

Chapter Nineteen

Army Nurse Corps Activities in Combat Hospitals in Operation Desert Shield/ Operation Desert Storm

A total of 44 hospital units were operational in the Persian Gulf theater. The experiences the six presented here paint a picture of the contributions all Army Nurse Corps officers made during the campaign. Their collective experience can be extrapolated to the aggregate nursing force deployed to the desert.

The 47th Field Hospital (FH) was the first 44th Medical Brigade, XVIII Corps, hospital in the Gulf.¹ The main body of the unit deployed from its home base, Fort Sill, Oklahoma, on 27 August 1990 and settled on the island of Bahrain on “an absolutely barren piece of desert” some distance from the support of brigade headquarters. Daily temperatures topped out at 130° F, and the unit faced an immense task of establishing a field hospital in a primitive environment.²

“Setting up” a field hospital in the Gulf included not only erecting outer structures and functionally placing beds, supplies, and equipment, but also building floors to decrease sand encroachment, acquiring latrines and showers, building shelving for a variety of uses, building walkways, establishing living quarters, mess facilities, communications area, TOC [Tactical Operations Center], headquarters, preparing compound security, and other time consuming and labor intensive details. Those with carpentry skills and tools were much in demand. After building the basics, units went on to add personal touches like street signs, tent names, “veranda” chairs and swings.³

The hospital became operational on 5 September 1990, just nine days after its departure from its home station. When factoring in travel time, time differences, jet lag, fatigue, and logistical deficiencies, this deployment time was outstanding. The hospital opened with six intensive care unit (ICU) beds and two operating room tables. It was housed in two TEMPERs loaned to the 47th FH by the Air Force, and an Emergency Medical Treatment tent. From the earliest days the sister services helped the 47th FH, which had no organic support. Before the unit’s departure from the continental United States, Reynolds Army Community Hospital at Fort Sill lent a variety of equipment to the 47th FH, such as abdominal staple guns, monitors, and other instruments. In the Gulf, the U.S. Marine Corps

furnished the unit with fuel for their generators and vehicles. The 47th FH borrowed additional equipment from the local Bahrain Defense Forces hospital, the 82nd Airborne Division, and from the Navy's Fleet Hospital Six. In exchange for the bartered medical equipment, the 47th FH shared various pieces of its non-medical equipment. Reflecting on this arduous scavenger hunt for supplies and equipment, the chief nurse, Colonel Kathryn Deuster, remarked "there is no advantage in getting medical personnel to the theater of operation quickly, if they have nothing to work with when they get there."⁴

The 47th FH's personnel constantly improvised to provide care for their patients, but difficulties plagued the effort. The 44th Medical Brigade commander, Colonel Jerome Foust, was dissatisfied with the unit's level of military discipline and relieved the hospital commander when one member of the unit violated the ban on alcohol. Confusion existed about whether the 47th FH would remain assigned to the 44th Medical Brigade. On 15 December 1990, the 47th FH transferred out of 44th Medical Brigade's control and became assets of Echelons Above Corps, a decision that the 44th Medical Brigade opposed. The hospital then relocated to King Khalid Military City.⁵

Additionally, the 47th FH's issued equipment was Prepositioning of Material Configured to Unit Sets (POMCUS), a tent facility that had been in storage in Bahrain since 1968, but all involved judged the Vietnam-era POMCUS facility and equipment as unfamiliar, inadequate, and antiquated.⁶ Packing lists, for instance, did not match the supply containers' contents. The canvas tents and air mattresses had dry rot. Rubber components on equipment had dried up after years in non-air-conditioned storage. Very little in the way of blood pressure cuffs, stethoscopes, medicines, and monitoring equipment was included, but the condition and amount of linens, bedpans, and operating room tables were adequate.⁷ On a larger scale, the facility's environmental control units were unequal to dealing with the extremely hot, humid weather. Still, the nursing staff performed well. Cheney observed that they "needed frequent positive feedback from me regarding accomplishments. Because it was earned, it was always a pleasure to give."

The 47th FH nurses helped to establish and man the first Stress Treatment Facility in the Gulf to provide rest and relaxation for soldiers suffering from stress and coping problems so they could expeditiously return to duty.⁸ The soldiers, who were not considered to have a psychiatric disease, spent 72 hours in the program attending classes on anger management, stress control, and assertiveness. Group therapy sessions allowed for frustration venting and they built mutual group support. Sporting activities fostered team building and cohesion. Work therapy projects, such as filling sandbags or building bunkers, averted boredom, tested the soldiers' readiness to return to their units, provided anger relief, and furnished the hospital with much-needed protection. Major Dina Sine and Captain Imelda J. Weddington led the facility, which was staffed by the 47th FH nurses, an occupational therapist, and enlisted medics, but was situated nearby at the 28th Combat Support Hospital (CSH) across the causeway in Saudi Arabia.⁹ On 1 November 1990, a psychiatric team replaced the 47th FH personnel and praised the original

team's efforts.¹⁰ The program was a good example of the successes that nurses could achieve when the creative enthusiasm of junior officers and enlisted medics was coupled with the interest and support of the senior leadership.

Captain Linda Groetken, a 47th FH staff nurse, penned "One Day in the Life of a Staff Nurse," a depiction of an Army nurse's typical day in the Persian Gulf:

0500—Woke up . . . to see dawn emerging over the beach. Quietly I get up off my cot so I won't disturb the twelve other women that share this GP Medium tent. . . . eat some fruit . . . and enjoy the simple vista of white sand, white rock, blue sky and blue sea.

0600—Walked across to Med-Surg Ward #1. . . . Fourteen patients occupy the tent. One is going to surgery for an Open Reduction Internal Fixation of the right arm while two others are recovering from pneumonia. The rest are convalescing from knee surgery, low back pain, hernia repairs or gastroenteritis. . . .

0800—Send those convalescing . . . who can walk to . . . showers while we get basins for bed baths to the few remaining patients. I really appreciate the field surgical sink. Just press a lever and water comes out. . . .

0900—An IV infiltrates and it's time to start another. We've already made up an IV start tray, but, . . . no IV catheters. I find one with a two inch needle—the smallest I could find, but it does the trick. The order calls for a heparin lock, but, . . . we have none. . . . We do, however, have a box of extension tubing with no obvious requirement for them. A little innovative adaptation and an extension tube is transformed into a heparin lock. Thus we save a patient from hassle. . . .

1000—Gas alarm drill. We all don protective [gas] masks, . . . and wear them for 15 minutes. My optical inserts make it more difficult for me to see and my movements are as graceful as a gorilla. My nose itches and I scratch the voicemitter in a fruitless attempt to relieve it. I continue to work as usual. . . .

1200—I finish reporting off . . . and walk . . . to the mess hall for lunch.

1300—. . . Time for ADLs [activities of daily living]. First I take a load of laundry down to the showers. In the back are garbage cans where I wash my clothes, darks first, then whites. I jump in and stomp around to Billy Joel, my agitation cycle. Rinse twice, . . . then wring and hang on the clothes line. By this time I'm exhausted and vow I will never take my washer and dryer for granted again.

1430—Polished my boots as I catch a tan on my face and arms. This task is much easier in the heat and the sun as my polish is almost liquid and goes on very smoothly.

1530—Mail call! Great day! . . . I get a real haul: one package of books and two of various snacks. Now where to put it? Resolve some of this problem by promptly eating a package of cookies and sharing a canister of potato chips. The rest I store under my bed with some in the foot locker for those midnight snack attacks.

1600—The wind has died down somewhat. Time to sweep the bed, then the floor. I know it's an endless task, but, I feel better knowing I've rearranged the sand for the present.

1630—Formation and accountability. Yes, I am here. . . .

1700—Time for PT. I dress in the less than flattering PT uniform . . . I feel so light on my feet the

miles just fly by. A nice breeze off the beach keeps the sweat from drenching me.

1745—Time to shower. . . . The cool water feels so refreshing as it washes off a long day's sweat.

1900—Back up to supper—a real social occasion. Spaghetti tonight with parmesan cheese on the table.

2030—Back to the tent. Afraid I will have to miss the movie at the MWR [Morale, Welfare, Recreation] tent tonight—up early and will have to go to bed early so I can start another day. I write the day's events in my journal before I sleep—who knows, maybe someday I'll write an article about it or maybe even a book. . . .¹¹

Although her day was busy and filled with essential chores, Groetken was working a six-hour shift at this point during Operation Desert Shield/Operation Desert Storm (ODS). Deuster explained that duty schedules were modified according to circumstances, and the nursing staff only worked for as many duty hours as were necessary. At various times, this could be four-, six-, or eight-hour shifts. Every effort was made to give time off equitably. The supervisors routinely worked 12-hour shifts but were not compelled to be within the hospital for the entire shift. The supervisor did have to remain readily available, making frequent rounds, because many of the staff nurses were young and inexperienced and many did not carry medical-surgical nursing as their primary area of concentration.¹²

The 47th CSH was another hospital that deployed early to the desert. The Madigan Army Medical Center, Washington unit, received its alert notification for ODS on 10 August 1990. It deployed to the Persian Gulf in September 1990 and became operational within a few weeks. From October 1990 until January 1991, its 37 Army Nurse Corps officers staffed the 160-bed Medical unit, Self-contained, Transportable; Mobile Unit, Surgical Transportable (MUST) and provided combat service support to the 24th Infantry and the 1st Cavalry Division in Saudi Arabia.

