RETHINKING IED *STRATEGIES*

From Iraq to Afghanistan

Commander John Moulton, U.S. Navy

IMPROVISED EXPLOSIVE DEVICES (IEDs) have been emblematic of the insurgency in Iraq. Why have so many disparate insurgent groups with varying resource levels chosen the same means to pursue their often-conflicting goals? And, a more important question, what can we do to eliminate IEDs as the leading cause of coalition force casualties?

Coalition forces cannot out-armor or out-engineer the problem, although an IED's physical effects can be, and have been, mitigated. The insurgency in Iraq has been a complex problem, the taming of which requires adaptive, comprehensive effort. We will not defeat the IED problem with a single solution. Nor will we likely ever solve it in the literal sense. However, if we counter IED attacks as part of an overarching counterinsurgency strategy, we can reduce an insurgency's ability to gain strategic advantages with IEDs.

The first step in understanding how to do this is to examine how the IED's unique nature as a weapon system has benefitted insurgents in Iraq and provided them with the ability to gain strategic advantages. Then, adjusting how counter-IED (CIED) forces document IED attacks, we can look at more IED attacks forensically and resource CIED partnership programs so they can perform a strategic role in counterinsurgency. The CIED effort can contribute to the overall counterinsurgency effort in both Iraq and Afghanistan by reducing the insurgents' ability to use IEDs to achieve strategic goals.

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PHOTO: Soldiers react to a simulated roadside improvised explosive device attack during a skills demonstration at Al Asad Air Base, Iraq, 23 May 2009. (DOD, CPL Jo Jones)

Because They Work

The IED has become a widely used weapon for insurgents in Iraq for one reason: it works. The IED's effectiveness as a weapon system largely derives from its ability to detonate in close proximity to a target. The enemy in Iraq does this either by using a suicide operative to initiate the IED or by having its victim or victims unknowingly set off the device. Examples of victim-initiated attacks include using the weight of the victim or vehicle to trigger an electric switch, using landmines to initiate an IED, or using passive infrared systems that detect movement.[1] The IED detonates close

to its target and at a predetermined angle. The IED has the same effect as a precision-guided weapon.

While victim-initiated IED detonations depend on victims taking actions to initiate them, insurgents have reduced the element of chance by including separate arming and firing systems and by using command initiation systems where a triggerman arms or fires the IED. Typical methods used in Iraq include powering the IED via a copper wire previously laid out between the device and the triggerman, or using commercially available technology such as long-range, cordless telephones or electronic key fobs to transmit an arming or firing signal.[2] By using these methods, the IED's triggerman can physically distance himself from the scene of the attack without reducing its effectiveness.

In this manner, IEDs can incorporate the weapon system concept of standoff. By gaining distance, the triggerman limits his chances of death or injury when he detonates the IED, reduces his odds of capture by being further away from his victims, and facilitates his escape.

The use of commercially available products in IEDs in Iraq is extensive. By using commercial products, insurgents ingeniously take advantage of the creative power of a global market-based economy. Rather than having to research, design, test, and manufacture their own initiation systems, insurgents rely on the power of consumer demand to entice companies and their research labs to develop and produce smaller, lighter, longer range, less expensive, and increasingly reliable electronic items, which they can use in their IEDs. These constant technical improvements also benefit the insurgent by making it difficult for CIED forces to adapt. If insurgents find one of their systems is susceptible to IED countermeasures, the multitude of commercially available systems readily provides them with options for switching to other systems. Effective IED countermeasures against one initiation system often result in insurgents switching to other means of initiation to continue their IED campaign.[3]

The dual-use nature of these commercial products also enables the insurgent to hide them in plain sight. The insurgent can use legitimate electronics shops to order and stockpile components prior to assembly. The devices' actual signals, transmitted among other signals on the electromagnetic spectrum, do not distinguish themselves as nefarious in a routine sea of benign transmissions from other devices.

Besides the arming and firing systems, an IED also requires an initiator and explosive component. However, due to the amount of military ordnance throughout Iraq, explosive components are readily available, and the region has a long history of trade practices that are beyond the central government's control.[4] Some insurgents have the ability to manufacture homemade explosives. Further benefiting the insurgents is the fact that the ordnance in an IED does not have to be pristine or stored in dry conditions because insurgents do not drop IEDs from an aircraft or shoot them out of a gun tube.

