

NAVY MEDICINE

March-April 2004



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COVER: Injured Iraqi youngster, his father (left), and the caregivers (right), LCDR Mike Nelson, MC, USN, and CAPT Stephen McCartney, MC, USNR. The 12-year-old boy, who sustained severe extremity and abdominal wounds, was first treated at Alpha Surgical Hospital, 1st Medical Battalion, before being medevaced to the 47th Army Surgical Hospital in Kuwait City, where this photo was taken. Story on page 6. Photo by CDR Doug Carbine, MC, USN.

Heat, Cold, Stress

Navy Researchers Field Test Dental Equipment Before Deployment

CAPT James C. Ragain, Jr., DC, USN
CDR Stanton E. Cope, MSC, USN
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Photos by DT2 Scott Bacon, USN

LTC Howard Roberts, USAF, DC, demonstrates to CAPT Kim Diefenderfer, DC, USN, the electric handpiece design on the field dental unit to be evaluated.

When the Marine Corps deploys throughout the world to meet operational commitments, Navy medicine must be able to provide health services in order to maintain the combat effectiveness of the force. An integral part of these health services is the treatment of dental casualties. The Marine Expe-

ditionary Force (MEF) Dental Battalion's primary mission is to provide dental health maintenance with a focus on emergency care in all operational environments.

To provide dental care in the field requires dental equipment that has been field-tested to insure it can withstand the challenges of operational

field dentistry. Equipment that has been tested and accepted for use in the operational environment becomes part of the Authorized Dental Allowance List (ADAL). Currently, ADAL 662, the Field Dental Operator or Dental Treatment Room, provides the equipment and supplies required by dentists and dental technicians to conduct dental care procedures on deployed Marine Corps forces. One ADAL 662 contains a field dental chair, field dental unit, field dental light, field dental stool, field hand-held dental x-ray unit, field dental sink, expeditionary dental system (Unit 2), and consumable supplies. The ADAL 662 must be light, mobile, rugged, and operate reliably in expeditionary environments; and to minimize additional training, there must be commonality between the equipment found in a dental clinic and that used in the field.

LTC Roberts explains to CAPT Diefenderfer and equipment technician, Joe LaForge, the field dental unit's configuration and overall concept of operation.



The Naval Institute for Dental and Biomedical Research (NIDBR) and the U.S. Air Force Dental Investigation Service (DIS) are working together to insure that Navy dentists serving with the Marines have the best available equipment in their ADALs. In January 2003, NIDBR and DIS began a joint research project to test, evaluate, and validate new and existing components of the ADAL 662. The requirement for this project was identified by the Dental Officer of the USMC, and was endorsed by the Director of Health Services, USMC; the Deputy Chief for Dental Operations Support, BUMED; and the Assistant Surgeon General for Dental Services, Office of the Surgeon General, USAF.

Researchers at NIDBR and DIS designed a three-phase research plan to accomplish this mission. Phase One consists of identifying commercially available equipment which might meet the requirements for inclusion in the ADAL through worldwide solicitations of dental equipment manufacturers. In Phase Two, the equipment is subjected to rigorous specification tests that have been established by the

International Standards Organization, American Dental Association, and other appropriate organizations. The equipment is then subjected to weathering in environmental chambers, which cycles the equipment through extreme climatic conditions. The equipment is then subjected to vibration and dust. After the equipment has undergone environmental weathering, the specification tests are repeated on the weathered equipment.

Through this weathering technique, equipment that can best withstand the rigors of the field environment is identified for Phase Three testing. Phase Three evaluation consists of actual field evaluation by dental officers assigned to the Dental Battalions, as well as research dentists from NIDBR and DIS. After completing this three-phase test and evaluation process, NIDBR and DIS will provide a report to the Dental Officer of the Marine Corps identifying the equipment best suited for use in the field and inclusion in ADAL 662.

NIDBR is located on the Great Lakes Naval Service Training Center complex, home to 19 of the Navy's

technical service schools and the Naval Recruit Training Command. This unique location makes NIDBR the center of choice to study long-term Navy dental health by tracking Sailors from recruits, through service schools, and continued monitoring as they transition to the fleet. DIS conducts technical evaluations of commercially available dental equipment and materials and provides guidance to federal dental clinics regarding standards for infection control, occupational safety, and dental facility design.

With the co-location of the Army Dental Research Detachment (1996) and the Air Force DIS (2000), Great Lakes is the site for all DOD combat dentistry research. □

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CDR Cope is executive officer, NIDBR, Great Lakes, IL.

LCDR Bilak is Head, Resource Management Department, NIDBR, Great Lakes, IL.

Dr. Browning is assigned to the USAF Dental Investigation Service, Great Lakes, IL.

National Adult Immunization Awareness

Aveline V. Allen

Did you know that every year at least 60,000 adults in the U.S. die from vaccine-preventable diseases or their complications, according to research statistics?

Adult immunizations are a very important part of the overall health picture. Navy medicine is doing its part to urge adults to get and stay immunized on a regular basis.

"The medical clinics where active duty members receive their healthcare are perhaps the best in the world at seeing that immunizations are up to date," said CAPT John M. Kelso, Navy medicine specialty leader for Allergy/Immunology. "Military medical treatment facilities serving dependents and retirees have also incorporated mechanisms such as annual flu shot campaigns and travel clinics to make sure all beneficiaries are up to date on their shots."

Adults should be aware of the most common immunizations they should get on a regular basis.

"The most common would be influenza vaccine, yearly, tetanus-diphtheria vaccine, every 10 years, and pneumococcal vaccine, one dose and one booster for those age 65 and older," commented Kelso. "There are several other vaccines that adults with certain health conditions or risk factors should also receive."

Pneumonia and influenza are the seventh leading cause of death in the U.S., and the fifth leading cause of death among older adults, according to the National Coalition for Adult Immunization.

"Adults who are at increased risk for complications from influenza as above should get a flu shot each and every year since the viruses responsible for the flu change every year," Kelso added. "Immunizations should be reviewed every year or so as part of general medical care. There are approximately 114,000 influenza-related hospitalizations per year in the U.S. and 36,000 deaths. Thus,

patients who are at increased risk for hospitalization or death if they get the disease, including adults over 65 years old, adults and children who have chronic metabolic disorders or disorders of the pulmonary or cardiovascular systems, including asthma, and women who will be in the second or third trimester of pregnancy during the influenza season should get the vaccine. The influenza vaccine is up to 90 percent effective at preventing the flu. So, while there is a small chance that you could still get the flu even after getting a flu shot, you cannot get the flu from a flu shot! Also, the vaccine should be given to anyone who desires to reduce their chances of getting the flu."

Within Navy medicine clinics and medical treatment facilities, getting the word out to get immunized is highly visible. "Yearly influenza campaigns are widely advertised," said Kelso.

Not only does Navy medicine insure adult beneficiaries at home are immunized, but also its troops abroad.

"Active duty military members may need several additional immunizations due to the increased risks of travel to areas of the world where diseases not found in the U.S. may be more common, such as yellow fever and typhoid, and due to the risks posed by biological warfare agents, such as anthrax and smallpox," commented Kelso.

Vaccines to immunize persons against diseases are among some of the safest and effective medicines available, according to medical research. If side effects occur, in most cases, they are very minimal.

"While minor side effects from immunizations such as a sore arm or mild fever can occur, most patients have no side effects at all," added Kelso. "Serious side effects from immunizations are exceedingly rare. The risk of side effects from the vaccines is far outweighed by the risk of getting the diseases that the vaccines prevent."

Vaccines are among the safest and most effective medicines available, according to the National Coalition for Adult Immunizations.

"Immunizations are widely regarded as the greatest public health achievement of all time," stated Kelso. "Diseases which once ravaged thousands have been largely relegated to history due to the success of vaccines. In an era where polio has been eradicated and measles outbreaks are rare, some patients may think that immunizations are no longer required. But it is the very existence of immunizations that keep these diseases at bay, and keeping up to date on vaccinations is one of the easiest and surest ways to maintain health."

For military persons, information on immunizations is located at <http://www.anthrax.osd.mil/> and [March-April 2004](http://</p></div><div data-bbox=)

www.smallpox.army.mil/. Additional information on adult immunizations can be found at The National Immunization Program (NIP) of the Centers for Disease Control

and Prevention (CDC) at <http://www.cdc.gov/nip/default.htm>. □

Ms. Allen was formerly a Public Affairs Specialist at the Bureau of Medicine and Surgery, Washington, DC.

* * * * *

Fort Detrick Navy Command Celebrates 150 Years

Ann Duple

A sea of Navy blue filled the community room at the FSK Holiday Inn 3 November 2003, where the Naval Medical Logistics Command celebrated its 150th birthday.

Commanding officer CAPT Shari Kirshner hosted the event attended by many of the organization's 130 Sailors, civilians, and contractors. The honorees were former commanding officers—retired Captains Paul Truan, David Fisher, Terry Irgens, Thomas Defibaugh, and George Crittenden. VADM Michael Cowan, Surgeon General of the Navy and Chief of the Bureau of Medicine and Surgery was the keynote speaker. U.S. Army garrison commander COL John E. Ball presented a brief update on projects coming to Fort Detrick such as a new mini-mall and commissary.

VADM Cowan commended the command for their ability to get the right stuff to the right people to the right place. You have increased the flexibility and become lighter, faster and leveraged technology to move goods and services, he said. We have turned the corner on the way we do things.

Cowan pointed out that with the increasing tempo of conflicts since the end of the Cold War in 1989 there are many challenges ahead. We have done a lot but there is still much to do, he said.

CAPT Kirshner invited the former commanding officers to the stage where she cited the expertise each brought

to the command. Joking that the Navy takes up a small corner of the Army base, Kirshner presented Navy ball caps to each commander embossed with the dates of their assignments.

The ceremony included awards presented to a number of employees.

You come from good stock, said Cowan, you have the shoulders of these commanders to stand on. The strength of the U.S. military is to have the quality of people in the numbers we do.

Command Senior Chief Edlouie Ortega added, Our storekeepers, yeomen, operation specialists, and Supply Corps officers may not have known what they were getting into when they received their orders [to NMLC], but we believe there has been a mutual benefit. Their line experience has made us a more effective command and they are knowledgeable advocates for us when they return to the fleet.

The guests and participants viewed a film during the meal that highlighted the command's past, a history that began in 1853 when Congress authorized the Navy Department to build and equip a laboratory where medicines could be made for the Navy Medical Department. The lab was built at the Naval Medical Supply Depot in Brooklyn, NY. The depot provided medical logistics support during the Civil War, Spanish-American War, World Wars I and II, and the Korean War.

The organization moved to Philadelphia in 1965 and reorganized as the Naval Medical Materiel Support Command in 1973. In 1985 the command moved to Fort Detrick where it joined other medical materiel logistics organizations from the Army and Air Force.

In 1990, the name changed to the Naval Medical Logistics Command to reflect its mission of providing medical materials and support to over 300 ships, Navy medical facilities, and deployed Sailors and Marines. The command also stocks the Navy hospital ships, *Mercy* and *Comfort*, when they are activated. □

Ms. Duple is Editor for the Fort Detrick Standard, U.S. Army Garrison Public Affairs Office, Fort Detrick, MD.

