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Urban Counterinsurgency:

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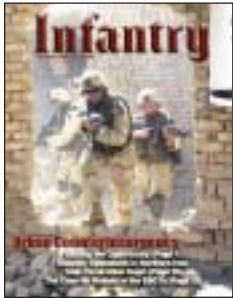
FRONT COVER:
During Operation Baton Rouge in Samarra, Iraq, 1st Infantry Division Soldiers conduct house-to-house searches. (Photo by Sergeant First Class Johancharles Van Boers)

BACK COVER:
Soldiers with the 3rd Brigade, 2nd Infantry Division (Stryker Brigade Combat Team) provide security while multinational forces search a house in Qabr Abd, Iraq. (Photo by Specialist Aaron Ritter.)

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Commandant's Note

BRIGADIER GENERAL BENJAMIN C. FREAKLEY

Urban Counterinsurgency:
Seizing the Opportunity

The current level of insurgent activity in Iraq has stimulated a great deal of discussion and consideration of how we can best fight and defeat an urban insurgency marked by hit and run ambushes, sniping, the use of improvised explosive devices (IEDs), and an enemy's disregard for collateral casualties and damage to the host nation and her people. We closely observe our adversary, learning his tactics, techniques, and procedures, and we employ our own ambushes and innovative methods to seize every opportunity to destroy him before he is ready to strike.

America is a nation at war, and as we train, deploy, and fight we are engaged in collecting vital information from warriors in the global war on terror. We glean information from units preparing to deploy, from those engaged in combat, and from those recently returned. At the Infantry School we have daily discourse in our classrooms with those who have fought and defeated the urban insurgent in close combat. Over 70 percent of our captains in the career course and 80 percent of our NCOs in the NCO Academy bring firsthand combat experience from either Iraq or Afghanistan, and in some cases both. We are busy considering their ideas and the lessons they have learned and are eager to share with their contemporaries. Concurrent with these internal efforts, the Infantry Traveling Team has been conducting post combat surveys with returning units and following up with field visits to develop recurring trends distilled from their feedback. We have ramped up our exchange with other countries currently fighting their own insurgencies to capture other perspectives on protracted struggles against resilient and determined enemies. Not surprisingly, there are some recurring trends echoing from each of these sources.

One such trend is our struggle for certainty in an uncertain, complex, and dynamic environment while fighting multiple asymmetric threats. Despite the urban insurgents' inherent advantages of mobility, local knowledge, and their own propaganda

efforts, we continue our efforts to stabilize the country and region, capitalizing on our own strengths and exploiting weaknesses to enable host nation forces and agencies to establish and sustain viable democratic systems. Without fail, every briefing I have seen on the urban environment lists its challenges, but few if any talk about its advantages. Besides the obvious logistical advantages, the compactness of the urban terrain places families, clans and tribes — all with their own interests and agendas — in close proximity to one another, something that facilitates both the dissemination of accurate host nation information and the gathering of intelligence on enemy presence and intentions.

In fact, our own history shows us how General George Crook used cultural awareness and his understanding of conflicting interests within the tribal population to gather intelligence and create and seize opportunities during his successful campaigns against the Apaches in our own country during the last quarter of the 19th Century. He was able to do this even without the benefit of the clearly delineated religious and tribal lines and relationships we see in Iraq today, and he accomplished it by enlisting the aid of groups within the Apaches themselves, much as we are working in close cooperation with Iraqi civil and military authorities. In Iraq we are fighting more than just insurgents with family and tribal ties, and we are actively supporting Iraq's initiatives to create a unified state unimpeded by internal dissension. Although the foreign fighters and terrorists whom we face may be bound by greed, desire for political dominance, or simply a mutual hatred of the United States and the stability she implies, to Iraqis they are outsiders. It is these insurgents who are the dissident element, and we need to identify the rivalries, conflicting interests, and the differing objectives of these diverse enemies so that we — and our Iraqi allies — can effectively exploit them.

Another recurring trend is the frustration of fighting an asymmetric threat. We must wrest that asymmetric advantage

from the enemy by both forcing him to become more symmetric and by becoming more asymmetric ourselves. During our most recent Infantry Conference, commanders just returning from the fight demonstrated ways to do just that. Our moves away from predictability and our ability to recognize the enemy's patterns and tendencies have led to several foiled enemy ambushes. In fact, our more experienced and savvy commanders have even planned and successfully executed counter ambushes based on each enemy's tendencies and predictability. Meanwhile, our leaders at the lowest levels have complemented their doctrinal foundation by demonstrating cunning and ingenuity and by avoiding predictable patterns of behavior on which the enemy could capitalize. These efforts continue; as the enemy attempts to adapt we must stay one step ahead of him.

The final recurring trend we are seeing is our leaders' efforts to balance the need to bring the full effects of our kinetic weapons array to bear on the enemy, while at the same time trying to minimize collateral damage to host nation personnel and infrastructure. We have found that workable solutions to these dilemmas can differ widely. Proximity to the conflict, nature of the insurgency and the tenacity of the enemy, the geopolitical forces, and national will all factor into the way our leaders approach each tactical dilemma. This is quite a burden we place on some of our most inexperienced young leaders. We need to educate and train our subordinates and to trust their judgment. Fortunately for us, these adaptive young leaders are typically making the right decisions. Our after action reviews are replete with examples of tactical patience, ingenuity, and collaboration with the local populace to obtain a surrender — just as General Crook so often did during the Indian Wars — instead of arbitrarily applying brute force without regard to collateral damage.

The bottom line is that our leaders understand their responsibilities to their Soldiers and the mission. Likewise, they attempt to protect infrastructure and noncombatants, but they won't risk their Soldiers' lives unnecessarily. As mentioned earlier, one of the advantages of the urban environment is that the enemy's plans, preparations, and actions are difficult for him to conceal from neighbors and bystanders. Allowing insurgents, terrorists, or criminals to operate from your house, apartment building, or neighborhood implies complicity with the enemy, and this carries risk. As the recent election shows, Iraqis want to assume control of their own destiny, and they are providing the intelligence that we and Iraqi police and military are using to tighten the noose around the insurgents. We must reward every assistance and discourage those who would aid our enemy. With that said, we should make every effort to use the appropriate force or tool to accomplish the mission. Moreover, we should attempt restitution for any damage to innocents' property or lives in order to mitigate any propaganda victories for the enemy or inflict undue hardship on the population whose support we are attempting to gain.

These are but a few of the recurring trends we have discovered during our recent collection effort, but they offer a change in mind set that is worth sharing with those joining or rejoining the efforts in Afghanistan and Iraq. We have seen our successes as well as our setbacks, but we are steadily gaining ground and replacing chaos with stability. As combat leaders we must look for opportunities even when it appears that the enemy holds all the good cards. The urban environment does have some advantages, especially when we think of its ability to restrict population movements, our opportunity to asymmetrically defeat the enemy, and the ability of adaptive leaders to select from a variety of tools and responses easily tailored for the array of situations found in this complex environment. The question is not whether we will prevail in creating stability in the region; that is already underway, and it is only a matter of time until our goals — and those of a democratic Iraq — are met. We are learning a great deal, and we will continue to share these lessons during the Infantry Traveling Team visits, on the Infantry Forum site, and in future issues of *Infantry* Magazine.

Follow me!

BUILDING BETTER LEADERS

This letter is in response to Command Sergeant Major (Retired) Hardwick's and Sergeant Major of the Army (Retired) Gates' article titled "A New Look At The Infantry Company" from the November-December 2004 issue. First, I think all of us will agree that every leader in an infantry organization is being challenged, and that lives and other serious consequences are based on our leaders' abilities. I don't think the answer resides in assigning current positions to higher pay grades; we'll just wind up promoting guys earlier to meet the need. We are already holding back to back major's boards to meet a deficit. We're short lieutenant colonels as well. Both of these will have a trickle down effect because we're already assigning captains to majors positions. The promotion rate for the last 2004 major's board was at just above 98.5 percent. While I know that following their advice of assigning more senior and experienced leaders to positions would be on par with the responsibility those positions now face, I don't believe it to be feasible. It would result in even faster promotions to fill new requirements, and we'd wind up with the roughly the same crowd doing the job, but as majors and captains. After all, if your going to assign somebody a job you ought to pay him according to what we say it's worth. Given our current state, I think the solution offered up by the CSM and SMA would be treating the symptom and not the problem.

I think the problem is how do we transfer experience faster to build more capable leaders earlier in their careers? Lieutenant Colonel J.R.Sanderson had some keen insights in a recent issue of *Armor* Magazine about how we might build better leaders. The recommendation pointed to a larger investment in our junior leaders earlier to equip them with the right tools to succeed. While there is no substitute for experience, better transferal of the experiences of others through a program that builds tacit knowledge is probably the best we can do. We just do not have the bodies to assign them to the jobs we'd like to. There are active duty lieutenants and captains taking ARNG units to combat because of reserve shortages. That is just another example of adjusting to meet requirements, but it is indicative of why we can't assign majors as company commanders and career course-trained captains as platoon commanders.

The desire for qualified personnel must be balanced with the quality of instruction we consider to make them qualified. If you want personnel sooner, then they will not receive as much training. That has been the problem militaries have always had to deal with. Currently, we are making good progress through communities of practice such as CompanyCommand.army.mil and its spin-offs for other leaders in filling gaps where the institutional Army leaves off. These "real time" and "near real time" problem-solving knowledge sharing sites, combined with unit intra-nets such as the 1st Cavalry Division's "CAV-NET" go a long way in imbuing leaders with the experience of others. These sites and other technology solutions help, but they only go so far; again, there is no substitute for experience.

As a profession, we need to discuss this further, and I thank the warriors who wrote the article for opening up the discussion. I think it is one that will (and needs to) surface again and again as we balance needs versus capabilities.

— Captain Robert L. Thornton, Jr.
Operations Officer, Future Combat Systems
Unit of Action Experimental Element,
Unit of Action Maneuver Battle Lab,
Fort Knox, Kentucky
Former commander of A Company and HHC,
1st Battalion, 24th Infantry, 1st Brigade,
25th Infantry Division (SBCT),
Fort Lewis, Washington

Recruiter Assistance Program Opens Doors to Officers

SERGEANT FIRST CLASS TAMMY M. JARRETT, ARMY NEWS SERVICE

Officers can now share their deployment experiences with their local communities through the Special Recruiter Assistance Program (SRAP).

As of January 15, officers who are currently located in CONUS and have served in support of Operation Enduring Freedom or Operation Iraqi Freedom may request to participate in SRAP, where eligible personnel can serve up to 14 days on temporary duty at a recruiting station nearest their hometown.

"I think this is an excellent opportunity for officers to return to their hometowns to tell them about the positive things the Army is doing in the Global War on Terrorism," said Major Mark D. Van Hout, retentions officer for Cadet Command. "Many small towns never get the opportunity to hear what their hometown heroes are doing."

Before SRAP, interested officers could participate in the U.S. Army Command Cadet program called Officer Returning Alumni Program, or ORAP. The program, which is completely unfunded, allows an officer to return to his alma mater on permissive TDY status to share his experiences as an officer, said Van Hout.

"When SRAP came out, we [Cadet Command] thought it would offer our officers more opportunities to return to their schools since, as ORAP is run, an officer would incur out-of-pocket costs," Van Hout said. "Cadet Command believes this is a good initiative and feels that officers should be allowed to participate and support this effort."

In addition to being a veteran, Van Hout said interested officers must be 28 years old or younger, display a positive image, and be articulate and enthusiastic about what they do.

"We only want high quality officers who are recommended by their chain of command," said Vanhout, who conducts the screening process for ROTC graduates. "I speak with the officers to find out what they want to share with their communities and basically make sure they can do what we want them to … tell the Army's story."

Interested ROTC officers must submit their applications directly to Van Hout, at VanhoutMD@USACC.army.mil. All requests will undergo a screening process, which takes about seven days. Approved officers will be notified via e-mail.

Upon receipt of notification, approved officers must have their requests (DA Form 4187) approved by the first lieutenant colonel in their chain of command and then fax it to (757) 788-6677 or DSN 680-6677. An approved DD Form 1610 will be completed by the USACC program manager and faxed to the officer and his unit personnel section (as provided on the DA Form 4187).

The OEF/OIF officers will report with their signed DD Form 1610 to their designated ROTC/Recruiting Station commander.

For more information, e-mail MAJ Van Hout, call him at (757) 788-3076/DSN 680-3076, or visit www.usarec.army.mil.

Reunions

The 45th Infantry Division Association (Thunderbirds) will hold its annual reunion September 29 to October 5, 2005 in Oklahoma City, Oklahoma.

For more information, contact Raul Trevino at (210) 681-9134 or write to:
Raul Trevino
2145 NE Street
Oklahoma City, OK 73111

The Society of the First Infantry Division (Big Red One) will hold its 87th annual reunion from July 20-24, 2005 at the Crystal Gateway Marriott in Arlington, Virginia. The society is composed of veterans who served in World War I, World War II, Vietnam, Desert Storm, the Balkans, during the Cold War, during peacetime, and now those who have been deployed as part of Operation Iraqi Freedom.

For more information, call (888)324-4733, fax (215) 661-1934 or send an e-mail to Soc1ID@aol.com. Those interested can also write to the Society of the First Infantry Division, 1933 Morris Road, Blue Bell, PA 19422.

Benning Tests M-9, Alternatives
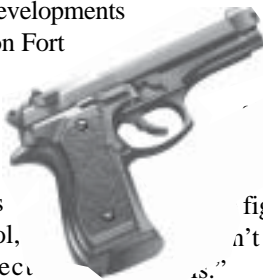
SPECIALIST NIKKI ST. AMANT

The Directorate of Combat Developments (DCD) and Soldier Battle Lab on Fort Benning began analyzing the current-issue M-9 handgun and possible alternative weapons January 24.

"I want to make it clear, this is not a selection of a new pistol," said Charley Pavlick, project officer with DCD's Small Arms Division. "We are responding to concerns we have from (Soldiers deployed Operations Iraqi Freedom and Enduring Freedom) that report a lack of confidence in the M-9 for several reasons. This is an analysis of different features and characteristics that are available with other weapons platforms."

Some of the concerns with the M-9 include many stoppages, uncomfortable function control and the low lethality of the 9mm ball round, Pavlick said.

The Army hasn't made an official decision to make a move from the M-9 to a new sidearm, Pavlick said. DCD will rewrite the draft requirements documents after the experiment is complete, and then officials will make a decision.

Army officials decided to switch from a .45-caliber sidearm to the 9mm in 1954, but that change wasn't fully implemented until 1984, Pavlick said. It was only when the supply of rebuilt .45s began running out that the Army finally started the 9mm Personal Defense Weapon program.

"The decision to switch was ... logistical," he said. "The ... states was trying to move ... NATO joint operability, and we ... fighting the Cold War. Target effect ... n't a factor in that decision. Now it ...s."

The performance of better sights, larger ...bers and double-action-only firing ...anisms are what DCD analysts will ...e taking a look at.

The test firers for the experiment are representative of the force, Pavlick said. Soldiers of varying rank, military-occupation specialty, and gender are included.

The testing started this week with a baseline qualification to assess the basic marksmanship of the firers with the M-9 and familiarization fires with alternative weapons.

Staff Sergeant Michael Morten is one of the test firers. He fired the .45-caliber version of the Smith and Wesson 99.

"You can really feel the difference," he said of the Smith and Wesson. "It fits better in my hand. The sights are easier. I thought it would have more kick being a .45, but the recoil is the same as the 9mm. I thought it was excellent."

(SPC St. Amant is assigned to the Fort Benning Public Affairs Office.)

CULTURAL AWARENESS CORNER

GREETINGS — An Arab will shake hands gently and may pull those he greets toward him and kiss them on either cheek in greeting. Arabs may also hold hands to walk to other locations. If an Arab does not touch someone he greets, he either does not like him or is restraining himself because he perceives the person is unaccustomed to being touched. After shaking hands, the gesture of placing the right hand to the heart is a greeting with respect or sincerity. To kiss a forehead, nose, or right hand of a person denotes extreme respect. Use of appropriate titles such as "Doctor" or "Professor" along with an individual's first name is common.

TALKING DISTANCE — Americans usually prefer to keep at least an arm's length between them and others. Arabs, however, prefer less space between themselves and others. They will often maintain 12 inches or less during a conversation. An American will tend to back away when an Arab crowds him, but the Arab will merely step forward. If the American continues to back away, the Arab will continue to step closer or wonder if he offended the American.

(Taken from the Department of Defense's *Iraq Country Handbook*.)

29TH INF CONDUCTS TSIRT

During the 1st Quarter of Fiscal Year 05, Headquarters and Headquarters Company, 29th Infantry Regiment conducted its first Theater Specific Individual Readiness Training (TSIRT) for Department of Defense civilians, contractors and military personnel deploying to Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF).

The training is focused on individual tasks and is two weeks long. During the first week DOD civilians, contractors, and military personnel attend mandatory classes and training which includes country threat briefs, improvised explosive devices (IEDs), unexploded ordinance, media awareness, first aid, and NBC. Also during this week, military personnel qualify on their assigned weapons and certain civilians fire for familiarization.

The second week is only for military personnel. Their training consists of such tasks as basic map reading, PLGR (Precision Lightweight GPS Receiver) orientation, crew-served weapon familiarization, and short range marksmanship.

Fifty-two tasks are taught within these two weeks. In the 2nd Quarter, we are implementing an Urban IMT lane. All of these tasks are taught by Reserve Soldiers from the 108th Division and contractors from the OMEGA Training Group.

At this point, approximately 1,000 DOD civilians, contractors, and military personnel have been through the training.

Lessons Learned from Stryker Battalion Commanders in Combat

LIEUTENANT COLONEL J.R. SANDERSON

On 18 January 2005, the United States Army Infantry Center (USAIC) led a collection effort consisting of various Training and Doctrine Command (TRADOC) schools, material developers, and other subject matter experts in an attempt to determine relevant lessons learned from 3rd Brigade, 2nd Infantry Division's (Stryker Brigade Combat Team 1) recent Operation Iraqi Freedom rotation. Although the USAIC is continuously interviewing the field in an effort to update systems across the DOTLMPF (doctrine, organizations, training, leadership and education, material and facilities), this effort was unique in that the 3rd Brigade, 2nd ID was the first Stryker-equipped unit deployed to combat operations.

The SBCT is a unique, self-contained combined arms organization. In its design architecture, the SBCT was specifically optimized for rapid deployability, small scale contingencies, and combat in compartmentalized terrain. The SBCT provides the combat commander with a highly-lethal, highly-mobile, digitally-enabled Infantry heavy force that can accomplish multiple missions.

The following is a summary of key lessons learned from the perspective of the first SBCT battalion commanders to lead this formation, and its vehicle variants, in sustained combat operations. This article takes their pertinent comments from the interview and places them into appropriate major DOTLMPF categories. The comments below define the consensus among the commanders present.

Doctrine:

1. The base doctrine for the employment of SBCTs is sound.

2. The major doctrinal issue (some would argue this is a TTP-tactic, technique and procedure) is the execution of Information Operations at the battalion level. From the SBCT (brigade) perspective, Information Operations (IO) consist of three major areas:

• Identifying all of the stakeholders in the zone of operations and their individual motivations;

• Identifying the specific measures of effectiveness to determine if the IO effort is functioning as designed;

• Fully integrating all aspects of Information Operations into the targeting meeting cycle and determining the desired "effect" the operation will have on the populace.

3. The SBCT brigade is fully resourced to conduct these operations, but it becomes difficult in terms of execution at the battalion level. Although the battalion has responsibility for IO in its area of operations, the battalion is not fully resourced to conduct extensive IO. The resulting problem is that the brigade can make the "read" and produce an adequate assessment, but (due to lack of resources at the battalion level) the unit is not agile enough to get the desired effect. The central doctrinal question in terms of See First, Understand First, Act First, and Finish Decisively is "How do we ACT first?" in terms of Information Operations?

4. The consensus among the commanders is that the enemy was winning the IO campaign as the enemy had the ability to "outpace" and react to incidents in the area of operations faster than our forces. The enemy has the capability to "spin" IO related stories and themes and executes much faster than coalition forces. Additionally, IO cannot be reactionary. Coalition forces must use all available assets in a proactive manner rather than constantly attempt to react to new enemy IO themes. Coalition forces must also be fully aware of the clan or tribal based "rumor mill" and how this word of mouth network affects coalition operations.

5. An additional pertinent comment is that we tend to communicate with the populace using "Americanized Arabic." Due to major dialect differences, the local population can tell immediately that the message is from Coalition forces. The TTP used to overcome this was to hire local nationals to translate IO themes into non-Americanized, stylistic Arabic.

6. It is imperative that units have the capability to "change the message" immediately given the current tactical situation. The desired endstate is for the commander on the ground to have the capability to assess the current situation and to produce a message to the populace that provides an advantage to coalition forces.

7. As with many units executing the stability and support mission set, this unit struggled to determine the appropriate amount of emphasis on IO operations. At times, it was the clear main effort with traditional combat operations solutions as the supporting effort.

Organizations:

1. The SBCT design is excellent. The formation allows for an integrated combined arms fight at the company level.

2. The greatest challenge of the design is in the reconnaissance platoons in the infantry battalions and in the reconnaissance squadron. In both cases, the commanders felt that they did not have adequate dismount strength in these recon platoons to

accomplish the assigned missions. Currently, the recon vehicle is manned with a driver and a vehicle commander with the potential to dismount three scouts. Given their experience and the mission sets they were asked to accomplish, this number was insufficient for both internal force protection and combat operations in urban terrain. Infantry battalion commanders were in some cases resistant to cross-attach rifle companies with reconnaissance troops due to this lack of dismount capability.

3. The current SBCT modification table of organization and equipment (MTOE) does not reflect the requirement for a deputy brigade commander. This position is critical in sustained combat operations. Additionally, MTOE changes are needed to fill Stryker vehicles with reconnaissance troop executive officers, battalion command sergeants major, and company first sergeants.

4. The use of contract maintenance personnel was a huge success story. The contract maintenance personnel were consistently available and provided the best possible services to the unit.

Training

1. It is imperative that the unit be able to communicate with the populace (per IO operations above). This unit created additional tactical human intelligence (HUMINT) teams (taken from the recon squadron) to fulfill that need. These Soldiers trained with the unit and worked hard to master the intricate crime link and association diagrams affiliated with the local populace. Even with the addition of these teams, the commanders also felt a need for trained tactical interrogators.

2. Tactical questioning is a critical leader task. The desired endstate for junior leaders is the ability to conduct tactical questioning on the spot and then be able to quickly analyze the newly found data coupled with the ability to then execute a "sequel" to the operation. The leader must be able to communicate with a suspect, determine the validity of the data, and then plan subsequent missions (or cancel subsequent missions) based upon this questioning session. This is a time-

Specialist John S. Gurtler

A Stryker team from the 3rd Brigade, 2nd Infantry Division (Stryker Brigade Combat Team) conducts a routine mission in Mosul, Iraq.

sensitive task in that the unit only has limited time (about 30 minutes) from the beginning of the questioning to beginning the execution of a potential sequel or else the "actionable" intelligence value may potentially be lost as the enemy (or target) moves or flees.