Like many other units, the 47th CSH began its transformation into Deployable Medical System (DEPMEDS) equipment in December 1990 and, while in this state of flux, the unit managed to care for 3,261 ambulatory patients and 509 hospitalized patients, and also carried out 112 surgical cases, predominantly orthopedic and sports injuries, in its MUST facility. The majority of illnesses treated at this time were cases of asthma, dehydration, and diarrhea. The unit also provided care for a number of soldiers with flash burns that resulted from the use of improper fuel to burn latrine cans.

Once the ground war started, the 47th CSH's mission dramatically changed. It became a mobile surgical hospital with 24 intensive care beds, four operating rooms, and support services such as a pharmacy, radiology unit, blood bank, and laboratory. Its staff stabilized casualties, performed life- or limb-saving surgery, and evacuated the wounded to rear-echelon hospitals within the span of a few hours. Ordered to move north into Iraq, the unit endured a "bone-jarring, exhausting, 3-day convoy across the open desert riding and sleeping in the back of 5 ton trucks, through stand [sic] storms, rain, and winds up to 50 mph." On the evening



Standing left to right are Lieutenant Colonel Jeannette Zunino, Colonel Kathryn P. Deuster, Lieutenant Colonel Peggy Garifino, Lieutenant Colonel Carolyn Wier, Lieutenant Colonel Chantal Middleton, Lieutenant Colonel William Mathia, and Lieutenant Colonel Daniel Dolonar. Kneeling left to right are Major Dana Gruber and SFC Atkinson. All were staff of the 47th Field Hospital at Sheikh Isa Air Base in Bahrain.

Photo courtesy of Army Nurse Corps Archives, Office of Medical History, Falls Church, VA.

of 27 February 1991, they expeditiously erected their DEPMEDS equipment under blackout conditions and proceeded to care for Iraqi soldiers, wounded civilians, and a few American casualties. At the time of the cease-fire, the 47th CSH was the most forward deployed hospital, more than 100 miles into enemy territory.

After Desert Storm, the 47th CSH's chief nurse, Lieutenant Colonel Harvey O. Stowe, attributed the Department of Nursing's success to its resolution to assume a positive attitude and to take special pride in their responsibilities from the start. This led them to organize their wards for the highest efficiency and optimal patient care, a complex challenge in the austere environment of combat. Stowe believed that the fact that all the nurses came from the same medical center was important because it promoted cohesion based on established relationships not only among themselves but also with other professional staff. Additionally, the nurses who stayed behind at Madigan offered significant support in the form of letters and care packages that reminded those who had deployed that they remained a part of a home unit that was concerned for their welfare. Stowe also considered the strong emphasis placed on nursing education important. Two Army nurses prepared and organized a selection of classes that was presented throughout the mobilization

and in the final analysis enhanced the nurses' combat readiness. Their reaction to a loud explosion while in Iraq demonstrated the value of the instruction. One morning, the hospital shook after a tremendous blast. The nursing staff members automatically threw on their helmets and flak jackets and positioned their patients on the floor. Fortunately, the explosion was not from hostile fire, but it did demonstrate that the nurses had internalized the lessons of combat nursing.

The Department of Nursing philosophy, clearly articulated early in the deployment, also contributed to its positive outcomes. Based on the premise that staff members succeed when they fully understand expectations, the leadership promulgated a set of precepts to guide them and promote an atmosphere conducive to teamwork. These guiding principles stressed that constant, reflexive agreement and accord would likely stifle the group's processes of creative thinking. They warned the staff to say what they mean and mean what they say because rapidly identifying core questions in a combat setting was imperative. The guidance affirmed that the nurses were first and foremost there for the soldiers, who deserved dedicated respect and caring. Another injunction reminded nurses to care for their staff with compassion, concern, and determination. All Army nurses had to have the backbone to make judgments and stand by their decisions. Micromanagement was frowned upon, and leadership by example encouraged. Nurses planned for the worst and remained flexible, finding that this approach allowed them to handle almost constant change with only slight adjustments. The efficient and cohesive 47th CSH Department of Nursing achieved success by assiduously planning, training, and toiling to exceed expectations.¹³

The 85th Evacuation Hospital (EVAC), a Table of Organization and Equipment unit from Fort Lee, Virginia, also prepared to deploy to Saudi Arabia in late summer 1990. The unit predictably faced a series of challenges. Almost immediately, three distinct groups—the non-Fort Lee Professional Officer Filler System (PROFIS) officers who were billeted in an off-post motel, the Fort Lee PROFIS personnel who resided at their homes during the preparatory phase, and the permanently assigned Table of Organization and Equipment unit staff—failed to bond into a cohesive whole but instead remained as separate groups throughout the mobilization.¹⁴

The Department of Nursing's PROFIS chief nurse assumed leadership and responsibility from the garrison chief nurse, and the transition created some stress and strains. The two worked on a personal level to resolve differences, and the nursing staff adjusted to new leaders. Eventually, the strong nursing leadership and the fact that the Department of Nursing organized itself into its traditional structure—which all recognized, understood, and deemed effective—helped to cement relationships and diminish the group divisions, at least within the ranks of nursing.¹⁵

The 85th EVAC departed Fort Lee on 22 October 1990 and remained in Southwest Asia (SWA) until July 1991, distinguishing itself by its protracted, dedicated service. At the time of their deployment from Fort Lee, personnel were laden with web gear, canteens, gas masks, rucksacks, and duffle bags. They arrived in Saudi Arabia the next day, settling into Cement City, the site of a concrete fac-

tory and staging area 30 miles southwest of Dhahran, where they remained for 28 days. In Cement City, approximately 8,000 to 10,000 troops of all services bunked down while they waited for their equipment to become available and their sites to be prepared. Everyone was billeted in tents spread over 50 acres, and all slept on litters about six inches apart, with male, female, officer, and enlisted mixed throughout the complex. In Cement City, the nurses drank six to 10 liters of water daily to cope with the searing 130° F heat.¹⁶ They learned to adapt and live with “the environment, the unknown, the fears and the uncertainties. After surviving that for a month, the majority of personnel felt like they could handle anything . . . and did.”¹⁷

The 85th EVAC was under the 44th Medical Brigade, and the relationship between the two was strained, or as the official history put it, the relationship was “short lived but stormy.”¹⁸ The 85th EVAC believed the 44th Medical Brigade was unreasonably concerned with mundane details such as polished boots and keeping hat strings concealed. The 44th Medical Brigade also needlessly exasperated the 85th, contending it would have “to prove that DEPMEDS were highly mobile despite visual evidence to the contrary,” implying that the 85th EVAC would be moving frequently.¹⁹ The situation improved when the 62nd Medical Group arrived in theater, intervened between the command and subordinate unit, and appeared to have more realistic expectations. Nonetheless, a battle raged about who would control the 85th EVAC. The 44th Medical Brigade fell under the XVIII Airborne Corps, which reportedly did not want reserve units serving with them, and so they tried to retain the 85th EVAC, an active component unit. However in mid-December, the 85th EVAC was reassigned to Army Central and became an Echelons Above Corps asset.²⁰ Overall, the 85th EVAC approved of the realignment, although it believed that there were some drawbacks. From the 85th EVAC’s perspective, the change placed them under the command and control of the 173rd Medical Group, an Army reserve component unit, less familiar with Army ways and means and which, in the 85th EVAC’s view, seemingly had some bias in favor of reserve units. The 85th EVAC felt the 173rd Medical Group’s communications were slow and inadequate, forcing the 85th EVAC to utilize double reporting and develop its own collateral channels of communication, both formal and informal.²¹

A few weeks before the 85th EVAC became an asset of Army Central and the 173rd Medical Group, the unit moved to the King Abdul Aziz Air Base in Dhahran, where it remained.²² It took eight days to set up and became operational on 4 December 1990. Later that very day the 44th Medical Brigade ordered the 85th EVAC to tear down and move.²³ Morale plummeted. The thought of dismantling the DEPMEDS after so many days of hard labor constructing the facility cast a pall over the staff. One frustrated head nurse coped with the unwelcome news by walking and weeping that evening in the privacy of the desert.²⁴ Although the unit ultimately did not pull up stakes, the experience demoralized the staff; and repeated indications that a move was imminent, the rapidly changing strategic picture, the constantly circulating rumors, and an almost total lack of stability



This is the site of the 85th Evacuation Hospital's temporary encampment in Cement City southwest of Dhahran, Saudi Arabia in November 1990.

