

# College plays pivotal role in OPERATION IRAQI FREEDOM

by Lt. Col. Harry K Stinger, MD, FACS, Tacoma, WA

**P**aratroopers armed with machine guns, mortars, and grenades were not the only U.S. Army soldiers who parachuted onto Bashur Airfield in Northern Iraq with the 173rd Airborne Brigade on the evening of March 26, 2003. Nine paratrooper-surgeons and medics from the 250th Forward Surgical Team (FST), based in Fort Lewis, WA, also jumped with the 173rd assault troops to perform lifesaving trauma procedures on any infantry personnel who sustained combat injuries (see photo 1, right). Two Humvee cargo trucks loaded with an operating table, an operating room tent, a generator, and enough supplies to perform 10 resuscitative procedures were pushed out of aircraft and parachuted to the drop zone ahead of the jumpers. This step was critical so that the surgical team could unload and set up to perform forward resuscitative surgery.

I served as the Commander of the 250th FST. Three other surgeons also were assigned to the 250th and currently are supporting the 173rd Airborne Brigade in Northern Iraq: Lt. Col. Robert Rush, MD, a general surgeon; Maj. Benjamin Starnes, MD, an Associate Fellow of the College and a vascular surgeon; and Maj. John Devine, MD, an orthopaedic surgeon (see photo and biographical information on page 15).

## Preparation

We started planning the jump into Iraq with the Italy-based 173rd Airborne Brigade while still at Fort Lewis. Only five days



1. The 250th FST members who parachuted into Iraq to open up the Northern Front in Operation Iraqi Freedom. Standing from left to right: Brad West, CRNA; William Goldsworth, OR tech; Robert Novak, LPN; Abel Tavares, OR tech; Robert Burns, trauma medic; Luke Fullerton, trauma medic; Dr. Stinger; and Dr. Devine. Front: Glen Carlsson, CEN, trauma nurse. In the background are the C-17 Aircraft that they would soon board for Iraq.



2. 173rd paratroopers loading the C-17 assault aircraft that would drop them over Northern Iraq.

prior to the actual jump, we loaded the entire team onto an Air Force cargo plane, which flew us directly to Italy, where we joined forces with the paratroopers of the 173rd Airborne Brigade. Once in Italy, we immediately began parachute-rigging our Humvees and equipment for a combat jump into Iraq (see photo 2, page 9, and photo 3, right).

For me, the jump into Iraq was a routine mission. I had practiced this exercise many times, usually in Louisiana, while assigned to the 82nd Airborne Division at Fort Bragg, NC. Back in the states, we learned many valuable lessons that ensured the forward surgical team's success. One technique was to pack 20 units of type O negative packed red blood cells into two iced styrofoam chests and cargo-strap them to the front passenger seats of each of the two parachute-rigged Humvees (termed "heavy-drop" Humvees by the team's medics) (see photo 4, right). This process yielded 20 units of packed O-cells with which to transfuse combat casualties. The technique of rigging vehicles and artillery guns with parachutes to be pushed out of the back of cargo aircraft onto the drop zone (DZ) has replaced the famous glider infantry forces of World War II, which then had the job of landing their gliders on the DZ with jeeps and heavy artillery guns on board.

## FSTs

We were actually the first forward surgical team to parachute into combat since World War II. The late Charles Rob, MD, FACS, a world-renowned vascular surgeon then serving in the Royal Army Medical Corps in World War II, pioneered the first airborne forward surgical teams with the British 1st Airborne Division in the North Africa campaign. Dr. Rob made two combat jumps with the British in World War II. He set up his forward surgical team under very austere conditions, yet they were very successful at saving wounded British paratroopers. Along with Norman Rich, MD, FACS, and Craig Llewellyn, MD, both at the Uniformed Services University of Health Sciences, Dr. Rob was my main inspiration and mentor since the start of my surgical career. After a long and distinguished surgical career, Dr. Rob passed away in 2001.