3. Although the SBCT is fully digitized, the true value of the digital backbone to the battalion commanders was found during mission planning and subsequently during consolidation and reorganization after the mission. The example used was of an hourglass where the unit makes maximum use of digital enablers during the planning and mission preparation phase of the operation, then primarily uses FM voice coupled with Force XXI Battle Command Brigade and Below (FBCB2) during the execution of the mission, followed again by maximum use of digital systems during the consolidation and reorganization phase of the operation.

4. Patrol debriefings are critical. The vast majority of the commanders prefer to use the debriefing format found in the Ranger Handbook as a base. The battalion/squadron staff would then attempt to draw commanders critical information requirements (CCIR) from the debriefing and pass them to the SBCT for further analysis.

5. The ability of a junior leader to negotiate with key members in the local populace is also a critical leader skill. The commanders felt the negotiation process began with squad leaders and felt this skill was of paramount importance at the platoon sergeant (PSG) level. The PSG must be able to not only negotiate, but also be able to understand the local information network and the "power brokers" within that local network. Many of the "power brokers" were not necessarily those in official positions such as the police chief or the mayor, but were often the cousin of somebody. Having a PSG with strong negotiating skills allowed for problems to be resolved at the lowest level and also enabled complex negotiations to begin at that level prior to working their way up the coalition chain of command.

6. Although the subject of issuing digital cameras and videotape capability to the squad is primarily a material issue, it also has training impacts. The unit felt it was important to photograph and videotape its actions during search operations. The photographs were later used as evidence against a potential insurgent and were also used in the IO campaign to prove that Coalition forces did not damage a house or the belongings of a local family. This was especially important when units hit a "dry hole" or did not find either the intended target or evidence. Additionally, Soldiers needed to be trained on evidence collection. When a suspected insurgent was taken into custody, it was important to insure the appropriate statements and documents (in law enforcement terms: establishing a chain of custody) were included. This enabled the coalition to effectively and efficiently prosecute the insurgent and also helped teach the rule of law throughout the society.

7. The commanders also spent time training and educating Soldiers on the rules of engagement (ROE). The ROE is an enabler as opposed to a restriction or constraint. Additionally, commanders expected junior leaders to have the ability to internally manage their force protection requirements without significant oversight from higher headquarters. All leaders must be able to conduct a risk assessment and

Sergeant Jeremiah Johnson

A 3rd Brigade, 2nd Infantry Division (Stryker Brigade Combat Team) Soldier fires at the enemy during combat operations in Tall Afar, Iraq.

determine those things needed to mitigate the risk to both the mission and their Soldiers.

Leader Development

1. Leaders must understand the inherent value of humanely treating detainees. Leaders must be trained and educated on the value of the "unmolested capture." Given this circumstance, the enemy is more receptive to immediate interrogation and tactical questioning. Additionally, leaders within the SBCT constantly reinforced to their Soldiers that everything the unit does sends a message to the local populace, and that if detainees are treated humanely, then the unit is sending a positive message. This is especially critical for those detainees that are subsequently released due to lack of hard evidence. Per above, the commanders believe more emphasis is needed in institutional training on tactical questioning and negotiation skills.

2. The commanders do not feel that the Advanced NCO Course was challenging their current and future platoon sergeants. Consensus among the commanders was that the PSG is a critical billet in sustained combat operations requiring broad-based training and education.

Material

1. The upper level digital tactical interface (TI) (specifically MCS) compatibility with the lower level digital tactical interface (FBCB2) is poor. Certain MCS-L graphics cannot be loaded into the FBCB2. Additionally, the digital architecture needs the capability to pass multiple digital photographs between the upper level TI and the lower level TI. This is especially critical when a battalion is conducting multiple missions on the same night and when attempting to execute a sequel based upon obtaining actionable intelligence. The FBCB2 is a superb system, but it needs more multi functional capabilities such as the ability to accept an external hard drive allowing it to be used as another computer, and facilitating the use of digital photographs and digital mapping.

2. The unit equipped its squad designated marksman (SDM) with the M-14 rifle and preferred this weapon system due to its precision penetrating ability. The commanders believe a requirement exists for the ability to penetrate windshields on

vehicles, to penetrate drywall, and to penetrate the rear of a vehicle and kill enemy rocket-propelled grenade (RPG) gunners or snipers who are using the vehicle as cover. In an urban environment, the need is for precision penetrating power. Although the unit was well-equipped with M240 machine guns, they preferred not to use them due to the high density of civilians in the area. The current equipment (M4 with current 5.56mm) was insufficient to produce the desired effects. They also stressed that they are not looking for a sniper-type weapon or ammunition, and wanted the SDM to remain a member of the rifle squad where his primary responsibility remains as a rifleman; the SDM cannot become so specialized that he fails at his primary mission of rifleman. In their view, the SDM weapon must also be compatible with the other squad weapons while engaged in the four-man stack series of drills, and must be short enough in overall length to be advantageous in confined areas. However, they felt the M-14 provided the capability to be used in the support by fire role and did not take away from the primary rifleman mission. Their recommendation was to use the SR 25 rifle.

3. The requirement exists for seamless communications (plug in and plug out) for leaders between the vehicle and on the ground. They felt the need is for one dual-purpose helmet as opposed to a CVC type helmet and a separate combat helmet when dismounted from the vehicle. This communications system must provide for adequate hearing protection during combat operations as it is difficult to hear FM radio transmissions over the noise of combat.

4. An asset that could assist the Stryker battalion in communications with the local populace is the mounting of external speakers and a sound system on select Stryker vehicles within the formation. The system would be similar to what is currently in use by Tactical Psychological Operations Teams (TPT) and would have the ability to play from a menu of prerecorded messages. This would assist the unit in keeping the populace out of the way while conducting operations and assist in crowd control after motor vehicle accidents. This capability would also enable echelons as low as the platoon or company to broadcast messages in line with the IO campaign plan.

5. Although the commanders used the ATGM (Antitank Guided Missile) Stryker variant for the maximum tactical advantage, they all clearly preferred the Mobile Gun System (MGS). The ATGM variant provided the required firepower but due to the limitations of TOW missiles over water and wires in an urban environment the MGS capability is preferred.

Overall, these commanders were highly satisfied with the Stryker formation and design. Their lessons learned and their combat observations are provided in this article as a means of stimulating thought and debate within our profession, as well as a means of educating the force on pertinent combat lessons from their recent experience in Operation Iraqi Freedom.

Lieutenant Colonel J. R. Sanderson is currently serving as chief of the SBCT Transformation Team at Fort Benning, Georgia. His last assignment was as commander of the 2nd Battalion, 69th Armor Regiment of the 3rd Brigade, 3rd Infantry Division (Mechanized).

RANGER NOTES

EARNING THE TAB

COMMAND SERGEANT MAJOR DOUGLAS M. GREENWAY

Having a Ranger attitude is feeling like you can't do something, but then finding that "can" somewhere. You soon find out you can accomplish far more than what you ever thought possible. When you go two to four months constantly getting knocked down and dragged through the dirt, you come out the back end of the Ranger course as one confident, motivated, mountain-climbing, hungry, mission-executing machine. You have an attitude few will ever match. They will call you a Ranger.

The Ranger course is 61 days in length, and usually only a third of the class will make it straight through. On average, our classes have about 200 (max of 330) students. We have a recycle policy, which allows those that fail a standard event to continue if they have the drive to stay. They will be reinserted into the next class. Those inserts have increased graduation average to about 51 percent for the past 54 years.

RAP (Ranger Assessment Phase) week is the first week of the Ranger course and is where most will fail to find the intestinal fortitude to continue. Those who thought a PT test and 5-mile run weren't worth much "train-up" didn't consider that from the

Ranger Training Brigade photos

first day to the last you will get no time to yourself, sleep an average of 4 to 6 hours a day and only eat meals the Army gives you (on average 2.5 meals a day). Your body would usually need about four meals to keep up with all the energy you are expending.

After the first week, the Rangers will be pushed on to grueling long days in Camp Darby learning field craft and small unit tactics. They will then move on to the mountains of Dahlonega, Georgia. With 70 pounds of equipment per person, the uphill climbs and descents will show students a whole new meaning of pain. Finally, the students are then on to the swamps of Florida where the terrain is flat but the snake-infested swamps will make students wonder what they are doing there.

The answer is that they are building excellence and a never-quit attitude that all leaders should have.

The brotherhood of Rangers is second to none. When you complete the Ranger course, you earn the right to wear a new standard of excellence. You can no longer go out and be average. You will stand taller, move faster and not stop at anything to complete what is asked of you. If you don't, you can expect a fellow Ranger to jack you up sideways.

Command Sergeant Major Douglas M. Greenway is currently serving as the command sergeant major of the Ranger Training Brigade, Fort Benning, Georgia.

PRACTICAL SOPS DEVELOPED FROM CURRENT TTPS

FIRST LIEUTENANT R. DENNIS ELLER

In this article, I wish to discuss the importance of developing platoon SOPs that are relevant to the enemy and friendly tactics, techniques, and procedures (TTPs) that are currently in use here in the Iraqi theater of operations. This was brought to my attention while we were conducting a right seat ride with a unit that had just arrived in theater. As we were discussing our platoon SOPs, I noticed that the unit had received its training at Fort Hood, Texas, and had developed platoon SOPs that were based on outdated enemy and friendly TTPs — even though they were only one year old. This later proved very costly for the new unit as they suffered many casualties within their first month of operations in Iraq.

My platoon has been operating in Iraq for the past six months. Before arriving here, we were an opposing force (OPFOR) unit at the Joint Readiness and Training Center (JRTC) at Fort Polk, Louisiana, where we constantly portrayed the aggressor in training rotations preparing people to deploy to Iraq and Afghanistan. Having done so gave me and the rest of the company leadership an extraordinary insight into the current TTPs that were being seen not only in Iraq, but also Afghanistan, Chechnya, and Bosnia. This allowed for us to develop platoon SOPs that would not only greatly reduce the risk to our Soldiers, but also give us the best opportunity to defeat the insurgents here in Iraq.

The main focus for SOP development was the Mounted Patrol SOPs. A majority of our patrols here in Iraq are in M1114s. Since we are an airborne infantry company and have never worked as a motorized infantry unit, we had to start from the ground up. A lot of our initial SOPs were developed from what the special forces units were doing, but we tweaked them just a little bit due to our experience as the OPFOR at JRTC.

A great example of this is our React to Improvised Explosive Device (IED) SOP. Most of the TTPs that we were seeing either coming from Iraq, Special Forces, or from the Center for Army Lessons Learned (CALL) team all stated to continue past the kill zone 300 meters, establish a perimeter, and then return to the site in order to search for the triggerman and device. This to me did not make much sense, since when we would emplace and detonate an IED at JRTC we had witnessed this TTP time and time again,

and each time it would allow my OPFOR to get away and set another one up later. Or we would set up tandem ambushes where we would initiate one and then 300 meters down the road have another one set up waiting for the unit to set up its security perimeter.

So having looked at my options, my PSG and I created a slightly

Figure 1 - React to IED SOP

Triggermen's position 300m away and behind a canal

Location of 1st 130mm IED remote detonated

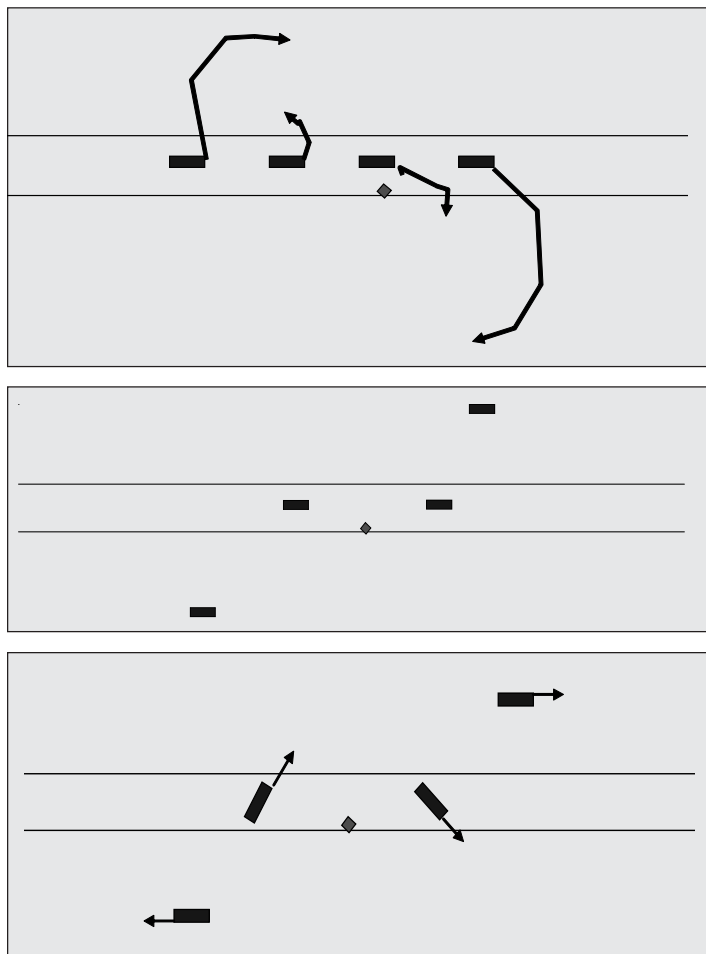**Location of secondary IED 130mm round encased in cement remote detonated**

Figure 2

different SOP for our platoon. Once our platoon gets hit by an IED (which 75 percent of the time is triggered on the second or third vehicle), we immediately do two things at once. First, the lead and trail vehicles flank — the lead vehicle flanks right 12-6 o'clock and the trail vehicle flanks left 6-12 o'clock (See Figure 1). Next, we have the middle two vehicles secure the site and provide a SBF platform for the two flanking vehicles — 2nd vehicle faces right in support of the lead vehicle and the 3rd vehicle faces left in support of the trail vehicle. This allows for a quick reaction time in response to an IED ambush. During an IED ambush, you only have between 30-60 seconds to capture or destroy the triggerman or men. Most of these triggermen have some form of terrain feature between them and you or are in a vehicle prepared to move out at a high rate of speed, thus you must react quickly in order to catch them. This SOP also allows for the flexibility to maneuver any of the elements in response to differing vehicles being the target of the IED. For instance, if the lead vehicle gets hit, the second vehicle can bypass and begin the

flanking movement while the first and third become the securing element. Or if the trail vehicle gets hit the first and second vehicles can flank while the third and fourth become the securing element and so on. This SOP was refined while we were in Iraq due to the fact that the IEDs that we are seeing in Iraq differ greatly from those at the training centers that many units go through in the process of deployment. Many of the IEDs seen in the training environment are command detonated and the triggerman is

only about 50-100 meters away from the IED itself. This is not the case here in Iraq. Most of the IEDs that we are detonated on our patrols are remote detonated and initiated with a small hand held radio. Also, the triggerman is at a much greater distance regardless of if the IED is remote detonated or command detonated. The average distance with a remote detonation is 400-1,000 meters while the average distance on a command-detonated IED is 500-800 meters. Thus, a reaction on foot is impractical, you must react with your vehicles and react quickly because the triggerman can easily drop the detonation device and pick up a shovel and look like any other farmer or villager in the area. In the city environment, most of the triggermen are in vehicles that are ready to move away from the IED along auxiliary roads. Thus, a quick reaction is needed with your vehicles in order to quickly cordon off the area surrounding the site. Yes, there is the risk that there might be a secondary device on a time-delayed fuse, but in order to capture or destroy the enemy ambusher and keep him from doing this to another Coalition patrol, you must stay in the kill zone and accept this risk. A quick reaction by you can stop the triggerman from initiating the secondary device detonator.

Figure 3

Vehicle-borne IED just detonated on this patrol 150m in front of ours.

In this picture, a vehicle-borne IED had just detonated on the patrol to our front. Notice the number of civilians around not only the detonation site but also our patrol. This is the major reason why the M-4 is our gunners' primary weapon.

My platoon proved that this SOP works in one of our first IED ambushes. As we traveled down one of the auxiliary roads next to a main supply route (MSR), we were hit by a 130 mm HE round encased in cement and detonated by a remote device. The IED hit my third vehicle, so we immediately reacted in accordance with our SOP. While my lead vehicle flanked right and my trail vehicle flanked left, my gunner spotted two men in a field on the other side of a canal from our patrol to our right. I directed my lead vehicle towards their location and within 45 seconds we had apprehended the two individuals who had detonated the IED on us. During our securing and searching of the IED site itself with the two center vehicles, we discovered a secondary device that was waiting for us to leave the area to be initiated on us when we returned to the site (See Figure 2). We were able to determine this based on the fact that the second IED had a completely different set of detonating mechanisms from the initial device. If the two IEDs had been set up to detonate simultaneously, then they would have been on the same firing circuit or one would have been on a delayed timing device. My platoon has been involved in at least eight IED ambushes — each of them different from one another. Some were single rounds, some were daisy chained, some were encased in cement, while others were just on the side of the road, and still others were buried. Each time, however, my platoon has reacted successfully to these IEDs due to the SOP that we have developed due to our research and knowledge of current TTPs in theater.

Another SOP that we had to create after seeing the current rules of engagement (ROE) was having our gunners use their M-4s as their primary weapon instead of the .50 cal machine gun as we were taught prior to our deployment. This is due to the fact that most of the direct fire confrontations that we have require precision fires rather than area target fire that would be delivered by the M-2. Also, having our gunners man their M-4s instead of the M-2s allows for our gunners to have an unhindered zone of fire. Many times here in Baghdad you find yourself in narrow alleys with tall buildings on both sides. The mount on the M-2 does not allow for the gun to be elevated high enough. However, if the gunner has his M-4 in his hand, he will have no problem in engaging targets on rooftops right next to the vehicle. Then, there is the fact that more and more armor and weaponry is consistently being added to the turret of the M1114. Between the side and back armor, weapons (M2 and M240), the two weapon mounts, the front shield, and finally the ammunition for the weapons, the weight of the turret is so much that the gunner has a very difficult time traversing the turret, let alone being able to quickly turn it in order to engage enemy targets in a rapid response. Additionally, the 5.56 mm round will not penetrate many of the buildings in the urban environment of downtown Baghdad, unlike the .50 cal round which will destroy anything that it hits. This can cause possible collateral damage
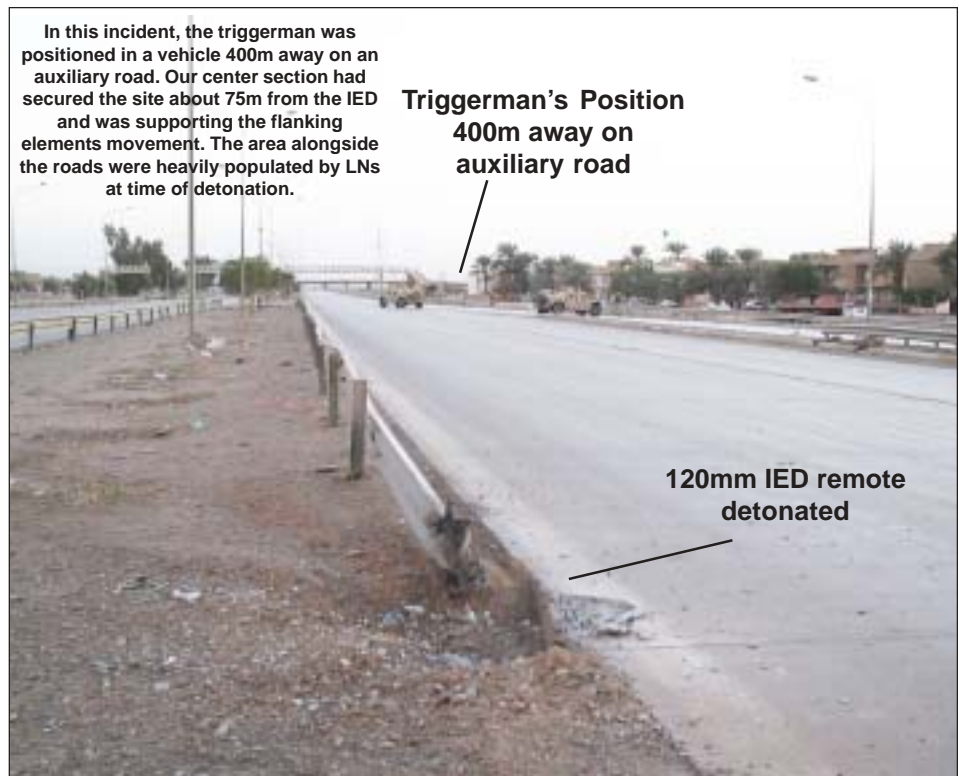

In this incident, the triggerman was positioned in a vehicle 400m away on an auxiliary road. Our center section had secured the site about 75m from the IED and was supporting the flanking elements movement. The area alongside the roads were heavily populated by LNs at time of detonation.

Triggerman's Position 400m away on auxiliary road

120mm IED remote detonated

Figure 4

with the civilians and their businesses or fratricide when your unit is operating in a small area of operations (AO) with several patrols within small arms range of one another. Thus, we have found that the M-4 is the best overall weapon for our gunners to utilize up in the turret of the M1114.

Most of the TTPs that we are being taught prior to coming here were developed more than a year ago with the idea that the insurgents were initiating an IED ambush and then following it up with small arms and RPG fire. ROE also allowed for more freedom of fires. This is not the case anymore in Iraq. Unfortunately, most of the training centers back in the states are still teaching these TTPs based on the past tactical environment. This creates a situation in which units that are deploying to Iraq have created SOPs based on outdated information. With the current ROE and tactical environment, this is not only unfair to the leaders but also very dangerous for the Soldiers of those units who will now have to create their SOPs while conducting combat operations.

The units which are deploying into a combat environment need to have the most updated idea on what the current TTPs in use are so as to allow their leaders to have the best tools which to develop platoon SOPs. As the old Army saying goes, "Set the next guy up for success, not failure."

First Lieutenant R. Dennis Eller is currently serving as the executive officer for B Company, 1st Battalion (Airborne), 509th Infantry Regiment, which is currently serving in Iraq. LT Eller was commissioned in May 2002 after completing a Green to Gold ROTC program at Pacific Lutheran University. While serving as an enlisted Soldier from 1993-1998, Eller was assigned to the 1st and 2nd Battalion, 12th Infantry, 4th Infantry Division at Fort Carson, Colorado, and the 1st Battalion, 23rd Infantry, 2nd Infantry Division at Fort Lewis, Washington.