I Sat on Lincoln's Bed

CDR Samuel Bookatz, USNR (Ret.)



LT Bookatz at work in the Lincoln Bedroom.

It was 17 July 1965. I had just come out of the office of the then Under Secretary of Commerce, Franklin D. Roosevelt, Jr., after presenting a portrait I did some 20 odd years before while I was assigned duty in the Lincoln Room of the White House. It was a portrait of VADM Ross T. McIntire, White House physician and Surgeon General of the Navy. I walked over to the Mall, through the park, and found myself again in the vicinity of the White House. I went over to the fence and reminisced.

It was spring in Washington, 1942, and the city was alive with excitement. I was a newly commissioned officer in the United States Navy and assigned to McIntire's office. The admiral was President Roosevelt's personal physician and friend. My assignment was to do portraits of leading dignitaries in the country. With the permission of the president, I was assigned the Lincoln Room as a studio, and from that historic room painted for approximately 1 year.

As I walked into the room carrying paints and canvas to set up my studio, I was stricken with the quiet serenity that prevailed. I walked around the room and examined every object, chair, book, looking for some-

thing and knowing not what. I felt a presence there and that presence remained with me during my entire stay. At first, it was quite difficult for me to work. I had a feeling that I was being watched continuously.

During this period, I found myself sketching and drawing bearded prophets, and to this day a large number of my drawings are lincolnesque in character. I sat in his chair. I sat on his bed. And I painted. Working here proved to be a vital source of constant inspiration. The Lincoln Room was located next door to Mrs. Eleanor Roosevelt's rooms where she worked with her secretary and, to my delight, visited my studio (the Lincoln Room) often. She was always willing to encourage me. We would also meet in the president's personal kitchen. A special place there was assigned me to wash my brushes. Mrs. Roosevelt would at times check the president's menu, and our accidental meetings there were always interesting and stimulating to me.

I did many paintings from this room and received inspiration for many more, but most of all I found a personal peace there that I shall never experience again. □

CDR Bookatz paints in his Georgetown studio, Washington, DC.

Operation Iraqi Freedom

A Surgeon's Perspective

CAPT Stephen F. McCartney, MC, USNR



Photos courtesy of author

Alpha Surgical Company, 1st Medical Battalion,
Camp Okinawa, Kuwait, March 2003.

During a sophomore medical school lecture I clearly recall being told that the only person who ever benefits from war is the surgeon. It sounded rather bold, masculine, and right up my alley since I had already decided to be a surgeon as early as junior college. I suppose that is why I have always remembered that comment for almost 30 years. Or maybe it was because the guy who

said it was a real geek. I could never quite reconcile where he came about that bit of treasured knowledge that only a macho surgeon should know. I'm still not sure about those particulars but I recently found myself as one of those surgeons mentioned.

Far from being a medical student, I was a 54-year-old vascular surgeon in the Navy practicing in San Diego. Since 11 September 2001, I had the

experience of serving on USS *Enterprise* (CVN-65) as she launched the first strikes into Afghanistan and most recently being deployed to Kuwait and Iraq for 5 months.

In January 2003 nearly 200 personnel from Naval Medical Center San Diego reported to the First Marine Expeditionary Force at Camp Pendleton for the purpose of providing surgical support to the large operational

combat force. Three general surgeons, one vascular surgeon, as well as two orthopedic surgeons, podiatrists, oral surgeons, and a gynecological specialist made up the corps surgical team. Nine non-surgical physicians as well as six dental officers, two psychologists, a psychiatrist, and a chaplain completed the team. Twenty-four nurses and more than a 100 corps staff and 32 Marines joined us as support. We left Camp Pendleton in early February and flew from March Air Force Base to Kuwait.

After several hours, we arrived in northern Kuwait at the logistical support area base called LSA Coyote near the Iraqi border. Fortunately, we had tents to stave off what was surprisingly cold weather, especially at night when we slept fully dressed. We had been issued 9mm Beretta side arms with ammunition, as well as flak jackets, Kevlar helmets, a variety of undergarments, mosquito netting, sleeping bags, and canteens.

By no means were we completely unprepared. We had been assigned to this platform long before and had trained for such desert operations. Two other surgical companies joined us and we became the Alpha, Bravo, and Charlie surgical companies, each given a specific surgical mission for the upcoming war. I was assigned as chief of the medical staff of Alpha Company, and we promptly unloaded 212,000 pounds of our gear from large metal shipping containers off flatbed trucks. In less than 24 hours we stood up what is known as a level 2 combat surgical hospital. This was my first sense that the essence of teamwork was going to be defined over and over again in this mission.

We received our first surgical case within hours of turning on the first 200kw generator. On one of our six

operating room tables, we saw two of the biggest peritonsillar abscesses we had ever drained. Within days, an errant M16 round shattered a leg, which required surgery. Within hours, we also diagnosed a case of acute appendicitis, and operated on the Marine. We fully engaged in providing surgical care to over 25,000 Marines and coalition forces in the only Navy hospital in Kuwait, seeing more than 900 patients and performing 24 surgeries even before the beginning of the war.

All the while, we conducted 24 mass casualty drills. The shrill whistle signaling incoming casualties was a common occurrence. We drilled for the smooth flow of severely wounded from the landing zone a half mile away all the way through the postoperative ward. These exercises emphasized all scenarios from dealing with retained ordnance, threatening POWs, chemical assault, compartment syndromes, and pulmonary emboli. Our camaraderie and confidence grew exponentially at Alpha Surgical Company. We would need every bit of it as 20 March arrived with a roar.

Operation Iraqi Freedom Begins

With no TV, usable phones, and internet and mail being non functional for the most part, we only knew what our intelligence briefs had confirmed. War was imminent. Convoys had been driving by Camp Okinawa (the 2-acre plot where Alpha Company was stood up) for 3 days without a break. Marine generals were dropping by for tours of our hospital more frequently. I believe it was for that last minute warm fuzzy of knowing we were ready for their soon to be bleeding Marines. I made sure we had enough type O blood on hand, our walking blood bank was ready to make

up for any shortfalls, and our anesthesia machines were stocked with enough Forane for unlimited use.

The night before the war started, we experienced the first of 36 scud missile attacks. These attacks sent us diving for cover into 8-foot-deep bunkers. So much to remember. Gas masks on, gas masks off when the all clear signal is given. Don't run in the pitch dark or you will find yourself impaled on an angulated tent stake aiming at your lower abdomen. Know the password of the day, or the sentry will shoot. Alpha Company fostered no misconceptions now, as Silkworm missiles impacted a few miles away. Our commanding general enlightened me that it took 123 seconds for a scud missile launched in Basra to impact at Alpha Company. My desire to appear in the know was slightly less than my desire not to terrify the company, so I never shared that bit of information until days later.

The next morning the first CH-46 helicopter arrived with several wounded onboard. One was an Iraqi officer with a large open defect behind his knee from an M16 round. He was white as a sheet and tachycardic, but I saw a clear save here if we could get some blood into him. Multiple IV attempts by the best of us failed. As we exposed the saphenous vein for cannulation, he arrested and died from prolonged hemorrhagic shock.

The same ambulance carried a Marine officer. He was dead, shot through the abdomen, with the round exiting his lower back. I had to enter the ambulance to record the injuries. I had seen plenty of dead, having trained in a trauma center. But this was a good guy, not some gang banger from an inner city neighborhood. It didn't quite fit. I noticed the quiet as he and I shared the inside of

the ambulance. I would feel this disconnect many times in the next few weeks.

C-130s joined the helicopters to bring in the wounded. It was controlled chaos. Calm determination described our hospital company. All were committed; all were somewhat numbed. No one complained; they just worked. They all had the same blank look on their faces. They all remembered the young officer. There was no more rationalizing, no more denials. This was war, and no one faltered.

We received a group of Marines and a Navy corpsman. All had leg injuries from landmines. The corpsman triggered a mine while running to the aid of one of his injured Marines. Their muscular legs were horrifically deformed and shredded. Under the tent lights, the shrapnel glistened and reflected from inside their wounds. The Marines were quietly answering questions, polite and dignified. Even their injuries and pain didn't keep them from saying "Yes ma'am, no ma'am" or "Yes sir, no sir."

The general surgeon met with the orthopedist for an ad hoc discussion about immediate amputation versus limb salvage in some of these cases. I had started this policy a few weeks earlier to ensure all amputations were deemed the best option with the agreement of at least two surgeons. Two Marines and the Navy corpsman left the resuscitation area for the OR. Their legs would have to be amputated.

Four hours earlier in southern Iraq, a rocket-propelled grenade (RPG) interrupted a smoke break in the cab of a 7-ton truck, hitting the three Marines inside. Two arrived with shrapnel in their eyes and necks but not serious enough to warrant immediate surgery. Their master sergeant had open head wounds, skull fractures, and was not

arousable. He was intubated. He went to surgery, bleeding profusely from the head and face. The OR team arrested the bleeding and, while still intubated, staff took him to a Blackhawk helicopter. He would see an Army neurosurgeon within 2 hours and undergo more surgery. Later, we heard he had survived.

A helicopter dropped off several Marines ambushed while taking an Iraqi surrender. Nine of their fellow "devil dogs" were dead.

An RPG killed a 26-year-old corpsman from our hospital. Many of the Alpha Company staff knew him from San Diego. He had two children and a wife. Alpha Company began to hurt, but the numbness quickly disappeared. It had to. There was more work to be done.

A friendly fire injury brought in more Marines. One escaped three burning vehicles, only to be badly injured by 30mm fire from our own A-10 Warthogs. His treatment included an exploratory lap, a colostomy, and debridement of buttock and flank wounds prior to being medevaced.

An Army soldier arrived after being shot through the left thigh; he had no pulses. I joked with him about checking for proper HMO authorization. He laughed loudly. His artery was grafted and regained its pulse. One hour after surgery, he was evacuated.

As we left for the OR, stretcher bearers lifted a Marine behind me for his journey to surgery. He looked down from the stretcher at the large puddle of blood underneath and apologized to the nurse for leaving a mess behind. He said his mother taught him always to clean up after himself. Looking at his face, it was clear it could not have been all that long ago. He appeared barely 18. I asked myself "Where do these young men come from? What makes them able to do this? How does

the Marine Corps find them amongst all others?" At this point I took my one and only trip to the "time out" box. I needed to take some deep breaths out in the cool night to regain composure before surgery. While this young man was losing his leg a Saddam Fedeyeen arrived. A very serious Marine stood over him with an M16.

Treatment for this enemy patient turned out to be uncomplicated. A Marine sharpshooter had previously placed a shot through his left eye which exited a large defect on the side of his head. I had a quick consultation with our Catholic Dominican chaplain and the patient was made comfortable. He arrived in "martyr's heaven" early in the morning while most of us were curled up on or under racks (cots), anywhere we could find them.

