wanted to appeal to him to help me if he could. I assured him that if after this appeal he told me he was powerless then I would continue my journey as he stated. He told me to wait until he investigated so we remained in our Drawing Room until he returned in a few minutes with two porters. The porters moved us, bag and baggage, into a coach they put on in place of ours and we not only had our Drawing Room but also the rest of the car to ourselves the rest of the way.

I was profuse in my thanks to the conductor and he assured me he was delighted to do anything he could for a fellow Mason. I got his name and chapter and wrote them of his wonderful help and likewise informed my own chapter of the experience.

The only sequel to this is that our son was born May 10, 1910 and I passed my examinations successfully. He must have sent his wife to live with his family because his son, John Holladay Kaufman, was born in Portsmouth City in Virginia.

ABOUT THE AUTHOR

Mr. Bill Kaufman is a retired school teacher steeped in Navy tradition. His father and uncle went to the Naval Academy as did his other Grandfather. He is the oldest grandson of Capt. Jack (J.B.) Kaufman.
Dr. Rivers and the Founding of NAMRU-2
I was asked to take a trip to the South Pacific to see whether it would be useful to organize a medical research unit at the fighting front.”

~Rear Adm. Thomas Milton Rivers, Medical Corps, USNR on the formation of NAMRU-2

(From an oral history with Saul Beniston, published posthumously in 1967)

The Rockefeller Institute (now Rockefeller University) in Manhattan, N.Y. has been the nation’s preeminent biomedical research center since its inception in 1901. Over the course of its storied history, the Rockefeller Institute has been home to some of the most significant figures in medical science. Among them was the Jonesboro, Georgia-born Dr. Thomas Milton Rivers (1888-1962).

Rivers first came to the Rockefeller Institute in 1922 following several years at Johns Hopkins and a short stint in the Army Medical Corps. Over the next decade he would help establish virology as a unique discipline through his work on filterable viruses and studying the pathological effects of viral infections. His groundbreaking research on polio and on the site of the clinical trials for Dr. Jonas Salk’s life-saving vaccine would only further solidify his scientific legacy.

But his contributions to science go far beyond being a famous virologist and medical researcher. What is far less well-known about his career is the foundational role he played in the establishing the U.S. Naval Medical Research Unit (NAMRU) No. 2—a name that has long been synonymous with the fight against infectious and communicable diseases in Asia.

Rivers joined the naval reserves in July 1940 while serving as director of the Rockefeller Institute Hospital. Soon after, he would begin persuading a number of his illustrious colleagues to do the same.

Under the guidance of the now “Commander” Rivers, this collective of medical reservists became, what was termed, the “Rockefeller Hospital Naval Research Unit.” Throughout World War II working in conjunction with the Naval Hospital Brooklyn, this unit would take on some of the Navy’s most severe cases of acute hepatitis, rheumatic fever and atypical pneumonia while also conducting cutting-edge research on the diseases of importance to the military.

In July 1943, Rivers relinquished the reins of the unit to serve on a naval commission in Washington, D.C. looking into the problems of scrub typhus and infectious hepatitis then plaguing the Armed Forces in the South Pacific. His first meeting would prove more than a little fortuitous for Rivers and the future of medical research. As he remembered in a 1961 oral history, “During the discussion, a great deal of doubt was expressed as to the utility of work performed by temporary commissions, and someone suggested that it might be a better idea if a permanent research unit were established close to the fighting lines to investigate medical problems as they came up.”

Vice Adm. Ross McIntire, the Surgeon General of the Navy and Rear Adm. Howard W. Smith, then Director of the Research Division at the Bureau of Medicine (BUMED), not only supported the idea of a frontline research unit but tasked Rivers to investigate its feasibility and survey potential sites.

At the age of 55—having never voyaged west of California in his life—Rivers embarked on a tour of military bases throughout the Pacific from the New Hebrides to the Solomons to the Russell Islands. He interviewed medical officers at mobile hospitals and embedded with Marine units to collect their first-hand experiences with the endemic diseases. Along this journey, Rivers also met with Admirals Chester Nimitz and William “Bull” Halsey to outline the value of a research unit. Their support for the project, which would be vital, was unanimous.

Rivers returned to Washington in December 1943 to brief the Surgeon General on prospective sites for the lab. In January 1944, NAMRU-2 was

“[The] U.S. Naval Medical Research Unit # 2 will shortly sail for its designated bases, and I am solicitous that the enterprise, it being a trail-blazer and possibly the forerunner of other similar units, have every opportunity to demonstrate its usefulness.”

authorized by the Secretary of the Navy with the initial plan to establish it on Guadalcanal. The next month, Rivers was formally placed in charge of the unit and tasked with recruiting personnel and acquiring equipment.

