

## *Chapter Thirteen*

# Additional Deployments in the 1980s

In October 1983, the Army Medical Department (AMEDD) deployed to the Caribbean island of Grenada. The United States responded to a takeover of the government on Grenada by a Soviet-backed coup with ties to Cuba. Grenada's Caribbean neighbors and Washington interpreted the military revolutionaries' leftist philosophy as a serious Communist threat. A large number of American expatriates as well as a group of U.S. medical students were on the island, and fears for their safety and the possibility of their becoming hostages of the revolutionary regime also spurred American intervention. The military code-named the mission that commenced on 25 October 1983 to restore democratic government to Grenada "Operation Urgent Fury."<sup>1</sup>

Contingency operations like Operation Urgent Fury and the 1989 Operation Just Cause were carried out by ready reaction force units, most positioned at Fort Bragg, North Carolina; Fort Campbell, Kentucky; Fort Ord, California; and Fort Stewart, Georgia. Such units were expected to deploy anywhere with less than 18 hours' notice.<sup>2</sup> Army Nurse Corps officers also participated in Operation Urgent Fury. Most of these women and men were Professional Officer Filler System (PROFIS) personnel, and many came from other U.S. installations and units to Fort Bragg, North Carolina, the staging site for the mobilization.<sup>3</sup> Several of these individuals replaced Army nurses at the Fort Bragg Medical Department Activity who subsequently mobilized. A small contingent deployed with two Table of Organization and Equipment units, the 307th Medical Battalion and the 5th Mobile Army Surgical Hospital (MASH).<sup>4</sup>

This was the first combat experience for the Army and the Army Nurse Corps since Vietnam, and numerous difficulties cropped up throughout the mission. Some could be attributed to the rapid tempo of the mission. Some were caused by the untested PROFIS system that clearly required modification. Some could be blamed on poor planning and misplaced priorities.<sup>5</sup> Finally, some could be ascribed to lingering prejudice against women in combat.<sup>6</sup>

After Operation Urgent Fury, the press in particular was highly critical of the conduct of the operation, focusing on planning, intelligence, equipment, and interservice cooperation.<sup>7</sup> Operational medical support also was criticized. During the mission's abbreviated (four-day) predeployment phase, there was little communication among the various echelons of the chain of command. The original plan was to use Navy ships for health service support to reduce ground medical assets. The Navy was prepared medically for these responsibilities, but may have had difficulty with joint operations (having never jointly trained with the AMEDD) if no training occurred. Although fully qualified in their specialties, the AMEDD PROFIS physicians had little knowledge of the principles of combat medicine. Few—if any—had the opportunity to attend the Combat Casualty Care Course.<sup>8</sup> Anecdotal allegations charged that surgeons had immediately sutured battlefield wounds rather than using the accepted combat technique of delayed primary closure. Later, Colonel John E. Hutton, chief of surgery at Walter Reed Army Medical Center, confirmed that battlefield surgeons closed the minor wounds of three of 28 casualties prematurely.<sup>9</sup> Major General Eugene Trobaugh, 82nd Airborne Division commander, chose to reduce already austere medical assets to get more combat and combat service elements into Grenada. It was 48 hours into the operation before the medical elements began trickling onto the island. No vehicles were earmarked to evacuate casualties, so the AMEDD relied on military or commercial vehicles to transport the wounded. Air ambulances did not arrive on the island until 72 hours after the invasion. This forced the staff to rely on U.S. Air Force cargo planes that circumvented the useless Navy medical support. Tactical commanders ignored proper field sanitation, failed to enforce water consumption, and overloaded their soldiers with excessive weight. Illness and heat injuries multiplied. No plans existed to treat the pressing medical assistance needs of the civilian population.<sup>10</sup> Lieutenant Colonel Donn Richards, an Army physician, evaluated Operation Urgent Fury as follows:

It was a tribute to the versatility and flexibility of the individual doctors, nurses, corpsman [*sic*], and administrators that a bad situation did not turn into a disastrous event. Whatever medical success [was] achieved in this operation was in spite of and not due to the actions of the senior leadership of the services. Overall the senior leadership showed a lack of planning and inattention to medical needs.<sup>11</sup>

Lieutenant Colonel Patricia A. Diskin, the chief nurse of the 44th Medical Brigade, identified problems nursing staff encountered, including nonfunctional medical equipment, lack of spare parts for equipment, and staffs' inability to set up or use field gear. She recommended that the Table of Organization and Equipment staff participate in more training in the use of medical equipment. Those who were proficient with equipment had little ability to handle basic patient care like obtaining routine vital signs, bathing patients, providing oral hygiene, or changing linens. Command and control was chaotic. On the Green Ramp at Pope Air Force Base, lists with numbers and names rarely matched up. Loadmasters called 32 names and 32 voices responded, but only 29 actually boarded the plane. After the plane arrived in Grenada in the dead of night, they could not account for

all personnel. Names were called, buses left, and many got left behind. Protective masks were unusable and small-size masks were not available. Some of the masks only had training filters. But there were worse blunders.

Trobaugh forbade female soldiers to deploy with their support units, a prohibition that disregarded the Army's policy on women in combat.<sup>12</sup> The Direct Combat Probability Coding system barred women from combat positions where they were judged to be at risk for direct contact with the enemy, not from an entire operation.<sup>13</sup>

One of the Army nurses excluded was Major Shirley A. Davis, head nurse on a medical unit at Womack Army Community Hospital, Fort Bragg, North Carolina. Davis first learned on 25 October 1983 that she was assigned since July 1983 as PROFIS to the 5th MASH. Unprepared for the impending deployment, Davis drove that same October morning to the 44th Medical Brigade Headquarters at Fort Bragg and went through the Process for Overseas Rotation.<sup>14</sup> This involved the usual legal and administrative matters, such as assigning power of attorney to a civilian nurse friend, receiving a meal card, completing a post office change-of-address card, and verifying her identification card and dog tags. Personnel and finance records had to be reviewed, but they could not be located at Davis' company. She had to buy a third pair of Battle Dress Uniforms from the clothing sales store and then retrieved her medical and dental records, which remained in her field pack for the duration of the deployment. The next day, Davis received six immunizations because—since she was unaware of her PROFIS assignment—she had not kept her vaccinations up to date. On 30 October 1983 at 0200 hours, the final alert call came and Davis reported into the 5th MASH, where a staff member issued her a flak jacket and a poorly fitting protective mask. Some personnel also received weapons but no ammunition.<sup>15</sup> At the company, Davis received her chalk number—that is, the soldier's number on a list of the personnel and equipment to be loaded on a particular aircraft. She next boarded a bus bound for the Green Ramp at Pope Air Force Base, North Carolina. When ordered to board the plane, Davis recalled, some answered while others did not. Some heard the call and others just were not ready to go.<sup>16</sup>

Trobaugh banned military women, including Army nurses, from the island. He ordered that all female soldiers assigned to the invasion force remain on the nearby island of Barbados. Despite this directive, seven women (four officers and three enlisted) arrived on Grenada at 2200 hours on 30 October as a result of the confusion on the Green Ramp.

Upon their arrival on Grenada, a flabbergasted, harried officer directed the uninvited women to sleep on the tarmac of the Port Salinas Air Field.<sup>17</sup> Next morning, the women overheard rumors that generals were unhappy about the unexpected presence of women and the logistical challenges it posed in Grenada.<sup>18</sup> A Black Hawk helicopter took the seven women soldiers to Barbados, far from the action.<sup>19</sup> Fortunately, C Company of the 307th Medical Battalion, a small advance party comprising an orthopedic surgeon, a 91C licensed practical nurse, and four corpsmen were able to stabilize the first few casualties with their basic load of equipment.<sup>20</sup>

The women stayed on Barbados for only a short time. The 5th MASH, with its full complement of male and female personnel, departed from Barbados after one day and arrived on Grenada at 0200 hours on 2 November 1983. The first casualty they treated was a young soldier suffering head and back trauma from falling down a hill while on patrol. After that, the unit treated patients with minor injuries and illnesses, such as lacerations, gastroenteritis, eye injuries, sunburn, and skin rashes. The 15-bed facility was fully operational by 5 November 1983.<sup>21</sup>

On 7 November, the hospital received an eight-year-old Grenada boy, injured when a hand grenade a friend was playing with detonated. The child spent seven hours in the operating room for the repair of a lacerated liver, bowel perforations with evisceration, an open fracture of an ankle, and a fragment wound of the eye.<sup>22</sup> Only one urinary catheter that came close to the appropriate gauge was available, and when it fell out of the patient, the nurses were compelled to soak the drainage tube in Betadine and reinsert it. The only available ventilator had no intermittent manual ventilation and, when not sedated, the boy fought the respirator, attempting to breathe on his own. The laboratory had no reagents available to test blood gases. Few pediatric supplies were available.<sup>23</sup> Two days later the child was evacuated to Naval Hospital Roosevelt Roads, Puerto Rico. An Army Nurse Corps anesthetist, Major Flint Gullet, ventilated the boy by hand, bagging for the entire flight.<sup>24</sup>

The injured child received state-of-the-art care but only because the staff could improvise. Had the 5th MASH received a large influx of wounded soldiers, the inadequate medical supplies and equipment might have cost lives. When C Company, 307th Medical Battalion, first deployed, it packed five Gama Goat vehicles filled to capacity with supplies.<sup>25</sup> Only three arrived with the initial deployment, the other two appearing five days later.<sup>26</sup>

