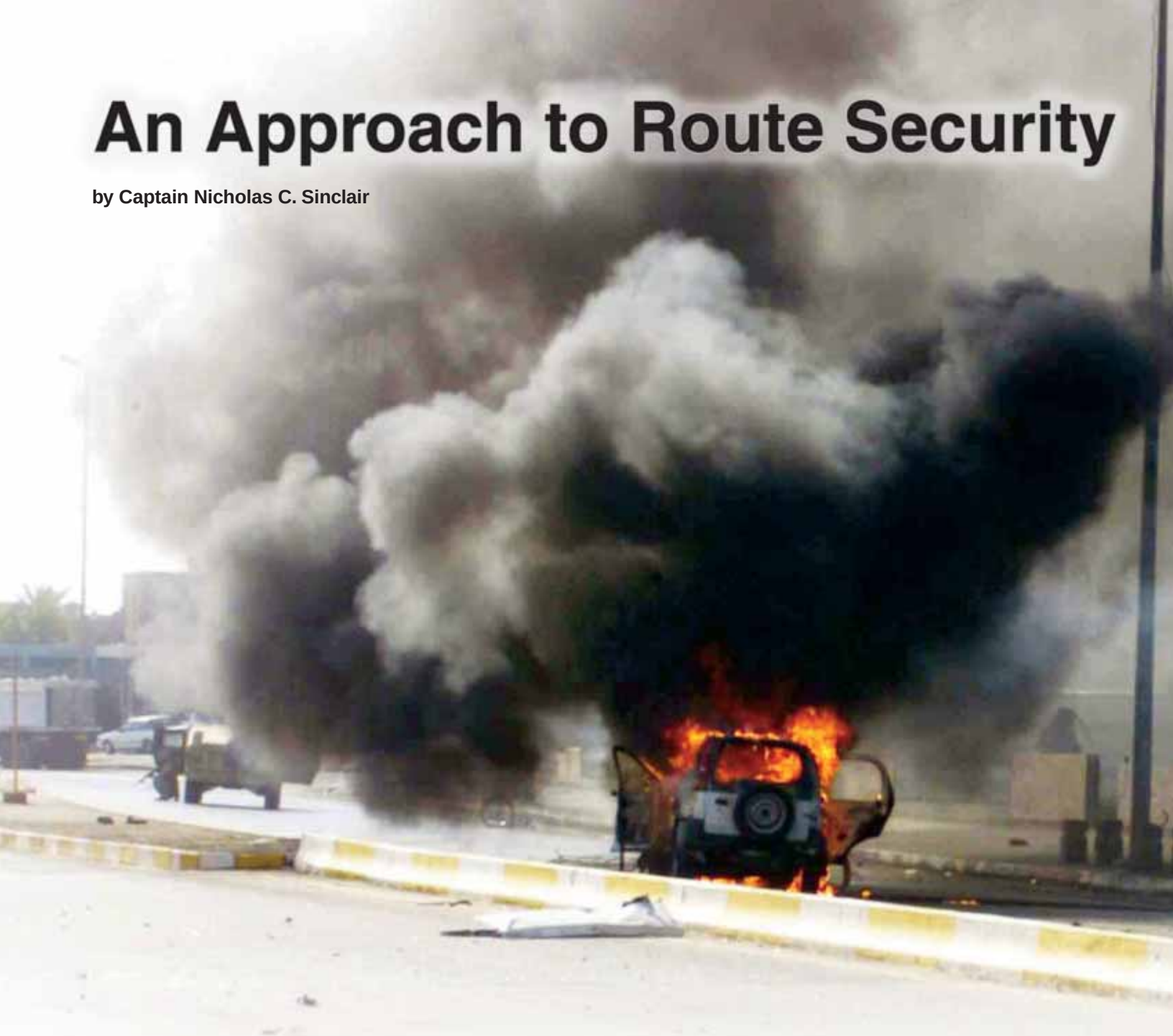
An Approach to Route Security

by Captain Nicholas C. Sinclair



The only feature of the Iraq conflict that is consistent is its inconsistency. The battlefield, the threat, and the social environment are ever changing. What worked in Ramadi during 2004 or in Mosul during 2005 did not work in east Baghdad during 2006. Soldiers who operated within the same sector during their previous tours to Baghdad hardly recognized it when they returned. During our tour of duty to Iraq, my unit conducted route security operations, which worked reasonably well in this sector; however, the recommendations in this article are not the end-all solution to combating deadly roadside bombs coalition soldiers face daily.