This ambitious enterprise would take time to stand up. In fact, it would take over nine months to place NAMRU-2 into operation, and about a year before it was fully staffed. In that time, naval leadership decided to relocate the laboratory from Guadalcanal to the newly liberated territory of Guam.

To address his staffing needs, Rivers turned to his colleagues at the Rockefeller Naval Hospital Research Unit. NAMRU-2’s staff would not only be comprised of a who’s who of Rockefeller’s finest, but some of most preeminent physicians and scientists in the world—each acting in the capacity as naval reservists.

Rivers tapped Dr. Francis Schwentker (1904-1954) as his second-in-command. Schwentker, one of the foremost clinical investigators in the nation, had worked with Rivers at the Rockefeller Institute since the 1930s. He would oversee the planning and ensure the NAMRU-2’s construction remained on schedule. Others on
the roster would be no less distinguished...

-- Richard Shope (1901-1966) was a virologist whose accomplishments included discovering the Shope Papilloma virus, a condition that caused the formation of horny protrusions in cottontail rabbits (and possibly serving as the root of the jack-a-lope legend). His work on Rift Valley Fever and equine encephalitis would later prove seminal to the Navy.

-- Norman Stoll (1893-1977) was a parasitologist and one of the nation’s foremost experts on hookworm.

-- Marion Sulzberger (1895-1983) was a dermatologist and leading expert on dermatologic immunology and contact allergies (e.g., poison ivy, etc).

-- Harry Zimmerman (1901-1995) was a neuropathologist and pioneer in the study of diseases of the nervous system. He would later co-found Albert Einstein College of Medicine.

-- Horace Hodes (1907-1989) was an infectious disease researcher known for his work on Japanese encephalitis, gastroenteritis and identifying the main function of Vitamin D (i.e., absorption of calcium through the intestines).


-- Kenneth Knight (1915-2001) was the first entomologist to serve in a combat zone and one of the pioneers of the Navy’s malaria control program.

Cmdr. James Sapero, a medical intelligence officer then serving in BUMED’s Research Division in Washington, D.C., would help ensure NAMRU-2 was supplied with some of the most skilled laboratory technicians and general duty pharmacist’s mates in the Navy. Other specialists—representing a multitude of disciplines from zoology to infectious disease—would join the staff over the next year.

In April 1944, months before NAMRU-2 became operational, Rivers began deploying, as he termed them, “mobile detachments” into the field to investigate outbreaks or threats of disease across the Pacific Theater.

On Peleliu, Lt. Cmdr. Herbert Hurlbut, and Lts. John Maple and Bernard Travis would study methods of insect control and introduce the dispersal of aerial spraying of DDT in the Pacific. Later in the war, Maple would become NAMRU-2’s only casualty when his plane crashed during a dispersal run on Okinawa.

On Bougainville, Lt (j.g.)s David Johnson and George Wharton studied mite and mite-bearing animals and their relationship to scrub typhus. And on New Guinea, entomologists Lts. Kenneth Knight and Lloyd Rozeboom investigated the taxonomic problems related to malaria.
In November 1944, a NAMRU-2 contingent lead by Cmdr. Richard Shope arrived on Guam to make preparations for the unit’s main party. After scouting the island and meeting with naval officials, Shope would help select NAMRU-2’s base of operations—a 25 acre plot of land adjoining Naval Fleet Hospital 103 to the North and Naval Fleet Hospital 111 to the East. Over the next several months Naval Construction Battalions (CBs) would work on clearing the land and construct 62 buildings that would serve as laboratories, special wards, as well as administrative functions.

Shope’s visit would also lead to NAMRU-2’s investigation into Guam’s hookworm problem. While visiting the Agana Hospital, Shope discovered that hookworm was rampant among the youngest patients. Along with Norman Stoll he would help pinpoint the source of infection.

As Rivers later related: “...we learned that before we liberated Guam, the Japanese had herded the native population out of the towns of Agana and Agat into tent refugee camps. It was rainy, [and] sanitary conditions were very primitive and poor. ...when mothers had babies in these badly crowded and wet tents they kept them on planks held by two wooden horses. The quilts and other bedding used to cover these planks were always moist and in a very short time, without anyone being aware of it, became ideal hatching places for hookworm larvae.”