Every Soldier is a Rifleman

CAPTAIN LEO BARRON

Every Soldier is a rifleman. The Army seems to relearn this lesson in every war. Sadly enough, it is usually as the result of lost lives — lives the Army might have saved it if had not forgotten lessons from its past. Currently, we are engaged in a war against a foe who seeks to strike our forces where they believe we are the weakest. The insurgents plant improvised explosive devices along roadsides to kill Soldiers on a mail run. They lie in wait, weapons ready, while a chow truck drives into their kill zone. Our enemy knows that attacking a well-trained infantry squad will end in disaster for them, and so they choose to strike our cooks, our clerks, and our drivers — men and women who know little about Battle Drill One Alpha, Squad Attack, or any other of the infantry battle drills found in the Army Field Manual 7-8, the Infantry Bible.

Attacking enemy supply lines is not a new tactic. It is as old as warfare itself. Crusaders living in the Holy Land routinely ambushed Arab caravans heading north from Mecca because they were easy pickings and profitable targets. In 1415, during the Hundred Years War, French knights, sensing victory in the Battle of Agincourt, rode down an English baggage train while the English archers slaughtered their comrades. In World War II, partisans throughout Europe attacked German supply routes prior to major invasions. The idea of "rear areas" and "forward areas" is a fallacious premise and dangerous one that leads to complacency and overconfidence on the part of our Soldiers. We owe it to our Soldiers to train the combat support Soldiers and dispel the foolish notion that only 11Bs face danger every day. We can do this by preparing all of our Soldiers, and in doing so, we a train a better prepared Army.

Fortunately, we are on the right path. General Peter J. Schoomaker, the Chief of Staff of the Army, has ordered that all Soldiers must undergo more rigorous infantry training. When better-trained Soldiers reach the battlefield in places like Mosul, Hammam al Alil and Fallujah, the foreign fighters and former regime loyalists will find that the supply convoy is no longer just a supply convoy, but a killing machine that happens to be carrying supplies.

In World War II, experience taught harsh lessons to Soldiers who thought that only the infantrymen did the fighting. In major battles like the Hurtgen Forest and the Battle of the Bulge, commanders had to call on support troops to play decisive roles in desperate battles. In some of the worst cases, commanders simply had run out of combat Soldiers, due to death and wounds. Someone had to fill the gaps. For the airborne units, this was not a problem. Paratroopers and glidermen of the 101st and the

82nd Airborne Divisions were ready to step up when the frontline infantry could not accomplish the mission alone. The men saw themselves as paratroopers and glidermen first – not cooks or clerks. During the Battle of the Bulge, support Soldiers from the 327th Glider Infantry Regiment, 101st Airborne Division, played a pivotal role in the battle's outcome, fighting outside the besieged city of Bastogne.

On 16 December 1944, the German Army surprised almost everyone, hurling three armies, the Fifth Panzer, Sixth SS Panzer, and Seventh Armies, headlong through the Ardennes in a battle that historians named the Battle of the Bulge. Crashing through the green troops of the 106th and 99th Infantry Divisions, the German forces achieved a breakthrough, but not a breakout. At every major road junction, the American Soldiers held on with fierce tenacity, upsetting the precious German timetable and preventing the German army from rupturing the American lines.

Two such vital road hubs were St. Vith and Bastogne. Without these transportation centers, the advancing panzers would have to find alternate routes, costing them precious time and, more importantly, precious fuel. General Eisenhower, commander of the Allied Expeditionary Force, foresaw this and ordered his only reserves into the battle, the 101st and the 82nd Airborne. He wanted those divisions to hold those vital junctions.

For the men of the 327th, relaxing and recovering from several

National Archives photo

Infantrymen attached to the 4th Armored Division fire at German troops in the advance to relieve pressure on surrounded airborne troops in Bastogne in December 1944.

months in Holland, the thought of going back to the line before Christmas was something they did not want to think about. Unfortunately for the glidermen, the regiment received orders on 17 December to head for Belgium. On 18 December, the men filed onto "deuce and a half" trucks and left for Belgium. From 1955 to 2400, the regiment was winding its way from its World War I barracks to Werbomont and not Bastogne. The men did not have all of their equipment. Many of their heavier weapons, their machine guns and mortars, were at depots undergoing repair from the long campaign in Holland. Furthermore, in the cold of December, they also lacked winter clothing. Making matters worse, many of the units had not received all their replacements from the losses they sustained in Operation Market Garden.

But onward they went. Almost before it was too late, Brigadier General Anthony McAuliffe received word that Bastogne, and not Werbomont, would be the 327th's destination. The men of the 327th were not aware of all this. They Soldiered on, huddling in the trucks from the bitter cold. At 1000 on the 19th, the men de-trucked at the tiny village of Flamizoulle, Belgium, west of Bastogne.

Luckily, the Germans were not there to meet them. Through roadblocks at towns like Baraque d'Alleboro, the Combat Command Reserve of the 9th Armored Division had slowed down the German advance just enough to allow the 101st to reach Bastogne and assemble a hasty defense. As their battle raged from the 17th to the 19th, the 327th began to make their preparations. After stopping for a short time at Mande St. Etienne, much of the regiment moved by foot to the area south of Bastogne. By 0830 on the morning of the 20th, 2-327 Infantry Battalion was almost complete in relieving combat engineers from the 326th Engineer Battalion who were guarding vital road junctions near the town of Marvie.

Unfortunately, the Germans had other plans. The 901st Panzer Grenadier Regiment of the Panzer Lehr Division struck the American defenses in the nearby town of Wardin, southeast of Bastogne. From there, they headed south to avoid Lieutenant Colonel James O'Hara's blocking position of tanks and tank destroyers from the 54th Armored Battalion

National Archives photo

A U.S. Soldier guards a group of enemy prisoners of war in December 1944.

of Combat Command B, 10th Armored Division. In doing so, they ran into the engineers who were attempting to pull back from their roadblock. Though these men were combat engineers, their usual job did not entail holding terrain like infantry Soldiers. In fact, the 101st, having to defend a wide perimeter, used the engineers as infantrymen, guarding key roadblocks and pieces of terrain from the very beginning of the operation.

The Panzer Lehr Division, under the command of Generalleutnant Fritz Bayerlein, was not at the force level it had been during the Normandy Campaign, but with 57 tanks, 30 of which were the much-feared Panther tanks, it was still a formidable threat. As the lead tanks from the 901st Panzergrenadier Regiment broke through the fog on the morning of the 20th, the men of C Company, 326th Engineers opened fire with small arms and bazookas. The result was telling. Within moments, they had knocked out two tanks and one half-track, killing and injuring many German soldiers. It was not without cost, though. Private Anthony Varone lay dead on the field, but his bravery earned him the Silver Star for his actions at the roadblock that day.

The stinging repulse at the roadblock earned the glidermen from the 327th time

to organize their defenses. It would be close. Marvie sat astride a road that led directly into Bastogne. General Bayerlein knew this and so did General McAuliffe and Colonel Harper. If Marvie fell, so would Bastogne.

At 0945 that morning, while the engineers conducted a delaying action at the roadblock that led to Marvie, 2-327th Infantry started to receive indirect fire from enemy artillery and mortars. This continued for a half an hour. When the barrage lifted, the German onslaught swept across the wet fields as seven half-tracks and five Panzer Mark IV tanks headed directly towards E Company, 2-327th Infantry. According to the S2, another 100-150 men followed, as they approached the American lines. Suddenly, artillery shrapnel wounded Lieutenant Colonel Roy Inman, who was inspecting the lines. Despite the serious wound, he gave orders for all companies to hold their ground.

By 1300, thanks to the engineers' delaying action and the withering fire from O'Hara's tanks, the attack petered out as the men of 2-327th Infantry forced out the few remaining German infantry who managed to make it to the southern end of the village. After Inman's injury, Major R.B. Galbreith took over the battalion, and for the next couple days, German attention looked elsewhere for a way to break into

Bastogne. This allowed the Soldiers to build their foxholes and clear fields of fire. They knew whom they were facing. Having captured several German prisoners, they learned that it was the 901st Panzergrenadier Regiment of the Panzer Lehr Division. They also knew that the attacks were far from over.

On the night of 23 December, the enemy returned. Starting at 1715, the Germans unleashed a massive barrage of indirect and direct fire on G Company's position. The Wehrmacht Soldiers started to advance through the snow, emerging from woods south of the town of Marvie. Since it was dark and the Germans wore snowsuits, the glidermen could not engage them with their typical, ruthless efficiency. Onward they came, and soon they reached Hill 500, a piece of key terrain in the center of 2-327th Infantry's defense. The Panzers surrounded a platoon, forcing them to surrender, and continued forward. During this advance, an M3 half-track towing a 57mm anti-tank gun was trying to reach the summit of Hill 500. Earlier in the day, Colonel Harper, seeing the importance of the hill, ordered the anti-tank weapon. The Germans swarmed over the hill. The driver of the half-track, seeing the Mark IV Panzers, hurriedly turned around and began to drive back towards the center of Marvie. When the remaining glidermen from G Company and the rest of E Company saw the half-track approach from a hill they knew the Germans had seized, they opened fire on the hapless vehicle, setting it ablaze and killing the crew. The two Mark IV's followed the half-track into the village, but the smoldering wreckage of the M3 acted as a blocking obstacle on the road, preventing the tanks from moving any further up that avenue of approach.

Despite this initial setback, the German forces were in Marvie now, and Major Galbreith had a serious fight in his sector. At 2000, he called back to the regimental headquarters and reported to Colonel Harper that Germans were approaching the southern end of the village, pushing back the remaining U.S forces who held the north and west end. German tanks, having seized Hill 500, were shelling the village from the high ground, causing havoc amongst the American forces. Sensing a decisive point now in the battle, the regimental headquarters ordered several units to converge on the village to buttress the glidermen of 2nd Battalion. At 2145, 40 paratroopers from the 501st Airborne Infantry Regiment linked up to reinforce F Company, and at 2330, the division attached D and E Batteries from the 81st Airborne Anti-Aircraft Battalion to the beleaguered regiment. Two more units were 2nd and 3rd platoons of B Company, 326th Engineers. Under the command of 1st Lieutenant Charles J. Roden, the platoons were positioned in and around the village. Once again, combat support Soldiers were in the role of infantry. Galbreith knew he could count on the engineers to accomplish the mission. He needed fighting Soldiers, and the engineers delivered.

Time was running out, though. The battle was swinging in the Germans' favor. After encircling and overwhelming Lieutenant Morrison's platoon on Hill 500, the same two Mark IV tanks were now working their way through the southern portion of the town, leading several squads of Panzergrenadiers who began to clear the various buildings. One of the tanks actually reached within 75 yards of the battalion command post of Major Galbreith. And despite the coming reinforcements, G Company's Command Post came under direct fire, and the command section had to fight their way out to avoid encirclement. According to the S2 reports, four or five German tanks had broken through the lines during the initial push. With one platoon gone, G Company had to fall back to new defensive positions, leaving F Company separated from the rest of the battalion with the panzers in between them. Major Galbreith called on the intelligence section and supply section to defend the command post since the men from G Company had to defend other sections of the line. These men were not infantry Soldiers, but they had undergone the rigorous training that was common in the 101st Airborne Division. They knew how to fight.

At 2030, the first engineer elements reached the area. Lieutenant Robert Coughlin left to reconnoiter the positions as the rest of the combat engineers prepared for the coming hostilities. Private Carowick, who wrote extensively on the experience, told of how the fires burning in the village of Marvie provided excellent illumination. As they approached their squad defense sectors, they passed Soldiers from G Company, 2-327th Infantry who told them that the Germans were coming on strong, and that the Germans might break through the defenses.

Luckily for the men of 3rd Platoon, B Company, they were defending good ground. Their platoon ran east/west along a stream

The Attack on Marvie from 23 to 24 December, 1944
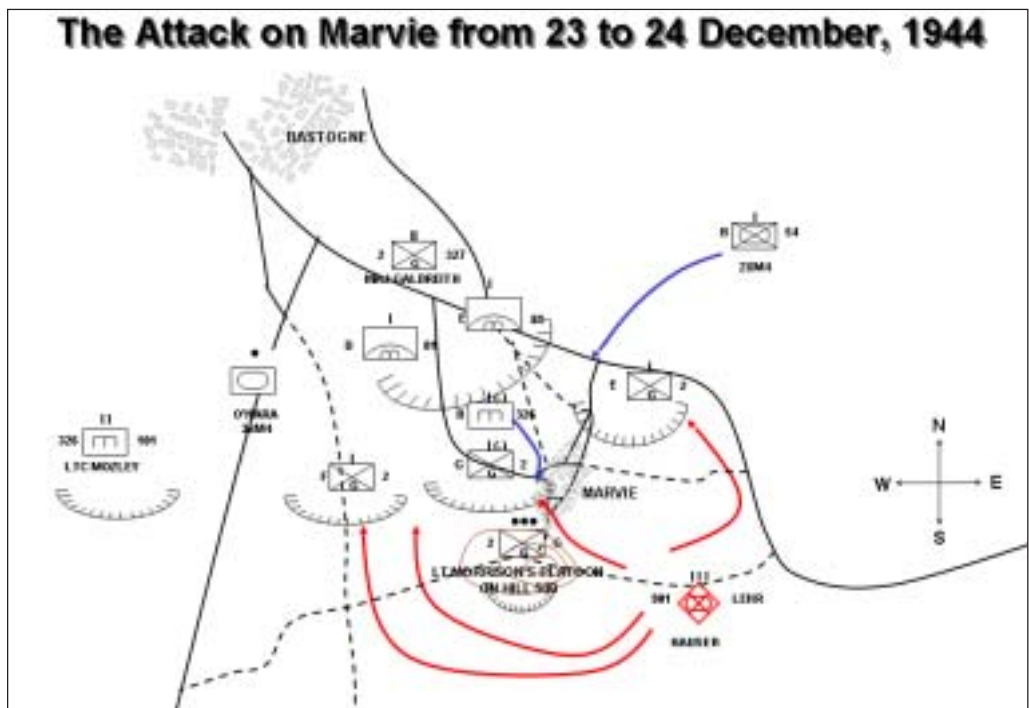
that faced the main road heading northward into the town. The stream was better than a tank ditch, providing a turning obstacle that would slow the enemy armor down. Furthermore, the former occupants had already dug foxholes along a fence-line that followed the stream. With air-cooled M1919 machine guns along 1st and 2nd Squads' lines and bazookas positioned near four-and-half-foot high culverts, the men waited for the tanks to come. Private Carowick could hear their engines idling as they slowly clanked their way forward. Suddenly, a flare shot up, and the engineers could see three Mark IV tanks with snow clad infantry following closely behind them.

The flare acted as a signal for both sides. The night erupted as the American machine guns opened up on the German invaders. The lumbering Mark IV's, seeing the muzzle flashes, replied with their 76mm guns. The giant shells slammed into the trees above the machine gun positions, showering the gunners with splinters of wood. Some of the gunners, realizing the futility of machine guns against tanks, began to slacken their fire to fool the Germans into thinking they had knocked them out. However, some of the other gunners kept firing. One squad leader sent a runner to order them to hold their fire, but a shell from one of the tanks exploded nearby, killing the runner. Still, the machine gunners had killed some of the infantry. Carowick could hear the moaning and cries of wounded Germans amidst the cacophony of shell and bullets.

While both sides exchanged blows, one of the tanks turned onto the culvert, in an attempt to cross the stream. Facing the culvert was a barn that was also the position of Privates Duffie and Knarr, a bazooka team. Seeing the tank attempting to cross over the culvert, Duffie opened the window and ducked out with the bazooka on his shoulder. As the tank started to actually cross, Duffie squeezed the trigger. Sparks flew as the rocket shot out and hurtled into the right sprocket of the Panzer's track. The tank shuddered and halted, another obstacle to the other tanks.

The tank commander popped his hatch and inspected the damage. Wrongly concluding it was a mine, he started to yell, "Minen, Minen, Minen!" to the others. Instead of leaving immediately, the tank

crew then shot up their remaining rounds into the already burning village. After they had done this, they left their tank and withdrew.

This was not the only fight, though. The engineers had only neutralized one tank, and the additional German tanks had already moved into other parts of Marvie and were winning the fight, even though more units had started to arrive to stem the German tide.

Major Galbreith called Colonel Harper again. "They are all around us now and I must have tanks," he said to his commander. Major Galbreith had called earlier asking for tanks at 2000, but now it was urgent. Without tanks, the acting commander knew the town would fall. Harper acted fast. He ordered Galbreith to call Team O'Hara and send two Shermans to support the glidermen and the engineers. Harper knew he did not have the authority to move those tanks. Only division could order that, but he decided to go ahead anyway.

"You call O'Hara on the radio and say the commanding general orders that two Sherman tanks move into Marvie at once and take up defensive positions," he said to 2-327th's acting commander. Obviously, he did not have the authority, but his officers were experienced Soldiers who knew when they needed help. He had to act fast. His move was the right one.

Within minutes, the two tanks from Team O'Hara moved out. Meanwhile, First Lieutenant Thomas J. Niland, the battalion S-2, acting under Major Galbreith's orders, had organized the intelligence section, the supply section, and the cooks into a last-ditch defense around the battalion command post. Braving intense direct fire from the Mark IVs and German MG 42s, Niland sprinted across enemy fields of fire to establish these positions with the support staff. In the center of town, two Mark IVs shelled the buildings and engaged the headquarters troops under Niland. Seeing the tanks, Niland guided them into position and continued the fight. Two Soldiers from the S-2 section, Privates Feeney and Panik, then killed a machine gun team that had pinned down many of the glidermen. The tanks, called in without authorization, proved the difference. They denied the Germans their main access into Bastogne.

For the next several hours, the fight

seesawed back and forth. Though the panzer grenadiers had seized the eastern portion of the town, they could not force the Americans out of the western portion of Marvie. By 0330, the battle quieted down. Later on that morning, the weather cleared and Allied airpower, namely P-47's, attacked the German positions that remained in Marvie. For the Germans, the way to Bastogne through Marvie was blocked. The door would never open again.

Throughout the battle, several of the decisive points centered on combat support troops thrust into an infantry situation. They performed beyond expectations. The engineers had bought time for the regiment in the beginning of the battle, and then, support Soldiers with another company of engineers held back the panzers before they could enter Bastogne. Lieutenant Niland wrote, "Our previous battle experiences were of great value to us. We could anticipate the situation and did not panic when it happened. Everyone took it upon themselves to stop the attack…"

Lieutenant Niland's words demonstrated the level of training that was common in the 101st Airborne Division in World War II. All glidermen were infantrymen first. Once they accomplished their mission and seized the enemy objective that was usually behind enemy lines, then they could continue their "other" jobs. When Major Galbreith called on the headquarters' sections to stem the German tide, he knew he could rely on them to do their jobs because though they were cooks, clerks, and intelligence specialists, they were infantrymen first. The German Soldiers learned the stark truth when their assault stalled amongst the burning buildings of Marvie. Can we say that of the combat support Soldiers of today? For some, the answer is sadly, no. We recognize this dangerous trend away from preparedness though, and we are changing it through intensive infantry training. We must hope that no other lives are lost due to a lack of combat training.

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BOYD'S O-O-D-A LOOP
AND THE
INFANTRY COMPANY COMMANDER

CAPTAIN AARON A. BAZIN

Many company grade infantry officers have probably never heard of Retired Air Force Colonel John Boyd, his way of thinking, or his contribution to the art of warfare. COL Boyd was a fighter pilot who fought in World War II, Korea, and Vietnam and was instrumental in developing the F-16. Today's battlefield is constantly changing, based more in urban terrain that ever before, and requires a canny ability to deal with civilian populace, command and control decentralized Soldiers, and fight a tough enemy at the same time. Faced with new tactical problems set in the environment of Army transformation, what would an old fighter pilot have to teach us? Simply put, what John Boyd can teach you is how the enemy thinks, how you and your Soldiers think, how to train more effectively, and how to control your tactical environment.

The first time I heard about an O-O-D-A loop was during a war-game, when a major talked about, "getting inside the enemy's O-O-D-A loop." My interest was peaked, and I asked the S-2 and a couple of fellow commanders what he was talking about. No one had a clue. With a little research, I found articles on how John Boyd was the next Sun-Tzu, how many businesses have adapted the O-O-D-A loop to marketing and dealing with competition, and how it has revolutionized Marine Corps tactics. So what was this great idea that had done so much, and how did it apply to me as a company commander? This is what
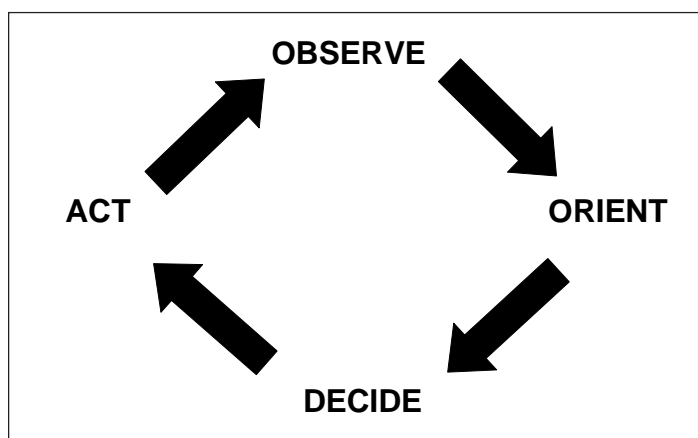

Figure 1

I found: The O-O-D-A loop is the constant revolving decision cycle that the mind goes though every second of every day in dealing with all tasks from mundane to the most complicated. The cycle follows the pattern of Observe-Orient-Decide-Act (Figure 1). This cycle applies to friendly forces, enemy forces, and noncombatants alike. It is how the mind deals with its outside environment and translates what it sees to action.

Let us use one infantry Soldier in Iraq as an example. This Soldier is the number three man of a fire team that is lining up in a four-man stack to clear a room. He is observing his team leader, he checks to see if his weapon is on safe and that his thumb is poised on the selector switch and his tactical flashlight on his weapon is on. On the signal the first two men enter the dark room with our Soldier on their heels. Shots are fired as the first two men enter. As the Soldier enters the doorway, it is dark and he can only see what his flashlight illuminates. As he enters, he sees a person in his sector with a weapon in his hand. This Soldier is now in the first phase of an

O-O-D-A loop. He is making observations of his environment, and his mind is looking at the tactical situation unfolding before him. Guidance and control has been placed on his observation though his sector and his movement into the room. Since he is a well-trained Soldier, his mind takes less than a split second to enter the next phase.

As the Soldier orients to eliminate the threat, his mind is affected by many factors. Most importantly, his mind analyzes and synthesizes the information that he is presented. Some of the questions that may be going through his head include:

☐ "Is that the number one man shot on the ground in front of me?"

☐ "Is that a friendly noncombatant"

☐ "Did my team leader move to the wrong position and is he in front of me?"

☐ "Am I standing in the fatal funnel?"

