

The Air Force Medical Service and the Gulf War

A ten-year retrospective

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Editor's Note: *The Persian Gulf War, which lasted from August 1990 through February 1991, required the deployment of thousands of Air Force Medical Service members, either to Europe or to Southwest Asia. In hindsight, the war was a checkpoint in a two-decade process of Medical Service readiness reengineering that began in 1979. This article summarizes the scope and meaning of the war, and presents the postwar reports and recollections of several key participants. (It's quite lengthy so you might consider printing in order to read more easily.)*

War seldom ceases to surprise its practitioners. In the Gulf War of 1990-1991 the Air Force Medical Service tested its concepts of emergency response created in the 1980s. The Medical Service found that those concepts were still valuable but needed significant modifications in a new theater.

From 1950 to 1990 Air Force medics had prepared for possible war in Europe and helped fight two major regional contingencies in the Far East, the Korean War and the Vietnam War. Yet within two years, from 1989 to 1990, the global threat changed drastically.

In mid-January 1991, thousands of Air Force medics were no longer worrying about the Soviet Union and

Communist China. The medics were stationed in Saudi Arabia and other countries along the Persian Gulf, anxiously awaiting the casualties of an Allied air and ground assault on Iraq and Kuwait, which Iraq had overrun six months earlier. Some of those medics had arrived months earlier. For the first six weeks after President George Bush



Setting up a Gulf War Air Transportable Hospital, or ATH, in Saudi Arabia in August of 1990

decided to deploy U.S. forces in strength, on August 3 1990, Air Force medics had provided the only substantial U.S. medical presence in Southwest Asia (SWA).

The first Air Force Medical Service (AFMS) advance leadership team to deploy in Operation DESERT SHIELD was led by Col. (later Maj. Gen.) Leonard (“Randy”) M. Randolph, Jr., MC, who is now Deputy Air Force Surgeon General. In early August 1990, from his post as deputy Tactical Air Command (TAC) surgeon at Langley Air Force Base, he and eight other AFMS medics departed for Saudi Arabia with the first Air Force fighter units. The situation was dangerous. In his first briefing in Riyadh, Dr. Randolph learned that three to five thousand tanks were already poised on the Saudi border and could easily attack and reach Riyadh in 12 hours. Dr. Randolph proceeded to establish the office of the CENTAF (Central Command Air Forces) Forward Surgeon. At midday, the ground temperature was 130 degrees Fahrenheit and air-conditioned working space was scarce. Many workaround solutions were called for, and joint solutions were often essential. Dr. Randolph recalled, “It was hard for airlift to be obtained.... I remember that it took perhaps 30 to 45 days before we really started seeing significant Army medical components.” In contrast, in 45 days the Air Force had deployed and employed 15 air transportable hospitals and one large contingency hospital. Air Force tactical hospitals soon had plenty of business, “almost all of them Army patients.”

Col. (later Lt. Gen.) Paul K. Carlton, Jr., MC, the current Surgeon General of the Air Force, arrived in Seeb, Oman, on Oct. 18 1990 from his post at Scott AFB Medical Center to take command of the turn-key activation of the 1702nd Contingency Hospital. Gen. Charles Horner, USAF, the Allied air component commander, soon visited the hospital in Oman and decided that, because of the scarcity of airlift, only in-theater medics would be used to set up the large facility. Most medics for the 1702nd Contingency Hospital would be held in reserve until the eve of overt hostilities early in January 1991. Immediate Air Force medical care in the Gulf region would be the responsibility of the deploying air transportable hospitals (ATHs) and clinics. Each ATH had 14, 25, or 50 beds. The 50-bed ATH had a staff of about 128, and supplies designed to handle the medical needs of its host tactical fighter wing (about 4,000 people). For direct care, each 50-bed ATH normally had 12 physicians, 16 nurses, 1 dentist, and 1 psychologist.

General Horner’s decision, supported by the Tactical Air Command surgeon, Brig. Gen. (Dr.) Robert A. Buethe, Jr., emphasized the most obvious virtue of Air Force medical readiness – the rapid deployability of its air transportable hospitals and clinics and medical providers. Tactical Air Command was well along in modernizing its air transportable units, a

program that began in 1983. The Gulf War showed the value of that foresight and the need to continue to reduce the airlift weight requirements of the air transportable units and the need to improve both their internal and external communications links. Col. Robert A. Ferguson, USAF, MSC, the chief of plans and operations in the advance team, recalled that the only readily available communications his team had with Europe and the States was over the unreliable commercial Saudi telephone system. The air transportable hospitals also lacked computer support and automated office machines.