The incoming patients continued for 5 to 6 days. As the war moved north, and Bravo and Charlie surgical companies arrived in Iraq, our activity lessened.

From the "front" we received many walking wounded and some of those operated upon by our sister companies. The number of patients arriving with horrific injuries decreased, as did the unannounced arrival of dead soldiers and Marines. Emergency surgeries stopped almost as quickly as they started a week earlier.

Nevertheless, terrible weapons accidents, as well as some heart-breaking suicides still occurred. Tired young men crashed their trucks. No one wore seat belts as there was a morbid fear of being trapped after an RPG attack and not being able to exit the vehicles. Weapons at the ready are hard to use when confined by a seat belt.

Some personnel were just careless. In quiet rage, I noted their mangled bodies and considered how they made it through the war, only to die in an



All ambulatory and non-ambulatory patients were brought into scud bunkers. As many as nine incoming alerts occurred per day in the early phases of the war.

accident. Seeing the carnage still occurring after combat operations were over was very difficult for Alpha Company.

By late April, we thought free passes or "get out of jail free" cards should have been distributed. But it was not to be. Painful, albeit irregular, events plagued us. The Combat Stress Team and chaplains worked 24 hours a day, 7 days a week dealing with Alpha Company's many heroes. Even though the superlative performance of so many young people was remarkable, it was preposterous to think that anyone could get through this experience without serious emotional and spiritual wounds. Some had never seen a dead body, certainly not someone their own age. Many of us with children had to sort out what we had experienced and how these events might affect them. Over the years, the replays will become uninvited and unwelcome guests. And we will all have to deal with them.

Early on, we dealt with our feelings privately. Then small groups formed up to discuss things, in most cases indirectly. No one wanted to

awaken the sleeping monster yet, just whisper a bit and get some relief and sleep. One day, it seemed, we all had the same epiphany. We discussed things, and, since then, we haven't again spoken about the most painful events. There just wasn't anything else to say. Even now, I cannot describe the feelings, so it's best not to speak about it anymore. Perhaps later the words will come. I feel everyone's journey will be different.

The Iraqi People

In May I accompanied the commanding general, of "123 seconds" fame and assisted with medical affairs throughout Iraq and Kuwait. I was impressed by the infrastructure already in place. As opposed to Afghanistan, Iraq has much of what it needs. It just doesn't work. I saw the opulence of Saddam's palaces next to the harsh environs of his people. Children and teenagers jumped up and down on the streets happily when we drove by in convoy. Many adults looked at us blankly or with open hostility. Most of the Iraqis I interacted with are pleasant. The father of a severely in-

jured 12-year-old boy we cared for taught me much about the people and how they feel. This date farmer, who actually held an MBA, now loves the three Navy doctors who cared so much for his son, even though he was very angry and hostile in the first days. I couldn't blame him.

Perhaps nation building starts with the healing of people, one by one, heart by heart. I never wandered about alone when I was in their cities. I was always armed with a pistol and sometimes an M16. True, meaningful social interaction is sharply stunted when you dress like this. But it was essential in the towns near Baghdad. Interestingly, about the time you think they all want you dead, a few people will walk up, as they did to me and say, "Thank you America...thank you George Bush." I feel whoever gives them water, fuel, and electricity will always have their gratitude. They are very intelligent people, proud but dreamless, damaged by Saddam and other elements for so long. They love their children as we do ours. There are no great differences between moms and dads no matter where you live. The real future of Iraq, I believe, lies within the hearts of those kids jumping and dancing in the street. I hope they get a government that allows them the freedom to dream. I hope also that someday they will never forget the hundreds of young Marines, Sailors, and Soldiers who sacrificed their future and died in Iraq so these children could have those dreams fulfilled. □

Dr. McCartney is Group Surgeon, 3rd Force Service Support Group, Okinawa.

Project Windstorm

A Cold War Memoir

Part VII (Conclusion)

CAPT James Helsper, MC, USNR (Ret.)

It was a spanking new Douglas DC-6 with two gold stars on a blue field near the cockpit window. This signified the plane was carrying a two-star admiral, officially a rear admiral. The sun highlighted the gleaming silver of the plane. There were about a hundred people aboard, an unexpectedly large number, and most appeared to be civilians. (In order to accommodate all these guests, many MCB 3 men would have to be moved from the hangar building to sleep elsewhere and, in fact, some of them occupied empty patient beds in the Infirmary.)

We had no dress uniforms with us, so the uniform of the day was cleaned and pressed wool khaki pants and shirt with khaki hat cover, and the unattractive khaki jackets with the fake-fur liners. We were to wear our regular officer hat covers with khaki. The men were allowed to wear their fatigues. We were actually a grubby looking lot.

The admiral inspected the troops, after which we entered the hangar. The wind had increased with return of the almost sleet-like conditions that we referred to as mist. The admiral wore a uniform similar to ours, and the formalities were soon forgotten.

The scientists were anxious to see the work site as soon as possible. Our vehicles were limited, mostly trucks and a few jeeps; somehow they were all transported out there.

That evening there was a reception in the skipper's quarters, followed by a dinner. We learned there was a senior captain in the Medical Corps who was well versed in atomic energy and that he was the senior medical officer of the expedition. We were relieved to hear that before the bomb was exploded he would come to the

island and take charge. All our self-taught information was good knowledge, but we were grateful it wouldn't be entirely our responsibility.

The admiral asked to see the medical facilities, and I told him I would pick him up at 0800 in his quarters. The skipper had more important things to show him, but the admiral wanted to see the medical department first.

One thing we learned that evening was that our official designation was *Operation Windstorm*. At least we had a name, even if we couldn't tell anyone.

The following morning, in my best uniform, I picked up the admiral at the hangar and drove him to the infirmary. He seemed genuinely impressed and looked over the whole facility, congratulating us on our inventiveness. We decided not to tell him everything about the rats, only that we had eradicated them with rat poison.

The admiral asked if he might borrow my jeep. What can you do if an admiral asks to borrow your precious jeep? Give him the keys, of course! He went off to explore across the tundra and soon sank into the stuff up to the running boards. He tried to muscle it out of there with the four-wheel drive and the engine spinning at its maximum, which only made things worse. It wasn't long before he threw a rod and the engine stopped with an ominous clunk. He just made it back from the tundra. His pants were a mess, and he had lost one shoe (they were street shoes at that). I had the ambulance take him back to headquarters and we saw no more of him in the infirmary.

The guests stayed several days and sent off all kinds of messages. Finally, all but two or three trooped aboard the plane and it departed. Except for learning about the

chief medical officer and our official designation, Dick and I learned very little else. We tried to get more information out of the skipper, but nothing was forthcoming. We all returned to our regular duties.

The calendar said it was May, spring on Amchitka. The snow was mostly gone except on the island of Semisopchnoi, which we could see was still covered with snow. Spring flowers began to appear throughout our tundra and they almost made the place look good. The tundra was softer now, as the layer of permafrost went deeper and deeper. This caused each footprint to go up almost to the knee; it was dangerous to take hikes out in that stuff.

I decided to give it a try anyway, and drove a borrowed jeep out west to the end of the road. There was said to be a sea lion rookery on the northwest corner of the island which I wanted to see. This was well away from the work sites and what little civilization there was on the island.

I had brought along my pistol in its shiny new holster for protection against wild dogs and wolves. The tundra was as predicted and it was tough going. I crossed about a thousand yards to the rocky edge, where I could see and hear the sea pounding. As I climbed a little rise I could see hundreds of sea lions, absolutely huge animals, lolling around and barking at each other. They had no fear of me but I saw that someone had shot a huge sea lion right through the head, and another one was dead, with a knife still stuck in him. There were more than enough live ones still lying about, but who would do this, I wondered. It could only be one of our men. However, we never learned who had done it. It seemed to be part of the American psyche to *ihuntî* even without taking meat or booty from these animals. I was disappointed.

On the way back to the jeep I found a pile of stones 2 feet wide and about 5 feet in length. It looked like a grave. On one of the larger stones was a scratched sign written in what appeared to be Japanese. I picked off a few stones and found a human skeleton and the remains of a Japanese Army uniform. There was no sign of a dog tag. Our custom was to place one in the dead man's mouth and the matching one was sent to headquarters. Therefore the only evidence of who was buried here were bits of khaki uniform. I replaced the stones and tried to copy the sign onto a larger stone.

I returned to the jeep with great effort and was never so tired in my life. More than once I was tempted to lie down and rest out there on the tundra.

The weather showed signs of improving, and we actually saw the island of Semisopchnoi 2 whole days during the month of May. It still appeared as spooky and ominous as it ever did despite the bright sun and its mantle of snow.

One of the corpsmen at the infirmary said he was convinced that Moscow Molly and her broadcast radio were hidden on Semisopchnoi. He told me he had taken the circular antenna to obtain the maximum reception, and it always showed the antenna aimed at Semisopchnoi. I asked him how he could rule out the opposite heading coming from a ship or a submarine south of the island. He said he didn't know how to do that. I couldn't think of anything to further dissuade him of that thought, and the more I thought about it, the more logical it seemed. Surely someone in the communications section was working on the point of origin for these broadcasts but we were never given an explanation.

The wind relented a little, and there were times when it was a mere breeze. There was far less of the misting and much less downright rain. The men began to go outdoors without their parkas and wore baseball caps instead of the fur hats with earflaps.

Wildflowers covering the tundra were a welcome sight, carpeting the black dreary surface with a multi-hued blanket of color, which truly spruced up the island. Baby animals began to appear. There were little silver fox pups as well as baby seals. The sea otters were carrying babies on their tummies. Baby birds began chirping from under the eaves; some birds had even made their nests on the open tundra.

Although we had no idea where she came from, a tiny black kitten appeared one day on our doorstep. She was skinny, little more than a tiny ball of black fur. With the appearance of a saucer of milk, she took up residence in our hut. She turned out to be a much different animal than the usual house cats to which most of us were accustomed. She constantly hid under the furniture, and anyone who tried to pick her up was scratched, bitten, or both. She allowed no one to pet her. She did cry to go out when it was necessary, and would hide near the door to race back in whenever the door was opened. We never heard her purr. She was indeed, a wild cat.

In order to survive on the island with no human occupants for the past 5 years, the kitten's antecedents had to learn to defend themselves constantly from the other predators on the island. Those who didn't hide or defend themselves were all killed and possibly eaten. The few

who adapted to the attack mode were the survivors. Here was another vivid example of Darwin's law: "The survival of the fittest."

It would be interesting to see if the kitten would ever adapt to humans again, but we hoped we wouldn't be on the island long enough to find out.

The construction was going well at the work site. The men had dug or drilled 34 shafts, assumed to be for the monitoring equipment to measure the underground qualities of the blast. There was also one main shaft. Water, however, was always a problem. It was necessary to have pumps running constantly to keep the shafts reasonably dry.

With the improvement in the weather we could now have baseball and basketball. Teams were formed and became a regular league. There was plenty of exciting play. Good playing fields were not available on the tundra, so the activities were held on the runway with removable backstops and basketball hoops. There was a high degree of participation and much private gambling on the results.

