ARMOR

November-December 2006

ARMOR

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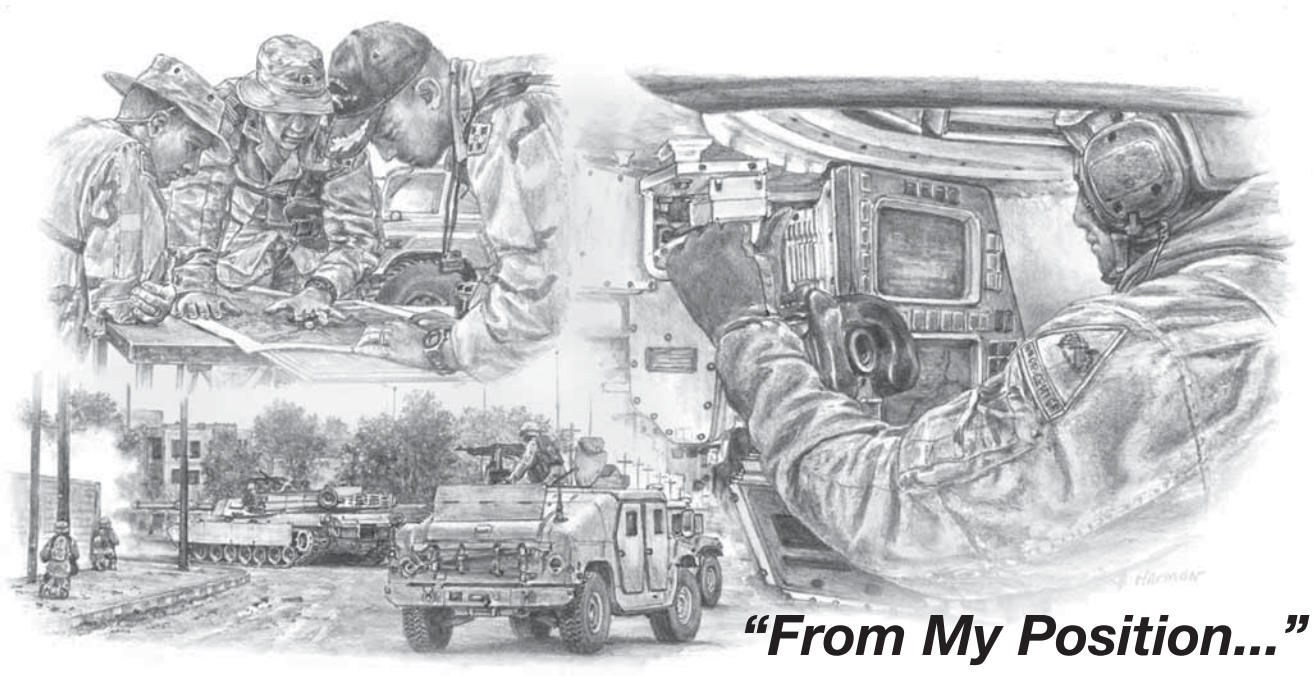

"From My Position..."

"What design would I be forming if I were the enemy?"

Frederick the Great, *General Principles of War*, 1748.

A few years ago, Army leaders and strategic planners correctly identified the importance of information control and management to the outcome of future conflicts. In the mid to late 1990s, we began to use words like situational awareness and battlefield visualization to describe the capabilities we wanted our combat units to possess. Beginning in 1994 with the first "digitized" unit rotation to the National Training Center, Operation Desert Hammer VI, the mounted force took the lead in developing key technologies necessary to provide commanders with true situational understanding.

Later, the 4th Infantry Division became the Army's primary test bed for developing and fielding digital command and control equipment such as the maneuver control system (MCS), the all source analysis system (ASAS), the Force XXI battle command, brigade and below (FBCB2), tactical unmanned aerial vehicles (TUAV), and a glorified thumb drive known as a mission data loader (MDL), among others. After millions of dollars and several advanced warfighting experiments, concluding with the Division Capstone Exercise II in the fall of 2002, the Army's first digital division had mastered these new technologies and was fully prepared to resume its place among the force's other fully deployable divisions.

Although the Ivy Division did not cross the line of departure as part of the initial invasion of Iraq, the 3d Infantry Division, and others, demonstrated the awesome capabilities of many of the same command and control systems used for years at Fort Hood. Our effective use of the sensors and command and control systems developed over the past decade provided our commanders with a significantly clearer view of the battlefield unmatched by any other conventional combat force on the planet.

Unfortunately, in the years since Operation Iraqi Freedom I, the rapid development and proliferation of commercially available technology threatens to erode our superiority. The enemy may not have developed the internet, but he has learned to use its capabilities to educate, train, and inspire his fighters and followers. He also did not need to invest millions of dollars and man-years to grasp the military application of other forms of information technology. When the Army embarked on its quest to "digitize" its combat units, who would have predicted that the common cell phone would be capable of providing potential enemies with nearly the same ability to mass forces, exchange information, disseminate intelligence, and provide command and control as our own forces? The enemy may not possess any UAVs, but his cell phones may soon be capable of providing him with the ability to obtain near real-time intelligence complete with video images of his intended targets. If we assume that the enemy can exploit cell phone technology to further his own ends, how do we counter this capability? More appropriately, how can we use that same technology to maintain our edge? Captain Dan Helmer addresses both of these questions in his article, "The Poor Man's FBCB2: R U Ready 4 the 3G Celfone?"

Initiating a discussion on the implications of information technology may seem unusual coming from a mounted soldier's professional journal, but topics like this have never been far from the minds of our authors over the years. Although Dr. Robert Cameron's article, featured on the cover of this issue, is primarily concerned with the origins of today's armored force, he also describes the branch's key role in developing command and control concepts and technologies that enabled the Army's armored fist to break the back of Axis resistance in World War II. It is no accident that the armored force, designed to close with and destroy enemy forces using fire, maneuver, and shock effect, was a pioneer in the use of both battlefield wireless communications prior to World War II and digital information technology prior to the current war.

In short, two of the articles in this issue either address or touch on communications challenges during combat operations. The following ideas should be readily apparent after reading both of them:

- The enemy will continue to exploit commercial information technology in ways that tend to minimize our present advantages. Our current superiority is not guaranteed.
- As demonstrated by our history, the armor force is more than qualified to address these issues.
- There is no better place to address them than within the pages of *ARMOR*.

Let the discussion begin!

S.E. LEE

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LETTERS

"Those Who Cannot Remember the Past are Doomed to Repeat It"

Dear *ARMOR*,

I thoroughly enjoyed reading Lieutenant General [Captain] Dave R. Palmer's reprinted article from 1966 titled, "Tactical Resourcefulness: A Case Study," in the September-October 2006 issue of *ARMOR*. Although the powers that be are understandably reluctant to compare today's conflicts to the Vietnam War, the battles fought today in Iraq and Afghanistan parallel the situation described in Palmer's vignette. Whereas, it may be sobering and politically undesirable to think that Captain Palmer's problems 40 years ago are the same as our military transition teams face today, we could improve our chances of success by studying the victories and failures of counterinsurgency in recent and distant history, and applying the conclusions of those harsh lessons in today's arena.

Captain McDaniel's analysis of the British army's heavy-handed approach in his article, "Contemporary Lessons from the Past: A Second Look at South Carolina in the Revolutionary War," was another excellent and pertinent article following this trend. History has a way of echoing itself, and while everyone knows Santayana's adage of, "those who cannot remember the past are condemned to repeat it," I applaud *ARMOR* for bringing these lessons to the forefront of the community in its journal.

WILLIAM A. SWEET
CPT, U.S. Army

Captain McDaniel's Insightful Article Should Be Required Reading

Dear *ARMOR*,

Three years ago, on a cool, misty, quiet, fall day, I circled the battlefield at Kings Mountain. As I walked the National Park Service trail, I, like all other veterans, tried to hear the voices of those killed in battle. When I visit a battlefield, I pretty well have all the facts, figures, strategies, and what happened in my mind.

My family members are history "nuts," so when we divert to places like Camden, Ninety Six, Cowpens, and the nature area along the Pee Dee River (to see what Marion saw) there is never the comment "this is boring" or "how soon do we go?" However, the day at Kings Mountain was different because I was there alone. It was quiet; the war in Iraq was underway; and it was a good time to think about the Revolutionary War and how its lessons learned may apply in Iraq and Afghanistan. The similarity of how the British/Loyalists conducted their war in South Carolina and how we were conducting our wars in the Mideast was very striking.

One soldier from the Iraq conflict bragged to me about how they would travel to an objective in the middle of the night and when the unit returned to base, as a unit signature, they played country music on their boom boxes at full volume. This was assigned to an armored unit involved in the early stages of the war.

A Special Forces soldier described to me how his unit had pacified a village in Afghanistan in 2002 only to have another unit come in, dismantle the council, stop classes at a recently reopened school (so the structure could be used as a headquarters), and much like British Major Ferguson in 1780, issue threats against the civilians in an attempt to intimidate the population.

As I stood on the mountain, I contemplated the impact of what I was seeing and what I had recently been told. The article in the September-October 2006 issue of *ARMOR*, titled "Contemporary Lessons from the Past: A Second Look at South Carolina in the Revolutionary War," by Captain William S. McDaniel seems to closely reflect my thoughts on that dismal day.

ARMOR is one of my favorite professional journals and is now at the top of my list because of Captain McDaniel's insightful article. This article should become required reading and its meaning understood by every person in the armed forces from E1 to the Secretary of Defense. We must return to tactics and strategies that not only win battles, but also win wars.

RICHARD LONEY

A McDaniel Should Know Better

Dear *ARMOR*,

I enjoyed reading Captain McDaniel's article, "Contemporary Lessons from the Past: A Second Look at South Carolina in the Revolutionary War," until he started referring to the Loyalist settlers in the uplands as Scots-Irish. As a McDaniel, he should know better. These settlers were *Highland* Scots exiled after rebelling in Scotland (remember the 45?). The Scots-Irish were predominately Lowland Scots and English that migrated to Ulster. These Lowland Scots had no use for Highlanders and suffered raids by them for millennia. Granted, the interior was settled by Scots-Irish from settlements up the Appalachians. One of the prime reasons that Highland Scots sided with the Crown was because of the antipathy between them and the Lowland Scots, who they considered the Scots-Irish.

The Scots-Irish did not get along with the coastal planters (big government) mentioned in the article. They would have made up quite a few of the "neutral" South Carolinians mentioned by Captain McDaniel, which changed when the British incited the Cherokee and others to raid the frontier settlements. The feud, which brought down the Scots-Irish on the side of the rebels, was alive and well in the Appalachians then as it is now.

A recent book by another Scots-Irish descendent, *Born Fighting, How the Scots-Irish Shaped America* by James Webb, describes the conflict between the two groups better than I can in these few words.

RICHARD B. PRUITT

A Special Note for Armor Association Members

For several years, the editor in chief of *ARMOR* magazine has served as the National Executive Director of the U.S. Armor Association. Unfortunately, the Joint Ethics Regulation (JER) strictly prohibits this practice. The editor in chief's position was routinely linked to the day-to-day business operations of the association, which created a potential conflict of interest. For this reason, *ARMOR* Magazine's editor in chief is legally prohibited from serving as the National Executive Director and will no longer serve the association in that capacity.

The most noticeable effect of this policy change is my signature on association membership cards. I am currently volunteering as National Executive Director until the association can afford a full-time position. Otherwise, the changes in the organization caused by the enforcement of the JER will be transparent to members.

Consistent with Section 3-201 of the JER, *ARMOR* magazine's editor in chief will officially serve as the Army's liaison to the U.S. Armor Association, representing the Army's interests to the association and providing advice to the organization's leadership. The best example of his role is facilitating and tracking the Order of Saint George program. As an official representative with the association, he will ensure this important program continues to recognize deserving soldiers and spouses for their contributions to the armor force.

As you might expect, the relocation of the Armor Center to Fort Benning, Georgia, will force the Armor Association to make other changes to continue to serve the interests of its members and maintain armor and cavalry lineages. The next few years will be very challenging and the need for the organization's membership to assist with charting its future course will only increase over time. Challenges that lie ahead include establishing the National Armor and Cavalry Museum at Fort Benning, and changes to the scope and mission of the association. Your suggestions and recommendations are not only welcome, but strongly encouraged. Please do not hesitate to contact us at any time at (502) 942-8624 or by e-mail at *brightcg@bbtel.com*.

DONALD E. APPLER
COL, U.S. Army, Retired
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Major General Robert M. Williams
Commanding General
U.S. Army Armor Center

Feedback from the Force: An Essential Training Tool

As the Armor Force continues its outstanding performance in support of the Global War on Terror, the Home of Armor and Cavalry is fully aware of the impact this war is having on how we support the force. In that vein, I addressed mitigating combat development strategies in the September-October 2006 issue of *ARMOR*; in this edition, I'll discuss Armor Center initiatives for wartime training.

Training during war presents unique challenges for everyone involved. Primarily, we must balance the needs of the current fight with the possibilities of the next one; leaning too far in either direction can have dire consequences. The universal principles contained within our doctrine apply to any situation and obviously serve as our foundation. However, we can all agree that the application of those fundamentals change based on the context of the current fight. In the field, as well as the schoolhouse, wartime training is a delicate balance that requires constant monitoring and continual adjustments.

The Armor Center maintains the mission of providing competent warriors to the operational force. From the combat training private to the career course captain, we strive to train soldiers who know *how* to think. We operationalize pertinent concepts by using a wide array of experiential learning models. With greater than 90 percent of our cadre as combat veterans, we are well armed for this fight, and more often than not, we hit the target; however, there is always room for improvement.

To that end, we rely on you to evaluate our graduates' capabilities; your feedback is often times the difference between thinking we got it right and actually getting it right. In many cases, your feedback has led us to institute the following programs/changes into Fort Knox training:

• **Urbanization** — we urbanized portions of all training areas and drivers' courses across the installation. Soldiers experience firsthand both the mounted and dismounted challenges present within urban terrain.

• **Forward operating base (FOB)** – instead of just assembly areas, our initial entry soldiers conduct field training exercises staged out of a series of full scale FOBs.

• **Field maintenance** – 63A advanced individual training soldiers provide real-world quick-reaction force maintenance support for 16th Cavalry field training. Instead of just simulating faults in the motor pool, soldiers receive a grid for the broken-down vehicle, maneuver to the site, troubleshoot the fault, and take corrective action.

• **Services** – in an effort to demonstrate what "right looks like," we incorporated a four-hour services class for the Basic Noncommissioned Officers Course (BNCOC), the Maneuver Advanced Noncommissioned Officers Course (MANCOC), Basic Officer Leadership Course (BOLC) III, and the Maneuver Captains Career Course (MCCC). These students match up with teams from our on-post maintenance facility and conduct a hands-on services demonstration.

• **Gunnery** – BNCOC students conduct hands-on gunnery training that includes tank crew gunnery skills test (TC-GST), armament accuracy checks, and boresighting. We have also included Bradley gunnery in the BOLC III program.

• **Master gunner** – we reduced the course length from 11 to 9 weeks without sacrificing the course's superb quality of instruction.

• **Mobile training teams** – we currently provide a mobile training team (MTT) version of the Scout Leaders Course, 19D/K BNCOC, and are designing semi-trailers to support an MTT version of the Master Gunner Course, relieving the unit of support requirements and lengthy temporary duty from home station.

• **Inspections** – we conduct in-depth pre-combat checks (PCC) and pre-combat inspection (PCI) instruction in BNCOC, MANCOC, and BOLC III that is focused on compliance with the commander's intent and current field craft trends.

• **Force XXI Battle Command Brigade and Below (FBCB2)** – digital training is now an integral part of all field training exercises.

• **Army green and think like a commander (TLAC)** – these computer programs assist in developing platoon sergeants and above in the cognitive skills of "how to think." Through a series of real-world vignettes, participants learn to quickly and completely evaluate a situation, develop a comprehensive course of action, and are challenged on their decisions.

• **Enablers** – we use a multitude of methods to inculcate cultural awareness and language training throughout the school. We also maintain a guest speaker program consisting of current commanders, business professionals, renowned authors, and subject-matter experts that lead periodic officer/NCO professional development sessions that include students and cadre.

Candid feedback from the force is absolutely essential to our success. Our commanders and command sergeants major analyze every survey, e-mail, and phone call looking for ways to improve the Armor School's instruction. We can only do that if you continue to provide us with feedback. I know that all of you are very busy, but together we will continue to Forge the Thunderbolt!

CSM Otis Smith
Command Sergeant Major
U.S. Army Armor Center

Getting Improved Equipment into the Hands of Soldiers

Recent operations in Iraq and Afghanistan have vividly demonstrated that getting the right equipment to Soldiers is absolutely critical. By viewing the Soldier as part of an integrated system, everything they wear or carry works together as an integrated system.

Program Executive Office (PEO) Soldier was created by the U.S. Army to develop the best equipment and field it as quickly as possible so that our Soldiers remain second to none in missions that span the full spectrum of military operations. PEO Product Manager Clothing and Individual Equipment supports Soldiers in operational environments and improves their survivability, situational awareness, health, safety, mobility, lethality, and sustainability by providing state-of-the-art ballistic protection and safe, durable, and operationally effective individual and unit equipment, such as the latest developments in protective clothing and individual protective gear:

Interceptor body armor is the most up-to-date body armor available and was designed to replace the personnel armor system ground troops (PASGT) and the interim small-arms protective overvest. Each new generation of body armor is designed to offer increased protection and comfort to the Soldier by stopping or slowing bullets and fragments and reducing the number and severity of wounds. Interceptor body armor is the model name for modular, multiple-threat body armor, consisting of the outer tactical vest, small-arms protective insert/enhanced small-arms protective insert, deltoid and axillary protector, and the enhanced side ballistic insert. The enhanced small-arms protective insert plates provide additional protection and can withstand multiple small-arms hits. There are attachable throat and groin protectors for increased protection and webbing loops on the front and back of the outer tactical vest for attaching pouches from the modular lightweight load-carrying equipment.

Although the outer tactical vest on the interceptor body armor provides torso protection from the fragmentary effects of IEDs, combat commanders and medical personnel identified a shortfall in the upper-arm and under-arm areas not currently covered by the interceptor body armor. To provide an increased level of protection, the deltoid and axillary protector and enhanced side ballistic insert were developed. The deltoid and axillary protector consists of two ambidextrous modular components: the deltoid (upper-arm) protector and the axillary (under-arm) protector. The deltoid protector attaches at the shoulder of the outer tactical vest and is secured around the wearer's arm with a strap. The axillary protector is worn under the outer tactical vest and is attached to the underside of the shoulder portion of the vest and to the interior adjustment strap on the lower side of the vest. The deltoid and axillary protector provides the same level of protection as the outer tactical vest and is issued as an assembly of two. The enhanced side ballistic insert consists of two ambidextrous modular components: the carrier assembly and the ballistic insert. The carrier assembly attaches to the outer tactical vest by using the webbing on both the front and the back of the carrier, and can be further secured through incorporation with the deltoid and axillary protector. The enhanced side ballistic insert can use either a 7x8-inch enhanced side ballistic insert or a size extra small enhanced small-arms protective insert.

The cupola protective ensemble is designed to protect Soldiers from the blast overpressure and fragmentation effects of rocket propelled grenades (RPGs) and IEDs while manning crew-served, weapon-ring mount cupolas on military vehicles. The protective ensemble is a modified countermine ensemble with a blast and fragmentation protective visor, trousers, jacket, front and rear blast plates, and an upper torso cooling system. The protective ensemble is worn over the standard interceptor body armor, extending protection to the head, neck, face, and extremities. The integrated cooling system offsets heat effects. A contoured Kevlar neck guard provides protection for neck and temporal lobes. The protective ensemble consists of a base jacket, sleeves (left and right) with rigid composite inserts (forearm and bicep), blast plate assembly (chest and groin), rear blast plate, pants and integrated groin protector, removable explosive ordnance disposal collar, optional neck/nape guard, visor system (worn with PASGT or Army combat helmet), and hand guards.

Soldier safety remains priority one and Armor leaders are dedicated to ensuring the safety of their Soldiers. Leaders are reminded of their responsibilities to ensure that every Soldier is aware of the proper fit and wear of individual protective equipment; otherwise, they are unnecessarily exposed to increased risk of injury due to ballistic threats — knowledge is power. Leaders must ensure that every safety procedure on every piece of equipment is enforced.

Technical references, fitting guides (with visual examples), and requisitioning instructions for all equipment are available online, courtesy of PEO Soldier, at *www.peosoldier.army.mil/achsoum.asp.*

"Teach our young Soldiers and leaders how to think; not what to think."

From the Boresight Line:

Master Gunner Course: Moving Toward the Future

by First Sergeant Robert Hay

As we near the end of 2006 and prepare for 2007, change leads the way for the Master Gunner Course. In 2006, the Master Gunner Branch saw many positive changes, and is planning many more for 2007 and beyond. To remain relevant and train effective master gunners for the current operating environment (COE), we are actively seeking ideas and solutions to keep the Master Gunner's Course on the cutting edge of change.

In 2006, the course graduated 87 M1A1 master gunners (72 Active Army, 4 National Guard, and 11 Marines), as well as 20 M1A2 graduates from the M1A2 SEP Master Gunner Transition Course.

The release of U.S. Army Field Manual 3-20.12, *Tank Gunnery (Abrams)*, the new tank crew evaluator exportable packet, continuous review of teaching materials, and feedback from the armor force over the past year have resulted in several updates to the Master Gunner Course program. The course is set up in two phases, maintenance training and advanced gunnery training, which are outlined below:

Maintenance Training

Changes in doctrine do not affect maintenance training nearly as much as gunnery training; however, there have been some changes in this area.

Due to the technical nature of maintenance training, there has been very little change; the current curriculum teaches relevant and necessary maintenance skills for the master gunner in the field. However, we added training on the expanded armament accuracy checks (AAC), which were an addition to FM 3-20.12.

Advanced Gunnery Training

This portion of the course has seen the most change; below is a synopsis of the major changes:

Target acquisition has been updated, to include target acquisition in an urban environment based on today's COE. Students are taught urban search techniques and discuss the many detection challenges faced in an urban environment. Urban considerations are continuously being updated as input is received from units returning from theater.

Fielding the M1028 canister round has affected several areas. For example, conduct of fire now includes techniques for employing canister rounds, including the requirement to follow-up all canister engagements with a coax engagement (this is based on the intended target of platoon-sized masses of troops). The recommendation of using observed fire firing technique is also discussed; crews will most likely be unable to sense their own rounds due to extremely short engagement ranges. The tank ammunition portion also includes discussing the technical aspects of the M1028 canister.

Armored fighting vehicle identification and capabilities now includes AH-1 Cobra (used extensively by the Marine Corps) and K1A1 (used by South Korea), and the Merkava 4 (current Israeli main battle tank) will soon be added.

Plan and conduct gunnery training has seen several changes with the new FM 3-20.12. The most obvious changes are to the actual tank tables; lesson plans now reflect current tables discussed by task. Additional requirements include urban clusters to support the tables, integrating noncombatant/friendly targets on tables V through XII, and combined-arms live-fire exercises (CALFEX).

Student preparation is a major challenge and has declined over the past year. Time and again, we see students who are simply not prepared to attend school or who do not have the baseline knowledge needed to pass the Master Gunner Course. Today's current operating tempo (OPTEMPO) makes it difficult for soldiers to prepare for any type of course, but unit master gunners must find the time to prepare candidates for the Master Gunner Course. The Master Gunner Branch has interactive training material on the master gunner website for candidates to use; this is self-paced material and directly reflects course instruction. Students can also access the Master Gunner Course advance sheets online to gain an understanding of lessons taught. Using these study tools will dramatically increase the candidate's potential for success.

Looking Ahead

Today's demanding environment makes it extremely difficult to get soldiers to training courses. In most cases, master gunner candidates have been deployed for at least a year and are possibly preparing for a forthcoming deployment, which makes it difficult to give up three months away from their families. The Master Gunner Branch is working to address this issue by shortening the course to nine weeks, beginning with the January 2007 class.

Another course of action is developing a mobile training team (MTT). This idea is currently in the concept stage. However, the basic concept is deploying the Master Gunner Course to one or two major installations a year to train master gunner candidates at home stations, while maintaining some courses at the Armor School. This will provide units the opportunity to train several master gunners at one time and keep them with their families.

It has been a productive year for the Master Gunner Course. We have sent 87 newly trained master gunners out to the force, made major revisions and updates to the course of instruction, and are making changes to support the armor force at war.

The Poor Man's FBCB2:
R U Ready 4 the 3G Celfone?

by Captain Daniel Helmer

These days, almost everyone has one. It has revolutionized communications for insurgents and terrorists, and costs thousands of dollars less than similarly equipped, though admittedly far more secure, Force XXI battle command, brigade and below (FBCB2) systems. It has near-global coverage, as well as the ability to instantly transmit tactical instructions or propaganda over a loosely organized network. It is, of course, the second- or third-generation (2G or 3G) cell phone, and has already arrived at an insurgency near you.

By now, using cell phones as detonation devices for improvised explosive devices (IEDs) is both well-known and well-reported in the public sphere. Anyone who has served in Iraq or Afghanistan knows the threat. The threat of cell phone-detonated explosives also resonates beyond these major theaters of the Global War on Terrorism (GWOT). For example, as early as 1995, the Lebanese terror group, Hezbollah, may have used cell phone-detonated IEDs against Israeli Defense Forces.[1] After the 12 May 2003 bombings in Riyadh, Saudi Arabia, Saudi security forces discovered a number of cell phone detonators.[2] Additionally, Islamist terrorists used cell phone-detonated explosive devices to devastating effect in the 11 March 2004 bombings of the Madrid subways.[3] The threat has caused a number of defense companies to develop cell phone-jamming technologies as a countermeasure to cell phone-detonated IEDs.[4]

This threat is not going away. Statistics on worldwide cell phone use are astounding. According to a July 2006 report in *The Washington Post*, 2.4 billion cell phones are currently in use, 59 percent of them in the developing world; consequently, cell phones are the first technological tool in greater use in the developing world (the source of much of the GWOT threat) than in the developed world. Globally, 1,000 new cell phone users come online every minute.[5] A full 35 percent of people within Middle Eastern and Gulf States use cell phones and that number will be closer to 50 percent by 2010.[6]

As cell phones have become decidedly more high-tech in the past few years, the potential of cell phone use in asymmetric operations against coalition forces in the GWOT has grown exponentially and has expanded well beyond the now-familiar IED detonators. Due to the delayed rollout of new cell phone technologies in the United States, as compared to Europe or Asia, Americans, including soldiers on the front lines of the GWOT, remain relatively illiterate in the newest capabilities of cell phones. Technical differences between international standards

A cell phone with batteries attached was found in an improvised explosive device cache in Haditha, Iraq.

in cell phone networks have caused next-generation technology to develop at slower rates in the United States, while Americans' slow adoption of text-messaging (short message service — SMS) has delayed our familiarity with and demand for more advanced technology, such as multimedia messaging services (MMS), which are now available in the United States, but not as widely used as elsewhere.[7] As an example of the gap between the United States and the rest of the world, in December 2003, Americans were sending about eight million SMS messages a day; the rest of the world was sending a billion.[8]

A global survey of news media and other open-source accounts of protest movements and terrorist acts provides an astonishing picture of a threat and capabilities already well understood by our enemies.

The Poor-Man's Situational Report (SITREP)

In 2001, SMS allowed a burgeoning Filipino protest movement to draw over a million protesters into Manila and overthrow the government of President Joseph Estrada, who referred to the insurrection as "coup de text."[9] More perniciously and less peacefully, anti-globalization rioters in 1999 combined cell phone and other technologies to communicate areas of vulnerability in Seattle to protest a ministerial meeting of the World Trade Organization, causing far more extensive security to be deployed for future meetings.

