February 2006

Destroying the Mother of All Arsenals: Captured Enemy Ammunition Operations in Iraq

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Among the populations most at risk are the poorest, ethnic minority groups and those living in remote areas—which are often overlapping categories.

The Costa Rica Mine/UXO Victim Information System (CMVIS) has proven to be an effective tool in monitoring casualties and ensuring full reporting nationwide. Law which has also a national program with significant international assistance, will implement a similar system, tentatively titled LMVIS, in late 2005 or early 2006.

Surprisingly, given its size and level of development, Vietnam remains the most difficult of the three countries in which to gather and share information. The challenge in Vietnam is to how expand successful models of cooperation in several central provinces to other parts of the country that are also heavily affected by UXO and landmines, particularly along the south-central coast and in the central highlands. A successful, proactive casualty information system (LMVIS) not be up-to-date or bureaucratic, but does require current-level status, assured funding, and to improve existing health and disability data sources. If these objectives can be achieved in Cambodia and Laos, they are certainly within Vietnam’s capacity as well.

To date, international donor funding for mine action and victim assistance has been spread quite unevenly among the three countries. Cambodia has received an average of $20 million (U.S. per year over the last five years, or roughly $2 per capita. Laos has received $5 million annually, around $1 per capita. Vietnam has averaged $5–10 million, or about $10 per capita. This discrepancy appears likely to continue. For instance, Australia announced in July 2005 that it will provide $57 million for mine clearance and victim assistance in the southeast Asian region over the next five years. Reports indicate the majority of this funding will be sent to Cambodia and Laos, though Vietnam will also be considered. What does this lack of funds as well as operational reasons for donors’ funding decisions, but given the challenges for government agencies and non-governmental organizations—especially NGOs that have been successful models of cooperation in the future.

O n 20 March 2003, United States and Coalition Forces crossed the border into Iraq, initiating ground combat operations during Operation Iraqi Freedom. Almost immediately, they encountered vast stockpiles of conventional Iraqi munitions. Much of the ammunition was in pristine condition, while large amounts of other ordnance had been looted, scavenged or damaged during combat operations. It soon became apparent that a major effort would be required to secure and dispose of these stockpiles.

Assessing and Managing the Problem

The discovery of these “ammo dumplings” was not unexpected. Preparations to deal with captured enemy ammunition were part of the initial planning and provided for Operations Iraqi Freedom that started in October 2002. What was not appreciated until much later in 2003 was the scope of the problem. Ground commanders quickly put together plans and maneuvers in an attempt to secure or destroy the enormous caches of ammunition that units were encountering. These well-intentioned efforts would eventually produce mixed results and, in some instances, amplify the problem.

Increased awareness by uncertainty of the magnitude of the captured enemy ammunition (CEA) problem resulted in the United States Army Corps of Engineers requesting to conduct an assessment in June/July 2003 to determine if their existing munitions re-mediation programs could be used. Specifically Combined Joint Task Force 7 (CJTF-7) sought assistance in the munitions collection process, the transportation of the ordnance to disposal areas and the operation of the demilitarization sites themselves. Due to the perceived urgency of the situation, CJTF-7 wanted capability in place at 30 days of the assessment to begin reducing or replacing military personnel and equipment engaged in the CEA mission (now renamed the Coalition Munitions Clearance program) combined Joint Task Force 7—the “customer”—wanted the U.S. Army Corps of Engineers and its contractors to provide a “cradle-to-grave” service that could eventually be transferred over to Iraqi authorities.

Funding was provided to the Corps of Engineers on 28 July 2003 to commence CEA operations. USACE awarded several contracts on 8 Aug. 2003—one to the Parsons CEA operations. USACE awarded several contracts on 8 Aug. 2003—one to the Parsons

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secured as ammunition dating from World War II. In the process, the team burned more than 300,000 rounds of small arms ammunition. This endeavor was both a huge success and a learning experience. The key is to allow the ordnance experts to work. The team burned more than three million rounds of ammunition.

The efforts in Iraq also resulted in a few tragedies. One publicity stunt turned into a disaster in 2003 when a coalition bomb operator was killed while trying to destroy a cache of ammunition using a bomb. The team then reported the incident to the authorities, who immediately placed the area off limits to all personnel.

Another eye-opener for contractors was the large number of countries that had supplied Saddam’s army—initially including Belgium, Brazil, Chile, China, France, Italy, Russia, Singapore, South Africa, Spain, Sweden and the former Yugoslavia. Munitions from at least 30 countries were recovered during the inventory of the depots and caches.