The need for a small, easy-to-insert surgical capability became evident during the U.S.-led invasion of Grenada in 1983. At that time, the small-



3. The 173rd Paratroopers on board C-17 aircraft during the five-hour flight to Northern Iraq. There is a yellow line, the "Static Line," which is hooked to a cable near the jump door just prior to exiting. The Static Line automatically pulls and deploys each trooper's parachute.



4. One of the two Humvees packed with surgical equipment that was parachuted to the drop zone just ahead of the paratroopers. Ten units of O negative blood in an ice chest was strapped to the front passenger seat. This Humvee has obviously taken a beating, but is still running.

est Army unit that could perform surgery was a mobile Army surgical hospital (MASH). Because of its large weight and size, the first MASH did not make it into Grenada until four days after the invasion started. This prompted the Army to develop the FST to meet the need for a small, readily



5. The Sonosite ultrasound was invaluable for FAST exams and peripheral vascular assessments. The ultrasound console, three probes, and two batteries all fit into a small portable backpack.



7. Three DRASH tents that comprise the 250th FST. The apical tent on the far right is the ATLS/pre-op tent; the two to the left are the operating room and SICU/post-op tents.



6. Once the paratroops secured the airfield, cargo planes full of additional troops, ammunition, food, water, and medical supplies landed next. The FST trucks and personnel that did not jump were brought in by C-17 cargo planes at night.



8. The 250th FST operating room fully set up and ready to receive casualties. Fortunately, casualties in the north were light.

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deployed surgical team that could perform resuscitative trauma surgical procedures on U.S. soldiers from the moment the fighting began. By 1986, Army surgical squads were organized and actually jumped in with U.S. paratroops during the invasion of Panama in 1989. These small squads

had to wait for aircraft to land before they could access their operating tables, anesthesia machines, and other heavy equipment.

The U.S. Army fielded the first airborne FSTs in the early 1990s. These units had the advantage of being able to parachute their heavy operating

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room tents, generators, and equipment into the combat zone ahead of the paratroopers on parachute-rigged Humvees. This system ensured that wounded GIs would have immediate access to lifesaving trauma resuscitation within the “golden hour” from the moment the fighting started. The FST also enabled U.S. casualties to survive long-distance air transport back to larger hospitals located in Germany and in the continental U.S.

Each FST in Operation Iraqi Freedom consisted of 20 personnel: four surgeons, five nurses, a medical operations officer, and 10 enlisted medics who specialize not only in trauma surgical procedures but also in the pre- and postoperative care of combat casualties. All surgeons and nurses were board-certified in their respective specialties and used state-of-the-art equipment and techniques to provide the best trauma care to U.S. troops who happened to be injured in the line of duty.

“By far, the most useful item was the Sonosite portable ultrasound,” says Dr. Rush (see photo 5, page 11). “The FAST exam was very useful as a triage tool, as the injured paratroopers we work on have tremendous physiologic reserve. This diminishes the reliability of routine vital signs in making triage decisions. We also used the Sonosite to screen for traumatic pseudoaneurysms, assess the adequacy of vascular repairs, and eventually even assess congenital heart defects in young Iraqi children.”

Other items of equipment unique to the team were quick set-up, quick-strike deployable rapid assembly shelters (DRASHs), compact anesthesia machines, I-Stat lab cartridges, and oxygen concentrators instead of pressurized oxygen tanks. “Because of pressure considerations at altitude, the familiar pressurized oxygen tanks cannot be delivered to the battlefield from Air Force aircraft,” says Dr. Rush. “Everything we use is delivered by air, either parachuted to the ground or delivered by tactical aircraft landings. That was my mission—I had to tactically air-land the second half of the team from Air Force cargo planes on the night of 29 March, three days after Dr. Stinger’s parachute insertion.” (See photo 6, page 11.) Dr. Rush has deployed on four long-term U.S. Army missions to foreign countries since completion of his surgical residency at Ohio State in 1995.



