535TH ESC SUPPORTS OPERATION IRAQI FREEDOM

By Captain Kurt W. Zwoboda

Although each unit's deployment is determined by specific mission requirements and the current situation on the ground, the intent of this article is to help fellow engineer Soldiers understand and prepare for a deployment where they will face a variety of missions and challenges, such as the 535th Engineer Support Company (ESC) experienced during Operation Iraqi Freedom.

The 535th ESC is based out of United States Army, Europe (USAREUR), and falls under the 54th Engineer Battalion for command and control. The training before deployment took advantage of USAREUR's vast training resources, numerous engineer support requirements, and the number of units that passed through the garrison during annual training. The company's training consisted of four situational training exercises that focused heavily on platoon-level convoys, battle drills, and weapons training. Engineer skills training included equipment training at USAREUR's two dig sites, support to United States Army Reserve troop construction projects, engineer support to brigade combat teams (BCTs) during deployment preparation, and support to USAREUR by constructing helicopter landing pads and an improvised explosive device (IED) training lane and improving roads. The company's capstone training event was a mission readiness exercise that incorporated battle drills, a convoy live fire, medical evacuation, interaction with civilians on the battlefield, and engineer mission planning.

535th ESC Soldiers repair an IED crater.

A 535th ESC Soldier digs a burn pit.

Once deployed, the mission of the 535th ESC was to conduct base construction, force protection construction, and rapid crater and road repair and provide general engineer support to the Multinational Division Center–Iraq. During the deployment, the company served under the 3d Infantry Division and the 10th Mountain Division.

The Soldiers of the 535th ESC provided critical horizontal engineer support to four BCTs and a fires brigade in the effort to protect coalition and Iraqi army forces, prevent the flow of insurgent and extremist support into Iraq, and secure the Iraqi population. The company's support was essential to successful operations within the Multinational Division Center–Iraq.

From 22 October 2007 to 3 January 2009, the 535th ESC completed horizontal construction from start to finish for 17 base construction missions—10 patrol bases, 5 combat outposts, and 2 forward operating bases. These missions occurred in an area that extended north to south, from Baghdad to Ad Diwaniyah, and west to east, from Al Hilla to Al Kut and Al Amarah. Missions required travel time from as little as 1 hour per convoy leg to a demanding 12 hours per convoy leg to reach the engineer objective. Each base construction mission had associated tasks that included construction of perimeter walls, vehicle fighting positions, entry control points, helicopter landing zones, and road networks; clearing, grubbing, and leveling of interior surfaces; and emplacement of gravel, concrete force protection barriers and towers, and drainage systems.

The company received convoy security and haul asset support from the battalion's forward support company for a majority of its missions. The additional haul assets provided essential support to the company as it transported up to 20 pieces of engineer equipment per base construction mission. The bill of materials for the base construction was delivered by BCT haul assets, contracted Iraqi assets, or the engineer battalion's forward support company. The haul asset support enabled the 535th ESC to focus its engineer effort on construction as opposed to transporting equipment and material. This enabled the company to maximize its engineer effort and provide horizontal engineer support to five separate maneuver units throughout the division.

The result of these construction missions was critical force protection and life support areas that allowed more than 6,000 maneuver forces to execute both lethal and nonlethal operations to secure the area of operations and protect the Iraqi people. On average, each mission required a platoon's worth of engineer effort and lasted four weeks. During this time, the Soldiers of the 535th ESC also completed horizontal construction expansion of 10 existing combat outposts and patrol bases.

Each base expansion mission required specially tailored engineer teams that displayed the leadership abilities of the company's team leaders, squad leaders, platoon sergeants, and platoon leaders, who at times were required to execute small-unit missions at separate locations. Soldiers demonstrated their resilience during extended missions in austere conditions that rarely had an established infrastructure. They also demonstrated their versatility on a wide range of engineer equipment that was in addition to the company's modified table of organization and equipment (MTOE). Many missions also required Soldiers from the company to work side-by-side with their Iraqi Army counterparts in the partnership program to transition more operational control to the Iraqi Army.

The Iraqi Army partnership missions required Soldiers to be both Soldiers and diplomats as they executed their mission and engaged in the daily lifestyle of their Iraqi partners.

Throughout the deployment, it was imperative for the company to have and execute a detailed recovery plan following completion of each mission. On average, each platoon had approximately 6 days between each base construction mission, although on one occasion a platoon had as little as 36 hours after completing a 45-day mission. By identifying and assigning recovery tasks in detail, the company was able to efficiently recover equipment and personnel in a short time. Despite having detailed plans, it was important that each Soldier was physically and mentally prepared for a demanding operational tempo.