Sick call had considerably reduced. The steam room was now mostly for the benefit of those men with muscle strains from the heavy physical work at the job site. Dick and I continued our self-taught instructions in the management of radiation sickness, something we both hoped we would never need. We continued to test the pencil dosimeters and the film dosimeters in our x-ray machines. We were satisfied they were reliable. These were only to document the amount of radiation received. We were more interested in preventing any radiation exposure in the first place.

We never knew, officially, if we had the bomb somewhere with us. Rumors were rampant among the men who claimed to know its hiding place. Our infirmary was one implied location. Another was a small hangar across the runway from the main hangar. We used this building for storage, but a bomb? No way. Common sense dictated that we did not have it. The bomb was much more likely to be shipped here for placement and detonation at the appropriate time.

Suddenly, our orders home arrived! We were ordered to stop all new construction and only to stabilize the work already done. We were to pack up everything for transport. We even had orders for a new job, to build a new runway at the Subic Bay naval base in the Philippines. The equipment installed everywhere throughout the island was all to be removed, crated, and brought with us.

This included our pride and joy, the infirmary. We got no explanation and no word on whether the original plans would go ahead under someone else. However, this seemed unlikely since we were taking everything with us.

The excitement was palpable. Everyone talked at once about what they would do when they got home. Rejoining wives and kids seemed to predominate, but others wanted to go to a real major league baseball game, or go for a swim in the warm ocean, or just to lie on the beach. These were expressed as innumber one's for many on their return.

The re-deployment to Subic Bay, a place in the sun, was met with eager anticipation. Dick and I told the men about Olongapo, just outside the naval base at Subic, where we medical officers were regularly advised of the rampant VD rates. We told them that the old antibiotics were not effective, and that new ones had to be used to cure the disease. This information didn't dampen their swaggering enthusiasm much. Their attitude was that everything was fair after a tour on Amchitka! It did, however, increase the requests for circumcision from some of the men, so Dick and I had another run of elective surgery. For several days we each operated on a half dozen cases daily.

The officers began to consider some of the possibilities for the cause of the cancellation. The first, of course, was that we weren't doing a good job. These men were proud of their work and rejected the idea that it was not adequate. The job was ahead of schedule and our recent inspection brought only accolades, particularly in view of the weather and isolation. This could not explain the cancellation.

Perhaps it was the intrusion of the probable Soviet submarine checking out our site and the regular harangues by Moscow Molly, who seemed to know so much about our activities. This gave rise to speculation that DOD had visualized an attack just prior to our firing of the bomb. Russian troops could be brought to the island in several submarines, could land and steal the bomb, and quickly disappear before a defense and counterattack could be mounted. Nothing could be worse than the Russians stealing our new H-bomb! Other equally wild stories were bandied about, but all were rejected in the clear light of day.

Another theory surfaced, that of a Russian spy already among us who was sharing our secrets with Moscow Molly and others. Therefore the whole battalion was tainted and not to be trusted with such an important event.



XX-27 CHARLIE a 14-kiloton device was dropped from a B-50 bomber on 30 October 1951 at Yucca Flat. The test, part of the Buster-Jangle series, was the eighth detonation at the Nevada Proving Grounds.

Some again considered that the Russians were secretly entrenched on Semisopochnoi.

All these theories were eventually discarded as plans moved forward to dismantle the base. Sick call was moved back into the hangar, as were all the men, so that everything could be crated and stacked by the dock.

Dick and I considered our personal options. At least here on Amchitka a surgeon was needed, and we could continue to sharpen our surgical skills. We both got a kick out of building and running our imini-hospital and we both enjoyed the surgery we were able to do there. We could see that the new duty would be strict sick call in the Philippines, with a nearby military hospital to take care of any surgical cases. The chances of professional advancement there seemed pretty remote.

We both decided to apply for transfers as soon as possible. We knew we would be accused of abandoning ship but our 2 years of surgical training would go to waste at the new duty station. My transfer request was approved. Dick's was not.

My orders finally came as Officer in Charge of Surgical Team #14 in Japan and Korea in support of the Marines fighting there. These surgical teams were the Navy

version of an Army MASH unit. Eventually, Dick requested transfer to the Air Force, where he was able to get into surgical training more quickly. Promotions were also easier there.

The transport ship arrived. It took 3 days to load everything aboard, since we were leaving with more than we had on arrival. The motor pool had two additional jeeps which had been found under the tundra. Amazingly, the mechanics had been able to get them running again. True, there were spots where metal had rusted through, and the upholstery was dilapidated, but the engines were spic and span, and ran like tops. There was no way the lost bulldozer could be recovered, and all attempts at this had failed. Archaeologists, a thousand years from now, would certainly wonder about this find.

Dick and I made one more run out to the dump. The carnage we had created there was ongoing. Dead rats and other carcasses were strewn about. We tried to locate iSea Otterî Jones, but his boat was nowhere to be seen. We assumed he had relocated over at Semisopochnoi because his captured sea otters were gone, as well as the cages.

The ship sailed with little fanfare but with many happy Seabees on board. The sea was calm and the trip was almost like a cruise. Men sunned themselves on deck as space permitted in between the heavy equipment.

We arrived in Port Hueneme without incident. Screaming and waving people covered the pier. A Navy band was playing, flags were waving, and welcome signs were everywhere! Electricity filled the air. We felt like returning heroes. Each line went over to the dock with a cheer from our men. Liberty would be for all but a skeleton crew. The gangplank went down, and with an excited cry the men began to disembark.

There was kissing and hugging everywhere. A little girl, about 3 years old, was screaming, iI want my Daddy! I want my Daddy!î Then she saw him and began screaming louder. He grabbed a rope and climbed over the side, almost falling into the sea. Someone threw him a line and he was able to swing over to the dock. The crowd screamed and applauded. He swept her up and smothered the little tot in kisses.

I could see Bonnie over to the side looking anxiously for Dick and, with a big iwhoop,î he found her. He, too,

almost jumped over the side without bothering with the gangplank.

I stood there wishing someone were there to meet me so I could join in the excitement, but that would come another day.

Postscript

Nuclear Testing After Windstorm

In 1913, by Executive Order, President William Howard Taft declared Amchitka part of the national wildlife refuge system, for protection of native birds and fur-bearing animals; however, this phrase was included: "I shall not interfere with the use of the island for lighthouse, military or naval purposes." This portion of the Executive Order was interpreted to allow military use of the island despite its designation as a National Wildlife Refuge.

During World War II Amchitka was used as a forward base to recapture the two Japanese-occupied Aleutian Islands, and to defend from an attack by Japanese forces crossing the land bridge to the continental United States via Alaska and Canada. Two runways were built during the war. Amchitka was used as a forward fighter-bomber base, with a total of 15,000 men (mostly Army) stationed there. In those days the Army Air Corps was a part of the Army. The Japanese had captured Kiska and Attu, further out the Aleutian chain. The Navy flew patrols with PBYS and The Army Air Corps flew P-38 Lightnings, as well as medium bombers.

To retake Kiska and Attu, an invasion was planned and executed, first taking Attu. This was a hard-fought battle against a heavily fortified and a determined enemy. Most of the Japanese were dug into caves, and only 28 prisoners were taken; the rest died in battle or committed suicide. At Kiska the combat landing found no enemy. The Japanese had secretly abandoned the island. This further illustrates the weather conditions in this ice box of the Pacific. To have an army slip away without being seen, while regular patrols were being flown, gives some idea of the visibility there. After the war, Amchitka was abandoned almost immediately. This was as we found it in January 1951.

The first discussions concerning the use of Amchitka for an underground nuclear blast were held in 1950. "Project Windstorm," the subject of this story, was carried out in 1951. It is quoted that the Department of Defense wanted information about crater formation potential from an atomic explosion. I believe that building a harbor along a solid coast with planned nuclear explo-

sions was also being considered. The original plans were to detonate two 20-kiloton devices, one on the surface and one in a shallow shaft.

According to a subsequent Greenpeace Report, the only reason given for the abandonment of our project was that the geological conditions were not found.

As we now know, the creation of damaging isotopes in large quantities was a far more dangerous result of shallow explosions, but this was never suggested as the reason for the cancellation in any of the material that I have been able to obtain through the Freedom of Information Act (FOIA).

What I have discovered from the FOIA reports, as well as official releases from the Department of Energy, "United States Nuclear Tests July 1945 through September 1992" (DOE/NV-209 Rev. 14 December 1994) is that two shots were fired on the test range in Nevada, probably the Project Windstorm replacement. Project Windstorm was originally a part of the Buster Jangle shots, which were weapons-related shots. All were fired at the Nevada Test Center. Able was detonated on a tower. Baker, Charlie, Dog, and Easy were airdrops. They were detonated from 22 October 1949 through 5 November 1951, and varied in yield from 0.1 kilotons to 31 kilotons.

More importantly, Operation Ranger, which was conducted earlier at the Nevada Test Center (27 January 1951 through 6 February 1951), also included weapons-related devices detonated at the Nevada Test Center. The first shot had only a 1-kiloton yield, and two others were at 8-kiloton yield, proving that lower yield bombs could be made. It could have been concluded that the minimum 20-kiloton yield was no longer the smallest blast that could be detonated.

Since we sailed from Port Hueneme early in January of 1951, it must have become clear that a smaller bomb could be made safely, and that an underground bomb was feasible in the continental United States. Therefore, our little adventure to Amchitka was no longer necessary. The wheels of government grind extremely slowly, and thus the project was not canceled until June.

As the Cold War heated up, Amchitka became the site of a distant early warning radar site (DEW line) and also the White Alice communications site. The latter involved 10-story-high radio towers requiring tremendous power to bounce radio waves off the troposphere in order to obtain reliable communications.

After our atomic firing was cancelled and the first underground explosion took place at the test facility north of



XX-29 EASY part of Operation Buster was a 31-kiloton weapons related device fired 5 November 1951 at the Nevada Test Site.

Las Vegas, some felt Nevada had been selected only after the Soviets demonstrated that underground testing was possible without monstrous damage to the site.

It wasn't until 1964 that DOD and AEC decided that a remote site should be selected to detonate more test devices, and they again zeroed in on Amchitka. By this time the size of the bombs had grown progressively larger, and the specter of having significant nuclear fallout over populated areas was increasingly feared, especially in the Las Vegas area. The original secret plans were called Vela Uniform, and the test was to investigate whether the U.S. was capable of detecting Soviet nuclear explosions. It was thought their tests had been moved from the usual test facility (in central Russia) and were now being conducted close to the far eastern border, nearer the Aleutians and Amchitka.

The first underground event was to be managed by DOD. It was called Long Shot, an 80-kiloton blast buried 2,300 feet below ground. It was exploded 29 October 1965, and it registered 5.75 on the Richter scale (the measurement of earthquake activity). The next blast was called Milrow, fired on 2 October 1969; it was a calibration blast fired 4,000 feet below the surface to determine if a much larger blast could be fired safely. This bomb was exploded to test an island, not a weapon. The yield

was about 1 megaton (1,000 kilotons). The Milrow event was readily seen on the surface and caused several small earthquakes. A number of bluffs surrounding Amchitka fell into the sea.