Only a few seriously ill patients required combat care. Thus, many Army nurses were able to offer their assistance at the island's civilian St. George's Hospital, displaying their usual concern for local nationals. There, the vast differences between health care in a developing nation and the level of care provided in the Army medical system presented a sharp contrast.<sup>27</sup>

It soon became apparent that the Army Nurse Corps officers were not the only female soldiers on the island. Ultimately, about 170 military women served across the span of the entire operation in diverse combat support roles, such as perimeter guards, sergeants of the guard, Military Police, and cargo handlers. Major Ann Wright, for example, was responsible for ensuring compliance with the Geneva and Hague conventions in the Cuban Prisoner of War camps, served on the Foreign Claims Commission, liaised with the Agency for International Development, and participated on the Engineering Team that surveyed the Point Salinas International Airport.<sup>28</sup>

Major Rosamond Shepard, an obstetrics/gynecology nurse practitioner, was assigned to the 5th MASH and her knowledge and skills were very useful. She cared for several female soldiers and a few of the local nationals.<sup>29</sup> Shepard also treated both male and female soldiers for skin irritation and chafing caused by the wear of poorly

fitting, winter-weight Battle Dress Uniform pants in the tropical island's heat and humidity. When jungle fatigues became available, the problems lessened. Women also had significant difficulty gaining access to showering facilities. Shepard reported:

Shower hours were arbitrarily changed and many times no notification was given. When complaints were lodged no apparent action was taken. The excuse "well there were so many more men that we needed to use the female shower; only 20 women showed up for showers, etc." Of course if the showers were only available when the women were on duty [they] could not utilize them. Furthermore, if you arrived at the shower hour announced the night before and it had been changed to the previous hour it was impossible to take a shower.<sup>30</sup>

A daily shower was one of only a few comforts in a hot, dirty, field setting, and the denial of this small indulgence was a blow to morale.

Army nurse Major Jack L. McNeil also detected subtle gender discrimination in the way various combat service and combat service support units treated their female soldiers. The women were dropped off for treatment at the MASH and were not transported back to their units. It seemed their units forgot about them.<sup>31</sup>

Many line officers, non-commissioned officers, and soldiers thought women had no place in the invasion force destined for Grenada. The antagonistic attitude of senior officers contributed to this sentiment. Army nurses were a concentrated and visible element in hospital units, so they were easy targets for derision. Lieutenant Colonel Patricia A. Diskin shared her view of the gender discrimination and conflicts that surfaced in Operation Urgent Fury:

The issue of when women deploy with CS [combat support] and CSS [combat service support] units into a potential combat area needs to be addressed. . . . The impact on readiness is substantial since women comprise as much as 30-40% in some units and frequently are in leadership positions. Historically, women especially nurses, have been confronted with the need to do their jobs in a potentially hostile environment (most recently Vietnam) and have taken these risks willingly. Any future conflict will necessarily involve large numbers of women deploying . . . and any effort to restrict or delay their participation will seriously degrade the ability of . . . units to carry out their mission. If decisions restricting participation by women can be made at a local level, the Army should remove these MOSs [Military Occupational Specialties] from consideration for women.

She insisted that the Army continue to train and deploy women on combat missions and recommended only the service secretary, i.e., the secretary of the Army, have the authority to exclude women soldiers from operations.<sup>32</sup>

By mid-November senior officials ordered the MASH to be reduced to a clearing company. Most of the AMEDD participants left the island soon thereafter.<sup>33</sup> Six Army Nurse Corps officers received awards for their service in Operation Urgent Fury.<sup>34</sup>

Although many aspects of Army Nurse Corps participation in Operation Urgent Fury were troublesome, many other features were almost flawless. The relationships between the Table of Organization and Equipment and PROFIS staffs were generally agreeable and productive.<sup>35</sup> Major Grace Johnson wrote that she found the unit responsive and cohesive, with "no prima donnas, no drunks, no doctors who thought they were God's gift to women and no slouches." The arrival of a

military exchange boosted morale because the PX stocked both feminine hygiene supplies along with the Skoal and Red Man chewing tobacco favored by Army Rangers.<sup>36</sup> Captain Teresa Milie was impressed with the efficiency in setting up the field facility. The 5th MASH personnel built a large, well-appointed, technologically advanced, comprehensive hospital. Despite their long, drawn-out, arduous days, they also found time to explain details and help the PROFIS staff.<sup>37</sup>

Strangely, the general impression communicated by those who did not deploy was that the nurses on Grenada had been on vacation. This was far from the reality, and difficult personal conditions did not abate with the operation's end. Soon, returning nurses experienced sleep disturbances and other ailments such as diarrhea.<sup>38</sup> When Major Shirley Davis returned home, she woke up in the middle of the night and was surprised to see furniture in her tent. She added that it "took a while to figure out that I was indeed in my home, with a bed, privacy, carpets, running water, and flush toilets."

Reflecting on her experience, Davis acknowledged the importance of maintaining her immunization status when assigned as PROFIS to a rapid deployment unit. She came to understand the deployment process, became aware of what to bring on deployments, and acquired a "field-sense." Finally, she realized that high-quality care was possible in the field.<sup>39</sup>

Operation Urgent Fury was a wake-up call for the Army that underscored the need to improve readiness capabilities, refine contingency operations, and establish channels for interservice communication and collaboration. It spurred the development of new approaches for Health Service Support, better and lighter field medical supplies and equipment, more joint training and rehearsals, and new personnel configurations to provide health care on the battlefield. It added one more spark to the revitalization and modernization of the AMEDD.

Women soldiers deployed subsequently with almost every major Army operation but never again faced such wholesale discrimination and blatant exclusions by senior commanders. Both female and male Army Nurse Corps officers participated in the brief but fierce campaign in Panama in 1989.

Operation Just Cause began on 20 December 1989 in the Republic of Panama but its roots reached back to May 1988 when the Joint Chiefs of Staff debated the use of military intervention to deal with Panamanian dictator Manuel Noriega.<sup>40</sup> The Joint Chiefs of Staff originally code-named the Panama operation "Operation Prayer Book/Blue Spoon" and envisioned it as a gradual, piecemeal military operation. Over time, the plan changed to a "surgical strike" favored by Lieutenant General Carl Stiner, the XVIII Airborne Corps commander. His plan was to surprise the enemy and attack during the night with overwhelming force that paralyzed the opposition's defenses, in effect a blitzkrieg.<sup>41</sup> This approach required a thick shroud of operational security, but the secrecy in turn complicated planning and execution of the mission.<sup>42</sup> With Joint Chiefs of Staff approval, the chief of staff of the Army stated the objectives for Operation Just Cause included prevention of harm to U.S. citizens, strengthening of Panamanian democracy, safeguarding of the unimpeded passage of vessels through the Panama Canal, removal of

Noriega, and the ending of his massive cocaine-trafficking business.<sup>43</sup>

Health service support planning for Operation Just Cause also claimed moderately deep roots. The relatively lengthy time available for careful planning, intensive training exercises, and rehearsals contributed significantly to the operation's success. For several years before the operation, the 44th Medical Brigade had been developing a prototype compact element, the Forward Surgical Team (FST), a light, mobile unit designed for contingency operations.<sup>44</sup> The concept had an extensive history but originated in recent times from the lessons learned in Grenada. During that campaign, it took 27 transport aircraft to deploy the 5th MASH.<sup>45</sup> Operation Urgent Fury task force commanders refused to give up that many aircraft because they needed to fly combat units to the island. To avoid a recurrence of the same problem, the 44th Medical Brigade devised a light, agile, exceptionally competent team that could provide resuscitative surgery and intensive, professional pre- and post-operative care. Army nurses and physicians consulted on equipment and team capabilities, blending common sense with pragmatic expectations. The combination of practicing professionals and skilled soldiers was key to the success. The final product, the FST, required just one aircraft for deployment.<sup>46</sup>

The FST was intended as an expedient until the entire MASH would arrive in theater, and its capacities were ordered in keeping with its short-term life span.<sup>47</sup> The FST could support 125 Advanced Trauma Life Support (ATLS) and about 60 surgical patients before resupply became necessary. Organic holding capability was 12 casualties.<sup>48</sup> Developers envisioned the 18-person staff of the FST as able to maintain professional levels of competence for 36 to 48 hours before fatigue diminished their capabilities.<sup>49</sup>

During development, officers in the AMEDD's Fort Sam Houston-based Combat Developments Branch declined to support the FST, judging there was no "valid requirement" for such a team. Refusing to be stymied, the FST developers subsequently presented the idea to Surgeon General Frank Ledford, who approved it and provided \$50,000 to purchase specialized equipment commercially. These were small, state-of-the-art pieces such as a little ventilator, a pulse oximeter, oxygen concentrators, and basic cots that permitted raising the patient's head.<sup>50</sup> They then tested the equipment for durability by air-drop. In the main, the equipment proved capable of enduring abuse and staying operational. Planners next identified the equipment that could be carried on a single pallet together with the team. The entire set-up, equipment and team members, could unload from the aircraft tail and soon be ready to function in the field.<sup>51</sup> If a secure landing site was available, the entire assembly could be flown into theater on a USAF C-130 or C-141 aircraft, and the tents, supplies, and equipment subsequently could be loaded on a 2.5 ton truck with a half-ton trailer (air-land delivery). To relocate the entire FST after aerial insertion, the team would use the sling load delivery technique. In this case, tentage, equipment, and supplies were placed in cargo nets and lifted by a single CH-47 helicopter or two UH-60 rotary wing aircraft. With this method, the tent poles, fluorescent lights, and 18-man team would travel within the helicopter. Another choice would be a five-ton truck with the 18-man team following in

another vehicle.<sup>52</sup>

Based on the notion that repetition enhances skills and performance, the team continually rehearsed their tasks and responsibilities over a two-year period, and the enlisted members cross-trained in a variety of roles. Their versatility enabled them to perform their duties independent of outside support. All were airborne qualified and proficient in survival skills. Everyone knew everyone else and their capabilities on this cohesive team.<sup>53</sup>