9. The 250th FST performing two cases simultaneously.



10. Planning one of the first convoys to an Iraqi Hospital in Kirkuk. The small but real threat of enemy ambushes made detailed route planning mandatory.

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All of the team’s equipment was fully transportable on just six cargo Humvees. (By the way, the term “Humvee” is derived from the acronym for highly mobile multipurpose, wheeled vehicle, HMMWV). In contrast, it would take a minimum of four standard 18-wheelers to transport a MASH. Unlike a MASH, however, the FST was not a complete hospital; it was just the surgical section of a hospital that performed resuscitative, as opposed to definitive, surgical pro-



11. Dr. Stinger assisting Dr. Hadim Ibrahim, an Iraqi thoracic surgeon, with a thoracotomy to remove a hydatid cyst from a 12-year-old child. Tapeworm disease is still a problem in the rural areas of Iraq.



12. Drs. Rush and Starnes controlling a lacerated deep femoral vein.

cedures designed to render the casualty transportable to the rear-area hospital. Because of its small size and proximity to the frontline, every member of the team had to be an initiative-taking, 150 percent performer all of the time. Potential team members were carefully selected to screen out those who thought they could get by with doing the minimum. Excellence in trauma surgery and combat casualty care is what we were all about.

## Getting started

Set-up time took only one to two hours, depending on field and tactical conditions. For the initial parachute assault, only one tent was parachuted onto the objective area in the cargo bed of a Humvee. This single tent served as the operating room tent until the other tents and gear arrived. Once the paratroopers secured the airfield, follow-on Air Force cargo planes then landed with the rest of the team's personnel and two additional tents. Subsequently, three DRASH tents were erected, one of which served as a preoperative tent, another as the operating room tent, and the third as a postoperative/intensive care unit tent.

The 250th FST initially set up near an abandoned but usable airstrip in northeast Iraq named Bashur Airfield. This remote airfield was situated in Kurdish-held territory between two mountain ranges. Fortunately, the Kurdish militia had succeeded in subduing all hostile forces in and around the airfield, so that there was no enemy fire on the drop zone when the 173rd paratroopers jumped on the evening of March 26. Buildup of combat power in and around the airfield proceeded. In mid-April the mission changed and the 173rd Airborne Brigade had to repack their equipment and convoy 178 kilometers south to the oil-rich city of Kirkuk, Iraq. This city was of vital strategic importance, and it was critical that American forces quickly take control of the city to avert civil unrest. My team had to be divided into two echelons again in order to preserve surgical capability during the convoy. A five-member team remained behind to care for a soldier with a gunshot wound to the hip, awaiting evacuation to Germany.

Once the team reunited 18 hours later on a military airfield in Kirkuk, it was fully mission-capable once again (see photos 7-9, pages 11-12). While in Kirkuk, the FST took care of American soldiers, coalition forces, Iraqi civilians, and enemy combatants. The spectrum of trauma cases included fractures, fragment injuries, gunshot wounds, knife wounds, burns, and blunt injuries as well. The team performed major vascular repairs, thoracotomies, wound and burn debridements, as well as fracture reductions. "Not every surgeon has had the opportunity to

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operate to the sound of explosions and small arms fire in the background,” Dr. Starnes noted.

## Establishing order

Kirkuk turned out to be a coalition success story. The 173rd paratroopers set up safe houses within Kirkuk and immediately began backing up the local police and establishing order and civil functions. Terrorist attacks were minimized. I believe the people of Kirkuk are very happy to have Americans there and are very thankful that we freed them from a miserable dictator.

After the combat operations of the war were over, the FST took on the civil affairs job of helping to reinforce the medical infrastructure within the city (see photo 10, page 12). This required hospital assessments of critical shortages. While touring these facilities, members of the team received occasional indirect enemy fire but remained undeterred.