From January 1945—when Thomas Rivers first arrived on Guam—to the end of the war, NAMRU-2 would be anything but underutilized. Throughout the year, NAMRU-2 field teams deployed to Bougainville...
Fiji, Guadalcanal, Kwajalein, Leyte, New Caledonia, Peleliu, Samar, Iwo Jima, and Okinawa, and after the war venture into mainland Japan and China.

In the Philippines, teams targeted the schistosomiasis threat, surveying native snail species, and experimented with new efforts (i.e., application of copper salts) to control disease-carrying snail populations.

On April 1, 1945, a NAMRU-2 field medical team lead by Cmdr. Richard Shope sailed with the invasion forces to Okinawa. The team established mobile laboratories behind fighting lines, searched for schistosomiasis and scrub typhus vectors, and helped minimize malaria and dengue threats. In July, members of the team travelled to the other Ryukyu Islands to investigate a Japanese B encephalitis outbreak localized among natives. Beginning on May 11, 1945, NAMRU-2 personnel would take part in interrogations of six Japanese Army medical officers captured on Guam. Aside from obtaining vital medical intelligence to support Allied efforts, NAMRU-2 discovered that amebiasis (amebic dysentery) and tuberculosis had been the greatest disease threats to the Japanese warfighter.

At times, NAMRU-2 was even called upon for missions impacting the morale of deployed servicemen. On Ulithi, the unit was asked to investigate why the beer on the island was “undrinkable.” Lt. Cmdr. Kendall Emerson, of the unit’s chemistry department, discovered it rested with the “imperfections in the lining of the cans caused by exposure to heat.”

Tom Rivers stepped down as NAMRU-2’s officer-in-charge on January 6, 1946; his departure marked the start of a gradual exodus of the unit’s savants back to the Rockefeller Institute. Once staffed with a complement of over 40 officers and 240 enlisted personnel, NAMRU-2’s numbers dwindled down to just 11 officers and 11 enlisted in 1946.

In January 1946, NAMRU-2 merged with the Navy’s Tropical Medicine School (formerly located at

“I want to emphasize here that the Navy took quite a gamble in organizing such a unit. First, no one in the Navy had ever had any previous experience in organizing and running a medical research unit close to the fighting lines; second, no one had the slightest idea whether doctors and scientists could actually do scientific research under military conditions; and third, even if they could do such research, no one knew whether the results they would achieve warranted the existence of such a unit in a military force.”

~Rear Adm. Thomas Milton Rivers, Medical Corps, USNR on the formation of NAMRU-2

(From an oral history with Saul Beniston, published posthumously in 1967)
Naval Hospital Treasure Island, Calif.) to form the Navy Medical Tropical Medical Institute. This new joint facility served as the nucleus of the newly formed Naval Medical Center Guam along with the Naval Hospital Guam (formerly Fleet Hospital 103), the Native Nurse Practitioners School and Guam Memorial Hospital (formerly Fleet Hospital 111).

BUMED leadership examined the possibility of expanding the reach of NAMRU-2 by establishing portable laboratories aboard LSTs and carrying out tropical disease investigations on Leyte, Samoa, and the China coast, but in the end this would never come to fruition. In the midst of post-war reductions, NAMRU-2 would ultimately be deactivated on 3 September 1947.

But NAMRU-2’s story did not end with deactivation. Eight years later, in September 1955, the medical unit was re-established on Taipei, Taiwan under the command of former Rockefeller Institute scientist, Capt. Robert Phillips, MC, USN. With Phillips at the helm, the new NAMRU-2 would help pioneer glucose-based rehydration therapy in treatment of cholera and send medical teams to the heart of cholera epidemics in Bangkok, Saigon, Manila, and India.

In the succeeding years, NAMRU-2 would establish detachments in Manila, Da Nang and Jakarta. Owing to ever-shifting geo-political situations, NAMRU-2 headquarters relocated from Taipei to Manila in 1979 to Jakarta, Indonesia in 1991 and to Pearl Harbor, Hawaii in 2010.

Today, as part of the Naval Medical Research Center-Asia in Singapore and with a detachment in Phnom Penh, Cambodia, the legacy of NAMRU-2 lives on today and remains as strong as ever.
The Saga of "Dr. John Doe," Marine Dentist

The following is an account of a Navy dentist named Lt. Frederick L. Losee, DC, USN (1917-1975) and is part of an unpublished compilation of first-person experiences in World War II called The U.S. Navy Dental Corps Historical Abstracts located in the BUMED Archives. In this unique testimonial, Losee projects his own personal experiences onto an "everyman" dentist named, “Dr. John Doe” and uses it to explain the trials and tribulations and the valuable lessons learned while on deployment in field.