In mid-December 2005, 3d Battalion, 67th (3-67) Armor Regiment, 4th Infantry Division, deployed to Iraq. As an infantry company executive officer, I took over the battalion's scout platoon, which was attached to the engineer company. The situation in east Baghdad was very different from my previous deployment to central Baghdad in 2004. The Iranian intervention, largely unknown in 2003 and early 2004, was operating at full strength by 2005. The proxy used by the Iranians to fight against U.S. forces was the Mahdi Militia, led by Shiite cleric Muqtada al-Sadr. As H. John Poole points out in his book *Tactics of the Crescent Moon*, Sadr was supported by Iran from the onset of the 2003 invasion, and his militia received intense training from the Iranian Revolutionary Guards.[1] The Iranians provided great sums of money, equipment, and military training to the Shiite militias in Iraq to counter the mission of coalition forces.[2]

The Mahdi Militia favored ambushes over direct-fire contact. They rarely stood and fought; instead, they opted for hit-and-run tactics. Roadside bombs have been a constant theme in the Iraq conflict since its inception; however, the roadside bombs we faced in east Baghdad were hardly improvised explosive devices (IEDs); they were manufactured pieces of weaponry whose basic form has been around for more than a century.

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used by the Army for these types of bombs is "armor-defeating device" (ADD). The weapon is hardly revolutionary; armies have used it since World War II, and the idea dates back even further. Most armies, including our own, use this type of weaponry to defeat enemy armor. These weapons, often equipped with passive infrared laser beams, detonate when vehicles pass in front of them — the same technology used to open automatic entrance and exit doors at the grocery store. These weapons are difficult to identify because they can be disguised as ordinary debris scattered along the roadside. Often insurgents place the device in a wooden box, wrap it in foam, and roll it in the dirt, making it look like a misplaced curbstone. These weapons have a terrifying psychological effect.

We arrived in theater and conducted a relief in place with 1st Battalion, 64th (1-64) Armor Regiment, 3d Infantry Division. The soldiers of 1-64 Armor were the first to experience the wide-scale use of ADDs and immediately began developing ways to counter the device. Our steps to defeat the roadside bombs began prior to our unit's deployment. Based on information and advice from our counterparts in theater, our battalion commander gave the task of route security to the battalion's engineer company. This differed from most engineer companies, who were given a sector and operated much the same way as an infantry or armor company. Instead of being given a piece of land, our engineers were given the roads. The battalion engineer's mission was to provide route security to make the roads safe for coalition vehicle travel. The mission was three-fold: sanitizing, protection, and clearance. This turned out to be a Herculean task that literally reshaped the battlefield in east Baghdad.

Route Sanitizing

Our first mission was to physically remove trash and debris from the sides of the roads. Anyone who has been to Iraq will tell you the country looks like a landfill. The country is devoid of any organized trash-removal system, so residents simply take a few steps outside their homes and throw their garbage on the roadside. Additionally, the infrastructure is in a miserable state of disrepair, to include curbstones and concrete strewn alongside

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the roads. These nauseating conditions provide insurgents with the perfect camouflage in which to hide bombs.

Cleaning the roadsides was no easy task; we operated at night, during curfew, which allowed us to work unhindered from civilian traffic and during hours when attacks from insurgents were least likely. We literally began walking from the front gate of the forward operating base (FOB) down both sides of the road, loading pieces of concrete onto trailers and pushing trash far away from the roadside. We made good use of the armored combat earthmover (ACE) and Bobcat tractors. We also tore down the remaining guardrails in the battalion's area of operations. The guardrails had become a popular location for insurgents to hide artillery shells intended to detonate on vehicles as they drove past. To remove the rails, we simply wrapped chains around them and ripped them off their beams with an ACE or Bradley fighting vehicle (BFV).