Photo courtesy of Lieutenant Colonel Brenna Aileo, Springville, PA.

further reduced unit esprit de corps and cohesiveness.²⁵

Attendance at religious services provided some solace for the nurses. On Christmas day, Major Brenna B. Aileo wrote that she attended midnight Mass and “the priest is very good. . . . His services are very uplifting, though many of us cry our way through them—men and women, it seems to be our real stress release.”²⁶

However, physical activities and preparations also helped to cope with stress. Colonel Linda Freeman, the unit's chief nurse, told about the nursing staff, both officer and enlisted, filling sand bags to protect themselves, because the hospital was situated 500 meters from a tactical airstrip. One day in early January 1991, her staff filled 21 pallets of sandbags and Freeman said that “my back knows it, my elbow knows it and now you know it.” She added that all nurses participated in the effort because they all wanted to create a safety buffer. However, Freeman revealed that she was “catching hell [from the nonnursing elements] but so be it. Only an idiot sits back and does nothing.” She revealed:

Anxiety levels are rising and the physical labor is also therapeutic. Dreams are becoming disturbing. Tempers are shortening. But everyone (nursing is pulling together and supporting each other) reminds each other to take it easy, cut folks some slack and hang together.²⁷

In these Desert Shield days, hospital census ran about 150 patients, with six to 10 surgeries per day. Although not normally a responsibility of an EVAC, Level I health care (sick call) saw more than 100 patients daily.²⁸ Surgical cases included nonemergent appendectomies and the incision and drainage of lesions under

anesthesia. One nurse noted that all the surgeons wanted to cut constantly. Doctors, she added, “are the same the world over.”²⁹ Although these routine procedures prepared and tested the system, they also depleted supplies and drained the personnel’s strength.³⁰ Unlike the patients in Vietnam, most of the 85th EVAC’s ICU patients were admitted with diagnoses such as chest pain, myocardial infarction, gastrointestinal bleeds, severe depression, seizure disorders, diabetes, and hypertension. The nurses questioned why patients with some of these conditions had not been screened or discovered before deployment.³¹ About half of the psychiatric patients were Vietnam veterans who had formerly repressed their combat experiences and were decompensating in the desert.³² In her study of the Army Medical Department’s personnel’s adaptation to combat during the Gulf War, Colonel Cynthia Gurney also noted that Vietnam veterans had difficulty adjusting. She attributed this surprising finding to the fact that their prior combat experience was 20 or more years in the past, in a very different type of war, and accompanied by a large measure of “negative baggage.”³³

Once the air campaign commenced on 16 January 1991, the 85th EVAC began taking the prophylaxis pills in the nerve agent blister packs. Numerous alert sirens blared and commanders repeatedly ordered soldiers to don Mission Oriented Protective Postures (MOPP) gear.³⁴ Nurses attired themselves and equipped and dressed all patients in MOPP. Freeman was proud of the way her staff supported patients and prevented any panic. “Everyone did their jobs beautifully. They were scared but really hung in there. People taking care of people.”³⁵

With the beginning of the ground war in February 1991, life for the nurses of the 85th EVAC became more dangerous. A prolific correspondent, Aileo shared her thoughts:

As the news may have told you a Saudi Air Base . . . is taking a lot of SCUD missiles [sic], well it’s us! The past week has been hell. Sirens going off mean mask then into full MOPP gear. We’ve seen the patriots fire from just behind our compound. It is frightening. Then we wait in full MOPP to see if more SCUDs are coming or gas or something else. Last night we had soldiers run into our tent yelling gas as they saw the Patriot fire—we all mask and fell to the ground as the BOOMS started. Since we’ve had SCUD alerts at all times we never feel safe. Of course it’s more often at night. Really awful.

I was at work @ 7:20 when there was a terrible explosion. We masked—helped pts [patients] mask, grabbed our MOPP and ran into the bunkers as the explosions rocked the tentage. We’ve taught pts [patients] to pull their EKG leads from the machine, pull their IVs [to remove their tethers and seek cover] and [don their] MOPP. All IV lines are hep [heparin] locked, so lines can be pulled quickly. No real nursing care can go on while in MOPP but reassurance.

. . . We’re working 48 hr weeks. 6–8 hr. shifts.

DEPMEDS—we have all HP [Hewlett Packard] monitors—they’re good—can do a 12 lead [EKG]. Only one pulse ox[imeter] per ICU. No Dynamaps [automatic blood pressure monitors], no IVACs/IMEDs [infusion pumps]. NG [nasogastric] and ET [endotracheal] suction, lighting, air conditioners and heaters are fine.

I washed used urinals, washbasins, bed pans today. Dried and put back on shelf. We haven’t gotten in more so must reuse!

. . . We have no warm water but have asked for 50–100 cup coffee urns to heat bath water, water to warm blood, etc. . . . We still haven't seen them arrive yet.

. . . Please spread the word—we do not need to hear about the stress WRAMC [Walter Reed Army Medical Center] folks are under. Everyone keeps telling us it's tense there and how awful things are—but at least you're all safe and with your families. We fear for our life 24 hours a day. 30–40% of us are sick from the pyridostigmine tabs [nerve gas antidote enhancer]. Plus we were all sick from the "secret" shot we had. We love everyone's letters—but.

We have a new diagnosis here. MOPP intolerance. Chest pain or SOB [shortness of breath] while in MOPP4, believe me we've had to AE [air evacuate] a number of folks because of it. Keeps us busy.

Oh, today we ran out of Rx pads—can you believe it. Yes supply is a problem.³⁶

The SCUD attacks continued intermittently and, on 25 February 1991, one of the notoriously inaccurate missiles finally hit a target, a Dhahran warehouse converted into a barracks building and occupied by U.S. reservists from Pennsylvania who were serving with Quartermaster and Transportation units. The explosion killed 28 soldiers and wounded about 260 others. Most of the wounded received treatment in five hospitals, among them the 85th EVAC and 207th EVAC.³⁷

Immediately following the lethal attack, the 85th EVAC headquarters activated a Mass Casualty (MASCAL) and the staff responded instantly. The hospital received 25 casualties, four mortally wounded—one who expired en route, two who were in the expectant category upon arrival, and another who died later during surgery in the operating room. Three of the 28 killed were female soldiers. The ICU worked with maximum efficiency, caring for six casualties on ventilators. However, two were weaned within 24 hours and two more were off their ventilators within 36 hours. Every ICU patient had chest tubes and, in one instance, four chest tubes were connected to one suction machine with yards of tubing and Y connectors. The chest injuries resulting from SCUD shrapnel typically were bubbling and sucking wounds. Other casualties had dreadful open bone fractures and some had burns.³⁸

After the SCUD attack, all the previous conflicts, personality issues, and power struggles were set aside.³⁹ The staff worked together to deal with their very serious mission. Freeman wrote:

You should have seen these kids work—they did it just like they had been taught and even though some of them were paying a really high personal price, they hung in and did beautifully. A specialist from the mess hall took it upon herself to supply [C]okes, coffee and soup to all of the areas—and she kept it coming! She is as much a hero as anyone else—and she stayed until the end. Laundry and bath went ahead and heated up the showers early . . . The 47th Medical Supply Command called and wanted to know what we needed—and then they delivered the supplies! . . . The docs really came through. No ego's [sic] and no tirades. One of the bad boys kept asking for a specific item and kept being told we didn't have it. Miracle—his response was if he had paid more attention to supplies and had spent less time being an ass then maybe he would have known what was available and what was not. . . .⁴⁰

The 85th EVAC finally returned home from the Arabian Peninsula on 26 July 1991. Its nine months in SWA were among the lengthiest of all the units' service.⁴¹



In January 1991, Major Brenna Aileo and her 85th Evacuation Hospital tentmates wait out an alert in MOPP4 gear in a bunker during Operation Desert Storm. Photo courtesy of Lieutenant Colonel Brenna Aileo, Springville, PA.

The 21st EVAC staged at Fort Hood, Texas, in June 1991 before deploying to Saudi Arabia to replace the 85th EVAC. At that time, Colonel Pam Burns, a Vietnam veteran, joined the unit as chief nurse from her previous assignment at William Beaumont Army Medical Center. For about a week, the PROFIS officers and Forces Command nurses assigned to the 21st EVAC prepared for their mobilization, picking up TA-50, attending briefings, having health records screened, and undergoing Soldier Readiness Processing.⁴² They arrived in Dhahran, Saudi Arabia, on a very hot Fourth of July in 1991.

Originally, the unit bunked down in Khobar Towers but later exchanged places in a piecemeal fashion with assorted elements of the 85th EVAC.⁴³ Those departing shared lessons learned during their extended stay in the Persian Gulf with the newcomers. For example, they discussed a variety of DEPMEDS idiosyncrasies and the means used to deal with them. As the longest deployed DEPMEDS, the 85th EVAC's facility provided testimony to the wear and tear on the equipment under conditions of heavy use in an extreme environment. Door and window zippers malfunctioned early in the mobilization, and plastic windows deteriorated over time. As the temperature soared to 135° F by mid-morning, large blocks of ice froze around the air conditioners. The fold-up sinks consistently leaked and



As seen here in January 1991, the nursing staff of the 85th Evacuation Hospital clothed patients in protective MOPP4 with every alert. When patients and nurses were in MOPP, patient care was at the very least awkward if not virtually impossible. The nurses wrote out and affixed patients' names with tape on their headgear for purposes of identification.

