

# Like No Other:

## The Battering Rams in Operation Iraqi Freedom

By Lieutenant Colonel William H. Graham, Major Jason A. Kirk,  
and Major Gary D. Calese

**L**ike no other. This phrase certainly characterizes the year-long tour that the 40th Engineer Battalion “Battering Rams” recently completed in Operation Iraqi Freedom (OIF). It was like no other in that this formation—fighting organically to the 2d Brigade Combat Team (BCT), 1st Armored Division (1AD)—is one of the Army’s last two maneuver BCT-supporting Engineer Reconstruction Initiative (ERI)—Modified Table of Organization and Equipment (MTOE) combat engineer battalions in the Army. (The other is the Schweinfurt, Germany-based 9th Engineer Battalion.) It was like no other in that the Soldiers of the battalion and brigade headquarters served the first half of their tour stationed at Camp Buehring, Kuwait, assigned as the first-ever Central Command (CENTCOM) “theater reserve brigade.” It was like no other in that the battalion



An engineer from the 40th Engineer Battalion uses a Bobcat® to construct a sewer network at FOB Falcon.

spent time shepherding the sapper companies through their precommitment engineer-focused training as they deployed into Iraq attached to their habitually supported maneuver task forces. The battalion then evolved into a sort of brigade troops battalion, with administrative control (ADCON) over the brigade’s separate military intelligence, signal, military police, and reconnaissance troops. Finally, the battalion served in Baghdad with operational control over one of the modular “Echo” companies of sappers from a 4th Infantry Division combined arms battalion maneuver task force, a civil affairs company, the BCT’s reconnaissance troop, an explosive ordnance disposal (EOD) company, and the battalion’s headquarters company, while retaining ADCON of the military intelligence and reconnaissance troops. This like-no-other script was one that none of the Battering Rams could have written as they conducted their predeployment gunnery and mission rehearsal exercise in the fall of 2005. While much of the year that concluded in November 2006 was like no other, the experiences and lessons learned of the 40th provide valuable information for other engineer formations across the Engineer Regiment.

The 40th had three highly trained sapper companies that deployed ready to conduct engineer tasks across the full spectrum of combat and stability operations, and a proficient and flexible staff that could plan and command and control a variety of missions across their supported BCT’s battlespace. This article will detail the experiences and share the lessons learned by the 40th as it planned, prepared, and executed full-spectrum operations. The battalion’s guiding philosophy was to approach all missions in a disciplined and aggressive manner. The battalion’s motto—*Constructio et Destructio* (Construction and Destruction)—characterizes the breadth of engineer and nonengineer missions its Soldiers would face during OIF.

### Engineer LOOs

**T**he 40th command group used its base mission-essential task list to refine a template of engineer lines of operations (LOOs) to guide training efforts during the predeployment mission rehearsal exercise and the training time that presented itself when the battalion was designated as the CENTCOM theater reserve brigade in Kuwait. Nested within the BCT’s effects-based operational construct, the 40th prepared to conduct nine LOOs.



**The 40th Engineer Battalion emplaces countermobility barriers in Ameriya, Baghdad.**

**BCT Effect No. 1—Promote a safe and secure environment.**

*Engineer LOO No. 1.* Conduct counter improvised explosive device (counter-IED) operations. Finding and training ways to counter the IED threat—the primary killer on the OIF battlefield—was paramount. The summation of the 40th’s counter-IED lessons follows:

- Make every Soldier an IED detector by training multiple iterations with a variety of concealed IEDs.
- Make sappers the counter-IED experts for the supported maneuver element. During training time in Kuwait, 40th Engineer Battalion noncommissioned officers (NCOs) and lieutenants advised maneuver task forces on the development of counter-IED training lanes.
- Develop a counter-IED “Red Team” to support training at both the command and staff levels and at the crew and platoon levels. The battalion dedicated an opposing force element within the engineer reconnaissance platoon to build and employ a wide variety of training IEDs during counter-IED lane training for the entire BCT.
- Synchronize, synchronize, synchronize. The 40th provided command and control for the BCT’s EOD response and escort operations.
- Use Fort Leonard Wood’s Counter Explosive Hazards Center and other “schoolhouse” training courses such as—