After the initial excitement in the fall of 1990, it seemed that Iraq would probably not launch a ground attack on Saudi Arabia after all, even though the Iraqi Army was tightening its grip on Kuwait. As Allied forces continued to pour into the Gulf



Outpatient Clinic at work in a Gulf War ATH

region, the Air Force medics learned to grapple with daily life and medical care in tents, and with a caseload that soon dropped to low levels by Stateside standards. Dr. Robert Buethe recalled, “People got bored, and that was the biggest problem I had as TAC commander.” According to Dr. Randolph, “Although we were seeing patients all along, the people who were there for wartime medicine; orthopedists, general surgeons, etc. did not get to practice their skills very often.” But DESERT SHIELD had some positive value to its participants. One nurse, Jane Valentine, with the 4th Medical Group out of Seymour-Johnson AFB, wrote home from Thumrait, Oman, in a positive frame of mind:

The desert is a wonderful place to keep up your physical fitness activities, especially since we are into winter with 85 degrees during the day and high 50s or 60s during the night. It is beautiful here in a different way.... The desert nights are fantastic and you feel that you can reach up and grab the stars... There have been tears here of anxiety, loneliness, and frustration; but I will say that we have made it through the rough spells and pulled together and have watched out for each other. Deployment together as a [medical] unit is the saving grace. Knowing we are here with our Wing also helps a lot.

After the war, Dr. Randolph also referred to the importance of esprit de corps in the Gulf deployment:

A number of old war books talk about the camaraderie of field experience, and that is absolutely true. There was a bond there among those who shared that experience, just as there is probably a bond among those who were back here supporting us. That can't be matched any other way, and that is something you will carry throughout your life.

The Allied buildup also had some exciting moments: terrorist threats and mass casualty exercises for training. When the air assault on Iraq began on Jan. 17, 1991, code-named Operation DESERT STORM, all Air Force personnel in the Gulf region were subjected to alerts about Iraqi SCUD missile attacks. One hospital commander, Col. Alvin M. Cotlar, USAF, MC, stationed at King Fahd Air Base, Saudi Arabia, wrote: "While everyone else is busy launching and flying aircraft into battle, our folks are forced into a sedentary existence with little rest, since they are up every night because of the F-111s taking off and landing."

Waiting for the ground war to begin, most Air Force medics had unexpected and sometimes planned departures from standard procedure. For example, one reserve flight surgeon, Colonel George F. Welsh, USAFR, MC, who was stationed at Sharjah Air Base, in the United Arab Emirates, recorded in his diary on 4 February:

General [Edwin E.] Tenoso [Brig. Gen., commander of airlift forces, and commander, 1610th Airlift Division (Provisional), Riyadh, Saudi Arabia] returns today and gives a heads-up on the air war. He tells us flight surgeons we will be relieving the doctors on the front every day or so to prevent burn-out on the forward area surgical teams.... This fits well with my Plan A, to serve as a flight surgeon during the pre-hostilities, as a general surgeon during the ground war, and as a plastic surgeon during the post-war reconstructive period.

A few days later, on 8 February, Dr. Welsh wrote:

We have a little excitement today. A Navy helicopter drops in with a 23-year-old man who is coming in 'with a broken leg.' So we mobilize our casualty collection team, rev up the ambulance and line it up on the flight line, right outside our hooch clinic, and wait for the arrival of the Navy helicopter. As it turns out, the patient is now 48 hours after a fracture of the left fibula and has been air evacuated from the USS Tarawa. He already has his leg in a perfectly fine, long leg cast put on by a captain physician on the ship. We arrange for the transfer of the patient first to El Falah, our local military hospital, but then learn that an aeromedical evacuation flight is here on the ramp with no patients. We take the patient with our ambulance from the helicopter to the C-130. It's there I learn that the aeromedical evacuation crew is Air National Guard and appears to be just learning the ropes... However, they are happy to put the patient on the plane and take him up through the airevac channels to Bahrain. Only then do I remember that all aeromedical evacuation patients need to be 'regulated' and so I put in a crisis management call to the Riyadh SG medical regulating office (MRO). The MRO manages each and every patient that's put into the system.... Fortunately I know that Major [Randy] Hartley [USAF, MSC] hot-dogs this operation, so I ask to speak with him and explain my precipitous action on behalf of the patient.... he gets on the other line and selects the 47th Army Field Hospital for disposition of the patient. I give him my profuse thanks and try to move back to more planful management.

