

PLAN, BUILD, PROTECT: ASSISTING IRAQ!

By Major Joseph A. Snel

As the Multinational Corps–Iraq (MNC–I) corps engineer brigade headquarters, the Headquarters and Headquarters Company, 411th Engineer Brigade (Theater Army), provided proactive, timely, relevant, and essential command and control for more than 3,000 engineer Soldiers, Airmen, and Sailors throughout Iraq in support of Operation Iraqi Freedom. The brigade’s mission included assured mobility, military construction, and geospatial engineering. The brigade headquarters also exercised administrative control for all United States Army engineer units operating in support of United States Marine Corps expeditionary forces in Multinational Force–West.

The brigade theme—*Plan, Build, Protect: Assisting Iraq!*—resounded in each and every endeavor across the theater of Iraq. The commander of the 411th Engineer Brigade challenged his Soldiers to “bring forward the leadership” shown during the mobilization’s early stages. He then introduced the command message as the brigade received its mission from the 130th Engineer Brigade, the previous MNC–I theater engineer brigade:

The 411th Engineer Brigade is called to duty by our nation. We are clearing IEDs [improvised explosive devices] from the road systems to protect the coalition force’s mobility within Iraq to allow the continued building of a free, independent Iraqi government. Army Strong!

The commander further explained the brigade’s theme:

- **Plan:** Through initiative and innovation, the patriotic American service members of the 411th Engineer Brigade contribute their engineering skills to plan, design, and maintain critical lines of communication and force protection for coalition Soldiers, Airmen, Sailors, and Marines.
- **Build:** The 411th Engineer Brigade Service members aggressively execute the construction of logistical support platforms and force protection structures to sustain and protect coalition forces endeavoring to assist Iraq in building a free and independent nation.
- **Protect:** Through intelligence analysis, the clearing of IEDs from main supply routes (MSRs), and the construction of force protection measures, the 411th Engineer Brigade



Engineers place cement pads in preparation for surge forces.

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Soldiers and Airmen build a tactical operations center for the 1st Cavalry Division.

service members protect the brave coalition forces dedicated to helping Iraq achieve its governmental goals.

Mobilization and Deployment

The 411th entered 2006 continuing with preparations for the unit's upcoming mobilization and deployment in support of Operation Iraqi Freedom. In January, the commander was selected as the next commanding general of the 99th Regional Readiness Command, and in March, he handed the reins of the 411th over to a new commander. Planning and coordination continued into the spring as the headquarters prepared for a four-phased mobilization.

In April, the first of four elements of the brigade headquarters mobilized. Soldiers from the brigade's construction management section (CMS) reclassified their military occupational specialty as technical engineers with six weeks of training at Camp Grafton, North Dakota. The CMS section had to be reconstituted after the original CMS section mobilized and deployed in 2004 with the 420th Engineer Brigade, which did not have an organic CMS section.

In May, the leaders mobilized for the reconnaissance/predeployment site survey (PDSS) to Iraq with the 130th Engineer Brigade. The PDSS allowed the staff to see firsthand where the brigade would operate and to meet the staff of the 130th. This survey allowed the staff to conduct detailed planning for assuming the mission and occupying the headquarters building. Following the PDSS, the leaders returned to Fort McCoy, Wisconsin, for continued mobilization training.

In June, Soldiers from the brigade's command group and representatives from the personnel; intelligence (G2); operations, plans, and training; logistics (G4); and communications sections and the CMS traveled to Fort Hood, Texas, to participate in the III Corps mission rehearsal exercise

(MRX). The MRX brought together the corps's separate brigades, such as the 411th Engineer Brigade. Although the MRX did not involve the brigade staff in the exercise play, the staff used the time to develop situational awareness and staff products for use later in the deployment. The balance of the Headquarters and Headquarters Company later mobilized and deployed to Fort McCoy, where it conducted Soldier readiness processing and individual validation tasks.