Operation Just Cause planners never intended to use Gorgas Army Hospital, a U.S. Army Medical Department Activity in Panama, for supplementary Health Service Support.<sup>54</sup> It was close to the fighting and key buildings of Noriega's Panamanian Defense Forces, making access very hazardous.<sup>55</sup> Furthermore, some of the hospital staff that were local nationals had allegiance to Noriega or his Panamanian Defense Forces, and these divided loyalties had the potential to jeopardize the mission.<sup>56</sup> These factors plus the limited capacity of the FST led to the decision to use a zero-day evacuation policy, that is, casualties would be evacuated out of the combat zone in less than 24 hours.<sup>57</sup>

All the Army Nurse Corps officers who were members of the two FSTs that deployed to OJC were male.<sup>58</sup> McCall did this on purpose, considering the female nurse fiasco of Operation Urgent Fury. Her goal was to first establish the teams' credibility before getting into other issues because she did not want the mission sidetracked or scrubbed because of gender concerns. After the initial operation, she planned to integrate female nurses in an incremental fashion. McCall, however, accompanied the teams as chief nurse, and her presence was the first step in putting women on the FSTs.<sup>59</sup> However, in the end, no female Army Nurse Corps officers were assigned to FSTs during Operation Just Cause. Conversely in Operation Desert Storm, both male and female Army nurses were part of the FSTs.<sup>60</sup>

The 5th FST, a forward echelon of the 5th Mobile Army Surgical Hospital, received its initial warning orders at 2100 hours on 17 December 1989. FST members boarded a C-141B at Pope Air Force Base at 2345 hours on 18 December 1989 and arrived in Panama at 0430 hours the following morning.<sup>61</sup> Both FSTs set up on a parking tarmac at Howard Air Force Base, Panama, the site of the Joint Casualty Collection Point (JCCP) and the Air Force Mobile Aeromedical Staging Facility.<sup>62</sup> The 5th FST was operational several hours before H-hour (the time of onset of hostilities).<sup>63</sup> Its professional complement included a general and an orthopedic surgeon, an operating room nurse, a nurse anesthetist, and an operations officer who was a Medical Service Corps officer.<sup>64</sup>

The initial alert for the 1st FST of the 274th Medical Detachment (KA) came on 18 December 1989. Rain, sleet, and snow delayed their departure from Pope Air Force Base until the evening hours of 19 December. They arrived in the country at H-hour by air-land delivery and set up their facility adjacent to the 5th FST.<sup>65</sup> In addition to its other staff, this unit had two nurse anesthetists and an intensive care unit nurse.<sup>66</sup>

Augmenting the staff of the two FSTs were a team of six Army nurse anesthetists who functioned with the Joint Special Operations Task Force. They did not

administer anesthesia but provided ATLS and airway management before casualties were admitted to the FSTs for treatment and surgery.<sup>67</sup>

A complex of several Health Service Support facilities occupied the tarmac on Howard Air Force Base, the JCCP. The two FSTs, an ATLS tent, a pair of holding tents, and an aeromedical evacuation tent were the most important.<sup>68</sup> The operation ran smoothly, and staff from the Army, Navy, and Air Force collaborated in a model of joint (purple) teamwork.<sup>69</sup> A Navy team provided triage services, while Army personnel from the 44th Medical Brigade and Air Force representatives from the 1st Aeromedical Evacuation Squadron and the Howard AFB Clinic carried out their responsibilities.<sup>70</sup> One particular FST provided a communication specialist, while the other included a biomedical repair specialist, both of whom were cross-trained in other medical specialties and worked wherever the need was greatest, no matter the unit or military service.<sup>71</sup> The Army surgeon general later remarked that, "cooperation was outstanding among task force medical units."<sup>72</sup>

One General Purpose large tent housed each FST. Triage of incoming casualties took place outside the tents. Inside near the entrance, two litters rested on stands, surrounded by ATLS equipment. Further inside, there was an operating table, and if necessary, staff swiveled one of the ATLS litters, converting it into an operating table. Thus, one nurse anesthetist could care simultaneously for two patients undergoing emergency surgery. A cold (chemical) sterilization point existed just beyond the operating table. The rear of the tent had eight intensive care beds with patient care and monitoring equipment.

Strict blackout conditions were in effect and the only lighting available for the triage teams shone from the pen lights imbedded in the miners' helmets worn by the staff. There was light inside the tents but the sides were rolled down to enforce the blackout. The tents were hot and sultry, a distinct contrast to the frigid winter conditions the team had left just a few hours before. Outside the tents were portable toilets and a "water buffalo."<sup>73</sup> In the middle of the tents was an open area where the triage team placed expectant category patients, those judged not likely to survive their wounds.

McCall encountered a young Navy SEAL corpsman on a litter, alone in the expectant area. Despite a bullet wound in one leg, he had continued to care for his team but later suffered a gunshot wound to the head, which he promptly bandaged himself. Then he was evacuated to the JCCP. The severity of his head wound—large enough to insert a hand, with exposed brain tissue—and his untimely arrival with a large number of casualties led the triage team to assign him to the expectant category. McCall sat down and talked to him:

The patient was alert and awake. . . . He had an IV going. . . . I said to him, "So what's your name?" He said, "My name is Macho Camacho." I said, "Well Macho, where are you from?" . . . He said, "I'm from Dallas." I said, "Oh, do you know where you are?" He said, "Yes, I'm in hell." I said, "No you are not in hell. You are at an air base." He said, "No, I'm in hell. My head is on fire and you have to put some water on my head."<sup>74</sup>

The one attendant in the expectant area, a Navy corpsman, asked McCall if he

should administer morphine. Macho interrupted, "You can't give me morphine. I have a head injury." Taken aback at his awareness, McCall said to herself, "This kid is much too alert to be placed in the expectant category." A medical officer was summoned and concurred with her assessment and promptly put Macho on the second evacuation mission out of Panama to San Antonio, Texas. McCall thought the young SEAL probably had died en route but later discovered that he was a patient at Audie Murphy Memorial VA Hospital in San Antonio. She contacted him and learned that he was awaiting surgery to insert a plate under his scalp. Meanwhile, he wore a bicycle helmet as protection for his head. He suffered some residual neurological deficits (partial vision loss and paralysis), but during rehabilitation, he volunteered at an elementary school and read stories to students, thereby contributing to his own healing and providing a meaningful service to his adopted community. Later he and his wife led support groups for families of service members deployed overseas during Operation Desert Storm and Operation Desert Shield. Macho's wife subsequently went to medical school. McCall believed that his life was saved for a greater purpose.<sup>75</sup>

Preliminary statistics from the two FSTs showed that they cared for 341 casualties and performed 73 operative procedures. One patient died in the FST following a traumatic arm amputation and the severe mangling of his other arm. With hindsight, the staff concluded that he had lost too much blood before reaching the JCCP. His condition underlined the need to have written standard operating procedures to dig soakage pits for body fluids and drainage and similar protocols to deal with severed body parts. McCall carefully checked to ensure that the detached arm had no wedding ring. As she stood in the middle of the tent holding his arm in her hands, she realized that no one had arranged to dispose of amputated body parts. As an expedient, she later used the laboratory at Gorgas to dispose of the torn limb.<sup>76</sup>

On 29 December 1989, the 1st FST left Panama and returned to Fort Bragg.<sup>77</sup> The 5th FST departed two days later on New Year's Eve.<sup>78</sup> Throughout the operation, there were conflicting numbers of reported evacuations and casualties. The Air Force reported to have evacuated 261 patients between 20 December 1989 and 26 January 1990.<sup>79</sup> Another source calculated the numbers of evacuees at 284.<sup>80</sup> Some of the inaccurate numbers and accountability problems were attributed to operational security requirements that proscribed divulging identification or personal information, which in turn caused problems in regulating casualties.<sup>81</sup> The Air Force evacuated most casualties to two military hospitals in San Antonio, Texas—Wilford Hall Air Force Medical Center and Brooke Army Medical Center (BAMC).