I reported to the First Marine Amphibious Corps, 6 July 1943, and was assigned to the First Medical Battalion. And here I should like to state some of my experiences with a Marine Unit in the field.

The experiences and duties of a dental officer are many in the field. Conditions and problems arise that would never be conceived by a dentist on stateside duty or in civilian practice. The dental officer becomes a jack-of-all-trades in order to exist in semi-comfort as far as living and professional conditions go. In setting forth my field experiences it is my wish that it may help new dental officers, awaiting Marine assignments, to better prepare themselves for a new type of living and working.

The Marine Defense Battalion that I was with made two island landings involving various types of landing craft under bombing attacks with many casualties. So to continue it will be best for us to now follow "Dr. John Doe" fresh from the States.

Dr. Doe, after getting detached from the ship at Island X, proceeds ashore with his pounds and pounds of field gear and unlimited quantities of wonderment. A Marine Officer meets him and helps get him his gear aboard a jeep and up to the Commanding Officer to report in. Dr. Doe hands over to the Adjutant reams of orders and endorsements, after which he is introduced to the Commanding Officer. The call being finished Dr. Doe is directed to Headquarters and Service Battery Area, and told where the bewilderment to pass by giving Doc—by now it is just plain “John”—the inside word. Many questions are answered as to where one procures clothing, what type and how much. John soon finds the blouses are never needed, just the trousers, shirts, and windbreaker jacket. Insignias and caps are about the only two things that are hard to procure.

John’s bunky informs him that the Dental Officer has been relieved and naturally time is wasting. John is introduced to the Battalion Surgeon, Junior Medical Officer, and the Chaplain thus uniting the Navy unit of a Marine Defense Battalion. After the usual first arrival expounding of stateside news John is taken to his office. A great feeling and thought of pride sweeps over him, all his. There is stock to be kept up, a system of patient checking, training schedules, and all with no one to help, only the Manual of the Medical Department.

John’s first day—dream of pride is roughly shaken as for the first time he sees a field dental office. He gasps internally, but shows external non-chalance at the 12 x 12 shack, fully equipped with no running water, no aspirator, a small assortment of surgical instruments, field chair, one foot engine, kerosene sterilizer and a practice of 1,300 to 1,500 men. John’s first few cement silicates teaches him a lesson on the difference of setting time between stateside offices and tropic offices. The amalgam is dependable, except the dispenser must be kept in a shot locker to prevent moisture from collecting and clogging the filling hole. This same humidity mildews the towels and gowns unless kept in a hot locker or with lots of moth balls mixed in with them.

John feels he is coming along all right when the local Construction Battalion Dental Officer has to leave and next a Navy VS [Scouting] Squadron moves in with no dental officer. A week later a large group of Army moves in with no dental officer. This train of events leaves with him a practice of roughly 4,600 men and remains
as such for almost a full month. John awakes to find 20 or 30 men in line at the office even before chow. This is when he realizes why the men should be as near dentally completed before they are sent overseas as possible. John feels helpless, it’s like shoveling sand against the tide. All he can do is take the worst and gradually see the moderate cases become categorized [sic] “worst.” He mentally condemns himself, then his colleagues in the States, then the civilian dentist, next the parents and finally lack of dental education in the country. The situation, nevertheless, gradually clears as more Dental Officers arrive on the Island and full co-operation is gained. In Surgery, his first field removal of a cystic palatial cuspid impaction for such a case makes a man of him; but the real deep inverted impaction of a lower third molar completes his transition.