Plain-text SMS is a powerful tool across the spectrum of asymmetric operations. The U.S. Army has spent years developing reporting procedures to provide voice-transmitted information in usable snippets such as the SITREP. Developing the discipline to transmit this information in a hostile environment requires training and experience. SMS, which forces the user to communicate in rapid shorthand, enforces similar discipline without the need for extensive training or experience (lovestruck teenagers and insurgents already have much experience transmitting these messages quickly behind the backs of parents or teachers).

This capability can be and has been used to devastating effect. For example, French rioters who brought the country to a virtual halt in the fall of 2005 used SMS to communicate the positions of French police and arrange meetings and attacks on French targets leading to what one mayor called a "veritable guerrilla situation, urban insurrection."[10] In Congo, where a civil war has resulted in the largest deployment of UN peacekeepers in the world, insurgents use cell phone voice calls and SMS as a primary means of communication — even in this war-ravaged, sub-Saharan African country, where the average person lives on less than a dollar a day, 70 percent of the population lives in areas with cell phone coverage.[11]

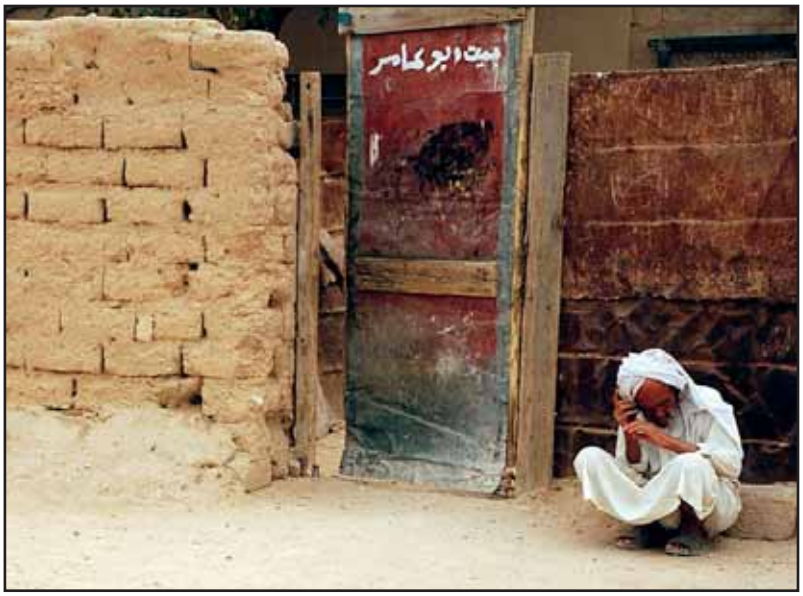
The advantages of cell phone use for terrorist or anti-government groups go beyond the technologically enforced reporting discipline of SMS. SMS provides virtually instantaneous access to large networks of malcontents, allowing very loose structures of people to quickly coalesce into mass demonstrations. One person can simply send out a message to the people in his address book, who send it out to the people in their address books, and so on. Often, it is difficult to discern who the originator of a message is, and even if it is discerned, the network of like-minded people, protesters or insurgents, is virtually impossible to break up.

In early 2006, a movement in India demanding "justice for Jessica," quickly coalesced in Indian cities protesting a verdict in a court case where government corruption had resulted in the acquittal of several clearly guilty men responsible for killing a supermodel. Spontaneous and highly disruptive demonstrations of thousands of people erupted all over urban areas of India. In most cases, neither participants nor officials knew who had sent out the original SMS messages calling for the demonstrations. It is doubtful whether "organizers," who sent messages to their friends, realized that thousands of people would take to the streets: a call by a popular English-language television broadcaster for SMS signatures of a related anti-corruption petition resulted in 200,000 supportive SMS messages in three days, something the television station had not anticipated.[12]

In nearby Nepal, mass protests in the Spring of 2006 that were organized via SMS led to crippling demonstrations of over 100,000 people in the capital, Katmandu. In a country that accounted for half of the world's media censorship cases in 2005, SMS organization led to a multi-cellular structure, capable of operating independently of any one leader or even a small cadre of leaders. This loose structure foiled government efforts to decapitate a burgeoning anti-royalist movement after King Gyanendra's dismissal of Parliament. Government restrictions, which had limited domestic media exposure of the excesses of King Gyanendra's rule, could not prevent the development of a massive protest movement via SMS. A final government decision to cut cell phone service demonstrated government impotence in the face of the protests and, rather than ending the protests, resulted in the restoration of democracy and the emasculation of King Gyanendra's dictatorial rule — a choice the king made after it was clear that his choices were either immediate capitulation or near-certain death at the hands of mobs.[13]

A report by Mary Jordan, a senior correspondent for the *Washington Post*, describes the tactics, techniques, and procedures of a SMS anti-government organizer in the Philippines, a country whose 30 million cell phone users are on the cutting edge of military-political-social use of SMS. A massive protest, critical of the president, is organized by leaders via cell phones. When certain groups fail to meet at the designated time and place, an SMS reveals their whereabouts. Instructions on uniforms and equipment are sent out instantly via cell phone ("WEAR RED. BRING BANNERS") and the media are informed via SMS exactly where to go to photograph the action. Protesters, not organized in one particular area, are assembled instantly at a designated location when the order to "assemble now" goes out via SMS. When surprised police summon more police via SMS to form a blockade to prevent the protesters from getting close to the presidential compound, the protesters send an alternate route over text, allowing them to rapidly descend on intended targets. When the police subsequently beat the protesters, the SMS-

"According to a July 2006 report in The Washington Post, *2.4 billion cell phones are currently in use, 59 percent of them in the developing world; consequently, cell phones are the first technological tool in greater use in the developing world (the source of much of the GWOT threat) than in the developed world. Globally, 1,000 new cell phone users come online every minute. A full 35 percent of people within Middle Eastern and Gulf States use cell phones and that number will be closer to 50 percent by 2010."*



summoned media is right there to take pictures for broadcast on the evening news, ensuring that the criticism of the president is in the limelight.[14]

The Dangerous Addition of General Packet Radio Service (GPRS) and 3G Technology

While SMS provides astonishing new tools for communication and organization to a wide array of people across the world, the potential and actual use of cell phone technology for insurgents does not stop at plain-text SMS. Cell phones can now take low-to-medium resolution photos and video and send these products to other cell phones or to the internet through a technology known as multimedia messaging service (MMS). Additionally, many cell phone companies offer videoconferencing over cell phones, allowing real-time video images to be transmitted instantly between cell phones or to the internet.

Think this whiz-bang technology is something far removed from the developing world battlefields of the GWOT? Currently MTC Vodafone, an Iraqi cell phone company, offers both MMS and live videoconferencing (their website advertises: "When you care about a friend whom you want to be with during different milestones in life…a video call will do everything; you won't miss those times, even the expressions.").[15] Both MTC Vodafone and Korek Telecom, Iraqi cell phone companies, allow users to connect remotely to the internet through cell phones or attach cell phones to laptops, through GPRS, at speeds of between 160 and 236.8 kilobits per second.[16] In Afghanistan, 3G mobile technology, which allows much higher connection speeds of up to 10 times that of the fastest GPRS (for example allowing television to be watched live on cell phones), is being introduced by the Afghan Wireless Communication Company in Kabul.[17] Nor is 3G far away from launch in Iraq; a branch of MTC Vodafone began introducing nationwide 3G in nearby Bahrain in 2005.[18]

Worthy of note also is the addition of global positioning system (GPS) technology to cell phones. All phones sold in the United States since 2005 carry GPS technology by law; this was intended to make sure that 9-1-1 operators can respond to emergency calls when a person is unable to give their location. If you have not noticed this technology on your new cell phone, it is because most users are unable to access their positions themselves, forcing them to use subscription services to get directions. GPS cell phone technology is global; for example, at least one phone currently on the market is a combination satellite phone, cell phone, and GPS phone that functions in Europe, Central and North Africa, the Middle East, and Central Asia. Subscription services offered by several companies include real-time information for employers that reveal the whereabouts of employees based on the location of the employees' cell phones.[19] This GPS location technology is not limited to commercial development. Chuck Fletcher and Jason Uechi of New Jersey privately developed a software program that provides the real-time location of family and friends on an online map.[20]

All of this new technology has not escaped the eyes of criminals, terrorists, and insurgents, and they have developed new tactics to exploit both the technology and the people using it. In a new practice dubbed "smishing," SMS messages demanding that a cell phone user visit a site, or be charged a daily rate for a service they are not using, are sent across a network. Accessing the website causes the user to download a virus, which turns their computer or cell phone into a "zombie," working for the hacker who sent out the SMS.[21] In a similar vein, using a "call-forwarding trick," anti-war activists diverted cell phone calls destined for Lockheed Martin employees to the activists; it is not hard to imagine how such a trick could be used far more maliciously.[22]

With the introduction of this technology, terrorists are blunting the information edge, which we hold dear. Over SMS, they communicate positions and rapidly assemble fighters to an ambush, or supporters to a demonstration. Propaganda messages, pictures, or even video, are transmitted instantly over previously unimaginable networks: Hezbollah sent out SMS propaganda during its latest war with Israel, not only to its supporters but also to Israelis.[23] A suspected informant's picture is clandestinely taken by a person using a cell phone and the image is subsequently transmitted through a crowd, where he is stabbed to death.

Videophone technology allows real-time tracking of convoy and other operations, perhaps even to a leader in "headquarters," which turns out to be an internet café where others might not know what he is doing. The leader uses organically developed software on a laptop to track the real-time location of fighters provided by their GPS-enabled cell phones and maps from internet map sites. The fighters send SITREPs via SMS (and pictures of the enemy's disposition through MMS). A smishing attack has turned a number of cell phones into "zombies," which can then be used to command-detonate an IED, with the ability to track down the originator of the phone call made more difficult by another degree of separation. A video of the attack and its aftermath are posted via MMS to an internet site.

All of this technology and capability exists today; the knowledge necessary to exploit the technology is a mouse-click away. You better bet the enemy knows about it and is exploiting it. The somewhat benign-looking cell phone, placed in the wrong hands, is a deadly weapon.

A Double-Edged Sword — Using This Technology to Our Advantage

While units should be aware of the tremendous threats posed by the use of cell phones in asymmetric encounters, the potential gains that can be made in fighting the GWOT through our exploitation of cell phone technology make literacy in all things cell phone all the more critical. Of course, great inroads have already been made in this direction. The capability to track down cell phone users, while providing greater situational awareness to terrorists, has also resulted at times in the capture of terrorists, although the widespread reporting on this capability has led to a number of workarounds by terrorists to avoid capture. The near ubiquity of cell phone use among terrorists has even been used to assassinate them through cell phone bombs.[24] Yet clandestinely tracking and killing terrorists is only one potential use. Even at the battalion level, potential or recently freed troublemakers can be forced to report in by cell phone and forced to send a confirming MMS picture or video of their location. In Congo, cell-phone reporting has been used to great effect to prevent recently disarmed fighters from taking up arms again.[25]

Just as the enemy uses cell phones for information operations, so can we. In areas where we are trying to win hearts and minds, SMS messages provide a far more likely way to reach individuals in an area of operations (AO) than do flyers or other less controllable means of communications, such as radio and television. Israel tapped into the entire Lebanese cell phone network during its latest war to send out propaganda.[26] The Russian military also recently sent out a SMS to Chechen rebels hiding out in Ingushetia, demanding their surrender and providing four phone numbers that rebels could call to negotiate their surrender — apparently several militants did in fact surrender using the lines.[27] MMS can be used, for example, to display images of insurgent atrocities.

Smart use of MMS can exponentially expand the potential of intelligence gathering. For instance, an informant can MMS your unit a picture of "Mohammed Ahmed," which requires far less risk-taking on the part of the informant, who can relatively easily take a cell phone picture without anyone noticing or becoming suspicious, or relay the location of a wanted terrorist via SMS. In other situations, a unit can relay a communiqué via MMS to a community, offering a reward for real-time information on the whereabouts of the person pictured and a number where that information can be sent.

Units can establish systems to protect and encourage anonymous sources through SMS. Sources providing information via cell phones that leads to killing or capturing wanted terrorists can be rewarded, in cash, and remain anonymous, except for their cell phone number. Sources need not even visit a base to receive cash rewards. In Zambia and Congo, a company called Celpay allows users to transfer money and even make purchases via SMS. In Congo, only 20,000 people have bank accounts, while over 2,000,000 have cell phones; using a system similar to the traditional Halawi banking system used by emigrants to transfer money to their home countries, all of these cell phone users can now access money through cell phones. At Celpay branches, a teller can text Celpay's central database and provide cash to an account holder in a matter of seconds.[28] With ingenuity, such a system can be set up within an AO, even if it does not operate nationally. Not only can such a system be used to pay informers, but also solve the logistics challenges of paying soldiers of native forces. Widespread adaptation could improve security by significantly reducing violent crime in an economy where cash is less frequently carried.

The scope of cell phone use by the native population in your AO is only going to increase from this point forward. As summed up in this article, the technology that already exists, as well as the technology being developed, is an incredible tool for our enemies — one of which they are well aware and that they are exploiting. Given the human need and desire to communicate, there is little we can do to prevent continued adaptation of this technology. Yet, just as the new generation of cell phones poses vast opportunities for our enemies, it can provide an even greater set of tools for us. The GWOT is not only a violent war against the enemies of freedom, but a war of ideas for the hearts and minds of the Islamic world. In the violent war, exploitation of vulnerabilities posed by cell phone use may allow us to disrupt the planning and intelligence advantages of our enemies. In the war of ideas, cell phone technology remains an underutilized conduit of the ideas needed to win the hearts and minds of our target populations.

Notes

[1]Interview with Nick Blanford, *Time* correspondent, 7 September 2006.

[2]Associated Press, "Cell Phone Triggers Saudi Blast," *CBS News*, 11 June 2003, online at *http://www.cbsnews.com.*

[3]Giles Tremlett, "Vital Clues Missed by Spanish Police: Three months on Madrid bomb survivors say failings let killers go," *The Guardian*, 14 June 2004.

[4]For example, see *http://www.netline.co.il.*

[5]Kevin Sullivan, "In War-Torn Congo, Going Wireless to Reach Home: For Poor, Cellphones Bridge Digital Divide," *The Washington Post*, 9 July 2006, online at *http://www.washingtonpost.com.*

[6]GSM 3G World Series 2006 Press Release, online at *http://www.gsm-3gworldseries.com.* GSM 3G is an industry trade group conducting conferences on cell phones in the Middle East.

[7]MMS systems allow the transmission of pictures, movies, sounds, etc., over cell phone networks.

[8]Calculated from Associated Press, "Say it With Text Messaging," *CBS News*, 27 June 2003 online at *http://www.cbsnews.com.*

[9]Mary Jordan, "Going Mobile: Text Messages Guide Filipino Protesters," *The Washington Post*, 25 August 2006 online at *http://www.washingtonpost.com.*

[10]Associated Press, "Paris Rioters Set Woman Afire as Violence Spreads," *Fox News*, 4 November 2005 online at *http://www.foxnews.com.*

[11]Sullivan.

[12]Philip Reeves, "Empowered by Technology, Indians Fight Government Corruption," *NPR Morning Edition*, 21March 2006, online at *http://www.npr.org.*

[13]Country Profile: Nepal, online at *http://news.bbc.co.uk.*

[14]Jordan.

[15]See MTC Vodafone website online at *http://www.mtc-vodafone.com.*

[16]Ibid and Korek Telecom online at *http://www.korektel.com.* Another technology called EDGE (enhanced data rates for GSM evolution) allows GPRS connection speeds of between 30 and 80 kilobits per second to be improved to these higher speeds. Information on connection speeds obtained from "General Packet Radio Service," *Wikipedia* online at *http://en.wikipedia.org.*

[17]"3G," *Wikipedia*, online at *http://www.wikipedia.org*, and "3G Coming to Afghanistan," *Cellular-News*, online at *http://www.cellular-news.com.*

[18]"MTC-Vodafone (Bahrain) launches commercial 3G WCDMA Network with Nokia Solution," *Portal Iraq*, 30 January 2005, online at *http://www.portaliraq.com.*

[19]"Using the GPS for People Tracking," *Travel by GPS*, online at *http://www.travelbyGPS.com.*

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[21]David Rayhawk, "Smishing — an emerging threat vector," *McAfee Avert Labs Blog: Cutting-edge security research as it happens*, 25 August 2006, online at *http://www.avertlabs.com.*

[22]Bob Sullivan, "Activists hijack Lockheed Martin phones," *MSNBC.com*, 1 September 2006, online at *http://www.msbnc.msn.com.*

[23]Blanford.

[24]Philip Ben-David, "Death by Cell Phone," *Newsfactor Magazine Online*, 19 December 2000, online at *http://www.newsfactor.com.*

[25]Sullivan.

[26]Blanford.

[27]Information from "Two militants surrender in Ingushetia in August," *Interfax*, 11 August 2006, online at *http://www.interfax.ru/index.html?lang=e;* Reuters; "SMS text messages urge rebels to surrender," *GulfNews.com*, 15 August 2006, online at *http://archive.gulfnews.com;* and "Time 4 u 2 lay down ur arms," *The Scotsman*, 15 August 2006, online at *http://new.scotsman.com.*

[28] Sullivan; and "2005 Annual Report FirstRand Group," online at *http://www.firstrand.co.za.*

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Destroying the Enemy Ambush in Iraq

by Captain Morris K. Estep

Throughout recorded history, ambushes have been used as an effective tactic to counter larger, more sophisticated enemy armies.[1] Likewise, the majority of attacks by subversive elements in Iraq used small dismount ambushes against reconnaissance patrols and convoys. Many leaders argued that more armor protection was needed to reduce injuries to soldiers. Yet, others argued that a stricter adherence to tried training principles was needed — more emphasis on doctrine, doctrine, and doctrine. However, speed, violent execution of counterattack battle drills, and rapidly adapting to enemy tactics through the use of after-action reviews were key to destroying the enemy's ambush.

Background

During our unit's deployment to Iraq, ambushes by the enemy occurred in areas where our platoon's technological advantages were negligible. Specifically, weapons standoff of crew-served weapons, such as the M240B, M249 squad automatic weapon (SAW), or the M2 .50-caliber machine gun, was drastically reduced because the enemy took advantage of crowded city streets where civilians, especially children, were within a few feet of our vehicles. Just as our platoon positively identified the enemy, the enemy identified us, recognizing that our line-of-sight bursts would have injured or killed any of those civilians. Any collateral injury to civilians meant negative media coverage for the unit. Moreover, the terrain in many of the cities, especially in the eastern portion of Baghdad, did not allow adequate standoff to use crew-served weapons. For example, the majority of direct-fire engagements were within 50 to 75 meters from the enemy and were usually fought within the close confines of a house or narrow street.

The villages or towns that we patrolled consisted of tightly packed homes, crowded streets or berms, garbage and scrap metal dumps, and large open sewer ditches that denied an opportunity for bypass. Such terrain was ideal for ambushes conducted by groups of three- to four-man enemy dismount teams, which hid among the population before attacking, and blended back into alleys and homes with the local populace after each attack. This type of hit-and-run attack seemed almost impossible to anticipate. My platoon realized that defeating such an elusive enemy required speed and a violently executed counterattack to deny the enemy initiative on the battlefield.

The Enemy's Strategy

Each time my platoon encountered an ambush, it was at night. Many of the cities and towns had intermittent electrical power, which meant we could operate HMMWVs in blackout conditions using night vision goggles (NVGs). This worked well in areas where we could see great distances with an unobstructed view.

In cities and towns where local people were on the streets until midnight or later, an ambush pattern began to emerge. The enemy dismount teams would use a spotter within the cities or towns; in some cases, this would be a child or group of children or young males sympathetic to the enemy's subversive behavior. In the beginning of our deployment, our platoon observed young males with cell phones placing phone calls and watching us as we entered the ambush area. On other occasions, young males used car horns to signal our platoon's approach, and later in the deployment, the spotters were children with whistles that signaled our approach to the ambush area. A final technique used by the enemy was a variety of colored signal flares fired from rooftops as we approached the ambush areas. This particular spotting technique was used al-

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most exclusively by the enemy in the final months of our deployment.

Once the spotters signaled our presence, the dismount teams (usually hidden in alleyways, on rooftops, inside two- or three-storied homes, behind walls surrounding homes, or concealed behind scrap metal or cars along the street) initiated the ambush in one of three scenarios. The first was the improvised explosive device (IED); the second was the rocket-propelled grenade (RPG) attack with multiple positioned small-arms fire from AK-47s; and the third was a combination of the two attacks — IED followed by multiple RPGs and small-arms fire.

During our reconnaissance patrols or convoy security missions, the enemy would attempt to ambush by using a combination of IED, RPG, and small-arms fire, targeting the lead vehicle to stop our platoon within the ambush kill zone. The enemy was not attempting to inflict large numbers of casualties by using the initial IED against just one of our vehicles; he used the IED to stop the vehicles in his area where he attempted to use RPGs and small-arms fire.

The Platoon's Strategy

The key to success in surviving the initial moments of an ambush is speed. The instinctive reaction for any soldier when attacked by an IED or RPG is to stop or slow the speed of the vehicle, which is due to initial shock, confusion, and disorientation caused by the ambush. Therefore, our platoon meticulously rehearsed standard operating procedures (SOP) focused on controlling human reactions within the 10-second initial-reaction time immediately following an ambush. Drivers learned to immediately increase vehicle speeds; tank commanders (TCs), gunners, and scouts learned to immediately react to contact within their areas of security, and accurately fire at the enemy while mounted and at a high rate of speed.

At our forward operating base (FOB), we constantly rehearsed scenarios that involved a vehicle in a mobility kill and sustained casualties, as well as evasive maneuvers in built-up areas. At every opportunity, the platoon rehearsed short-range marksmanship (SRM) skills and fired each weapon mounted while on the move. It is very important for soldiers to be comfortable with firing weapons on the move; it is critical for soldiers to have the ability to create a stable platform for firing at targets from the left, right, front, and rear of HMMWVs. During all our rehearsals and scenarios, time was of the essence and we strove to reduce time in the kill zone, especially when rehearsing the casualty and disabled vehicle scenarios.

Rehearsals also involved maintaining distances between vehicles and each section. The platoon used four HMMWVs, with two sections, while on patrol or convoy missions. Our SOP for distance and security depended on terrain, mission, and overall guidance from higher. Generally, our vehicles maintained a distance between each HMMWV and section based on the potential of encountering an IED, while maintaining a distance small enough to provide accurate security from each HMMWV's sector of fire. At times, it was difficult to maintain those distances — the soldiers were tired from the heat, dealing with crowds, and time spent on the streets. However, as a leader, it is important to maintain a level of discipline to ensure the platoon does not sustain casualties.

Prior to every mission, the platoon rehearsed its unit SOP for every imaginable scenario during an ambush. This was not a 30-minute affair for the senior scout to speak the entire time, but rather a time for platoon members to interact with each other, rehearse individual areas of responsibility, and react to an injured vehicle commander. Each time, new contingencies were added to the scenario; for example, the platoon sergeant and senior scout become casualties during an ambush — you are now the patrol leader, what do you do? These types of rehearsals served to make soldiers aware of very real dangers facing the platoon, as well as provided leaders with feedback of how well each soldier understood SOP.

Counterattacks

Our unit strategy worked well during both dismounted and mounted counterattacks. Usually, our direct fire engagements were always a combination of dismounted and mounted counterattacks.[2] After a few ambushes, we realized that the subversives were poorly trained and undisciplined dismount teams that chased after us only after we had moved away from the kill zone.

The unit always gained the initiative from the enemy when he came out of cover and concealment to attempt to kill us. We always first targeted the RPG dismounts to eliminate the immediate threat to our vehicles since the platoon was a stationary target at the short halt. Once the RPG dismount teams were eliminated, we began the successive bounding toward the remaining enemy. Section A would bound forward a distance, while section B fixed the enemy with small-arms and crew-served fires. Once section A stopped and set, they fixed the enemy while section B bounded forward to section A's location. It goes without saying that distance, security, and avoiding fratricide were always basic to our platoon's movements and were perfected during rehearsals.

During missions that involved convoy escorts, our strategy was slightly modified. After counterattacking, we disengaged from the fight, and when the con-

"The villages or towns that we patrolled consisted of tightly packed homes, crowded streets or berms, garbage and scrap metal dumps, and large open sewer ditches that denied an opportunity for bypass. Such terrain was ideal for ambushes conducted by groups of three- to four-man enemy dismount teams, which hid among the population before attacking, and blended back into alleys and homes with the local populace after each attack."

voy was at a safe distance, we returned to the convoy. In this way, we could regain contact with the convoy that was already speeding away from the ambush and continuing its mission. Thus, we were again prepared to provide security and react to any potential ambushes further down the road.

Through the course of our unit engagements, we always maintained contact with higher, sending reports on developing situations, including enemy battle damage assessments (BDAs). For instance, when the enemy withdrew from the fight, we pursued and maintained contact, immediately reporting the composition and disposition of the enemy as it was developing. Sometimes, a small number of dismounts ran to hide in the local mosque. We did not pursue the enemy into the mosque; our platoon, if not the enemy, did adhere to the rules of engagement, as well as the cultural sensitivities of Islam. When the enemy did seek concealment in the mosque, we simply cordoned the mosque, called in a situation report, and requested either Iraqi Civil Defense Corps or Iraqi Police to search the mosque.[3]

Our After-Action Reviews (AARs)

Upon return to the FOB, we always conducted an after-action review (AAR) to review the enemy's methods and develop a learning environment within the platoon. Each soldier in the platoon reviewed how we defeated the enemy's tactics and what worked well and what did not work well for us. Each soldier in the platoon talked about his experiences and perspectives during the ambush. This not only relieved the anxiety and apprehension of being shot at, but it also revealed key details of the fight that could be determining factors in the platoon's success. The platoon AARs allowed us to adapt our strategy to the constantly changing battlefield. In short, the speed and violent execution of our counterattack battle drills were worthless if we did not adapt quickly to the enemy methods.

"Each time my platoon encountered an ambush, it was at night. Many of the cities and towns had intermittent electrical power, which meant we could operate HMMWVs in blackout conditions using night vision goggles (NVGs). This worked well in areas where we could see great distances with an unobstructed view."

The Fedaliyah Mile: An Example

Our platoon was involved in a battle in Fedaliyah that serves as an example of defeating an enemy ambush. On the morning of 4 April 2004, our platoon began recovery efforts on FOB War Eagle following a 12-hour mission to secure the Al-Rashaad police station from Mahdi militia. We were notified that within 48-hours, the platoon would conduct a tactical road march to Kuwait for eventual redeployment. Our platoon began the process of turning in ammo, cleaning individual body armor, and loading military vehicles for shipment to the states.

Patrols conducted by our sister platoon on the morning of 4 April 2004, focused on left-seat rides to ensure the smooth transition of the follow-on unit in our squadron's area of operation. One of those patrols was informed by a local Iraqi citizen of a possible night ambush in the town of Fedaliyah, which was within our squadron's area of responsibility. This town was a poor agricultural area that consisted of mud-brick houses, a handful of warehouses, a school, a medical clinic, and a Shia mosque. The main avenue of approach into and out of the village was a mile-long, single hard-ball road that ran west to east, known to our unit as the "Fedaliyah mile." It joined Highway 5 from west to the east at the berm road, which hand-railed the Diyalah River. The terrain of Fedaliyah was flat, arid, and

"The key to success in surviving the initial moments of an ambush is speed. The instinctive reaction for any soldier when attacked by an IED or RPG is to stop or slow the speed of the vehicle, which is due to initial shock, confusion, and disorientation caused by the ambush. Therefore, our platoon meticulously rehearsed standard operating procedures (SOP) focused on controlling human reactions within the 10-second initial-reaction time immediately following an ambush."

restricted by large irrigation and sewage ditches that canalized dismounted and mounted movement to key intersections. Moreover, the town's primary means of income was focused on water buffalo herds. This added to overall restrictions on movement because the herds were kept in large pens near houses located adjacent to key intersections, which allowed easy access to the Diyalah River for watering purposes. Overall, this road was excellent for ambushes because the enemy used the homes and warehouses for cover and concealment.