In addition to base construction missions, the 535th ESC also conducted rapid crater repair missions. These dangerous missions brought the Soldiers of the company into the lead elements of the maneuver force task organization while they strived to maintain the momentum of operations. The Soldiers of the company trained on unfamiliar concrete equipment, learned the concrete trade, and traveled throughout the operational environment repairing IED craters so maneuver forces and the Iraqi people could travel without interference.

The company's rapid crater repair missions required dedicated planning and coordination with route clearance support to ensure that blast craters were free from additional explosives, a planning aspect that sometimes saved Soldiers' lives when explosives were located. The success of the mission depended on the platoon's ability to secure the objective, prepare the ground, place the concrete, and maintain constant vigilance to ensure the platoon's security while the concrete cured. During the deployment, the company also conducted large-scale crater repair missions, which were necessary because of IED and vehicle-borne IED attacks. These missions tested the company's ability to work with large quantities of concrete.

In addition to crater repair, the company also completed extensive road repair on multiple routes and nearside and farside bank preparation for the installment of assault float bridges and constructed boat slips that enabled maneuver forces to cross and patrol Iraqi rivers. The company's only inside-the-wire mission in support of Multinational Force–Iraq was to improve a fitness center gravel parking lot. This project was completed to commemorate Medal of Honor recipient Sergeant First Class Paul R. Smith.

In addition to the three horizontal platoons' efforts, the headquarters platoon and maintenance platoon conducted the daily operations and maintenance operations that were required to keep the company functioning. Headquarters platoon maintained 24-hour command post operations throughout the deployment to facilitate information reporting and dissemination and assisted in the development of courses of action for each mission. The communications section maintained all company blue force tracker and communications systems and served as the company's

535th ESC Soldiers prepare the approach for an assault float bridge.

school-trained electronic warfare support and coordination center. The communications section also conducted monthly video telecommunications with the home station in Germany to help improve communications and morale between Soldiers and their Families.

A Soldier from the 535th ESC fills barriers.

The proper selection of personnel for the headquarters platoon was essential for effective mission preparation, coordination, and control. Proactive individuals made a tremendous contribution to the success of the mission and the care of Soldiers. Vast amounts of resources were available to support the company; the key was to know where to obtain the resources. Through persistence and individual initiative to explore opportunities, the company coordinated for additional armored engineer and wheeled equipment, additional electronic countermeasure coverage, and enrollment of equipment in the available maintenance reset programs.

The headquarters platoon integrated the latest situation and intelligence available into each mission plan and adjusted execution if necessary. This required a command post where all Soldiers were aware of the situation and were eager to contribute to the overall mission. An important factor in successful preparation was to assist the engineer platoons by requesting and coordinating route clearance, engineer dog teams, unmanned aerial vehicles, and air weapons teams.

The supply section maintained accountability of $42,000,000 worth of theater-provided equipment and organic equipment through the enforcement of monthly inventories. The section also coordinated all classes of supply to support and sustain each engineer platoon while conducting missions in remote locations. This section, along with the executive officer, also coordinated a company-level Class IV yard that consisted of crushed rock, sand, culverts, Pavemend®, and Quickrete®. This small supply of Class IV materials was valuable during missions that required quick execution or when the BCTs did not have the material available to support requested engineer assistance.

The maintenance platoon provided company-level maintenance on 169 pieces of engineer and wheeled equipment, which included 47 pieces over the company's authorized strength. Despite the added responsibility, the platoon still maintained a 94 percent on-hand equipment operational readiness rate, which sustained the company throughout the 15-month deployment. Support from civilian-contracted mechanics was important during maintenance-intensive periods. The maintenance platoon also task-organized its Soldiers into three maintenance support teams that were embedded in the engineer platoons during each mission. This was essential for maintaining equipment and accomplishing each isolated engineer mission.

Because of the 535th ESC, fellow Soldiers throughout the Multinational Division Center–Iraq operated from protected bases and traveled more easily through the operational environment. The lives of Iraqi people in the area were improved by coalition and Iraqi force security gains that could only be accomplished after the engineers of the 535th ESC established the force protection footprint. As the sole horizontal engineer company in support of the Multinational Division Center–Iraq, the 535th ESC's contributions were essential to the success of the 3d Infantry Division and the 10th Mountain Division.

Captain Zwoboda commanded the 535th Engineer Support Company at the time this articles was written. He is now an observer-controller at the Joint Multinational Readiness Center, Hohenfels, Germany. Previous assignments include platoon leader in the 320th Engineer Company and various staff positions, and he has served in Germany, Afghanistan, and Iraq. He holds a bachelor's from Boston College and a master's from the University of Missouri–Saint Louis.