The ability to use commercially available items and the prevalence of explosives means that insurgents face a low barrier to entry to build, stockpile, and use IEDs. While external support and state sponsorship can help insurgent groups, they are not prerequisites for waging an IED campaign in Iraq. From this perspective, a strategy based on effectively controlling Iraq's borders, akin to the U.S. government's war on drugs, might reduce IED attacks but would not preclude them.

A unique aspect of the Iraqi insurgency is that numerous insurgent groups with conflicting goals have chosen to wage their insurgencies via an IED campaign. Due to the conflicting nature of many of these groups' goals, it is highly unlikely that they have chosen to use IEDs as part of an overarching strategic campaign. Do insurgent groups choose IEDs for strategic reasons or merely because they are the most feasible means to reliably attack coalition forces? Regardless of why insurgents choose IEDs, they gain strategic advantages by using them.

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The Strategic Effects

One of the primary strategic advantages of IEDs is the ability to seize the initiative from coalition forces. IEDs enable an insurgent to choose where and when an attack will occur. This forces the militarily stronger coalition forces to react to their deeds. By attacking with IEDs, a single insurgent can successfully attack an entire formation of heavily armed vehicles that are protected with the latest armor—without revealing his own position and making himself vulnerable to a counterattack. By not amassing forces to successfully mount an attack, the insurgents avoid exposing themselves to the coalition forces' critical strength—combined arms firepower.

This strategy frustrates coalition forces. The sudden, precise, and largely unpredictable nature of an IED attack can unnerve military personnel on patrol. Difficulties in identifying the perpetrators compound this feeling, thus preventing an effective counterattack. Taking advantage of this frustration to generate a coalition overreaction is one insurgent tactic. This overreaction can occur in many different ways, including a gunner with IED-induced nervousness firing at civilians due to his failure to correctly apply escalation of force procedures, using force as a default response without appropriately weighing other courses of action, or indiscriminately, inaccurately, or excessively applying force. These overreactions benefit the insurgents by generating situations where they or other opponents of the counterinsurgency can label coalition forces as reckless in using violence with little regard against the people they came to liberate.

Also frustrated are commanders trained to "seize the initiative" through "maneuver" and "surprise," to "get inside their enemy's OODA [Observe, Orient, Decide, Act] loop," and to "find and fix" the enemy.[5] Either we accept daily attacks and casualties as the price for being in Iraq or we change and adopt strategies and tactics foreign to our way of thinking about how to wage wars. One example of how IEDs are changing military thinking in Iraq is the purchase of mine-resistant, ambush-protected vehicles and add-on armor for other vehicles. Both of these increase the odds of Soldiers surviving an IED attack but run counter to DOD's transformational goals of becoming a lighter and more agile force.

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Such measures to bolster force protection can have a negative effect on counterinsurgency operations because they involve putting distance and armor between coalition forces and the Iraqi people. Through the use of IEDs, insurgents have caused coalition forces to isolate themselves from the people of Iraq. This has likely made "buttoned up" armored vehicles with "Danger—Stay Back" signs and lasers and gun barrels trained on nearby vehicles an enduring part of the coalition force image.

IEDs raise the cost of the war even beyond the price paid in casualties, destroyed vehicles, and force protection measures. Through sustained, widespread IED attacks, insurgents have been able to prolong the conflict by preventing coalition forces from establishing security throughout the country. This has caused the United States to maintain a significant force level in Iraq ever since the initial invasion. In addition, IEDs enable insurgents to maximize the

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Students maneuver their way along an improvised explosive device recognition and avoidance course at Camp Slayer, Baghdad, Iraq, 30 January 2009.

effect of their forces relative to their numbers. By choosing a weapon that individuals or small cells can employ, insurgents have forced coalition forces to adopt expensive force protection measures throughout the country. Just as two individuals acting as the "D.C. Sniper" during the fall of 2002 were able to spread fear across the Washington, D.C., area and compel law enforcement officials to react to their actions, IED cells in Iraq have had an effect disproportionate to their size.