Photo courtesy of Lieutenant Colonel Brenna Aileo, Springville, PA.

required five-gallon water cans to catch the runoff. Litters with large wheels sooner or later tore gaping holes in the flooring and, when the rains came, streams of water coursed through the middle of the hospital. This presented a special hazard if patients needed to be defibrillated. To prevent rips and tears, the staff placed pallets beneath the flooring and, while this solved the problem, patients on litters endured rough rides, and snakes and other small desert animals found shelter in the subflooring.⁴⁴ Despite these circumstances, the experience for the 21st EVAC was generally upbeat. Permanent structures such as air-conditioned Quonset huts and trailers soon replaced the decaying DEPMEDS facilities, and the hospital had abundant supplies and equipment, mostly bequests from hastily departing units.⁴⁵

Captain Teresa Parsons' experience exemplified Army nurses' contributions and illustrated several issues relevant to deployed women. Parsons left her assignment at Fort Riley, Kansas, and she deployed as a PROFIS officer with the 21st EVAC in the summer of 1991. She joined the unit as a Women's Health Nurse Practitioner, although no authorization had previously existed in the Table



The 85th EVAC nurses respond to a mass casualty situation in February 1991 in the aftermath of the catastrophic SCUD disaster. At the time this photo was taken, the staff already had delivered one patient to the operating room and two others were being prepared for transfer to surgery. Photo courtesy of Lieutenant Colonel Brenna Aileo, Springville, PA.

of Organization and Equipment for such a specialized health care provider. Nonetheless, her assignment proved to be a wise move in this, the largest mobilization of women in history. Initially, Parsons diagnosed pregnancies and treated vaginitis and sexually transmitted diseases. She subsequently administered numerous repatriation physical examinations for returning reservists and dealt with a multitude of requests to substantiate previously undocumented anthrax immunizations.⁴⁶ She also handled myriad issues related to oral contraceptive use, such as breakthrough bleeding, mood changes, weight gain, unavailability of specific oral contraceptives for women whose predeployment supply had run out, and the need for annual Pap smears.⁴⁷

Parsons encountered large numbers of renal calculi (kidney stones) and constipation that developed as a result of chronic dehydration in both men and women soldiers. Women, in particular, did not drink enough water because there was no convenient way for them to use latrines. Taking off their Load Bearing Equipment with all its intricate web gear and suspenders and other accoutrements like their helmets and gas masks led them to conclude that using the latrine was a complicated, time-consuming endeavor to be delayed as long as possible.⁴⁸

As time passed, women appeared at Parsons' clinic requesting treatment for

venereal warts, and a number of them presented with abnormal pelvic findings such as possible ectopic pregnancies and abdominal masses. Parsons had access to a computed tomography scanner that interfaced via telemedicine to a Brooke Army Medical Center radiologist who efficiently provided her with diagnostic assistance within hours. Most of these women with life-threatening complaints such as ectopic pregnancies were air-evacuated to Germany for treatment.⁴⁹

Like Army nurses of yesteryear, Parsons used a number of field expedient measures to compensate for equipment inadequacies. She used an inverted bedpan for her first gynecological examinations. Later she delved into an unused operating room CONEX (Container Express, a large corrugated metal shipping container) and found an orthopedic table. She added stirrups and had an improvised gynecological examination table for the balance of her tour in SWA.⁵⁰

After a five-month tour in SWA, the 21st EVAC returned to the continental United States in December 1991. Parsons reported in to her new duty assignment at Fort Sill, Oklahoma, in January 1992.⁵¹

The 86th EVAC, garrisoned at Fort Campbell, Kentucky, received its alert orders to deploy in support of the 101st Airborne Division (Air Assault) in August 1990. Lieutenant Colonel Maureen Combs served as chief nurse and Major Kathleen Simpson filled the role of chief nurse, days. About 80 percent of the unit's complement of PROFIS nurses came from Blanchfield Army Community Hospital at Fort Campbell. The balance of what the chief nurse referred to as a very cohesive team derived from Eisenhower and Fitzsimons Army Medical Centers.

Almost half the 49 Army nurses who deployed were married and co-located with spouses assigned to the 101st Airborne Division.⁵² As the deployment progressed, the married and co-located group experienced constant anxiety. The most frightening concern was the dreadful possibility that their husbands could possibly arrive at their hospital as patients.⁵³ It was doubtless that these were continual fears, even when the units were in garrison.

In August, the Army nurses alerted for duty with the 86th EVAC implemented their family care plans. Because many of the primary and secondary schools would begin classes early in September, parents sent their children to their specified caregivers immediately. As a result of solid advance planning, no major problems ensued in carrying out the shift of parental authority, and the Fort Campbell families and friends who stayed behind were extremely supportive.⁵⁴

The nurses in the advance party, including Major Kathleen Simpson and Lieutenant Colonel Jean Purdom, departed from Fort Campbell on 21 October and arrived in Dhahran, Saudi Arabia, the next day. They settled in for 11 days in "horrible" Cement City, a staging area situated in a barren spot in the desert. The area was so devoid in resources that a nice piece of cardboard was viewed as a prized possession. The remaining complement, the main body, arrived in early November and settled in at the first of two locations, the King Fahd Airfield, where they were co-located with the 101st Airborne Division. When the main body arrived at this site, they found that Simpson and Purdom had set up their cots



Mail from family and friends at home brings a smile to Major Kathleen Simpson's face while she pauses in her small living space in Cement City in October 1990. The staff of the 86th Evacuation Hospital spent 11 days there before moving to King Fahd Airfield. Photo courtesy of Colonel Kathleen Simpson, Washington, NC.



The hot, dirty, group of Army nurses were happy to be returning to their compound after a mission to the desert filling sandbags. The women were (front row from left to right) Major Debra Mulhall, AN, Lieutenant Colonel Darla Ebert, AN, Major Cindy Davis, MS, Lieutenant Colonel Deborah Castell-an, AN, and Major Carolyn Adams, AN. In the back row, from left to right were Major Mary Glenn, AN, SP4 Stephen McKinney, AKA Skinny McKinney, the truck driver, and Lieutenant Colonel Jean Purdom, AN.

Photo courtesy of Lieutenant Colonel Carolyn Adams, Steilacoom, WA.

and embellished them with a four-star flourish, a mint candy, on the bedcovers.⁵⁵ Such attention to detail with a touch of whimsy greatly enhanced adaptation to the new, alien environment. During this time, the hospital ran a census of about 50 to 60 patients and treated about 75 ambulatory patients daily.⁵⁶ The hospitalized patients mainly presented with orthopedic conditions (predominantly sports injuries), gastroenteritis, abdominal pain, chest pain, and burns.⁵⁷

The nurses did not limit themselves to caring for patients, however. They helped to erect the hospital, set up beds, inflate air mattresses, and unload the MILVANs (containers for overseas or ground movement of military cargo).⁵⁸ They created shelf space, fashioned sharps boxes from taped-together bath basins, and con-



Senior Army nurses did double duty with kitchen responsibilities, Thanksgiving 1990, at the 86th Evacuation Hospital. The cadre of cooks included (left to right) Major Carolyn Adams, Major Mary Glenn, Lieutenant Colonel Deb Castellán, Lieutenant Colonel Jean Purdom, and Major Kathy Simpson. Photo courtesy of Colonel Kathleen Simpson, Washington, NC.

stantly cleaned and dusted in an effort to remove the ubiquitous sand. Two of the Army Nurse Corps officers, captains Michael Jorden and Raymond Bork, operated forklift trucks. The nurses also participated in company details, most notably filling sandbags. The exploits of one group were an expression of the excellent state of morale at that time.

We found the best sand for making sand bags was located off the compound at the sand dunes. The field grade female officers went together on a 5 ton truck to make sand bags. . . . They had fun making “beach” photos and sliding down the dunes. They became tired after a few minutes of filling, tying and lifting sand bags. LTC Jean Purdom led the group in singing Christmas Carols and the work seemed a lot more fun. A new version of “The Twelve Days of Christmas” was created to include the following “gifts”: 1—A hot shower in the morning, 2 near beers, 3 clean latrines, 4 temper tents, 5 MRE’s, 6 smiling nurses, 7 Saudis staring, 8 whoa⁵⁹ medics, 9 Hueys flying, 10 camels humping, 11 letters from home, 12 thousand filled sand bags. It needs to be noted that these same nurses found fun in doing KP on Thanksgiving Day while their company grade counterparts laughed their way through field sanitation duties. Major Simpson frequently reminded the nurses to never lose their sense of humor.⁶⁰

During off-duty times, the 86th EVAC nurses visited the 101st Airborne’s post exchange to shop and enjoy Baskin-Robbins ice cream. Upon occasion they rode in the back of a five-ton truck to Dhahran to shop at a larger Army and Air Force Exchange System and make phone calls back home. The nurses had to lug their



Lieutenant Colonel Jean Purdom (left), operating room nurse, and Major Kathleen Simpson, chief nurse, days, both serving with the 86th Evacuation Hospital in Saudi Arabia, patiently wait in line to use the telephones to call home.

Photo courtesy of Colonel Kathleen Simpson, Washington, NC.

Individual Chemical Equipment bag along on the half-day trip, so they were exhausted but exhilarated by the excursion, especially if their phone calls went through. Some failed to connect with loved ones at home when calls were unanswered or they got a busy signal, and this adversely affected their morale. If, however, the nurses were able to talk with their family within the first few weeks of their arrival in country, they were able “to calm down.” Sometimes while waiting in line at the phones at the sports center, an off-limits facility for females, Saudis ordered the Army nurses to leave.⁶¹

On 5 December 1990, the commander announced that the 86th EVAC would move to another new site, explaining that the change would place the hospital in a better position to care for the combat wounded. The main body thus relocated to King Khalid Military City on 20 December 1990. High winds and rainstorms that flooded the ICUs and a lack of equipment and supplies hampered the efforts to set up the hospital facility. The unit lacked Ambu bags and portable suction machines and had only four ventilators for a 48-bed ICU. The move also brought a new APO postal address and resultant mail difficulties that seriously impacted morale. Although some mail was forwarded and got through, it took up to two months for most letters and packages to reach the new location, and the problem never was satisfactorily



Pictured is Lieutenant Diane Bonnell deploying to Operation Desert Storm/Operation Desert Shield in November 1990.