The work was backbreaking and foul; raw sewage from slit trenches flowed into roadside debris, making removal arduous and unhealthy. To protect our soldiers from diseases, we wore surgical gloves underneath work gloves, but getting spattered with raw sewage was unavoidable. The most difficult part of the mission was keeping our soldiers motivated; after all, soldiers enlist to fight, not pick up Iraqi trash. They often referred to themselves as "combat garbage men" and "combat janitors," and dubbed the missions as "community service detail." Moreover, they were teased by others in the battalion for having the unenviable task.

Following precautionary measures, we cleared as far as we could from 2100 hours to 0500 hours, yielding to morning traffic and physical exhaustion. Using this method, we cleared the major routes in our area of operations, which included 32 kilometers of a two- to four-lane divided highway, in roughly three months. Once we accomplished this task, we continued performing route maintenance missions to ensure the roads remained free of debris. Although not nearly as difficult as the initial clean up, it was still demanding physical labor.

In addition to clearing the routes, there were more than 100 large concrete sewer pipes abandoned on the main route in our sector. These sewer pipes were placed there, but never installed and served as a great location to hide explosives. Together with the battalion's support platoon, the engineers removed all of these sewer pipes, greatly reducing the enemy's opportunity to emplace roadside bombs.

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We also opened contracts to fix the roads, which included removing broken and loose curbs and replacing them with new ones. The curbs were freshly painted, which allowed us to identify any curbs that may have been tampered with or removed. Local contracts allowed us to put money into the Iraqi economy by hiring local construction businesses to fix the roads.

Every night, we faced the danger of booby-trapped debris. We were limited to a night's work, which forced us to pick up the next day where we left off the night before, so it was very probable the enemy could have emplaced a bomb. Oftentimes, a soldier would hesitate, taking an extra long drag on his cigarette before lifting an odd-looking piece of concrete. Luckily, we did not encounter any bombs during our clean-up efforts.

Route Protection

Throughout our mission in Iraq, we aggressively pursued the enemy in an effort to prevent roadside bomb emplacement. We conducted long- and short-term observation posts (OPs), overwatching sections of road and intersections that were historic locations for

roadside bombs. Long-term OPs were conducted from 24 hours to several months, while short-term OPs were conducted from 1 to 24 hours. The theory was simple: a sniper overwatching an area would shoot and kill insurgents emplacing roadside devices, making emplacement virtually impossible.

East Baghdad was a sprawling urban slum composed of mostly buildings, 2.4 million people, and heavy traffic flow. Finding a good OP site without being seen was challenging — we were under constant surveillance the moment we left our FOB. The insurgents had counterreconnaissance OPs in depth throughout our sector and used cell phones or gunshots to warn of our presence. Just by the nature of the city, there was always someone alert and watching us everywhere we went. When we were seen, word spread quickly, alerting everyone to our location and activities. We tried various deception methods to insert sniper teams, but we never fully knew if we had been seen.

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Many of our OP sites were empty buildings or, with the homeowner's consent, occupied residential buildings. If our team entered an occupied home, the residents could not leave, which posed problems because family members and neighbors quickly realized something was amiss when they did not see or hear from the residents of the home. This, coupled with rumors that we had recently been in the area, made it relatively easy for locals to piece together the two events. Residents feared our presence would cause them to be viewed as coalition force collaborators and they would suffer serious consequences by the Mahdi Militia. These complications meant that most OPs could not be used for more than 24 hours. During OP operations conducted for more than 24 hours, the teams either occupied locations devoid of civilian presence or they occupied overt OPs such as checkpoints.

During short-term OP operations, we had limited time to find and kill enemy emplacement teams. Furthermore, the enemy's presence was unpredictable; they were patient, and if they knew we were in the area, they were not compelled to emplace devices. They would patiently wait until conditions were perfect before emplacing devices. The enemy had a large area in which to work and any chance of them emplacing a device while we were watching was slim to none.