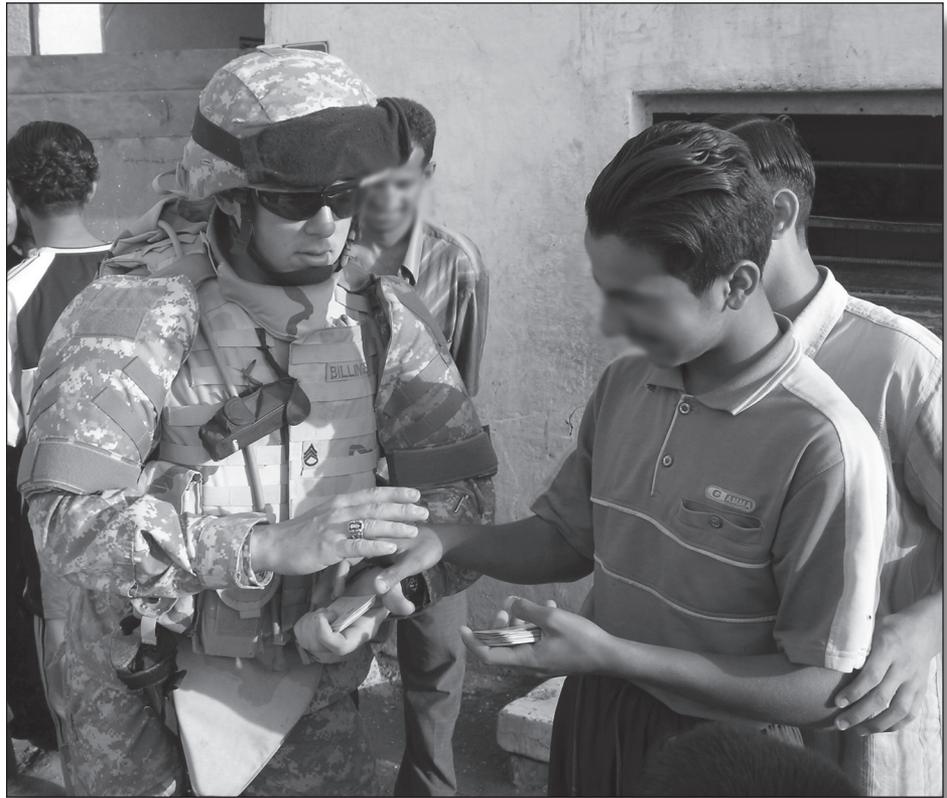
- ▶ The Route Reconnaissance and Clearance Course for valuable hands-on time with Buffalo armored personnel carriers, RG-31 mine-protected vehicles, and Husky mine detector vehicles.
- ▶ The Route Reconnaissance and Clearance Course–Sapper for counter-IED TTP for units without the clearance equipment package.
- ▶ The Explosive Ordnance Clearance Agent (EOCA) Course to train NCOs and junior officers in skills that help bridge the gap between sappers and their EOD brethren.
- The 40th had operational control of the 754th Ordnance Company (EOD) and responsibility for EOD response across the BCT area of operations (AO). This facilitated the most expeditious response and a centralized means to prioritize response to IEDs, weapons caches, and blast crater analysis.

*Engineer LOO No. 2.* Collect, secure, and destroy unexploded ordnance (UXO) and captured enemy ammunition.

- The 40th trained on the TTP for these engineer tasks. Although the two companies stationed in Al Anbar Province completed a few disposal missions, the primary lesson learned was that EOD forces took on the majority of these missions. Related to LOO No. 1, the 40th emphasized the utility of passing the details of all recovered IED-making materials to the BCT’s S2/counter-IED fusion cell.

*Engineer LOO No. 3.* Conduct force protection assessments, construction, and upgrades to critical coalition forward operating bases (FOBs) and combat outposts and to critical Iraqi municipal and other governmental facilities and infrastructure sites.

- All three line companies, the battalion staff, and the headquarters company engaged in this critical task.
- As a “force protection planner,” the battalion S2 officer conducted site assessments across the BCT AO and made detailed perimeter barrier and entry control point upgrade designs for these sites. Charlie Company and the support platoon from Headquarters and Headquarters Company designed and emplaced combat outposts for use by American and Iraqi security forces.



**A 40th Engineer Battalion Soldier distributes claim cards in southwest Baghdad. The cards allow Iraqis to seek reimbursement for damages caused by coalition forces.**

*Engineer LOO No. 4.* Maintain trafficability of main supply routes (MSRs) and other critical lines of communication (LOCs).

- For this LOO, the 40th maintained the BCT’s situational awareness of the status of MSRs and alternate supply routes (ASRs), then focused counter-IED route clearance patrols, blast hole repair missions, and sometimes counter-IED reconnaissance with the BCT’s reconnaissance troop to address the most hazardous routes.
- Both the S2/counter-IED fusion cell’s tracking of IED hotspots and maneuver task force requests for support helped to focus support efforts for these mobility missions.

*Engineer LOO No. 5.* Provide general engineering support to FOB life-support infrastructure and quality of life improvements.

- The 40th learned two primary lessons in conducting this traditional engineer LOO. First, the modernized Kipper™ tool kits proved highly valuable. The MTOE should authorize not one, but three Carpenter’s Power Tool Kits (Line Item Number [LIN] (W34511) and three Pioneer Manual Labor Tool Kits (LIN W48074) per company. The Kipper Plumber’s Tool Kit and Electrician’s Tool Kit (LIN W49033 and LIN W36977) also were useful

to combat engineers establishing combat outposts (COPs) at austere sites.