The final blast was to test the nuclear warhead of the Spartan antiballistic missile, a defensive weapon designed to intercept incoming missiles aimed at the continental United States from enemy territory. This event was called Cannikin, and was fired 6,000 feet below the surface on 6 November 1971, yielding 5 megatons (in equivalent TNT explosions). This represented 14 percent of the total of all 730 underground nuclear tests fired to date. A truly giant explosion, it registered 7.0 on the Richter scale and created a huge subsidence crater, greater than a mile and a half wide and 60 feet deep. A recently declassified video of the explosion shows the ocean boiling up several hundred miles off shore, as well as the complete draining of a large lake, which then revealed a large crack in the lake bottom.

A determined group of environmental protectionists, in an 80-foot halibut seiner, sailed from Vancouver, British Columbia toward Amchitka, hoping to abort the nuclear test by their presence. The U.S. Coast Guard turned them away and they never made it to the island. This group founded Greenpeace, an organization dedicated to preserving the environment in a peaceful and non-violent manner and, through the years, its members have continued to call attention to those abusing the environment. They now number over 3 million members worldwide.

According to Greenpeace, a total of 23 bodies of sea otters were found after Cannikin, despite the depth of the explosion below the surface. However, a marked reduction was noted in the population of sea otters, as compared with the population prior to the blast, indicating that many more were lost at sea. The explosion also seriously diminished the population of other animals and birds. □

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Medicine for Marines

Navy Medicine with the United States Marine Corps at Okinawa and Inchon

Part II - Inchon

ENS George L. Cowan, MC, USN

At 0400 on 25 June 1950, the Korean War began without warning. Seven divisions of North Korean troops raced southward across the 38th parallel, sweeping aside Republic of Korea (ROK) troops. The non-Communist world was caught completely by surprise. (1)

U.S. Army troops rushed from their occupation duties in Japan to the Korean peninsula to aid the ROK forces. With outdated weapons and little more than peacetime occupation force training, they could only provide delaying actions against the North Korean People's Army (NKPA). The NKPA was second only to the Soviet Army itself in the spring of 1950, as the best armed and equipped military force of its size in the Far East. (2)

Pushing southward, the ROK and U.S. Army troops found themselves backed into an extended perimeter around the South Korean port of Pusan. Joined by the 1st Provisional Marine Brigade in early August, these forces deterred the NKPA from crossing the Naktong River and prevented the expulsion of the allied troops from the Korean peninsula.

U.S. and ROK forces faced a desperate situation and stood a good chance of losing the entire Korean peninsula to the communists. A bold and decisive maneuver was needed quickly. Recognizing the extended nature of the communist thrust down the peninsula, GEN MacArthur and his staff conceived a daring plan to cut the NKPA



Invasion of Inchon, Korea. Four LSTs unload men and equipment on beach. Three of the LSTs shown are LST-611, LST-745, and LST-715. 15 September 1950.

Photos from BUMED Archives

supply lines in half and strand the enemy by landing at the western port of Inchon. This western approach and landing at Inchon was first officially proposed at a military planning conference in Tokyo on 4 July 1950. (3) Code-named BLUEHEARTS, MacArthur's initial plan called for a Marine Reconnaissance Combat Team (RCT) and an Army assault force primarily made up of the 1st Cavalry Division.

Six days later, MacArthur met with Marine LGEN Lemuel C. Shepherd, Jr., Commanding General, Fleet Marine Force, Pacific, who had flown from Hawaii to see how the situation in Korea was developing. MacArthur spoke wistfully of the 1st Marine Division (MARDIV), and recalled their performance in World War II. Shepherd immediately offered the 1st MARDIV and promised its availability by mid-September. MacArthur eagerly accepted the offer of a ready-made amphibious assault force. BLUEHEARTS was canceled and the 1st MARDIV was scheduled to make an assault, code-named CHROMED, on 15 September, less than 68 days away.(4)

The medical staff for the 1st MARDIV in July of 1950 did not have the luxury of time or experience as their predecessors had only 5 years earlier. Hurriedly assembled at Camp Pendleton as part of the 1st Provisional Marine Brigade, 14 Navy doctors, 2 dental officers, 1 Medical Service Corps officer, and 154 hospital corpsmen and dental technicians left for Korea on 14 July 1950.(5)

The medics were not going to have an easy time. Of their entire medical complement, only 60 percent of the corpsmen had any part of field training and among the medical officers, only the Brigade Surgeon, CAPT Eugene R. Hering, Jr., MC, had been in combat with Marines.

While two doctors had been assigned with the 1st MARDIV, their training was minimal. None of the other doctors, abruptly called into uniform from civilian life, had seen any appreciable military service.(6) The unpublished Medical Department Log understates the sentiments of the medical staff, *‘The Brigade was trained, equipped, and destined for employment in amphibious assault warfare. Destiny, however, is fickle; perhaps as fickle as the reports of field training routinely submitted while an organization is bivouaced [sic] in the U.S.’*(7) (Emphasis added)

The transit to Korea was a slow 2 weeks. Only minimal training and classroom lectures on field operations could be given. The medical staff was occupied with insuring inoculations against cholera, typhus, cowpox, and tetanus. While few medical emergencies appeared during the transit (an emergency appendectomy and a traumatic arm amputation), dealing with a standard fare of pneumonitis, pediculi infestations, and *mal-de-mare* [sic] were more common for the medics’ daily routines.(8)

As the Marines neared Pusan on 2 August, BGEN E.A. Craig, USMC, briefed the staff after dinner. He

spoke plainly about conditions ashore and the desperate situation they were facing. He was brief and to the point.

If I asked you gentlemen to be prepared to go into the field prepared for combat ten days from now, I know you would do it; if I asked you to do the same thing three days from now, I know you would do it; and, if I asked you to disembark your troops, unload your gear, and be prepared to go into the field at 0430 tomorrow morning, I know you can and will do it. Those, gentlemen, are your orders. Good luck and God bless you.(9)

The medical staff went ashore at Pusan with their Marines, and immediately went forward to assist in holding the appropriately named *‘Pusan Perimeter.’* As the Marines began fighting, the medical staff fought their own frustrations as they saved lives. Supply, communication, chain-of-command, vaccination problems, and a lack of training compounded the already strained staff’s efforts.

Our slender resources, designed for amphibious warfare, have been stretched and re-stretched so much that a major evacuation problem would be a disaster . . . the haul from the front lines to the hospital at Masan is now more than fifty miles of rough, winding road subject to ambush, mortar, and sniper fire. . . . The entire operation, from a medical standpoint, has been one of improvisation and make do and we have been barely able to keep our heads above water because of [a] relatively low casualty rate since leaving Chingdong-ni.(10)

On 15 August, at the Commanding General’s conference, CAPT Hering was forced to stress the very apparent need for a *‘more judicious employment of medical personnel’* by the Battalion’s commanding officers. On a percentage basis, the medical personnel had suffered *‘three times as many dead’* as the Marines.(11) The lack of appropriate training for combat medicine was showing among the medics.

Little did the medical staff know that the operational plans were already well under way for MacArthur’s envisioned landing of the 1st MARDIV at Inchon. CAPT Hering would get his wish for the familiarity of amphibious operations in just over 30 days.

The medical portion of planning for Operation CHROMED started on 28 August 1950, when CAPT Hering was assigned as Division Surgeon for the 1st MARDIV aboard USS *Mount McKinley* (AGC-7) in Tokyo.(12) Since the operation was now just over 2 weeks

away, the medical planning was limited to just the assault phase. Such planning was conditioned by the presence of a thirty foot tide which made traffic to and from the beach impossible except during high water intervals. . . . Consequently, there would be periods of from 8 to 10 hours during which it would be impossible to evacuate casualties. (13) As a result, one LSD (Landing Ship, Dock) involved in the northern landings at Green Beach was designated to receive casualties and remain in the area to provide medical care with an embarked surgical team. At Red Beach, where the seawall averaged a height of 9 feet, six LSTs were planned to beach themselves and remain on the mud flats until they could float again. (14) Of these, two were equipped as LST(H) and staffed with one surgical team each to provide for cases demanding immediate surgical treatment. (15) The other four LSTs each had a medical officer and 10 corpsmen on-board to provide supportive therapy. The southernmost point of assault, Blue Beach, was separated from the main channel at low tide by over 5,000 yards of mud flats. Therefore, all casualties not immediately evacuated were to be collected at a point near the beach and 10 ambulance boats were to be dispatched to that area on the next high tide. (16)

The 30-foot tide and extensive mud flats made casualty estimates difficult to anticipate. CAPT Hering and his staff assumed 500 casualties would be experienced in the assault phase and decided upon a rate of 20 percent casualties for the entire operation. The available whole blood on hand was 1,150 pints in theater with more available from Japan once an air link was established. (17)

The main components of the 1st MARDIV, fresh from the U.S., arrived in Kobe, Japan from 29 August to 3 September. (18) The 1st Provisional Brigade, still protecting Pusan, was slated to disestablish and join the larger division afloat as the amphibious task force neared Inchon. As D-Day rapidly approached, training was limited to informal lectures and quick instructions to newly acquired medical personnel about field medical support. A rehearsal landing was not possible.

To make matters worse, while loading supplies for the assault, Typhoon Jane hit the force in Kobe on 3 September with 74 mph winds. The docks and piers were covered with 2 feet of water, and one of the division's ships, with gear aboard, settled to the bottom at her berth. (19)

The dispersed forces, coming from Tokyo, Kobe, and Pusan in over 230 ships, set sail for Inchon during the first

2 weeks of September. Timing was of the essence, not only because of the tides at the objective, but also because another typhoon threatened the forces. With the aid of an ocean-going tug to help a transport with engine failure (20), the 1st MARDIV and the supporting forces were in place off Inchon harbor in time for the early morning assault on 15 September.

The 3rd Battalion, 5th Marines began landing on Green Beach at 0630. Eighteen casualties resulted from this action and were ably handled by the surgical team on the LSD; some were later transferred to USS *Mount McKinley*. (21) Eleven hours later, the 1st and 2nd Battalions, 5th Marines went ashore against the walls at Red Beach while elements of the 1st Marines landed at Blue Beach. The latter were not heavily opposed, but the main force attacking the breakwater walls had some stubborn opponents.