In this phase, the Soldier's previous experience and training shapes how he orients. How many times has he faced this situation in training and in theater may shape what he does next. At this critical point everything that makes up the Soldier is tested. Every experience he has had from his upbringing, school, basic training, and pre-deployment training, and previous combat experience is tested. The quicker the Soldier can make a sound decision and get through this phase the more likely he is to survive. This is the phase where indecision, timidness, and doubt can cause him to make a fatal error. In this split second he has eliminated his doubt, gone through
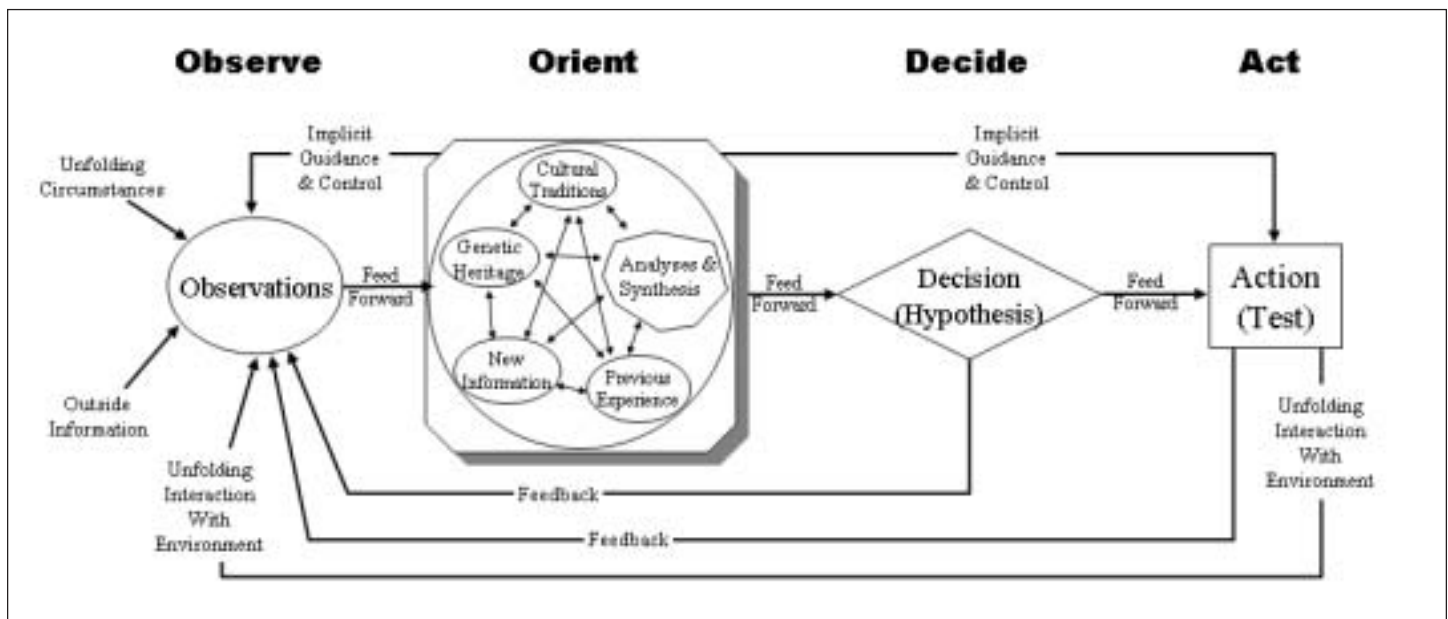
Figure 2

analysis in his head, decides to rotate the selector lever and fire a controlled pair at the insurgent.

This decision he is made is a hypothesis his mind has determined to be the best course of action to survive the situation. As he goes into action, the hypothesis will be tested. Since he is well trained, the Soldier acts almost effortlessly as muscle memory takes control. The Soldier brings the weapon up, fires his controlled pair and puts the weapon back on safe. As he watches the enemy, it looks like he is moving in slow motion. His hypothesis is successful. He moves to his point of domination in the room and starts the process of observation all over again. Whether he knows it or not, the Soldier just experienced a complete O-O-D-A loop (Figure 2) and has come out alive because he did so quicker than his enemy.

If the enemy had observed the fire team outside, oriented his weapon at the doorway, decided to fire a magazine on full automatic and acted on it as soon as he saw our Soldier come in, our Soldier would have met a different fate. The things that made the difference for our Soldier was that he was able to complete the loop quicker and more efficiently that the enemy. Even though the enemy has not received the training our Soldier did and does not have the equipment he has, if he went though the loop quicker or with more information he would have easily won. The cycle that COL Boyd went through in his fighter plane in Korea is the same that our Soldier went through in Iraq, and the same that a platoon leader or company commander goes though in every tactical situation.

Most of the vehicles for the commander to train to maximize his Soldiers O-O-D-A loops are already integrated in the Army's training architecture. Battle drills conducted in realistic and varying conditions reduce time needed to go though the decision cycle. Timed events from the Expert Infantryman's Badge testing to weapons qualification work to minimize the time it takes a Soldier to reach a decision that will get them out of a situation alive. The Soldier in our example spent hours on the reflexive fire range and was able to engage quickly from muscle memory. Timeliness and speed of action is key.

When the enemy decision cycles are overlapped with friendly decision cycles in combat contesting wills translate to bullets going in both directions. In this dynamic environment, the room that our Soldier was sent to clear may have been the right room five minutes ago but would be fatal mistake now. This fact may not become apparent until the team arrives at the doorway. Leaders need to make decisions quickly, but flexibility must be maintained to adjust to an ever-changing environment. They also must have the ability to exercise initiative within the commander's intent to capitalize on success. Constant observation and situational awareness must be trained in leaders to form correct orientation, decisions, and actions. Again, the quicker the leader can go through his O-O-D-A loop with the units situation in mind and come up with appropriate actions, the more tactical success he will have. When operating inside an opponents O-O-D-A loop, Boyd stated, "It seems that the enemy is moving in slow motion." This perceived time-lapse creates a situation where leaders may need to use tactical patience to wait for a more appropriate time to act. If the enemy is expecting an attack and the attack never comes or occurs somewhere else, the commander has successfully interrupted his cycle. Through flexibility, a leader must be able to temper tactical patience with initiative to create an unrecognizable tactical tempo to the enemy and constantly operate within his O-O-D-A loop.

A commander can maximize his unit's effectiveness by looking at his O-O-D-A loop and more importantly the O-O-D-A loop of his enemy. The commander is given a take on the enemy from the S-2 brief and paragraph two of the battalion operations order. The commander develops his plan based on this and his personal experience on what the enemy will do. The enemy almost never acts exactly as he expects. Even if it is only in his mind, the commander needs to develop contingency plans, branches, or sequels to deal with the changing environment and minimize the enemy's effect on his O-O-D-A loop. To develop an effective plan or execute an effective plan, the commander should constantly

analyze the enemy's O-O-D-A loop.

The first question to ask is: What will the enemy observe, or what is he observing now? Ideally, the enemy never observes the action you take and is taken completely by surprise. Mitigating the enemy's observation of your forces can be accomplished by attacking at night instead of the day. It can be accomplished by attacking from the rear, flank, or the least expected direction. It could be accomplished by attacking behind the concealment of smoke. Often the observation of the friendly forces may be inevitable. In these cases, feints and demonstrations are key to denying the enemy accurate observation. The commander should not create an identifiable pattern that the enemy can use. This also applies to the enemy's Intelligence Preparation of the Battlefield (IPB). Without solid intelligence, the enemy will have difficulty developing a plan. Denying the enemy the ability to observe, or causing the enemy to be unsure of what he is observing gets inside his O-O-D-A loop and increases the effectiveness of the commander's plan. If the commander denies the enemy the ability to accurately perceive the situation, the enemy's O-O-

D-A loop will have no where to go. His orientation, decisions, and actions will always be erroneous.

The next question: How will the enemy orient, or how is he oriented right now? Boyd's definition of the orient phase encompasses how the enemy is deciphering what he observes in the terms of his cultural traditions, analysis and synthesis, previous experience, new information, and genetic heritage. This is internal to subject going through the O-O-D-A loop. The commander analyzing the enemy should strive to understand the factors that the enemy will use to make his decisions to predict his actions.

What will the enemy decide to do or what has he decided? What has the enemy done in the past that has worked and why? Will he do it again? The commander must look at what options he has left his enemy — will he fight or flee? What is the enemy trying to accomplish and how has he done so in the

past? Once the action has occurred and the tactical environment has changed, the commander must be able to quickly observe and go through his decision cycle based on the new changes.

The Boyd decision cycle is a way of looking at how people act in their environment. If a commander can train his Soldiers to minimize their reaction time to tactical problems, train leaders to make sound and timely decisions, and understand and interrupt the enemy's decisions cycle, he gains the advantage. If a commander is experiencing uncertainty or confusion and does not act, he gives the enemy who is willing to observe and act the advantage.

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Egyptian General Saad-Eddine El-Shazly

Controversial Operational Thinker and Architect of the 1973 Yom-Kippur War

LIEUTENANT COMMANDER YOUSSEF H. ABOUL-ENEIN, U.S. NAVY

When studying the October 1973 Arab-Israeli War, it is important to read from various sources to gain a better understanding of the conflict. Since there are western, Israeli, and Arab sources, readers may want to consider the agendas of the author. Egyptian General Saad-Eddine El-Shazly's work is an important contribution to understanding the Arab tactical mind. There is a single book by Shazly in English, but it is not as extensive as the Arabic book featured in this review essay. For those wanting to pursue their study of Shazly in English ask for *The Crossing of the Suez* (San Francisco: American Mideast Research, 1980). You can also request a copy through a website dedicated to General Shazly, www.el-shazly.com, which contains a biography of El-Shazly as he sees himself in the context of the history of Arab-Israeli conflict.

On May 16, 1971, Egyptian President Anwar Sadat appointed General Saad-Eddine El-Shazly as Armed Forces Chief of the General Staff. This appointment was significant in Egyptian military history, for it heralded a new shift in promoting those with true tactical and strategic abilities in the aftermath of the 1967 War. By the time El-Shazly assumed his post, he had already tangled with the future Egyptian War Minister Field Marshal Ismail Ali in the Congo in 1960, and had alienated several of his peers by instilling into the Egyptian military a competent Special Forces capability composed of the *Saaqa* (Commandos) and the *Mizalaat* (Paratroops). El-Shazly would put into practice Special Forces and airborne assault tactics in the Yemen War, an insurgency that lasted from 1962-1967.

During the operational planning phase for the October 1973 War, Shazly had put together all the elements for a successful crossing of the Suez Canal and breach of the Israeli Bar-Lev defensive line. When ordered by President Sadat to go beyond the range of the SAM air defense umbrella, Shazly became defiant knowing this was tactical suicide. Egyptian generals — like the late Chief of Operations General Al-Gamassy — and Israeli authors narrate that Shazly has gone into complete collapse over the decision. The final straw that led Sadat to relieve Shazly was his insistence on pulling back one or two divisions to counterattack Ariel Sharon's units that had crossed into Egypt proper along the Ismailiah road and were clearly a threat to Cairo.

El-Shazly went into a diplomatic exile as Egypt's ambassador to Portugal. Ultimately, his criticism of Sadat and the Camp David Peace Accords led him to be tried in absentia for illegally publishing his memoirs and allegedly leaking military secrets while he was in a more permanent exile in Libya. He dabbled with Islamic fundamentalism and the Muslim brotherhood as a means of undermining Sadat. In 1979, he wrote *Harb Uktubur: Mudhakiraat Al-Fariq El-Shazly* (*The October War: Memoirs of General Shazly*). It was published in Algeria by the National Establishment for Authors. If one takes away the political aspects of El-Shazly's career and his dabbling with Islamists, one finds a truly extraordinary book that is the best record of Egyptian tactical planning of the 1973 War. His attention to every detail of Operation Badr and his argument with War Minister Ismail Ali and Sadat on going beyond the 12 kilometer air defense umbrella was madness and not within the capability of the Egyptian military makes his book an important Arab viewpoint of the 1973 War. Shazly's memoirs and the tactical lessons learned therein became so influential among Arab military circles that it went through three printings within four years of initial publication. This review essay will explore aspects of this 491-page book that demonstrates a sophisticated level of tactical analysis to a series of tactical problems and their solutions leading up to D-Day October 6, 1973. The focus is on Shazly's preparation for the conflict.

Egyptian Military Planning in 1971

Shazly writes that when he assumed command as Egypt's Armed Forces Chief of Staff there was no offensive military plan for the recapture of the Sinai. He looked upon two plans (Plan 200 and Granite), each of which consisted primarily of commando raids that harassed the Israelis and focused on reconnaissance of the Sinai. His first order of business was to conduct assessments of Egypt's military capabilities and balance of forces between Egypt and Israel. What came out of this assessment was the following:

* The Egyptian Air Force (EAF) was weak and could not be relied upon to provide air cover for Egyptian military units operating in the Sinai.

* The analysis revealed Israeli pilots had the advantage of a two-to-one ratio in flight hour training over the Egyptian pilots, and that electronic warfare in Egypt's fighter-bombers was nonexistent. Compared to the Israeli Air Force (IAF), the Egyptian air fleet was a decade behind the times.

* Soviet surface-to-air missile (SAM) defenses was respectable but not mobile. Air defense assets were fixed in place, as Egypt did not possess enough light and mobile SAM-6 air defense

systems. Therefore Egyptian anti-air missile coverage provided only limited air defense capability.

    * Anti-air guns such as the ZSU-23 were useless against modern jet fighters like the F-4 Phantom.

    * Egyptian infantry formations were quantitatively superior, but Israel's qualitative edge made the Egyptian-Israeli infantry balance about equal.

    * Egypt retained the quantitative edge in artillery. Nevertheless, the Israeli Bar-Lev Line undermined Egypt's artillery advantage.

The Egyptian Navy was quantitatively superior to Israel's but was useless in the face of Israeli air dominance that extended into the Gulf of Suez and the northern Red Sea. Egyptian frigates because of Israeli air dominance could not challenge Israel's coastal patrol craft.

After leading his general staff through a rigorous analysis process, he came to the conclusion that Egypt could only mount and sustain a limited offensive to seize the canal, but not liberate the entire Sinai from Israeli occupation. One of the most important aspects of this analysis was that Shazly and his staff would relegate the EAF to a psychological and demoralizing strike along the Bar-Lev Line and in bases in the Sinai.

The Idea for Egyptian SAM Missile Air Defenses.

Based on their experience during the War of Attrition (1968-1970), the Egyptian General Staff realized that IAF probes into Egyptian airspace were characterized by deliberate avoidance of areas known to have high concentrations of SAM sites. In response, Egyptian air defense planners proposed the creation of thick, fixed forests of SAM missile batteries that would protect Egyptian ground units advancing a distance of 12 kilometers beyond the eastern shore of the Suez Canal.

Shazly reports that in late summer of 1971, he discussed the general staff's study with Egyptian War Minister Ahmed Sadek. The study included a detailed examination of Israel's mobilization techniques and the need to carry out a decisive and swift victory, as well as the ability of the Egyptian armed forces to undertake a limited attack to take the eastern banks of the Suez Canal.

The plan of attack and capture of the Bar-Lev Line was codenamed "*High Minarets*," while the plan to attack and capture the Bar-Lev Line and also advance 10 to 15 kilometers into the Sinai was codenamed "*Plan 41*." It was developed and shared with the Soviets as a contingency to take over the Bar-Lev Line and push past towards the Gidi, Mitla and Khatmia passes, which were well beyond the range of SAM air defenses. The Egyptians did not trust Moscow with their original plans and proposed a more ambitious program to elicit more technologically advanced military hardware from the Soviets. When the Egyptians concluded a massive arms deal with Moscow in October 1971, it included 100 MiG-21s and a limited numbers of mobile SAM-6 anti-air missiles. The tactic of proposing a more complex operation to the Soviets seemed to be paying off.

In late October 1972, Ismail Ali was promoted to War Minister and Shazly briefed him on the plans; "Plan 41" by now had evolved into "Granite 2" and "High Minarets" remained the same. It was during this time that Shazly decided to share these plans with a wider audience of Egyptian flag officers to elicit their views on how Israel would likely conduct a counterattack. The Director for Military Intelligence warned to expect an Israeli ground response to reinforce the Bar-Lev Line within 6-8 hours. Shazly and the General Staff disagreed with this intelligence estimate. Rather, they believed that the Israeli mobilization would require more like 10-12 hours. This led to the tactical discussion of how to delay and undermine Israel's rapid armor response, and the ideas for the "*Malotka*" anti-tank wire-guided missile took form. These preliminary discussions between Shazly and the flag level officers shaped the following plan of attack which would form the nucleus of Operation *Badr*, formerly known as *High Minarets*:

H-Hour: Artillery and Air Strikes along the Bar-Lev Line and the Sinai.

H+5 to 7: Infantry crosses the canal by rubber boats and watercraft as a first assault on the Bar-Lev Line.

H+7 to 9: Bridges are up with an infusion of 30,000 troops along the Bar-Lev Line.

H+12: Infantry formations dig in to face the Israeli armored counterstrike.

Shazly's Views on Egyptian Troop Numbers and Office of Chief of Staff

When Shazly assumed his post as Chief of Staff in 1971, he commanded a total force of 800,000 men. Before October 1973, this number would rise to 1,050,000. The Office of the Chief of Staff consisted of 5,000 officers and 20,000 enlisted men. Under Shazly, the Egyptian General Staff consisted of 40 flag level officers representing 14 commands.

Shazly writes that he missed the personal contact he had with officers in the field while serving in the Special Forces and as commander of the Red Sea Sector. He felt he should balance reports coming from his commanders with personal contact. Consequently, Shazly initiated a series of monthly conferences with his 40 commanders, who brought with them parts of their staff and battalion commanders. Over time, the meetings grew to include more than 100 senior officers. This solved one of the cardinal sins of the 1967 Six Day War, when field commanders did not know about the Plan *Al-Qahir* for the defense of the Sinai. From July 1971 to September 1973, Shazly issued more than 50 Chief of Staff directives, which were distributed to the battalion level.

With a million-man army including 10,000 battalion commanders, Shazly oversaw the production of millions of tactical booklets on such topics as desert navigation, air reconnaissance, disengagement and cease fire, land vehicle navigation, and religion, creed and victory.

Among the problems facing him was a 30-40 percent shortage of officers across all ground units. He decided to promote enlisted personnel with a college degree, but many were less than enthusiastic as they felt it would extend their draft. Shazly, for the first-time in Egyptian military history, had to explain why he needed more officers and assure them that it would not impact on their enlistment. He immediately got 15,000 volunteers from the ranks, and using the 1971 to 1973 draft years was able to acquire another 10,000 officers to add to the 5,000 officers from the regular army. The problems of recruitment extended into the enlisted ranks. As Egypt drafted only

120,000 out of 350,000 eligible draft age men, this left a shortage of 40,000 troops per year. He had no choice but to lower education and health standards. He also championed the ability of Egyptian women to enlist and become officers serving in the rear echelons.

Numerous Tactical Problems

Planning for the 1973 war revealed numerous tactical problems and subsequently changed the Egyptian armed forces in many ways, including the establishment of amphibious battalions and a refocus on combat engineers as warrior-builders that would lead a frontal assault in conjunction with infantry. Some of the more notable issues are as follows:

The Bar-Lev Sand Barrier: The Bar-Lev Line essentially consisted of sand ramparts three to 10 meters high to deny a foothold for Egyptian armor when crossing the Sinai. The Bar-Lev Line included 17 *maozim* (strong points) at 10 to 30-kilometer intervals; each manned 30 to 90 soldiers. Each strong point was essentially an underground bunker with some so elaborate they included underground command and control, fuel storage, and communications centers.

Shazly writes that initially the plan was to get the engineers across the canal, after which they would bore a hole through the sand of the Bar-Lev Line, place 200 kilograms of explosives and withdraw 200 meters before detonating the explosive. Egyptian combat engineers reported that this tactic still required a bulldozer to clear 1,200 sq meters of sand and debris. The task also required 60 people and 5-6 hours to complete the job. The solution came from an unlikely source, a young Egyptian engineer who had worked on the Aswan High Dam project. He argued that pressurized water could clear away sand efficiently. His idea was tested, and orders for hundreds of pressurized water cannons were placed.

The Napalm Pipes: The Israelis had attempted to install a spray that would create a floating sheet of fire along the canal. Although the Israeli attempt never worked, the demonstration so impressed the Egyptians that Shazly writes how he and his planners obsessed on the napalm pipes. Egyptians experimented with methods of blocking the pipes, putting fire retardant chemicals to counter the napalm, and many other solutions.

Infantry Kit: It was determined that each infantryman from the initial assault would need enough ammunition and rations to sustain himself until H+12 or H+18. The soldier's load was further complicated by the necessity of carrying anti-tank weaponry. This included the Malotka wire-guided tank-buster missile, which usually was employed by a team of two infantrymen and SAM-7

portable infantry anti-air missiles (MANPAD). Ultimately, the basic pack an Egyptian infantryman carried was approximately 25 to 40 KG. [Rations which included water typically weighed 4KG, clothes and bedding 10KG AK-47 assault rifle and 300 rounds was 15KG].

Infantry Night Vision Equipment: Egyptian troops would be trained to fight at night in an effort to effect tactical surprise on the Israelis, who believed that the Egyptians lacked this capability. So, unlike in the previous Arab-Israeli Wars, Egyptian planners equipped their infantry with a variety of night vision goggles (NVGs) and what Shazly calls "Starlighters" (probably night vision scopes that rely on a combination of moonlight and starlight). Likewise, anti-tank infantry teams were equipped with darkened welding glasses to counter what Shazly's book calls "xenon rays" which were emitted by Israeli tanks to blind infantry. The Israelis had evidently employed this tactic during the War of Attrition.

Electric and Gas Golf Carts: Egyptian reconnaissance noted powerful golf carts that the Israelis were using to move around artillery shells and other supplies along the Bar-Lev Line. Based on this observation, Shazly commissioned a similar cart to carry 150KGs of ammunition and supplies up the Bar-Lev incline. Egyptian Defense official's raided local Vespa™ motor scooter agencies to buy up the tires necessary for these specially designed military vehicles. More than 2,000 such carts were made and, according to the book, they carried 336 tons of equipment in the first days of the war.

Crossing Brigade: The Egyptian General Staff agonized over the composition of the initial assault force. They eventually came up with a figure of 32,000 troops crossing on 12 points in three waves. Specialized crossing battalions made up of military police (to direct traffic), waterborne craft drivers, and mechanics as well as combat engineers were established. This unit created 40 crossing points for troops of the Egyptian 2nd and 3rd Armies made up of 18 watercraft, 35-foot bridges (for infantry only), and 15 bridges (10 heavy for tanks and 5 light for jeeps and foot crossings).