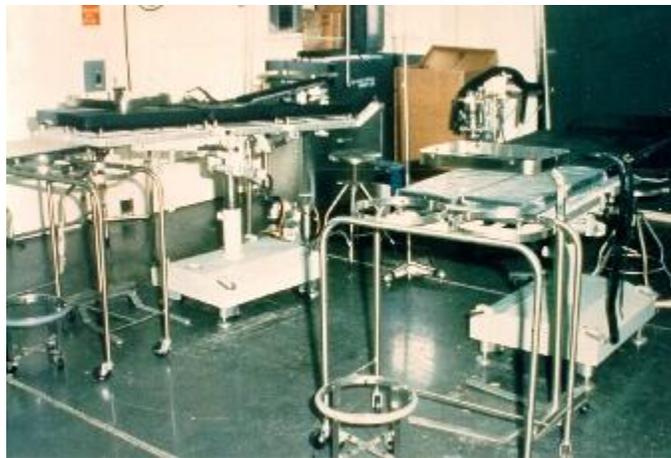
The ground assault on Kuwait began on Feb. 24 and Iraq withdrew from Kuwait within two days. In Europe and in the Gulf area, many Air Force physicians and nurses who expected to be swamped with casualties, possibly burn victims or patients exposed to biological and chemical warfare agents, had little or nothing extra to do. President Bush declared an Allied victory on Feb. 28, 1991. Flight Surgeon Welsh's unit had a victory party with free pizza and beer. It was billed as "The Mother of All Parties," a takeoff on Saddam Hussein's promise to make the ground invasion of Kuwait "The Mother of All Battles." Allied forces began to redeploy early in March 1991.

Reflecting on the Gulf War, the Air Force Surgeon General at that time, Lt. Gen. (Dr.) Monte Miller, gave the Air Force medical deployment a favorable but mixed review. On the positive side, he found no problems with the training of most Air Force medics. And he was generally pleased with the Reserve components of the Medical Service, who provided about one-half of the deployed Air Force medics:

By and large, the Reserves did a great job. One of my concerns early on, when it became evident that we needed Reserve medical forces beyond what had been originally allocated, was to convince the Joint Chiefs of Staff that we needed to call up more medical reserve units. We were successful in that, though there was some delay.

On the negative side, however, and from a Joint perspective, General Miller noted that the Air Force tactical level airlift resources (the C-130s), both in numbers, training, and organization, were apparently inadequate to handle mass casualties in Army maneuver units that had outrun the support of dedicated Army aeromedical helicopters.

Such casualties did not actually occur in DESERT STORM, but they were predicted, and Air Force medical leaders noted the great dangers in such a scenario. Some other Air Force medical leaders shared General Miller's concern about the ability of the aeromedical evacuation system to handle the highest level of casualties predicted. In March 1992, Lt. Gen. Alexander M. Sloan, USAF, MC, Air Force Surgeon General (May 1991 through September 1994), who had been the U.S. European Command (USEUCOM) surgeon during the Gulf War, wrote that the answers to two questions were still unknown and "still lingering," and he noted them "to stimulate some thought."



A surgery suite in a Gulf War ATH

- 1) Would we ever have been able to regulate and strategically evacuate as many as 2,000 patients per day from SWA to USEUCOM either with the systems in place in January 1991, or

with systems which would have been developed later? If so, could that ever have been done really efficiently?

2) Would we have been able to flow 1,000 to 2,000 patients per day through the USEUCOM medical facilities to CONUS to keep beds open for the next planeloads of patients from SWA?

Considering these issues, however, Brig. Gen. (later Lt. Gen.) Charles H. Roadman, II, MC, the U.S. Air Forces Europe (USAFE) surgeon during the war, concluded:

Would we have had problems? Oh, you bet. Did we have a lot of workarounds? Yes.... On the other hand, I think we would have been able to do what we needed to do technically to take care of casualties.... Without trying to get too philosophical, I don't think our system would have failed, but I think we would have had one hell of a hard time.

General Miller also regretted the diversion of so many Air Force medics to a war where their skills were not fully used:

I felt at the beginning we were devoting more medical resources than were necessary. Certainly the joint commander [General Norman Schwarzkopf, commander of U.S. Central Command] could pretty well ask for what he wanted and we were obliged to support it. But on the other side of the coin, I was contacted, as I am sure my counterparts in the Army and Navy were, by members of Congress who wanted assurance that domestic military medical care would not suffer as a result of sending everything to DESERT STORM.... As it turned out, we were way over-manned and over-stocked for that scenario.

Part of the problem, General Miller recalled, was that the casualty estimates created by the joint Central Command (ranging from 10,000 to 20,000) were much too high. In mid-December 1990 those estimates called for as many as 3,624 aeromedical patient movements per day intratheater and 2,520 movements per day intertheater (Southwest Asia to Europe).

They were too high because they were based on a different scenario from DESERT STORM. They were based more on a European, World War II, or Korean War conflict, where one would expect much higher casualties. And of course the chemical and biological warfare threat was also unknown for certain at the time. Now, if I had been General Schwarzkopf's surgeon, I would have wanted as much medical capability in-theater as I could get. As Air Force Surgeon General, my perspective was a little different because I was under some pressure from Congress to maintain domestic medical capability, and I didn't want to sacrifice our [CONUS] teaching programs unless it was absolutely necessary.