As an Image

With its violent nature and persistent ability to cause casualties, the IED is well suited for insurgents fighting in the information age. A burning military vehicle or carnage in a marketplace enables insurgents to offer war correspondents a tempting opportunity to pen a bold headline or capture an eye-catching video clip, readymade for posting on the web or for dissemination via the 24-hour news networks. By using images that illustrate the Iraqi government and coalition forces' inability to prevent such violence, the web and media deliver the insurgents' message to a global audience free of charge. In this manner, the IED has become iconic of the insurgency in Iraq. The slow, steady work of a successful counterinsurgency whose goal is to enable a state of "normalcy" does not often produce such ready-made media moments. Thus, the insurgents graphically dominate the news coming out of Iraq in a way that has eluded coalition forces since the toppling of Saddam Hussein's statue in Firdos Square on 9 April 2003, or the Iraqi national elections in January 2005. Although there has been a marked decrease in violence in Iraq since July 2007, no resonating images represent the experience.

Eroding Domestic Support

Although an IED is useful tactically as a short-term area denial weapon, its primary strategic value is not to attrit military forces, but to erode domestic and political support for the counterinsurgency. One of the strategic advantages that insurgents in Iraq have gained from using IEDs is the ability to portray coalition forces as ineffective in establishing security. It does not bode well for the world's predominant military power if the world sees its efforts to use technology or armor to defeat an IED threat as insufficient against "small pockets of resistance."[6]

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This can sow seeds of doubt, especially in a casualty-adverse electorate. Those with access to large national audiences, such as political leaders, members of the press and media, and entertainment figures who oppose the counterinsurgency effort can nurture these doubts. The doubts can have the spillover effect of hardening insurgent resolve to fight, bolstering insurgent recruiting efforts, and causing the local populace to doubt the long-term commitment of counterinsurgency forces. Those who get a majority of their information by reading headlines, glancing at web pages, or briefly watching 24-hour cable news channels are especially susceptible to equating images of an exploding IED with the security situation. The slow but steady progress of a government and counterinsurgency force intent on establishing mundane normalcy may not be readily apparent to them.

Insurgents in Iraq are aware that nonstate actors used IEDs in Lebanon. Nonstate actors caused 241 U.S. casualties when they attacked the U.S. Marine Barracks in Beirut with a suicide vehicle-borne IED on 23 October 1983.[7] This caused some observers to question the rationale behind the U.S. presence in Lebanon during the early 1980s and contributed to the Marines' withdrawal. Rather than tactically defeating the Marines in battle, these nonstate actors were able to strategically raise the cost of the Marine presence in Beirut until it exceeded the U.S. political will to keep them there. In addition to being a relatively inexpensive, easy to employ weapon system with a low barrier to entry, the IED has proven to be an effective way for a nonstate actor, with or without popular support, to force the withdrawal of a large military force.

Technical IED countermeasures are expensive and have not kept up with the adaptability displayed by insurgent IED makers and emplacers. Insurgents have displayed the ability to cause coalition force casualties by adapting their systems faster than

coalition forces can respond to the changes. While some have blamed much of this on an unwieldy or exceptionally bureaucratic military procurement system, many innovations and new methods have failed to reduce these shortcomings.

The urgent needs of field commanders, the need to prioritize competing systems, and the opportunity costs of not pursuing other systems will always hamper CIED procurement. Further lengthening this process is the vital need to test and evaluate new systems in an environment that replicates the physical conditions and the crowded electromagnetic spectrum found in the Iraqi battlespace. Not accurately testing and evaluating these systems can lead to ineffectiveness or electronic fratricide, with signals from one system distorting or cancelling out those of another.[8] Once we validate an item and the techniques, tactics and procedures (TTP) associated with its employment in a simulated Iraqi battlespace, we must evaluate its effectiveness in actual operations and develop and implement a plan to field it. Combined, all of these factors enable Iraqi insurgents to stay a step ahead of coalition forces by reducing the ability of the U.S. to capitalize on its critical strengths in technology and material resources.

The IED is an unparalleled strategic weapon for insurgents to employ against a stronger military force. The availability of explosives and commercial technology means that the insurgents can fabricate it locally without large-scale financial or logistic support. Its improvised nature means that insurgents can readily adapt it to overcome countermeasures. The IED enables small insurgent cells to cause casualties in large and powerful military formations and to reduce their risk by incorporating standoff. It keeps coalition forces from applying their advantages in maneuver and firepower, and forces them to adopt expensive force protection measures that increasingly isolate them from the populace whose support they seek. It enables insurgents to take free advantage of the media to vividly portray the counterinsurgents as unable to establish order and security, and this helps erode popular support for the counterinsurgency. Worse, many IED attributes and characteristics cause leaders to focus on reducing IED attacks and casualties at the expense of the counterinsurgency effort. However, if we apply proven counterinsurgency principles to the CIED effort, we can thwart the insurgents' ability to use IEDs strategically.