Our platoon was given the task of conducting a dismounted reconnaissance patrol in Fedaliyah to identify the insurgents who were planning the ambush. At dusk, we conducted a mounted infiltration of the village from south to north, through the town of Amin. As we entered Fedaliyah, the streets were eerily deserted, which was odd because usually, at that time of night, children were playing, vendors were selling their wares, and everyone waved as we passed. We staged our vehicles near the berm road with a security element, and then initiated our dismounted patrol. We noticed that the Shia mosque was completely dark and had no electricity, which was extremely unusual. In fact, according to our Shia interpreter, this had never happened in any Shia mosque throughout the Muslim world.

We contacted two Iraqi males and discussed the mosque issue and lack of people on the streets; neither could explain, but both indicated that they were late for a family reunion and wanted to leave immediately. Based on these circumstances, we contacted the tactical operations center (TOC) and reported the suspicious lack of electricity in the mosque. We continued our patrol and moved toward the local sheik's house to discuss the mosque issue. We attempted to contact the sheik without results; the sheik, normally friendly and hospitable, now refused us entry, sending the message through his wife that he was ill. It was at this moment we realized the information of an ambush occurring was probably very credible. We moved to the trucks staged near the berm road and notified the TOC of the situation. After we were mounted, we moved in blackout drive, using NVGs, from east to west on the Fedaliyah mile toward Highway 5.

The First Ambush

After moving a mere 100 meters on the road, we received contact from three volleys of RPGs against the senior scout's truck and my truck. As rehearsed and performed several times before in contact, within seconds, the platoon identified the locations of the RPG teams and returned a heavy volume of fire, using M4s and crew-served weapons, eliminating the RPG teams. At the same time, there were enemy teams along the north and south of the road that engaged our platoon with small-arms fire. As we moved along the road, our trucks sped toward Highway 5 to exit the enemy's kill zone.

As we approached the intersection near Highway 5, the platoon was placed in a hasty defense position to provide a situation report to the TOC, and to confirm any casualties. Fortunately, the platoon did not sustain a single casualty; however, two of our trucks were damaged. Our commander and headquarters section, also on patrol to the north in the city of Kamaliyah, observed enemy fires and arrived at our location. After a few moments of discussing the situation, the decision was made that two tanks would be sent from the FOB to reinforce our platoon as we attempted to regain contact with the enemy.

The platoon moved east toward the berm road — using successive bounds to provide maximum security. Section A bounded first and set on the southern side of the road; section B followed suit on the northern side of the road. With a damaged antenna, communications to the platoon and TOC were sporadic at best, and I was forced to use the integrated communications (ICOM) radios. As section A was set and scanned, awaiting section B to bound, my senior scout identified a technical vehicle and six dismounts with rifles approximately 200 meters from my location. The enemy also identified my vehicle and simultaneously engaged our section — our fires were more accurate and we easily killed the enemy.

We continued bounding for the remainder of the mile, but received no further contact. The tank section and our headquarters section moved to a hasty defensive position near the berm road where I updated our enemy BDA and provided a situation report. While continuing to scan for the enemy, the platoon cross-leveled our ammo and prepared to counterattack since it was likely that the enemy had retrograded north into the city of Kamaliyah to blend with the population and initiate another ambush on the highway. From the initial RPG contact to our hasty defensive position at berm road, nearly 30 minutes had elapsed.

The Second Ambush

From our position, we waited another five minutes before moving with the tank and headquarters section to Highway 5. We did not receive additional contact while in Fedaliyah. As we turned north onto Highway 5, I informed the platoon, as well as the commander and headquarters section, that it was possible that the enemy had retrograded into ambush positions on Highway 5 to continue the attack. After moving 200 meters on the highway toward the FOB, we received sustained RPK and AK-47 fire from two ambush positions on the southwest edge of Kamaliyah. Again, our platoon returned accurate and overwhelming fire on the identified positions, easily killing the insurgents. The platoon continued movement north while I relayed our BDA and SITREP through the ICOM to the commander.

The platoon moved north in a box formation, allowing it to maximize security and scan for the enemy. As we moved to-

ward the center of Kamaliyah, we observed contact from all towns within the squadron's area of operation — Kamaliyah, Amin, and Sadr City. I saw green tracers coming from all directions, heard RPG explosions, and saw mortar impacts within residential areas. The TOC notified us that nearly all of Baghdad was under attack from Muqtada al-Sadr's militia in an attempt to wrestle political power from the interim Iraqi government; thus we were ordered to return to the FOB.

The Third Ambush

A total of two hours elapsed since our initial contact in Fedaliyah. We were less than four miles from our FOB when we made contact with two additional ambush positions from the southeastern side of Sadr City. The dismounts at the first ambush position were easily killed since they "charged" at our platoon, sporadically firing rifles as they left their positions.

The second dismount team attacked our section with small-arms fire, but after a few short bursts, displaced to a hide position behind rubble near a large house. My senior scout was first to identify these dismounts and immediately returned fire with his M4. The tank section moved to a support-by-fire position and suppressed the enemy with coax. Simultaneously, our dismount team moved to assault and clear enemy positions. My senior scout identified an RPG team at the position. I called for the tanks to lift fires as our team cleared the position using successive bounds. After killing the enemy, my senior scout placed seized weapons into a pile and destroyed the cache with a fragmentation grenade to prevent the enemy from using them again.

Thereafter, my team returned to the HMMWVs and continued north on the highway. Section B informed us over the ICOMs that 200 meters to our south, a hasty obstacle had been emplaced by insurgents. At that point, it was clear that the enemy was attempting to block us to the south and ambush us with several IEDs from the north near the army canal, where we would be forced to cross at a chokepoint. The tanks moved south into an attack-by-fire position and identified a squad of enemy dismounts that had set fire to a tire and wire obstacle. The tanks killed the enemy with coax, and dismounts from section B removed the obstacle from the highway.

We continued the move north to the FOB, but did not receive enemy contact; in fact, we did not observe any IEDs nor dismount teams. We arrived at FOB War Eagle and reported to the TOC. A total of five hours had elapsed during the course of three ambushes. Due to our rehearsals, improved training, and AARs, our platoon did not receive a single casualty. Instead, within five hours, the platoon inflicted heavy casualties on the enemy and captured intelligence on insurgents in the form of passports, money, and documents related to the Mahdi militia. Each soldier in the platoon performed incredibly well, which reflected individual discipline and intelligence, resulting in their ability to overcome a treacherous and adaptive enemy.

Lessons Learned

The asymmetrical battlefields in Iraq require a focus on combat with an enemy who does not use doctrine to fight. The enemy was defeated by means of our will to win using basic soldiering skills — rifle marksmanship, vigilance, intelligence, and persistence in the face of a violent and brutal enemy. Every AAR immediately following contact provided us with invaluable information in understanding and ultimately defeating the insurgents. The most effective tools to save the lives of soldiers and destroy the enemy during ambushes are tactics and procedures derived from AARs where every platoon member is required to participate in discussions.

As soldiers, we must recognize that just as we adapt to the enemy's tactics in Iraq, the enemy adapts and changes his tactics to counter our adaptations — it is a cycle that never ends. The enemy cannot be defeated using technology alone; instead, he must be defeated by our rapid synthesis of intelligence. We must then use this information to develop new tactics derived from our observations, and rapidly apply those tactics to the operating environment, instead of our relying on a catch-all doctrine that attempts to provide guidance for all generic situations.

Notes

[1]Godfrey Hutchinson, *Xenophon and the Art of Command*, Greenhill Books, London, UK, 2000, p. 201; and U.S. Army Field Manual, *Tactics*, U.S. Government Printing Office, Washington, D.C., chapter 5, section 5-123, 4 July 2001.

[2]Although we operated primarily mounted in the early part of our deployment, we were subsequently dismounted on all reconnaissance patrols, except for infiltration and exfiltration using HMMWVs. When we received enemy contact, our HMMWVs were maneuvered toward our dismounts to provide crew-served fires.

[3]CPT Dale Murray, "Company-Level Cordon and Search Operations in Iraq," *ARMOR*, September-October 2004, pp. 27-31.

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"Generally, our vehicles maintained a distance between each HMMWV and section based on the potential of encountering an IED, while maintaining a distance small enough to provide accurate security from each HMMWV's sector of fire."

"Boots on the Ground:"

Breaking the Small-Unit Reaction Cycle Through the Use of Dismounted Operations

by Captain Andrew Forney

Two company commanders pour over maps, imagery, overlays, and targeting packets. The senior commander briefs the junior commander as the two units prepare to conduct a relief in place (RIP) while maintaining continuous stability and reconstruction operations (SRO) during counterinsurgency (COIN) operations. Routes that are likely sites for improvised explosive device (IED) emplacement have been identified; complex ambushes and how they relate to discovered cache sites and historical points of origin for indirect fire have been templated. The outgoing commander discusses his conduct of operations — a reliance on dismounted patrols, observation posts (OPs), and ambushes, and a general disregard for "presence patrols." Mounted patrols are restricted from certain routes due to constant IED threats, and the commander discusses how he worked to indirectly secure the route without forcing patrols into obvious kill zones. Obviously disturbed by something, the incoming commander listens while studying the map, then points to an especially dangerous route, which is pockmarked by numerous large IED craters, and asks, "So, you have conceded this terrain to the enemy by not moving patrols on it."

The task facing most U.S. Army units in the current operating environment (COE) is to secure a designated piece of terrain, prevent insurgents from gaining a foothold, and simultaneously establish conditions that will allow local authority to resume governance. Under such conditions, many current COIN and SRO practices are terrain-oriented, focused on an overt presence in relation to geographic space. The trend in thinking for many Army leaders is that securing or controlling terrain can only be accomplished through the direct presence of units on a piece of terrain; that securing a route, for example, can only be man-

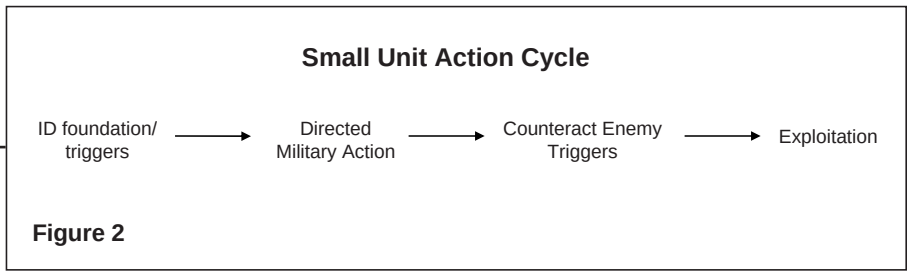

Figure 2

aged through a patrol timeline that maximizes the amount of personnel on a given piece of terrain throughout a 24-hour patrol cycle. "Boots on the ground" becomes the mantra in which security becomes equated with the number of soldiers per square foot.

An extension of this concept is the vague task of conducting a "presence patrol." A presence patrol is a patrol, mounted or dismounted, "that wants to be seen, both as a show of force and to lend confidence and stability to the local population of the host nation."[1] Presence patrols have become a rudimentary and daily task for small units, the idea being that an overt presence in any location directly relates to security in the area. Current experiences from Iraq and Afghanistan seem to illustrate a contradictory trend — the overt presence of U.S. forces in any one area may not directly correlate to increased security, but instead relate to direct attacks against those same forces as the enemy identifies patterns and the simple density of possible targets.

During an insurgency, insurgent forces do not need to routinely hold geographic space as key terrain. The enemy is not terrain-oriented, but focuses attacks on engaging U.S. forces and attempting to create catastrophic damage as part of an information operations (IO) campaign. Key terrain for the insurgent is the opinion of the local population, followed by national and international perceptions — insurgents are not necessarily concerned with holding terrain.

With this in mind, small units tasked to conduct presence patrols find themselves in a sequence of events, termed "reaction cycle." (See Figure 1) Small units are tied directly to a higher unit intent that equates security to overt presence. A patrol is tasked to conduct a presence patrol with the purpose of occupying a perceived portion of key terrain. The patrol unwittingly makes itself a target to insurgent forces in this way. Forced to react, the small unit executes actions on contact, and if lucky, may even destroy enemy forces. The patrol continues their mission, having done little to change the security situation on their patrol route. In actuality, the patrol has weakened their relationship with the local population, leading them to equate the presence of U.S. patrols with continued attacks. Ultimately, the trend toward reaction filters upward, leaving battalion, squadrons, and brigade combat teams (BCTs) wondering how to improve security in respective areas of operations (AO) with the same amount of troops.

One of the most frustrating challenges for leaders in current COIN operations is to break the reaction cycle. To achieve this, it is first necessary for leaders to identify the common foundation for enemy activity in their AOs, be it ideological, political, or economical. There may be several or a combination of these triggers that lead to enemy activity. Several well-written articles concerning lower-level human intelligence (HUMINT) have been written and are a good source of reference.[2] Once the foundation has been identified, units must operate across the full lines of operation to counteract the foundation by identifying the commander's intent, most notably, his end-state. The issue is one of meeting quantitative goals through qualitative actions. Improving the security environment of any AO requires several different lines of operation that, ultimately, mirror several root causes identified earlier as triggers for enemy activity — ideological, political, and economical. It is the commander's responsibility to identify these triggers during the first step and then identify quantitative means to counteract these triggers.

At the small-unit level (company and below), these high-minded phrases have little to no true impact. The reality is that small-unit leaders are required to improve security in their AO while maintaining practical levels of force protection. It is important to remember that to secure a piece of terrain, it is not necessary to place units on it. Rather, to secure, one must, "prevent a unit, facility, or geographic location from being damaged or destroyed as a result of enemy action."[3] This can be accomplished several ways and will allow leaders to break the small-unit reaction cycle. Leaders first must make the decision to willfully go forward and destroy the enemy in an innovative manner — to create an action cycle that forces the enemy to react to his actions (see Figure 2). In the small-unit action cycle, leaders have identified the foundation for insurgent activity in their AO by gathering intelligence from both higher headquarters and subordinate elements. Next, they take direct and focused action to counteract this foundation, either through kinetic or nonkinetic means. Finally, they exploit gains for follow-on operations and solidify successes in their AO's security environment.

To translate this cycle to kinetic operations, it becomes necessary to go back to the basics. U.S. Army Field Manual (FM) 7-8, *Infantry Rifle Platoon and Squad*, identifies two types of patrols, the reconnaissance patrol and the combat patrol.[4] To gain the initiative in current COIN operations, it is recommended that planning and priority for these operations is conducive to conducting dismounted operations. Few, if any, vehicle pa-

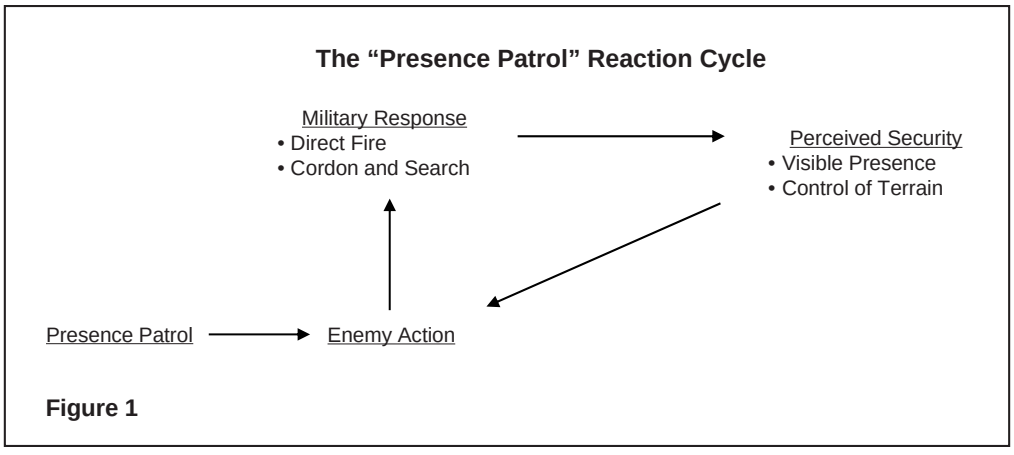

Figure 1

trols have the ability to infiltrate AOs, something that dismounted sections can accomplish, especially during limited visibility.

Reconnaissance patrols "provide timely and accurate information on the enemy and terrain."[5] During COIN operations, both overt and covert reconnaissance patrols can be executed. Overt reconnaissance patrols are a good means for HUMINT gathering from local nationals and can be used as a tool for cooperation with indigenous security forces (ISF) for future IO exploitation. Covert reconnaissance patrols are an outstanding means to gather information on enemy activity and should be the first step toward the execution of combat patrols. Covert reconnaissance is optimally performed dismounted, and clear intent, tempo, focus, and engagement criteria must be specifically explained prior to execution. Unlike the presence patrol, no reconnaissance patrol should be executed without commanders providing subordinates with clear and specific information requirements.

Combat patrols, are conducted to destroy or capture enemy soldiers or equipment."[6] This is the small-unit leader's primary kinetic action to force the enemy to react to his intent. Dismounted combat patrols during current COIN operations should focus on ambushes and sniper emplacement as a means to engage enemy forces prior to coming under direct action. Such tasks are an outstanding means to kill or capture IED emplacement teams and provide local route security.[7] U.S. forces can engage enemy elements as they attempt to counteract IO following the rapid insertion of large amounts of U.S. combat forces.

Several planning factors should be taken into account prior to the execution of either type of patrol. In the current operating environment, with armor and cavalry units assuming a large amount of dismounted tasks, it becomes necessary for these tasks to be at the company or troop level due to the small size of armor and cavalry platoons. During a typical operation, one platoon may provide vehicular transport to a dismount point for a second platoon, and then remain in a patrol base or quick reaction force (QRF) status to provide support or extraction for the dismounted platoon.

Commanders must deconflict any issues with direct-fire control, especially if armor elements are conducting patrols in the vicinity and may react to the identification of armed dismounted elements to their flanks. Fires, always dependent on the current rules of engagement, should be pre-planned to allow for assistance in displacement and extraction. If available, air assets can be used to help clear or secure infiltration and exfiltration routes or engage identified enemy elements.

However, the most important task for commanders as they send subordinates forward to conduct reconnaissance and combat patrols is to provide a clear task and purpose with an achievable end-state. One of the fatal flaws of the presence patrol concept is the lack of guidance subordinate leaders are given when saddled with such a mission. Planning for such operations is not offensive in nature, does not attempt to gain initiative over enemy forces, and assumes that the mere presence of U.S. forces in any area improves security, which is not necessarily the case.

The planning and execution of dismounted patrols by typically mounted elements will obviously seem foreign, at first, as units come out of their operational comfort zone. However, to change the current operational reaction cycle and improve the security environment of AOs in current COIN operations, it is imperative to change the presence patrol mindset. Forcing the enemy to react to our actions will prevent casualties and alter the security environment with more of a covert, rather than overt, presence. It is time that the adage "boots on the ground," became more than just a cliché.

Notes

[1]U.S Army Field Manual (FM) 3-21.9, *SBCT Infantry Rifle Platoon and Squad*, U.S Government Printing Office (GPO), Washington, D.C., December 2002, pp. 10-17.

[2]Major Bill Benson and Captain Sean Nowlan, "Tactical Intelligence Shortcomings in Iraq," *ARMOR*, March April 2005, pp. 18-22; and Captain Timothy J. Morrow, "The Human Intelligence Game for Armored/ Mechanized Units," *ARMOR*, May-June 2005, pp. 39-44.

[3]FM 1-02, *Operational Terms and Graphics*, GPO, Washington, D.C., September 2004, p. 1-167.

[4]FM 7-8, *Infantry Rifle Platoon and Squad*, GPO, Washington, D.C., 22 April 1992, pp. 3-11.

[5]Ibid.

[6]Ibid, pp. 3-19.

[7]Sergeant First Class Matthew Donofrio, "Contemporary Sniper and Observation Post Operations," *ARMOR*, May-June 2006, pp. 44-48.

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"The trend in thinking for many Army leaders is that securing or controlling terrain can only be accomplished through the direct presence of units on a piece of terrain; that securing a route, for example, can only be managed through a patrol timeline that maximizes the amount of personnel on a given piece of terrain throughout a 24-hour patrol cycle. "Boots on the ground" becomes the mantra in which security becomes equated with the number of soldiers per square foot."

An Irregular Shade of Blue: Advisory Work with the Iraqi Army

by Major Robert Thornton

Make no mistake, advisor duty is a tough assignment, but not for reasons that might immediately come to mind. It's more like trying to solve a puzzle that is one-third crossword, one-third Rubik's Cube, and one-third Jenga in a dimly lit room — oh yeah, one-half of the crossword puzzle is written in Arabic/Kurdish and the other half in English. If you enjoy a good challenge and consider yourself innovative, then advisory duty is for you. There is also the challenge of overcoming things U.S. soldiers take for granted, such as near-limitless resourcing and unity of effort. This assignment can tax anyone's mental faculties to the extreme when attempting to figure out how to put square pegs in round holes (although, at times, declaring victory by simply finding the holes — or using a bigger hammer — works). It is a rewarding duty; you will see a side of this war through allied indigenous eyes that few Americans will see — not merely a glimpse caught during a stopover or combined patrol.

As a team, we have spent several months living, eating, and working with an Iraqi infantry battalion on a postage stamp-sized combat outpost (COP) located in northwest Mosul. We are about 10 to 15 minutes away from the major forward operating bases (FOBs), but feel secure in our compound with only the Iraqi army for company. We routinely see U.S. forces visiting to coordinate with the Iraqi army battalion. Do we feel safe? You bet, but we have taken additional force protection measures to ensure that safety. Security is one of those things you will have a different appreciation for as an advisor — it comes with the mission.

When we first arrived at our COP, we took over from a team that had just relocated the Iraqi army battalion from another installation to its new area of operations. The battalion was close to assuming battlespace (now called "taking the lead") with a transfer of authority ceremony. The battalion's commander was charismatic, and a former Iraqi Police veteran (many of the battalion's successes were triggered by his instincts as he conducted battlefield circulation with his personal security detachment.

Overall, the Iraqi army battalion was about 70 percent Kurdish (of which 70 percent of those soldiers were from the battalion commander's tribe), and 30 percent Arabic (mostly in one company). The level of proficiency ranged from very high (the battalion scouts were all Kurdish and had extensive training with U.S. Special Operations Forces) to very low (many soldiers never attended basic training, let alone advanced individual training — some officers could not read or write). The logistics system was pretty much dysfunctional, but continually improved, and the battalion is increasingly able to get out and carry the fight to the enemy.

Preparing for Advisory Duty

The good news is that the U.S. Army's ethos and belief in empowerment to junior leaders breed good stock for advisors. The bad news is that training any team of disparate members, who have very likely just met, will provide only the most basic introduction to what your military transition team (MiTT) mission will be. The U.S. Army is doing its very best

to resource and prepare teams for skill sets they need to succeed; however, operational tempo (OPTEMPO) and requirements are stacked against advisor teams. This is not a cookie-cutter assignment; because of the cultural and environmental dynamics of a particular Iraqi unit, even MiTTs assigned to the same Iraqi army brigade will have different experiences.

The MiTT is made up of members based on basic military qualifications, such as Active/Reserve Component status, military occupational specialties, and work experiences. Later, military qualifications become less important, while actual job skills become more important. For example, our MiTT intelligence noncommissioned officer in charge (NCOIC), an air-defense artillery first sergeant, is a whiz at air-conditioner repair, judging people, and setting and maintaining soldier standards. He definitely manages detainees, but his work with the Iraqi army on improving living conditions has proved to be a major way of influencing Jundi (soldiers) that we might not have otherwise reached. The U.S. Army should provide the basics, such as technical skills and cross training, to maintain and employ MiTT equipment, which is really the easy part — we all understand individual skill and collective task requirements since they are doctrinal. It is the non-doctrinal stuff that is going to be ambiguous. The left column in Figure 1 depicts what the MiTT task organization looks like on paper; the right column outlines what the team really does, based on mission, enemy, terrain, troops, time, and civilians (METT-TC) unique to our composition and location.

The MiTT should have the most effective configuration possible. Our team is made up of mostly senior folks, which means it is self-sufficient to a degree that most organizations are not. By the time career soldiers reach the rank of first sergeant or major, work ethics and understanding goals should be built in, which places some leaders in uncomfortable positions. Peer leadership can be difficult, and the "I-should-be-in-charge" attitude can be pervasive for everyone, especially for the person accustomed to being in charge. Until teams spread out a bit in country, you will see conventional E8s, 04s, 05s, and 06s put in very unconventional situations — resembling a pack of alpha males. It is who we are and what makes us successful in typical Army leadership roles, but it does not work quite as well on small teams where, in some cases, everyone is required to work independently, keep very odd hours, and there is no clear mark for success.

Being Embedded

Before this job, my only exposure to the word "embedded" was hearing it on *FOX News*. I thought it meant same building, same food, and same mission; in fact, it means much more. In my mind, being embedded is just a condition to understanding the real issues and how to best help the unit — it offers a perspective of the Iraqi unit from the inside out, not the outside in.

Our team members arrived with perceptions about the Iraqi unit, their missions, and how these missions would be performed. However, after our team members were embedded for about three months, they realized their perceptions were not reality. For example, when our team arrived, we discovered the unit used particular processes to conduct operations. It was easy for us to assume that the unit could not effectively perform its mission because it lacked personnel and training — we totally missed what they were accomplishing and that their solutions were adequate to solve their problems. Embedding allowed our team to see the difference between our perceived problems and their real problems. Keep your eye out for "Iraqi solutions" that are sustainable after the team is gone.

Right now, the biggest issue with embedding is force protection; however, with the right resources, the risk analysis can be mitigated to the point where "unlikely" is the frequency and the yield is worth the risk. Anything less than embedding is like building a wall between us and them, which will cause preconceived notions and biases that will influence our observations. It is just human nature.

Understanding METT-TC from an Indigenous Perspective

Mission. The Iraqi army's idea of a successful mission is slightly different from ours. They have considerably less resources than U.S. forces, which they must stretch, often indefinitely. They have to maintain certain tribal and community relationships — the "because-I'm-the-commander" response does not always work. This can be very frustrating for MiTT members because they are not used to it, but it is the reality of the Iraqi people, and until they have a professional army (which could be a long way off), relationships are a fact of life. Understanding how cultural factors play into the mission will assist the MiTT in helping the Iraqi army get the most out of the operation. The MiTT and the Iraqi unit do share commonalities in measuring success in terms of effect on the enemy, improving the position of friendly forces, and having a positive effect on area security.

"Our team members arrived with perceptions about the Iraqi unit, their missions, and how these missions would be performed. However, after our team members were embedded for about three months, they realized their perceptions were not reality. For example, when our team arrived, we discovered the unit used particular processes to conduct operations. It was easy for us to assume that the unit could not effectively perform its mission because it lacked personnel and training — we totally missed what they were accomplishing and that their solutions were adequate to solve their problems."