Acquiring these emplacement teams was made even more difficult by the enemy's use of the natural chaos of busy intersections and roads. In a single day, there were thousands of vehicles travelling on the major roads. At any moment, there were dozens of cars lined along the roadside while their drivers fixed flat tires, bought bread, or waited at fuel stations. Pedestrians were everywhere selling cigarettes, emptying trash, or digging; from a soldier's perspective, everyone looked suspicious. As John Nagl points out in *Learning to Eat Soup with a Knife*, insurgents used this to their advantage because they wanted to elicit the "Army's inappropriate use of force."[3] One of the core fundamentals of counterinsurgency is to win the people's support; to indiscriminately shoot any Iraqi who appeared suspicious would not only contradict the purpose of winning the people's trust and confidence, but it would also draw thousands to the insurgents' side.

In protecting the route, the battalion also took on the construction and manning of several checkpoints. Throughout our tour, the battalion's maneuver companies occupied two to three checkpoints at major intersections in sector. The battalion commander referred to these checkpoints "as key terrain" because they formed the "tactical breach" through which units moved into sector. Historically, these were preferred locations for insurgents to target coalition force vehicles. These checkpoints were occupied around the clock and their constant presence deterred insurgents from emplacing bombs. These checkpoints were a precursor to the combat outposts now common in theater.

To supplement our checkpoints, Iraqi Security Forces had checkpoints spread along main routes. These checkpoints were scattered haphazardly throughout sector, seemingly without thought to their tactical locations, which offered little protection. The haphazard checkpoints provided substandard living conditions for Iraqi soldiers who were expected to stay there for a month at a time. Their poor locations and dreary conditions destroyed the morale in these units, leaving them totally ineffective.

Throughout the year, my company conducted a complete overhaul of the Iraqi checkpoints in the battalion area. The company commander conducted a careful analysis of the terrain and replaced the older, ineffective checkpoints. He placed the checkpoints in tactical locations, providing mutually supporting sectors of observation with neighboring checkpoints. For checkpoint construction, we used privately contracted cranes, ACEs, Bobcat tractors, dozers, bucket loaders, graders (from corps), and hundreds of concrete barriers. The new checkpoints provided much better protection and increased the Iraqi soldiers' quality of living; however, getting them to do their duties was another enterprise altogether.

Route Clearance

The term "route clearance" was nonexistent in Army field manuals prior to this current conflict. It is another "Iraqism" that found its way into the Army lexicon and refers to the act of actively searching for and destroying roadside bombs. Route clearance is by far the most dangerous mission in Iraq; insurgents

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specifically target clearance teams because without the roadside bombs, coalition convoys have freedom of maneuver throughout the area.

About 7 months after our arrival in Iraq, we took over the route clearance mission from the engineers of 101st Airborne's 506th Regimental Combat Team (RCT). Our route clearance equipment included a package of BFVs, HMMWVs, the RL-31 Cougar hardened engineer vehicle, and the Buffalo mine-protected clearance vehicle. The Cougar, with its elevated V-shaped carriage, offers better blast protection than the HMMWV. It also provides excellent observation for its crew with large windows, which wraps around all four sides of the vehicle. The Buffalo is similar to the Cougar, but is much larger, and its most obvious feature is a giant mechanical arm. The arm is equipped with a metal claw, which is used to interrogate suspicious objects on the road. It also hosts a complement of cameras that can be used to scan the road.

Our continuous route sanitization efforts made our route clearance mission all the more effective. Before we cleaned the roads, the enemy could hide bombs among the abundant trash and clutter. With the roads clear and clean, EFPs became obvious to the most casual observer.

Throughout the major routes in sector, a single engineer platoon could accomplish the route clearance task. Along these routes, there was considerable distance between the edge of the road and the buildings lining the routes, which allowed easy identification of anything within this buffer area. On other routes, however, there was little buffer area between the edge of the road and adjacent buildings and market areas. Stacked bricks, vendor kiosks, and dirt mounds offered numerous locations to hide bombs. These roads, though used daily by our forces, were not as well traveled and could not be observed throughout most of the day. The roads posed an even greater danger because they ran directly through neighborhoods that had intense Mahdi Militia followings.

The route clearance teams were bound to the roads, which meant the enemy enjoyed freedom of movement and observation from the flanks in neighborhoods. The enemy became so bold that upon identification of the route clearance convoy, they would emplace ADDs specifically to attack the engineers. Since most of the engineer vehicles were elevated, the enemy adjusted the trajectories on their weapons to target the Cougars and Buffalo. Our company commander quickly realized that we needed security on our flanks to clear high-risk routes. My scout platoon was tasked to provide dismounted flank security while the engineers cleared the routes.

