# Iraq: The Social Context of IEDs

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IMPROVISED EXPLOSIVE devices (IEDs) are among the deadliest weapons coalition forces face in Iraq, and defeating their use by insurgents is both essential and extremely challenging. Thus far, U.S. defense science and technology communities have focused on developing technical solutions to the IED threat. However, IEDs are a product of human ingenuity and human social organization. If we understand the social context in which they are invented, built, and used we will have an additional avenue for defeating them. As U.S. Army Brigadier General Joseph Votel, head of the Pentagon's Joint IED Task Force, noted, commanders should focus less on the "bomb than the bombmaker."[1]

A shift in focus from IED technology to IED makers requires examining the social environment in which bombs are invented, manufactured, distributed, and used. Focusing on the bombmaker requires understanding the four elements that make IED use possible in Iraq: knowledge, organization, material, and the surrounding population.

## Knowledge

The IEDs that are killing Americans in Iraq were not imported from abroad. Saddam Hussein's regime designed them. The insurgency's expert bombmakers are mostly former members of the Iraqi Intelligence Service (IIS), the Mukhabarat.[2]

The IIS unit called M-21 (also known as the Al Ghafiqi Project) operated a laboratory that designed IEDs. Bomb manufacturing at M-21 was a collaborative enterprise: "No one person constructed an entire explosive device alone. . . . An improvised explosive device began in the chemistry department which developed the explosive materials for the device. The electronics department prepared the timers and wiring of the IED and the mechanical department produced the igniters and designed the IED."[3] M-21 designed a number of clever ways to conceal explosives, including in books, briefcases, belts, vests, drink containers, car seats, floor mats, and facial tissue boxes.[4] M-21 also produced manuals on how to conduct roadside ambushes using IEDs; how to construct IEDs from conventional high explosives and military munitions; and how to most effectively take out a convoy by disguising an IED.[5] The IIS M-21 unit is a key reason the Iraqi insurgency is so adept at constructing IEDs. They provided "the blueprints of the postwar insurgency that the U.S. now faces in Iraq."[6]

Beginning in September 2003, IEDs became more sophisticated, evolving from simple suicide attacks to more complex remote-control, vehicle-borne IEDs and daisy-chained IEDs using tripwires.[7] Such a rapid increase in technological sophistication indicates the infusion of "expert" knowledge into the process of building and deploying IEDs. The increased sophistication of IEDs over time also indicates that their design and construction has become a specialized function within the insurgency, rather than a dispersed function.

Functional specialization of IED manufacturing and emplacement suggests there are relatively few expert bombmakers. Indeed, the

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An ammunition dump at Tikrit Airport, 19 April 2003. (*Inset*) Captured IED components.

British Army believes insurgents have a small number of expert bombmakers who are involved in designing and mass-producing IEDs.[8] General Martin Dempsy, commander of V Corps' 1st Armored Division agrees: "I think that there is an element of central planning and central training and central supplying for improvised explosive devices."[9]

If bombmaking is a specialized function, coalition forces can take advantage of this in two major ways. First, if bombmakers are captured or killed, their expert knowledge dies with them. Although manuals can be instructive, knowledge gained through years of experience is not easy to reproduce through written instructions. Thus, removing the bombmakers would weaken the insurgents' ability to mass-produce bombs. Second, specialization of function makes those who plan, transport, and detonate bombs dependent on those who build them. Although the insurgency is organized in cells, multiple members of each cell must know the identity of the bombmaker in order to retain access if cell members are killed. Thus, multiple "customers" within the network know the bombmaker's identity.

Identifying the bombmakers should be an absolute priority, and the best way to identify them is through intelligence provided by the bombmaker's customers. Thus, where possible, cell members should be captured rather than killed.

## Organization

IED deployment also depends on the existence of an organization dedicated to this task. According to a Joint Intelligence Task Force analysis, Iraqi officers of the Special Operations and Antiterrorism Branch (also known as M-14) are responsible for planning IED attacks.[10] While major combat operations in Iraq were still occurring, members of M-14 scattered across Iraq to lead an insurgency. The operation was designed with little central control so cells would remain viable even if commanders were captured or killed.