Photo courtesy of Lieutenant Colonel Carolyn Adams, Steilacoom, WA.

resolved. Also affecting morale were the absence of a truck to clean out the latrine barrels, the lack of A rations, the restrictions placed on women leaving the compound without a male escort, the lack of sites for women to run or work out, and the noise of the Islam prayer call at 0500 hours.⁶² To raise spirits, the nursing leaders

aggressively addressed the need to constantly nurture one another.

With fighting imminent, the nurses were working 12-hour days six days a week, and the mood was more serious. All were constantly toting their Chemical Protective Overgarments, affectionately called “odor eaters,” Individual Chemical Equipment bag, and Kevlar, an enervating but necessary precaution. Frequent SCUD alerts forced all to wear MOPP4 regularly. Staff members in one of the ICUs were caring for a heavy, immobile stroke patient whom the nurses found difficult to get into MOPP and position on the safety of the floor. To simplify matters, they moved him to an air mattress on the floor. First Lieutenant Diane Bonnell, garbed in MOPP2, presented a classic, poignant picture that exemplified the *cando* spirit of Army nursing when she knelt on the floor and spoon-fed the patient, also in MOPP2, his breakfast of gelatin dessert. Other patients cared for in January 1991 were those involved in truck accidents and those with stomachaches, backaches, chest pain, and burns. Major Carolyn Adams, the 86th EVAC nurse historian, described January 1991 as a time the nurses “tried to find a healthy balance of caring for our current patients, planning for future MASCAL [Mass Casualty] situations and conserving our strength.”⁶³

During February 1991 the unit waited patiently for the ground war to begin, responded to SCUD alerts, amassed wartime stockages of supplies, and cared for a few patients. One of the most memorable patients was a British soldier with an arm amputation. Although his American Army nurses gave him state-of-the-art care, his buddies felt obliged to furnish a life-sized plywood “movie star”-type nurse named Nurse Pamela Goodbody to assist in his recovery. They also expressed their appreciation for the care provided by the Americans by treating the staff to a “royal dinner.” Another patient at this time was an Enemy Prisoner of War with a severe head injury who was not expected to live. The 86th nurses were touched because he wore a wedding band and mused that he “was somebody’s husband and probably somebody’s Daddy.” They assumed a very “caring attitude about this EPW [Enemy Prisoner of War].” Even though he was the enemy, he was briefly a patient “and someone’s loved one in Iraq.” To these nurses, a patient was a patient regardless of his past activities or military affiliation. With the cease-fire declared on 28 February, patient numbers dwindled and the unit began preparations for their return home.⁶⁴ The majority of the staff of the 86th EVAC had redeployed back to Fort Campbell by the end of April 1991.

In November 1990, the 50th General Hospital (GH), a U.S. Army Reserve unit headquartered at Fort Lawton in Seattle, Washington, with detachments in Tacoma, Bellingham, and Yakima, Washington, received its unit alert notification for ODS. The unit’s original 187 Army Nurse Corps officers organized to move from their home stations to the mobilization station, Fort Lewis, Washington, putting their personal, professional, and military lives in order. Simultaneously, a number of PROFIS nurses from across the country reported to the unit upon mobilization along with the chief nurse, Colonel Marcia M. Van Wagner. Van Wagner was new to the unit but blended in well and would prove willing and able to speak out for the nursing perspective and nursing’s concerns. The early weeks of mobilization



A handful of senior nursing leaders of the 50th GH pause for an impromptu photo session during their busy duty day in Riyadh, Saudi Arabia. From left to right are Lieutenant Colonel Marjorie Crowl, Chief, Surgical Nursing Section; Sergeant First Class Mary Wilson, Non-commissioned Officer in Charge; Lieutenant Colonel Diane D'Alessandro, assistant chief nurse; Colonel Jan Spane, Chief, Medical Nursing section; and Major Linda Schmidt, Night Supervisor, Medical Nursing Section. Photo courtesy of Colonel Marcia Van Wagner, Lincoln, CA.

were marked by “long tedious days full of anxiety and fear.”

The 3/9 Aviation Battalion sponsored the 50th GH at Fort Lewis. The battalion’s task was to shift the 50th from its peacetime mission to proper combat readiness.⁶⁵ For the unit’s predominantly older soldiers, the transition proved arduous and the dawn-to-dark days were filled with a plethora of training activities that eventually led to the unit’s validation for deployment.

Physical training was one of the most challenging aspects of the preparations. A diagnostic physical training test, inadvertently scheduled just after soldiers received a panel of deployment immunizations, was administered in inclement weather. The predictable results painted a dismal, inaccurate picture of the participants’ level of fitness and produced numerous traumatic injuries. Sporadic aerobic conditioning and strength-building exercises ensued and, in some cases, produced yet more sports injuries.

Following the primary marksmanship training, the activated reservists went to the firing range to qualify with the M16 rifle and the .45 pistol. The miserable weather and the “cold and damp fox holes and firing pits made the process seem to last an eternity BUT EVERYONE QUALIFIED.” Nuclear, Biological, and Chemical warfare classes focused on individual survival skills, maintenance and fitting of the protective mask, decontamination, MOPP protection, and the care of chemical casualties. A moment of truth occurred when the unit issued the nurses their decontamination kits with Mark I auto injectors and pyridostigmine tablets.⁶⁶ What had previously been a conversation piece with few personal implications



Colonel Marcia Van Wagner, chief nurse of the 50th GH, presided over a special Officers' Call in January 1991 in a hospital auditorium where morning report was held daily. Van Wagner scheduled these sessions when stress levels escalated. She disseminated accurate information and did her utmost to enhance esprit de corps.

Photo courtesy of Colonel Marcia Van Wagner, Lincoln, CA.

became a frightening and dangerous reality. Other educational topics covered in this period were field sanitation, Preparation for Overseas Movement, security measures, and driver's training.

While learning soldier's skills, the nurses simultaneously reviewed and expanded their professional education and in many cases taught classes on subjects such as Advanced Trauma Life Support, Advanced Cardiac Life Support, Basic

Cardiac Life Support, and clinical skills, such as the use of sterile technique, implementation of intravenous therapy, interpretation of arterial blood gases, care of tracheotomies, urinary catheterization, and placement and care of chest tubes. In the final phase of the preparatory process the unit integrated into Madigan Army Medical Center for two weeks to validate their hands-on patient care skills. Although this experience did not replicate the austere, danger-filled conditions they would face in theatre, it did affirm the staff's patient-care skills and bolster their confidence.

The unit's journey to SWA took place in three increments. The advance party departed on 1 January 1991, the main body left two weeks later, and the rear detachment concluded the unit's movement two weeks later. All mobilization assets were in the Persian Gulf by the end of January.

The unit's quarters were in Eskan Village, a walled city constructed for nomadic Bedouin tribes who had refused to accept the complex, judging it too small to house their large, extended families and flocks of goats, sheep, and camels. The village consisted of high-rise apartments with concrete walls, marble floors, high ceilings, and screened windows that offered views of a desolate, empty landscape. The apartments came without furniture, but the unit staff—extremely grateful not to be billeted in tents or foxholes—transformed their space with cardboard boxes and crates as makeshift furniture.⁶⁷

The 50th GH was an element of the 244th Medical Group and was an Echelons Above Corps unit. Its mission was to provide patient care for all allied forces, civilians, and Enemy Prisoners of War within a host nation facility, the 760-bed Riyadh Al Kharj Hospital. The nurses cared mainly for medical patients, those recovering from training and motor vehicle accidents, and some nonelective surgical cases such as appendectomies and hernia repairs. They worked 12-hour shifts and cooperated with their counterparts, local British civilian nurses, who in this situation were not allowed to do venipunctures, initiate intravenous therapy, or manage patients with the same level of autonomy enjoyed by American Army nurses. However, the British nurses' clinical judgment and skills were on a par with those of the American nurses. To upgrade the skills and knowledge of all, the Army nurses offered classes for both civilian and Army nurses on subjects such as epidural analgesia, chemical and warfare casualty care, shock, fracture management, care of head and spinal injuries, burn care, post-trauma response, Acute Respiratory Distress Syndrome, and Arabic language lessons. These presentations enhanced cultural understanding and cemented professional relationships.

The rituals of the Islam religion played a large part in the daily activities of the hospital and required some adjustments on the part of the nurses. A red arrow pointing to Mecca was painted on the ceiling of each hospital room, and the hospital's public address system announced prayer calls five times daily. During prayers, the Arab staff typically knelt in their stocking feet on a small prayer rug in a corner of the room and faced Mecca. They bowed, kissed the ground, and recited their prayers for a short interval. When prayers were said, staff returned to business as usual.

The firing of Patriot missiles and SCUD alerts also changed the nurses' daily lives. A Patriot missile battery and an airfield were located adjacent to the hospital and every day numerous aircraft took off or landed and missile launchings were frequent. The cacophonous roar of jet engines seemed a constant assault on the ears, and the fog of JP5, jet fuel, lingered persistently in the atmosphere, irritating eyes, making breathing difficult, and layering skin and clothing with a fine black soot. After the air war began, SCUD alerts were regular nightly occurrences between 0200 and 0400 hours. Nurses donned their MOPP gear, and fear, anxiety, hyperventilation, and panic were commonplace reactions. Soon, however, the alerts became routine, accepted events and often the nurses would retire to their beds for the night fully clad in MOPP4 to avoid the necessity to fully awaken and don the protective gear when the sirens blared.