Early in the morning on 20 December 1989, nursing staff at BAMC received the alert notice that every Army nurse expects to get sooner or later. The telephone caller told them that battlefield casualties would soon be arriving. Lieutenant Colonel David Tranel, the chief of BAMC's Critical Care Nursing Section and a Vietnam veteran, heard the news at 0245 hours that morning. After donning his Battle Dress Uniform and arriving at his duty station at Beach Pavilion, he

informally took over and tried to organize the personnel and supplies available there. Headquarters first notified Tranel that patients would be arriving almost instantaneously. Then they said there would be an eight-hour delay, reverting to a four-hour holdup, then a 12-hour arrival time. Amid the uncertainty, Tranel set up four teams, each with a field grade nurse and three to four enlisted staff, to deal with the expected influx of patients. These teams would admit the patients, obtain physicians' orders, and settle the patients into the nursing unit. Another team then would assume responsibility for the patients' requirements. Tranel subsequently confirmed the availability of physician, x-ray, and laboratory support. Time passed, everyone was ready, but still no patients appeared. Not until 22 hours later did the first admissions arrive. In the interim, Tranel recognized that 100 percent of his staff was on standby and there was no backup for anyone. He released part of the staff but placed them on call. Others slept in the ward area until patient arrivals were imminent. At first, the mood was positive, but with each additional delay, frustration mounted. When the patients ultimately did arrive, the staff provided excellent care. Some casualties suffered jump-related orthopedic injuries, but most were heat casualties, while some were victims of extreme fatigue. They did not need intensive care nursing, just a telephone to contact their families, some privacy, and a little quiet time to reflect on their experiences. The nursing staff, however, found themselves responsible for controlling an almost continuous stream of visiting VIPs, an unexpected duty. The huge crowds of visitors and their entourages, while well intentioned, interfered with patient care and represented a threat to security.<sup>82</sup>

Major Jennifer J. Wiggall was the clinical head nurse of the Emergency Medical Service at BAMC. She arrived at her post just after 0400 hours on 20 December 1989 and immediately activated the unit's Mass Casualty plan. She designated one nurse and a medic for every one or two emergency beds. Each dyad assembled the equipment and supplies they expected to use and discussed individual responsibilities. The chief of the Department of Emergency Medicine assigned a physician to each nurse/medic team. By 0900 hours, no casualties had arrived, so Wiggall released her night staff. The Emergency Medical Service nurses worked 12-hour shifts, and they had to be back on duty at 1900 hours that night, so it seemed a prudent measure. That same morning the first air-evacuation mission landed at Kelly Air Force Base and delivered all 63 patients to Wilford Hall while the Emergency Medical Service staff at BAMC were sitting and waiting. After the second plane landed, BAMC received notification at about 1800 hours that patients would arrive.<sup>83</sup>

The onset of casualties brought unexpected assistance when a group of general surgeons appeared in the unit. The surgeons were not familiar with the decisions previously made or the plans for assigning responsibilities. Confusion ensued. After the first push, the staff discussed what to change with the next surge of patients. Everyone resolved to calm down, show the surgeons what the process was, and reassure the patients with better explanations of their conditions. After this baptism by fire, routines were refined. Nonetheless, after every push, time was set

aside to discuss and evaluate performance. With each additional wave of arriving patients, the staff's approach was honed and perfected. The team nurse greeted each incoming casualty, explained where they were, made clear that a triage and assessment would first take place, and ensured that the patient was stable. The nurse then queried the casualty about allergies and medications, verified that the IV line was patent, did a head-to-toe assessment, drew lab work, and coordinated other services and specialty referrals. For seven days, a steady stream of casualties arrived. The greatest volume of incoming casualties occurred during the first three days.<sup>84</sup>

The staff's experience in BAMC's level-one trauma center, their training in Combat Casualty Care Course with its emphasis on triage and the care of combat patients, and their ATLS and/or Advanced Cardiac Life Support certification were instrumental in the positive outcome. All were unstinting in their praise of the excellent care the casualties received in Panama and during air- evacuation. Most presented with dry dressings, patent IV lines, and were clean and tidy. In retrospect, the nursing staff was amazed at the extreme youthfulness of their patients. They also were surprised by the young troopers' stoicism. Finally, the staff was astonished by their own overwhelming sense of satisfaction and their feelings of real accomplishment and contribution to the mission.<sup>85</sup>

Because of their minimal care needs and good physical condition, most of the patients were discharged within two to three days. Administrative problems, however, complicated their disposition from the hospital. For example, the soldiers needed Class A uniforms for travel, and the Air Force kept changing the requirements for airlift.<sup>86</sup> Colonel Charles Bombard, the chief, Department of Nursing, felt the Air Force demanded too much trivial detail about the conditions of the patients, most of whom were able to return to duty, had no need for medical attention, and were fit to fly. Still, the Air Force refused to manifest these soldiers until BAMC forwarded information about their height, weight, hemoglobin, hematocrit, and electrolyte levels, and a host of other information. Bombard talked with an Air Force medical officer who was an orthopedic resident at BAMC. He too expressed frustration over the senseless minutiae and phoned Wilford Hall, discovering they were not required to furnish any of the information required of BAMC. Having worked for the Armed Services Medical Regulating Office at Scott Air Force Base, Illinois, this physician knew that the information required of Wilford Hall was all that the Armed Services Medical Regulating Office needed. He could not understand why BAMC was asked for such inconsequential data.<sup>87</sup>

Skewed San Antonio media coverage also hurt Army/Air Force relations.<sup>88</sup> Many Army personnel believed that local press and TV coverage that focused almost exclusively on the contributions of Wilford Hall neglected BAMC and its participation. The BAMC staff thought both services deserved credit. Some Army casualties that were admitted to BAMC did not understand why their friends were being cared for in an Air Force hospital. One entrepreneur began selling T-shirts reading "BAMC— We also served Operation JUST CAUSE." The general feeling was that BAMC had not received due recognition for its contributions.<sup>89</sup>

Overall, medical support for Operation Just Cause was successful. Still, the Army leadership evaluated performance to find what went well and what needed improvement.<sup>90</sup> Several broad categories such as medical supply, communications, evacuation, resuscitation, patient accountability, and the restrictions imposed on the size and composition of the medical task force needed improvement. The complexity of Operation Just Cause, an airborne/air assault operation, its nocturnal timing, its setting in urban, mountain, and jungle terrain, and the heavy security that hampered planning explained some of the shortcomings.<sup>91</sup>

Planners set to work to rectify the shortcomings, but many issues remained unresolved when Iraqi dictator Saddam Hussein's invasion of Kuwait in 1990 brought a swift and powerful reaction. With time, however, many of these deficiencies also achieved resolution.

During the 1980s, Army Nurse Corps officers participated in numerous non-combat overseas missions. Their expertise and knowledge proved of great assistance to allied countries. The Army Nurse Corps normally selected only one Army nurse or at most a small team for these missions, during which the nurse or team members served to further diplomatic policy objectives of the U.S. government.

Major Paul Farineau participated in a three-month assignment in Egypt as a member of Project Hope in 1982. He assisted the local medical establishment in devising a curriculum to teach emergency medical care.<sup>92</sup> A trio of Army Nurse Corps officers traveled overseas to the Sinai to operate several health clinics that same year. As members of a United Nations peacekeeping force, Captains Patrick M. Schretenthaler and Delois Daniels and Second Lieutenant Paul Escott helped to staff two health clinics and provided emergency care to members of the multinational force, to United Nations observers, and to civilian contract employees. They later cared for a group of Bedouins—desert nomads—who lived in the region.<sup>93</sup>

Also in 1982, the U.S. Army Materiel Development and Readiness Command sent Lieutenant Colonel Charles Bombard to Saudi Arabia to oversee the contracting of nursing services for a new 500-bed hospital. He provided assistance and expertise to members of the Saudi Arabian National Guard.<sup>94</sup> The Army Nurse Corps furnished additional consultation for the Saudi Arabian forces when Major Gary Naleski spent 11 months in Taif, Saudi Arabia, in 1984 helping the Saudi armed forces to develop doctrine, implement educational programs, and choose options for the proper allocation of resources.<sup>95</sup> Although many missions were humanitarian or focused on nation building, a few—such as Operation Brightstar—added another element. They also served as field exercises.

Seven Army Nurse Corps officers constituted the nursing complement of the 5th MASH that took part in Operation Brightstar, held from 12 to 28 August 1983. This multinational joint exercise took place at Cairo West Airbase, Egypt. The hospital deployed with prototype Deployable Medical System TEMPER equipment and cared for American forces afflicted with dysentery, asthma, renal calculi, and minor orthopedic problems. The most significant group of casualties was 24 soldiers who came down with shigella-induced dysentery and experienced chills, fever, and diarrhea in the second week of the operation. Their admission to

the small 30-bed 5th MASH facility was regarded as a Mass Casualty situation.