As with our route sanitization mission, we conducted route clearance at night during curfew hours. The engineers would clear approximately 20 kilometers of route during every mission. Due to time constraints and distance covered by the clearance team, my platoon could not provide flank security throughout the entire mission. Instead, we focused on the historic ambush positions. The engineers cleared one side of the road at a time, moving up one side and back down the other. A concrete median roughly one meter high provided additional protection to the clearance teams.

The clearance mission involved three phases: movement, security, and clearance. Movement to the objective was achieved through two different methods. In one approach, our platoon left shortly after the engineers began their clearance mission and traveled secondary routes, swinging wide left or right of the primary route being cleared. This technique was designed to confuse the enemy because my team moved through neighborhoods disguised as random patrols and not linked to the nearby route clearance mission. While the enemy was focused on the route clearance team on the main road, my team moved in from the rear. With the two forces converging simultaneously, we achieved mass on the objective, overwhelming the enemy.

The second movement method we employed was less discreet, but useful in breaking up the routine. Our platoon followed directly behind the engineers, much like a tailback following a blocker. Shortly before the engineers reached a likely ADD area, we would drive off the road left or right, moving through the neighborhoods to the flanks. After the engineers had completed their mission, we collapsed our security and moved back to the FOB in a similar fashion, either through sector or trailing the engineers.

The second phase of the route clearance mission was security. On these missions, our platoon was composed of four HMMWVs, with three-man crews (driver, gunner, and truck commander), an interpreter, a medic, and a five-man sniper team. A day or two prior to the mission we conducted a reconnaissance of the area with the sniper team leaders, identifying possible OP locations. Once on mission, the sniper team dismounted about 500 meters from their OP site and moved to their location on foot. The sniper team overlooked the most likely ADD locations, providing constant surveillance throughout the mission. They were prepared to engage any insurgent emplacing ADDs, but primarily reported suspicious activity along the road or in the neighborhoods along the street. My four trucks were split into two sections and moved to two separate lateral routes oriented

on the road. We provided more coverage by dismounting the truck commanders, who performed local surveillance immediately outside of the HMMWV. We ensured the OP and trucks had overlapping sectors of observation, so there was no space in the road that was not being watched.

The third phase was the actual clearance mission. While my platoon overwatched the road, the engineers could move through and clear the area without being worried about what was on their flanks. Our presence alone either disrupted or scared off any insurgent triggermen in the area, leaving us to search for bombs. If enemy forces were committed to emplacing devices in our area of operations, which was rare, their freedom of maneuver and ability to operate was severely hindered due to our presence.

The lead engineer vehicles scanned the sides of the road and when they identified a suspicious object, the Buffalo was called to investigate. ADDs were somewhat easy to identify because the claw on the Buffalo's hydraulic arm could tear through the foam and wooden camouflage that concealed the bombs; however, concrete or curbstone would stay intact. If there was any question about a suspicious object, my trucks would move to location and the truck commanders would dismount and take a closer look at the object. We looked for wires leading from the device, which was a sure sign of a roadside bomb.[4] If the object was positively identified as a bomb, the wire was traced back to its source, where residents in the immediate area were questioned and their homes were searched. Finally, we cut the wire, secured the area, and requested the explosive ordinance disposal (EOD) unit to either recover the device or detonate it in place.

Positive Outcomes

The roadside bombs restricted our freedom to maneuver through sector, giving control to the insurgents. However, our route sanitization, route protection, and route clearance operations were mutually supporting efforts that enabled our forces to move into sector and provide security to the population, and thus restore the legitimacy of the local Iraqi government. The operations were physically and mentally exhausting, but they paid off. We reduced ADD activity in our sector by an amazing 60 percent overall and entirely in several previously targeted areas. Route sanitization operations created a buffer area that allowed us to readily identify devices placed on the side of the road, which gave confidence to soldiers moving through sector. Before these operations, soldiers reluctantly passed by roadside clutter, bracing for impact. Stretches of road previously considered too hazardous to traverse became frequently used by our forces. Route sanitization also had a pleasing aesthetic effect. Instead of the stomach-turning eyesore of trash and debris, the area had a neat and clean appearance, which showed progress in the area.