Such a large medical deployment naturally revealed much about the strengths and weaknesses of the Medical Service reengineering that had begun in the early 1980s. The deployment to the Persian Gulf resulted in several notable "firsts" for the Air Force Medical Service.

- 1) The largest and fastest AFMS deployment since the Medical Service was created in 1949.
- 2) The first Military Airlift Command (now Air Mobility Command) operation of an air transportable hospital.
- 3) The first field redeployment of an ATH (the 4th, from Thumrait, Oman, to Al Kharj, Saudi Arabia, in November 1990).
- 4) The first desert tactical operation of an aeromedical staging facility. Built five 100-bed aeromedical staging facilities.
- 5) The first use of flight surgeons on flights of the Tactical Aeromedical Evacuation System.
- 6) The first contingency employment of patient decontamination teams, who served as organic parts of all deployed hospitals.
- 7) The first use of organic combat stress units in air transportable hospitals.
- 8) The first contingency employment of the tactical-to-strategic aeromedical evacuation hub (five were constructed).

The 1702nd contingency hospital at Seeb, Oman, also represented several innovations in Air Force Medical Service operations. Colonel Carlton reported:

It was the first deployment and operation of a DEPMEDS [DoD-designed deployable medical system]; it was the first known wartime combined service operation; it was the first multi-MAJCOM [major command] contingency hospital in a wartime theater; it was the first time a DEPMEDS had demonstrated an expansion capability; and, it was the first deployment of a medical 'total force.'

The contingency hospital was originally planned at 250 beds and 6 operating rooms, but with the help of the Army's 365th Evacuation Hospital, the hospital developed a ready capability of 1,100 beds and 15 operating rooms. U.S. Central Command approved the combined facility on Jan. 19 1991, and renamed it the "U.S. Military Medical Complex, Oman." The combined Army and Air Force staff consisted of 50 physicians, 8 dental personnel, 126 nurses, 261 medical technicians, and 340 other medical and support personnel.

The Air Force deployment to Southwest Asia, consisting of 2,342 active duty and 2,526 reserve medics, was the most critical AFMS response in the Gulf War, and the most stressful to its participants. But the War also involved the deployment of 3,874 active duty and 3,019 reserve AFMS medical providers to four Air Force prepositioned contingency hospitals in Europe that were activated on the eve of the air war. Reservists accounted for more than 90 percent of the aeromedical evacuation crews in Europe and SWA. And at home in the States, 6,300 Air Force reserve medics were activated to provide temporary replacements for the active duty medics who deployed to Europe and Southwest Asia.

In the postwar analysis, the Air Force Surgeon General's Office proudly noted that no Air Force sorties in the Gulf War were canceled for medical, environmental, or bioenvironmental reasons. The Medical Service had supported all the deployed fighter wings extremely well. Col. Robert A. Ferguson concluded that was all that could be expected:

Our number one mission is to support the deployed wings.... Our job is not to support maneuvering Army units; it's not to support maneuvering Marine units; it's not to put ATHs on the front lines receiving those kind of casualties. Nevertheless, we were looking

at every possible means that we could, to give the CINC [commander in chief, Central Command] more medical capability, over and above what the Air Force was expected to do.... We didn't pursue any of our options because it wasn't necessary when the time came.

The Gulf War deployment not only marked a culmination and testing of many innovations dating to the early 1980s, it also marked the beginning of a new readiness reengineering process that drew on the lessons learned in the Gulf. Most important, the Gulf War stimulated the Medical Service to continue its search for ways to reduce the weight of air transportable hospitals. For diplomatic reasons, the forward prepositioning of medical facilities abroad became more difficult in the 1990s, making it necessary for deployable medical and aeromedical resources and systems to be even lighter. By the year 2001 the weight of an emergency response 25-bed ATH (“Expeditionary Medical Support and Air Force Theater Hospital System”) has been reduced two-thirds, and its advance elements are even lighter and more mission-flexible than in the past. Reengineering also required several personnel initiatives. For example, to improve the integration of active duty and reserves in contingency operations, the Deputy Surgeon General (later Surgeon General) Charles H. Roadman II inaugurated the “Mirror Force” initiative in January 1995.

After the Gulf War, Col. (Dr.) Leonard Randolph gave a fitting summary of the Gulf War and its place in Air Force medical history:

Air transportable medical systems were developed wholly by General Buethe and his predecessors at TAC. We need to be able to move our medical systems by air, and as much as possible to move them with the unit who will be using them. That is the concept of the squadron medical element and the air transportable clinic. And once we get enough forces on the ground, we need to follow up with an air transportable hospital, preferably one that is used to supporting that same flying unit. My hat is off to the Air Force planners in the past who figured that out and made it a reality. And indeed it paid off in this deployment. The proof of concept for our air transportable hospital plan rests in the fact that not one combat sortie was canceled or delayed because of medical reasons. We're really proud of that.