Although the CEA depot established an extremely productive routine, the task confronting the 50 UXO contractors at each site was formidable. In October 2003, Coalition Forces reported that they had destroyed 6,444 munitions caches, of which 682 remained to be removed or destroyed. Furthermore, 180 of the remaining sites were deemed to be large (i.e., 100 munitions storage bunkers or warehouses in each). Coalition Forces recovered the cache sites and delivered the munitions to the regional depots for storage or destruction. Beginning in December 2003, CEA contractors accompanied by other military units or private armed security forces removed or transported the depots on site or disposed of the ordnance at a disposal site. Between September 2003 and April 2004, the contractor workforce (which by then also included Environmental Consulting Corporation of Burlingame, Calif., and Zapata Engineering of Charlotte, N.C.) cleared over 87,000 tons and destroyed almost 220,000 tons of ordnance.

Risk to Personnel

All this work was accomplished at considerable personal jeopardy to personnel. The most significant threat currently hindering all reconstruction efforts is a lack of security. CEA contractors were most at risk while traveling between sites. These movements were most often conducted in ground vehicle convoys. While traveling in convoy, the contractors were usually escorted by military personnel or armed private security forces. Regardless, insurgent forces launched attacks and ambushes against these convoys. The most common methods of attack were roadside improvised explosive devices and small arms fire. Occasionally, the convoys would be ambushed by soldiers or insurgents. As of the writing of this article, five CEA contractors have been killed in such attacks.

To counter the threat of attack, Parsons Corporation bought factory-armed Ford Excursions; however, USACE encouraged them to purchase mine-resistant vehicles from South Africa. MIK and RGB Trading were contracted to provide refurbished Casspirs and Mambas (respectively) to transport UXO and security personnel from site to site. As of the writing of this article, over 40 contractors involved in CEA operations have survived death or serious injury from IEDs and small arms fire due to the protection afforded by the Casspirs, Mambas and armored Excursions. Indirect-fire weapons such as rockets and mortars are another form of insurgent attack. Many attacks mimic tactics employed in Afghanistan, where rockets are fired from improvised launchers with some incorporating a time-delay firing device to allow the insurgents more time to set up their defenses or escape. These attacks were common; between October 2003 and September 2004, Camp Victory (where the CEA operation was based) was struck 18 times.

One final, less frequent method of attack against CEA operations was direct assaults against a worksite, and only one occurred during the time frame examined in this study. On 10 April 2004, a large CEA cache site south of Mosul was attacked by a force of approximately 12 insurgent fighters armed with pistols, small arms, rocket-propelled grenades and machine guns. The ensuing firefight lasted about 45 minutes, wounding one American and two Kurds. Exact causes of the attacks are unknown.

Safety Considerations

It should be no surprise that safety is a crucial issue when managing munitions and explosives. While conducting CEA operations, particular hazards wereencountered when securing and transporting ordnance, as personnel could suffer the effects of munitions disposal and provide information related to the disposal and destruction of ordnance. The newly designed government in Iraq will lead to a more stable and secure environment, allowing humanitarian and relief organizations to return. As these new officials travel about Iraq, they will be confronted with the hazards encountered when personnel were exposed to propellant and tank ammunition weapons, including both in the ordnance.

Several types of foreign mortar fuses proved especially sensitive to handling, whether they were loose or packaged. One incident resulted in the death of an Iraqi laborer who was exposed to phosphorous. The following comments are intended as a source of several incidents during operations in Iraq. These precautions were due to the large volume of materials handled and the unsafe ordnance, which contained loose and scattered propellant. The stabilizer in the propellant deteriorated and remained in the ordnance, even when temperatures were relatively low. Additionally, one well-known hazard that did not have a positive safety pin blocking the firing mechanism. CEA contractors are not normally considered to be overly dangerous ordnance items, white phosphorous has always been known to be an extremely hazardous item to manage. Unfortunately, the high temperatures in Iraq, which leached the material during daylight working hours, prompted a review of safe operating procedures. Unfortunately, no personnel was injured or killed by this incident, but was not enough to prevent at least one serious incident.

Some of the information hazards were many well-intentioned attempts to assist in the reduction of ammunition throughout the country. Many improvised combat forces attempted to destroy munitions site by a procedure called “drop and pop”—depositing a charge until it exploded—was not enough to prevent at least one serious incident.