What We Should Do

While the U.S. spent $3.63 billion in 2006 on a largely technical, engineering-based CIED effort, the level of IED attacks throughout Iraq did not begin to decrease until July 2007.[9] These attacks continued to decline from 100 attacks a day to approximately 60.[10] In order to sustain this downward trend, coalition and Iraqi leaders must examine the situation to determine the cause or causes of this decline. However, unless we can find a clear relationship between the decline in IED attacks and specific coalition CIED operations or TTP, it would be prudent for coalition CIED leaders to conduct their own critical analysis and not shy away from innovative TTP or organizational structures that challenge existing doctrine.

Thus, rather than focusing on ways to prevent an IED from detonating or mitigating its explosive effects, the Army should seek to improve the CIED force's counterinsurgency effectiveness.

Providing relevant information. As Sir Robert Thompson, who helped defeat the communist insurgency in Malaya, has stated, "Anyone having any responsibility for dealing with an insurgent movement must know his enemy and what that enemy is attempting to do."[11] The U.S. Marine Corps' *Small Wars Manual* operationalizes this statement as follows: "The military strategy of the campaign and the tactics employed by the commander in the field must be adapted to the situation in order to accomplish the mission without delay."[12] But do we do this effectively when insurgents in Iraq adapt their IED campaign faster than coalition forces can react? The answer is to change how CIED forces in Iraq provide information on their operations to their chain of command and to other units.

Currently, CIED reports in Iraq focus on the what, when, where, and how of an IED attack.[13] Unfortunately, this generates hundreds of reports daily with photos and information on coalition force actions before, during, and after the attack, and on

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the type of IED the enemy employed. What is largely missing from this deluge is the "who" and "why" that might enable staffs to turn the information into intelligence. By remembering the purpose of such reports and using information technology systems to better convey this information, military leaders will better understand IED networks and the effects of operations against them.

Reports should emphasize *the IED network*. While understanding coalition force mistakes may help mitigate future attacks, this should not be the focus of reports: such knowledge does not directly help the counterinsurgency effort. By focusing on coalition and insurgent TTP in comparison to previous attacks, we can develop a larger picture of the IED network. EOD Mobile Unit 2 used this method with some success to profile IED networks. However, it was not adopted theater-wide.

While this emphasis on patterns of events can make reports more useful, if such information remains buried, we cannot act on it effectively. To help separate the wheat from the chaff, we must determine where value is added to IED reports during their processing up the chain of command.

Thompson's observation from Malaya that "an insurgency is a junior commander's war" also applies to the CIED fight in Iraq. Because of his day-to-day missions rendering IEDs harmless, the non-commissioned or junior officer EOD team leader is best suited to recognize similarities and trends in IED attacks in his area of operations. On the other hand, because his focus is local and he is tactically oriented, the next higher level in the chain of command may be in a better position to recognize any extension of the patterns to other areas of operation. Team leaders can sift for relevant information by focusing their reports on the changes and patterns they see, thus preventing those higher in the chain of command from receiving too much extraneous information and enabling them to analyze why these patterns are emerging.

Higher echelons add value by analysis and pattern identification. Thus, posting information on the web displays pertinent information more effectively and enables all users with appropriate access to it to view the information faster than via e-mail, where briefing cycles drive deadlines.[14] Furthermore, websites enable units preparing to deploy to the same area and other units at the same echelon to access the information much sooner.

Recognizing, as Thompson did, that a "conventional command structure . . . leads to a lack of initiative in the junior ranks," junior leaders who are more information technology savvy than senior leaders should develop reporting formats and innovative ways to disseminate information about IEDs to the larger counterinsurgency force.

Perspective. Coalition forces should also change how coalition leaders view IEDs. Currently leaders see IEDs from a conventional warfare perspective—that is, as impediments to maneuver. By realizing the IED's inherently improvised nature, counterinsurgent leaders will see that the IED itself is a valuable source of information. It can provide greater understanding of the insurgency and help us discover new ways to defeat it.

The *Small Wars Manual* states that the counterinsurgent's "purpose should always be to restore normal government or give the people a better government than they had before, and to establish peace, order, and security on as permanent a basis as practicable. Gradually there must be instilled in the inhabitants' minds the leading ideas of . . . security and sanctity of life and property . . ."[15]

Coalition forces will be able to reap intelligence on IED networks through forensic analysis of the IEDs themselves—if they view IEDs as murder weapons left at the scene of a crime rather than landmines placed to inhibit maneuver. Furthermore, using forensic evidence to seek convictions at the Iraq Central Criminal Court can bolster the Iraqi judicial system.