Enemy. Working side by side with Arabs and Kurds makes it difficult to categorize the enemy as "different." For example, it is frustrating to have an Iraqi soldier who either knows, or is related to, someone identified as an active insurgent. Iraqi soldiers are not empathetic; they are openly hostile because they are often targets of tribe members, and they realize they share the same ethnicity with these lawbreakers. Much like Timothy McVeigh and his associates — people, who out-

Team Chief - MAJ, IN, RC (position calls for a combat arms MAJ)	Principal advisor to the Iraqi army (IA) battalion commander. While not a commander per se, he takes responsibility for the team's actions and answers to higher. Primary TC for one of our three M1114s.
S3/XO Advisor - MAJ, IN/FA 59, AC (position calls for a combat arms CPT or MAJ)	Principal advisor to the IA battalion XO and S3 on roles and responsibilities within the battlefield operating system (BOS); works with the rest of MiTT team on logistics, intelligence, maintenance, training, and leadership development. Works with coalition forces (CF) as an IA enabler and vice versa. Primary TC for one of our three M1114s.
Intelligence NCO - 1SG, ADA, AC (position calls for an E7/E8)	Principal advisor to the IA CSM and all NCOs; works the detainee facility, and advises the IA battalion commander and leadership on soldier issues, basically role modeling for the battalion's senior NCOs. Manages the interpreters (pay, hiring, uniforms, leave, and medical). Works with visiting CF patrols to maintain discipline and standards while at the COP. Has also worked with various U.S. contractors and contacts to obtain services or material that can be rehabilitated to fill gaps at the COP. He is also a primary TC for one of our three M1114s.
Logistics Advisor - MAJ (P), QM, AC (position calls for a CPT/MAJ in the logistics (LOG) field)	Principal advisor to the S4 on logistics. Has proven invaluable in understanding various Multi National Corps - Iraq (MNCI) and ministry of defense (MOD) systems and contracts; works hand in hand with garrison support unit (GSU) and reserve support unit (RSU) CF personnel to obtain needed supplies for the IA. Also works the U.S. LOG systems to obtain the needed supplies for the MiTT — rank, personality, persistence, and humility have all proven to be key in getting things done. He is also a primary TC and alternate gunner for one of our three M1114s.
HHC Advisor - MAJ, QM, RC (position calls for a CPT/MAJ in the LOG field)	Principal advisor to the HHC commander and battalion maintenance officer. Our guy is a high school teacher in civilian life and has applied much of that toward working with the Iraqis. He has been key in implementing command maintenance, evacuation procedures, driver's training, preventive maintenance checks and services (PMCS), and has even turned a few wrenches. He has worked with the MiTTs from the RSU and motorized transportation regiments (MTR) in obtaining CL IX and making things happen. He is also a primary gunner and alternate TC for one of our three M1114s.
S2 Advisor - CPT, ADA, AC (position calls for a CPT/MAJ in an intel field)	Principal advisor to the S2, however, he spends more time working with the S1 shop. The IA battalion S2 is pretty sharp and mostly just lacks key personnel in his shop, such as the additional analysts to acquire situational understanding. So our ADA CPT turned MI heads up our makeshift analysis cell (includes the XO/S3 trainer, fire support NCO (FSNCO) #1, and the 1SG), as well as working with the IA battalion S1 shop to address personnel and administrative issues. He is also alternate driver and alternate TC for one of our three M1114s.
FSO - E5, FA, AC, attached from CF partner as a tasker (position calls for a CPT/MAJ)	We have re-rolled this very talented NCO to become an intel analyst. He battle tracks enemy activity in our battalion area of responsibility (AOR) and battalion areas of influence (AI) and keeps the pattern analysis tools up to date. Since he has served here in Mosul on a previous tour, he has some key knowledge about the area of operation (AO). He ensures our information is synchronized with the IAs and CF, and I believe provides better situational awareness as a result. When out on mission, he and our other FSNCO work fires and rotary wing (RW) and fixed wing (FW) close air support (CAS) if needed. Serves as the primary M240 gunner on one of our three M1114s.
FSNCO - E5, FA, AC, attached from CF partner as a tasker (position calls for an E6/E7)	We have re-rolled this very talented NCO to become an information operations (IO) officer. We are working this one through still, but the bottom line is we have to combat the anti-Iraq force's propaganda, and we have to help the IA get their IO message out. This is in line with "effects," but it is challenging. It cannot come across as an "American" message; it must be an Iraqi message and that means it has to sound like an Iraqi message. We are learning you have to target IO based on specific groups of people or tribes. This non-kinetic effect is challenging because it's hard to assess its effectiveness, and it requires getting into people's heads. When out on mission, he and our other FSNCO work fires and RW and FW CAS if needed. Serves as the primary M240 gunner on one of our three M1114s.
Commo NCO - E6, SIG, IRR (position calls for an E6 or E7)	Works in his field. Our commo NCO has some unique challenges given our location. He must maintain FM, HF, TAC SAT, iridium cell phones, commercial cell phones, and a commercial internet. He was called back after 15 years in the IRR, so he had to learn quite a few new systems. He has been making good strides in learning the IA battalion C2 architecture as well and advising them on how to improve. He also helps them with their computers (allocation and distribution and ensuring their antivirus definitions are up to date). He is our communications security (COMSEC) custodian and is a primary driver for one of our three M1114s.
Logistics NCO - E6, 88M, AC (position calls for an E6 or E7)	Works primarily with the HHC advisor. Getting him recently was a big plus as it allowed us to do some additional driver's training, recovery and evacuation training, maintenance training, and NCO modeling. His role is very hands on down in the motor pool, instructing and supervising to role model for the battalion's NCOs. He is also a primary driver for one of our three M1114s and is taking over the role of ensuring services and -20 level maintenance are done on our three M1114s.
Medical Advisor - E4, 91W, ARNG (position calls for an E6)	This soldier is outstanding. He has worked with and alongside the IA medics teaching them minor surgeries, combat life saver, supply discipline, etc. He has done the work of a medical PL and PSG, as well as a front line medic. He also takes care of the MiTT, and follows up on special IA wounded through the CF units around the country. He is also a primary driver for one of our three M1114s. Until we got a LOG NCO, Doc ensured the M1114s were serviced on the CF FOB. Before we got the commo NCO, Doc was our COMSEC custodian.

Figure 1

"Working side by side with Arabs and Kurds makes it difficult to categorize the enemy as "different." For example, it is frustrating to have an Iraqi soldier who either knows, or is related to, someone identified as an active insurgent. Iraqi soldiers are not empathetic; they are openly hostile because they are often targets of tribe members, and they realize they share the same ethnicity with these lawbreakers. Much like Timothy McVeigh and his associates — people, who outwardly appeared to be normal, killed their neighbors and friends in the Oklahoma City bombing."

wardly appeared to be normal, killed their neighbors and friends in the Oklahoma City bombing.

Our team gained very valuable experience in human intelligence (HUMINT) operations and analysis. As the XO/S3 advisor, I felt a bit out of my lane, but I had to understand the enemy and form my own opinions because my operational solutions could not be tied solely to either coalition intelligence or Iraqi intelligence — the two sources of information had to be combined to do the analysis. Telling an Iraqi what he already knows, or what he knows to be false, is not a good idea — they know nonsense when they hear it. Do not underestimate the value of reassigning a few "excess" soldiers to an intel cell — they catch on pretty quickly.

The Iraqis are also aware of the effects current conditions have on the recruiting base for anti-Iraqi forces. Hot weather, limited electricity, limited jobs, limited and expensive fuel, limited educational opportunities, and lack of sanitary conditions and drinking water are all understood by Iraqi army counterparts in regards to the security situation. One cannot help but question what might turn a school teacher into a Jihadist or cause a boy to emplace an improvised explosive device. It is their country, but at the same time, Iraqis remain conscious of the fact they are pulling the trigger on fellow countrymen. Once their trust is gained, they will speak openly about the current conditions of Iraq and the impact U.S. involvement has on it. You cannot understand all the dynamics until you understand their motivations, concerns, and issues.

Terrain. Working with Iraqi troops certainly provides a different appreciation of the terrain. The MiTT will find out things about cities, neighborhoods, tribes, and roadways they would never know otherwise. This is valuable to both the team and coalition partners. For instance, the Iraqi troops can explain why certain routes are more prone to IEDs and why others are not — the team will gain an appreciation for the "human terrain," an understanding as to why certain people are treated differently, and who has influence and why.

Troops. Most Iraqis join the army because it pays more than many other jobs, and it allows these men to *retain* their dignity. Team members need to understand these motivations because they place defined limits on what Iraqi soldiers can be expected to do. Often, their pay system falls short (one soldier had not been paid for eight months and did not exist in the ministry of defense records), and their promotion system is poorly maintained. Their living conditions are impoverished in comparison to those of U.S. forces and their food generally lacks quantity and quality.

Iraqi army soldiers do not rotate home in a year; even when they are on leave, they and their families are at risk. We lose more soldiers and officers to assassinations that occur while they are on leave — they are less vulnerable to anti-Iraqi force attacks when they are on mission and their guard is up. Iraqi soldiers are up against a long-term fight with no end in sight.

Lack of knowledge is rampant — many Iraqis cannot read or write, have not been to basic training, and some of the Kurds cannot speak Arabic. Soldiers of religious minorities or outside of the tribe may be privately ostracized. We have seen acts of contempt and mean spiritedness that develops from ignorance. We have also seen acts of kindness and compassion that would only be associated with close-knit units. Despite all this, these soldiers are improving and performing their mission.

Iraqi soldiers are generally good people, and when they understand why something is right or wrong, they often accept it. They are showing great improvement as a result of the embedded MiTT and their partnership with coalition forces.

Time. The biggest issue with time is its nonlinear aspect, which does not really effect operations as much as I was led to believe — it is more subtle and philosophical. On 11 November 2004, many Iraqi police and army soldiers deserted their duty positions, causing anti-Iraqi force activity to escalate. A combination of coalition forces and Kurdish Peshmurga neutralized the enemy, but a great many Iraqi army soldiers from our unit were killed; those who stayed remember that day as if it was yesterday. At times, all the bad things that have happened will be felt at once and heaped on top of another new problem. Understanding Arab perceptions of time will help rationalize how they view problems.

Coalition Partnership

Coalition partnerships will be dissimilar and sometimes frustrating. You are not working *for* the brigade combat team in your area, you are working *with* them. This does not mean the relationship should be, or will be, adversarial; in fact, it should be anything but adversarial.

MiTTs are fairly new; they are different in composition and their mission is unconventional and does not fit well within the limits of more conventionally minded units. The MiTT is comparable to a nongovernment agency/other government agency — not one of the high-speed agencies, but one that is misunderstood and might be a source of friction. Unless some-

one on the MiTT personally knows someone in the unit who can put in a good word for the team, be prepared to spend the first six months building a relationship with coalition forces. If the team arrives in the middle of a BCT rotation, be prepared to build a relationship with the outgoing unit during the first six months, then build a new relationship with the incoming unit during the last six months of the team's assignment — it's just reality.

Building and maintaining relationships with coalition partners is a critical enabler to the team's success. Because coalition partners have such an impact on the Iraqi army unit, and they provide the team's support requirements to keep their austere operation going, the team should swallow its pride, exercise humility, and be satisfied that its mission is succeeding. As one advisor put it, "this is not about you; it's about them (the success of the Iraqi army)."

More than likely, the coalition unit and the MiTT will not measure success quite the same. The coalition unit came to Iraq as a team, trained up on a mission statement, which analyzed and qualified its measure of success. Beginning with a train up, they deployed the unit, carried out effects against the enemy, maintained their area of operation, and redeployed back to home station to prep for the next mission. The MiTT's mission statement is tied to the long-term effectiveness of the host-nation army, which supports a corps and national strategy; it far exceeds a one-year tour.

This article does not cover everything a MiTT member needs to know; it may not even cover most of what one needs to know. However, it is based on our team's experiences and lessons learned during our seven-month deployment as a MiTT. Many more U.S. soldiers are going to be assigned this unconventional duty, and it is important to know how to work with a MiTT and how to be part of one. It is a rewarding assignment, as much as it is a frustrating one.

As an embedded advisor, the key is to have a healthy mindset toward Iraqi allies — there is little room for "us" and "them." The team cannot go back to the FOB at the end of a patrol and push the concerns of the Iraqi army or Iraqi security forces to the rear. There are no real competing concerns, such as a company, battalion, or brigade, to worry about. Instead, view the team as part of the battalion — this is not "going native," it is investing hard work to build the best Iraqi battalion, brigade, or division possible.

"Working with Iraqi troops certainly provides a different appreciation of the terrain. The MiTT will find out things about cities, neighborhoods, tribes, and roadways they would never know otherwise. This is valuable to both the team and coalition partners. For instance, the Iraqi troops can explain why certain routes are more prone to IEDs and why others are not — the team will gain an appreciation for the "human terrain," an understanding as to why certain people are treated differently, and who has influence and why."

Soldiers are soldiers the world over, and most prefer the company of soldiers over ordinary civilians any day of the week, so you will have a great deal in common with your Iraqi peers. You are going to have to find the contact points between loyalty to the MiTT mission and loyalty to your adopted Iraqi army unit. You will find that you have a connection within a few months of your arrival, which will be apparent when an Iraqi soldier who you knew well is killed or severely injured — you will feel it. You will see the way it affects the unit, and do your own style of grieving. You will not be able to divorce yourself from the unit's loss simply because you are not Iraqi.

A successful MiTT requires being a team player; cultivating adaptation and innovation; exercising patience (at times great patience); and hard work that sometimes seems like a dead end, but nevertheless, you try a new direction. You are probably not going to make a huge dent in the effectiveness of your unit; instead, it may be better to measure it in small dents in multiple areas that collectively add up. You are not going to be as well resourced as if you were part of a BCT. You will be viewed as a distraction at times. You are not going to be front and center — it is not about you.

If you are tasked for this very rewarding and challenging duty, there is a website on Army Knowledge Online. *CompanyComand.mil* has allowed MiTT advisors to maintain a log where solutions to encountered problems are posted. These may not always have the complete answer, but participation from everyone will increase information flow. Networking among advisors is a powerful tool and may help omit unnecessary steps along the rocky way.

Finally, all the cultural training in the world just doesn't make an expert. Robbie Robinson, a contractor with years of advisory experience, dating back to Vietnam, shared his advice with our team: "be sincere and observe the Golden Rule! You might be surprised, but treating others in accordance with what you think is fair, will go a long way in building rapport."

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The Homeland Population as a Center of Gravity

by Captain William Ault

The United States has established itself as the undisputed military power in the world. Opponents are forced to fight the military strength of the world's only superpower with guerrilla and insurgent warfare. Referred to as "asymmetric warfare," this age-old partisan, known as guerrilla warfare, was fought by our grandfathers in the Philippines and during World War II. Technology and our ever-shrinking world allow guerrillas, or insurgents, the benefit of new weapons availability. Global communications has allowed these groups to develop a previously protected battlefront.

Insurgencies really have four key players: insurgents, government forces, the insurgent target population, and the target population of the government supporter. The population of the country or area of conflict is commonly known as the "sea" in which the insurgent swims, as well as the center of gravity (COG) for both sides on the local front. Little attention seems to be paid to the COG for the government's international supporters. Coalition forces supporting the local government have a COG as well, which also serves as a target for insurgents to exploit. The home population of the country providing support for the host nation is its friendly COG.

In insurgencies, populations of each nation involved provide passive popular support, active support, or opposition for the forces involved. Most strategists and manuals focus on the conflict area, which is the country and population where the action is occurring. What about the population of the sponsoring forces? Examples would be countries that are part of the coalition in Operation Iraqi Freedom.

The population of a powerful nation is its COG, which can be its weakest area. In terms of asymmetric warfare, it is this weakness that an opponent can singularly target. In reality, this is the very target that has been sought and exploited by our adversaries since the 1960s. For example, in all conflicts the United States has been involved in since that time, there has been no force on the battlefield that could eradicate or win a war of attrition against the forces employed. The United States military forces were completely superior in all aspects in every conflict and yet the track record shows humiliation and ultimate strategic defeat of a superpower by supposedly inferior forces.

Looking at a superpower from the enemy's perspective shows that it would be foolish to confront its conventional forces in open battle. Inferior forces would face certain annihilation. Contemplate the answer. Looking at past conflicts, it can be demonstrated that insurgents facing a similar dilemma answered it through attacking on a different front — the home front.

"The richest source of power to wage war lies in the masses of the people." He [Tse Tung] creates a three-phase model that emphasizes the political mobilization of the people and Army to create a protracted popular war. First, organization of the party and preservation of what little combat power exists. Second, transition to combat is initiated when conditions are met that allow progressive expansion of the influence of the party by achieving the support of the population. These second-phase operations include minor skirmishes against government forces when the guerillas possess an overwhelming advantage. Upon completion of assured victory, the guerilla quickly fades into the population to swarm at a later time. During the third and final phase, the guerilla forces transition into conventional military operations against government forces. Mao's model emphasizes that the element of time is on the insurgent's side in order to build resources and support. There is no rush to meet the government forces in fixed battle. The

primary emphasis is to live amongst the population, convince the people that the guerillas offer a better alternative, and win their trust and support. In summary, the guerillas must exist like "fish" in the people's "water."[1]

Insurgent leaders since Ho Chi Mihn in North Vietnam realized the futility of open warfare with the western powers. They use the tactics and strategy contained within phase one of Mao Tse Tung's three-phase model of insurgency to maintain support in the host nation and survive, while terrorizing and striking in a limited fashion against coalition or host nation forces. Rarely since that time has it been necessary to evolve to final phase three, open conventional conflict with the larger force. Eroding the enemy's will to sustain its forces eventually removes them from the conflict and brings more equilibrium to the combatant forces on each side. Once this is achieved, the completion of the three-phase model can occur.

Insurgent attacks against the larger force are intended to frustrate and annoy to evoke a heavy-handed response. These responses are capitalized in the media, by showing selected images and results as oppression and cruelty to people across the globe. It is in this manner that they attack on a different front. This new battlefield is one that western military strategists are not thoroughly aware of and not currently participating in fully.

This is a war of erosion. Erosion of the will of populations in nations that support troops and armies deployed to assist host nation forces. Through this protracted conflict, the media assists insurgent forces by continually maintaining pressure on the supporting government and military establishment. This pressure creates hardship for the military and government as they attempt to continue support operations. This creates a second front, one on the home soil of the supporting nation.

Media support for this second front is critical. News agencies and press releases that continually replay negative aspects of the host nation and supporting coalition begin to create an adverse feeling for participation in the conflict. Insurgents playing on the softer western emotions and lifestyle continually assault, through media channels, the population that supports the forces it faces. In this manner, they strike at the very foundation of the mightiest nations in the world and erode the support structure for powerful armies. This is how they win.

This battlefield is not new. It has gained popularity because it has continually worked against stronger forces. The eventual withdrawal of forces from Vietnam, Beirut, Somalia, and a host of other locations was from an active public opposition, not a decisive military defeat. Erosion of public support through a constant bombardment of media outlets that portray negativity induces a type of mass hysteria in the population that eventually leads to the vocal, and sometimes violent, opposition to the military forces being deployed.

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The rapid evolution of global media and internet access has developed this battlefront into a viable method to perform 'information warfare' that has the potential to turn a country's own population against government and military goals. The populace is at a disadvantage because they cannot see an issue in its entirety and are fed small 'blurbs' or 'snippets' in the newspapers, magazines, and on the evening news. This creates an issue of context. Taken out of context, many issues can be portrayed in a way favorable to either side. The insurgent has become skilled at manipulating media assets and outlets to further its cause while weakening the stronger power. Factors, such as an aversion to casualties and long-term conflicts, certainly play a part. Having a general population that is not accustomed to dealing with hardship and has a very high standard of living has created a 'softness' that has been exploited by opponents from harsher environments and economies.

We must take this threat seriously and educate high-risk populations to the fact they are targets on this battlefront. No longer can populations feel they are isolated and removed from combat and conflict. Realize that when a nation commits to conflict and battle, it is total in its scope and reach; all parts of society must be prepared to wage a battle. Military strategists and leaders in particular must be constantly aware of the implications, as well as the second- and third-order effects. Insurgencies are protracted and on average last 10 to 12 years. We cannot hope to win on the battlefields of far-off lands without the support and strength we receive from our homelands.

Notes

[1]Mao Tse Tung, *Selected Military Writing of Mao Tse Tung,* Peking, Foreign Language Press, 1966, p. 260.

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Fort Knox: Birthplace of Today's

by Dr. Robert S. Cameron

The U.S. Army Armor Center and School are preparing to relocate to Fort Benning, Georgia, in accordance with the recommendations of the 2005 Base Realignment and Closure (BRAC) Commission. This move will end a nearly 80-year association between mounted maneuver developments and Fort Knox. During this period, activities on the post shaped and influenced the branch's nature and determined its unique evolutionary path. When the realignment to Georgia is complete, armor will have left behind its Kentucky roots to begin a new chapter in its development. Although tanks have been associated with Fort Benning since 1919, armor's origins lie at Fort Knox.

The Tank Corps constituted the Army's first tank force. Established in 1917, after the nation entered World War I, its purpose lay in the organization and preparation of American tank units to support operations on the Western Front in France, where trench warfare predominated. When the war ended in 1918, the Tank Corps included 12,000 soldiers deployed overseas with the American Expeditionary Forces and more than 8,000 in stateside training camps. Moreover, several tank units had acquired combat experience during the American-led offensives at St. Mihiel, the Meuse-Argonne, and during combined operations with the British army. In every case, tanks were employed to breach enemy fortified lines.[1]

Despite the Tank Corps' battlefield success and growth, it did not become the foundation for a permanent branch. Postwar demobilization reduced its strength to less than 3,000 soldiers within a year.[2] The National Defense Act of 1920 concluded a force structure redesign effort that defined the Army throughout the interwar era. During this process, Tank Corps leaders failed to articulate a mission for tanks other than infantry support. Consequently, the national defense act abolished the Tank Corps and

Armor Branch

transferred exclusive responsibility for further tank development to the infantry.[3]

As an infantry support weapon, the tank's role lay in facilitating the advance of the rifleman. To ensure their widespread availability, tanks were distributed in companies assigned to infantry divisions. The Infantry School at Fort Benning, Georgia, and the Tank School at Camp George G. Meade, Maryland, maintained larger concentrations for demonstration and instruction purposes. The Tank School provided doctrine and training guidance, which generally focused on small unit tank-infantry coordination. During tactical exercises, tanks ruptured enemy lines and accompanied advancing riflemen. Often, these training events replicated attacks on fortified lines reminiscent of World War I. Coordination occurred via detailed planning, phase lines, common terrain objectives, and control of the tanks by the commanders of supported units.[4]

Doctrine effectively tethered the tank to the riflemen and discouraged independent operations. Tanks were not expected to shape the battlespace, instead remaining in close proximity to their supported infantry. This close association became more pronounced after 1932, when the Tank School relocated to Fort Benning and became part of the Infantry School. Tank programs of instruction shortened to permit all tank students to first attend training in the fundamentals of infantry operations.[5] A close relationship between tanks and infantry on and off the battlefield resulted, which in turn established an expertise in tank-infantry operations at the small-unit level.

The narrow role envisioned for tanks encouraged simple tactical organizations. They did not, for example, include reconnaissance, artillery, and engineering assets. Maintenance support proved minimal, since tanks were to operate near parent formations and rely on the latter's service organizations.[6] Some infan-

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try officers did recommend larger, combined-arms tank units, but their proposals contradicted the tank's support weapon status and required funding beyond the limited appropriations available.[7]

Consequently, infantry tank development remained limited in scope. Tanks remained tied to the advance of riflemen, ensuring them access to armored support. Tank units remained largely collections of tanks, configured for their singular role on the battlefield.[8] Tactical innovation also remained constrained by understrengthed units and forced reliance on antiquated tanks that remained in the Army's inventory until gradually replaced on the eve of World War II.[9]

In 1938, infantry tank units underwent reorganization. Divisional tank companies disappeared, replaced by battalions and regiments assigned to a general headquarters pool for attachment to infantry formations as necessary. This change undermined the teamwork developed by tanks and infantry units of the same division routinely training together. Although larger tank organizations were expected to have a greater effect on the battlefield, War Department guidance proved confusing and contradictory.[10] In 1939, the Tank School developed a new manual to govern tank operations that reflected organizational change, more flexible tactics, and a growing interest in radio communications. Yet, despite its training value, the manual remained tentative, awaiting War Department publication approval.[11]

By 1940, the infantry tank force lay in a state of flux. Configured largely for infantry support missions, the tank force lacked the means for independent operations, and did not share a close relationship with the infantry divisions it would be called on to support during combat. Doctrine and training remained torn between existing principles of employment that the Tank School sought to change and the modernizing ideas incorporated in the new, yet unpublished, manual.

Today's armor organizations are characterized by their lethality, agility, and versatility. They constitute a decisive influence on the battlefield, and indeed, are intended to shape the battlespace at the enemy's expense. Armored formations possess the ability to influence decisively entire campaigns, as demonstrated in Operation Desert Storm and more recently in Operation Iraqi Freedom. Current operations in Iraq demonstrate the importance of direct support to the rifleman by tank platoons and even sections, but the heritage of infantry support constitutes only one part of armor's capability. Where, then does the branch's emphasis on organizational flexibility, decentralized command and control, high operational tempo, and maneuver originate?