Adding to the inherent munitions hazards were many well-intentioned attempts to assist in the reduction of ammunition throughout the country. Many improperly trained combat forces attempted to destroy munitions site by a procedure called “drop and pop”—depositing a charge until it exploded—was not enough to prevent at least one serious incident.
Depot. This particular shot disposed of approximately 175 tons of CEA. A typical "demo shot" at one of the USA Environmental regional CEA in Iraq during the summer months can be extremely dangerous due to the area. As most would expect, the temperature environmental threats, scrap dealers. The precious metal was then sold to industry "in order to provide a source of income for unemployed Iraqis. The precious metal was then sold to scrap dealers.

Environmental Threats

The environment also poses hazards to those not familiar with the area. As would expect, the temperature during the summer months can be extremely dangerous due to the severe heat and the presence of venomous snakes and scorpions. There are five types of poisonous snakes indigenous to the country, several of which have venom that is fatal to humans. Of relevance to CEA operations is the fact that both snakes and scorpions are fond of shading themselves in stacks of munitions both outdoors and in ammunition bunkers and warehouses. No fatalities have occurred as a result of encounters, but there have been instances in which workers have required medical assistance after a scorpion sting.

Logistics

Prior to the current conflict, the Iraqi infrastructure was well-established with an extremely complex road network. Many supplies were shipped in from Kuwait, as well as some from Jordan as the intensity of the insurgency increased. The danger of transporting supplies that were obviously destined for Coalition Forces or civil- ian contractors created a very tenuous supply system. Many Iraqi, Turkish and Pakistani truckers were killed, injured or scared away because they were aiding in the reconstruction of Iraq in the post-Saddam era. This situation has made supplying CEA operations a formidable challenge. Much has been written and discussed about the amount of ammunition that has not been accounted for in Iraq; however, little has been mentioned about the civilian contractors who have accomplished a task never before attempted under fire. Their efforts have moved thousands of potential IEDs and weapons from the hands of the insurgents, protecting Coalition Forces and innocent Iraqis who simply want to live free from the oppressive Hussein regime.

In addition, by undertaking the CEA mission, the U.S. government has demonstrated its resolve in eliminating the hazards of explosive remnants of war. The United States will undoubtedly continue in this role as it moves forward in implementing the State Department's new Weapons Removal and Abatement Services contract. These U.S. efforts will continue to properly dispose of explosive hazards and in the process protect displaced civilians, but also the global environment.

See "References and Endnotes," page 104
Endnotes and References

Endnotes

5. The War Goes On, Vosburgh [from page 27]
9. An Operator’s Perspective on Ottawa’s Article 5, Nergaard [from page 35]
10. Embankments are to contain flood water. Bunds are generally used to describe defensive positions, banks of earth and embankments.
11. Simple plumb methods use a plumb line, which is a reference line guided by a string or cord weighted at the end with a large weight known as a plumb bob. It is used to ensure a reference line for creating vertical lines.
12. Further Reading
14. Integrated Mine Action: A Rights-Based Approach in Cambodia, Turcotte [from page 34]
16. Demining in Iran, Banks [from page 8]
19. The War Goes On, Vosburgh [from page 27]
20. Reference line for creating vertical lines.
21. Simple plumb methods use a plumb line, which is a reference line guided by a string or cord weighted at the end with a large weight known as a plumb bob. It is used to ensure a reference line for creating vertical lines.
22. Any other part of the world.
24. 1 square kilometre is equal to about 0.386 square mile.
25. On Sept. 18, 2000, the United Nations General Assembly adopted The Localized Demining Model, supported by Pia Wagman for ICBL.
27. References
28. UNOS Lod. Journal Report 2006, UNOS Lod. P.O. Box 345, Vietnam, Laos PDR. Tel: (981-21) 614/96; Fax (981-21) 4157/6; Email: usosl@icfam.com
30. Integrated Mine Action: A Rights-Based Approach in Cambodia, Turcotte [from page 34]
32. The War Goes On, Vosburgh [from page 27]
36. An Operator’s Perspective on Ottawa’s Article 5, Nergaard [from page 35]
38. One square kilometre is approximately 0.386 square mile.
40. The War Goes On, Vosburgh [from page 27]
42. Associated Press. (28 April 2004). “Civilian Worker: Roadside Bomb in Iraq Kills Port Orchard Man.”
44. An Operator’s Perspective on Ottawa’s Article 5, Nergaard [from page 35]
46. The War Goes On, Vosburgh [from page 27]
50. An Operator’s Perspective on Ottawa’s Article 5, Nergaard [from page 35]
52. The War Goes On, Vosburgh [from page 27]
56. An Operator’s Perspective on Ottawa’s Article 5, Nergaard [from page 35]
58. The War Goes On, Vosburgh [from page 27]