Landing on Red Beach at 1730 encountered relatively heavy fire and reported 250-300 casualties. Serious taken to two LST(H) and others to LSTs beached that had been augmented with medical personnel. . . . Summary of initial evacuation: Under circumstances, casualties well handled. However, had casualties been heavy on Blue Beach, the situation would have been disastrous. (22)

The 1st Medical Battalion landed on Red Beach on D+1 at 0530, earlier than planned. Despite the confusion, the medical staff was able to make a reconnaissance of the secured areas and found a site for the 1st Division Hospital about a mile east of the city: Two large school buildings, three stories high, very clean and with a large compound for vehicles and helicopter [sic] landing area. (23)

Casualties on D+1 were relatively light. These casualties were handled and evacuated across the beaches with the majority going to USS *Consolation*. (24)

With the beaches secured, the inevitable pile up of men and materiel ensued. As the unpublished log stated, . . . beaches a mess of dumped stores and equipment. Too many people have fingers in this pie and the resulting confusion is beautiful there is even a Rear Admiral in nice clean khaki adding to the uproar by taking personal charge. Yike! (25)

As Operation CHROMED shifted from the assault phase into the exploitation phase, casualties were relatively light. By 1400 on D+2 (17 September), the Division Hospital was ready to receive and furnish definitive surgical care to casualties. The word was passed to all for-



A tobacco warehouse burns in central Inchon as Marines of the 1st Division await orders to move against North Korean troops.

ward medical elements to change the evacuation route to the Division Hospital. (26) Additionally, a provisional hospital for the local population was established in a school. Several medical officers from the battalion, shore party, and beach party, along with some Army medical officers from an advance element of the 121st Evacuation Hospital, proceeded to set up the facility with 20 corpsmen. (27)

More medical support was able to move ashore as the Marines quickly advanced beyond Inchon. By D+4 (19 September), parts of the 7th Division of the U.S. Army joined in on the operation. Along with more personnel came confusion and refinement of the evacuation chain. Casualties experienced by the 1st Regiment of the Marine forces were to be sent to the Division Hospital by either ambulance or helicopter, while the 5th Regiment was directed to send their casualties to one of the medical companies (iCî Medical Company). Surpluses and patients who would not be able to return to duty within 10 days were either sent further on to USS *Consolation* or by immediate air (3 hours) to Japan. (28)

By the 7th day of the operation (22 September), the supply chain began to strengthen with regular airborne deliveries of litters, whole blood, and other minor items. But not everything went smoothly. As more Army resources came ashore, the Navy doctors and corpsmen became exasperated. The official reports mention, iThe

8th Regimental Surgeon was briefed in field medical support and evacuation routes, and vital supplies procured from the Division Medical Supply section. None of the Medical officers of this Regiment have had any training or experience in field medicine. (29) The unofficial report is much more elucidating in what actually happened between CAPT Hering, the Division Surgeon, and Dr. Burns, the 7th Regimental Surgeon with the Army.

At 1145 the Reg. Surg 7th (Burns) called, sounded very sharp and alert, however conversation was as follows:

Div Surg: iDoctor, have you had any training as a Reg. Surg.?i

Burns: iNo.i

Div Surg: iHave any of your medical officers received any training in field medical practice and/or tactics?i

Burns: iNo.i

Div Surg: iDo you have any equipment?i

Burns: iA little.i

Div Surg: iDo you have any idea of the nature of your job as Regimental Surgeon?i

Burns: iNot very much.i

Following this conversation, the Division Surgeon attempted to train over the telephone, an entire Regimental Medical Section. How bad can it get? The foregoing is not to be construed as a reflection on the medical officer concerned since the Division Surgeon believes he will make out alright [sic]. It does, however, constitute a condemnation of the policy of sending untrained personnel to the field to participate in a campaign that is vicious in nature and necessarily patterned along land warfare tactics and procedures. This policy has been the rule and not the exception since [the] original date of jumping off of the 1st ProvMar Brigade.(30)

The concern that probably elicited Hering's desperate attempt was not just for the Army, but also for his own Navy doctors and corpsmen. While replacement personnel began to steadily stream into the Inchon area to replace or augment the medical forces, they were uniformly lacking basic gear, training, records, or even simple experience in field medicine. (31) Lack of experience and capabilities to deal with the challenge of field medicine was noticeable and a hindrance. One Navy lieutenant was so ineffective as a doctor that he was eventually evacuated out of the operation. iBelieve this officer of little or no

value to medical department in any echelon. Has definite history and is making no conscious effort to enhance it or symptoms. Ward MO concurs. Recommend evacuation. (32)

As the operation continued, the casualty rates fluctuated. Although heavy, they were lower than anticipated. Whole blood availability and a continuously challenging evacuation system jury-rigged with resources from all available sources kept many Marines from dying. It is with a definite sense of pride that the author of the Medical Log notes on D+9 (24 September),

Medical situation: The 1st Marine Division has the only medical facilities ashore since D plus 2. We are now hospitalizing the following: 1st MARDIV; 7th Army Div; an ROK Regiment, and a battalion of the 187th Reg, 11th Airborne plus POWs and innumerable civilians. The X Corps has no facilities ashore nor will they have for several days. We are able to accomplish this because of and with aid of (1) USS Consolation for care of overflow from Div. Hosp. And front lines; (2) Excellent air evac facilities to Japan; (3) Assignment of about 8 officers from 1st Corps Evac facilities, and (4) Acquisition of three surgical teams from CTF-90. At present our hospitals consist of (1) Div Hospital at Inchon consisting of A and B Med. Coís; (2) Advance hospital facilities at Kumpo [sic] consisting of C and D Med Coís; and (3) 12 Med Officers at Hering General at Middle Girls School, Inchon. All definitive surgery that cannot be delayed is performed on Marine, Army, Navy, ROK, POW, and civilian casualties. Our supplies, which were planned for the 1st MARDIV, have had to be utilized for 2-1/2 Division and hordes of civilian casualties.(33)

Combat fatigue started to become evident as the second week of the drive towards Seoul continued. CAPT Hering spoke up to MGEN O.P. Smith, Commanding General of the 1st MARDIV:

The 5th Reg. had, in his opinion, reached the danger stage as far as combat operations were concerned. The number of dead and the continuous heavy casualties (particularly wounds of upper part of body and extremities) indicated that the troops had become extremely careless because of constant combat (fatigue). GEN Craig concurs with this opinion and plans are being formed to relieve 5th with elements of the 7th Marines.(34)

The Marines continued their push to Seoul. As they moved across the Han River, the medical companies kept pace while the evacuation chain lengthened. Additional hospital facilities were designated along the advance.

Around 1500 on 27 September, D+12, the 1st MARDIV raised the American colors over the Government House in Seoul. Fierce fighting continued but, by 1630, with the flag also raised over the Russian Consulate, the Battle for Seoul was over.(35)

However, medical operations were not. The Marineís Division Surgeon still had problems in his dealings with the 7th Regimental Surgeon. On 1 October, after making a 0400 call before dawn for immediate helicopter service which was limited to daylight operations only, the 7th Regimental Surgeon poured more oil onto an already hot fire.

At 1100 the 7th Reg Surg sent an urgent dispatch requesting one KD ambulance and two quarts of tincture of benzoin. Dispatch held up by foul-up in communications section and not delivered. CG FMF Pac inspecting and learned about it before Div Surg. - Hell raised - Hering in blue funk - everyone unhappy. Cause of it all - tincture of benzoin (emergency). My fat red American can! At 1500, Dr Burns 7th Reg called and requested additional ambulance service. Capt. Hering on phone and undoubtedly a connection blew out somewhere on the line.(36)

Despite these inter-service confrontations, the Inchon-Seoul operation was declared a success and concluded on 7 October. The Marines, along with their Navy doctors and corpsmen, began their withdrawal and re-embarked for another landing of an entirely different nature.

The Medical Annex to the Special Action Report lists the casualties for Operation CHROMED and the push to Seoul.(37)

Killed in Action	364
Died of Wounds	53
Died of Disease	1
Missing in Action	6
Wounded in Action	1961
Total casualties	2385

Compared to Operation ICEBERG at Okinawa, the medical personnel in CHROMED saw a few things differently as the operation came to an end. Using helicopters instead of fixed wing observation planes, airborne evacuation demonstrated its worth once again, but newer and unexpected problems arose. While over 164 casual-



U.S. Marines use scaling ladders to storm ashore during an amphibious invasion, Inchon, Korea, 15 September 1950.

ties used helicopters in their evacuation, difficulty was encountered in that many requests were made for this service by staff officers not qualified to judge the patient's condition and, as a result, many needless trips were made.⁽³⁸⁾ The helicopter needed to mature and so too did the operational understanding of how to employ them effectively as ambulances.

The jungle kits, desired in Okinawa, were also needed at Inchon. As the Marines noted 5 years earlier, there were never enough kits available. Although extensive fogging prevented any epidemics, almost without exception, units arrived in the Far East without insect control supplies such as insect repellent, louse powder, DDT of any variety, and dispensing equipment.⁽³⁹⁾ The only sanitary precaution available at Inchon, although dubious in value, was the use of lime around heads and urinals.

In Okinawa, a concerted effort to designate litter bearers was of great benefit to the evacuation chain. The lesson had been lost.

There is still no definite assignment of marine personnel for use as litter bearers from the front line to the battalion aid station The litter bearer problem is not a new one and, if an efficient evacuation system is to be maintained, concrete steps must be taken to insure that litter bearer personnel are included in the battalion organization and the Commanding Officers utilize them for that purpose.⁽⁴⁰⁾

The LST(H), a darling at Okinawa, was at best a make shift procedure[†] at Inchon. In this operation they functioned well to the limit of their personnel and equipment. However, . . . casualty care was hampered by the

confusion of loading.^{†(41)} Seeing some worth in them, the recommendation was made that a craft was needed to have a primary mission as an auxiliary hospital ship serving close in to shore with a deck for helicopter landings. USS *Consolation* would get her flight deck soon thereafter.

Of all the recommendations and learning points that came from both the Pusan and Inchon-Seoul operations, the lack of training for assigned medical personnel is the loudest and clearest complaint.

From a broad viewpoint, it is ridiculous to assume that medical officers and hospital corpsmen without indoctrination, experience, or physical conditioning can serve to the best of their capabilities in combat with an organization whose personnel have had months, if not years, of preparation. The observation is frequently made by the uninformed that they learn quickly in combat but this is frequently a costly education—both in the lives of the medical personnel themselves and the casualties for which they are responsible It is an absolute necessity that a school for medical officers and hospital corpsmen, embracing the techniques of medical support of an amphibious operation, be established and maintained during peacetime with a view of developing a reservoir within the Naval medical establishment which can be called upon in time of emergency such as the recent expansion of the 1st Marine Division to war-time strength.⁽⁴²⁾

Twenty-two years later, CAPT Hering's emphatic call for a dedicated military medical school would be realized. His endorsement is as valid today as it was 50 years ago.

The Inchon landing operations were over. Navy medical support for the Marines was essential, as it had been just 5 years earlier. The differences of the two operations made improvisation and adaptability key to both medical efforts. In essence, however, they were the same. United States Marines went forward, from the sea, into hostile combat environments, and U.S. Navy medical personnel were there.

Navy medicine continues to provide life-saving support for the Marine Corps in both hostile and benign environments. Today, as the Marines are called upon to fight and destroy those who would themselves destroy our way of life, Navy medicine stands by their side. When a Marine shouts "Corpsman!", a Navy medic answers the call.

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36. Op. Cit., (N. 7) 1 October 1950.

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40. *Ibid.*, p. 14

41. *Ibid.*, p. 14.