British military sources have confirmed that the insurgency is composed of highly organized cells operating in small numbers.[11] Typically, each cell has a variety of members who specialize in different tasks. For example, one group of insurgents consisted of two leaders, four subleaders, and 30
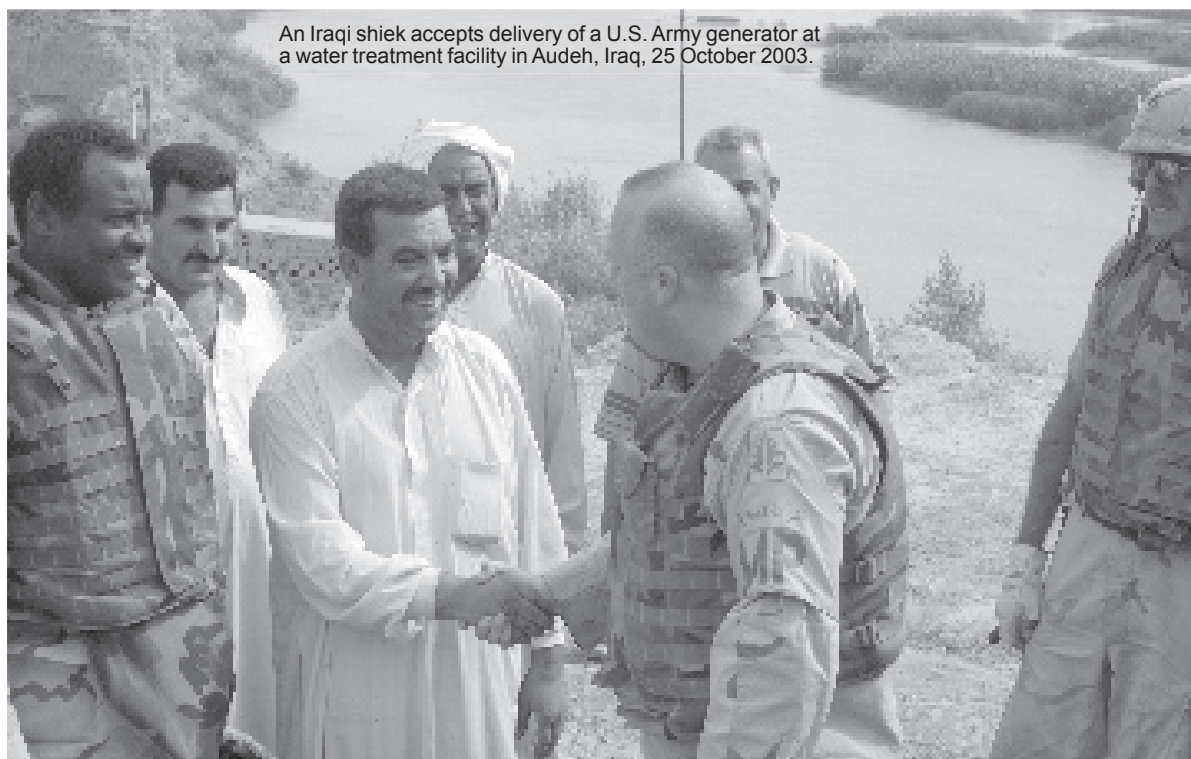
An Iraqi shiek accepts delivery of a U.S. Army generator at a water treatment facility in Audeh, Iraq, 25 October 2003.

members. Broken down by activity, there was a pair of financiers; two cells of car-bomb builders; an assassin; mortar and rocket launching teams; and others in charge of roadside bombs and ambushes.[12] Members of insurgent cells operate part-time and blend back into the civilian population when operations are complete.