He is now ready for Field Oral Surgery. His dental technician may only be an HA 2c [Hospital Apprentice Second Class] assigned to him. So it is up to John to train this man and bring him up to our burden is lightened and all seems to be coming along nicely until orders arrive to prepare for a move into [the] combat area. This means separation of men, lost contacts, operative time of days or weeks lost, but it is all part of war. The office is secured, the packing is done so as to reduce the number of crates and eliminate the small cases by placing them inside of larger wooden crates. John must have materials distributed so he will have enough to carry on a moderate amount of work in the event of loss of any of the crates. After the dental gear is secure John becomes the “Labor Boss” for the corpsmen, aiding in packing and loading of medical gear. The Chief’s and PhM1c’s [Pharmacist’s Mate First Class] teach him plenty on that first move. He now realizes what a swell group of corpsmen the Navy has. The gear is finally loaded aboard the ships and John is assigned to deliver a hospital jeep, a water trailer, certain medical gear and six corpsmen to [the] designated area with a certain time limit after landing and to start clearing the boondocks (brush) for a sick bay. John is also to hold sick call twice a day for the troops aboard his ship, and LST, as not enough Medical Officers for each ship is on hand. On this trip a hot appendicitis develops, it is held down by ice packs and no food. A message is sent over to [the] Battalion Surgeon
and the man is to remain aboard till sick bay is secured at the new area. On hitting the beach John follows the weapons, having previously briefed his corpsmen as to the area to meet in case of dispersion. Its pitch dark and mystery lies ahead. On proceeding a sentry instructs him to hit the boondocks until dawn. The jeep is camouflaged, guard stationed, and John and the other corpsmen dig shallow foxholes and roll up in ponchos to fitfully sleep. Dawn breaks—how to prepare breakfast—simple as can been—just place canteen cups filled with canned egg yolks and pork on the exhaust manifold of the Jeep and presto—warm breakfast! They proceed to the assigned area where the Battalion Surgeon awaits to give instructions. Instructions delivered the Surgeon must return to the ship—John's duties—sick bay builder and contractor. John and the corpsmen work steadily clearing brush and preparing a dugout operating room for our hot appendicitis case. At last the operating room is complete. There are many blistered hands, red eyes, cuts and bruises, but all are working with a mighty will. For the operating room a generator had to be found, a table built from crates, the operating room made must be utilized. During the Operation John maintains sterility. Everyone sweats so much a corpsman is assigned to each surgeon and assistant to wipe sweat from their chins, nose and eyes. John keeps pulse, blood pressure and chatter with the patient while keeping a watchful eye on sterility.

When a ward tent is erected a corner of it is used as the Dental Office, and the small generator for lights. By pulling a few strings John obtains a Castle light and an electric sterilizer that are really splendid work pieces. Due to conditions on the island one of the Battalion Medical Officers had to place an additional sick bay a few miles away. This moves John up to anesthetist in most operations. And here his training at the National Naval Medical Center, Bethesda, Maryland in giving pentothal and spinals comes in handy. About this time a bacillary dysentery epidemic hits and it is necessary to initiate immediate steps to flyproof heads, galleys, control seepage and garbage disposal. John is immediately elevated to the position of Sanitation Inspector, with a circuit of about fifty-two installations in twenty-files. This circuit is covered once or twice weekly by means of hiking or driving. In this duty diplomacy and practicality are essential. Understanding and cooperation with the line officers is necessary. Harmony is also essential as there are only four Navy Officers living with 70 Marine Officers.

During enemy attacks John is charge with the duty of being immediately present at the operating room to assist in first aid, organize stretcher bearers and ambulance drivers. If a Battalion roll call shows no casualties all hands are secured. In the event of casualties it becomes John's duty to make sure the remains are embalmed, marked and placed in coffins. He must also be present when the Honor Guard removes the remains from the Morgue to the trucks.

Due to an accumulation of time, pet peeves, jeep accidents, complexes, and illicit alcohol, many fractures present themselves which necessitate dental treatment.

John's unforeseen duty is that of "Morale Builder-upper." A dental officer has a perfect position as he is so close to so many men. As he works he can chat and sort of become the "dutch uncle" of the men, it does help, and don't forget it! Just a few pictures on the side of the tent, a few magazines, a smile, a pleasant greeting—all help. The men appreciate being as men and patients and it pays dividends in many ways. A desk name plate, an extra light socket, a fancy homemade chair, and a box of cookies from some fellow's mother who is grateful for the way you helped her son.

Another duty along the same line is the educational program for the corpsmen. Here John gives lectures, brings in guest speakers from amongst the line officers and men, tries to stimulate studying, gives a post-war program so the fellows can better adapt themselves to civilian life. These men are young and a finger pointed in the right direction may give us a new professional man for the future. These corpsmen work hard. They do carpenter work, electrical work, mechanical and often clear away brush for campsites besides their regular duties, and they deserve all the help that can be given them. In other words to be happy and to adapt oneself to life with the Marines in the field: Remember your college days of give and take, share and share alike. Know your anesthesia techniques and first aid. Keep your mouth closed and eyes and ears open. Keep yourself mentally and physically fit, and ready and willing to pitch in and work, work, work.