The task-organized crossing brigade was made up of 500 officers and 1,000 NCOs. Shazly writes that its main challenge was keeping constant communication with one another to ensure units linked up on the Sinai side of the canal. This required 500 walkie-talkies and 200 portable phones connected by 750 kilometers of wire. Of the number of bridges created along the canal, each brigade would have two bridges assigned to it.

Medium-Range Missiles: Shazly was aware of an earlier collaboration between Egyptian and German scientists in the 1950s

to develop what would become the Al-Qahir and Al-Zafir missiles. When Shazly became chief of staff, he decided to spend time looking into the efficacy of these programs and was the first military leader to order tests of these missiles which had since been in storage. In September 1971, a series of tests were done, and it was determined that the missile was highly inaccurate. Despite this finding, two rocket battalions were created; one called codenamed *Teen* (Fig) and the second codenamed *Zaitun* (Olive). Unless one has memorized portions of the Quran, the codename means nothing. It is in reference to the 'verse of the fig' (Surat Al-Teen – Chapter 95:1), which begins, "by the Fig and the Olive, and Mount Sinai." In other words, these codenames were specifically meant to refer to the Sinai Peninsula, in this case, lobbing medium-range missiles into Israeli positions in the Sinai.

Hovercraft Experiments: Shazly commissioned a British firm to look into creating a small hovercraft that would carry the weight of a single tank across the Great Bitter and Timsah Lakes. A small-scale model and drawings were developed, but the development of the 30-knot craft was never undertaken.

Joint Syrian-Egyptian Studies on the Canal Crossing: Shazly's book describes how a Syrian major – a combat engineer – with many ideas on how the Egyptians might approach crossing the Suez canal – spent several months in Egypt studying the problem. Although the major's ideas did not amount to anything actionable, what is interesting was that Shazly kept the project going to demonstrate Egyptian-Syrian cooperation to his troops and engineers, and also as a deception that Egypt was not getting any closer to solving the problem of assaulting Israel's Bar-Lev Line.

Air Defense the Incessant Problem: Shazly had a healthy respect for Israeli capabilities and envied their ability to locally manufacture the Gabiel and what he terms the "Loz" air-to-surface missiles. The Egyptians negotiated for 6,000 Russians to provide for Egypt's air defense during Shazly's tenure as Chief of Staff. Shazly also traveled to Pyongyang, and afterwards the late North Korean dictator Kim Il Sung provided 20 MiG pilots to aid in providing air defense for Egypt proper in July 1971.

Training and Exercises

One of the major lessons learned in the aftermath of the 1967 Six-Day War was that, despite the lead up to hostilities, the Egyptian army had not conducted a division-level exercise since 1954. The Egyptians were not going to make the same mistake again, and Shazly presided over 16 major exercises called *Tahrir* (liberation) Series. Many of his 53 directives were issued as a result of what he observed during these exercises in the field.

The following is a short list of skills the exercises focused on:

· Practicing the opening of gaps along a sand barrier.

·Real practice with flame agents while crossing a water barrier.

·Paddling across a water barrier and assaulting a sand barrier under live fire and flammables. Artillery exercises, focusing on directional fire and concentration of fire.

·Amphibious assaults using Soviet made BMP amphibious infantry fighting vehicles.

·Divisional-level night fighting exercises. Tank training, with laser directional finders. TU-16 bomber practice.

While serving as an attaché in London, Shazly was very impressed with Professional Military Education (PME) programs in the British Army. He took these ideas and implemented field trips for junior officers and leaders at the battalion level and below to encourage unit cohesion. He also organized hundreds of competitive sporting events between forces, units and brigades.

War Minister Field Marshal Sadek and General Shazli Clash

When Shazly proposed his limited war theories to War Minister Field Marshal Sadek, the minister was still of the mindset that Shazly's limited attack on the Bar-Lev would be the first stage of the liberation of the entire Sinai. This would not be the first time the two would clash, and the book devotes several pages to the subject. What distinguished Shazly from many other generals was his willingness to speak his mind on tactical and operational matters. Here are a few of his disputes with Sadek:

The T-62 Tank Dispute: The availability of new Soviet T-62 tanks revealed a significant difference in opinion between Shazly and Sadek on the tactical deployment of Egyptian armor assets. Shazly wanted to concentrate the T-62s into a new tank division where he could deploy them along the Sinai front where they were most needed. Sadek preferred to spread the tanks among T-55s and T-34s in several armored units. Commander-in-Chief Sadek felt that concentrating these state-of-the-art tanks in the hands of a single brigadier general was too dangerous for Egypt's internal security. This argument is somewhat reminiscent of the disagreement between Field Marshal Rommel had with Field Marshal Von Runstedt over the division of Panzers along the Normandy coast. Rommel wanted to concentrate his panzers using strategic depth to repel the invasion where it was most crucial. Von Runstedt preferred to spread his panzers along the coastline and repel the invaders from the shore.

The Captain Eid Affair: In 1972, a tank commander named Captain Eid was given the mission of intercepting Israeli paratroopers that drop in and around Cairo. On his own initiative he decided to exercise his unit in Cairo, and stopped his tanks at a downtown mosque so that his troops could pray. As soon as they came out of the mosque, military police surrounded the armored unit, and Captain Eid was rewarded for his initiative by being declared

insane to avoid the charge of treason and inciting revolution. Shazly disagreed with this tactic and, according to his memoir, he attempted to intervene, but the counterrevolutionary culture in Egypt was too great to save what probably may have been a competent officer. Sadek would eventually be relieved from his post of supreme commander in part due to this affair.

General Ismail Ali Assumes Command, Shazly opposes the appointment

Ismail Ali was an apolitical general, and therefore, the perfect choice in a region with a propensity for military coups. He was also a learned infantryman who excelled in his studies at the Frunze Military Academy and who took notes and by all accounts was a Clausewitzian purist.

Shazly had once gotten into a shouting match with Ismail in 1960 while Shazly commanded Egyptian peacekeepers in the Congo propping up the elected administration of Patrice Lumumba. Ismail Ali – a brigadier – had come to inspect Colonel Shazly and his unit just as Joseph Mobutu Sese Seko had overthrown and murdered Lumumba, and the Egyptian mission was unraveling. It was a tense environment and made worse by the fact that Ismail Ali did not appreciate the situation around him in Leopoldville and came in with rank to enforce his authority. Now as he assumed Egypt's position as top officer, Shazly argued with Sadat that this would create a divisive chain of command. Shazly still did not appreciate Sadat's ability to politically appoint generals to create the kind of divide and conquer environment where no one officer in the military concentrated power in his hands. In 1969, Ismail became Chief of Staff and Shazly was commander of Special Forces in the Cairo Airbase of Inshass. They were forced to work with each other in 1972 when Ismail replaced Sadek as War Minister.

Colonel Trevor Dupuy highlights major tactical issues during the October 1973 War. They include differences in tactical philosophy between Shazly and Ismail. The first issue was a debate on the breakout beyond the Suez Canal. Ismail sensed that Israeli forces could not simultaneously withstand a Syrian onslaught and an Egyptian offensive into the Gidi and Mitla Passes. Shazly meticulously planned for the initial take over of the canal and pushing no more than 15 kilometers beyond (range of SAM protection). Timing is everything according to Dupuy. Ismail, he argued, was correct in his assumption that had Egyptian forces attacked between October 7-9, they would have had a chance to secure the passes.

The Die is Cast and Rubicon Crossed

The highest echelon of Syria's high command, led by Defense Minister General Mustafa Tlas, arrived in the seaport of Alexandria on 21 August 1973. Thirteen Syrian and Egyptian senior officers led by the War Minister from each nation spent three days discussing force readiness and timetables of attack, with the objective of reporting back to their respective political leaders the range of dates. The date of attack was set at some time between 7-11 September and 5-11 October 1973.

Sadat conducted his last war counsel on October 1st. That same day the respective commanding officers of the 2nd and 3rd Army were informed of D-Day: October 6, with H-Hour set at 1400 Cairo time. Shazly's book describes the actual point of no return in an exchange between Egyptian Naval Chief Admiral Zikry and himself that day. Shazly gave the order personally to Admiral Zikry to deploy several submarines to blockade the Bab-el-Mandab and Tiran Strait. The Egyptian naval chief told Shazly, "I want to be clear (that) once they deploy with orders, they cannot be recalled until hostilities begin. The sub commanders will commence attacking once they open their orders at sea." Shazly singles this out as the point of no return. What follows is a breakdown of when, according to Shazly, commanders were informed of D-Day and H-Hour:

- October 1- commanders, 2nd and 3rd Army.
- October 3 - divisional commanders.
- October 4 - brigade commanders.
- October 5 - flight wing and battalion commanders.
- October 6, H minus 6 hours - most units and personnel informed.

The evening of October 5, Shazly writes that he left Center Ten Headquarters, turned in early and returned the next morning. He had put his faith in God and in what would become the most meticulously and professionally planned military endeavor that the Egyptian military mind had yet conceived.

Shazly's memoirs describe the crossing with a detailed description of every hour and unit that crossed over the canal. After 14 October, with Sadat and Ismail insisting he extend forces into the passes, Shazly made four trips to the Sinai field headquarters. His last trip found the 2nd Army commander in a state of complete collapse, having suffered a heart attack in the field. Both 2nd and 3rd Army commanders carried out the orders to proceed beyond SAM air coverage but warned Shazly, who already knew, that Ismail's orders were suicidal. Shazly was the first Egyptian general to acknowledge the entrapment of the Egyptian 3rd Army, and he blames this squarely on Sadat and his politically correct War Minister General Ismail.

Shazly never got over Sadat's orders that completely destroyed his military gains, first developed as Plan "*High Minarets*." His book includes the text of a letter he sent in 1979 requesting Sadat be brought before Parliament to answer for his order that caused the death of thousands of Egyptian soldiers. He remained a lifelong opponent of Sadat, the Israeli peace plan, and at one point dabbled with Islamist politics. There are many lessons in these memoirs, most importantly insight into the nature of Egyptian civil-military affairs, the problems of having a uniformed Defense Minister and Chief of Staff, and how internal political intrigue undermines the operation planning for warfare. Shazly's book is an important part of a series of books that gives an Arab perspective on warfare and the 1973 War.

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STABILITY OPERATIONS IN NORTHERN IRAQ

TASK FORCE ALTUN KUPRI

CAPTAIN JEFFREY B. VAN SICKLE

As a first lieutenant during Operation Iraqi Freedom (OIF 1), I served as the Mortar Platoon Leader for 1st Battalion (Airborne), 508th Infantry Regiment, 173rd Airborne Brigade. My most demanding, rewarding, and memorable experience over 12 months of serving in OIF 1 was serving as the officer-in-charge of Task Force Altun Kupri. Lieutenant Colonel Randy George, the brigade deputy commander, selected my platoon to serve as the task force for the city of Altun Kupri beginning in May 2003 and gave us the mission of securing and reconstructing the city. My platoon's mission in Altun Kupri was part of the 173rd Airborne Brigade's foreign internal defense (FID) operation in northern Iraq.

FM 3-0, *Operations*, defines FID as actions taken by one government to assist another government in freeing and protecting its society from subversion, lawlessness, and insurgency, and it identifies three categories of FID operations: indirect support, direct support, and combat operations. My experience in Altun Kupri is similar to missions that NCOs and junior officers face on a daily basis in every city in Iraq as our Army conducts full-spectrum operations. Our mission in Altun Kupri was very successful, and I believe that it is important to share my experience, for better or for worse, because our junior leaders will continue to inherit challenging missions with very little guidance, just as I did in Altun Kupri. I will describe my area of operations, my platoon's operations in all three categories of FID, and several lessons learned over my three months in Altun Kupri.

Altun Kupri is located along Highway 2 between Irbil and Kirkuk, and its population is roughly 11,000 people. The city is home to Arab, Kurdish, and Turkomen populations, with the Kurdish people being the majority. (We conducted a city-wide census in August 2003, and learned that the population was 52-percent Kurdish, 45-percent Turkomen, and 3-percent Arab).

In Altun Kupri, Coalition forces were very welcomed since most of the population had suffered under Saddam Hussein's regime, and we met minimal resistance from insurgents or enemy forces during my time in the city. Altun Kupri is surrounded by ridgelines to the north, west, and south. The Iraqi Army used these ridgelines for observation posts, fighting positions, and ammunition and weapons caches during combat operations between the Coalition and Iraqi conventional forces. When we occupied the city, we found dozens of mines in the city and abundant caches dug-in along the ridgelines. The predominant enemy force operating within our area of interest was Ansar al-Islam, an al-Qaeda linked terrorist group that claimed responsibility for a series of attacks across northern Iraq in late 2003, including a major bombing in Irbil that targeted Kurdish political parties' leadership. Within our area of operations, there were several Ba'ath party leaders (rafik-level); insurgent traffic between Kirkuk, Irbil, and Tikrit; and Iranian intelligence agents. The greatest threat to Altun Kupri was the potential for ethnic violence between the Kurdish and Turkomen populations, as they struggled for control of the city and the greater Kirkuk region. Both groups knew the Kirkuk region's importance as the center of northern Iraq's oil reserves and as a historical homeland claimed by Turks and Kurds alike.

My platoon arrived in Altun Kupri on 26 May 2003 and conducted a relief in place with 3rd Platoon, A Company, 1st Battalion, 508th Infantry (Airborne), which had been in the city for five days conducting cordon and search operations and patrols

Northern Iraq
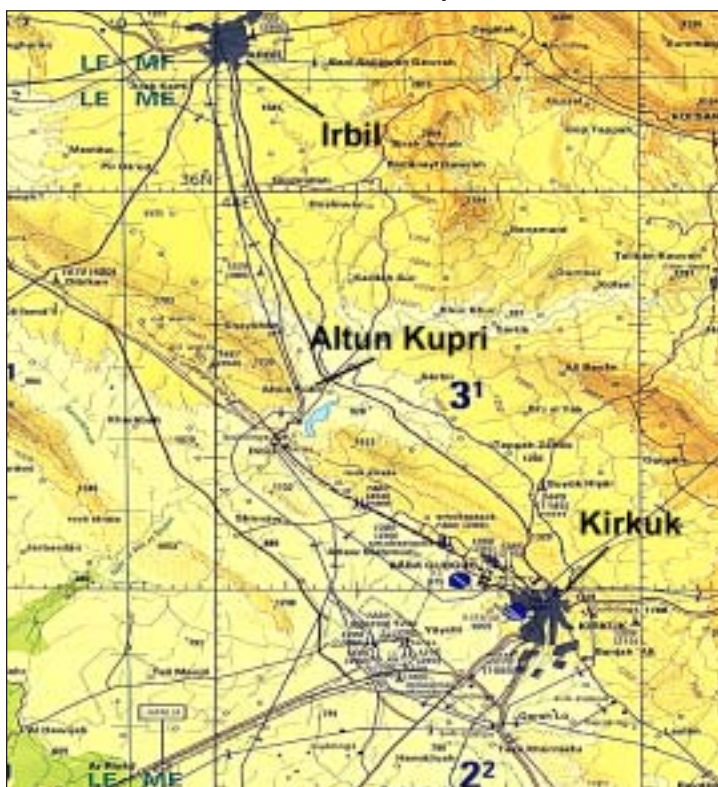
as well as removing unexploded ordnance (UXO) and illegal weapons. After conducting a short battle handover, I conducted a thorough assessment of the city to determine the city's weaknesses and vulnerabilities. First Lieutenant Joel Ellison, the platoon leader of 3rd Platoon, debriefed me on his platoon's operations and assessments of the city's security needs. My squads conducted patrols throughout the city to become familiar with the different neighborhoods (generally separated by ethnicity), to determine any immediate security threats to friendly forces, to identify key leaders in the neighborhoods and where they lived, and to understand the public sentiment towards U.S. forces and on life in Altun Kupri. Finally, I met with the Southern European Task Force's (SETAF) Special Operations liaison officer (SOF LNO). LTC George sent the SOF LNO to Altun Kupri specifically to lead the task force in developing a city council and creating a forum where Kurdish-Turkomen relations would be strengthened and where Altun Kupri would grow and improve as a city. SETAF's SOF LNO is a veteran of Special Forces and has several experiences in which he has established or assisted in establishing fledgling governments in both Central America and Southeast Asia. I learned a great deal from him about the current status of critical infrastructure within the city, specifically regarding security, government institution, media outlets, public works and sanitation, health care, and emergency services.

The first critical weakness was that there was no way to enforce any kind of law and order other than U.S. patrols and "snap" traffic control points (TCPs) throughout the city. Our response to the lack of security in the city is an example of indirect support, the first category of FID operations. According to FM 3-0, indirect support builds strong national infrastructure and emphasizes host nation self-sufficiency, legitimacy, and ability to address its internal problems. The SOF LNO selected a Kurdish man with a great reputation and several years of leadership experience in the Irbil Police Department to serve as the Altun Kupri chief of police. Staff Sergeant Adam Takata, the squad leader for the MP squad attached to my platoon, supervised the hiring and training of 50 new police officers from the city, with a proportional

number of jobs offered to Turkomen, Kurdish, and Arab candidates. SSG Takata and his Soldiers taught the candidates marksmanship, patrolling, and searching techniques that would provide a basic understanding of the fundamentals necessary to carry out their duties as Altun Kupri's security force. As time progressed, we conducted a series of joint raids, searches, patrols, and traffic control points with the Altun Kupri Police Department, which gave it legitimacy as a professional department in the citizens' eyes, provided us opportunities to train it in conducting critical missions like a cordon and search, and served as a great example of the gradual transfer of authority back to the Iraqi people. We later hired more police officers and men, bringing the total to 150, and outfitted the police department with new SUVs, weapons, ammunition, communications equipment, and a newly renovated police headquarters.

The second critical weakness that we identified was the lack of established government and local leadership in the city and a vast shortage of civil services available to the people of Altun Kupri. The task force's response to the absence of government leadership and city improvement programs is an example of direct support, the second category of FID operations. Direct support uses U.S. forces to provide direct assistance to the host nation civilian populace or military and includes civil-military operations (CMO), intelligence and communications sharing, and logistical support.

I met immediately with the SOF LNO to discuss how we would establish a new government that would be able to make instant progress. We decided to select a city council with the following departments: commerce, public works, social services, health, emergency services, education, public relations, and agriculture. A city council director would lead the council, and each department would also have a director in charge of its respective services. A critical step in selecting the city council was ensuring that there was a balance on the council between Altun Kupri's three major ethnic groups. An ethnic imbalance on the council or perceived favoritism would have decreased the legitimacy of the Coalition forces' efforts in the city and served as fuel for the fire of competition for power between the Turkomen and Kurds.

We conducted interviews for each council position and encouraged the political parties in Altun Kupri to each nominate one candidate for each department director position. From the candidates we interviewed, we selected the most educated, experienced, and honest candidates, regardless of ethnic group. Additionally, we selected five at-large city council members — two Kurds, two Turkomen, and one Arab — to accurately reflect the city's demographics. We believed

Courtesy photo

that the best candidates for the jobs were the ones who had no strong political affiliations to the former Ba'ath party or to the six other political parties in the city: the Turkomen Brotherhood, Iraqi Turkomen Front (ITF), Kurdish Democratic Party (KDP), Patriotic Union of Kurdistan (PUK), the Iraqi Islamic Party, and the Communist Party of Kurdistan. The most difficult selection was for the city council director. We knew that he would need to be intelligent, able to make tough decisions, devoted to the well-being of the people and to the future of the city, and resilient against the pressures he would face from the political parties. We selected a 28-year old man and believed that he was exactly what we were looking for. He had a degree in politics from the University of Irbil, but he never had the opportunity to use the degree because he refused to join the Ba'ath party. His father was Kurdish, his mother was Turkomen, and he was born and raised in Altun Kupri.

To address the shortage of adequate civil services in the city, each department director conducted an assessment of his respective department. Each director briefed the details of his department to the entire city council at our second city council meeting. The most immediate need was gasoline for vehicles and farm equipment and propane for cooking. Additionally, we had problems with electricity shortages, lack of supplies and equipment in the health clinic, and unclean water that was causing many people to be sick. Fuel was the most difficult problem to tackle because of the shortage across the region. Sometimes, the gas delivery truck drivers would take the fuel from Kirkuk to Irbil, where they could sell the fuel on the black market and charge three times the legally established price per liter. Also, we fired two gas station managers because they were embezzling gas or allowing their friends and family to cut in line, which created a huge shortage of fuel and a city full of disgruntled Iraqis.

To fix the fuel problem, we had to take complete control of the situation. We coordinated with the Civil Affairs unit in charge of gas distribution in the Kirkuk region and developed a schedule for gas delivery so that we knew the time, location, size of the delivery, and the name of the truck driver. Once the gas arrived, we used the Iraqi police and usually a fire team of U.S. Soldiers to secure the area and to regulate the distribution of the fuel. We also forced the Iraqis to take legal ownership and leadership of this problem and then to fix it. We mandated that the Social Services, Public Works, or Public Relations directors were present during the gas deliveries. This forced them to work with the police, with the gas station manager, and with the people of Altun Kupri to legally distribute fuel so that everyone had sufficient amounts for personal needs.

In addition to addressing the problem of fuel shortage, we provided simple services, such as contracting to have wells fixed so that outlying villages had clean water and teaching the water treatment plant workers how to properly chlorinate the water so that children would stop being sick as a result of drinking impure water. Our medics conducted an assessment of the health clinic's facilities, equipment, and basic first aid materials and coordinated with our Civil Affairs counterparts in Kirkuk and with the hospital

in Kirkuk to deliver simple supplies such as gauze, tape, alcohol pads, and needles. We were also able to coordinate with the Department of Electricity in Kirkuk to repair downed power lines and ensure that Altun Kupri had fully operational electricity throughout the day.

An issue that I had to address immediately was the numerous outside influences that could strangle the newly-formed city council and prevent it from working towards progress and the well-being of the citizens. The major threats to the progress were not having a clear agenda or purpose for the council and outside pressure from the competing political parties in Altun Kupri vying for power in the city. We conducted city council meetings twice every week, stressing accountability of the department directors to the council and the council director and making progress through simple plans and steady progress. Our meetings usually lasted 90 minutes, and they allowed the council director to raise new issues and to delegate authority to council members to research and fix existing problems. Additionally, it allowed council members to bring up new issues within their departments, to update the council on their research and progress on existing issues, and to report the completion of projects. At first, I ran the city council meetings, but gradually I allowed the council director to run the meetings as he grew in confidence, leadership, and ability to control the progress of the meetings. After about six weeks of city council meetings, the citizens of Altun Kupri were legitimately conducting the meetings and working on the issues within their own city.

I also instituted a weekly meeting for the leaders of the political parties in the city to meet with me and the city council director. I wanted the political parties to have an active role in the city, but I believed that their role should not be within the council. So, we developed agendas for each of the political parties in the form of service projects, such as street clean up, renovating and cleaning local schools, and adult education programs for the city. I know that the political parties were not happy with having limited input in the city council, but I believed that focusing their attention on the well-being of the city and its people was more important than their political causes.