In 1928, Secretary of War Dwight F. Davis directed the establishment of the Experimental Mechanized Force at Camp George G. Meade. His action reflected a growing sense within the Army that the tank's value transcended infantry support. It also constituted his reaction to British military maneuvers that included large numbers of tanks employed in a variety of tactical roles. The Experimental Mechanized Force served as an organizational test bed to determine functions other than infantry support for a mechanized unit.[12]

This unit disbanded after only six weeks, but its existence spurred further experimentation. In 1930, Congress authorized creating the Mechanized Force at Fort Eustis, Virginia, to study mechanized tactics, organization, and materiel. The new unit soon focused on the employment of tanks in cavalry roles, a trend encouraged by its commander and executive officer, Colonel Daniel Van Voorhis and Major Adna R. Chaffee Jr., both cavalry officers.[13] Previously, Chaffee participated in analysis of the Experimental Mechanized Force and recommended a large-scale increase in the Army's mechanization efforts.[14] However, the Mechanized Force disbanded in 1931. With the economic effects of the Great Depression worsening, the cost of the Mechanized Force became untenable. Moreover, the cavalry nature of its activities suggested alignment with the mounted branch.[15]

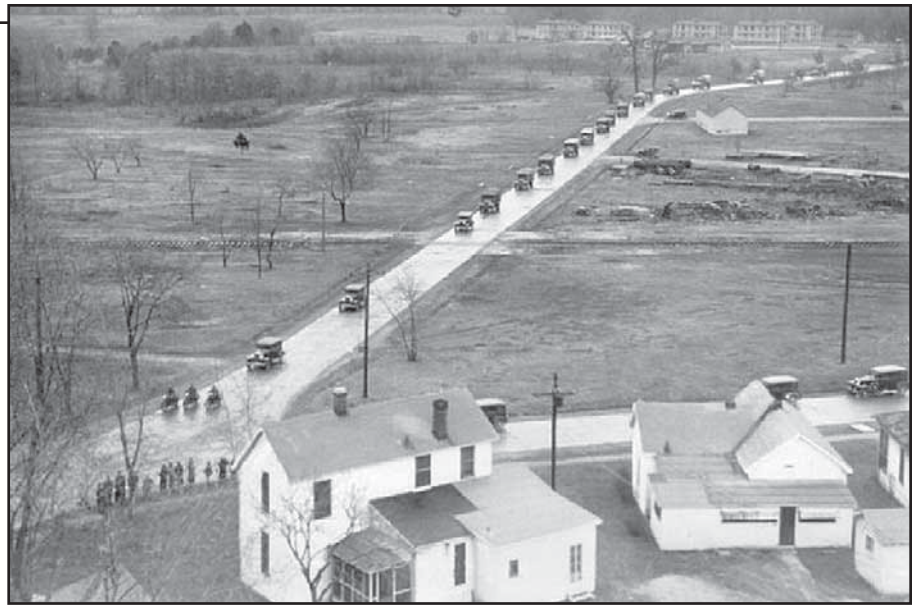
Therefore, in 1931, the Army adopted a new mechanization policy to broaden mechanized development beyond the infantry. Implementation of this policy resulted in transforming the 1st Cavalry Regiment into the 1st Cavalry Regiment (Mechanized), partially through incorporation of assets from the now-defunct Mechanized Force. Van Voorhis and Chaffee provided leadership continuity by assuming the roles of commander and executive officer, respectively, in the new mechanized unit. Since tanks could not be assigned to cavalry organizations without violating the National Defense Act of 1920, legal conformance was obtained by redesignating all such vehicles as combat cars.[16]

Camp Knox, Kentucky, became the new headquarters of the mechanized cavalry. Centrally located, it possessed easy access via road and rail transport. Encompassing 33,000 acres, the installation constituted one of the largest in the country, possessing firing ranges, ample maneuver space, and varied terrain. Intended as an artillery training center in World War I, the need for such a facility ended with the war, leaving Camp Knox an empty, largely undeveloped installation. It suffered from disuse for much of the 1920s.[17]

The arrival of the entire 1st Cavalry Regiment (Mechanized) in 1933 changed its status — the installation became a permanent post, signified by its renaming as Fort Knox. New construction began to provide garage and training facilities. Initially, limited funding and drainage problems interfered with building, but conscripts from local prisons provided much of the necessary

labor. The 1st Cavalry, however, found little time to settle or focus on its primary function as a mechanized cavalry test bed.[18]

Creating the Civilian Conservation Corps (CCC) and the Army's oversight of this initiative resulted in a major diversion of military assets from training activities. The CCC was a federal program intended to offset unemployment during the Great Depression by providing jobs for males between the ages of 18 and 25 in public works projects such as landscaping, reforestation, and infrastructure development. Army responsibilities included the management and operation of work camps throughout the country.[19] The 1st Cavalry alone became responsible for 144 such camps in Kentucky and its surrounding states. Its soldiers managed the camps, provided logistics support, maintained connecting roads, provided vehicular support, and directed the actions of the work gangs.[20]



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These activities reduced the regiment's readiness and limited training to platoon-size exercises. However, the nature of the CCC work provided invaluable experience in the coordination and operation of dispersed assets. Working far from major road nets and towns required the establishment of communications networks based on radios and couriers. Collectively, the CCC experience instilled an understanding of command, control, communications, and logistics — skills that directly benefited mechanized cavalry development.[21]

Between 1933 and 1939, Fort Knox became a new center of gravity for Army mechanization. In this period, the mechanized cavalry evolved from an experimental force that had little doctrinal guidance to a combat organization that was governed by unique organizational and doctrinal principles, complemented by a revolutionary command and control process. It grew from a single regiment into the 7th Cavalry Brigade (Mechanized) through the addition of the 13th Cavalry Regiment (Mechanized), the attachment of the 68th Field Artillery Regiment, and the expansion of the brigade headquarters. The brigade constituted the only combined-arms unit in the Army. In addition to mechanized cavalry development, its responsibilities also included the integration of fire support techniques and mechanized operations.[22]

In the 1930s, cavalry missions included reconnaissance, attack, defend, delay, pursuit, exploitation, security, and the conduct of raids.[23] To perform all of these activities and transition among them, the mechanized cavalry required organizational flexibility. Little guidance, however, existed for the design of a vehicle-based force to perform this mission set. The Army traditionally favored rigid organizations separated by tactical function. Similarly, Cavalry School guidance included the cautionary note: "Aside from an armored car troop, the cavalry service has not had experience in the development of mechanization in our army."[24]

The mechanized cavalry developed a concept of operations from horse cavalry doctrine, which directed mounted units to operate in small groups, dispersed over a broad frontage. This dispersion ensured survival on a battlefield dominated by artillery, machine guns, and aircraft. In the mechanized cavalry regiment, replacing horses with vehicles increased the extent of this dispersion. Moreover, the principal combat power of the mechanized cavalry regiment lay in its combat cars. Scattering them across the battlespace in small numbers increased their vulnerability. Therefore, each group of combat cars received a small attachment of cavalry troopers and mortars, transported in scout cars. The mortars provided fire support, while the troopers provided force protection for the combat cars and secured objectives once taken.[25]

In effect, the mechanized cavalry regiment intended to operate as a collection of small, combined-arms teams. To facilitate the regiment's breakdown into these tactical groupings, its headquarters included detachable command cells. Once operations

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began, these cells assisted in the direction and coordination of the subordinate teams' activities. They extended the regimental commander's span of control, served as information conduits, and helped sustain operational tempo.[26]

The unique nature of the headquarters organization, however, did not resolve all of the command challenges posed by multiple fast-moving teams, moving independently toward separate objectives. Effective command and control required a reliable communications network that could rapidly transmit information and operate over long distances. The mechanized cavalry sought a solution through innovative application of the most advanced information technology of the day — the radio.

In the 1930s, the Army considered the radio too prone to jamming and interception to be of much value on the battlefield. Mandatory security measures further eroded the radio's utility by slowing the rate of information transfer and encouraging greater reliance on wire and couriers. At Fort Knox, the mechanized cavalry sought a high operational tempo that permitted actions inside the enemy's decision cycle. It could not do so with a rate of advance tied to the speed of laying wire. Therefore, it dispensed with Army security requirements and embraced short, cryptic messages transmitted in the clear to accelerate information transfer.[27]

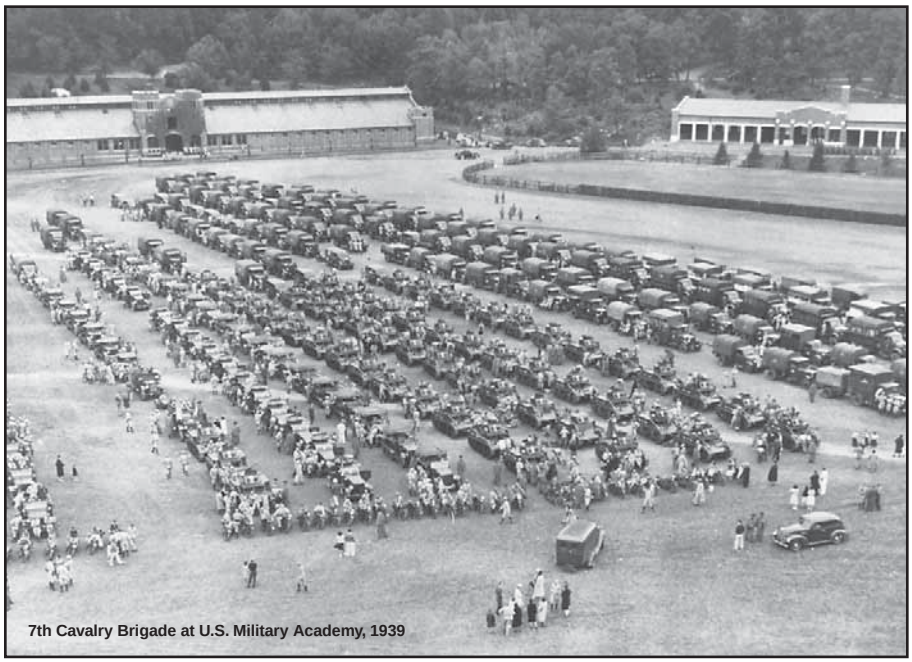
The mechanized cavalry intended to offset the danger posed by intercepted message traffic through a faster pace of operations enabled by unfettered radio use. It also sought to reduce the quantity of information subject to interception. Before each operation began, team leaders were briefed on their mission and its relation to the regimental objective. Subsequent radio communications focused on mission changes and situation updates. Even if intercepted, the fragmentary nature of such messages complicated efforts by enemy intelligence to comprehend their significance without the context provided by the pre-mission briefing.[28]

Radio nets constituted the foundation of the regiment's communications architecture. Each net was associated with a particular frequency and tactical function. The flow of information was controlled and monitored to ensure critical information reached the appropriate command and to prevent subordinate commanders from being overloaded with extraneous information. The net configuration also accommodated changes in tactical teams and regimental attachments. This adaptability paralleled the unit's organizational flexibility.[29]

The battle command techniques and communications structure developed by the mechanized cavalry at Fort Knox proved revolutionary. The effort to maximize the radio's communications value led to the emergence of mission-type and fragmentary orders. When combined with radio communications, this command style accelerated tactical decisionmaking and made possible the decentralized control of multiple fast-moving columns without sacrificing operational tempo. This development marked a revolution in command and control that would not become widespread in the Army until World War II. A similar result — albeit on a larger and more sophisticated level — inspired the Army's Force XXI initiative of the 1990s and more recent development of a common operational picture and net-centric operations.

The revolutionary principles established by the 7th Cavalry Brigade (Mechanized) at Fort Knox were tested and applied during maneuvers and field exercises in the 1930s. These events demonstrated the mechanized cavalry's ability to respond rapidly to tactical developments. Aggressive reconnaissance and extensive radio use helped commanders identify enemy positions and maneuver to either eliminate or bypass the positions. During First Army maneuvers in August 1939, the 7th Cavalry Brigade (Mechanized) enveloped the opposing force before overrunning its rear area elements. It decisively impacted operations, disrupted resistance to friendly forces, and lay poised for further action when the maneuvers ended.[30]

Army leaders remained skeptical of the mechanized cavalry's ability to achieve similar success in an actual combat environment. The German invasion of Poland within days of the maneuvers' conclusion did much to end this uncertainty. On a much larger scale, combined arms panzer divisions and corps applied tactics similar to those demonstrated by the mechanized cavalry to conquer a nation in four weeks.



7th Cavalry Brigade at U.S. Military Academy, 1939

"Radio nets constituted the foundation of the regiment's communications architecture. Each net was associated with a particular frequency and tactical function. The flow of information was controlled and monitored to ensure critical information reached the appropriate command and to prevent subordinate commanders from being overloaded with extraneous information."

German operations validated the concepts developed at Fort Knox and fueled interest in a mechanized division. In May 1940, the Army conducted Third Army maneuvers in Louisiana. Participants included the 7th Cavalry Brigade (Mechanized) and nearly every tank unit in the Regular Army's inventory. Operations sought to determine the viability of creating mechanized divisions in the field on an as-needed basis. The maneuvers, however, demonstrated the need to create permanent formations whose components routinely trained together. The maneuver experience also generated a consensus to consolidate mechanized development.[31]

Abroad, the Germans invaded France and forced its surrender in a six-week campaign. Once again, panzer divisions and corps spearheaded the German success. In response to the Third Army maneuvers and France's defeat, the U.S. Army established the Armored Force on 10 July 1940. The new organization became responsible for crafting an American equivalent

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to the panzer division and developing related training programs, doctrine, and materiel. It replaced the separate development efforts of the infantry tank force and the mechanized cavalry. The 7th Cavalry Brigade (Mechanized) and active infantry tank units were reorganized into the 1st and 2d Armored Divisions and the 70th Tank Battalion. Considered a service test, the Armored Force possessed the status of an experimental organization rather than a permanently constituted branch of service.[32]

Fort Knox became the headquarters location for the Armored Force, underscoring the post's association with mechanized development. The post's selection also symbolized an acceptance of the principles of mounted operations developed in the preceding decade by the mechanized cavalry. In fact, planning for the new organization anticipated the leading influence to be played by mechanized cavalry ideas and leadership. This linkage became more pronounced with the appointment of Major General Adna R. Chaffee Jr. as the first chief of the Armored Force. He had been closely associated with mechanized development since the days of the Experimental Mechanized Force and subsequently rose to command the 7th Cavalry Brigade (Mechanized).[33]

Initially, fielding new formations dominated the focus of the Armored Force. Fourteen armored divisions activated between July 1940 and November 1942, followed by two more in 1943.[34] This large-scale expansion mandated the rapid generation of training programs, doctrine, and training facilities. Large-scale construction and expansion occurred at Fort Knox, as the post worked to accommodate not only the newly stationed 1st Armored Division, but also I Armored Corps Headquarters, the Armored Force School, the Armored Force Replacement Training Center, and the Armored Force Board.[35]

The armored division incorporated the organizational flexibility of the mechanized cavalry regiment on a larger scale. It functioned as a collection of combined-arms teams, or task forces. Each task force included a mix of tanks, infantry, reconnaissance, and artillery. Several task forces operated under the control of a combat command, a headquarters that reported directly to the division commander, who assigned divisional assets to each combat command, based on the division's mission. The combat command then fashioned task forces from assets provided. Hence, the division dispensed with the traditional, rigid brigade and regimental command structure.[36]

The combat commands provided the means to track multiple fast-moving task forces that could react quickly to tactical developments. In general terms, the armored division had evolved into a collection of combined-arms teams that continuously redistributed its resources to capitalize on task force success. It also leveraged the command techniques and radio reliance pioneered by the 7th Cavalry Brigade (Mechanized).

A strong link emerged between the new armored divisions and Fort Knox. All armored doctrine, training guidance, personnel appointments, materiel requirements, and tables of organization and equipment emanated from the post. New soldiers and replacements also trained at Fort Knox before joining their units. Through its central influence, the Armored Force sought to ensure uniformity in training, doctrine, and adherence to common standards. The direct influence of Fort Knox on armored organizations diminished during World War II, especially after their deployment overseas. However, the Armored Force School remained a nexus for the dissemination of doctrinal updates and combat lessons pertinent to mounted operations.

The Armored Force also inherited responsibility for infantry support, a role previously borne by the infantry. Separate tank battalions, beginning with the 70th Tank Battalion and later incorporating National Guard armored units, were assigned to a general headquarters pool for temporary attachment to infantry

divisions as needed. While the armored divisions were expected to wield a decisive influence through independent operations, the separate tank battalions were intended to operate closely with rifle units.

Separate tank battalion development, however, suffered from several problems. From 1940 to 1942, lack of attention constituted the most pressing issue. In this period, the Armored Force focused its energies on fielding armored divisions, largely to the exclusion of the separate battalions, which lacked uniform doctrine, materiel, and training standards. Worse, the tank battalions initially retained their prewar organization with its absence of reconnaissance and support elements. After observing several tank battalions during maneuvers, one armored officer came to the realization that "the G.H.Q. tank battalions without reconnaissance, fire support, and adequate radios are nothing more than a herd of elephants, and blind at that!"[37]

Major General Jacob L. Devers, who succeeded Chaffee as chief of the Armored Force, acknowledged this problem, noting "the tank battalions are now in the category of lost children and we must take prompt action to bring them into the fold and be in closer touch with their needs and problems." Subsequent improvements included reorganizing separate tank battalions to make them identical to armor battalions in armored divisions, including the provision of reconnaissance assets. A new field manual issued in 1943 also provided more effective guidance for separate tank battalion operations and doctrinally aligned them with other armored operations.[38]

Conversely, mounted reconnaissance remained outside the scope of Armored Force responsibilities. Instead, it developed separately under the guidance of the Cavalry School at Fort Riley, Kansas. There, light mechanized squadrons were organized to acquire battlefield intelligence. They were not intended to perform the full range of cavalry functions and did not possess the organic means to do so. Embedded as divisional reconnaissance assets or employed separately under a group headquarters, these organizations found few opportunities during World War II to conduct purely reconnaissance missions. Instead, they found themselves engaged in a broad range of roles for which they were not configured to perform. Consequently, postwar analysis emphasized the importance of crafting reconnaissance units equipped to fight for information and imbued with the same combined arms principles found in the armored divisions.[39]

The armored cavalry regiment reflected these concepts. In the late 1940s, the onset of the Cold War generated a need for additional combat organizations to defend central Europe against a possible Warsaw Pact invasion. Those units performing stability operations in occupied Germany were reconfigured into the first armored cavalry regiments. These new units included considerable combat power. Their concept of operations embraced combined-arms principles; mobile dispersed operations; robust electronic communications; and a diverse mission set. In essence, they constituted a return to the general purpose combat unit represented by the 7th Cavalry Brigade (Mechanized) at Fort Knox in the 1930s.[40]

The aftermath of World War II led to reconsideration of the future course of armored development within the Army. The wartime contributions of armored divisions, mechanized reconnaissance, and separate tank battalions warranted their retention, but the Armored Force possessed no legal status and no longer existed by war's end.[41] The question of a permanent mounted branch became part of a broader discussion between Congress and the Army concerning the structure of the postwar army. Resolution occurred through passage of the Army Organization Act of 1950.[42] This act provided the legal foundation for a single branch that consolidated armored and cavalry development. The Armor Branch resulted and was responsible for the doctrine, materiel, training, and organization of mounted maneuver units other than mechanized infantry. The central role played by Fort Knox in mechanized development since 1931 found acknowledgement in the selection of the post as the headquarters of the new branch.

Cold War developments continued to reflect the shaping influence of the 7th Cavalry Brigade (Mechanized) and the wartime experience of the armored divisions. The flexible organization, battle command techniques, maneuver emphasis, and high operational tempo remained fundamental characteristics of mounted maneuver units. Even in today's operational environment, these qualities are readily discernible. The Army's transition to a modular combat team structure, for example, parallels the general principles embedded in the combat command structure of the World War II armored divisions.

However, the Armor Branch that emerged in 1950 also reflected the experiences of the separate tank battalions intended for infantry support. The battlefields of World War II demonstrated the need for close armor support of the rifleman at the small-unit level. More recently, the importance of tank-infantry operations at company level and below has been demonstrated in Operation Iraqi Freedom. Tactical coordination problems experienced between separate tank battalions and infantry formations in World War II resulted in the permanent assignment of tank units to postwar infantry divisions.[43]

Infantry influences on armored development also became manifest in other areas. In the years prior to World War II, the infantry consistently sought greater tank firepower in contrast to the mechanized cavalry, which feared a degradation of platform maneuverability and mobility. After the war, American main battle tank designs consistently favored a more powerful main armament and increased armor protection. Similarly, Major General George A. Lynch, chief of infantry from 1937 to 1941, associated the tank with antitank operations. His view was rejected at the time by senior leaders, who considered tank-versus-tank combat an exceptional occurrence. Wartime experiences, however, validated the need for using tanks in an antitank role, and postwar doctrine embraced the tank as the best antitank weapon available to the Army.[44]

However, Fort Knox remained at the center of armored development, where the Armor Center and School shaped the doctrine, organization, training, and leadership of the mounted branch. Even after initial training, all armored soldiers tended to return to the post for either further training or as part of a duty assignment. Armored materiel also reflected the study and analysis of battlefield needs conducted by combat developers at Fort Knox. The Abrams tank, for example, originated as a concept and set of requirements determined by the Main Battle Tank Task Force, a special team assembled on post for this purpose in 1972.[45]

Today, it is hard to disassociate Fort Knox with armored development. Since 1931, the post has been in the forefront of mounted maneuver, developing ideas and principles of operations now embedded in Armor doctrine and training programs. The roots and heritage of the branch lie at Fort Knox. From the earliest days of the 1st Cavalry Regiment (Mechanized) to the current global war on terror and the design of the Future Combat Systems, activities on the post have shaped the Nation's armored warfare capability. Hence, the current realignment of the Armor Center and School to Fort Benning constitutes a new chapter in armor's development. It does not represent a return to the branch's roots — those lie at Fort Knox, where the Thunderbolt was first forged.

Notes

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[33]Memo from the Adjutant General, AG 320.2 (7-5-40) M (Ret) M-C, "Organization of Armored Force," 10 July 1940; letter from Lieutenant Colonel Willis D. Crittenberger to Major General Daniel Van Voorhis, 20 June 1940, MHI Archives, Willis D. Crittenberger Papers, Box: "Correspondence 1939-1941."

[34]Historical Section, "Armored Force Command and Center," pp. 144-146.

[35]Letter from Lieutenant Colonel Willis D. Crittenberger to Lieutenant General Daniel Van Voorhis, MHI Archives, Willis D. Crittenberger Papers, Box: "Correspondence: 1939-1941," 2 December 1940, pp. 2-3; Historical Section, "The Armored Force Command and Center," p. 11; Lucian K. Truscott Jr., *The Twilight of the U.S. Cavalry: Life in the Old Army, 1917-1942*, University Press of Kansas, Lawrence, KS, 1989, pp. 160-161.

[36]Major General Willis D. Crittenberger, "Unit Commanders' Meeting," MHI Archives, Willis D. Crittenberger Papers, Box: "WWII 2nd Armored Division 1942," 11 April 1942, p. 2; Brigadier General William M. Grimes, "Notes on Combat Team Organization-Technique," MHI Archives, Thomas J. Camp Papers, Box No. 2, undated, pp. 2-6; "Armored Troops in the Exploitation of a Break-through," MHI Archives, Willis D. Crittenberger Papers, Box: "WWII 2nd Armored Division 1942," 4 June 1942, pp. 1-2, and 6; personal notebook of Lieutenant General Jacob L. Devers, "Organization of the Present Armored Division," York County Historical Society, Jacob L. Devers Papers, Box 7, 2 November 1942; letter from Major General Robert W. Grow to Colonel Barrows, MHI Archives, Robert W. Grow Papers, 12 September 1945, p. 2; Historical Section, "The Armored Force Command and Center," pp. 29-35.

[37]Letter from Brigadier General Willis D. Crittenberger to Lieutenant General Daniel Van Voorhis, MHI Archives, Willis D. Crittenberger Papers, Box: "Correspondence 1939-1941, 16 July 1941."

[38]Historical Section, "The Armored Force Command and Center," pp. 44-47, quote from p. 46.

[39]United States Forces, European Theater, "The General Board, Study No. 49: Tactics, Employment, Technique, Organization, and Equipment of Mechanized Cavalry Units," 1945.

[40]Colonel Charles H. Reed, "Armored Cavalry Light: Its Organization as Derived From Missions," *Armored Cavalry Journal*, LVIII, January-February 1949, pp. 12-17, 35; Mary Lee Stubbs and Stanley Russell Connor, *Army Lineage Series: Armor-Cavalry: Part I: Regular Army and Army Reserve*, Office of the Chief of Military History, Washington, D.C, 1969, p. 76.

[41]The Armored Force underwent several changes during the course of the war that reduced its independence within the Army command structure. In July 1943, the Armored Force became the Armored Command, followed in February 1944 by downsizing and redesignation as the Armored Center. The end of the war resulted in the inactivation of the Armored Center for several months until its reactivation in November 1946.

[42]Stubbs and Connor, p. 75.

[43]John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades*, Center of Military History, Washington, D.C., pp. 225-227.

[44]Memorandum from Chief of Infantry Major General George A. Lynch to the Assistant Chief of Staff, G3, "Antitank Doctrine and Development," NARA, Record Group 337, Entry 57, Headquarters, Army Ground Forces, General Headquarters, 470.8, File 201, 3 July 1940.

[45]Lieutenant Colonel (Retired) Teddy H. Sanford Jr. and Lieutenant Colonel (Retired) Burton S. Boudinot, "Major Tank Developments 1960-2004," *Armor Magazine*, November-December 2004, p. 39.

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Operation Baton Rouge:
Perspectives from an Iraqi Security Forces Advisor

by John DeRosa

"A combat advisor influences his ally by force of personal example. You coach, you teach, and you accompany in action. Finally, an advisor provides the connection and expertise to bring to bear fires, service support, and other combat multipliers. All accolades go to the leader you support."[1]

In the dawning of October 2004, 2d Brigade Combat Team (2BCT), 1st Infantry Division, led a group of approximately 5,000 soldiers, comprised of 3,000 Americans and 2,000 Iraqis, on a major offensive against insurgents in Samarra, Iraq. The mission of Operation Baton Rouge was "to kill or capture anti-Iraqi forces (AIF) and return the city to competent civilian control."[2] Intelligence suggested that the AIF numbered 200 to 500 and was made up of local Baathists and former military officers fighting for the return of a Sunni-dominated government. The rest were foreign "jihadis" and hardcore Iraqi Islamists, heeding the call of terrorist leaders such as Abu Mousab al-Zarqawi.

The coalition forces' offensive operations lasted three days and concluded on 4 October. Operation Baton Rouge was touted as a resounding coalition success. During the three days, "over 125 AIF were killed, 60 wounded, and 128 detained."[3]

This article focuses on the challenges of a very specific group of 1st Infantry Division soldiers, who were serving as Iraqi Security Force (ISF) advisors during the search and attack phase (phase three) of Operation Baton Rouge. Introducing ISF into the operation increased the size of the attacking/stabilizing force to prevent a power vacuum and demonstrate a credible ISF.[4] Especially significant was the integration of the 1st Ministry of Interior (MOI) Special Police Commando Battalion (commandos), which proved to be a successful Iraqi solution to the Samarra problem.

Initial Planning

A key component of Operation Baton Rouge was introducing ISF into the city to enable civilian control of a deteriorated security environment. Initial plans for Baton Rouge called for implementing the "police-in-a-box" concept, which was based on police substations built in transportable shipping containers (with ancillary equipment of weapons and radios) complemented with newly trained Iraqi police officers. Each task force element was to clear their sector of AIF and establish control. During phase four (stabilizing), task force ISF advisors would escort police-in-a-box elements from nearby staging areas to conduct a link-up and establish Iraqi-led policing operations.

Our task force mission analysis of phase four assigned our civilian international police advisors (IPA) to each of the task force's company teams to be liaisons to the Iraqi Police Service (IPS). Our task force operations cell coordinated the ISF efforts for the task force commander.

The IPAs were American police officers contracted by the U.S. State Department, strategically placed across Iraq to oversee the training and mentoring of the IPS. Overall, they were well-intentioned Americans looking to shoulder some of the burden in reconstructing Iraq. Despite some small-scale successes, they appear to have been recruited for a U.S. interagency solution rather than job competency — they had no area expertise and little or no knowledge of Iraqi security and police force missions. Most IPAs migrated from recent service under the United Nations' mission in Kosovo. Generally, the IPAs struggled with conflicting priorities, a lack of integrated communications, and nonstandard equipment.

Our contingent of ISF advisors and IPAs arrived prior to our task force line of departure at Forward Operating Base (FOB) Brassfield-Mora to stage and link up with IPS counterparts.[5] We were advised by the lead ISF advisor from another task force that phase four was still being ironed out at brigade headquarters. Lack of contact with the brigade S5/ISF cell prevented us from gaining insight into the developing plan. Contact with our task force (which was located south of Samarra) went through Force XXI battle command brigade and below (FBCB2) to our attacking elements, or bounced via mobile subscriber equipment back to our location at FOB Paliwoda then via FM radio to the task force because of urban communications limitations, which added another layer of friction.

Unfortunately, "Murphy" decided to show up and assist the planning cell for phase-four development. That evening, we discovered what was holding up phase-four planning — coalition forces had not yet secured compliance with the Iraqi Ministry of Interior. There would be no IPS available to implement the police-in-a-box concept. The newly independent Iraqi bureaucracy would allot ISF to the division only days prior to execution. Due to the delayed introduction to the fight, commandos from the Special Police Commando Battalion became more of an exploitation-versus-policing force.

Negotiations between commander, 2d BCT; commander, Task Force (TF) 1st Battalion, 14th (1-14) Infantry; the Salah Ad Din Deputy Governor; and the commandos' commanding general and battalion commander, ended with an agreement that the commandos would work with autonomy in cooperation with TF 1-14 Infantry. See Figure 1 for task organization. They would enter operations during phase three (search and attack), conduct raids, snatch and grabs, and deliberate clearance of zones in the city. The commandos would follow TF 1-14 Infantry after they crossed the Tigris River Bridge west of Samarra and completed a forward passage of lines (FPOL) with TF 1st Battalion, 26th (1-26) Infantry, then conduct cordon and search operations to the south in vicinity of Objective Pierce, see Figure 2.

The Commandos

Together only a few weeks, the commandos moved to support Operation Baton Rouge with only 48-hours notice. The commandos were focused on urban raid operations and counterterrorist missions against hijackers and kidnappers. A rough, paramilitary looking unit, their uniforms consisted of a woodland camouflage pattern with black leather gloves, jackets, and balaclavas. They used American-supplied pickups with camouflage paint and machine guns mounted in a "field expedient" fashion.