September brought the movement from Kuwait into Iraq and the beginning of the relief in place/transfer of authority (RIP/TOA) with the 130th Engineer Brigade. On 19 September 2006, the authority, responsibility, and mission of the MNC-I corps engineer brigade passed to the 411th Engineer Brigade. By the end of that week, the 130th, an Active Army unit, had fully redeployed back to its home station in Germany, and the 411th Engineer Brigade officially had command and control of more than 3,000 Soldiers, Airmen, and Sailors across the theater. The span of command and control included Active Army, Reserve, and National Guard from the United States Army and United States Air Force. The brigade headquarters even had a Navy lieutenant commander attached to it.

The Mission

Assured Mobility

The brigade's assured mobility mission to ensure unimpeded traffic on the corps MSR had five components:

- Route clearance—Locate and clear IEDs.
- Rapid crater repair—Fill previous blast holes and deny the enemy a favorite place to hide IEDs.
- Culvert denial—Block the openings of culverts to impede the enemy's ability to hide large amounts of explosives in the openings, causing massive road destruction when detonated.

- Route sanitation—Clear road shoulders and medians of debris and vegetation used to hide IEDs.
- Bridging—Repair or replace damaged bridges on critical routes.

Under the command and control of the brigade headquarters, the results of these efforts were phenomenal.

Route Clearance. As the corps engineer brigade, the 411th executed command and control of the 875th Engineer Battalion, which performed route clearance along the corps MSR. This mission was essential to ensure the uninterrupted flow of supply convoys throughout Iraq. The brigade's route clearance teams moved through the operating space of multiple brigade combat teams (BCTs) in a complex and dangerous environment.

The brigade headquarters was especially proactive in monitoring emerging enemy trends to ensure that teams were clearing IED hotspots during the enemy's preferred emplacement times. The results of this effort were exceptional. Twelve route clearance teams cleared more than 394,000 kilometers of roads with more than 1,344 IEDs found over a 12-month period. As a testament to the targeting effort the brigade staff directed, the 12 teams consistently found and cleared more than 59 percent of all IEDs on the routes for which they had responsibility. In addition to these regular missions, the brigade route clearance battalion was frequently

called on to clear additional roadways for the BCTs in direct support of their combat operations.

Rapid Crater Repair. The brigade headquarters facilitated and synchronized rapid crater repair teams by using heavy engineer equipment from the two engineer battalions under its control to fill previous blast craters along critical routes. The teams dramatically reduced favorite enemy hiding places for IEDs by repairing more than 700 craters.

Culvert Denial. Once the enemy began placing explosives inside culverts to interfere with mobility on the MSR, the 411th began a process of denying access to these culverts throughout its area of operations. Its CMS developed a playbook of options for the various types of culverts found in Iraq. This playbook was adopted throughout the Iraqi theater of operations by other engineer units.

Route Sanitation. The final piece to keeping the MSR open is the route sanitation mission. By using engineer equipment to clear road shoulders of debris and vegetation, route sanitation teams made it harder for the enemy to conceal IEDs, which resulted in fewer lethal IEDs and increased success for route clearance teams. During the course of the year, more than 70 route sanitation patrols removed debris along 750 kilometers of routes north and south of Baghdad.

Bridging. As the higher headquarters for all military bridging assets in the MNC-I, the 411th provided a vital capability for the corps commander to respond to the damage

or destruction of critical bridges anywhere in Iraq. In addition to this rapid response mission, the brigade conducted multiple bridging, rafting, and riverine operations. The brigade also provided military bridge emplacement and inspection training to the Iraqi army to develop a Mabey Compact 200® bridge capability.

Bridging operations included emplacement of Mabey bridges at six locations; repair of IED-damaged overbridges on four occasions; emplacement of an assault float bridge (AFB); repairs to an AFB on two occasions; and plans for the emplacement of an AFB bypass. Additionally, the brigade conducted continuous rafting operations across the Euphrates River for nearly 12 months, providing essential mobility support to both coalition forces and the local populace.



HESCO Bastion Concertainer® units surround an ammunition holding area.

Military Construction

The 411th exercised command and control for all echelon-above-division construction, design, and construction management units in Iraq. This joint force of Army and Air Force engineers was responsible for design, management, and execution of corps priority construction missions on and off major contingency operating bases (COBs) and smaller forward operating bases (FOBs).