Convicting IED-makers and establishing the rule of law are not lofty goals that interfere with the war effort. As Thompson wrote, "It should be the firm policy of the government to bring all persons who have committed an actual offence to public trial. This has the great advantage not only of showing that justice is being done, but of spotlighting the brutality of terrorist crimes and the whole nature of the insurgency."[16]

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The tactical situation will not always facilitate recovering an IED and treating the surrounding area as a crime scene, but once leaders gain actionable intelligence from EOD teams and forensic evidence, they will become aware of the benefits of exploiting IEDs, as opposed to simply detonating them in place as the preferred course of action.

Currently, ad hoc organizations called "weapons intelligence teams" gather forensic evidence about the insurgent IED campaign in Iraq. These teams, and their command and control structure, fall under Combined Joint Task Force Troy, and consist of EOD technicians, combat arms soldiers, and intelligence personnel trained to gather forensic evidence. However, we are not using them as effectively as we could be due to their need for additional security and because they can exploit an area only after an EOD team has cleared it. Assigning an intelligence specialist to each EOD team to collect forensic evidence would produce numerous benefits. All EOD responses could then include forensic information, and instead of EOD and weapons intelligence teams simultaneously reporting on the same events, intelligence specialists could help write IED reports, and EOD technicians and combat arms Soldiers could return to more gainful employment in their specialties.

Exploiting IEDs and attack scenes will lead to more evidence and intelligence. This in turn will enable us to identify more insurgent IED cells and link them to attacks using evidence that can result in criminal convictions. By regarding the IED itself as a source of information, coalition force leaders will be able to turn the insurgents' most relied upon critical strength into a critical vulnerability.

Indigenous security forces' responsibility. We must enable indigenous security forces to assume responsibility for the CIED effort. The insurgents attack coalition forces with IEDs, but they also use them to attack hospitals, schools, Iraqi officials, markets, and religious sites and gatherings such as the Golden Mosque in Samarra and the Shi'a Ashura celebration. Such attacks will not end once coalition forces withdraw. Training Iraqi CIED forces follows General Petraeus's "Leading-to-Partnering-to-Overwatch" counterinsurgency strategy and the *Small Wars Manual's* guidance to "make self-sufficient native agencies responsible."[17]

Fortunately, this effort is already underway in the Iraqi Army Bomb Disposal School and Iraqi Army Bomb Disposal Company's partnering program. Iraqi units are "already responding to 80 percent of the EOD calls," and one U.S. commander reported "see[ing] people walking around [Diwaniyah where] they wouldn't risk it before… [as] the Iraqi people see their fellow Iraqis working to help them."[18] While this is promising, another officer involved in this same effort noted, "Although progress is noticeably underway, there is still a great deal of work left."[19]

DOD

Members of a weapons intelligence team provide counter improvised explosive device intelligence through collection, analysis and tactical exploitation in support of Multinational Corps Iraq, 12 February 2009.

One reason for this is the low priority these two programs receive in the CIED and counterinsurgency effort. In mid-2007, only two people in the CIED effort supported the partnership program as their primary duty.[20] While the programs have already yielded strategic benefits, such benefits will remain limited unless we give the programs enough resources to contribute to the larger counterinsurgency effort. Enabling security forces to protect their fellow citizens by prosecuting IED-makers

and gathering evidence that can lead to criminal convictions would be a great advantage for the counterinsurgency. It makes "the government . . . a protector of those who are innocent, and it puts the terrorists in the position of criminals."[21]

Engendering Success by Changing the Mind-set

My three recommendations—establishing unit websites to share IED reports focused on IED networks, restructuring the weapons intelligence teams, and adequately resourcing bomb disposal partnership programs—all focus on changing our approach to problems, rather than relying on engineering or technological solutions, which have narrower applications. While these recommendations have grown from experience in Iraq, they also apply to other IED campaigns against counterinsurgent power, for example, Afghanistan. And Afghanistan will not likely be the last place where the U.S. will confront an insurgent IED campaign. An overarching counterinsurgency strategy requires a CIED strategy to turn the enemy's use of IEDs into a vulnerability. ***MR***

NOTES

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