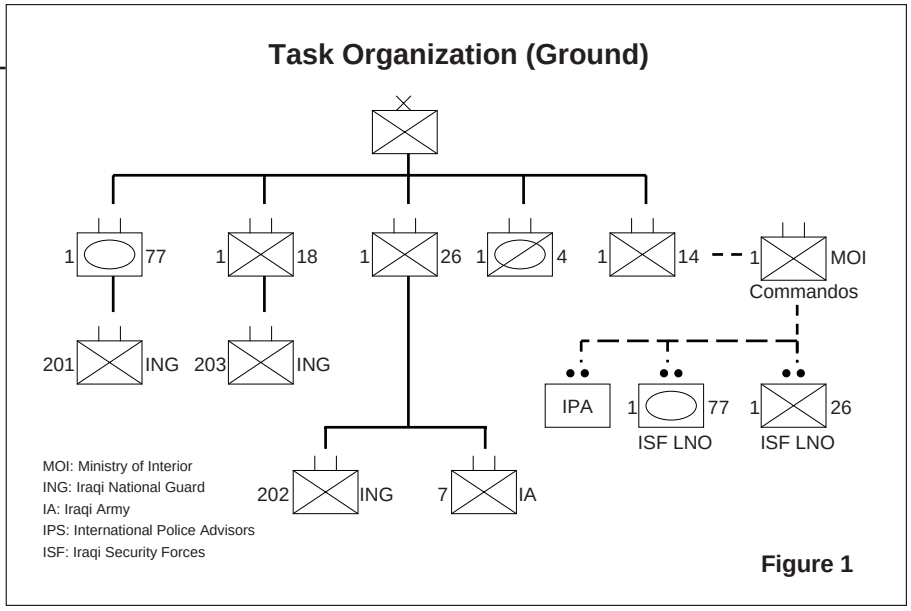

Figure 1

> *"From this regiment we have police who have previous experience fighting terrorism and also people who received special training under the former regime — people who used to be in the army."*
>
> — Police Commando Commanding General MG Adon Thabit[6]

The commandos would be effective in Samarra because of their predominantly Sunni background. Sunnis historically were in high-security roles under Saddam Hussein and therefore the most experienced. They have deep family ties with the Sunni Triangle and relied on those ties as an ad hoc intelligence network. They were very skilled in identifying civilians who represented a threat.

Mission and Link-up

A contingent of Task Force Steel Tigers, Blue Spaders ISF advisors, and IPAs would coordinate between the commandos and higher/adjacent units, overseeing movement and resolving coalition force/ISF issues. We would drive out im-

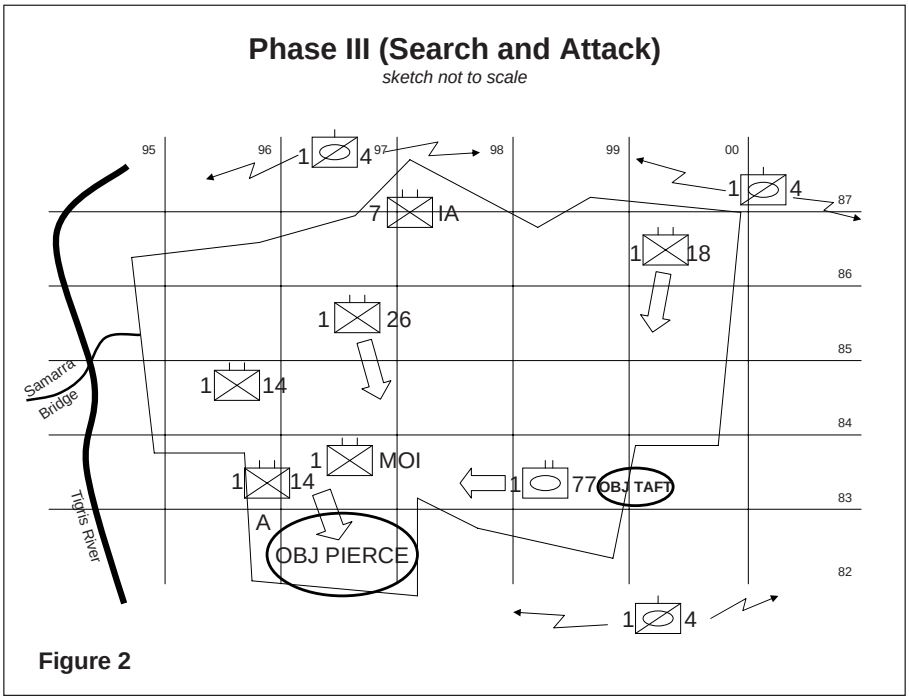

Figure 2

"Our contingent of ISF advisors and IPAs arrived prior to our task force line of departure at Forward Operating Base (FOB) Brassfield-Mora to stage and link up with IPS counterparts. We were advised by the lead ISF advisor from another task force that phase four was still being ironed out at brigade headquarters. Lack of contact with the brigade S5/ISF cell prevented us from gaining insight into the developing plan."

mediately to link-up with the commandos who were staged at a nearby annex of FOB Brassfield-Mora. On arrival at the FOB, we quickly broke into teams to work with the commandos.

We went about preparing for combat and integrated with our assigned company leaders. Our first priority was to find English-speaking commandos. Out of our team of six, now split between three companies, we had only one translator, a senior lieutenant who spoke broken English and had a common understanding of military phrases from training with U.S. Special Forces.

As with all Iraqi paramilitary types, there is always a lack of equipment, which makes "*areed*," which loosely translates to "I need," the most important Arabic word to learn. In working with the ISF, I let them present their dissertation on how *areed* would solve their problems; my mission was to give them what I had and get them to execute, adapt, and overcome.

The next morning, the commandos made a huge convoy — the likely target of an ambush — and departed the moonscape of the FOB en route to Patrol Base Razor to begin the FPOL into Samarra. We staged at the patrol base for what seemed like an eternity. Each commando company seemed to know exactly where we were going and sped off into the city. As I suspected, the convoy attracted contact as we entered the city. Again, we sweated out another eternity on the bridge entering Samarra waiting for the lead elements to sort out actions on contact.

Soon after, we arrived at our chosen assault position. Unfortunately for the children of Samarra, a local school was chosen. It had a large courtyard for staging vehicles, a completely walled compound that proved to be relative protection from small-arms fire, and a rooftop view of the sector. Our defensive positions overlooked a cemetery leading to a jumbled mess of a casino, hotels, and apartment buildings. Traffic from the adjacent units was relatively regular.

> *Do not try to do too much with your own hands. Better the Arabs do it tolerably than that you do it perfectly. It is their war, and you are to help them, not to win it for them. Actually, also, under the very odd conditions of Arabia, your practical work will not be as good as, perhaps, you think it is.*[7]
>
> — T.E. Lawrence

Establishing security is the only area I found conflict with T.E. Lawrence's advice to "*let them do it*." An IPA on loan from his regional headquarters did not like our stern interaction with the commandos. It seems the established priorities of work (establish security; and nothing else happens until security is established) is in contrast to the IPAs "diplomatic agenda." We were in the middle of a firefight and he was still trying to establish bonds with his company. Diplomatic cigarette breaks were getting in the way of completing the mission. Since our positions were not as commanders, we struggled to lead by "force of example." After much coaching and refinement, security was established.

With security finally established, the companies broke to establish patrols and traffic control points in their assigned sectors. Our company closed ranks to fill in the gaps left by the patrolling company. We shared our night-observation devices with the commando snipers. In a play on "diplomacy," we asked to see one of the friendlier sniper's Dragonov. As we passed off this as show and tell, we used the scope to clear his fields of fire.

Patrols

The traffic around our assault position attracted the insurgents' attention. An improvised explosive device (IED) erupted about 200 meters from our position in the vicinity of a passing American patrol. The patrol spotted our rooftop security positions and reacted to what it believed to be the point of origin and peppered our position with machine gun fire. What follows is not a recommended example of how to conduct military operations in urban terrain (MOUT).

We could not raise the patrol because we had no way of identifying which unit, let alone patrol element, it was. As our TF 1-26 Infantry counterparts called higher, the patrol halted its firing. Tiger 37 moved to the schoolhouse rooftop to gain a better vantage point, and our unit left the sanctuary of the schoolhouse walls to establish recognition as a coalition forces position. With Tiger 37 on the roof and our unit at the entrance, we waited. The patrol's turrets swiveled north and away, and after what seemed like another eternity passed, they resumed their patrol. Either higher headquarters got the call or the patrol unit realized we were U.S. soldiers.

Over the course of the night, AIF probed our schoolhouse assault position. A commando patrol was sent to follow the egress route of the AIF. The commando patrol followed the AIF through a cemetery and up to a hotel, which turned out to be an AIF hideout. The commandos captured the AIF by surprise and rounded up 25 members; based on their obvious physical characteristics, they were foreign fighters. The commandos pointed out the non-Iraqi Arabs, but the African-born fighters were easy to recognize. It was such a big haul that Patrol Base Razor sent a patrol of five-ton trucks to conduct a detainee transfer. The commandos received instant credibility for their performance during this operation.

Objective Pierce

After consulting with the TF 1-14 Infantry commander, the commandos were tasked to conduct combined operations with Team Reaper (A Company, 1-14 Infantry) to conduct a cordon and search, referred to as "Objective Pierce," to clear the southwest portion of Samarra, which is located in a heavy industrial area. The automotive garages, ice factories, warehouses, and even a pharmacy were being

exploited by the AIF. The industrial nature made it a prime hiding spot for IED-making caches and workshops.

The cordon was established by a tank platoon to the west, Bradley platoon to the north, and Apache/Kiowa helicopters to the south. The search was conducted from the west-to-east direction in the north with Team Reaper. In the south, my assigned commando company would be the lead element of the commandos. Well versed in urban combat, the commandos executed with fervor. Their snipers quickly secured observation posts on the highest structures to provide overwatch. Often, since they lacked integrated communications, the snipers would reveal themselves for hazard identification and to direct their counterparts to movement. We followed the commando company through our sector dismounted. With the initial sweep not drawing contact with AIF, we maneuvered to the north on-line with Team Reaper. Now, with an attachment of three sappers from the 65th Engineers, we conducted a deliberate clearing of Objective Pierce by going door-to-door/hole-to-hole.

During the clearing mission, the discipline of the commandos broke down — the uneventful initial clearing lulled them out of their game. Security devolved as they were more interested in the breaching, which was being done by the sappers. With the help of my translator, we snaked through our assigned sector. Accustomed to working with American soldiers, even my translator lost his temper, often cursing the commandos into action like a crusty NCO of yesteryear. Once the excitement of the sapper's work wore off, the commandos' focus increased and a rhythm of searching developed. Occasionally, a commando would find a resident still at home/work willing to open doors/gates to allow our searches rather than test our sappers' entry techniques.

The combined clearing mission of Objective Pierce was a distinct element of Baton Rouge. Immediately, the "good news drum" began beating. Commando leaders were quickly paraded in front of *CNN* cameras to tout a successful Iraqi solution to the Samarra problem.

Transition to Phase Four

After we passed the reins of control of Objective Pierce to TF 1-14 Infantry, we regrouped and refitted at the Samarra mayor's office, the makeshift headquarters of the commando senior leaders. Based on their recent successes, coalition force leaders offered the commandos the opportunity to continue operations from their own internal intelligence. These guys were from Samarra; they had a score to settle.

"Together only a few weeks, the commandos moved to support Operation Baton Rouge with only 48-hours notice. The commandos were focused on urban raid operations and counterterrorist missions against hijackers and kidnappers. A rough, paramilitary looking unit, their uniforms consisted of a woodland camouflage pattern with black leather gloves, jackets, and balaclavas."

The following 24 hours was filled with raids/snatch and grabs — each more successful than the previous. One captive, rumored to be involved in one of the al-Zarqawi beheadings, confessed under interrogation.

Since phase four was not conducted in accordance with the original plan, we returned to FOB Brassfield-Mora to link up with a platoon from Task Force 1st Battalion, 77th (1-77) Armor that was resting and refitting for an extended stay in support of TF 1-26. A "doctrinal" FPOL occurred the next day as we rode shotgun with the 1-77 platoon on return to its task force sector. After a brief stay with one of our companies' interim patrol bases, we caught a patrol to the task force trains outside Samarra just in time to start the road march back to FOB Paliwoda.

After-Action Review

Clearly, any lens of history is speckled with the mud of reality; however, in light of the ongoing combined operations between coalition and indigenous security forces (whether in Iraq or Afghanistan), it is important to reflect on Operation Baton Rouge from the ISF advisor perspective:

The delay in task organization complicated "multinational integration." The task forces did not receive the commandos until just hours before execution. Experiences with ISF revealed rehearsals helped better integrate their capabilities into the operation. Moreover, the ad hoc task organization of advisors to ISF complicated operations initially. While the commandos executed with surprising success, we did not fully maximize their capabilities during the initial fight.

The commandos are trained almost exclusively to conduct offensive operations and expect to conduct only these types of operations. The commandos' training program prior to Baton Rouge was primarily focused on raids and sensitive-site exploitation. Establishing a patrol base and conducting traffic control points taxed their relatively small organization (nearly half the size of Iraqi army battalions) during this operation.

Indigenous security forces already possessed valuable intelligence networks. Many of the commandos (notably their commanding general) were displaced from Samarra under the former regime. Their knowledge of local families, criminals, and neighborhoods allowed them to instinctively identify outsiders (specifically foreign fighters and al-Zarqawi's operatives). Much of their exploitation success is directly tied to their home-grown intelligence networks.

ISF lack cultural initiative, specifically as it relates to priorities of work. Reflecting on T.E. Lawrence's advice, decisions are created by committee after lengthy discussions. The commandos would not execute work priorities unless their American counterparts had a significant "influence of personality," or unless they were directed by higher headquarters. A lot of this is accounted for by the slow and deliberate Arab culture — desert life forces a methodical pace on Arab armies. As Army leaders, we relied on our own initiative to direct willing ISF NCOs

to establish work priorities and then have them follow up with impromptu officer professional developments with their company commanders and lieutenants.

A focal point of ISF weak leadership was junior officer leadership (lieutenants). During Saddam's reign, all hints of initiative or charisma were smothered.[8] Our company was "blessed" with a "Mulazim Awal" (first lieutenant) who was respected and well liked (and to my advantage, spoke broken English). His function in the company was much like that of a company executive officer; he helped bridge the gap between the commanders and soldiers. However, the majority of the other "Mulazims" (lieutenants) lacked any initiative to execute or learn.

The commandos displayed a distinctly high level of morale and courage. It would be remiss to disregard the combat performance of these brave men. When line of departure time came, the commandos were all business and they knew their business.

American advisors developed tactics, techniques, and procedures to overcome communications difficulties with the commandos, such as language barriers and incompatible communications. I personally recruited an Iraqi translator from our home FOB knowing that our mission was to liaise with ISF.[9] "Omar," despite his role, displayed immense courage during Baton Rouge. I often had to force myself to remember he was a civilian on the battlefield. At task organization, my first task was to find the best English-speaking commandos and link them up with my IPA counterparts.

Unfortunately, FM crosstalk was nonexistent — the commandos, the IPA, and U.S. soldiers each had separate radio systems. You can imagine the command and control nightmare between the three groups during the cordon and search operation of Objective Pierce. We relied on the tried-and-true "command voice" and hand-and-arm signals to direct operations.

ISF did not own the night. Communications was not the only equipment shortfall in Baton Rouge. In our short task organization with the commandos, we recognized that certain aspects of operations are outside the scope of their equipment. The commandos were not equipped with appropriate night-vision devices to conduct operations during hours of darkness. The commandos relied on instinct and bare knuckles instead of laminated maps with global positioning systems, encrypted radios, and night-vision optics.

Inadequate U.S. interagency coordination. Perhaps an insignificant reflection on Operation Baton Rouge was the lack of formal interagency coordination between U.S. military and supporting civilian agencies, specifically the Department of State-contracted International Police Advisors. Despite the recognized directive that military commanders were the senior U.S. representatives in each sector of Iraq, there was no single place, agency, or force that directed interagency cooperation. Cooperation was based on ad hoc personal relationships. Seams in interagency cooperation were strained as each commando company was split to conduct individual missions. The IPAs seemed more focused on a long-term strategic goal of rebuilding Iraqi police units that leaned more toward "community police patrols." This was in contrast to the 2d BCT commander's intent of using the commandos as a short-term exploitation force in raids and sensitive site exploitation. To their credit, the commandos ceded operational control to U.S. military officers when given direct tasks from higher headquarters.

"The commandos would be effective in Samarra because of their predominantly Sunni background. Sunnis historically were in high-security roles under Saddam Hussein and therefore the most experienced. They have deep family ties with the Sunni Triangle and relied on those ties as an ad hoc intelligence network. They were very skilled in identifying civilians who represented a threat."

Notes

[1]"So you want to be an Advisor," BG Daniel P. Bolger, *Military Review*, March-April 2006, p. 3.

[2]"The Fight for Samarra: Full-Spectrum Operations in Modern Warfare," MG John R.S. Batiste and LTC Paul R. Daniels, *Military Review*, May-June 2005, pp. 13-21.

[3]Ibid.

[4]Ibid., p. 18.

[5]FOB Brassfield-Mora overlooked nearby Samarra and was the home of our sister task force, the Blue Spaders, 1st Battalion, 26th Infantry.

[6]"Iraq Interior Ministry Forms Police Commando Battalions," SGT Jared Zabaldo, *Armed Forces Information Services*: News Articles, 20 October 2004, online at *http://www.defenselink.mil/news/Oct2004*.

[7]"Twenty-seven Articles," T.E. Lawrence, *Arab Bulletin*, 20 August 1917, online at *http://telawrence.net/telawrencenet/contents_lists/years/1917_1918.htm*, pp. 126-133.

[8]Bolger, p. 7.

[9]I had to strong-arm a friendly neighborhood field ordering officer to offer a bonus above his normal salary. I will not name names or positions, in case he is ever audited.

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Evolution of the Knight: Where Armor is Headed

by Major Michael Sullivan

"*The mission of armor is to close with and destroy the enemy by means of fire, maneuver, and shock effect.*"[1]

Armor soldiers fight effectively while dismounted — this is a fact. The old adage of "death before dismount" no longer exits in the armor community. Our soldiers and leaders now train with the latest in dismounted equipment, understand dismounted patrolling tactics, and are well versed in skills formerly associated only with our infantry brethren. Two years after a call for the right equipment, soldiers now deploy with the latest in protective gear, are well trained in advanced optics, and are comfortable with the lethal employment of small arms. These skills must always remain within the armor community. Ensuring our soldiers maintain a lethal edge, both mounted and dismounted, ensures our future success, regardless of the battlespace in which we fight.

Today, our armored warriors perform the role once associated mainly with Special Forces — training the independent army of a sovereign nation. Our military transition teams (MiTT) pave the way for the future success of Iraq and its guarantee of security. Two years ago, the concept of an advisor support team (AST) struggled to survive. The situation even pulled the dreaded observer/controllers away from the relative safety of "god guns" and multiple integrated laser engagement system (MILES) to train Iraqi army battalions. With a highly austere support structure and no training prior to deployment, the early AST worked hard to produce capable and effective battalions.

Today's MiTT members receive nearly two months of training prior to deployment, something the old AST members did not receive. Today's advisor training involves everything from calling for artillery to familiarization with Iraqi weapons systems. The latter (for our AST) occurred in the searing desert heat while trying to decipher a technical manual written in Czech or Russian, accompanied by the occasional indirect attack. Clearly, the training allocated for MiTTs is a direct result of current mission success. Additionally, the importance of culture, echoed nearly a century ago by T.E. Lawrence, is understood by the current crop of advisors. Lawrence immersed himself in the Arab culture during the desert fighting of World War I. His writings and "The 27 Articles of T.E. Lawrence," provide invaluable guidance to future MiTT members regarding Arab culture and the advisor's role. Some pertinent examples for today's advisor include: "Go easy for the first few weeks. A bad start is difficult to atone for, and the Arabs form their judgments on externals that we ignore. Never give orders to anyone at all, and reserve your directions or advice for the CO, however great the temptation (for efficiency's sake) of dealing with his underlings. Your place is advisory, and your advice is due to the commander alone. Win and keep the confidence of your leader. Strengthen his prestige at your expense before others when you can. Never refuse or quash schemes he may put forward, but ensure that they are put forward in the first instance privately to you."[2]

Perhaps, as a necessity of the expanded Global War on Terrorism (GWOT), armor

soldiers traditionally did not serve as advisors. As part of this current operating environment, the armor community must capture lessons learned by advisors and continue to improve on the early training needed to bring forth success for future battalions.

Starting with U.S. involvement in Bosnia, armored soldiers consistently excel in what Retired General Krulak termed, "The Three-Block War."[3] Our soldiers today understand the complex battlefield. Many of our junior officers are well versed in combat operations, peacekeeping operations, and humanitarian assistance operations — sometimes all within a 24-hour period. Again, the armor community must capture these lessons learned for future operations, where the three-block war is the norm, not the exception, as many of us once thought.

"Today, our armored warriors perform the role once associated mainly with Special Forces — training the independent army of a sovereign nation. Our military transition teams (MiTT) pave the way for the future success of Iraq and its guarantee of security. Two years ago, the concept of an advisor support team struggled to survive."

The current fight in Iraq will not last forever. While the "Long War" on Islamic extremism may last for decades, other threats with conventional forces still exist and continue to develop. Thomas Friedman, "The First Law of Petropolitics," claims as oil prices continue to rise, the amount of democratic practices in nations with questionable governments declines proportionally.[4] Higher oil prices provide more free capital for countries to pour into military armaments and new weapons systems. The day of the tank is no where near over — it is simply expanding its realm.

Today's armor leaders must look back to doctrine, especially doctrine related to fighting and sustaining the mounted force. Not too many of today's junior officers have experienced logistics, refueling, rearming, and operations that do not involve a forward operating base. When was the last time a combat training center witnessed a battalion breaching operation against prepared defenses? How much platoon training focuses on maneuvering four Abrams tanks across open terrain? Do any tank commanders remember the days of fighting through the defile drill? These vital skills must not disappear from the armored force's playbook. Although training skills needed to win the current fight are vitally important, so are the basic blocking and tackling of armored forces — tanking.

Leaders must continue to integrate mounted operations as part of a training plan while integrating lessons learned from today's complex battlefield. Failure to maintain the bread and butter of our armored forces today may lead to a shocking wakeup call at the hands of another armored force in the future. Our forces are the best today thanks to training, doctrine, and lessons learned. Let us not forget pre-GWOT lessons while fighting the current war — the days of "gunner-sabot-tank" are not gone, merely on hold.

Training management is the next important task that the armor community must continue to maintain. Since the start of the GWOT, funding, equipment, training facilities, and repair parts seem nearly limitless. As the war continues to strain our economy and budget, those days shall end. What some of my peers call "GWOT-FORGEN" or "IRAQ-FORGEN" (instead of ARFORGEN) continues to drive training. Getting your unit reset, retrained, and ready for the next Iraqi Freedom deployment limits both the amount and types of training conducted. Many of today's young officers are not familiar with training management techniques of the pre-GWOT army. The science and art of training management must not escape our consciousness. The days of "IRAQ-FORGEN" driving every aspect of a training cycle are numbered, and not soon enough for many of us. As the U.S. Army Training and Doctrine Command (TRADOC) prepares a rewrite of U.S. Army Field Manual (FM) 7-0, keep the basic training principles in mind.[5] Forecasting ammunition, land, and facilities in the days of a tightly controlled budget slowly creeps back into the force. Techniques and procedures learned on the battlefields of Iraq and Afghanistan, while important to today's current fight, may not apply on every future battlefield.

Today's armored warrior receives better training and is far more combat seasoned than his many preceding generations. We must continue to expand on and share lessons learned on the battlefields of the GWOT. Integrating these lessons with traditional mounted maneuver training ensures an armored force ready for any threat on the battlefield, whether symmetric or asymmetric. Our enemies are thinking enemies; they too take away key lessons from our successes on the current battlefield. To ensure our continued lethality and dominance on the battlefield of tomorrow, today's armored warriors must remember the basics of armored warfare while incorporating the valuable lessons of the past four years of combat.

Notes

[1]U.S. Army Field Manual, (FM)) *Tank Platoon*, U.S. Government Printing Office (GPO), Washington, D.C., 3 April 1996.

[2]T.E. Lawrence, "The 27 Articles of T.E. Lawrence," *The Arab Bulletin*, 20 August 1917.

[3]Charles C. Krulak. "The Strategic Corporal: Leadership in the Three Block War." *Leatherneck*, 31 January 1999, pp. 14-17.

[4]Thomas L. Friedman, "The First Law of Petropolitics: Why the price of oil and the pace of freedom always move in opposite directions," *Foreign Policy*, May/June 2006, pp. 28-36.

[5]FM 7-0, *Training the Force*, GPO, Washington, D.C., 22 October 2002.

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Between Doctrine

by Lieutenant Colonel Darrell D. Darnbush

When did tactics, techniques, and procedures (TTP) become the default "doctrine?" Doctrine may be our tactical compass, but the course of combat operations is not a straight line. During Operation Iraqi Freedom (OIF) 3, the manner in which the 278th Armored Cavalry Regiment (ACR) planned, prepared, assessed, and sustained combat operations on a nonlinear battlefield was not to be found in previous doctrinal templates — a paradigm shift had occurred.

Background

When the 278th ACR received its alert notification on 1 March 2004, to conduct combat operations in support of OIF 3, we were confident of our basic skills as lethal cavalry troops. We looked forward to conducting traditional cavalry operations such as screen, guard, or cover. We spent the previous four years (two years active duty time) conducting operations to support our ACR mission essential task list (METL). However, when instructed to reorganize as a brigade combat team, we reached deep into our cavalry doctrine, and with tongue in cheek, discovered mounted infantry doctrine to find our place in life. Our cavalry world and ego was turned upside down. Fortunately, a tank was still a tank, an M109A6 was still a Paladin, and a .50-caliber machine gun was still a .50-caliber machine gun.

To compound matters, we were on at least three different courses of action for task organization, to include being attached to a Marine division. During the first three months of our alert phase at home station, we developed a generic METL, based on lessons learned from the 101st Airborne Division. In late June 2004, it became official that we would be part of the 42d Infantry Division — at least until we got in theater. We made modifications to our METL and battle tasks to support the 42d Infantry Division's METL, which was approved by 1st Army.

Our post-mobilization training tasks were generic and developed on the requirements of Forces Command (FORSCOM) and Coalition Forces Land Component Command (CFLCC), which did not take into account our premobilization training and experience. It was an upside-down approach to METL analysis — we had only one of the five primary METL inputs until we were en route to the National Training Center (NTC) for our mission rehearsal exercise. Perhaps this is why the Army published U.S. Army Field Manual (FM) 7-15, *Army Universal Task List*.[1] We were given individual, platoon, and company tasks, and it was the regiment's responsibility to develop a METL for future combat operations. These platoon- and company-level tasks became the "how" of our new METL.

The METL development and subsequent approval in July 2004 was just in time as we began staff-level training for the leader training program, brigade command battle staff training (BCBST), mission rehearsal exercise (division brigade command and training program), and mission rehearsal exercise at the NTC. The commander's training strategy had to be changed several times for these events because our OIF 3 mission, higher headquarters, and our assigned area of operations were developing at a slower pace than expected.