The third critical weakness we identified was the city's location as a potential safe haven for terrorists or insurgents operating between Tikrit, Kirkuk, and Irbil. The steps that we took to neutralize threat forces in and around the city are an example of combat operations, the third category of FID operations. Combat operations include offensive and defensive operations conducted by U.S. forces to support a host nation's fight against insurgents or terrorists. Combat operations also take into account the hostile propaganda that threat forces use to attempt to discredit U.S. forces' operations and the host nation government. There were various threat groups within the area, and I found it difficult to focus our efforts on any one group. My primary focus in combating enemy forces was to develop key relationships with the people in the city, build a network of human intelligence (HUMINT), and capitalize on current information to neutralize enemy activity in the AO. The network of HUMINT that we developed in the city was vast

and various, including a former Saddam Hussein body guard, former Fedayeen and conventional army recruits, local farmers, shop owners, children, and various other sources. Through actively developing intelligence in our AO and then acting upon it, we were able to deny enemy forces land, resources, and a base of operations in and around Altun Kupri.

Our HUMINT sources notified us of weapons trafficking through the city and of ammunition caches in the surrounding farm land and ridgelines. To combat these threats, we conducted snap TCPs with the city police force on nearly a daily basis, which allowed us to intercept weapons trafficking in the area and deter enemy forces from using Altun Kupri as a cache site for weapons and ammunition used to conduct attacks against Coalition forces in the greater Kirkuk region. We also conducted many patrols through the farm land and ridgelines west of Altun Kupri, with farmers escorting us to huge cache sites, which were often buried in their fields or hidden in bunkers or wadis near the ridgeline. With their help, we uncovered several caches of mortar and artillery rounds, recoilless rifle rounds, machine gun ammunition, and other explosives. By destroying these weapons and ammunition caches, we were able to deny insurgent forces many of the

materials they needed to conduct ambushes and IED attacks against Coalition forces operating in the area. Finally, local informants notified us of illegal weapons possession in civilian houses, predominantly among the political parties. We conducted cordon and search missions on numerous occasions and found multiple AK-47s, machine guns, hand grenades, and rocket-propelled grenades. Seizure of this material and active use of cordon and search missions allowed us to prevent fighting between the ethnic groups and preserve peace and security within the city.

In addition to developing sources within the city, we also developed contacts with men from the outlying areas north of Kirkuk who were more comfortable talking to my platoon in Altun Kupri than to brigade-level intelligence in Kirkuk. Many of these informants came to my safe house because they had friends or family living in Altun Kupri who spoke highly of the U.S. forces operating in the city. Several of these men gave us critical information concerning insurgent and terrorist attacks in Kirkuk and Al Hawijah, where the rest of my battalion was operating. After several meetings with these informants, I believed them to be credible sources and began to forward many of their reports to my battalion headquarters. Some of the

intelligence these informants provided included names and locations of Ba'ath party officials in Al Hawijah who financed local attacks on U.S. forces and names of city officials who were embezzling funds or protecting insurgent forces in the city. Through our development of contacts and acting upon HUMINT, we were able to contribute to my battalion's success against enemy forces in Altun Kupri and in the greater Kirkuk region as well.

During my time in Altun Kupri, there were three major lessons learned. First, it is necessary to ensure that all subordinates have a clear understanding of the operating environment, not only including enemy threats but also the geopolitical and religious situation in the region. For my Soldiers and NCOs, this understanding was essential to our mission success. I had NCOs serve as liaisons to each of the city council department directors, so they were making decisions on a daily basis that affected the city and its outlying areas. For instance, NCOs working with the police department needed to know about the hostility between the different ethnic groups and the ramifications of showing favoritism to a certain group in the hiring process. Because my NCOs were familiar with the regional situation, they were able to publish and explain the hiring process so that there would be no confusion or misinterpretation among the people and so that no ethnic group could complain about Coalition forces' partiality to one group over the other.

Another situation in which regional understanding proved critical was in determining the credibility of intelligence. On several occasions, both Kurds and Turkomen attempted to use Coalition forces to further their political agenda. We received many tips from one side, claiming that the other had elaborate weapons and ammunition caches or that they were planning attacks on U.S. forces or on the government infrastructure. After seeing Kurds try to use us to shut down their competitors — the Turkomen political parties in the city — and the Turkomen parties doing the same thing, we were able to use much more discretion in how we handled intelligence from these groups.

A second lesson learned was the incorporation of the Muhktar. In many Middle Eastern countries, the Muhktar is

Specialist Clinton Tarzia

Soldiers with the 1st Battalion, 508th Infantry Regiment, 173rd Airborne Brigade, prepare for a mission to search for illegal weapons in Iraq.

the senior leader within the neighborhood. He does not have the same family ties as a sheik or a tribal chief, but he represents the people of all ethnic groups within the neighborhood. The Muhktar is usually an older, well-respected man who is selected to represent his people and to look after their well being. The Muhktar knows who belongs in his neighborhood and who does not. Thanks to some advice from my Arabic translator, Mr. Anwar Krajah, I developed a strong relationship with the three Muhktars in Altun Kupri. These men played a critical role in disseminating our Information Operations (IO) messages to the citizens, and it gave our efforts legitimacy in their eyes because we showed a respect for their culture and for them by integrating the Muhktars into our interaction with the civilian population. We used the Muhktars to assist us in conducting legal weapons registration throughout the city, in conducting a city-wide census, and in gathering HUMINT. On one occasion, the Muhktar who lived in the same neighborhood as my safe house detained a suspected Iranian Intelligence Service (IIS) agent who was soliciting information about U.S. forces' personnel, weapons, and aircraft in the city and surrounding areas. The Muhktar immediately notified U.S. forces and the police, and we were able to apprehend the agent and send him to Kirkuk for further questioning.

Courtesy photo

Developing strong relationships with the Muhktars in the area is imperative. These men can play a critical role in disseminating information and can assist with intelligence gathering.

A final lesson learned is that we must be victorious in the IO war that is waged to win the support of the civilian population. Altun Kupri was a city greatly oppressed under Saddam Hussein's regime, and the city served as an outpost for a Fedayeen unit prior to our invasion. The people of Altun Kupri were very concerned about Saddam's return (due to propaganda leaflets distributed from Al Hawijah and Tikrit), about U.S. forces' abandoning the city and the people, and about their security and safety. This was the first thing that I noticed about the enemy's influence on the people — he was trying to instill fear in them and create doubt in our intentions in the area. For the enemy insurgents, a fearful and neutral population is a great advantage.

To meet this threat, we used the local police force, the Muhktars, the city council public relations director, and the city council director in conjunction with our patrols in the city to disseminate U.S. forces' intentions and contributions in the city and to develop a trust in U.S. forces among the civilian population. We made a point of visiting outlying villages and talking to people in their homes at night when the entire family was home. A popular technique that we used was to establish a cordon around the series of houses that we wanted to visit and then spend 15-30 minutes inside the house talking to the families, telling them what actions we were taking within the city, and soliciting their input concerning the things that needed to be fixed in the city.

I learned very quickly that words meant very little to the people, but actions spoke volumes about our mission and our intentions in the city. I believe that we earned the respect and trust of the entire city during a night in late August 2003, when 16 people, mainly women and children, were injured in a car accident. The health clinic staff and facilities were not adequately prepared to handle this many people in their condition. So, several of the medics from the Medical Platoon, HHC/1-508 IN (ABN), went to the health clinic to assist the doctors and nurses, who were all overwhelmed by the severity of injuries and the number of patients. Our medics immediately took charge of the situation; conducted a triage of the patients; began basic first aid on patients with lesser injuries; and treated severe bleeding, and head, facial, and abdominal wounds for patients with more serious injuries. We evacuated three patients to Kirkuk's general hospital for advanced treatment or surgery. The word spread like wildfire across the city when the people learned that U.S. forces saved the lives of some of their women and children, and we instantly had the respect and trust of the city.

My platoon left Altun Kupri in September 2003, to join the rest of the battalion in Tuz. I left Altun Kupri very satisfied with the system that we developed in Altun Kupri and the great progress that we made as a task force. In September 2004, Task Force Altun Kupri, run by elements of 2nd Battalion, 11th Field Artillery, 25th Infantry Division (Light), handed over the forward operating base and control of the city to Iraqi Security Forces in the city. Altun Kupri is one of the few cities enjoying sovereignty and prosperity, thanks to the efforts of the city leaders, security officials, and the Coalition forces, and it is an example of what success looks like in a FID operation.

Captain Jeffrey B. Van Sickle served three years in the 173rd Airborne Brigade at Vicenza, Italy, including one year as a rifle platoon leader and one year as a mortar platoon leader with the 1st Battalion, 508th Infantry Regiment. He also served as the executive officer for 74th Infantry Detachment (Long Range Surveillance). CPT Van Sickle will next attend the Special Forces Qualification Course at Fort Bragg, North Carolina.

Executing a Combined Mortar and Artillery Raid

CAPTAIN RANDY R. RIKER

This article details the execution of a raid against conventional Iraqi forces west of Irbil, Iraq, in April 2003 by the 1st Battalion, 508rd Infantry Regiment, 173rd Airborne Brigade.

The raid officially began when the first of three 120mm mortars opened fire on a confirmed enemy observation post. The indirect fire covered the movement of A Company, known as Team Security, as it established a blocking position oriented to the south, the enemy's most likely avenue of approach. Team Security placed two gun trucks mounted with MK-19s at the front of its convoy to support the movement of the rest of the company into its hasty battle position. The commander, Captain Ned Ritzmann, established his 60mm mortars as quickly as possible to provide responsive indirect fires. Once established, the company mortars also concentrated on the enemy observation post, which allowed the 120mm mortars to shift fires onto two enemy mortars. With the company mortars established and the two platoons set in their battle positions, the commander confirmed that the southern blocking position was established. Meanwhile, C Company established a blocking position in the east, along the withdrawal route. Four gun trucks secured two intersections to the east and southeast. The Position Area of Artillery (PAA) was now secure.

That event triggered two howitzers from D Battery, secured by two platoons from B Company, known as Team Assault, to move forward and establish its PAA. With the southern and eastern blocking positions established, D Battery began firing. Fifty-five minutes after the first 120mm mortar round impacted the battalion commander gave the march order, and the howitzers began to break down. A Company,
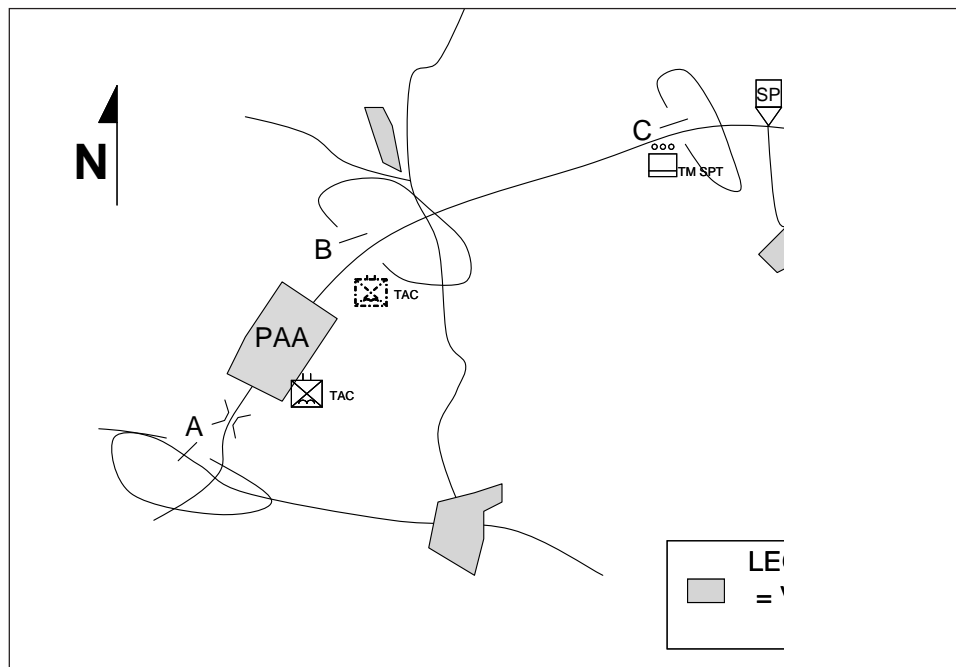

Figure 1 - Concept Sketch

occupying the southern blocking position, remained in place while D Battery and B Company withdrew. Once the assault force passed through C Company's blocking position, A Company withdrew. With all forces moving east to the forward operation base (FOB), C Company, with battalion support assets, began its planned withdrawal.

A combined mortar and artillery raid sounds deceptively simple on paper. Only four moving elements are involved: a security force, assault force, command and control element, and a support force. However, numerous details and timings must be thought through and confirmed prior to execution. A simple plan and full force rehearsal solidifies the plan and ensures that everyone understands the operation. This article will detail the staging, execution, and withdrawal of a combined mortar and artillery raid.

To avoid observation by the local populace or enemy, the task force conducted its full force rehearsal on the airfield it secured. Directly following the rehearsal, commanders began staging their vehicles prior to nightfall. Several hundred meters, which clearly defined where one element ended and another began, separated companies. To stage vehicles during hours of limited visibility requires considerable more time and situational awareness of all personnel involved. However, if the area that the unit is staging in is not secure, it may be necessary to use darkness as concealment.

One technique uses infrared chemical lights to mark the first and last vehicles in each element. One chemlight for Alpha Company, two for Bravo Company, and three for Charlie Company. Support assets can use infrared strobes or phoenix beacons to mark their element. By maintaining several hundred meters between companies and utilizing a company marking system,

it makes it more efficient to stage a large element.

Staging a battalion task force requires 45 to 90 minutes. One technique to stage a large element is utilizing the REDCON status. Mechanized units have already mastered this and it is now catching on in the light community. By assigning a no-later-than time for subordinate units to be "REDCON 1," commanders can effectively plan their time without micromanagement. Final PCIs, uploading vehicles, and communication checks on company internal and battalion nets are all executed prior to the "REDCON 1" time hack.

Our task force utilized the following procedure for commanders to report the status of their unit: The model below is only slightly modified from FM 7-10 (page 3-3).

REDCON 1 = BPT move immediately
REDCON 2 = BPT move within 15 minutes
REDCON 3 = BPT move within 30 minutes
REDCON 4 = BPT move within 60 minutes

Units should stage for as short amount of time as possible to avoid creating a large signature and consequently a target for the enemy. The task force began its movement to the attack position, still several kilometers away from the objective, where the commanders linked up with reconnaissance forces and received an intelligence update, which led to minor changes to the plan. During planning, ensure that adequate time is built into the mission for the updated plan to be issued to all members of the raid. Depending on the size of the unit and the amount of changes, it may require 20 to 30 minutes. Do not rush this process. If personnel are not thoroughly familiar with the plan, it could lead to costly mistakes. After the updated information was disseminated the task force was prepared to execute the raid.

The order of movement was A Company , Battalion Mortars, the tactical command post (TAC), B Company with two howitzers from D Battery, C Company, and finally Team Support. The mortars (120mm) were tasked to establish a mortar firing position (MFP) that supported the movement of the security and assault teams into their respective positions. Upon firing the first mortar round, the S-2 started his stopwatch. Through analysis the staff estimated that the enemy would have the ability to conduct an armor counterattack 45 minutes after initial contact. With the element of surprise gone, A company quickly moved into its southern blocking position. A forward observer had infiltrated the previous day with special forces Soldiers and was adjusting the mortar rounds onto an enemy observation post. Internally, the company commander established his 60mm mortars while two MK-19 gun trucks suppressed the same enemy observation post. This allowed the battalion mortars to shift fire onto an enemy trench line and a confirmed mortar location. The entire task force crept forward behind A Company with the howitzer advanced party in the lead. The advanced party quickly began preparing their

> **Units should stage for as short amount of time as possible to avoid creating a large signature and consequently a target for the enemy ... During planning, ensure that adequate time is built into the mission for the updated plan to be issued to all members of the raid.**

PAA while C Company established a blocking position to the east and southeast. Once both blocking positions were established the guns were moved forward and prepared to fire.

Ensuring that several hundred meters separate the security element and the main body allows for the main body to creep forward, thereby cutting the time required to establish the PAA to an absolute minimum. The enemy response time may dictate the amount of time you have to work on the objective and squeezing another minute or two may make a difference.

At this point there were numerous moving elements and situational awareness was essential. A Company, occupying the Southern blocking position, was suppressing an enemy observation post. B Company was securing D Battery, while they fired against enemy infantry. C Company, occupying the eastern blocking position, was prepared to reinforce A or B Company. Team Support was positioned two kilometers to the east prepared to move forward to evacuate casualties or a disabled vehicle. One section of the Battalion mortars had displaced forward and was establishing another MFP to support A Company. Finally, the TAC was initially located near the Battalion mortars and then moved to the vicinity of the main effort. Thirty minutes after the first mortar round impacted the enemy began firing D-30s at our positions, concentrating on A Company. Initially, the fire was inaccurate and unobserved, but eventually the enemy began to walk the impacting rounds towards A Company's blocking position.

At 55 minutes, the battalion commander gave the march order and the howitzers were placed into the "A-frame" configuration.

FM 101-5-1, page 1-127, defines a raid as "an operation usually small scale, involving a swift penetration of hostile territory to secure information, confuse the enemy, or to destroy installations. It ends with a planned withdrawal upon completion of the assigned mission."

The key to this definition is that the operation ends with a planned withdrawal, which can be event or time driven. In this operation our withdrawal was planned to be time driven, based on the enemy's ability to counterattack. The egress order of movement was B Company with D Battery, Battalion Mortars, TAC, A Company, Team Support, and finally C Company. A and C Companies would remain in their blocking positions, while Team Assault began their withdrawal. Each element was self-securing or assigned security thereby providing the ability to move independently if necessary. Team Assault retraced the route back to the attack position and temporarily halted to transfer the howitzers from the "A-frame" position to the stowed position, which allowed for a safer and faster convoy speed.

While Team Assault had begun its planned withdrawal, A Company was bounding platoons back in order to break contact and prevent the enemy from pursuing the raid force. Once A Company passed through C Company's eastern blocking position,

Paratroopers from the 1st Battalion, 508th Infantry, conduct a raid during operations in Iraq.

C Company also began its movement. One squad from C Company was securing the retransmitting team and the company would incorporate the communications team into their tactical convoy. The tactical operations center (TOC) took control of the battle once all elements, save C Company with the retransmitting team, had returned to the FOB. The individually secured elements began reentering the perimeter prior to first light. With the raid in its final stages and first light drawing near, mistakes were more likely, due to fatigue and lack of attention to detail.

To prevent mistakes, control measures are necessary to ensure that the raid is concluded in the same detailed, professional manner in which it began. A patrol control status, that identifies when a unit is outside of the perimeter, is useful to safeguard against fratricide.

A TTP that our unit successfully used was a patrol control status regulated to 500-meter concentric circles around the perimeter.

ZERO = Friendly element 0 – 500 meters from the perimeter

FIVE = Friendly element 500 – 1000 meters from the perimeter

TEN = Friendly element 1000 – 1500

meters from the perimeter

FIFTEEN = Friendly element 1500 or more from the perimeter

Another useful, commonly used tool is the weapons control status, which is outlined below:

1. Red Direct = Units may engage targets with direct fire.

2. Green Plus = Firing is not authorized except for self-defense. Magazines will be loaded, bolt forward (round not in the chamber), weapon on safe.

3. Green = Non-firing status. All weapons cleared (all malfunctions corrected). The first-line leader will inspect all weapons.

4. Green Clear = Non-firing status. All weapons cleared (all malfunctions corrected). The first-line leader will inspect all weapons.

5. Red Indirect = Mortars and field artillery can execute fire missions against cleared targets in support of operations upon clearance by release authority.

6. Check Fire = All weapons will cease-fire immediately.

7. Check Fire Freeze = This applies to field artillery units and mortar sections only. Cease all firing immediately. DO NOT REMOVE ANYTHING FROM THE

HOWITZERS/MORTARS, AND DO NOT TOUCH THE DEFLECTION OR ELEVATION KNOBS. Howitzer, mortar, and FDC crews will stand to the rear of their position. This is initiated due to firing incident or safety hazard.

8. Cease Fire = Stop firing. Place weapons on safe.

9. Cease Fire confirmed = Used when CAS is inbound to attack a target within a direct fire weapon surface danger zone. It confirms that all weapons are on safe.

As units reentered the perimeter, they modified their weapons control status to fit the threat. For example, Soldiers manning the perimeter remained at "Red Direct," while personnel working in the TOC changed their weapons control status to "Green Plus." Common operating terms used throughout the unit such as patrol control status and weapons control status allowed leaders to efficiently publish orders and pass information. The final unit to reenter the perimeter was C Company with the retransmitting team. The companies submitted a sensitive items and personnel report to the TOC and the raid was complete.

After analyzing the operation, three factors stand out as keys to success: detailed planning, simplicity, and thorough rehearsals. Additionally, the three distinct phases of this mortar and artillery raid (staging, executing, and withdrawal) were all equally important to mission success. The numerous details and precise timings required to plan and execute a combined arms raid required a simple and flexible plan that could change to incorporate updated reconnaissance information. The use of simple tools that were commonly understood throughout the unit provided the leaders a method to quickly send and receive information. Finally, the full-force rehearsal provided leaders an opportunity to run through the operation and ensure the final plan was a synchronized and coordinated product that was understood at all levels of the command.

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THE CASE FOR ROBOTS IN THE SBCTS (NOW)

CAPTAIN ROBERT L. THORNTON, JR.

Figure 1 is more in line with the Future Combat System Organizational and Operational (FCS O&O) concepts than current force brigade combat teams (BCTs) or Stryker brigade combat teams (SBCTs). However, it does speak to the potential of unmanned systems (UMS) for our Army. Upfront it's worthy to note two things: first, that robots are not intended to replace Soldiers, but to enable them. Second, we are not talking C3PO or R2D2, rather a technological extension to bring down to the lower tactical echelons what we are doing with unmanned aerial vehicles (UAVs) today at mostly brigade-level echelons and higher. This will occur as platforms, and C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance) becomes more compatible with constraints and limitations at those lower levels.

The purpose of this article is to discuss how integration of robotic platforms (with an emphasis on capabilities) that are either available for fielding, or could be available within one to four years, could increase SBCT mission accomplishment for an overall benefit to the Army's short and long range future for a reasonable investment in training, manning, and support requirements. This article will cover:

■ The reasons for selecting the SBCT as the vehicle for integration;

■ A platform and payload overview of what is out there that could match desired capabilities;

■ A discussion of MUM (Manned Unmanned Teaming) tactics, techniques and procedures (TTPs); and

■ Thoughts on what a distribution of robotics might look like in a SBCT infantry battalion and why spiraling as a package is desirable.