While some foreign fighters might be present, the majority of insurgents are native Iraqis connected to each other and to the general population by social networks and relationships. The most important social network in Iraq is the tribe. Most Iraqis are members of one of 150 major tribes, which are subdivided into about 2,000 smaller clans. The largest clans contain more than one million people; the smallest, a few thousand.[13]

After Iraq's economic collapse following the Persian Gulf War, the Sunni tribal network became the backbone of Saddam Hussein's regime, with tribe members performing everything from security functions to garbage collection.[14] Humiliated during Operation Iraqi Freedom, frozen out of positions of power by "de-Ba'athification," and having lost their prestigious jobs in the armed forces and internal security apparatus, Sunni tribal members have become the backbone of the insurgency.[15] The tribes provide money, manpower, intelligence, and assistance in escape and evasion after an attack.[16]

How do you locate insurgents within a tribal network? Social network analysis (SNA) provides valuable tools for understanding tribal organization and charting the links between tribes and insurgents. Social network analysis is the mapping and measuring of relationships and flows between people, groups, organizations, and computers or other knowledge-processing entities. These methods proved highly successful in capturing Saddam Hussein. The 104th Military Intelligence Battalion developed a social network program called "Mongo Link" to chart personal relationships using data from Iraqi informants, military patrols, electronic intercepts, and a range of other sources. One of the 62,500 connections led directly to Saddam.[17]

SNA resources, such as those under development at the Office of Naval Research, identify how to maximally disrupt a network by intervening with the key players and how to maximally spread ideas, misinformation, and materials by seeding key players. By using data about IIS members and their personal relationships within the Iraqi tribal network, SNA can describe terrorist networks, anticipate their actions, predict their targets, and deny the insurgents the ability to act.

## Material

The insurgency's ability to construct IEDs depends on the availability of bombmaking materials, particularly explosives. The widespread availability of explosives in Iraq means the insurgency

will have the material resources to build IEDs for many years to come. Currently, approximately 80 tons of powerful conventional explosives (mainly HMX and RDX) are missing from the former Iraqi military base at Al Qaqaa. These explosives could produce bombs strong enough to shatter airplanes or tear apart buildings and are probably already in the hands of the insurgency.[18] The director of the Iraqi police unit that defuses and investigates IEDs notes: "One of the coalition's fatal mistakes was to allow the terrorists into army storerooms. . . . The terrorists took all the explosives they would ever need."[19]

Because the insurgency is connected to the Sunni tribal system, certain sheiks probably know exactly where these explosives are stored. The sheiks are vulnerable in two ways: through their love of honor and through their love of money. Although they cannot be pressured to divulge the whereabouts of explosives through appeals to honor, because they see us as infidel adversaries, they are vulnerable to financial rewards. In Iraq, there is an old saying that you cannot buy a tribe, but you can certainly hire one.[20]

The ability to hire tribal loyalty is an aspect of the patronage system in Iraq. Patrons at the top dispense riches and rewards downward. Sheiks, who stand at the penultimate point in the patronage system, have a social responsibility to distribute funds downward to subsheiks, who in turn distribute resources to tribal members. Thus, the sheiks always need money to keep subsheiks loyal to them. Coalition forces should use this patronage system to buy temporary tribal loyalty. In so doing, they should be careful not to offer money as a "reward" for divulging the whereabouts of explosives, but as a show of goodwill to the sheik, combined with a humble request for assistance.

## Surrounding Population

The insurgency seeks two kinds of support from the civilian population: active and passive. Civilians provide active support when they transport, emplace, and detonate bombs. Insurgents gain civilian cooperation through coercion, threats, and financial remuneration. Civilians provide passive support by allowing insurgents to escape and "disappear" among the general population. In this, the insurgency has an advantage, because officials from the remnants of Saddam's intelligence and security services know who is loyal, where they live, and with whom they associate.[21]

Even when Iraqis are not sympathetic to the insurgency's aims or methods, the fear that the insurgents might retaliate against them deters them from supporting the interim Iraqi government. The key to winning the war against the insurgency is to separate the insurgents from the surrounding population. As Mao Tse-tung said, "The people are water, the Red Army are fish; without water, the fish will die."[22] Separation of the insurgents from the supporting population requires provisioning economic, social, and police security to the civilian population; establishing trust, especially through long-term relationships; and removing incentives for joining or supporting the insurgency. ***MR***

**NOTES**

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