"Emerging Doctrine"

As always, doctrinal terms, definitions, symbols, and graphics are still a valid part of our daily Army vocabulary. Many of us are aware of the need to change the set of guidelines as our missions change or evolve. For the most part, the way a unit conducts tactical tasks is found in its mission training plan or Army training and evaluation plan manual. Fortunately, the flexibility and adaptation of our predecessors in OIF 1 and 2 gave us many TTP to bridge the gap.

Those TTP became the way to conduct operations — observer/trainers from BCBST and observer/controllers at NTC were slinging TTP as fast as they could read their emails. For example, targeting meetings were divided into two groups: one lethal and the other nonlethal. Then someone invented the information operations working group, and "effects" became a hot topic. All these TTP became "emerging doctrine." I felt like Rip Van Winkle — I had just completed a BCBST a year earlier in June 2003 and didn't recall any of these buzz words.

Brigade-Level Operations

For our unit, OIF 3 did not involve the continuous movement of brigade- or battalion-size formations (except the initial ground assault convoy into Iraq) as trained at BCBST in 2003; nor did it include maneuvering battalions to close with and destroy opposing forces. Instead, the functions of the regimental headquarters, in addition to command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR), was to primarily resource and synchronize subordinate squadrons.

The company/troop/battery commander should get all the credit for ensuring success. One can even argue that the platoon leader and platoon sergeant were the foundation of combat operations. After all, the minimum amount of vehicles allowed to travel was three. Instead of fighting two levels down, the measurement of tasks was based on platoon tasks, which in our case, was three levels down.

We supported squadron/battalion missions with division or echelon-above-division assets such as Army attack aviation, close air support, and unmanned aerial vehicle platforms. For the most part, it was the company commander or platoon leader maneuvering the air weapons team or coordinating close air support; and it was the platoon leader training the Iraqi army company commander.

The regimental tactical operations center (TOC) accomplished its task of providing the commander with the common operating picture. This was accomplished through the extraordinary efforts of proficient noncommissioned officers and attention to detail by professional officers. However, during steady state operations throughout a 12-month period, there were not many major tactical decisions to be made at the TOC. Rest assured that when our soldiers were in enemy contact, they had the undivided attention of the commander and TOC. The regimental TOC requested and coordinated resources for battle handover to the on-scene commander (OSC) to accomplish missions during attacks.

Lessons Learned TTP

Troop-to-task list (TTL) is a valuable tool that allows you to "see yourself." It identifies specified and implied tasks the brigade is required to perform. It displays tasks down to platoon level, which allows commanders to continually assess mission critical events. It also allows flexibility to transition from steady state operations to surge operations. Troop-to-task information provides a priority for critical resources and is a method to schedule refit and rearm as part of a unit's consuming tasks. The TTL ensured our subordinate squadrons were achieving critical tasks as prioritized by the commander. The key question is: are troops gainfully employed or waiting for employment?

Consequence management identifies gaps between battle drills and current capabilities. Battle drills may only reflect coalition forces actions, but this tool also identifies the capabilities of the host nation. Information is usually provided by the civil affairs detachment and the subordinate unit from its area of operations. For example, U.S. Army forces are rehearsing battle drills for a suicide bomber at a polling center, but they need to in-

"We supported squadron/battalion missions with division or echelon-above-division assets such as Army attack aviation, close air support, and unmanned aerial vehicle platforms. For the most part, it was the company commander or platoon leader maneuvering the air weapons team or coordinating close air support; and it was the platoon leader training the Iraqi army company commander."

clude how the local government and its security forces will respond. Pertinent questions should address how the local hospital or clinic would handle the death or injury of 10 civilians; will it be overwhelmed, and if so, where and how far is the next facility? The local government identifies necessary resources for key events, which includes coalition forces, local security assets, and all local agencies involved. In our case, the local Iraqi city mayor, joint communications center director, Iraqi security forces, and coalition forces had the same visibility for a true "joint" or Iraqi-led operation. Consequence management may provide decision points for necessary troop movement to reinforce or follow and support. Whereas crisis action planning may be reactive, the consequence management tool allows the commander to reallocate resources and better prepare his forces based on known information and analysis.

Condition check ensures specific details are complete prior to an event such as an election. It provides the commander a visualization tool to make decisions. Consider it the mother of all precombat inspection checklists. The condition check helps synchronize the staff's efforts. As subordinate units report the necessary daily/weekly status, the TOC is updating the staff during the shift change brief and briefing the commander during the battle update brief. The condition check is a single coordinated staff product that reduces the requirement for every staff section to have its own internal "tracking" device. It defines roles and responsibilities of the subordinate unit and staff proponent. Further, it provides the common operating picture for subordinates, adjacent units, and higher headquarters.

As the U.S. Army continues to transform and assess doctrine that enables us to conduct full-spectrum operations, it is necessary to continue developing TTP to fill the doctrine gap. Currently, the Army has issued several interim field manuals for modular brigade combat teams to use. Soon to follow is the plethora of mission training plan/Army training and evaluation program modifications. Many of these changes are a result of the TTP developed and tested in OIF and Operation Enduring Freedom combat operations. We must also preserve the flexibility and adaptation to use multiple field manuals, such as FM Interim (FMI) 3-07.22, *Counterinsurgency Operations* and FM 3-06.11, *Combined Arms Operations in Urban Terrain*, in conjunction with our respective organization disciplines to succeed in full-spectrum operations.[2]

Notes

[1]U.S. Army Field Manual (FM) 7-15, *Army Universal Task List*, U.S. Government Printing Office (GPO), Washington, D.C., 31 August 2003.

[2]FM Interim (FMI) 3-07.22, *Counterinsurgency Operations*, GPO, Washington, D.C., 1 October 2004; and FM 3-06.11, *Combined Arms Operations in Urban Terrain*, GPO, Washington, D.C., 28 February 2002.

Lieutenant Colonel Darrell Darnbush is currently serving as commander, Brigade Special Troops Battalion, 278th Cavalry Brigade Combat Team, Tennessee Army National Guard (TNARNG), Lebanon, TN. He received a B.S. from Middle Tennessee State University. His military education includes Field Artillery Officer Basic Course, Chemical Officer Advance Course, Armor Officer Advance Course, Combined Arms and Services Staff School, and U.S. Army Command and General Staff College. He has served in various command and staff positions, including commander, 278th Chemical Company, TNARNG, Oak Ridge, TN; assistant RS1, 278th Armored Cavalry Regiment (ACR), TNARNG, Knoxville, TN; assistant S3, 1st Squadron, 278th ACR, Athens, TN; assistant RS3, 278th ACR, TNARNG, Knoxville; XO, 1st Squadron, 278th ACR, TNARNG, Athens; RS4, 278th ACR, TNARNG, Knoxville; and RS3, 278th ACR (OIF 3), TNARNG, Knoxville.

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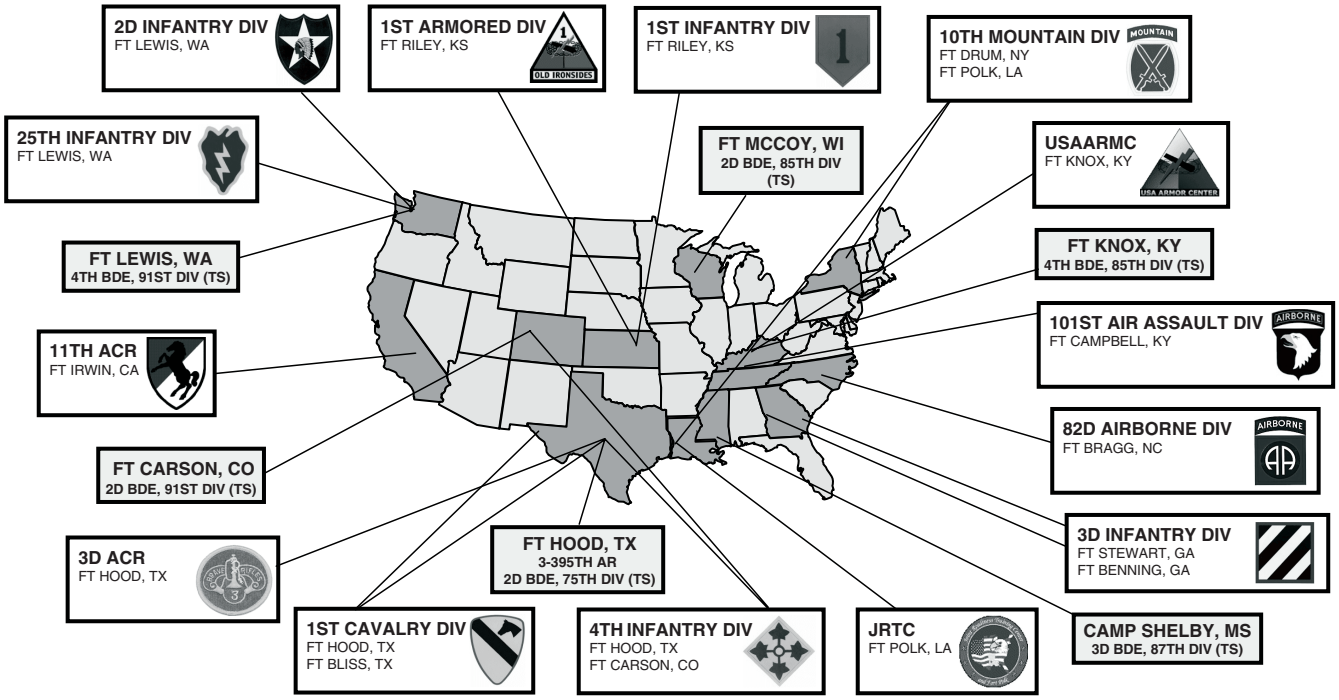
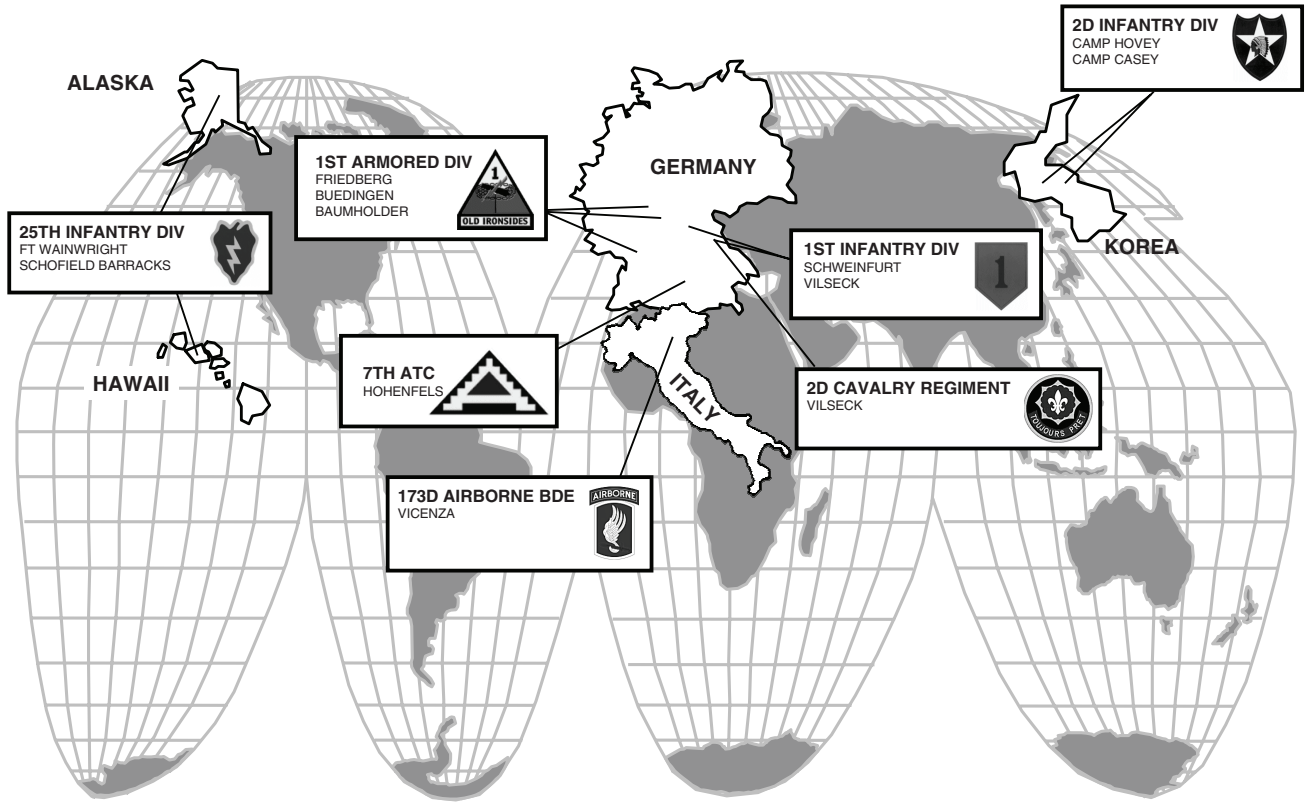
Active Component Armor/Cavalry Home Station Locations

CONUS FY07



Note: Gray boxes indicate Active Component support to Reserve Component units (AC/RC Commands).

OCONUS FY07



Active Component Units

Source: Office, Chief of Armor, Proponency Division

Unit		Location/APO/ZIP	Phone/DSN	CDR/CSM
1st Armored Division (Wiesbaden, FRG)	1st Brigade	Friedberg, FRG 09074	324-3072	COL Sean B. MacFarland
	1-37 Armor	Friedberg, FRG 09074	324-3072/3071	LTC Vincent J. Tedesco III CSM Mark Schindler
	2-37 Armor	Friedberg, FRG 09074	324-3080/3206	LTC John K. Tien Jr. CSM Gary L. Williams
	2d Brigade	Baumholder, FRG 09034	485-7290	COL Robert P. White
	1-35 Armor	Baumholder, FRG 09034	485-6368	LTC Anthony E. Deane CSM Ramon Delgado
	3d Brigade	Ft. Riley, KS 66442	856-5014	COL Norbert B. Jocz
	1-13 Armor	Ft. Riley, KS 66442	856-4511/5833/1878	LTC Joel K. Tyler CSM Carlos J. Alersmillan
	2-70 Armor	Ft. Riley, KS 66442	856-5820/1036	LTC Leopoldo A. Quintas Jr. CSM Michael R. Matthews Sr.
	1/1 Cavalry	Buedingen, FRG 09076	321-4884	LTC Matthew F. McKenna CSM David S. Davenport
1st Infantry Division (Wuerzburg, FRG)	1st Brigade	Ft. Riley, KS 66442	856-4014	COL Jeffrey D. Ingram CSM Peter D. Burrowes
	1-34 Armor	Ft. Riley, KS 66442	856-1703	LTC John A. Nagl
	2-34 Armor	Ft. Riley, KS 66442	856-9068	LTC David T. Seigal CSM Douglas Falkner
	1/4 Cavalry	Ft. Riley, KS 66442	856-1790	CSM John B. Jones
	2d Brigade	Schweinfurt, FRG 09226	353-8648	CSM John W. Fortune
	1-77 Armor	Schweinfurt, FRG 09226	353-8648/8646	LTC Miciotto O. Johnson CSM Ernest Edwards
	173d Airborne Brigade	Schweinfurt, FRG 09226		
	1/91 Cavalry	Schweinfurt, FRG 09226	353-8602	LTC Christopher D. Kolenda
2d Infantry Division (Korea)	1st Brigade	Camp Casey, Korea 96224	730-2770	COL Michael W. Feil CSM Joseph Santos
	1-72 Armor	Camp Casey, Korea 96224	730-4991/6229	LTC John I. Salvetti CSM Randy Zinger
	4/7 Cavalry	Camp Hovey, Korea 96224	730-5937	LTC Joseph D. Wawro CSM Stephen L. Gray
	Special Troops Battalion (STB) 3-1 ID	Camp Casey, Korea 96224		LTC Richard D. Creed Jr.
	3d Brigade	Ft. Lewis, WA 98433	347-3565	
	1/14 Cavalry	Ft. Lewis, WA 98433	357-3033	LTC Jeffrey D. Peterson CSM Brian Shover
	4th Brigade	Ft. Lewis, WA 98433		
	2/1 Cavalry	Ft. Lewis, WA 98433	347-2492/4241	LTC Anthony A. Aguto CSM Gregory Rathjen
3d Infantry Division (Ft. Stewart, GA)	1st Brigade	Ft. Stewart, GA 31313	870-1643	
	3-69 Armor	Ft. Stewart, GA 31313	870-2355	LTC Michael S. Silverman CSM Patrick W. Muskevitsch
	5/7 Cavalry	Ft. Stewart, GA 31313	870-4167	LTC Clifford E. Wheeler CSM William Transue
	2d Brigade	Ft. Stewart, GA 31313	870-8106	COL Terry R. Ferrel CSM Gabriel Berhane
	1-64 Armor	Ft. Stewart, GA 31313	870-7728/7730	LTC Edward J. Chesney CSM Robert Callender
	3/7 Cavalry	Ft. Stewart, GA 31313	870-7420	LTC Michael J. Johnson CSM James Kennedy
	3d Brigade	Ft. Benning, GA 31905	784-4111	CSM Jesse Andres
	2-69 Armor	Ft. Benning, GA 31905	784-2211	LTC Troy D. Perry CSM Gregory Proft
	3/1 Cavalry	Ft. Benning, GA 31905		LTC John S. Kolasheski
	4th Brigade	Ft. Stewart, GA 31313	870-8300	COL Thomas S. James Jr.
	4-64 Armor	Ft. Stewart, GA 31313	870-7690/7600	LTC Johnnie L. Johnson Jr. CSM Clarence Stanley
	6/8 Cavalry	Ft. Stewart, GA 31313	870-6885	LTC Mark W. Solomon CSM Robert Taylor

Unit		Location/APO/ZIP	Phone/DSN	CDR/CSM
4th Infantry Division (Ft. Hood, TX)	1st Brigade	Ft. Hood, TX 76544	737-4887	COL James F. Pasquarette CSM Robert J. Wells
	1-66 Armor	Ft. Hood, TX 76544	737-7882/8028	LTC Robert J. Kmiecik CSM Ricky Young
	7/10 Cavalry	Ft. Hood, TX 76544	737-3464	LTC David E. Thompson II CSM Willie Keeler
	STB 1-4 ID	Ft. Hood, TX 76544		LTC Leo F. Caballero
	2d Brigade	Ft. Hood, TX 76544	738-7509	COL John N. Tully
	1-67 Armor	Ft. Hood, TX 76544	738-6590	LTC Patrick J. Donahoe CSM Ernest Barnett
	1/10 Cavalry	Ft. Hood, TX 76544	663-0673	LTC James J. Love CSM Charles F. Davidson
	3d Brigade	Ft. Carson, CO 80911	691-2346	CSM David List
	1-68 Armor	Ft. Carson, CO 80911	691-5570/9563/9571	LTC Thomas S. Fisher CSM Gary Rimpley
	2/9 Cavalry	Ft. Carson, CO 80911		LTC Louis J. Lartigue
	4th Brigade	Ft. Hood, TX 76544		CSM John E. Moody
	3-67 Armor	Ft. Hood, TX 76544	737-3435	LTC Mark A. Bertolini CSM Edwin Rodriguez
	8/10 Cavalry	Ft. Hood, TX 76544		LTC Gian P. Gentile CSM Rafael Rodriguez
1st Cavalry Division (Ft. Hood, TX)	1st Brigade	Ft. Hood, TX 76544	737-0831	COL Paul E. Funk II CSM Stanley D. Small
	1/7 Cavalry	Ft. Hood, TX 76544	737-0823	LTC Kevin S. MacWatters CSM David Clemons
	2/8 Cavalry	Ft. Hood, TX 76544	737-3516/4178	LTC Scott L. Efflandt CSM Pablo H. Squiabro
	2d Brigade	Ft. Hood, TX 76544	737-6560	COL Bryan T. Roberts CSM James F. Lee
	1/8 Cavalry	Ft. Hood, TX 76544	737-0431/7659	LTC Jeffrey T. Sauer CSM Horace Gilbert
	4/9 Cavalry	Ft. Hood, TX 76544	737-0683	LTC Patrick E. Matlock CSM James P. Daniels
	3d Brigade	Ft. Hood, TX 76544	738-6701	
	3/8 Cavalry	Ft. Hood, TX 76544	738-1968/1552/7404	LTC Kevin R. Dunlop CSM James P. Norman
	6/9 Cavalry	Ft. Hood, TX 76544	738-2711	LTC Keith M. Gogas CSM Paul E. Thompson
	STB 3-1 CD	Ft. Hood, TX 76544		LTC Quinton J. Arnold
	4th Brigade	Ft. Bliss, TX 79916		
	2/12 Cavalry	Ft. Bliss, TX 79916	621-1339	LTC James D. Nickolas CSM Robert L. Booker
	1/9 Cavalry	Ft. Bliss, TX 79916	621-1402	LTC Keitron A. Todd CSM William Beever
2d Cavalry Regiment (Vilseck, FRG)	1/2 Cavalry	Vilseck, FRG 09112	347-5588	LTC William W. Prior
	4/2 Cavalry	Vilseck, FRG 09112		LTC Marshall K. Dougherty CSM Phillip Pandy
3d Armored Cavalry Regiment (Ft. Hood, TX)	3d ACR	Ft. Hood, TX 76544	(254) 287-6823	COL Michael A. Bills CSM William Burns
	1/3 Cavalry	Ft. Hood, TX 76544	(254) 288-6729	LTC Thomas T. Dorame CSM Jonathan Hunt
	2/3 Cavalry	Ft. Hood, TX 76544	(254) 553-0131	LTC Paul T. Calvert CSM Mark A. Horsley
	3/3 Cavalry	Ft. Hood, TX 76544	(254) 287-7487	LTC Keith A. Barclay CSM Guitad Leandre
10th Mountain Division (Ft. Drum, NY)	1/71 Cavalry	Ft. Drum, NY 13602	772-2766	CSM Myron J. Lehman
	1/89 Cavalry	Ft. Drum, NY 13602	774-2109	CSM Fred H. Morris
	3/71 Cavalry	Ft. Drum, NY 13602	774-4741	CSM Delbert D. Byers
	3/89 Cavalry	Ft. Polk, LA 71459		CSM Paul D. Wilkinson
82d Airborne Divison (Ft. Bragg, NC)	3/73 Cavalry, 1st BCT	Ft. Bragg, NC 28310		CSM Tim Davis
	1/73 Cavalry, 2d BCT	Ft. Bragg, NC 28310		CSM Krabbe
	5/73 Cavalry, 3d BCT	Ft. Bragg, NC 28310		CSM Ray Edgar
	4/73 Cavalry, 4th BCT	Ft. Bragg, NC 28310		CSM Michael J. Greene

Unit		Location/APO/ZIP	Phone/DSN	CDR/CSM
25th Infantry Division (Ft. Shafter, HI)	1st Brigade	Ft. Wainwright, AK 99703		
	5/1 Cavalry	Ft. Wainwright, AK 99703	353-4013	LTC Michael C. Kasales CSM David W. Durham
	2d Brigade	Schofield Barracks, HI 96857		
	5/14 Cavalry	Schofield Barracks, HI 96857	455-0151	LTC David S. Davidson CSM Charles S. Cook
	4th Brigade	Ft. Wainwright, AK 99703		
	1/40 Cavalry	Ft. Richardson, AK 99505		CSM Norman G. Corbett
101st Air Assault Division (Ft. Campbell, KY)	1/32 Cavalry, 1st BCT	Ft. Campbell, KY 42223		CSM Felipe Paul
	1/75 Cavalry, 2d BCT	Ft. Campbell, KY 42223		See note *
	1/33 Cavalry, 3d BCT	Ft. Campbell, KY 42223		See note *
	1/61 Cavalry, 4th BCT	Ft. Campbell, KY 42223		See note *

U.S. Army Armor Center

16th Cavalry Regiment (Ft. Knox, KY)	16th Cavalry	Ft. Knox, KY 40121	464-7848	COL Robert R. Naething CSM Roger Ashley
	1st Squadron	Ft. Knox, KY 40121	464-7965/4072	LTC Christopher Delarosa CSM Adrien N. Poppert
	2d Squadron	Ft. Knox, KY 40121	464-6654/7481	LTC John L. Ward CSM Larry Hester
	3d Squadron	Ft. Knox, KY 40121	464-5855	LTC Patrick A. Clark CSM Walter E. Jenks
1st Armor Training Brigade (Ft. Knox, KY)	1st ATB	Ft. Knox, KY 40121	464-6843	COL Peter D. Utley CSM David L. Morris
	1-81 Armor	Ft. Knox, KY 40121	464-6345/7910	LTC William B. Maddox CSM William Blackwell
	2-81 Armor	Ft. Knox, KY 40121	464-2645	LTC Thomas V. Olszowy CSM Alex Gongorabarreiro
	3-81 Armor	Ft. Knox, KY 40121	464-1313	LTC LTC Steven R. Schwaiger CSM Norman English
	5/15 Cavalry	Ft. Knox, KY 40121	464-8286/8226	LTC Ricky J. Nussio CSM Glenn Dailey

Combat Training Centers

National Training Center OPFOR	11th ACR	Ft. Irwin, CA 92310	470-3499	COL Mark E. Calvert CSM Ricky Pring
	1/11 Cavalry	Ft. Irwin, CA 92310	470-3706	LTC Timothy W. Renshaw CSM Edd Watson
CMTC		Hohenfels, FRG 09183	466-2191	CSM David L. Pierce

Training Support Brigade Commands

Unit	Location/APO/ZIP	Phone/DSN	CDR/CSM
2d Brigade, 85th Division (TS)	Ft. McCoy, WI 54656	280-2235/2234	COL Patrick T. Warren
4th Brigade, 85th Division (TS)	Ft. Knox, KY 40121	464-2119/2106	COL Jeffrey R. Sanderson
2d Brigade, 87th Division (TS)	Patrick AFB, FL 32941	854-2420/6631	CSM Joel Cochrane
3d Brigade, 87th Division (TS)	Camp Shelby, MS 39407	921-3000/3036	COL John A. Hadjis CSM C.M. Keithley
2d Brigade, 91st Division (TS)	Ft. Carson, CO 80911	691-5725	COL Raymond L. Lamb CSM C. Bilodeau
188th Infantry Brigade	Ft. Stewart, GA 31314		CSM Jonathan Garrett

(Note: Please e-mail changes/corrections to Office, Chief of Armor, at *ocoa.director@knox.army.mil* or *ocoa.sgm@knox.army.mil,* or phone DSN 464-5155.)
* Assignment approved/pending arrival.