With the onset of the ground war, everyone anticipated a rush of casualties, but patients failed to appear. Then, the 50th GH expected to be ordered to Kuwait but no such orders materialized. Instead, on 8 March 1991, Army authorities abruptly directed the unit to prepare to redeploy from SWA within 90 hours. After receiving departure orders, the nurses packed their gear, turned over their patients, and boarded an aircraft and flew home. Upon arrival at McChord Air Force Base, family, friends, and dignitaries greeted the unit with flowers, balloons, and welcome home signs. State troopers escorted the unit's buses the short distance down Interstate 5 to Fort Lewis with sirens blowing and lights flashing. Passing cars honked their horns. Demobilization processing took place at Fort Lewis and the soldiers rejoined their families and began to reacquaint themselves with the civilian reality they had left behind.⁶⁸

Those who were left behind also felt the effects of the war. Although they were safe from SCUDs and other hostile threats, they struggled with enemies of their own. Lieutenant Colonel Judy Nupen of Port Orchard, Washington, was a U.S. Army Reserve nurse and a wife and mother who activated with the 50th. At the time of her mobilization, Nupen had three young children—two daughters, five and three years old, and a four-month-old son. With her husband, a physicist employed by the Navy in Bremerton, Washington, she hastily arranged for a daytime nanny and began her stressful transition from civilian to military life. Nupen took several steps to mitigate the effects of the separation on her children. She recorded their favorite books on tape so the children could hear her voice while she was away. She created a calendar and noted certain days that the children would receive previously purchased mementos and toys from their mother. Nupen sent regular letters and gifts while in Saudi Arabia and telephoned at intervals. The phone calls, however, were a mixed blessing. On the one hand they were a comfort, yet on the other hand they exposed the children to the parents' troubles and travails.

Nupen's husband also made huge sacrifices. He stayed behind, working for an unsympathetic boss, losing sleep while caring for the baby at night, and worrying about his wife's safety in the line of fire. Despite having the best of child care, the children suffered too. One daughter, in particular, developed a stress-related

dermatitis and her speech regressed while Nupen was away.

While mulling over the apparent incongruities between her allegiance to family versus country, Nupen asserted that she had “signed on the dotted line all those years ago” and gave a promise to her country that she could not ignore, adding that as hard as leaving was, renegeing on her word would have proved even more difficult. With her safe return and the healing passage of time, Nupen and her family recovered from the trauma and once again enjoyed a normal family life.⁶⁹

Family separations—an inherent part of military life—always carry serious personal repercussions. ODS, however, saw a large number of women participants and unprecedented numbers of mothers separated from their children.⁷⁰ About 35,000 military women served in the Persian Gulf and made up approximately 7 percent of the U.S. forces there.⁷¹ Air Force Colonel Penny Pierce’s study investigating the emotional and physical health of U.S. Air Force women who served in ODS found that 45 percent of the women were parents. Her research revealed that those women who served in SWA more than 120 days suffered a significant decrease in self-esteem that perhaps, Pierce suggested, related in part to the participants’ parental roles and the effects of their separation from their children.⁷² Elisabetta Addis, an international researcher, posited that the military role is a greater challenge to women than to men because the female relationship to their children is unique.⁷³ This debate will no doubt continue as gender roles evolve.

The experiences of Army Nurse Corps officers who served in the Persian Gulf during ODS included some unique features and a number of familiar old refrains. The unprecedented components included the inhospitable desert milieu; the constant threat of chemical, biological, and/or radiological weapons with its attendant prevention and treatment implications; the introduction of complex technology and advanced equipment into the field setting; the ban on alcoholic beverages; the noteworthy numbers of wives and mothers on active service with all its familial repercussions; and the gender restrictions imposed on women soldiers by the indigenous Muslim culture. Predictable, expected combat circumstances involved the time-honored need for improvisation dictated by the dearth of supplies and equipment; the hurry up and wait framework; the significance of mail and communications from home; the spirit of camaraderie and teamwork during intense casualty situations; the longer, more extensive duty days; the effect exerted on morale by food and drink and living conditions; and the prevalence of more autonomous nursing practices. A blend of similar themes combining both the status quo of prior combat operations and the unique, unparalleled conditions of contemporary combat also manifested themselves in Europe, that—in ODS—represented the communications zone.

Notes

1. Ruth Cheney, "History of the 44th Medical Brigade Chief Nurse, Operations Desert Shield/Desert Storm," Printed Manuscript, 9, 7 June 1991, Cheney Collection, U.S. Army Medical Department Museum.

2. Kathryn P. Deuster, "Desert Shield/Desert Storm, 1990–1991, Afteraction Report," 4, 29 July 1991, Army Nurse Corps Collection (ANCC), Office of Medical History (OMH).

3. Ruth Cheney, "History of the 44th Medical Brigade Chief Nurse, Operations Desert Shield/Desert Storm," Printed Manuscript, 9, 7 June 1991, Cheney Collection, U.S. Army Medical Department Museum.

4. Kathryn P. Deuster, "Desert Shield/Desert Storm, 1990–1991, Afteraction Report," 4–6, 29 July 1991, ANCC, OMH.

5. Ruth Cheney, "History of the 44th Medical Brigade Chief Nurse, Operations Desert Shield/Desert Storm," Printed Manuscript, 12, 19, 7 June 1991, Cheney Collection, U.S. Army Medical Department Museum.

6. *Ibid.*, 9–10.

7. Kathryn P. Deuster, "Desert Shield/Desert Storm, 1990–1991, Afteraction Report," 5, 29 July 1991, ANCC, OMH. Logistical support was a problem for many units. United States General Accounting Office, "Operation Desert Storm, Full Army Medical Capability Not Achieved," GAO/NSAID-92-175, 2, 4, 30–39, August 1992.

8. Ruth Cheney, "History of the 44th Medical Brigade Chief Nurse, Operations Desert Shield/Desert Storm," Printed Manuscript, 9–10, 7 June 1991, Cheney Collection, U.S. Army Medical Department Museum. Kathryn P. Deuster, "Desert Shield/Desert Storm, 1990–1991, Afteraction Report," 8, 29 July 1991, ANCC, OMH.

9. First Lieutenant Frank Pascarelli was the occupational therapist. Army nurses involved in the program were Captain John Reynolds and first lieutenants Joe Reis and Lynette Van Beest. The enlisted staff included Staff Sergeant Stephen Henderson, sergeants Myrna Matos and Ruby Brown, and specialist Erick Laine. Imelda J. Weddington, "Stress Management Team Serves in Saudi," Flash from Nursing, 47th Field Hospital, Operation Desert Shield 1 (November 1990): 1, ANCC, OMH.

10. Imelda J. Weddington, "Stress Management Team Serves in Saudi," Flash from Nursing, 47th Field Hospital, Operation Desert Shield 1 (November 1990): 1, ANCC, OMH. Kathryn P. Deuster, "Nursing Historical Report/Afteraction Report on Operation Desert Shield/Storm," Memorandum for ARCENT Chief Nurse, 8, 17 July 1991, Smith

Collection, U.S. Army Medical Department Museum.

11. Linda Groetken, "One Day in the Life of a Staff Nurse," *Flash from Nursing*, 47th Field Hospital 1 (November 1990): 2–4, Smith Collection, U.S. Army Medical Department Museum.

12. Presumably their primary AOC preparation was as pediatric, obstetrics, psychiatric, or community health nurses. Kathryn P. Deuster, "Desert Shield/Desert Storm, 1990–1991, Afteraction Report," 7, 29 July 1991, ANCC, OMH.

13. Harvey O. Stowe, "Into Iraq, Nursing Organization in a Combat Support Hospital," *Journal of Nursing Administration* 22 (February 1992): 49–53.

14. "Memories of an 85th Evacuation Hospital Chief Nurse during the Persian Gulf War, Dhahran, Saudi Arabia, Letters from COL Linda Freeman," Appendix 2000, in Sharon Forman Bystran, 85th Evacuation Hospital, Phu Tanh Valley & Qui Nhon, South Vietnam, 1965–1966 (Crofton, MD: 1575 Eton Way, 1993), E-5. Linda Freeman, Interview by Patricia Wise, Transcript, 7, 29 March 1991, Army Nurse Corps Oral History Collection (ANCOHC), OMH.

15. "Memories of an 85th Evacuation Hospital Chief Nurse During the Persian Gulf War, Dhahran, Saudi Arabia, Letters from COL Linda Freeman," Appendix 2000, in Sharon Forman Bystran, 85th Evacuation Hospital, Phu Tanh Valley & Qui Nhon, South Vietnam, 1965–1966 (Crofton, MD: 1575 Eton Way, 1993), E-5. Linda Freeman to Sharon Bystran, Handwritten Letter, 28 October 1990; and Linda Freeman to Sharon Bystran, Printed Letter, 7 March 1991 (both in ANCC, OMH). Linda Freeman, Interview by Patricia Wise, Transcript, 7–8, 29 March 1991, ANCOHC, OMH.