42. *Ibid.*, pp. 12-13. □

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MGEN O.P. Smith, USMC, congratulates CAPT Hering after he was presented with the Legion of Merit for exceptionally meritorious conduct in Korea.

Dr. Corydon Wassell

A Missionary for All Seasons

It is 29 April 1942. Anxious and despondent over ominous war news, Americans cling to their radios, seeking a glimmer of reassurance from the master of the Fire Side Chat, President Franklin Delano Roosevelt. His noble voice resonates with a tale of heroism in the Pacific, i. . . *I should like to tell you one or two stories about the men we have in our armed forces. . . .*

There is for instance, Dr. Corydon M. Wassell. He was a missionary, well known for his good works in China. He is a simple, modest, retiring man, nearly sixty years old, but he entered the service of his country and was commissioned a lieutenant commander in the Navy.

Dr. Wassell was assigned to duty in Java caring for wounded officers and men of the cruisers Houston and Marblehead which had been in heavy action in the Java seas.

When the Japanese advanced across the island, it was decided to evacuate as many of the wounded as possible to Australia. But about twelve of the men were so badly wounded that they could not be moved. Dr. Wassell remained with these men, knowing that he would be captured by the enemy. But he decided to make a desperate attempt to get the men out of Java. He asked each of them if he wished to take the chance, and every one agreed(1)

And so, into the proverbial belly of the beast walked Dr. Wassell.

What do we know about Corydon Wassell? He was born on the Fourth of July 1884 in Little Rock, AR. After



Photos from Wassell Collection, BUMED Archives

studying medicine at Johns Hopkins and the University of Arkansas, he practiced for 5 years in Tillar, AR, before dramatically shifting gears and moving to Wuchang, China. There he served as a missionary doctor at the General Hospital of the Episcopal Church. Like a champion marathon runner, his energy was boundless. He became fluent in Mandarin Chinese, and actually began teaching medical classes in that dialect. Wassell studied internal medicine, neurology, and parasitology, taught public health, and wrote extensively on encephalitis. As a researcher, he examined river-borne snails as a possible carrier of amoebic dysentery.

Corydon Wassell joined the U.S. Navy Reserve as a lieutenant in 1926. Although still in China performing his medical work, he witnessed the growing chaos as Chiang Kai Shek's armies clashed ever more frequently with Chinese warlords for control of the country. Realizing that his foreign mission was finally over now LT Corydon Wassell, MC, USNR, returned to the United States seeking new challenges.

At the peak of the Great Depression when the honest job and the greenback seemed to vanish into obscurity, Wassell volunteered for active duty in the Navy. His services were not accepted. Instead he joined the Civilian Conservation Corps (CCC) and served as camp surgeon in St. Charles, AR. His job was fighting malaria, and his background in parasitology and experience in China proved particularly valuable.(2)

On 11 September 1939, with Nazi aggression already a reality in Poland, LT Wassell once again requested active duty in the Navy. This time he was accepted. In his application he wrote, "[I am] willing to go any where for the duration or longer."(3) In October 1941, he was assigned to the Asiatic Fleet and scheduled to depart from San Francisco en route to Cavite in the Philippines on 7 December. Circumstances changed that destination to Java.

In early February 1942, injured Sailors from the battered heavy cruiser *Houston* (CA-30) disembarked at the wharf in Tjilatjap, Java and said goodbye to their shipmates who were departing for the Battle of the Java Sea. It was unclear what was a better choice—leaving Java or remaining on the island to convalesce as a giant and seemingly invincible Japanese force approached.

The *Houston* Sailors joined injured comrades from *Marblehead* (CL-12) at the hospital in Djokjakarta in the hills of southern Java. The ferocity of their recent naval combat plainly showed. Many suffered shrapnel and splinter wounds, burns, punctured lungs, and even blindness.(4)

Although most were in poor shape, they nevertheless were under the superlative care of Javanese and Dutch nurses, Dutch doctors, and an American with a thick Arkansas drawl. Decked out in an elephant hat, LCDR Corydon Wassell visited the Sailors twice daily. A serial smoker, he handed out the best psychological medicine he could give these men—cigarettes. But the smoke did not cloud his vision. He knew Java was not a safe place. The Japanese had taken Singapore on 15 February and had just overrun nearby Sumatra. An evacuation of Java had already taken place in the first week of February. The hospital, too, needed to be evacuated.

Wassell scoured the wharves for ships willing to take his patients on board. He found a submarine commander willing to take 10 or 12 ambulatory cases. A Navy oiler and a Dutch freighter took a few more of the walking cases. But there just weren't any takers for the nine stretcher cases. Wassell elected to stay with them at the hospital.

The Dutch physicians were now gone, and Wassell and a few of the nurses now operated the hospital. Frequent air raid sirens and nearby explosions interrupted the routine as the Japanese drew ever closer. "Just when our hopes had almost gone," Bob Whaley, one of Wassell's patients, recalled, "Dr. Wassell walked in and told us to get ready as quickly as we could. 'We've another chance to get out!' he said, 'and it's our last chance.'"(5) Wassell had arranged for his patients to hitch a ride on a British anti-aircraft convoy heading to the coast.

Could there still be a chance to get off the island? The answer rested with a small Dutch river boat anchored in port. *Janssens*, already crammed with 800 frantic passengers, was prepared to make its escape. Though the vessel's skipper at first refused to take aboard any more passengers, especially those unable to walk, Wassell convinced him otherwise and the stretcher cases and their loyal doctor were squeezed aboard.

Very early on, Japanese planes spotted the small, overcrowded ship. As Bob Whaley later recalled, "Everybody but three of us who couldn't walk scrambled below to get away from nine large bombers that were overhead. They went over. They didn't bother about our small tramp steamer. But [sic] a few hours later the planes flew over and machine gunned the ship and fired aircraft cannon and machine gun shells."(6) This strafing destroyed all the ship's lifeboats. The skipper maneuvered the stricken vessel into a small cove for cover and then announced he was going to make a run for Australia. This did little to calm the mass hysteria among the refugees. Dr. Wassell

polled his patients. Did they wish to continue on what appeared to be the bleakest of voyages? Even though many of these rundown Sailors had survived the tragic loss of *Houston*, sunk not long after leaving Java, they all chose to remain on board.

When the ship finally got underway through submarine infested waters, the ship's air raid sirens sounded again when a lookout mistook a large bird for a plane.

On the tenth day of the journey, a submarine appeared off the port beam, its presence threatening their hopes of a safe passage. The dark vessel continued to shadow them even when an Australian patrol bomber passed overhead and signaled *Janssens* for recognition. The mystery of why the aircraft had not attacked the submarine soon became clear. It was not Japanese, but an ally protecting the little ship from harm. (7) Dr. Wassell's flock of wounded Sailors had made it!

The story of Wassell and his men quickly leaked out of Australia and became prime fodder for propagandists. Writer James Hilton, known for such popular novels as

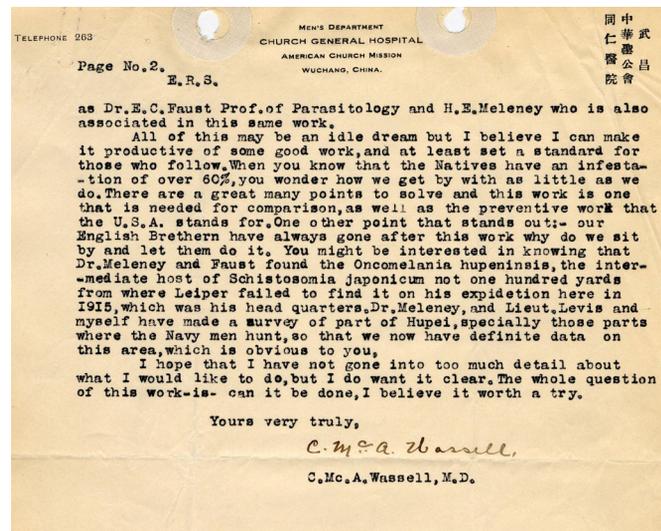
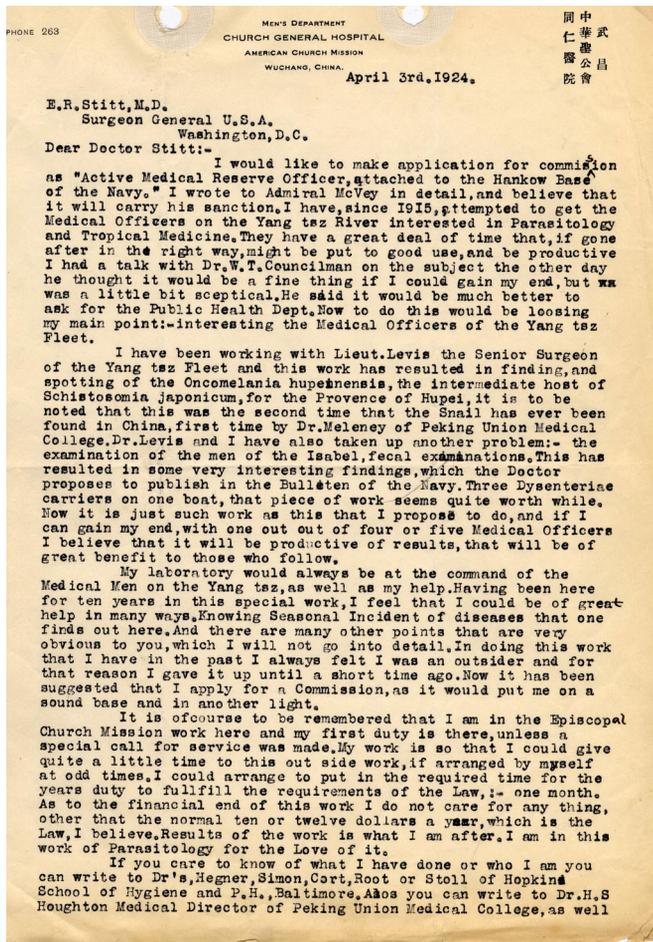
Goodbye, Mr. Chips and *Lost Horizon*, captured the doctor's saga in *The Story of Dr. Wassell*. The book soon became a motion picture directed by Cecil B. DeMille and starring Gary Cooper in the title role.

Today, Corydon Wassell has been eclipsed by the actor who portrayed him on screen. Yet 62 years ago, during the darkest days of World War II, a beleaguered president comforted a dispirited nation with the story of Dr. Wassell's Arkansas country doctor, missionary, Navy medical officer, and hero. His Navy Cross citation said it best. Corydon Wassell brought great credit upon himself and the United States Naval Service.†

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† Story by Andr  E. Sobocinski, Assistant Historian and Staff Writer for Navy Medicine, Bureau of Medicine and Surgery (M00H), Washington, DC.



Dr. Wassell believed his knowledge of parasitology would be of value to the Navy's operations in China. In this letter dated April 1924, he expresses his interest in applying for a Navy commission to Surgeon General Edward Stitt.