Route protection operations allowed us to hold the ground we had reclaimed through route sanitization. It also allowed our forces to work side by side with Iraqi Security Forces, which built trust and understanding between the two forces. Using sniper OPs demonstrated we were no longer targets and we were going on the offensive, which boosted confidence among our soldiers. The route clearance operations saved countless lives through acquiring and recovering deadly ADDs that littered the sector. Taking control of the major roads allowed us to move freely into sector and take the fight to the enemy. The successes of our operations were stunningly obvious compared to battalion sectors that had not focused on route security; these routes were littered with trash and debris, offering ample locations from which to ambush coalition forces.

Negative Outcomes

Our route clearance efforts, though successful, did not defeat the enemy in our sector. The insurgents adjusted to our countermeasures and found other ways to attack our forces. Once we took back the major routes, the insurgents shifted to placing their bombs on secondary roads, deep in their neighborhoods where the same level of route clearance was impossible. About midway through our tour, insurgents began targeting our units, which were conducting checkpoint security operations, with sniper fire and rocket propelled grenade (RPG) attacks. Although we went to great lengths building checkpoints for the Iraqi Security Forces, many went unmanned due to their personnel shortages. These checkpoints, constructed to secure the routes, became areas in which to hide ADDs. Moreover, the quality of some Iraqi Security Forces was poor and their allegiances were questionable.

Insurgents began burying ADDs in the side of the road, making them all the more difficult to identify. The enemy probed our blind spots, finding places to hide roadside bombs in areas we thought were protected. On one occasion, an insurgent was seen crawling on his belly, pulling an ADD attached to his waist by a length of rope. The vehicle crew at a nearby checkpoint could see him, but they were too far away to engage. However, one crew pushed the limits of their BFV's coax machine gun by knocking down two members of an emplacement team from

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a distance more than twice the maximum effective range of the weapons system.

Most obvious was the fact that we could clear the road everyday; however, the moment we left, it was no longer secure. It would have been impossible for the battalion to secure every meter of road in our sector with the limited number of forces we had at our disposal. Even more startling was that the enemy was placing all of his energies toward targeting the engineer clearance teams and destroying the Buffalo.

Lessons Learned

Route security is a three-fold operation that cannot be achieved without one or more of its elements: sanitization, protection, and clearance. Sanitization, although the most physically intensive of the three operations, was the easiest to achieve and maintain. Route protection was the most difficult because we did not have enough forces to secure every route. The only secure roads in sector were the ones our forces were immediately standing on; once we left an area, it was no longer secure.

The enemy was gifted at blending in with the everyday activities of the population, which enabled them to openly emplace bombs. As with any insurgency, differentiating insurgents from the population remained most difficult. We learned that until a competent, hardworking, and loyal Iraqi Security Force is created, it is difficult to rely on them to maintain security on their own. If any routes were to be protected, our troops had to do it. Route clearance teams saved countless lives, but their successes made them high payoff targets for the enemy. We also discovered that on the more dangerous roads, the engineers needed flank security to accomplish their mission.

Roadside bombs remain a challenge for coalition forces in Iraq. As Hezbollah demonstrated against the Israelis in the Lebanese conflict during 2006, it is a trend that is likely to be seen in future conflicts. The U.S. Army is a force carried into battle on trucks and tracked vehicles; our logistics are especially dependent on roads to sustain our force. Controlling the roads will be the decisive operation in future conflicts — without the ability to move, it is difficult to fight the enemy and protect the population. Route security operations must be a priority for any unit deployed to a hostile theater in current and future conflicts.

Notes

[1]H. John Poole, *Tactics of the Crescent Moon*, Prosperity Press, Emerald Isle, NC, 2004.

[2]James Glanz, "U.S. Says Arms Link Iranians to Iraqi Shiites," *New York Times*, 12 February 2007.

[3]John A. Nagl, *Learning to Eat Soup with a Knife*, University of Chicago Press, Chicago, IL, 2005.

[4]Command wire was preferred by the insurgents over remote-control detonation due to the success of our jamming systems.

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