Throughout this mission, women's issues proved taxing. Local customs forbade women from wearing shorts for physical training or even in their living areas. Women also had to keep communications with men on duty to a minimum and not speak with them at all in social settings. Egyptian troops involved in the operation regarded the women soldiers as prostitutes.<sup>96</sup> The cultural shock of female soldiers' participation in Operation Brightstar was unexpected. It was a prime example of diverse national and ethnic expectations and values, a not-uncommon occurrence encountered by women in the Army when deployed on foreign soil. American cultural norms about the position, decorum, and role of American women soldiers clashed with Middle East expectations concerning the status of women, proper attire, alcohol consumption, and other customs. These thorny issues and circumstances called for adjustments on both sides.<sup>97</sup>

Also in 1983, Lieutenant Colonel Dorothy Clark crafted contingency plans for hospitals that were designated for wartime activation at the United Kingdom Plans Division in Burtonwood, England. She provided consultation on issues such as adequate hospital staffing, proper equipment, and appropriate locations for combat hospitals.<sup>98</sup>

In 1985, Captain Karen Keller served with a Medical Mobile Training Team in the African nation of Liberia. She assessed learning needs, developed a Program of Instruction, and taught programs for medical corpsmen in the armed forces of Liberia. Keller's assignment lasted 168 days.<sup>99</sup> Also in 1985, seven Army nurses deployed with the 42nd Field Hospital from Fort Knox, Kentucky, to Morocco to support 300 U.S. Army soldiers training there. The 75-member element of the Medical Readiness Exercise set up tents to house an intensive care unit, an operating room, and various other facilities in the desert environment. They admitted five patients and performed two minor surgical procedures. The staff also evaluated some 300 Moroccan citizens and treated their maladies. The team worked under hardship conditions with outdated and substandard equipment and medications in hot, dusty tents. They encountered a dubious welcome from the Moroccans, who seemed to believe that their own local medical facilities were adequate for their particular needs. Major Linda Henson, the 42nd Field Hospital's chief nurse, agreed, suggesting that when a country believes its level of medical care is satisfactory, a Medical Readiness Exercise is unnecessary. Before deployments, she recommended authorities need to ascertain the host country's actual opinions about intervention by U.S. medical elements.<sup>100</sup>

In 1986, the Philippine government asked for an AMEDD team to evaluate its health care facilities. Lieutenant Colonel Ronald Oliver participated and made contributions with that team. That same year Lieutenant Colonel Franklin Metcalf served as a nurse advisor to the Saudi Arabian National Guard. Metcalf's primary focus was the King Fahad National Guard Hospital in Riyadh, where he helped to select nurse applicants for hire from other countries, made daily inspection trips through the facility, observed at committee meetings, and advised on nursing issues. One of his most taxing responsibilities was the hiring of foreign nurses to



Lieutenant Colonel Franklin Metcalf, center, with Ann Kartley, left, a nurse consultant from the United States, and Suleiman Al Zakr, right, await their turns to brief incoming foreign nurses about Saudi customs at the King Fahad National Guard Hospital in 1986.

Photo courtesy of Colonel Franklin Metcalf, Hopkinsville, KY.

work in the facility, a significant challenge, because few nurses were willing to live and work in such a politically unstable area. Metcalf helped to prioritize vendors whom the government would select to provide nurses, experiencing firsthand the frustrations and uncertainty of waiting for lengthy periods while the government slowly deliberated on the merits of the various contractors.

While in Saudi Arabia, Metcalf and his family enjoyed unique travel opportunities and on one occasion attended a camel race of epic proportions. More than a thousand camels took part in the 12-mile contest where the first prize was a water tanker. After the race, the Metcalf family and their hosts shared a *capsa*, a traditional meal, consisting of a quartered goat or sheep on a bed of rice. All the diners sat or knelt around the main dish and—using no plates or utensils—ate with their right hands.<sup>101</sup>

Ten Army nurses participated in a humanitarian mission with the Public Health Service, Air Force, and Navy aboard the USNS *Mercy* in February 1987. The vessel visited ports in the Philippines, Tonga, Fiji, and the Gilbert Islands, mostly performing corrective surgery on children with congenital deformities. Those who participated felt that their contributions to the mission were far exceeded by the personal rewards of experiencing cross-cultural nursing, a high level of



Lieutenant Colonel Franklin Metcalf, extreme left, shares a traditional Saudi meal (capsa) of rice and roasted goat with American soldiers (in camouflage uniforms) and Saudi soldiers (in solid-color uniforms). The two men not in uniform were contract workers. Photo courtesy of Colonel Franklin Metcalf, Hopkinsville, KY.

interservice collaboration, professional advancement, and opportunities to hone their field expedience skills. One Army nurse, Lieutenant Ronald Kirkconnell, lost his life in a helicopter crash while in support of the mission.<sup>102</sup>

The Army dispatched several relief missions in 1989. At the U.S. Department of State's request, Major Jimmie Keenan and Captains Andrea Coenen and Dennis Driscoll joined a burn team from the Institute of Surgical Research to care for about 100 patients suffering from thermal injuries as a result of a train wreck and subsequent gas explosion in the Ural Mountains near Ufa, Russia.<sup>103</sup> Responding to another state department appeal in 1990, Captain Elizabeth Hill accompanied two physicians to Sweden to advise health care workers there about the use of high containment equipment to care for a patient suffering with Ebola/Marburg fever.<sup>104</sup>

When the Philippine volcano Mount Pinatubo erupted in 1991, another Army Nurse Corps officer, Major Daniel Jergens, deployed with the 25th Infantry Division. He cared for Philippine nationals affected by the volcanic eruption.<sup>105</sup> The

following year, operating room nurses and anesthetists from 7th Medical Command in Europe deployed on a nation-building mission to upgrade the skills of local hospital staff in Tbilisi in the Georgian Republic and Bishkek in Kirghizstan.<sup>106</sup> Finally, in 1999, two Army Nurse Corps officers participated in Operation Provide Hope in Kharkiv, Ukraine. They provided training for hospital staffs in the use of equipment and supplies donated by the U.S. Department of State, U.S. Department of Defense, and private organizations. Captain Johnnie Koch oriented the local medical personnel to operating room equipment and supplies. Captain Pablito Gahol focused on intensive care unit equipment, teaching health care providers in the new independent state of the former Soviet Union about cardiac monitors, defibrillators, crash carts, and pulse oximeters.<sup>107</sup>

The optempo (operations tempo), the volume and increasing frequency of peace-making and peacekeeping activities, with Army Nurse Corps participants grew with the passage of time. As part of military operations other than war, these efforts promoted peace, deterred war, resolved conflict, and supported civil authorities responding to national crises.<sup>108</sup> Army nurses also became involved in civic action and nation-building missions. Although such endeavors were not new for Army Nurse Corps officers, during the decade of the 1980s they became routine, normal missions. They were successfully conducted despite nursing shortages, readiness issues, quality concerns, and the establishment of new, innovative patient care roles. These missions did improve conditions in developing nations and strengthened relationships with allies. Through participation in these operations, nurses gained much experience that better prepared them for future responsibilities.

## Notes

1. Dwight D. Oland, *Department of the Army Historical Summary, Fiscal Year 1984* (Washington, DC: Center of Military History, United States Army, 1995), 237–45. Peter M. Dunn and Bruce W. Watson, eds., *American Intervention in Grenada: The Implications of Operation "Urgent Fury"* (Boulder, CO: Westview Press, 1985). Mark Adkin, *Urgent Fury, The Battle for Grenada* (Lexington, MA: Lexington Books, 1989). Thomas E. Broyles, "A Comparative Analysis of the Medical Support in the Combat Operations in the Falklands Campaign and the Grenada Expedition," Masters Thesis, 81–84, U.S. Army Command and General Staff College, 1987. Richard V.N. Ginn, *The History of the U.S. Army Medical Service Corps* (Washington, DC: Office of the Surgeon General and Center of Military History, United States Army, 1997), 423–25.

2. "Health Service Support Observations, Operation Just Cause," Typewritten Report (TR) 19–20, 28 June 1990, Army Nurse Corps Collection (ANCC), Office of Medical History (OMH).

3. A total of 35 Army Nurse Corps officers participated. Twelve came from Fort Bragg and the remaining 23 were pulled from other HSC installations within CONUS. "AMEDD ANC PROFIS Support for Military Operation in Grenada," Typewritten List, n.d., attached to Kim M. Cowden to ANC Historian, "ANC Award Recipients in Grenada," Typewritten Letter, 12 September 1984, ANCC, OMH.

4. "AMEDD ANC PROFIS Support for Military Operation in Grenada," Typewritten List, n.d., attached to Kim M. Cowden to ANC Historian, "ANC Award Recipients in Grenada," Typewritten Letter, 12 September 1984, ANCC, OMH. Carolyn M. Feller and Debora R. Cox, *Highlights in the History of the Army Nurse Corps* (Washington, DC: U.S. Army Center of Military History, 2000), 57.

5. Donn R. Richards, "Medical Trends: An Evaluation of Medical Care Given in Vietnam, Grenada, Panama, and Desert Storm," Study Research Project, 6 April 1999, U.S. Army War College, Carlisle Barracks, PA.

6. Roxine C. Hart, *Women in Combat* (Patrick Air Force Base, FL: Research Division, Defense Equal Opportunity Management Institute, 1991), 14.

7. Daniel P. Bolger, "Operation Urgent Fury and Its Critics," *Military Review* 66 (July 1986): 57–69.

8. Donn R. Richards, "Medical Trends: An Evaluation of Medical Care Given in Vietnam, Grenada, Panama, and Desert Storm," Study Research Project, 17–18, 6 April 1999,

U.S. Army War College, Carlisle Barracks, PA. Thomas E. Broyles, "A Comparative Analysis of the Medical Support in the Combat Operations in the Falklands Campaign and the Grenada Expedition," Masters Thesis, 92, U.S. Army Command and General Staff College, 1987. Dale C. Smith, "Military Medicine," in *Encyclopedia of the American Military*, ed. John E. Jessup and Louise B. Ketz (New York: Charles Scribner's Sons, 1994), 1625.