16. Brenna Aileo to Sharon Bystran, Handwritten Letter, 25 October 1990; Linda Freeman to Sharon Bystran, Handwritten Letter, 28 October 1990; and Linda Freeman to Sharon Bystran, Printed Letter, 19 January 1991 (all in ANCC, OMH). Linda Freeman, Interview by Patricia Wise, Transcript, 11–13, 29 March 1991, ANCOHC, OMH.

17. "Memories of an 85th Evacuation Hospital Chief Nurse During the Persian Gulf War, Dhahran, Saudi Arabia, Letters from COL Linda Freeman," Appendix 2000, in Sharon Forman Bystran, 85th Evacuation Hospital, Phu Tanh Valley & Qui Nhon, South Vietnam, 1965–1966 (Crofton, MD: 1575 Eton Way, 1993), E-5, E-6.

18. 85th Evacuation Hospital, "Gone with the 85th, Deployment Historical Report," Printed Report, 10, ANCC, OMH.

19. It soon became obvious that all types of hospitals, whether CSHs, MASHs, or EVACs, were much too heavy to easily move with the few transportation assets the medical units had available, and they could not keep pace with the fast-moving operations. United States General Accounting Office, "Operation Desert Storm, Full Army Medical Capability Not Achieved," GAO/NSAID-92-175, 40–44, August 1992.

20. "Memories of an 85th Evacuation Hospital Chief Nurse During the Persian Gulf War, Dhahran, Saudi Arabia, Letters from COL Linda Freeman," Appendix 2000, in Sharon Forman Bystran, 85th Evacuation Hospital, Phu Tanh Valley & Qui Nhon, South Vietnam, 1965–1966 (Crofton, MD: 1575 Eton Way, 1993), E-5, E-6. Linda Freeman to Sharon Bystran, Handwritten Letter, 14 November 1990; and Linda Freeman to Sharon Bystran, Printed Letter, 20 April 1991 (both in ANCC, OMH). Frank Best and Nancy Tomich, *Medicine in the Gulf War* (Washington, DC: U.S. Medicine, 1991), 40.

21. Linda Freeman to Sharon Bystran, Printed Letter, 19 January 1991, ANCC, OMH. Linda Freeman, Interview by Patricia Wise, Transcript, 31–34, 29 March 1991, ANCOHC, OMH.

22. Brenna Aileo to Sharon Bystran, Handwritten Letter, 11 November 1990, ANCC, OMH.

23. "Memories of an 85th Evacuation Hospital Chief Nurse During the Persian Gulf War, Dhahran, Saudi Arabia, Letters from COL Linda Freeman," Appendix 2000, in Sharon Forman Bystran, *85th Evacuation Hospital, Phu Tanh Valley & Qui Nhon, South Vietnam, 1965–1966* (Crofton, MD: 1575 Eton Way, 1993), E-3, E-6. Linda Freeman to Sharon Bystran, Handwritten Letter, 7 December 1990, ANCC, OMH.

24. Brenna Aileo to Sharon Bystran, Handwritten Letter, 9 December 1990, ANCC, OMH.

25. Linda Freeman to Sharon Bystran, Handwritten Letter, 23 December 1990, ANCC, OMH.

26. Brenna Aileo to Sharon Bystran, Handwritten Letter, 25 December 1990, ANCC, OMH.

27. Linda Freeman to Sharon Bystran, Handwritten Letter, 3 January 1991, ANCC, OMH.

28. Linda Freeman to Sharon Bystran, Handwritten Letter, 28 October 1990, ANCC, OMH. Frank Best and Nancy Tomich, *Medicine in the Gulf War* (Washington, DC: U.S. Medicine, 1991), 40. 85th Evacuation Hospital, "Gone with the 85th, Deployment Historical Report," Printed Report, 10, ANCC, OMH.

29. Brenna Aileo to Sharon Bystran, Handwritten Letter, 31 December 1990, ANCC, OMH.

30. Linda Freeman to Sharon Bystran, Handwritten Letter, 3 January 1991, ANCC, OMH.

31. Brenna Aileo to Sharon Bystran, Handwritten Letter, 9 December 1990; and Brenna Aileo to Sharon Bystran, Handwritten Letter, 25 December 1990 (both in ANCC, OMH). After ODS, the General Accounting Office (GAO) found many soldiers deployed with preexisting conditions that adversely affected their ability to contribute to the mission. One of the most frequently occurring issues was dental problems. Other questionable cases involved a disabled surgeon who could remain standing for only 30 minutes and another with Parkinson's disease. Both mobilized and deployed with the reserves. United States General Accounting Office, Report to the Chairman, Subcommittee on Readiness, Committee on Armed Services, House of Representatives, Operation Desert Storm, *War Highlights Need to Address Problem of Nondeployable Personnel*, GAO/NSIAD-92-208 (Washington, DC: GAO, August 1992), 1, 5, 14, Appendix IV, 33. United States General Accounting Office, Military Personnel and Compensation, Committee on Armed Services, House of Representatives, Operation Desert Storm, *Full Army Medical Capability Not Achieved*, GAO/NSIAD-92-175 (Washington, DC: GAO, August 1992), 3, 24. One area of significant concern was predeployment physicals. Some concluded that the GI bleeds and myocardial infarctions that occurred in the Persian Gulf could have been averted by better implementation of predeployment physicals. A Presidential Advisory Committee found in general that predeployment physicals were poorly done, not done at all, or were merely screenings. "United States of America Presidential Advisory Committee on Gulf War Veterans' Illnesses," Transcript, 72, 15 August 1995, <http://www.gulfink.osd.mil/gwvi/0815gulf.html> (accessed 12 September 2005). "United States of America Presidential Advisory Committee on Gulf War Veterans' Illnesses," Volume 2, Transcript, 283, 286, 294, 297, 5 December 1995, <http://www.gulfink.osd.mil/gwvi/1205gulf.html> (accessed 12 September 2005).

32. Linda Freeman to Sharon Bystran, Handwritten Letter, 23 December 1990, ANCC, OMH. Cynthia A. Gurney, "Adaptation of Medical Personnel to Combat," *Army Medical Department Journal*, PB 8-01-10/11/12 (October/November/December 2001): 6–15.

33. Cynthia A. Gurney, "Adaptation of Medical Personnel to Combat," *Army Medical Department Journal*, PB 8-01-10/11/12 (October/November/December 2001): 6–15.

34. MOPP (Mission Oriented Protective Posture) is a series of four levels of protection from a nuclear, biological, or chemical hazard. MOPP consists of a two-piece overgarment that covered the uniform. It is constructed from an outer layer of nylon and cotton and an inner layer of charcoal-impregnated polyurethane foam. MOPP also includes a mask/hood, footwear covers, and cotton gloves worn under rubber gloves. MOPP4 involves wearing all four components. The equipment has a short shelf life once the packaging is opened. J. Paul Scicchitano, "Pentagon Says Iraqi Chemical Threat Is Real," *Army Times* (20 August 1990): 16.

35. Linda Freeman to Sharon Bystran, Handwritten Letter, 17 January 1991, ANCC, OMH.

36. Brenna Aileo to Sharon Bystran, Handwritten Letter, 23 January 1991, ANCC, OMH.

37. While usually intercepted by the Patriot antimissile system, this time the SCUD disintegrated in air and the Patriot targeted the largest fragment rather than the warhead itself. Joyce C. Humphrey, "Casualty Management: Scud Missile Attack, Dhahran, Saudi Arabia," *Military Medicine* 164 (May 1999): 322–26. Frank N. Schubert and Theresa L. Kraus, eds., *The Whirlwind War, The United States Army in Operations Desert Shield and Desert Storm* (Washington, DC: Center of Military History, United States Army, 1993), 155. "A False Sense of Security," Newspaper Clipping, n.d., in Mary L. Messerschmidt, *Desert Shield/Storm Records, Volume 1*, Department of Nursing, ANCC, OMH.

38. Linda Freeman to Sharon Bystran, Printed Letter, 26 January 1991; and Brenna Aileo to Sharon Bystran, Handwritten Letter, 27 February 1991 (both in ANCC, OMH). Linda Freeman, Interview by Patricia Wise, Transcript, 22–24, 29 March 1991, ANCOHC, OMH. Frank N. Schubert and Theresa L. Kraus, eds., *The Whirlwind War, The United States Army in Operations Desert Shield and Desert Storm* (Washington, DC: Center of Military History, United States Army, 1993), 211. 85th Evacuation Hospital, "Gone with the 85th, Deployment Historical Report," Printed Report, 12, ANCC, OMH.

39. Linda Freeman to Sharon Bystran, Printed Letter, 19 January 1991; and Linda Freeman to Sharon Bystran, Handwritten Letter, 23 January 1991 (both in ANCC, OMH). Confrontations and conflicts were not rare occurrences. Peter A. Cardinal, "Health Service Support in Operations Desert Shield and Desert Storm," *Military Medicine* 157 (April 1992): 175–79.

40. Linda Freeman to Sharon Bystran, Printed Letter, 26 January 1991, ANCC, OMH.

41. 85th Evacuation Hospital, "Gone with the 85th, Deployment Historical Report," Printed Report, ii, 16, ANCC, OMH.