The brigade's initial efforts in base camp design, construction, and master planning throughout Iraq were focused on the improvement of the COBs, the closure of smaller bases, and the movement of units there to larger enduring bases. The brigade made a complete turn halfway through its tour, when the president announced that additional BCTs would be sent to Iraq. With a joint force of Army and Air Force facilities and design engineers, the brigade played a central role in the corps requirement to bed-down an additional surge of Soldiers deployed to Iraq over a short time frame.

The brigade's facility engineers and designers worked closely with the area support groups to develop innovative ways to house and maintain these additional Soldiers and their equipment. In addition to already existing bases, the brigade CMS planned the construction of a new base in a remote area. With no existing infrastructure, the section used a variety of methods to create a base camp capable of housing Soldiers, contractors, and their equipment. While this new base camp was under construction, the CMS moved on to plan and design the bed-down of four additional BCTs on six separate FOBs.

Throughout the year, the four facility engineer teams, under the oversight of the CMS, continued to program and design improvements at the four major COBs. In addition to troop construction, these teams developed a military construction program. Regardless of the service or type of mission, the teams consistently performed to high standards and consistently exceeded the expectations of their customers.

Geospatial Engineering

The brigade provided timely and accurate geospatial engineer support to operations throughout Iraq through terrain analysis and map production. The brigade G2's topographic section completed more than 450 requests for information in support of the corps engineer priority route clearance and construction missions. By creating multiple special products, the section provided construction support for four combat teams with more than nine surge missions, including base camp buildups. The section was also instrumental in producing maps and imagery in support of the United States Army Defense Ammunition Center. Additionally, the section printed numerous imagery photo mosaics with range fans for the guard towers at a logistics support area, which greatly enhanced the situational awareness of the Soldiers maintaining security for that base.

Logistics Support

While mobilized and deployed in support of Operation Iraqi Freedom, the brigade G4 section developed a coherent team of Soldiers from different units who planned, coordinated, and executed the brigade's logistical requirements. This included managing and operating a construction material yard that procured and distributed construction materials in support of more than 200 projects and missions on all the major operating bases, three major surge projects, and more than 400,000 kilometers of route clearance and blast hole repair. This section also monitored the brigade's supply accountability system to ensure the maximum utilization of its equipment. It coordinated maintenance operations for more than 2,800 pieces of equipment, resulting in a high operational readiness rate for the brigade's route clearance fleet and ensuring that the brigade's other low-density specialty equipment remained available for operations. In order to ensure that this equipment could be used under combat conditions and protect our Soldiers, Airmen, Sailors, and Marines, this section oversaw the fielding of numerous pieces of counter-IED equipment.

The logistics section also executed the brigade's container management system, averaging more than 650 containers daily, ensuring that there were no commercially owned containers on hand. Further, Soldiers of the brigade headquarters operating the Class IV yard packed or unpacked and moved more than 450 containers of construction material in support of surge operations. Finally, in support of all these operations, this section monitored and coordinated the request and execution of millions of dollars in nonstock funds, ensuring its proper execution and use in support of the brigade's missions.

Summary

The 411th Engineer Brigade left its footprint at more than 27 locations during its tour in Iraq. Each unit that served under the command—whether under administrative, tactical, or operational control—proved itself *Army Strong*. The 411th is grateful to every Service member who answered their nation's call to duty. The following articles (pages 8 through 21) highlight the brigade's successes and exemplify the drive of every Soldier, Airman, and Sailor to *Plan, Build, Protect: Assisting Iraq!*



Major Snel was the 411th Engineer Brigade public affairs officer for Operation Iraqi Freedom. He has served as a combat heavy platoon leader, executive officer, and construction inspection officer. He entered the Active Guard/Reserve (AGR) Program as an evaluation officer at the Army Reserve Readiness Training Center and continued in the AGR Program as a battalion liaison officer and battle captain during Operation Enduring Freedom and Operation Iraqi Freedom, as a combat mechanized company commander, and a brigade chief of operations. He holds a bachelor's in mathematics from Norwich University.