Shared Visions-New Pathways

JCAHO Launches New Survey Process

CAPT Wayne Z. McBride, MC, USN

Mention JCAHO in a roomful of Navy medical department personnel and the reactions will range from most people heading for the door while others simply groan or roll their eyes. There may be one or two who will listen with mild interest to what may follow. This scenario may overstate the negativity some associate with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

The perception by some people in healthcare, particularly physicians, has been that the triennial JCAHO survey process has lacked relevance, promoted burdensome administrative requirements that distract from care rendered to patients, and emphasized a narrow departmental, quality improvement focus. However, the introduction of a new survey process, Shared Visions-New Pathways, effective 1 January 2004, heralds a much welcomed change.

In launching their new survey process, the Joint Commission has taken an enormous step in transforming the accreditation process to one of interdepartmental, organization wide, continuous quality improvement. Particular features of the new process include: a focus on direct care, emphasizing issues most relevant to the specific organization, enhanced consistency in evaluation, and developing an atmosphere where organizations can use JCAHO standards as a guide for daily operations.

In describing the changes in the survey process, Russ Massaro, Executive Vice President for the Joint Commission, stated: "We're trying to help organizations make

participation in accreditation a continuous operational improvement exercise, and much less of a contest for scores. In that way, Shared Visions-New Pathways becomes a *service* instead of a *commodity*, and enables us to pursue the common mission of improving the quality and safety of care." (italics added)

The cornerstone of the new survey process is the Tracer Methodology, which is an evaluation method designed to uncover systems issues. A surveyor selects a patient and uses that individual's record as a roadmap to assess and evaluate an organization's compliance with selected standards and its systems of providing care and services. By tracing a patient's care processes throughout an organization, the surveyor will observe and talk to staff in the areas that the individual received care. This will yield an evaluation of the care provided by each department and how the components of the healthcare system interact with each other.

As the surveyor conducts the tracer, he or she will work with the organization to address any issues identified and will provide onsite education and guidance on how to improve. Identification of and improvement in systems issues directly contributes to an overall improvement in patient care.

Another change is that scores will no longer be given to the organization after the survey, nor will scores be provided in the final report. In the past, organizations have tended to overly focus on the scores, seeking to compare themselves against other organizations by the score alone.

Additionally, too frequently the aim of organizations has been to cram for the exam with the principal emphasis of seeking the highest score, without promoting lasting improvements in care processes. With Shared Visions-New Pathways, the intent is to create an atmosphere of continuous improvement for the benefit of the patients, and not simply to chase the best score.

Two additional tools or processes have recently been developed to assist organizations both to perform a self-assessment of their compliance with the standards, promoting continuous survey readiness, and to provide customization and consistency to the survey process.

The first is the Periodic Performance Review (PPR). The PPR is the process that supports the efforts of a hospital or ambulatory care facility to maintain continuous standards compliance while providing enhanced education. Using an electronic tool provided by the Joint Commission, a hospital or ambulatory care facility formally evaluates their compliance with standards at the midpoint of the accreditation cycle.

The PPR tool contains all applicable Joint Commission standards and elements of performance, all accreditation participation requirements, and the national patient safety goals. From the 15- through 18-month point of their 3-year accreditation cycle, the organization will be able to access the PPR tool from their secure, password protected website on the JCAHO extranet. During this 3-month period the hospital or ambulatory care facility will complete their PPR and submit it for review by JCAHO, all of which occurs via the extranet. For any standard identified as not compliant in the PPR, a plan of action is prepared, with a detailed description of how compliance will be attained for each standard.

Upon receipt of the completed PPR a telephone conference call is scheduled between the hospital or ambulatory care facility and the Joint Commission to review the results and approve the plans of action. Following approval of the PPR, the expectation is that the plans of action will be implemented so that the organization will have at least a 12-month track record of full compliance with all the standards, prior to the next triennial survey.

An accreditation decision will not be affected by the results of the PPR. However, failure to complete the PPR and submit it in a timely manner could affect a hospital's or ambulatory care facility's accreditation.

At the time of the next onsite survey visit, though an organization will be subject to all the standards, implementation of the measures of success, as described by the mid-cycle PPR, will also be assessed by the survey-

ors. Insufficient progress on measures of success at this time could result in a recommendation(s) and affect the accreditation decision.

Hospitals and ambulatory care facilities to be surveyed in or before June 2005 will not be required to complete the PPR. Organizations to be surveyed in July 2005 have been the first to receive and complete the PPR.

The Priority Focus Process (PFP) is the second new tool or process to accompany the new survey process. It provides surveyors with enhanced information and insight about a hospital before the onsite survey. The PFP converts pre-survey data into information that more clearly focuses survey activities and promotes customization and increased consistency in the accreditation process.

Using computerized logic, the PFP integrates the following presurvey data sources and recommends priority focus areas for the onsite survey:

- i ORYX Core Measure data
- i Previous survey findings or recommendations
- i Complaints submitted to JCAHO's Office of Quality Monitoring
- i Information from the application for accreditation
- i External data (e.g., Centers for Medicare and Medicaid Services' data)

The priority focus areas (PFAs) identified by the PFP are processes, systems, and structures in a healthcare organization that significantly impact safety and quality of care, treatment, and services. The PFAs also provide a consistent yet customized approach to providing an initial focus for the onsite survey process, especially throughout the tracer process. There are currently 14 PFAs, which include assessment and care/services, communication, infection control, and staffing, among others.

Early reports of the experiences of organizations with the new survey process have been very favorable, from both the surveyors and organizations. The Shared Visions-New Pathways will set the stage for organizations to maintain a higher level of continuous readiness, avoiding the too frequent ramp up that has occurred prior to previous surveys. Also, with the emphasis on patient care, the new process provides the framework for enhancing participation of the provider, as well as all staff, in the accreditation process. □

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Book Review

Chemical and Biological Warfare: A Comprehensive Survey for the Concerned Citizen by Eric Croddy with Clarisa Perez-Armendariz and John Hart. Copernicus Books, New York, NY. 336 pages. 2001.

Eric Croddy is a Senior Research Associate at the Monterey Institute of International Studies. His main focus has been chemical and biological warfare. His research has taken him to the Far East and former Soviet Union, and he has written extensively for *Jane's Intelligence Review*.

The author thoroughly examines the important chemical and biological weapons (CBW) available on the market and in the world's military arsenals. This is not an alarmist work but one that is balanced, talks about the risks, past use of CBWs, and what is being done to limit their proliferation.

The book opens with a discussion of CBW's strategic appeal. When compared with nuclear weapons, CBWs are a cheap deterrent option. However, the author is quick to point out the complexity it takes to weaponize anthrax and other agents. He focuses on the Middle East, where many nations have invested heavily in CBWs both as a means of countering a degradation in conventional forces and to help neutralize any potential Israeli nuclear advantage.

Croddy describes chemical weapons (CW) precursors, highlighting dual-use technology. For example, Thiodiglycol is used to process textiles, plastics, and even ink, but can also be used to manufacture mustard gas. Phosphorus pentasulfide is used as a lubricant and a pesticide but is also a key ingredient for the manufacture of the deadly VX gas.

The book also explains what is required to develop biological weapons (BW). Obtaining seed cultures as a basis to grow deadly toxins is amazingly easy. In 1998, two British journalists posing as Moroccan scientists found one firm in the Czech Republic willing to sell samples of botulism toxin for as little as \$25. He also points out that most research for medical and agricultural purposes also has a dual-use and can be applied to the manufacture of BW.

Chapter Two highlights those nations which have a CBW program, including, of course, the United States

and the former Soviet Union. However, among the nations of the Middle East, Iraq, despite continual denials, could not escape the confessions of the late defector LGEN Hussein Kamel, whose documents revealed an extensive program in botulinum toxin, anthrax, and *Clostridium perfringens* (gas gangrene). In 1989, tests were conducted which lead to weaponization of aerial bombs and warheads. There was also experimentation with spray tanks with a capability of holding 2,000 liters of anthrax.

Syria's pursuit of weapons of mass destruction began after its crushing defeat in the 1967 Six-day War. Damascus is reputed to have a robust CW program with the ability to fill Scud-C ballistic missiles with VX and Sarin nerve gas. The author feels the BW aspect of Syria's program is in its early developmental stages.

Egypt is a nation that actually deployed CW in 1963 with its war with Yemen. It has probably one of the oldest and more extensive CBW program with 13 biological agents either weaponized or under study for combat purposes.

The book touches on Israel, but little is known about that nation's capabilities.

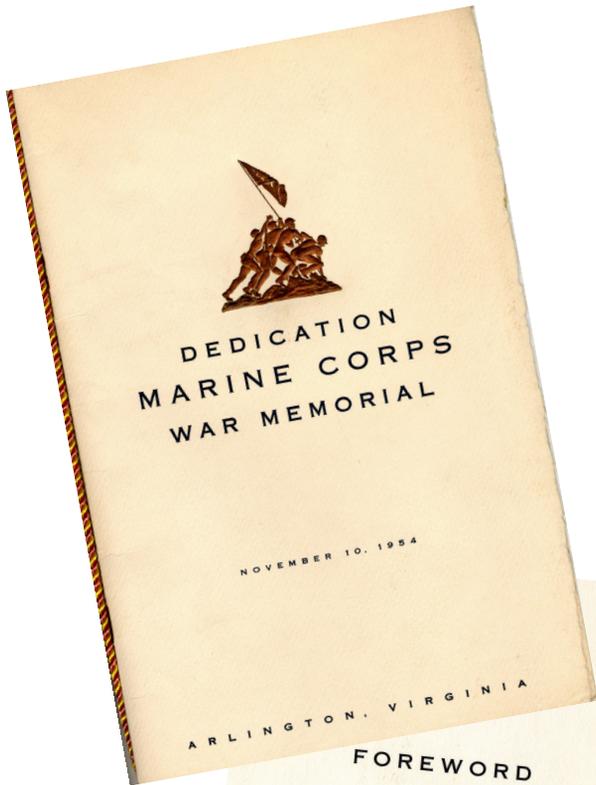
North Korea has 14 CW agents in its arsenal. Experimentation with BW agents began in 1968, and the manufacture of anthrax, cholera, and plague started in the 1980s.

Chapter Four is important for military clinicians and medics alike, as it focuses on over 50 CW agents and their symptoms. Chapter Seven does the same for 40 BW agents. Understanding the way these toxic agents work on human physiology is the first step toward effective treatment.

The book also surveys current vaccinations against CBW and those under research. Members of Navy medicine will find this volume worth reading, particularly those forward deployed or involved in disaster and emergency response. □

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Navy Medicine 1945, 1954



FOREWORD

Since the days of our country's birth, men of the United States Marine Corps have taken up arms to protect the freedoms which today light a troubled world with hope. To these Marines together with their comrades in arms of the other services who fell fighting with them, this Memorial is humbly dedicated. In the providence of God, it shall remain forever a monument to courage and valor for generations yet unborn.



BUMED Archives

Iwo Jima Memorial mementos from the BUMED Archives. Top: Original program from dedication. Left: First day cover commemorating 3 cent stamp which honored the flag-raising and participation of Pharmacist Mate John Bradley.