9. Nancy Tomich, "Beirut, Grenada: Scenarios Unfolding," *U.S. Medicine* 19 (1 December 1983): 1, 8.

10. Donn R. Richards, "Medical Trends: An Evaluation of Medical Care Given in Vietnam, Grenada, Panama, and Desert Storm," Study Research Project, 17–21, 6 April 1999, U.S. Army War College, Carlisle Barracks, PA. Thomas E. Broyles, "A Comparative Analysis of the Medical Support in the Combat Operations in the Falklands Campaign and the Grenada Expedition," Masters Thesis, 96–108, U.S. Army Command and General Staff College, 1987. James M. Dubik and Terrence D. Fullerton, "Soldier Overloading in Grenada," *Military Review* 67 (January 1987): 38–47. Mark Adkin, *Urgent Fury, The Battle for Grenada* (Lexington, MA: Lexington Books, 1989), 222, 290.

11. Donn R. Richards, "Medical Trends: An Evaluation of Medical Care Given in Vietnam, Grenada, Panama, and Desert Storm," Study Research Project, 20, 6 April 1999, U.S. Army War College, Carlisle Barracks, PA.

12. Patricia A. Diskin, "After Action Report 'Urgent Fury,'" Typewritten Document (TD), 3, n.d., ANCC, OMH. Diskin revealed that Trobaugh "wanted a medical unit minus its females. The commanding officer of the HQs above the 44th Med Brigade was adamant that the unit go as is," or with its female contingent intact. Patricia A. Diskin to Author, E-mail Correspondence, 6 March 2004, ANCC, OMH. Diskin noted that the female commander of an MP detachment was forbidden to accompany her troops. Patricia A. Diskin to Author, E-mail Correspondence, 6 March 2004, ANCC, OMH. Despite the prohibition, four female Military Police actually deployed to Grenada on 29 October 1983. One day later, the ground commander (Trobaugh) ordered them returned to the States. They deployed a second time when commanders determined their units could not meet their mission without the women. Female Air Force officers piloted C-141 Starlifter transport planes with full troop loads into Grenada as well. Ann Wright, "The Roles of US Army Women in Grenada," *Minerva, Quarterly Report on Women and the Military* 2 (Summer 1984): 103–13. William Proxmire, "Three Myths about Women and Combat," *Minerva, Quarterly Report on Women and the Military* 4 (Winter 1986): 105–12. Lorry M. Fenner, "Either You Need These Women or You Do Not: Informing the Debate on Military Service and Citizenship," in *Women in the Military*, ed. Rita James Simon (New Brunswick, NJ: Transaction Publishers, 2001), 5–32. Lorry M. Fenner, "Either You Need These Women or You Do Not: Informing the Debate on Military Service and Citizenship," *Gender Issues* 16 (Summer 1998): 5–34.

13. 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), 41–42.

14. POR can also refer to "Processing for Overseas Readiness." Susan C. McCall, Interview by Constance J. Moore, Transcript, 7, 23 January 1997, Army Nurse Corps Oral History Collection, OMH.

15. Differing viewpoints about the necessity and wisdom of issuing weapons to Army nurses have been articulated. While on the aircraft bound for Grenada, an engineer queried Davis about why some nurses had no weapons. He asked if she was not "nervous about going to war without a weapon." Davis later confided that she "did not have the nerve to inform him those carrying weapons did not have any ammunition assigned." Shirley A.

Davis, "Comments on Grenada Experience, Urgent Fury," TD, 1, 3–5, 18 October 1988, ANCC, OMH. During Operation Just Cause, Lieutenant Colonel Susan McCall did carry a 9-mm sidearm with 200 rounds of ammunition. She decided later that it was not such a good idea; in fact, it created a hazardous situation for "all of these medical folks with limited amount of training running around with [loaded] weapons. . . . That's just another thing that you have to keep up with. You constantly have to be aware of where that weapon is and I think it distracts from your ability to move about and take care of patients. . . . It was cumbersome and for the value added I think it was not necessary." Susan C. McCall, Interview by Constance J. Moore, Transcript, 8–9, 23 January 1997, Army Nurse Corps Oral History Collection, OMH.

16. Shirley A. Davis, "Comments on Grenada Experience, Urgent Fury," TD 1–3, 18 October 1988, ANCC, OMH.

17. Grace C. Johnson, "Reflections on Grenadian Experience, Urgent Fury" TD, 21, 18 October 1988; Shirley A. Davis, "Comments on Grenada Experience, Urgent Fury," TD, 5, n.d.; Susan M. Keller, Untitled TD, 1, 23 February 1984; and Teresa Milie, Untitled TD, 1, n.d. (all in ANCC, OMH).

18. Teresa Milie, Untitled TD, 1, n.d., ANCC, OMH.

19. Shirley A. Davis, "Comments on Grenada Experience, Urgent Fury," TD, 6, 18 October 1988, ANCC, OMH.

20. Donn R. Richards, "Medical Trends: An Evaluation of Medical Care Given in Vietnam, Grenada, Panama, and Desert Storm," Study Research Project, 18–19, 6 April 1999, U.S. Army War College, Carlisle Barracks, PA. On 27 October, a Ranger assault on Camp Calivigny ended in disaster. Three Black Hawk helicopters crashed, killing three and critically injuring four Rangers. Sergeant Stephen Trujillo, a medic, rushed into the melee, removed the injured, and saved lives. President Reagan subsequently awarded him the Silver Star before a joint session of Congress. Mark Adkin, *Urgent Fury, The Battle for Grenada* (Lexington, MA: Lexington Books, 1989), 278–85.

21. Joel Messing, "After Action Report Grenada Deployment," 2–3, n.d., ANCC, OMH.

22. Patricia Diskin, "Notes on Grenada," TD, 4, n.d., ANCC, OMH.

23. Shirley A. Davis, "Comments on Grenada Experience, Urgent Fury," TD, 10, 18 October 1988, ANCC, OMH.

24. Patricia Diskin, "Notes on Grenada," TD, 4, n.d., ANCC, OMH.

25. The M561 Gama Goat was a multipurpose "six wheel drive amphibious 1<sup>1</sup>/<sub>4</sub> ton Cargo truck." The derivation of its name came from Roger Gamaunt, who designed its articulated section, and from the fact that it could go anywhere, like a goat. "The rear portion of the vehicle was attached with a coupling mechanism; the front and rear mechanisms allowed the carrier part of the truck to roll and pitch. The high level of gravity did result in roll-overs." The HMMWV (Humvee) later replaced the Gama Goat. Vicki R. Odegaard to Author, E-mail Correspondence, 10 June 2003, ANCC, OMH.

26. Cecil Stack, "Movable Medicine," *Soldiers* 41 (June 1986): 24–25.

27. Shirley A. Davis, "Comments on Grenada Experience, Urgent Fury," TD, 7–8, n.d.; and Jack L. McNeil, "Grenada Diary," TD, 3, n.d. (both in ANCC, OMH).

28. Ann Wright, "The Roles of US Army Women in Grenada," *Minerva, Quarterly Report on Women and the Military* 2 (Summer 1984): 103–13. William Proxmire, "Three Myths about Women and Combat," *Minerva, Quarterly Report on Women and the Military* 4 (Winter 1986): 105–12. Lorry M. Fenner, "Either You Need These Women or You Do Not: Informing the Debate on Military Service and Citizenship," in *Women in the Military*, ed. Rita James Simon (New Brunswick, NJ: Transaction Publishers, 2001), 5–32. Lorry M. Fenner, "Either You Need These Women or You Do Not: Informing the Debate on Military

Service and Citizenship,” *Gender Issues* 16 (Summer 1998): 5–34.

29. Rosamond R. Shepard, “After Action Report, OB/GYN Nurse, Project Urgent Fury,” TD, 1, 23 February 1984, ANCC, OMH.

30. Rosamond R. Shepard, “After Action Report, OB/GYN Nurse, Project Urgent Fury, Oct–Nov 83,” TD, 2, 23 February 1984, ANCC, OMH.

31. Jack L. McNeil, “Grenada Diary,” TD, 4, n.d., ANCC, OMH.

32. Patricia A. Diskin, “After Action Report, ‘Urgent Fury’,” TD, 3, n.d., ANCC, OMH.

33. Jack L. McNeil, “Grenada Diary,” TD, 4, n.d.; and Joel Messing, “After Action Report Grenada Deployment,” TD, 3, n.d. (both in ANCC, OMH).

34. Among the six was Lieutenant Colonel Patricia Diskin, who received the Joint Services Commendation Medal. The remaining five were awarded the Army Commendation Medal. They included majors Jack McNeil, Flint Gullet, and Rosamond Shepard; Captain Joel Messing; and First Lieutenant Teresa Milie. Kim M. Cowden to ANC Historian, Type-written Letter, 12 September 1984, ANCC, OMH.

35. Shirley A. Davis, “Comments on Grenada Experience, Urgent Fury,” TD, 10, 18 October 1988, ANCC, OMH.

36. Grace C. Johnson, “Reflections on Grenadian Experience, Urgent Fury” TD, 4, 18 October 1988, ANCC, OMH.

37. Teresa Milie, Untitled TD, 3, n.d., ANCC, OMH.

38. *Ibid.*, 3. One study noted that 20 percent of a sample of 684 Urgent Fury veterans “reported abdominal pain and/or diarrhea during or after the action.” The investigators attributed a significant number of these cases to hookworm infection. Patrick W. Kelley and others, “An Outbreak of Hookworm Infection Associated with Military Operations in Grenada,” *Military Medicine* 154 (February 1989): 55–59.