42. SRP, Soldier Readiness Processing, involved completing and checking wills, powers of attorney, immunizations, family care plans, dog tags, and Geneva Convention cards. Teresa Parsons, Interview by Mary T. Sarnecky, Transcript, Tape 1, 13–14, 11 January 2001; and Teresa Parsons, Interview by Mary T. Sarnecky, Transcript, Tape 2, 23, 27 June 2001 (both in ANCOHC, OMH).

43. Hezbollah terrorists bombed the Khobar Towers several years later, on 25 June 1996. The massive explosion killed 19 American servicemen and injured 372. <http://www.fbi.gov/pressrel/pressrel01/khobar.htm> (accessed 27 August 2009).

44. Teresa Parsons, Interview by Mary T. Sarnecky, Transcript, Tape 1, 15–18, 11 January 2001, ANCOHC, OMH.

45. Teresa Parsons, Interview by Mary T. Sarnecky, Transcript, Tape 1, 18, 11 January 2001, ANCOHC, OMH.

46. According to Parsons, these had not been recorded at the time of administration, and returning soldiers, many of them irate, demanded some evidence of these immunizations

for future potential VA claims. The theater surgeon consulted with higher authorities in CONUS and an ensuing policy dictated that a printed notation be included in the soldier's shot record attesting to the fact that this individual may have received from one to four doses of anthrax injections. No drug lot numbers or any more specific information was included in the statement. Teresa Parsons, Interview by Mary T. Sarnecky, Transcript, Tape 2, 1–8, 27 June 2001, ANCOHC, OMH. Within a few years, DoD incorporated the immunizations into the SRP. It also was recording anthrax immunizations both in a computerized database and on the yellow immunization record booklets. "Anthrax Vaccinations Will Protect Troops," *The Mercury* 25 (February 1998): 1, 12. Jim Garamone, "Anthrax Immunizations Begin in Gulf Area," *The Mercury* 25 (April 1998): 12.

47. Research on gynecological care provided by the 8th EVAC revealed similar conditions encountered in women patients. The first most common cause for women seeking care was pregnancy. The second and third most common reasons were pelvic pain and the need for a refill prescription of birth control pills. Glenn Markenson, Eduardo Raez, and Mauro Colavita, "Female Health Care During Operation Desert Storm: The Eighth Evacuation Hospital Experience," *Military Medicine* 157 (November 1992): 610–13.

48. Teresa Parsons, Interview by Mary T. Sarnecky, Transcript, Tape 2, 6–12, 27 June 2001, ANCOHC, OMH.

49. *Ibid.*, Tape 2, 16–19.

50. *Ibid.*, Tape 2, 15–16.

51. *Ibid.*, Tape 2, 30.

52. Congress examined the issue of co-deploying spouses. It considered a bill that would exempt one spouse in the family dyad, a move that would potentially excuse about 17,000 military members. However, the bill ultimately died under pressure from the White House and DoD. Andrew Leyden, *Gulf War Debriefing Book* (Grants Pass, OR: Hellgate Press, 1997), 36.

53. To ease the stress, two of the 86th EVAC's nurses who were Vietnam veterans conducted group therapy sessions for the nurses with co-deployed family members. Maureen Combs, Interview by Patricia Wise, Transcript, 3–5, 7–8, 15, 19–20, 11 March 1991, ANCOHC, OMH.

54. Maureen Combs, Interview by Patricia Wise, Transcript, 3–5, 11 March 1991, ANCOHC, OMH.

55. Carolyn Adams, e-mail correspondence, 9 March 2009, ANCC, OMH.

56. Maureen Combs, Interview by Patricia Wise, Transcript, 5–7, 11 March 1991, ANCOHC, OMH. "86th EVAC Hospital Briefing for Colonel Smith," Memorandum, November 1990; and Carolyn H. Adams, "Historical Record December 1990," Memorandum, 2, 2 January 1991 (both in Smith Collection, U.S. Army Medical Department Museum).

57. Carolyn H. Adams, "Historical Record December 1990," Memorandum, 1, 2 January 1991, Smith Collection, U.S. Army Medical Department Museum.

58. The milvan, or military van (container), was a "(DOD) Military-owned, demountable container, conforming to US and international standards, operated in a centrally controlled fleet for movement of military cargo." <http://www.dtic.mil/doctrine/jel/doddict/data/m/03378.html> (accessed 22 February 2005).

59. Frequently, this is written "hooah." The real acronym is HUA, which stands for "Heard, Understood, Acknowledged."

60. Carolyn H. Adams, "Historical Record December 1990," Memorandum, 1, 2 January 1991, Smith Collection, U.S. Army Medical Department Museum.

61. Carolyn H. Adams, "Historical Record December 1990," Memorandum, 1–2, 2 January 1991, Smith Collection, U.S. Army Medical Department Museum.

62. Field Ration A is the most desirable food available in a nongarrison environment. It includes fresh meat, fruits, vegetables, and dairy products. These perishables usually require local refrigeration in the field setting.

63. Carolyn H. Adams, "Historical Record December 1990," Memorandum, 1-2, 2 January 1991; and Carolyn H. Adams, "Historical Record January 1991," Memorandum, 1, n.d. (both in Smith Collection, U.S. Army Medical Department Museum). Maureen Combs, Interview by Patricia Wise, Transcript, 8-13, 11 March 1991, ANCOHC, OMH.

64. Carolyn H. Adams, "Historical Record February 1991," Memorandum, 1-3, n.d., Smith Collection, U.S. Army Medical Department Museum.

65. It is likely that this was a local effort, similar to the "Shake 'n Bake" OBC provided at Fort Sam Houston, to furnish the deploying reservists with the mandated two weeks of field training.

66. Linda A. Schmidt, "Nursing History for Operation Desert Shield/Storm," 26 July 1991, Smith Collection, U.S. Army Medical Department Museum. Judy Nupen, Interview by Mary T. Sarnecky, Transcript, 22, 12 January 2001, ANCOHC, OMH. Marcia M. Van Wagner, "War in the Persian Gulf, A Study in Contrasts." Unpublished Manuscript, 1-2, January 1991, ANCC, OMH. The Army issued every soldier deployed to SWA with four types of pharmaceutical protection against chemical warfare agents. The first was pyridostigmine bromide (PB), a pretreatment taken to prevent the effects of exposure to nerve agents. The second agents were included in the Mark I nerve agent antidote kit. It contained two auto-injectors, one with atropine (which interrupts the activity of chemical nerve agents) and the other with pralidoxime chloride (which restores normal nerve function). The third agent was diazepam, or Valium, used to treat nerve agent-related convulsions. The fourth element of chemical defense was a skin decontamination kit that contained a topical compound of nontoxic ion exchange and charcoal-based resins. Chuck Dasey, "Medical R&D Command Contributions to Operation Desert Storm," *Army Research, Development Acquisition Bulletin*, PB-70-91-3 (May-June 1991): 10-14. Jill R. Keeler, Charles G. Hurst, and Michael A. Dunn, "Pyridostigmine Used as a Nerve Agent Pretreatment under Wartime Conditions," *Journal of the American Medical Association* 266 (7 August 1991): 693-95. James E. Cook, Margaret A. Kolka, and C. Bruce Wenger, "Chronic Pyridostigmine Bromide Administration: Side Effects among Soldiers Working in a Desert Environment," *Military Medicine* 157 (May 1992): 250-54.

67. Linda A. Schmidt, "Nursing History for Operation Desert Shield/Storm," 26 July 1991, Smith Collection, U.S. Army Medical Department Museum. Judy Nupen, Interview by Mary T. Sarnecky, Transcript, 22, 12 January 2001, ANCOHC, OMH. Marcia M. Van Wagner, "War in the Persian Gulf, A Study in Contrasts," Unpublished Manuscript, 1-2, January 1991, ANCC, OMH.

68. Linda A. Schmidt, "Nursing History for Operation Desert Shield/Storm," 26 July 1991, Smith Collection, U.S. Army Medical Department Museum. Judy Nupen, Interview by Mary T. Sarnecky, Transcript, 22, 12 January 2001, ANCOHC, OMH.

69. Judy Nupen, Interview by Mary T. Sarnecky, Transcript, 18-21, 24-34, 36, 44, 48-50, 12 January 2001, ANCOHC, OMH.

70. Melinda Beck and others, "Our Women in the Desert," *Newsweek* (10 September 1990): 22. Sunnie Scarlett, "Honest Info Helps Children Cope," *HSC Mercury* 18 (December 1990): 6.

71. Rosemarie Skaine, *Women at War, Gender Issues of Americans in Combat* (Jefferson, NC: McFarland & Company, 1999), 64. Veterans Health Administration, Gulf War (Including Operation Iraqi Freedom) Registry (GWR), *VA Handbook 1303.2* (Washington, DC: Department of Veterans Affairs, 7 March 2005), 1. Andrew Leyden, *Gulf War Debrief-*

ing Book (Grants Pass, OR: Hellgate Press, 1997), 35. The Army tabulated female participation in SWA at 8.6 percent of all soldiers. William Joe Webb and others, *Department of the Army Historical Summary, Fiscal Years 1990 and 1991* (Washington, DC: Center of Military History, United States Army, 1997), 42.

72. Penny F. Pierce, "Physical and Emotional Health of Gulf War Veteran Women," *Aviation, Space, and Environmental Medicine* 68 (April 1997): 317–21.

73. Rosemarie Skaine, *Women at War, Gender Issues of Americans in Combat* (Jefferson, NC: McFarland & Company, 1999), 138.