Enthusiastic to meet their surgical colleagues in war-torn Iraq, the FST surgeons then made liaison trips to the two largest hospitals in Kirkuk, Saddam Hospital and Kirkuk General Hospital. The Kirkuk physicians resented having Saddam's name affiliated with one of the institutions and immediately renamed it Azadi Hospital; Azadi translates as “freedom” in the Kurdish language. (Kirkuk's ethnic composition is 60% Kurdish, 20% Turkish, and 20% Arab).

Surprisingly, the medical infrastructure functioned well before and during the war, with the exception of constant intimidation and threats of Saddam's intelligence officers, who tended to make life particularly hard on Iraqi doctors. The brave Iraqi surgeons who stayed in Kirkuk during the war were at constant risk of harassment and imprisonment.

Drs. Rush and Starnes and I immediately began giving surgical lectures and grand rounds, as well as assisting with laparoscopic and other surgical cases (see photos 11-13, page 13 and this page). Iraqi surgeons are up to date on the latest surgical techniques, but they lack the medical and infrastructure resources necessary to consistently deliver state-of-the-art care. The 250th FST implemented a number of projects, such as providing medical/surgical oversight to the Kirkuk emergency medical system and developing a plan for physician continuing medical education.



13. Drs. Starnes and Stinger performing a vascular repair.



14. The College generously donated four SESAPs to the Iraqi surgeons of Kirkuk and Sulaymania. The SESAPs were very enthusiastically received by these general surgeons in Sulaymania, Northeastern Iraq, pictured with Dr. Stinger (left).

One of the first requests from the Iraqi surgeons was for a copy of the College's latest edition of the Surgical Education and Self-Assessment Program (SESAP). They had older editions, but were unable to obtain SESAP 11. I called the College, and the ACS leadership immediately agreed to ship four SESAP books to the surgeons of Kirkuk. Dr. Rush and I formally presented them to the surgical department chiefs at both Kirkuk hospitals on behalf of the American College of Surgeons, and they were very enthusiastically received (see photo 14, this page). In fact, Shabander Tahir, MD, chief of



The four surgeons of the 250th FST, from left to right: Dr. Rush, Dr. Devine, Dr. Stinger, and Dr. Starnes.

## Biographical information

**Lt. Col. Harry Stinger, MD, FACS**, received his medical degree from the Uniformed Services University of the Health Sciences (USUHS) Medical School in Bethesda, MD, in 1985 and completed his surgical residency at Boston (MA) University Medical Center in 1995. Dr. Stinger, who joined the Army at age 22, volunteered for Army Airborne or “jump” school when he was a first-year medical student at USUHS.

**Lt. Col. Robert Rush, MD**, also graduated from USUHS and completed his general surgery training at Ohio State University Medical Center, Cleveland.

**Maj. Benjamin Starnes, MD**, is a graduate of Jefferson Medical College at Thomas Jefferson University in Philadelphia, PA, who completed his surgical training at Walter Reed Army Medical Center in Washington, DC.

The team’s orthopaedic surgeon, **Maj. John Devine, MD**, completed his residency at Madigan Army Medical Center, Fort Lewis, WA.

surgery at Azadi Hospital in Kirkuk, asked me to send this message: “The surgeons of Kirkuk wish to send their sincere thanks to the College for their generous contribution of four SESAPs, which [sic] have not only updated our clinical knowledge, but

have boosted our morale and confidence as well.” Additionally, Dr. Tahir and I organized the American-Iraqi Surgical Association, an informal association that we intend to develop into a formal Iraqi Chapter of the American College of Surgeons.

## True leaders

Although I am proud to have commanded a successful mission to Kirkuk, I must deflect the credit for this forward surgical team’s achievements to our medical sergeants. The sergeant is the backbone of the Army. Army officers lead by example and use their rank to get the sergeants the time and materials that they need to train their soldiers and accomplish the mission. The U.S. Army should be proud of the high-caliber sergeants serving our country. <sup>1</sup>

The opinions expressed in this article are those of the author and do not necessarily reflect the views of the U.S. Army Medical Department, the U.S. Army, or the U.S. Department of Defense.

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