The purpose of this article is not to nail down material solutions (although it will use specific platforms and payloads to discuss capabilities), nor does it cover a cost analysis in its discussion as to if the benefit is worth the cost. For the purpose of this article cost will be addressed in terms of: training, manning, support requirements, impacts on deployability, impacts on unit and platform mobility, and C4ISR implications. The cost analysis exceeds the scope of the article and at best would be subjective when trying to consider how much time and money will be saved of technical lessons learned, tactical experience gained, and increased effectiveness of tactical units.

As a captain assigned as an operations officer to the FCS Unit of Action Experimental Element (UAEE) at Fort Knox, Kentucky,

Figure 1 - *An FCS image used to illustrate MUM (Manned Un-Manned Teaming). In this illustration, a company ducted fan UAV hovers and stares to provide surveillance forward of the dismounted infantry platoon's position while an armed robotic vehicle provides overwatch.*

one of my additional duties is to be a platform proponent for some of the UMS. This has allowed me the opportunity to work "hands on" with some of the platforms mentioned in this article and talk with some very learned engineers from different agencies and the defense industry. As a former SBCT infantry company commander, I have developed some thoughts on how robotics in the near term could have aided me and the rest of the SBCT echelons. Since I'm an operations guy and hope to stay one, the article is from a "user's" vantage, not a "seller's." If the article's language has me sounding like I need to add a pocket protector to my PCI list, it is because there is just no way around it, this is part of our future.

Why the SBCTs?

Why were SBCTs selected versus any of the reorganized BCTs under the new UA design? The SBCT was selected as the unit type for the purpose of this article for several reasons. It already has a good mobility platform with growth potential in the Stryker. Its force structure fits incorporation of robotic assets. The Stryker is already being used as a host for a potential candidate for a FCS robotic control station. Its doctrine is more mature then the reorganized BCTs. Its leaders and Soldiers possess an agile and adaptive mindset with Soldiers used to incorporating new technologies quickly into TTPs to make them more effective. SBCT digital systems could be expanded and adapted for robotic operations.

Recently in a map exercise, we compared a FCS combined arms battalion with a Stryker infantry battalion task force. The tactical scenario used both units to provide an outer cordon while special operations forces (SOF) units conducted a search for Theatre Ballistic Missiles (TBMs) as part of a larger UEx/UEy shaping operation. Both units had some implied tasks that involved neutralizing some border forces and blocking a potential short range (48-72 hour) attack by conventional forces, and if possible

aid the SOF units in their search for TBMs. Both types of units met their primary tasks, but the FCS unit through its density of UMS was able to extend its ISR coverage outside its cordon for early warning and inside its cordon to aid the TBM search.

This is one example of the utility of UMS and how tactical units can utilize UMS influence more of its battlespace to complete the mission faster and more effectively. With the SBCT's platform mobility in Stryker, battalions and companies can rapidly move to dominant points within their battlespace and mass combat power and effects ... if we know where that point is. Through the COP (Common Operational Picture) and enabled by FBCB2 (Force XXI Battle Command Brigade and Below), friendly SA (situational awareness) is known to the platform level while enemy SA must be imputed manually. At the brigade level, the tactical unmanned aerial vehicle (TUAV) platoon organic to the RSTA Squadron operates the Shadow TUAV. This capability, while incredible by today's standards, really supports the brigade commander's ISR plan, although one of its two RVTs (Remote Viewing Terminals) may be allocated to the brigade decisive effort and complement lower echelon ISR collection. Information collected by the RSTA and its TUAV platoon is added to the COP and the entire SBCT's SA is increased indirectly. Currently, it does not get much better for lower tactical echelons.

If we could provide lower tactical echelon leaders the capability to improve their own ISR collection through robotic assets (with some limited multi-spectrum sensor capabilities), the information flow (and COP) would improve bottom to top as well as top to bottom. If we could weaponize (lethals and non-lethals) some of the larger UGVs (we're already doing it in SWORDS, see page 36), we could also increase lethality, options to lethal force (consider not just the ROE, but the time, energy and resources required to use lethal force) and force protection by reducing the risks to mounted and dismounted Soldiers. In sum, robotic assets fielded in a manner that is complementary at team through battalion tactical echelons will allow leaders to focus combat power faster and more effectively resulting in increased mission accomplishment.

Robotics 101 (a brief overview)

Currently in OIF and OEF, robots are being used on a limited basis. Most of us have seen UAVs or UAV footage; we are also aware of the various payloads that larger UAVs such as the Predator have integrated and the successes they have generated. A great many have seen the small rubber tracked robots (TALON) that are helping with explosive ordnance disposal (EOD) procedures or exploration of tunnels and caves. From a joint perspective, there are a number of programs that are near to fruition that are aimed at enhancing force protection for forward operating bases (FOBs) and lines of communication such as smaller UAVs like Raven and Pointer. Within the next year, the Research and Development Engineering Command's (RDECOM's) TALON will be outfitted with SWORDS (Special Weapons Observation Reconnaissance Detection System) and integrated with a SBCT in OIF.

There are also foreign material solutions that would meet the desired capabilities. While purchasing foreign equipment has associated risk, the risk could be mitigated when viewed as an interim solution until some of the FCS UAV platforms are ready for fielding. For the purposes of this article, several Israeli UAVs are cited.

There are also a number of robotic platforms that we are referring to as technology demonstrators for FCS. While not capable of meeting FCS requirements, these platforms:

☐ Offer insights into how we will integrate these new technologies on a FCS scale;

☐ Serve as platforms for examining payloads; and

☐ Help look at DOTLMPF (doctrine, organization, training, leadership and education, material and facilities) issues such as additional skill identifier (ASI) versus MOS requirements for the operators.

They provide reality to what is otherwise conceptual. Some of these platforms are more mature then others and are moving in a direction that could prove useful for both today's units, and by extension of early integration/spiral – more useful for FCS units of tomorrow.

Robotics 102 (Platforms and Capabilities)

This portion of the article will cover descriptions (technical and functional) of the platform types and capabilities that I think would best complement the SBCT structure. It will do so using some of the existing technology demonstrators and some of the more mature hardware already earmarked for force integration. It will also cover the C4ISR hardware types that would be needed to employ these platforms.

Currently robots are limited to LOS (line of sight) operations or tele-operation by a remote operator. LOS is where the operator can physically see the robot and thereby control its actions in accordance with METT-TC (mission, enemy, terrain, troops - time civilians). Tele-operation is where the operator operates the robot through sensors such as cameras and instrumentation to accomplish the mission. Of the two, LOS is currently easier for most (certainly with UGVs because of terrain) because operators perspective is more in tune with that of the robot. UAV operations are an example of tele-operation. Ground based tele-operation is more difficult then aerial tele-operation. This is not based on mission tasks, but on having to deal with the three dimensional obstacles found on the ground versus having to maintain a minimum AGL (above ground limit) to avoid obstacles.

Much scientific effort is going into robotic perception. Perception can be thought of as tactical behaviors that occur through recognition of an event or a piece of terrain that allows for judgment and reasoning. Mobility is a key issue for perception since it reduces the operator burden of tele-operation. Initially, perception may take the form of aiding the operator with decisions such as route planning, aided target recognition, or terrain avoidance. Optimally, perception will allow for the operator to give the robot a route, then tele-operate when an event requires it such as payload employment or chance contact. This is also important because it reduces bandwidth requirements which will be covered later in support requirements.

SPINNER — A SPINNER is a Defense Advanced Research Projects Agency (DARPA) Unmanned Ground Combat Vehicle (UGCV) that was originally designed around a payload bay that could spin if the vehicle became inverted. The vehicle's articulated suspension could then pivot downward raising the robot's body

Figure 2

	Stryker	**Spinner**
Dimensions	6.9m L x 2.7m W x 2.6m H	4.9m L x 2.6m W x 1.4m H
Weight	17,240 kg	8,600 kg
Payload Fraction	17%	17.5%
Drivetrain Config.	8x8 - Mechanical	6x6 - Hybrid Electric
Steering	Ackerman - Front 2 pairs	Skid Steer - each wheel station independent
Max. Speed	27 m/s (97 kph)	12 m/s (42 kph)
Ground Clearance	0.46m	0.56m
Step Climb	0.58m	1.1m
Gap Crossing	1.98	1.75m
Slope Front	60%	60%
Ground Pressure	50 psi	27 psi

allowing it to continue mission. By virtue of its intended design, SPINNER had so low of a center of gravity that it was almost impossible to flip. The weight savings for dropping the spinning payload will allow it to integrate a sensor and weapons payload and still come in at around nine tons. The fact that SPINNER is big is a plus since the tele-operating is a dislocated experience, the operator has only the instrumentation and what video feed he receives and not the physical sense or equilibrium an operator has when driving his own vehicle.

This is a mature platform that has undergone multiple mobility tests. After observing tests at Fort Knox, I believe this platform has superior mobility to a Stryker. This is important since tele-operation is more difficult the driving; in this case its size aids in its survivability and mission accomplishment. Its size also allows multiple sensors and payloads to be mounted in order to execute a variety of tasks. Currently SPINNER has combined with another DARPA program to aid in robotic perception technology. Over the next year they are integrating sensor and weapons payloads, and continuing to do field testing with Soldiers wherever possible.

SPINNER is an example of a platform that could operate at the company level to perform the following tasks:

☐ Support by fire/attack by fire during assault,

☐ Recon: would probably be used to weight the decisive effort for assault;

☐ Could be used as part of an economy of force to isolate or contain; and

☐ Could help with SOSE missions — TCPs, etc.

SPINNER would require a dedicated operator such as a 11B30 working from the company commander's ICV's robotics control station, or attached to the company decisive effort with a dismounted controller. The table and images (Figure 2) give technical specifications and a sense of size. A final note: the

original SPINNER used a very quiet hybrid electric turbine, but the next two produced will use a diesel-electric.

Golden Eye — The DARPA Golden Eye is used as an example because of the capabilities associated with ducted fan technology. Fixed-wing UAVs either have their sensors in a fixed position on the body which makes it more difficult to fix the sensor on a target or an area, or have the sensor mounted in a gimble. A gimble with a tactical behavior such as target lock could allow the operator to maintain better surveillance or lasing on a target while the UAV continues to orbit.

Ducted Fan UAVs such as Golden Eye will allow an operator to put a UAV in a "hover and stare" mode. This capability will enable the company commander to visually confirm his plan when limited planning to execution time does not allow for a detailed leader's recon, insertion of the SBCT infantry company's sniper team, or other METT-TC conditions do not favor it. Even with a good leader's recon it is often a limited perspective focused on a ground perspective of terrain supporting those tasks or events critical to the attack. While I think the leader's ground recon is indispensable, I also acknowledge that I've cut out options in order to focus what time I've had available. Since one of the SBCT's strengths is its operational mobility that could put it in unfamiliar terrain based on information that is LTIOV (Limited Time Information of Value), it would improve the chances of mission accomplishment.

Hover and stare also requires less orientation and allows for quicker recognition and interpretation. Hover and stare will be an important characteristic in an urban environment where orbiting a target or point of interest will degrade situational understanding because of terrain masking. During the fight the company commander can get a better feel for his battle space and aid in his decisions. The idea is not to have the CO CDR glued to the

Figure 3

Golden Eye 50

- *Ducted Fan Air Vehicle (UAV)*
- *Can hover and stare*
  - *Height: 28 inches*
  - *Weight: 18 lbs*
  - *Payload Capacity: 2 lbs*
- *Communications:*
  - *Line of sight required between ground station and and UAV*
  - *Range: 1.5 miles*
  - *Video downlink range: 1.5 miles*
  - *Camera range: 1.5 miles*
  - *Video Resolution: Approximately 200 lines height and 300 lines width*

Dragon Eye
Wing Span - 45 inches
Length - 35.75 inches
Weight - 5 lbs
Cruising Speed - 35 knots (40 mph)
Range - 5 km (3.11 miles)
Service Ceiling - 300-500 feet AGL
Flight Time - 30-60 minutes

Raven
Wing Span - 53 inches
Length - 36 inches
Weight - 3.8 lbs
Cruising Speed - 96 km/h (60 mph)
Range - 9 miles
Flight Time - 90 minutes
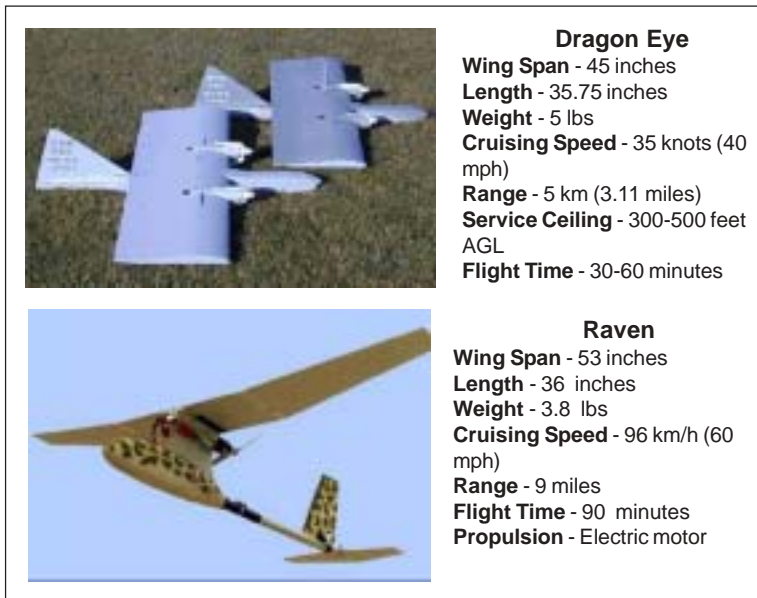**Propulsion** - Electric motor

Figure 4

Courtesy photo

Marines used the Dragon Eye UAV during operations in Iraq including those in Fallujah.

operator's station to interpret what is going on in his battle space, but to give him an ISR operator (recommended 35D 20/30) in his vehicle who is tuned into his CCIR and scheme of maneuver and can interact with the CDR, XO, FSO, and PLs on the FM or FBCB2, provide feedback to the BN TOC to help them focus higher echelon resources where the CO CDR needs them. Golden Eye specifications are listed in Figure 3.

Raven/Dragon Eye — Raven and Dragon Eye (Figure 4) are both successful, man portable, fixed-wing UAVs capable of being integrated at platoon, company and battalion levels to fulfill an interim UAV need.

Raven is the successor to Pointer, and Dragon Eye has been in the use by the Marine Corps prior to and during OIF. Both have about a 60 to 80 minute flight duration as noted in the images and specifications in Figure 4. Both systems are "back-packable" so they could be used by dismounted Infantry.

Both Raven and Dragon Eye can be given a GPS waypoint route and controlled from a dismounted controller. These systems would conduct local RSTA functions for the infantry platoon similar to those of a ducted fan UAV for the company commander, aid in fires, effects, battle damage assessment (BDA) confirmation and registration for the

company fire support officer, and aid the company executive officer in his battlefield reporting to higher. The BN FSNCO and S3 would be provided one each to launch from the TAC. The FSE in the TAC could use it to employ battalion and brigade effects. The S3 could use it to aid in bringing battalion and brigade assets to the decisive point in the fight. The battalion recon platoon would use it to refine NAIs (named areas of interest) for further exploitation by manned assets versus using it as a solitary asset to cover an NAI. The TOC would continue to draw on brigade assets such as shadow and do the analysis on the increased information. These UAVs,

Courtesy photos

Above, images from the Dragon Eye in Iraq show areas of Fallujah. At right, a Marine views images from the Dragon Eye during operations in Iraq.

PackBot

TALON with SWORDS

Figure 5

which are fairly easy to train and employ, would be employed as an additional duty, not as an additional Soldier, ASI or MOS. The Soldiers tasked with operating these would be able to perform their assigned duties from the robotics' crew station inside of the Stryker. The crew station could dedicate one of its six panels (see the description of the crew station in this section) to FBCB2, ASAS, or AFATADs; that way the operator could accomplish both tasks.

PackBot/TALON with SWORDS — PackBot is a "back packable," rubber, band-tracked robot (Figure 5). It is suitable for employment at the squad level, and well suited to built up areas such as tunnels, fortifications or urban areas. Control is either from a fiber optic tether or LOS controller. The idea is to allow the rifle squad to use the robot to investigate areas that are high risk to Soldiers to either determine if it's worth investigating, determine if it might be booby trapped, look around a corner, or with the aid of new sensor technologies such as STTW (See Through The Walls) to help determine threat composition and disposition in a building or room prior to clearing it.

For the recon platoon it would allow manned elements to stay concealed longer while the Pack-Bot is moved forward to pinpoint key positions or target buildings. TALON equipped with SWORDS could be integrated into the weapons squad. Equipped with a key system such as a M240 and UBL of CLV, it could aid in establishing the SBF by being moved in first as a stable platform to cover the rest of the squad's movement in and set up. These robots would not require an additional Soldier, MOS, or ASI. They would be assigned as an additional duty, perhaps to an ammunition bearer

Figure 6

Mosquito
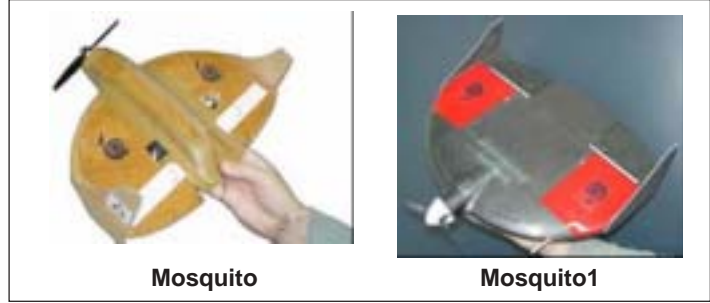
Mosquito1

or assistant gunner in one of the machine gun teams. They would be employed using the arms room concept that other SBCT systems utilize; if directed or if the squad leader thought he needed it, he'd take it.

Mosquito — A Mosquito is an Israeli Micro-UAV. It can be thought of as a saucer with a small propeller and a micro camera (Figure 6). It weighs about 250 grams, and has a wingspan of about 30cm. This robot would complement the PackBot for the squad leader. Its one piece assembly and small size would allow it to be put into operation quickly. I see this as a one or the other choice since every Soldier operating a robot is a Soldier not pulling security with his rifle or performing some other task; however, it would be the squad leader's discretion. Since the size of UAVs dictates performance capabilities, this UAV would allow quick looks at shorter ranges from operations, traffic control points, down a street before that leg of the patrol, etc. It would be controlled from a dismounted controller and assigned as an additional duty.

Throw-Bots — Throw-Bots are among the easiest and fastest to use (Figure 7). They will be introduced to the force probably by the time this writing is published. Throw-Bots can be thought of as a class of robots in which their intended use is in their name. Basically, the user is able to throw or drop this durable robot through windows, doors, down hallways or alleys, etc., and the robot will either land upright or be able to right itself with aid from the user.
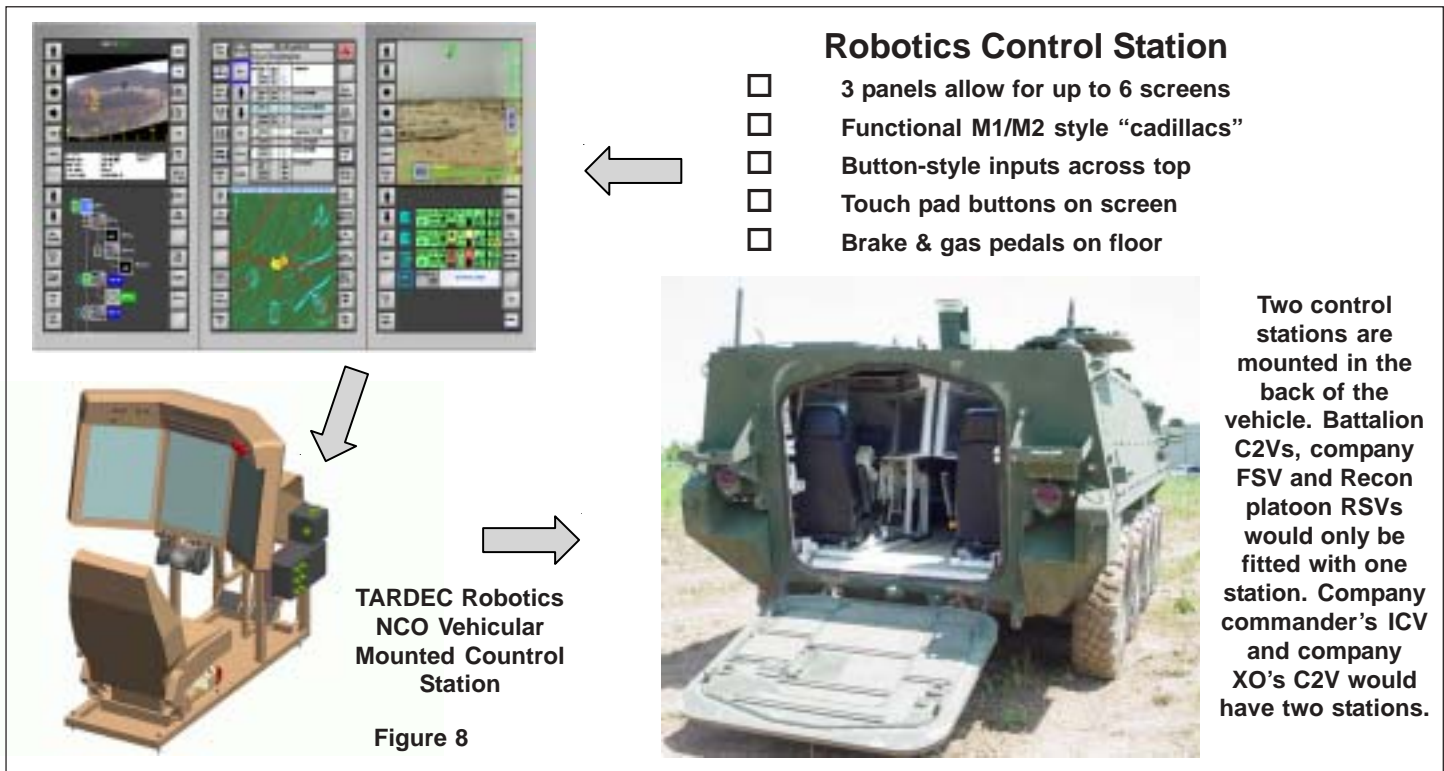

Figure 7

An onboard sensor such as a camera is then used to provide local SA. The robot has built in mobility either through wheels, spines or some movement mechanism that allow it to be moved by the operator over fairly rough terrain.

This type of robot would work great for fire team leaders or dismounted recon Soldiers since they could take it out of a pouch on their vest and put into action for a quick look before entering or clearing a room. This robot would take the least amount of training and support.