39. Shirley A. Davis, “Comments on Grenada Experience, Urgent Fury,” TD, 11–12, 18 October 1988, ANCC, OMH.

40. 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), 41–42. “Operation Just Cause, The Untold Tale,” *Army Times* 52 (30 December 1991): 12–14, 16, 18–19, 46. Clarence E. Briggs, *Operation Just Cause: Panama, December 1989: A Soldier’s Eyewitness Account* (Harrisburg, PA: Stackpole Books, 1990). Thomas Donnelly, Margaret Roth, and Caleb Baker, *Operation Just Cause: The Storming of Panama* (New York: Maxwell Macmillan, 1991). Malcolm McConnell, *Just Cause: The Real Story of America’s High-Tech Invasion of Panama* (New York: St. Martin’s Press, 1991).

41. “Operation Just Cause, The Untold Tale,” *Army Times* 52 (30 December 1991): 13–14.

42. George E. Hammond, “Operation Just Cause Lessons Learned Report,” 2, 1 June 1990, ANCC, OMH.

43. Office of the Secretary of the Army, “Operation Just Cause Fact Sheet,” 1, n.d., ANCC, OMH. Kevin Buckley, *Panama, The Whole Story* (New York: Simon & Schuster, 1991). Carl E. Vuono, “Initial Observations of Operation Just Cause,” TD, n.d., ANCC, OMH.

44. Susan C. McCall, Interview by Constance J. Moore, Transcript, 3, 23 January 1997, ANCC, OMH. Charlotte Hough, Michael Sadler, and Patricia Patrician, “Military Nursing at the ForeFront: The Army Forward Surgical Team,” *Critical Care Nursing Clinics of North America* 15 (June 2003): 193–200. Susan C. McCall, “Lessons Learned by Army Nurses in Combat, A Historical Review,” USAWC Military Studies Program Paper, 27, n.d., ANCC, OMH.

45. The FST concept can be traced back to the 18th century. Its American origins resided

in World War I, with the surgical teams positioned at forward field hospitals. During World War II, it was exemplified in the Auxiliary Surgical Teams at Division Clearing Stations and in the Southwest Pacific Theater, where the PASH (Portable Army Surgical Hospital) was employed in the jungle. During the Korean War, the Mobile Army Surgical Hospital (MASH) served as an expression of the concept. Robert J.T. Joy to Author, Typewritten Letter, 24 November 2003, ANCC, OMH. Dale C. Smith, "Military Medicine," in *Encyclopedia of the American Military*, ed. John E. Jessup and Louise B. Ketz (New York: Charles Scribner's Sons, 1994), 1615, 1621.

46. Susan C. McCall, "Lessons Learned by Army Nurses in Combat, A Historical Review," USAWC Military Studies Program Paper, 27–28, n.d., ANCC, OMH. At the behest of Colonel Bruce T. Miktinac, commander of the 44th Medical Brigade, Lieutenant Colonel Susan McCall headed up the team that designed the FST. Others involved on the ad hoc planning group were Captain Stephen Janney, a nurse anesthetist, and a surgeon, Major David Rivera. The team looked at the Korean War–era MASHs, the British version utilized in the Falklands War, and the French Surgical Parachute Teams. "They bounced the[ir] ideas off of" McCall and Colonel Kim, the brigade S3, operations and training officer. Susan C. McCall, Interview by Constance J. Moore, Transcript, 35–36, 23 January 1997; Lee Porisch to Author, E-mail Correspondence, 7 July 2003; and "Army Nurse Corps (ANC) 1986 Annual Historical Report," 19 (all in ANCC, OMH).

47. Susan C. McCall, "Lessons Learned by Army Nurses in Combat, A Historical Review," USAWC Military Studies Program Paper, 27–29, n.d., ANCC, OMH.

48. "5th MASH, Operation 'Just Cause' AAR," TD, 1, n.d., ANCC, OMH.

49. Lee A. Porisch, "Basic Logistical Considerations for Rapid Medical Deployment," *Military Medicine* 156 (May 1991): 215–18.

50. The oxygen concentrators allowed the FST to eliminate "compressed medical gases as the power and oxygen source." This was the "major logistical burden that impeded previous medical units from being as mobile and logistically independent as the forces they support[ed]." Lee A. Porisch, "Basic Logistical Considerations for Rapid Medical Deployment," *Military Medicine* 156 (May 1991): 215–18.

51. Susan C. McCall, Interview by Constance J. Moore, Transcript, 13–14, 23 January 1997, ANCC, OMH.

52. Lee A. Porisch, "Basic Logistical Considerations for Rapid Medical Deployment," *Military Medicine* 156 (May 1991): 215–18.

53. Susan C. McCall, "Lessons Learned by Army Nurses in Combat, A Historical Review," USAWC Military Studies Program Paper, 28–29, n.d., ANCC, OMH. Frank F. Ledford, "Army Medicine Balancing Needs with Resources," *Army* 40 (October 1990): 180–83, 185.

54. OPSEC dictated that staff at Gorgas be kept uninformed about the mission. When the battle commenced, the Gorgas staff could not comprehend why they were not being allowed to treat American casualties. "The vast majority of people [they] treated were Panamanian Defense Forces and Dignity Battalion members." Ralph A. Franco, "Officer Tells Story of 'Just Cause,'" *HSC Mercury* 17 (March 1990): 6.

55. Lee A. Porisch, "Basic Logistical Considerations for Rapid Medical Deployment," *Military Medicine* 156 (May 1991): 215–18.

56. Susan C. McCall, Interview by Constance J. Moore, 16–17, 23 January 1997; and "Health Service Support Observations, Operation Just Cause," TR, 8, 28 June 1990 (both in ANCC, OMH).

57. Donn R. Richards, "Medical Trends: An Evaluation of Medical Care Given in Vietnam, Grenada, Panama, and Desert Storm," Study Research Project, 23, 6 April 1999, U.S.

Army War College, Carlisle Barracks, PA.

58. The two teams were the FST, 5th MASH, and the FST, 274th Medical Detachment. George E. Hammond, "Operation Just Cause Lessons Learned Report," 1, 1 June 1990, ANCC, OMH. Susan C. McCall, "Lessons Learned by Army Nurses in Combat, A Historical Review," USAWC Military Studies Program Paper, 27–29, n.d., ANCC, OMH.

59. Susan C. McCall, Interview by Constance J. Moore, Transcript, 12–13, 23 January 1997, ANCC, OMH.

60. Barbara J. Smith, Interview by Constance J. Moore, Transcript, 35, 2 March 1995, Army Nurse Corps Oral History Collection, OMH.

61. "5th MASH, Operation 'Just Cause' AAR," TD, 2, 3, n.d., ANCC, OMH.

62. JCCP was also referred to as the Joint Casualty Control Point. Courtney Scott, "The Impact of Strategic Aeromedical Evacuation in Operation Just Cause," TD, 4–7, June 1991, ANCC, OMH. "Health Service Support Observations, Operation Just Cause," TR, 3, 28 June 1990; and Susan C. McCall, Interview by Constance J. Moore, Transcript, 3–4, 23 January 1997 (both in ANCC, OMH).

63. "5th MASH, Operation 'Just Cause' AAR," TD, n.d., ANCC, OMH. Lee A. Porisch, "Basic Logistical Considerations for Rapid Medical Deployment," *Military Medicine* 156 (May 1991): 215–18.

64. Captain (P) William F. Wadford was the OR nurse and Captain William Watson was the nurse anesthetist. "5th MASH, Operation 'Just Cause' AAR," TD, 6, n.d., ANCC, OMH. "Panama Action Proves Surgical Teams' Value," *HSC Mercury* 17 (March 1990): 7.

65. Lee A. Porisch, "Basic Logistical Considerations for Rapid Medical Deployment," *Military Medicine* 156 (May 1991): 215–18. Susan C. McCall, Interview by Constance J. Moore, Transcript, 6, 23 January 1997, ANCC, OMH.

66. The two 1st FST nurse anesthetists were Major Lee Porisch and Captain Robert Yates. The ICU nurse was Captain Steve Hendrix. Lee Porisch to Author, 13 June 2003; and Lee Porisch to Author, 7 July 2003 (both E-mail Correspondence, ANCC, OMH).

67. These Army Nurse Corps officers were LTC Stan Strzelecki, Major (P) Larry McDade, Major Ronald Ostmann, Major Robert Conneen, CPT Marty Godwin, and CPT Steve Allen. "Military History of the Army Nurse Corps," Typewritten Memorandum, 5 June 1990; and Lee Porisch to Author, E-mail Correspondence, 29 June 2004 (both in ANCC, OMH).

68. "5th MASH, Operation 'Just Cause' AAR," TD, 3, n.d., ANCC, OMH. Courtney Scott, "The Impact of Strategic Aeromedical Evacuation in Operation Just Cause," TD, 4–7, June 1991, ANCC, OMH.

69. The purple suit concept referred to a recurring proposal to combine all DoD medical personnel "into a single consolidated agency," thus eliminating the Army, Navy, and Air Force medical departments as separate entities. Some conjectured that the staff of this agency would wear a purple suit, or a uniform whose colors were a combination of the Army green and the Navy and Air Force blues. Most AMEDD personnel opposed the purple suit concept. Richard V.N. Ginn, "Of Purple Suits and Other Things: An Army Officer Looks at Unification of the Department of Defense Medical Services," *Military Medicine* 143 (January 1973): 15–24. Richard V.N. Ginn, "Organization of the Military Health Care System," *Military Medicine* 151 (June 1986): 299–307. Charles C. Pixley, Interview by John N. Bogart, Transcript, 61, 1985, Oral History Collection, OMH.