Marine Corps Tank Battalions

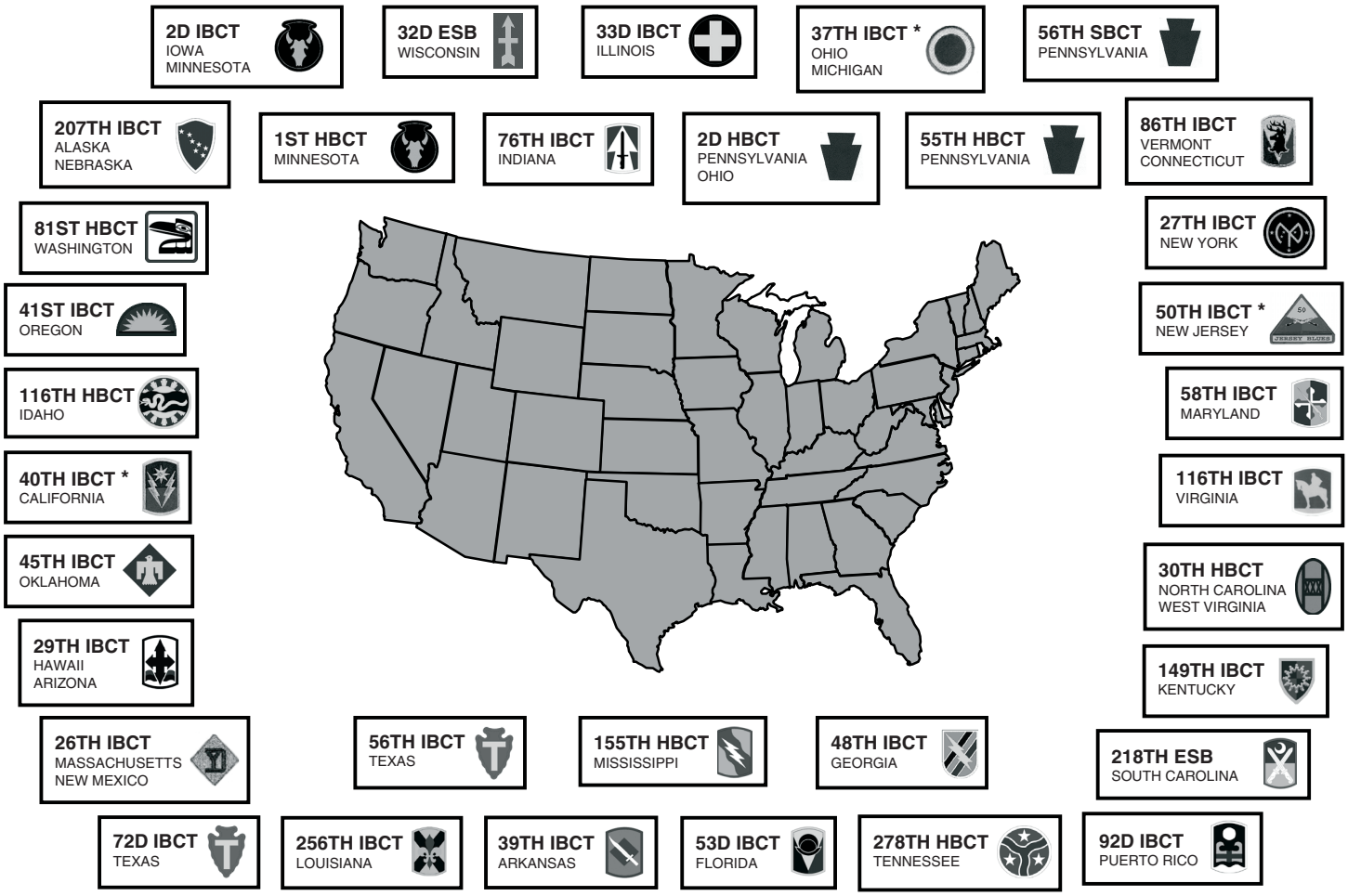
Source: U.S. Marine Corps Detachment – Fort Knox

Unit	Parent Unit	Location	Phone/DSN	CDR
1st Tank Battalion	1st Marine Div	MCAGCC, Box 788270, 29 Palms, CA 92278	230-6653	LtCol Stopa
2d Tank Battalion	2d Marine Div	PSC Box 20091, Camp Lejeune, NC 28542	751-1851	LtCol Fatheree
4th Tank Battalion	4th Marine Div	9955 Pomerabo Rd., San Diego, CA 92145-5295	577-8109	LtCol Vuckovich
Marine Detachment Fort Knox		Bldg 2372, Garry Owen Regt. Rd., Fort Knox, KY 40121	464-5950	LtCol Angel

Army National Guard Divisions and Brigade Combat Teams

FY07

Source: Office of the Special Assistant to the Commanding General (ARNG), Fort Knox



* Unit patches provided by the National Guard Bureau; pending approval of the Institute of Heraldry.

Divisions

Unit	Address	Phone/Fax	CDR / CSM
28th Infantry Division	14th & Calder Streets Harrisburg, PA 17103	(717) 787-6705 (717) 772-5121	BG Jerry Beck CSM Robert Curran
29th Infantry Division	9810 Flagler Road Fort Belvoir, VA 22060	(703) 805-2197 (703) 805-3437	MG Arthur Wyman CSM Anthony Price
34th Infantry Division	13865 S. Robert Trail Rosemount, MN 55068	(651) 282-4901 (651) 282-4990	MG Rick D. Erlandson CSM Ronald D. Kness
35th Infantry Division	2 Sherman Avenue, Rm 38 Fort Leavenworth, KS 66027	(913) 758-5002 (913) 758-5083	MG James R. Mason CSM Timothy Cocheran
36th Infantry Division	P.O. Box 5128 Austin, TX 78763	(512) 782-5049 (512) 782-5261	MG John T. Furlow CSM Bruce Hendry
38th Infantry Division	3912 W. Minnesota Street Indianapolis, IN 46241	(317) 247-3442 (317) 247-3162	MG Richard Moorhead CSM Michael L. Lucas
40th Infantry Division	4480 Yorktown Avenue Los Alamitos, CA 90720	(562) 795-2460 (562) 795-2451	BG James P. Combs CSM Harold E. London
42d Infantry Division	137 Glenmore Road Troy, NY 12180	(518) 285-5806 (518) 285-5804	BG Paul C. Genereux CSM Richard F. Fearnside

Heavy Brigade Combat Teams

Unit		Address	Phone/Fax	CDR / CSM
2d HBCT, 28th ID	2 BCT	125 Goodridge Lane Washington, PA 15301	(724) 223-4570 (724) 223-4426	COL Regis Cardiff CSM Horace C. Pysher
	2/107 Cavalry	3000 Symmes Road Hamilton, OH 45015	(614) 336-6694 (614) 336-6767	LTC Todd Mayer CSM William Belding
	1-110 Infantry	2239 School Street Mt. Pleasant, PA 15666	(724) 542-0306 (724) 542-0310	LTC Timothy Blayney CSM Paul Walker
	1-145 Armor	4630 Allen Road Stow, OH 44224	(614) 336-6773 (DSN 346) (614) 336-6787	LTC Jeffrey J. Ziol CSM Timothy A. Hornung
30th HBCT	30 BCT	101 Armory Road Clinton, NC 28328	(800) 621-4136 Ext. 5465	COL Gregory A. Lusk CSM William E. Spencer
	1/150 Cavalry	2915 Old Bramwell Road Bluefield, WV 24701	(304) 589-3361 (304) 561-6143	LTC Larry Wheeler CSM Charles Mitchell
	1-120 Infantry	2412 Infantry Road New Hanover Co. Airport Wilmington, NC 28405	(910) 251-7102 (910) 251-7130	LTC Allen Boyett CSM John Swart
	1-252 Armor	P.O. Box 64158 Fayetteville, NC 28306	(910) 484-1849 (910) 484-5132	LTC Lawrence Powell CSM Donald Shawb
1st HBCT, 34th ID	1 BCT	1025 Broadway Street NE Minneapolis, MN 55413	(662) 842-9640	COL David Elicerio CSM Douglas Julin
	2/194 Cavalry	4015 Airpark Boulevard Duluth, MN 55811	(218) 723-4756 (218) 723-4876	LTC Michael Wickman CSM Harold Sommerfelt
	1-194 Armor	1115 Wright Street Brainerd, MN 56401	(218) 828-2572 (651) 268-8111	LTC Jeffrey Turner CSM Paul Herr
	2-136 Infantry	1002 15th Avenue North Moorhead, MN 56560	(218) 236-2175 (615) 268-8502	LTC Gregg L. Parks CSM Terry Koenig
55th HBCT, 28th ID	55 BCT	900 Adams Drive Scranton, PA 18510	(570) 963-4558 (570) 963-3139	COL Robert Sembower CSM Brian Todero
	1/104 Cavalry	5350 Ogontz Avenue Philadelphia, PA 19141	(215) 329-2622 (215) 967-5474	LTC Hugh Redditt CSM Timothy Zaengle
	1-109 Infantry	900 Adams Drive Scranton, PA 18510	(570) 963-4643	LTC Michael Konzman CSM Michael Urban
	4-103 Armor	4700 Westbranch Highway Lewisburgh, PA 17837	(570) 523-3464	LTC Jeffery Smith CSM Michael Moretz
81st HBCT	81 BCT	1601 W. Armory Way Seattle, WA 98119	(253) 512-7933 (253) 512-8049	COL Michael McCaffree CSM Robert Barr
	1-303 Cavalry	24410 Military Road S. Kent, WA 98032	(253) 945-1832 (253) 945-1800	LTC Ted Arnold SGM Jay Raymond
	1-161 Infantry	8700 W. Electric Road Spokane, WA 99224	(509) 533-2078 (509) 458-5489	LTC Gregory Allen CSM David Windom
	1-185 Armor	266 E. 3d Street San Bernadino, CA 92410	(909) 383-4532 (909) 884-7753	LTC Barry Sayers CSM James Woods
116th HBCT	116 BCT	4650 W. Ellsworth Street Boise, ID 83705	(208) 422-4927 (208) 422-4652	COL John Goodale CSM Joseph Brooks
	2/116th Cavalry	1069 Frontier Road Twin Falls, ID 83301	(208) 422-7313 (208) 422-7003	LTC Robert Lytle CSM Henry Chin
	3-116th Armor	404 12th Street La Grande, OR 97850	(541) 963-4221 (541) 963-7865	MAJ William Cole CSM William Wylie
	1-163 Infantry	350 Airport Road Belgrade, MT 59714	(406) 388-3500 (406) 388-3510	LTC T.J. Hull CSM James Irvine
155th HBCT	155 BCT	P.O. Box 2057 Tupelo, MS 38803	(662) 891-9712 (662) 891-3721	COL William Glasgow CSM Glen Davis
	1/198 Cavalry	P.O. Box 158 Amory, MS 38821	(662) 562-3741 (662) 256-1028	LTC Jason Marlar CSM Ronald Coleman
	2-198 Armor	P.O. Box 278 Senatobia, MS 38668	(662) 562-0145	LTC John Brown 1SG Tommy Campbell
	1-155 Infantry	319 West Avenue N. McComb, MS 39648	(601) 684-7133 (601) 684-7139	LTC John Rhodes CSM Johnny Marlow

Heavy Brigade Combat Teams (continued)

Unit		Address	Phone/Fax	CDR / CSM
218th ESB (converts to HBCT FY08)	218 ESB	275 General Henderson Road Newberry, SC 29108	(803) 806-2040	COL Robert E. Livingston Jr. CSM John Harrelson
	1/263 Cavalry	1018 Gilchrist Road Mullins, SC 29574	(803) 806-1073 (803) 806-1036	LTC Steve Wright CSM John E. Wiggins
	1-118 Infantry	165 Industrial Park Road Union, SC 29379	(803) 806-2173	LTC Robert L. Bradshaw CSM Michael Kirkland
	2-137 Infantry	100 S. 20th Street Kansas City, KS 66102	(913) 279-7823/7824 (913) 279-7873	LTC Jim Trafton CSM James Moberly
278th HBCT	278 ACR	P.O. Box 10167 3330 Sutherland Avenue Knoxville, TN 37939	(856) 582-3224/3201 (DSN 683) (865) 582-3208	COL Jeffrey H. Holmes CSM James B. Kyle
	1/278 Cavalry	759 East Main Street Henderson, TN 38340	(731) 989-7327 (DSN 683) (731) 989-3651	LTC Jeffrey Gaylord CSM David Knight
	2/278 Cavalry	P.O. Box 2189 Cookeville, TN 38502	(931) 432-4117 (DSN 683) (931) 432-6252	LTC Miles Smith CSM Daniel Jennings
	3/278 Cavalry	4401 West Stone Drive Kingsport, TN 37660	(423) 247-5168 (DSN 683) (423) 247-2399	LTC Charles Tipton CSM John Cartwright

Stryker Brigade Combat Teams

56th Stryker Brigade Combat Team (SBCT), 28th ID	56 SBCT	2700 Southampton Road Philadelphia, PA 19154	(215) 560-6010 (215) 560-6036	COL Joel Wierenga CSM John E. Jones
	2/104 Cavalry	2601 River Road Reading, PA 19605	(610) 929-8130	LTC Laurence K. Pike CSM David W. White

Separate Cavalry Squadrons

1/221 Cavalry *	1/221 Cavalry	6400 Range Road Las Vegas, NV 89110	(702) 632-0521 (702) 632-0540	LTC Scott Cunningham CSM Glenn Guy

* Assigned to the 11th Armored Cavalry Regiment as the armored reconnaissance squadron (ARS)

Infantry Brigade Combat Teams

Unit		Address	Phone/Fax	CDR / CSM
2d IBCT, 34th ID	2 BCT	700 Snedden Drive Boone, IA 50036	(515) 727-3800 (515) 727-3805	COL Timothy E. Orr CSM James E. McEntaffer
	1/113 Cavalry	3200 Second Mech Drive Sioux City, IA 51111	(712) 258-4247 (712) 258-0332	LTC Michael Amundson CSM Stephen Wayman
26th IBCT	26 BCT	9 Charlestown Street, Bldg 693 Devens, MA 01939	(508) 233-7907 (508) 233-7963	COL Bernard Flynn CSM John Helbert
	1/182 Cavalry	120 Main Street Melrose, MA 02176	(781) 979-0670 (781) 979-5675	LTC Furey CSM Kevin Fleming
27th IBCT	27 BCT	6900 Thompson Road Syracuse, NY 13211	(315) 438-3090 (315) 438-3015	COL Brian Balfe CSM William Wicks
	2/101 Cavalry	27 Masten Avenue Buffalo, NY 14204	(716) 888-5675 (716) 888-5680	MAJ David C. Dunkle CSM David Piwowarski
29th IBCT	29 BCT	91-1227 Enterprise Avenue Kapolei, HI 96707	(808) 682-6311	COL Bruce Oliveira CSM John Yakushiji
	1/299 Cavalry	1046 Leilani Street Hilo, HI 96720	(808) 933-0926 (808) 933-0888	LTC Kenneth S. Hara CSM Wendell M. Hatami
32d ESB (converts to IBCT FY08)	32 ESB	8 Madison Boulevard Camp Douglas, WI 54618	(608) 427-7300 (608) 427-7207	BG Mark Anderson CSM Edgar Hanson
	1/105 Cavalry Troop	106 Memorial Drive Merrill, WI 54452	(715) 536-6323 (715) 536-6863	CPT Dale A. Ellenbecker 1SG Richard Clay
33d IBCT	33 BCT	600 E. University Avenue Urbana, IL 61802	(217) 267-7575	COL Douglas Matakas CSM Phillip Kappes
	2/106 Cavalry	111 N. East Street Kewanee, IL 61443	(630) 267-0027 (309) 852-0027	LTC Paul Hastings CSM Roy VanOpdorp

Infantry Brigade Combat Teams (continued)

Unit		Address	Phone/Fax	CDR / CSM
37th IBCT	37 BCT	85 N. Yearling Road Columbus, OH 43213	(614) 356-7903 (614) 356-7925	COL Richard T. Curry CSM Lowell Shank
	1/126 Cavalry	1200 44th Street SW Wyoming, MI 49509	(616) 249-2759 (616) 249-2751	LTC Curtis Royer CSM Lester Ott
39th IBCT	39 BCT	4700 West 8th Street Little Rock, AR 72205	(501) 212-6701	COL George M. Ross CSM Larry Doyle
	1/151 Cavalry	101 Industrial Park Warren, AR 71671	(870) 226-2020 (501) 212-7519	LTC Darrell W. Daniels CSM Thomas L. Parks
40th IBCT	40 BCT	7401 Mesa College Drive San Diego, CA 92111	(858) 573-7043/02 (858) 573-7019	COL John Munoz-Atkinson CSM Anthony Hines
	1/18 Cavalry	1351 W. Sierra Madria Azusa, CA 91702	(626) 633-8144 (626) 633-8120	LTC Kurt Schlichter CSM Patrick Flannery
41st IBCT	41 BCT	6700 SW Oak Street Portland, OR 97233	(503) 577-6028 (503) 577-6075	BG Douglas A. Pritt CSM Brunk Conley
	1/82 Cavalry	875 SW Simpson Avenue Bend, OR 97701	(541) 383-0971 (541) 389-1946	LTC Eric C. Bush CSM Michael Storm
45th IBCT	45 BCT	200 NE 23d Street Oklahoma City, OK 73105	(405) 962-4500	BG Myles Deering CSM Larry Davis
	1/279 Cavalry	7520 W. 41st Street Tulsa, OK 74107	(918) 447-8205	LTC Doug Stahl VACANT
48th IBCT	48 BCT	475 Shurling Drive Macon, GA 31211	(478) 803-3104 (478) 803-3194	BG Stewart Rodeheaver CSM James Nelson
	1/108 Cavalry	P.O. Box 36 Calhoun, GA 30703	(706) 879-2900 (706) 879-2913	LTC John King CSM Joe Shubert
50th IBCT	50 BCT	151 Eggerts Crossing Road Lawrenceville, NJ 08648	(609) 671-6608	COL Frank Caruso CSM Jerome Jenkins
	1/102 Cavalry	500 Rahway Avenue Westfield, NJ 07090	(732) 499-5666	LTC Dean Spenzos CSM Timothy Marvian
53d IBCT	53 BCT	2801 Grand Avenue Pinellas Park, FL 33782	(727) 568-5300 (727) 568-5365	BG Mitch Perryman CSM John Adams
	1/153 Cavalry	3131 N. Lisenby Avenue Panama City, FL 32406	(850) 872-4120 (850) 872-4563	LTC Michael Atwell VACANT
56th IBCT	56 BCT	5104 Sandage Avenue Fort Worth, TX 76115	(512) 782-7425 (817) 924-7018	COL James Brown CSM Eddie Chambliss
	1/124 Cavalry	2120 N. New Road Waco, TX 76707	(254) 776-1420	LTC Lee Schnell CSM Alfred Cordova
58th IBCT	58 BCT	610 Reisertown Road Pikesville, MD 21208	(410) 653-6701 (410) 653-6709	COL John Russo CSM Brian Sann
	1/158 Cavalry	18 Willow Street Annapolis, MD 21401	(410) 974-7400 (410) 974-7304	LTC James M. Gehring CSM Michael F.X. O'Connell
72d IBCT	72 BCT	15150 Westheimer Parkway Houston, TX 77082	(517) 782-6637 (281) 558-6206	COL Manuel Ortiz CSM Kenneth Boyer
	3/112 Cavalry	5601 FM 45 Brownwood, TX 76801	(325) 646-9453	LTC Robert Gaudsmith CSM Paul Callaway
76th IBCT	76 BCT	711 N. Pennsylvania Indianapolis, IN 46204	(317) 390-2614	BG David Harris CSM Michael Stafford
	1/152 Cavalry	2909 Grant Line Road New Albany, IN 47150	(812) 949-3965 (812) 949-3968	MAJ Robert D. Burke CSM James H. Martin
86th IBCT	86 BCT	Readiness & Regional Technology Center, 161 University Drive Northfield, VT 05663	(806) 485-1805 (806) 485-1850	COL William Roy CSM Forest Glodgett
	1/172 Cavalry	18 Fairfield Street St. Albans, VT 04478	(802) 524-4101 (802) 524-7906	LTC John Boyd CSM Mark Larose

Infantry Brigade Combat Teams (continued)

Unit		Address	Phone/Fax	CDR / CSM
92d IBCT	92 BCT	P.O. Box 9023786 San Juan, PR 00902	(787) 289-1598 (787) 289-1405	LTC Victor J. Torres CSM Jose Cruz
	1/192 Cavalry	P.O. Box 583 #19 Jose Villarez Ave. Caguas, PR 00725	(787) 743-2182 (787) 745-6205	LTC Saul A. Ferrer-Sanchez CSM Nelson Bigas
116th IBCT	116 BCT	500 Thornrose Avenue Staunton, VA 24401	(540) 332-7739 (540) 332-8943	COL James M. Harris CSM Michael D. McGhee
	2/183 Cavalry	3200 Elmhurst Lane Portsmouth, VA 23701	(757) 465-6870 (757) 465-6866	LTC Walter L. Mercer VACANT
149th IBCT	149 BCT	2729 Crittenden Drive Louisville, KY 40209	(502) 607-2621 (502) 607-2616	COL Lewis R. Snyder VACANT
	1/131 Cavalry	P.O. Box 100 Daleville, AL 36322	(334) 598-1616 (334) 598-8889	LTC Stephen Fowell CSM Kevin Stallings
207th IBCT	207 BCT	P.O. Box 5800 Ft. Richardson, AK 99505	(907) 428-6590	COL Richard Williams CSM Robert Averett
	1/167 Cavalry	2400 NW 24th Street Lincoln, NE 68524	(402) 309-1776 (402) 309-1783	LTC Martin Apprich CSM Lawrence Hall
256th IBCT	256 BCT	1086 Surrey Street Lafayette, LA 70508	(337) 593-1422	COL Ronnie D. Johnson CSM Gary Ermatinger
	2/108 Cavalry	400 E. Stoner Avenue Shreveport, LA 71101	(318) 676-7614 (318) 676-7616	LTC Scott Adams CSM Everett Craig

TASS Armor Battalions

Region	Unit	Address	Phone/Fax	CDR / CSM
B	1st Armor Battalion, 166th Regiment	Fort Indiantown Gap, Building 8-80 Annville, PA 17003	(717) 861-2817 DSN 491-8401	LTC J. Orr MSG S. Mosholder
C	1st Armor Battalion, 218th Regiment	5411 Leesburg Road Eastover, SC 29044	(803) 806-2401 DSN 583-2332	LTC D. West SFC W. Foster
D	2d Armor Battalion, 117th Regiment	Building 638, TN ARNG Smyrna, TN 37167	(615) 355-3794 DSN 683-3797	LTC J. Gentry MSG D. Knight
E	1st Armor Battalion, 145th Regiment	8208 S. Perimeter Road Columbus, OH 43217	(614) 336-6443 (614) 336-6447	LTC D. Barbee MSG C. Gibson
F	1st Armor Battalion, 136th Regiment	P.O. Box 5218 Austin, TX 78763	(512) 782-6809 DSN 954-5980	MAJ J. Gordy SFC J. Sullivan
G	1st Armor Battalion, 204th Regiment	Building 810, 5050 S. Junker Street Boise, ID 83705	(208) 422-4848 DSN 422-4860	LTC T. Kelly MSG G. Laubhan

Army Reserve Units

100th Division (Institutional Training)

Unit	Parent Unit	Address	Phone	CDR / CSM
1st Brigade	100th Division	1051 Russell Cave Pike Lexington, KY 40505-3494	(859) 281-2208	COL J.G. Russell CSM R.M. Clark
2d Squadron, 397th Cavalry	1st Brigade	1051 Russell Cave Pike Lexington, KY 40505-3494	(859) 281-2211	LTC Brian Smith CSM J. Glover
3d Squadron, 397th Cavalry	1st Brigade	1840 Cumberlandfalls Highway Corbin, KY 40701-2729	(859) 528-5765	LTC M. Warren CSM C. Douglas
2d Battalion, 398th Armor	1st Brigade	2215 South Main Street Madisonville, KY 42431-3307	(270) 885-5563	LTC J. Schultz CSM B. Carter
3d Battalion, 398th Armor	1st Brigade	2956 Park Avenue Paducah, KY 42001	(270) 442-8284	LTC D. Stenzel CSM J. McGuire

1st Armor Training Brigade: Growing Effective Soldiers

by Captain Anthony M. Rose

Today's contemporary operating environment (COE) promotes the every-soldier-is-a-warrior idea. This idea, along with teaching the warrior tasks and battle drills (WTBD) at the basic training level, could imply that soldiers are only being taught to kill. What most people do not realize is that one-third of the WTBD are dedicated to movement and casualty care. Today's soldiers are taught much more than just the basics of bandaging wounds and military occupational specialty-specific tasks and team-building exercises. Many new medical innovations are being learned and used in theater everyday.

It is the responsibility of the 1st Armor Training Brigade (1ATB) to ensure that soldiers graduate from basic combat training with a much broader spectrum of skills and experiences brought on by the demands of the COE, as well as the operational tempo of deployments within the Army. These new soldiers are being trained by combat veterans who promote the idea that on graduation, these new soldiers may find themselves in theater sooner rather than later. Training these soldiers to save lives will ensure a well-rounded, warrior-based Army.

The 1ATB, dedicated to developing innovative training techniques that support the initiative to train every soldier to simultaneously be a warrior and a combat lifesaver, has added new techniques to its training curriculum to ensure soldiers are capable of executing these procedures on the battlefield. Below is an overview of lifesaving procedures currently taught during basic training:

Evaluate a casualty. 1ATB trains soldiers to identify casualties with life-threatening injuries first and evacuate those immediately. Soldiers with the most serious injuries will be administered combat aid immediately and in accordance with the most critical injury being treated first.

Airway obstruction. Administering combat aid to an injured soldier with an airway obstruction requires inserting a nasopharyngeal airway (NPA). 1ATB trains soldiers how use the NPA to maintain an open airway. Once the NPA is inserted and the patient's airway is unobstructed, the soldier administering combat aid is free to assist other injured soldiers. NPAs are supplied in the improved first aid kit, which is currently being used in Iraq. The NPA can be used on any casualty whether conscious or unconscious, even if they have a gag reflex.

Performing a needle decompression. Tension pneumothorax is a life-threatening injury, but was not addressed in the prior basic first aid. This type of injury is seen with penetrating chest trauma and blast injuries. 1ATB teaches soldiers the new technique of performing a needle decompression, which has led to a 96-percent survival rate among casualties.

Semi-aluminum malleable splints (SAM). Guidelines for setting and splinting a fracture using SAM are incorporated into the fractures block of instruction. SAM splints are readily available in combat lifesaver bags and vehicle first aid kits.

Combat application tourniquet (CAT). CAT is now incorporated into the control-bleeding block. Tourniquets save lives daily in Iraq. CAT is also found in the new improved individual first aid kit. The types of injuries seen from improvised explosive device (IED) strikes often involve severe bleeding. There have been multiple reports from theater of soldiers successfully performing self aid with these devices.

Tactical combat casualty care (TC3). This is the capstone learning event of first aid training. In a real-world scenario, soldiers incorporate all of the skills they have been taught and execute those skills in a tactical scenario. In the classroom portion, they are taught how to set a tourniquet for severe bleeding in a nonsecure environment. TC3 teaches soldiers to treat casualties that can be saved.

Other training innovations at 1ATB include communications instruction, where soldiers are taught how to use various new communications networks; and practical exercises have added the nine-line MEDEVAC and nine-line IED/unexploded ordnance reports to basic situation reports to give soldiers an initial look at the modern battlefield.

Soldiers are also provided more confidence-building exercises. The most challenging of these exercises is Thunderbolt tower, which is a 100-foot rappelling tower that incorporates rope bridges and slides that all soldiers must negotiate. Confidence-building exercises are an incredible step forward; in the past, not all soldiers were required to complete this training — especially tankers.

Soldiers are also put though the challenging teamwork-development course, which teaches young minds to think through realistic challenges, builds teams, and raises morale. This course was only taught as a leader development course to noncommissioned officers and officers — the COE demands young soldiers serve in combat leadership roles much sooner than previously anticipated.

All of this individual training comes together at the military operations in urban terrain (MOUT) site, where soldiers are exposed to mounted and dismounted patrol operations and react to blocked and unblocked ambushes. The MOUT site currently uses IED simulators, as well as suicide vests, and places soldiers in scenarios that force them to react to contact, evaluate a casualty, perform first aid, evacuate a casualty, report to higher headquarters using new communications systems, secure an IED, and clear buildings. They also are often put into ethical dilemmas that cause them to choose the hard right over the easy wrong.

Growing effective soldiers is a responsibility that 1ATB takes very seriously. Keeping the force informed of changes that effect how soldiers are expected to perform on the battlefield is a critical element of that responsibility. To keep pace with today's operational tempo, 1ATB stands ready and prepared to make necessary adjustments and changes that will produce trained soldiers, who are ready to fight the enemy and save lives at the same time.

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