- The other lesson learned was that due to the shortage of Army construction units, the high demand for missions that civilian contractors couldn’t perform, and the lack of general engineering capability in the divisional (or BCT) engineer units, many BCT-level general engineering missions were delayed until sufficient division- or corps-controlled assets became available. To fill this gap, some BCT engineer units scrounged available theater-provided equipment (TPE). The 40th’s recommendation is to add a minimal level of general engineering equipment, such as two bucket loaders, a D7 bulldozer with haul asset, and three 5-ton dump trucks (or palletized load system vehicles with dump modules) to the combat engineer battalions. This would give the BCT tremendous flexibility and serve as a base for additional capability if sufficient TPE is available. These upgrades would allow the ever-flexible engineer Soldiers to apply their skills to provide valuable quality of life and force protection to forces at FOBs and COPs.

**BCT Effect No. 2—Promote Iraqi confidence in their government.**

*Engineer LOO No. 6.* Evaluate and improve Iraqi municipal infrastructure—sewage, water, electricity, academics, trash, and medical (SWEAT-M).

*Engineer LOO No. 7.* Enable and empower a capable and credible Iraqi government.

By conducting LOOs No. 6 and No. 7, the 40th played a critical role in the BCT's effort to build faith among the Iraqi people that their government can provide essential services such as clean water, electricity, and sanitation. The primary lessons learned follow:

- Incoming units must understand the personalities within the AO's governance and public works structure, the tribal leaders, the current status of SWEAT-M services, and the status of ongoing infrastructure projects. Civil affairs units—often on staggered or “off-cycle” rotations from the maneuver BCTs—are an important source for this information. The credibility of U.S. forces is diminished when they are not familiar with the status of ongoing projects and local priorities. While a new unit may feel the urge to jump into its area with quick solutions, it will be more useful to true progress to spend time learning how systems operated under the Saddam regime, what coalition efforts have already been attempted, and what long-term solutions are currently in the works.
- The 40th Engineer Battalion commander, like most brigade troops battalion commanders in adjacent BCTs, served as the BCT commander's lead agent for BCT-wide civil-military operations (CMO) efforts. The lesson learned is that much will be gained in establishing relationships with the interagency players, especially the United States Agency for International Development (USAID) and the United States Army Corps of Engineers® (USACE), that have ongoing projects within the AO.
- The approach to CMO responsibilities evolved over the course of operations. They found much success by running a “nonlethal effects working group,” chaired by the BCT executive officer (XO), to synchronize CMO efforts along with information operations (IO), psychological operations (PSYOP), public affairs, and other nonlethal targeting operations. The brigade fire support officer led the IO, PSYOP, and public affairs sections while the battalion XO led the brigade civil-military affairs section and the infrastructure project management section.

**BCT Effect No. 3—Transition to a democratic and independent Iraq.**

*Engineer LOO No. 8.* Train Iraqi army EOD personnel in IED defeat.

*Engineer LOO No. 9.* Train Iraqi army engineers.

The battalion's Bravo and Charlie Companies conducted a significant number of combined operations with Iraqi Security Forces (ISF) from the National Police and Iraqi army. Contrary to their predeployment assumptions, the 40th was paired with standard “line formations” instead of Iraqi EOD or engineer personnel. All U.S. units in Iraq will work with ISF, applying persistence and patience as they work toward the objective of putting the ISF in the lead. Predeployment Arabic language and culture training and formal exercises working through interpreters helped prepare the 40th for these combined operations.

### Summary

This LOO construct is similar to the one developed in 2005 and details how the battalion's initial planning and training efforts compared to the actual mission sets that the 40th was called on to execute.

While the battalion's deployment met with successes and failures, it reports that having predeployment training guided by a broad set of engineer LOOs and supporting tasks was extremely valuable. Additionally, the engineer task proficiency focus provided by engineer battalion leaders during the predeployment and theater reserve status training time helped prepare the battalion for the broad spectrum of engineer and nonengineer missions it was called on to perform. All of these formations report that training for the counter-IED fight as an engineer mobility mission will make not only the engineer companies, but also their task forces and the BCT, more successful. As the Battering Rams prepare for their next operational commitment, they will draw on the lessons of this most recent and *like no other* OIF rotation.



*Lieutenant Colonel Graham served as commander of the 40th Engineer Battalion “Battering Rams” during this OIF rotation. He is now the Division Engineer for the 1st Armored Division (1AD), as he prepares for his third OIF rotation. His past assignments include tours of duty with the 1AD Engineer Brigade; the USACE Pittsburgh District; and the 588th, 1st, and 23d Engineer Battalions.*

*Major Kirk was the 40th Engineer Battalion executive officer during this OIF rotation and now serves as the 2d BCT/1AD executive officer. He has also served with the USACE New Orleans District and the 299th and 11th Engineer Battalions.*

*Major Calese was the 40th Engineer Battalion operations and training officer during this OIF rotation and now serves as the battalion executive officer. He has also served with the Sidewinders Team at the National Training Center, Fort Irwin, California; the 52d Engineer Battalion; and the 565th Engineer Battalion (Provisional).*