70. Courtney Scott, "The Impact of Strategic Aeromedical Evacuation in Operation Just Cause," TD, 4, June 1991; and Susan C. McCall, Interview by Constance J. Moore, Transcript, 11, 18, 23 January 1997 (both in ANCC, OMH). Frank F. Ledford, "War, Peace Roles: Army Measures Up," *U.S. Medicine* 27 (January 1991): 27–28. Monte Miller, "Air

Force Handles the ‘Unexpected’,” *U.S. Medicine* 27 (January 1991): 35–37. Soraya S. Nelson, “Just Cause Nurses Urge More Training,” *Air Force Times* (3 December 1990): 8.

71. “5th MASH, Operation ‘Just Cause’ AAR,” TD, 3, n.d., ANCC, OMH.

72. Frank F. Ledford, “Army Medicine Balancing Needs With Resources,” *Army* 40 (October 1990): 180–83, 185.

73. The water buffalo was a tank welded on a wheeled trailer whose usual function was to hold and dispense potable water. However, it could contain any kind of liquid. Also referred to as the M149A2 trailer mounted water tank, it had a 400-gallon capacity and was constructed of either stainless steel or fiberglass. It could be towed to keep pace with a moving Army.

74. Susan C. McCall, Interview by Constance J. Moore, Transcript, 18–26, 23 January 1997, ANCC, OMH.

75. *Ibid.*

76. *Ibid.*, 28–29.

77. Lee A. Porisch, “Basic Logistical Considerations for Rapid Medical Deployment,” *Military Medicine* 156 (May 1991): 215–18

78. “5th MASH, Operation ‘Just Cause’ AAR,” TD, 5, n.d., ANCC, OMH.

79. “24th Medical Group Operation Just Cause, After-Action Report,” 4 April 1990, Annex B, in George E. Hammond, “Operation Just Cause Lessons Learned Report,” 1 June 1990, ANCC, OMH.

80. “U.S. Military Casualties Evacuated to Kelly AFB,” TD, n.d., Inclosure 1, in Robert F. Elliott, “After-Action Report, Operation Just Cause,” Typewritten Memorandum, 15 January 1990, ANCC, OMH.

81. Robert F. Elliott, “After-Action Report, Operation Just Cause,” Typewritten Memorandum, 2, 15 January 1990, ANCC, OMH.

82. David A. Tranel, Interview by Barbara G. Covington, Transcript, 3–4, 8–21, 20 July 1990, ANCC, OMH.

83. Jennifer J. Wiggall, Interview by Barbara G. Covington, Transcript, 2–7, 14–16, n.d., ANCC, OMH.

84. *Ibid.*, 17–18, 25–26, 33.

85. *Ibid.*, 37, 43, 45–46.

86. David A. Tranel, Interview by Barbara G. Covington, Transcript, 20–21, 20 July 1990, ANCC, OMH.

87. Charles F. Bombard, “First Impressions—Operation Just Cause,” Typewritten Memorandum, 5, 18 January 1990, ANCC, OMH.

88. Throughout the 1980s, an intense, fiery debate raged about the need to build a new facility for BAMC and the precise number of beds required. Igniting further discord, the GAO vetoed the new BAMC construction at one point, positing that the Air Force’s Wilford Hall Hospital could handle all the San Antonio military patient population. Later, William Mayer, President Reagan’s ASD(HA), ordered the two services to combine staffs and establish a Joint Military Medical Command (JMMC) in San Antonio with the Air Force assuming the leadership roles. This joint endeavor ultimately failed. Acrimony and rancor festered among the Air Force, Army, and civilian sectors of the community as a result of the decade-long turmoil. Bob Richter, “BAMC, Wilford Hall Merger Plans Ordered,” *San Antonio Express-News* (19 July 1986), 1-A, 16-A. “Events Chronicled in Five Years of BAMC Debate,” *San Antonio Express-News* (22 July 1986), 1-A. Jim Michaels, “Today’s the Day: Future of BAMC is on the Line,” *San Antonio Light* (26 September 1986), A1, A14. Jim Michaels, “Mayer Says Smaller BAMC Won’t Affect Jobs or Care,” *San Antonio Light* (27 September 1986), A1, A16. Don Driver, “Air Force Expected to Direct New Mili-

tary Medical Center,” *San Antonio Express-News* (26 November 1986), 8-D. Major Maher, “Impact of JMMC on AMEDD Training,” Information Paper, 6 February 1987; and Milton E. Turner, “Scope of Practice Differences between Army and Air Force Nonphysician Medical Specialties in the San Antonio Joint Military Medical Command (JMMC),” Disposition Form, 26 August 1987 (both in ANCC, OMH). Bruce Davidson, “Delay Sought in BAMC Graduate Program Merger,” *San Antonio Express-News* (7 October 1987), 5A. “BAMC Downsizing Needs Another Look,” *San Antonio Express-News* (7 October 1987), 5A. Bruce Davidson, “Amendment Fails to Halt Further BAMC Transfers,” *San Antonio Express-News* (30 October 1987), 1C. M. Grace Johancen, “Downsized BAMC Cannot Handle Training,” Letter to Editor, *San Antonio Light* (31 October 1987), B5. Paul N. Biediger, “Joint Medical Command Should be Disbanded,” Letter to Editor, *San Antonio Light* (5 April 1988). Charles J. Reddy, Interview by Mary T. Sarnecky, Transcript, 55–58, 9 January 2002, Army Nurse Corps Oral History Collection, OMH.

89. Jennifer J. Wiggall, Interview by Barbara G. Covington, Transcript, 57–58, n.d., ANCC, OMH. One source documented that of the total of 284 OJC casualties evacuated to Kelly AFB, 172 were admitted to Wilford Hall and 112 were admitted to BAMC. “U.S. Military Casualties Evacuated to Kelly AFB,” TD, n.d., Inclosure 1, in Robert F. Elliott, “After-Action Report, Operation Just Cause,” Typewritten Memorandum, 15 January 1990, ANCC, OMH.

90. George E. Hammond, “Operation Just Cause Lessons Learned Report,” 1–30, 1 June 1990, ANCC, OMH.

91. “Health Service Support Observations, Operation Just Cause,” TR, 1, 28 June 1990, ANCC, OMH.

92. Carolyn M. Feller and Debora R. Cox, *Highlights in the History of the Army Nurse Corps* (Washington, DC: U.S. Army Center of Military History, 2000), 53.

93. *Ibid.*, 54.

94. *Ibid.*, 54.

95. *Ibid.*, 57.

96. Paula J. Lowney, “After-Action Report on Operation Brightstar '83,” TR, n.d. Inclosure 1, Joan Snell to Chief, Army Nurse Corps, Typewritten Letter, 26 October 1983, ANCC, OMH.

97. *Ibid.*

98. Carolyn M. Feller and Debora R. Cox, *Highlights in the History of the Army Nurse Corps* (Washington, DC: U.S. Army Center of Military History, 2000), 55.

99. *Ibid.*, 59. “ANC Annual Historical Report FY85,” 2, ANCC, OMH.

100. Linda C. Henson to Cynthia A. Gurney, Typewritten Letter, 31 March 1986, ANCC, OMH.

101. “ANC Annual Historical Report FY 85,” 4, n.d., Inclosure 3, ANCC, OMH.

102. The 10 Army nurses were lieutenants Debra L. Ferguson, Judith A. Murray, Ronald Kirkconnell, and Donna S. Priest, captains Mary P. Rubbert, Elizabeth Stewart, Robert J. Mele, and Russell L. Lazarus, and majors Gary D. Hix and Edwin D. Reed. Pentagon Operations Directorate, “Pers for USN Mercy Hospital Mission,” Official Orders, January 1987; and “Army Nurse Corps (ANC) FY 87 Annual Historical Report,” 14, n.d. (both in ANCC, OMH). Susan H. Godson, *Serving Proudly: A History of Women in the U.S. Navy* (Annapolis: Naval Institute Press, 2001), 271.

103. “Highlights in the History of the Army Nurse Corps (USAMRDC),” TD, n.d., ANCC, OMH. Carolyn M. Feller and Debora R. Cox, *Highlights in the History of the Army Nurse Corps* (Washington, DC: U.S. Army Center of Military History, 2000), 62.

104. “Highlights in the History of the Army Nurse Corps (USAMRDC),” TD, n.d.,

ANCC, OMH.

105. "Somalia Operation Just One of Many Demands on US Military Medicine," *Journal of the American Medical Association* 269 (6 January 1993): 11–12. Carolyn M. Feller and Debora R. Cox, *Highlights in the History of the Army Nurse Corps* (Washington, DC: U.S. Army Center of Military History, 2000), 63.

106. Carolyn M. Feller and Debora R. Cox, *Highlights in the History of the Army Nurse Corps* (Washington, DC: U.S. Army Center of Military History, 2000), 65.

107. Pablito Gahol, "Operation Provide Hope," *Army Nursing Newsletter* (November 1999): 6–7.

108. Linda H. Yoder and Sandra L. Brunken, "Peace Making/Peace Keeping Missions Role of the U.S. Army Nurse," *Critical Care Nursing Clinics of North America* 15 (June 2003): 265–73.