Robotics NCO Crew Station — TARDEC has built an outstanding vehicle mounted robotics control station (Figure 8) that is multi-functional (can be used to tele-operate the robot, input routes and commands to it and interface with other digital C4ISR systems), user friendly and has growth potential. As a participant in a week-long experiment, I had the opportunity to fly the Pointer UAV from it, remote drive (using only cameras) the Stryker I was in, and employ a UGV. The station also has an embedded trainer which will make concurrent training on Sergeant's Time much less resource intensive. There are a suite of additional capabilities such as an after action review (AAR) capability, etc. Since it has already been successfully integrated into a Stryker, it is easy to examine the space considerations and how that affects crew manning. If need be, an RTO could be replaced by the operator to

Robotics Control Station

☐ **3 panels allow for up to 6 screens**
☐ **Functional M1/M2 style "cadillacs"**
☐ **Button-style inputs across top**
☐ **Touch pad buttons on screen**
☐ **Brake & gas pedals on floor**

TARDEC Robotics NCO Vehicular Mounted Countrol Station

Figure 8

Two control stations are mounted in the back of the vehicle. Battalion C2Vs, company FSV and Recon platoon RSVs would only be fitted with one station. Company commander's ICV and company XO's C2V would have two stations.

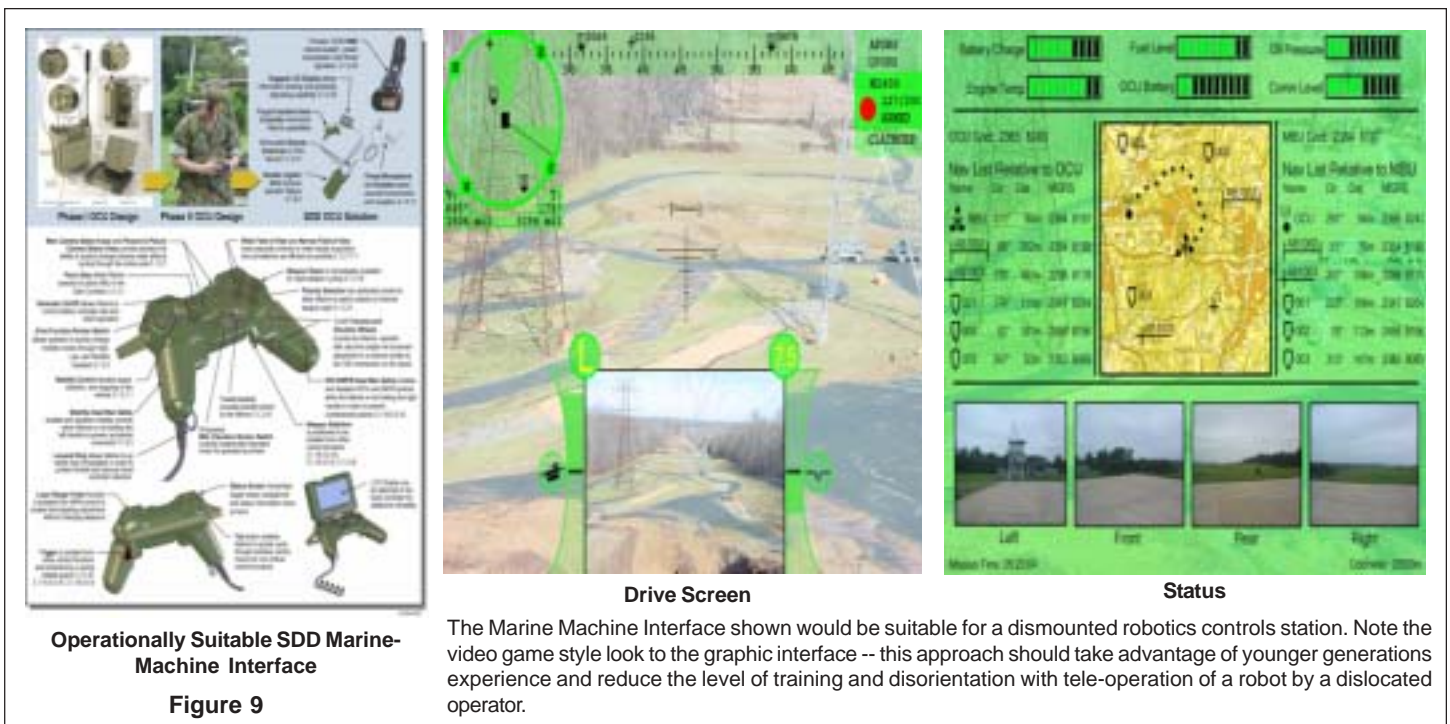conserve space; it's a capability trade.

Robotics Dismounted Controller Device — There are multiple variants of dismounted control devices. All are striving to reduce the burden on the operator by: reducing size and weight; providing the operator with displays and controls that are ergonomic, being easily interactive, taking into consideration multiple platform types and their current and future capabilities;

being interactive and intuitive, and requiring the least amount of formal training; are rugged, survivable, and logistically supportable; reduce the amount of impairment to the Soldier's primary job and survivability. The variant pictured is the MMI (Marine Machine Interface). One of the most notable things about it is the "game system" look to it. One of the things I considered was that a controller like this

would take less time for Soldiers to train since it has many of the characteristics they are familiar with. This system (and likely all such systems in the future) will have an embedded trainer as well. (See Figure 9)

Robotics 201 (Payload Integration)

Integration of payloads with platforms is what provides the usefulness to the user. It also provides most of the challenges for making platforms useful to the lower

Operationally Suitable SDD Marine-Machine Interface

Figure 9

Drive Screen

Status

The Marine Machine Interface shown would be suitable for a dismounted robotics controls station. Note the video game style look to the graphic interface -- this approach should take advantage of younger generations experience and reduce the level of training and disorientation with tele-operation of a robot by a dislocated operator.

tactical echelons. The reasons are pretty straight forward: a payload (sensors or weapons) requires power, so adding a payload requires a larger power source; more powerful payloads are larger and increase weight, and that impacts mobility and flight characteristics. In the case of weapons, the ammunition basic load must be factored in. Larger platforms make payload integration easier (but not simple), smaller platforms must trade capabilities such as range or flight time for more powerful payloads and vice versa. Figure 10 is a Texas chart which shows UAV sensor payloads in gimbles. Gimbles are the mounts for sensor payloads which allow the sensors to be reoriented to a target while the fixed wing UAVs fly routes or orbit.

The challenge is how to get more capability into smaller platforms that would require: a single operator to launch, operate, and recover; less maintenance and other support requirements, be more survivable and stealthy, etc. Most UAVs suitable for fielding to company and below echelons are limited to sensors integrated into the UAV body (no gimble), and require the operator to maintain either an orbit at a particular slant range, or in some cases a "head on" look if the sensor is oriented forward. Also reduced is choice as to which sensor to employ.

From a TTP standpoint this means the UAVs available to lower tactical echelons are more limited then those such as Hunter, Shadow or Predator available to higher echelons. The payoff comes from providing the lower echelon leaders with what they need versus having it all at an unfeasible cost. The ability to get a quick look to confirm the situation and make any last minute changes or the ability to synchronize or provide higher with better information so they can reallocate assets is what we need at those levels. As technology miniaturizes optics and capabilities we'll continue to upgrade the small unit capabilities.

UGVs such as SPINNER have fewer constraints when incorporating payloads then UAVs since getting airborne is not a consideration. A platform the size of SPINNER can integrate weapons and sensors that provide the leader with complementing capabilities. The Marines are experimenting with their own version of a RSTA/ Assault UGV called GLADIATOR (not shown). DARPA and its partners are experimenting to find the right payloads which offer leaders the most flexibility, ease of integration, at an acceptable cost. Figure 11 shows SPINNER integrated with sensors that facilitate operation and RSTA tasks plus the same RWS found on Stryker.

MUM (Manned Unmanned Teaming)

MUM can be thought of as the TTP for robotic integration into manned formations. It is thought of as the linkages between the payload, the platform, the operator and the operator's unit that enhance mission accomplishment. Figure 1, on the first page of
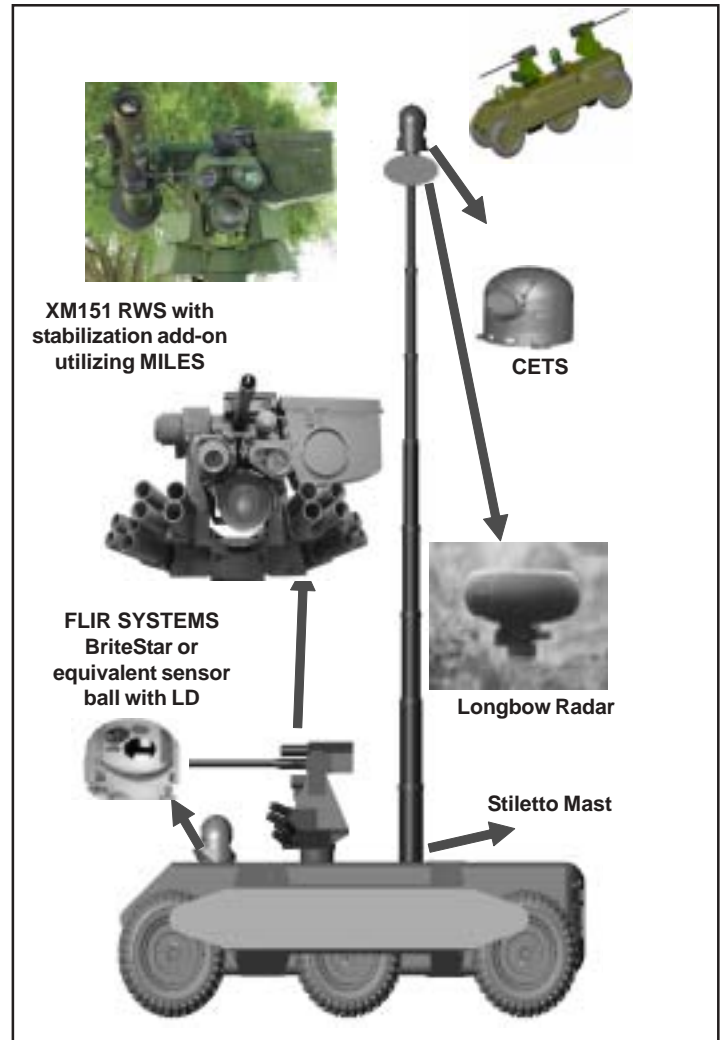

Figure 11

this article, shows a concept drawing from a FCS presentation on MUM shows several types of robots performing distinct tasks. Squad resupply is occurring by use of a vehicle that follows the squad and requires minimal operator input. A platoon CL I UAV is echeloned forward to enhance local SA and prevent surprise. A RSTA type platform is paired with it and the point man to provide enhanced sensors that could confirm information obtained by the CL I UAV, this requires a Soldier to check information obtained between the two robots. Finally, an armed UGV follows in support, but may be sent forward of the lead Soldier to suppress and enable movement. The armed UGV will require the most operator involvement since loss of fire control could result in fratricide or collateral damage.

Figure 10 - Texas chart (bigger is better)

| FLIR (9") MircorStar | WESCAM (11") | WESCAM (12") | FLIR (15") StarSafir | NG (15") RavenEyeII |

The scenario done at Fort Knox in the fall of 2004 used GPS way points and an LOS operator to examine mobility during a tactical task. A MUM TTP might call for the platform to confirm a route one terrain feature in front of a Stryker RSV. As I watched SPINNER move across the route, I considered how I had to train my own driver and VC that it was OK to move off the road in a Stryker. I considered how using a robot (which requires no convincing) and using its operator (pluses and minuses since he doesn't feel the terrain the robot is on) to confirm a route might enhance mobility and speed for follow-on forces. After a driver knows a similar vehicle has negotiated an obstacle, his confidence is heightened. The alternative is to put a dismounted Infantryman out front to examine compressible vegetation and other terrain variations. SPINNER with its low profile, good cross country speed, and mobility provide options to dismounting and walking a Soldier in front. Smaller platforms such as PackBot and Throw-Bot might improve speed and mobility to dismounted Soldiers by confirming or denying options (Ex: a dead end sewer infiltration route or confirming if tunnels are connected).

To speed movement further a unit might use employ a UAV in front or above the UGV to further confirm or deny options, or in targeting or BDA. This requires cooperation between operators, but they do not necessarily need to be collocated in order to do so. It would require a separate FM frequency to do so, or use of an existing frequency such as the CO A&L (Company Admin & Logistics) during periods of less activity.

One of the drawbacks to tele-operation is latency in terms of video. Latency can be described as a limitation due to dedicated bandwidth to transmit streaming video exactly how the human eye sees it. Human eyes operate off of about 35 frames per second (FPS), tele-operation is in the range of 25-30 FPS. With smaller (platoon) UAVs this is not as important since they generally fly in 2-D. LOS movement of UGVs is compensated for by giving the UGVs better mobility and by making them bigger and heavier. Perception will eventually help overcome some of these constraints, but until then the expression about being "smart or strong, so give me my rucksack" applies to UGVs. This really comes into play though with employment of weapons payloads. Latency has fratricide and collateral damage issues. Targeting chips (basically a near real time .jpg or .mpg file) and AiTR (Aided Target Recognition) transmitted from the platform to the operator will become the method for fire control and distribution when fratricide and collateral damage are not factors in the use of lethal force, such as an ABF task. The operator is still using judgment based off guidance and ROE, but it is near real time, not real time. The operator could pull in (or request) a targeting chip from the platform then assign it stationary targets in priority. The alternative using tele-operation is to accept that there is a one or two second delay between what the sensors see you shooting and where your rounds are going. If it's terrain or a stationary enemy that you are suppressing or destroying, this is not much of a factor. If trying to employ it against a moving enemy, Soldiers will have to compensate (Since this is the video game generation, it shouldn't be too difficult for them).

Another MUM TTP would be for an operator in a vehicle to turn over a payload function to an operator on the ground. An example of this would be for an operator employing the weapons payload to suppress an enemy occupied building. The situation changes now as the lead squad enters the building and needs support from the outside to enable its movement. The operator in the vehicle is still in FM contact with the squad and can see the squad leader's icon (a near term capability) on the FBCB2, but is hesitant to employ a tele-operative SBF due to latency in tele-operation (discussed later). He transfers control of the payload over to the squad through the dismounted controller. The squad is keenly aware of where it is at, where the robot is at and where the enemy is at; the squad leader can effectively and safely use the payload to suppress the enemy. This is kind of a hybrid between tele-operations and LOS operations.

What it Will Cost Us (Constraints, Limitations & Requirements)
Training — There are collective, leader and operator/Soldier training issues. At the operator Soldier level, the operator must be technically and tactically versed in robotics in order to maintain the robot, operate the robot, and employ its payloads IAW with the needs of the unit. The operator is essentially the crew. At the leader level, the training requires him to know capabilities and

Figure 12 — Proposed Distribution of Robotic Assets in a SBCT Infantry Battalion

	SPINNER	GOLDENEYE or a ducted fan UAV that can hover and stare	RAVEN OR DRAGON-EYE	TALON W/SWORDS for weapon's squads or PACKBOT for rifle and recon squads	MOSQUITO	THROWBOT
BN S3 in HQ 63 IN TAC		1 total				
BN FSO in HQ 66 IN TAC			1 total			
BN RECON PL HQs V			1 total			
BN RECON SQUAD RSV			4 total	4 total		
Dismounted BN RECON Soldiers and Snipers					5 (1 per team)	25 total
CO CDR 66V	3 total	3 total				
CO XO 65V			3 total			
CO FSO FSV			3 total			
RIFLE PLATOON LDR			9 total			
SQUAD LDR				27 total	27 total	
RIFLE TEAM LDR						54 total
Overall total - 170	3 total	4 total	21 total	31 total	32 total	79 total

limitations of the platform, its payload and the operator in order to best complement the tasks or scheme of maneuver. At the collective level the issue is integration, collective tasks, rehearsals and TTP need to account for robotics on the battlefield.

Creating a centralized point for training robotics at the company and battalion level would help train, maintain and cross train robotics' operators to fulfill a number of tasks. At the battalion level it might be a week of quarterly recertification or training during the battalion's other low density training events led by the S2 and a platoon sergeant from a rifle platoon.

At the company level, I'd recommend that those dedicated operators be grouped together as a robotics team with the FiST, mortars and snipers in what 1-24 Infantry called the Fire Support Platoon to take advantage of the synergy of grouping combat multipliers under the CO FSO who can provide leadership and guidance during periods of non-operational deployments. This would facilitate taking advantage of resourced events and SGT's Time. Non-dedicated operators could fall under a SGT's Time training plan once or twice a month with the most senior operator as the primary trainer.

Manning — Manning walks hand in hand with training, while the goal in a robotics platform is to not require additional personnel, MOSs or ASIs in order to reduce the manning burden on the unit, the reality is that there is still no substitute for experience. Some robots addressed in the MTO&E possibilities chart in Figure 12 recommend a specific MOS or pay grade not currently organic to the SBCT MTO&E.

Support Requirements — Support requirements come from adding additional systems, which means special training for 20 level maintenance and above. This could be mitigated by handing the tasks of the UGVs to the wheeled mechanics and the SBCT already has to address UAVs since it has a TUAV platoon. C4ISR is another consideration, paragraph 5 just got bigger as well as bandwidth needs. Fiber Optic cables and LOS reduce bandwidth requirements, but tele-operation even at 25 FPS still consumes about 500KBs worth of bandwidth (at 30-35); it's close to 1MB! Bandwidth compression efforts are ongoing, but until that is solved tele-

operation C4ISR infrastructure will be a consideration if not a constraint. One of the work arounds might involve the small unit deployable, high altitude retrans blimps from the BN Retrans unit with a fiber optic tether or tail to extend LOS comms and the digital backbone.

Unit deployability and mobility will both be changed. While the smaller UAVs and UGVs don't amount to much at the mounted levels, they do add up to a dismounted Soldier, but what they add to the fight may reduce other burdens. Big platforms such as SPINNER will change deployability. At 9 tons such a platform would probably take one C130 per two robots. Long road marches to training areas such as Fort Lewis or Yakima, Washington. Would either require a PLS or be towed by a manned platform. Again it's a trade off about what this platform would bring to the fight.

MTO&E Possibilities

Figure 12 lists platforms that are meant to represent both platform selection options and platform capabilities that are available now or in the 1-2 year mark for maturation for the purpose of fulfilling a tactical/ operational need. An applicable distribution could be done across the SBCT to include the RSTA BN, the FZ BN and the separate ENG CO and the separate AT CO. At the corresponding echelons the distribution would be similar. The focus of this proposal has been narrowed to the IN BN to scope it down.

Delivering the Spiral to the SBCT as a PKG vs. Piecemeal

Referencing Figure 12, you'll note the density of robotics in the infantry battalion. 170 systems looks like a high number, especially in light of the support requirements. It is probably safe to take out the last three classes (those systems at squad level and below) since they will be controlled LOS and by fiber optic tether. That leaves a total of 28 systems which will be the primary bandwidth consumers. The numbers are highlighted is to point out the primary detractor from the feasibility of fielding (or spiraling) these capabilities as a package, other then the monetary cost.

The benefits associated with fielding robotic capabilities to all the echelons in an SBCT IN BN only begin there, the ultimately extend to the rest of the Army, just as any other part of Transformation.

The capabilities outlined in this article lend themselves to being fielded at the levels outlined in Figure 12 because together they offer complementing characteristics that would provide the same type of synergy as the positions in a fire team, the strength of the fist over four individual fingers. Whereas one platform or capability provides a limited increase in capability multiple platforms with complementing capabilities provide an exponential increase, an appropriate analogy would be digitizing a TOC versus digitizing squad, platoons, companies and the battalion C2 nodes. This aspect provides an exponential increase in capabilities.

Qualitative results from fielding as a package also extend to long term unit capabilities. Low level introduction breeds early familiarity at incremental levels of sophistication, or another way to say it would be that when the company commander's primary robotics' NCO PCS's or gets pulled up to the BN S3 shop, the company commander will not have to start from scratch, instead he can pull one up from a platoon. This aspect provides a cumulative increase in capabilities.

Robotics capabilities at the lower tactical levels are much closer then most of the Army suspects. While not quite those capabilities the Army hopes to acquire with FCS, they are significant and they can substantially increase combat power and capabilities in a unit. SBCT units are unique in the Army because of their structure and design, they have the one vehicle in the active Army that provides a platform with enough room for a two man crew and a nine man squad that is outfitted with FBCB2 and can accommodate the arms room concept. Integrating robotics on a large enough scale to make a significant impact to the team leader, squad leader, platoon leader and company commander is a course of action that empowers lower tactical echelons with technology that will enable them.

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Avoiding the Worst Possible Outcome

FIRST LIEUTENANT THOMAS ANDERSON

Having just suffered the loss of a comrade to a violent improvised explosive device (IED), several of your subordinates stand over two detainees who were apprehended for running away after the explosion. The fingers of angry infantrymen rest tensely in the confines of trigger guards, and emotion is high. Will those men make the correct call? Did you spend training time on ethical decision-making outside of the mandatory one-hour, "higher-driven" auditorium sessions, or did you just *hope* your men would do the right thing in your absence? Hope is not an effective means of ensuring ethical combat decision-making.

During the three-plus years of the Global War on Terrorism (GWOT), the United States Army has toppled two tyrannical regimes, brought freedom to more than 50 million people, and provided the rest of the world with hope for a future without the fear of terror. American Soldiers are the best trained and best equipped in the world. We own the ability to finally win the war on terror; however, we also have the capability to direct our fate towards strategic victory for the terrorists. Violations of the Army Values and the Laws of Land Warfare by U.S. Soldiers are huge victories for the terrorists. It is when leaders lose mission focus that these transgressions can occur.

Soldiers, sergeants, and officers currently serving in the Army constantly show their professionalism every day in the conduct of their combat duties. The American Soldier and lower-level units have been entrusted with historically high levels of responsibility in the GWOT, yet mission accomplishment remains as high as ever. The U.S. Army serviceman is the model for professional armies around the world with respect to values, competence, and effectiveness.

Unfortunately, several negative incidents have recently come to light, in addition to the Abu Ghraib abuses, which have focused attention away from the positive activities of our Soldiers overseas. In January 2004 near Samarra, a platoon of U.S. Soldiers allegedly forced two Iraqi noncombatants off a bridge, killing one of them. Misconduct during an April 2004 raid in Kosovo resulted in punishment for a U.S. Army Soldier found guilty of maltreatment of detainees. As many as 28 Soldiers face charges in connection with the homicides of two prisoners in Afghanistan in December 2002. Multiple investigations into other alleged abuses await completion.

Commanders and first sergeants are the individuals responsible for "everything the company does or fails to do." Could anything worse happen to their troops, those people they care about the most, than participation in a war crime? For leaders and Soldiers committed to the Army Values, these instances and others like them are decidedly un-American acts and cannot be tolerated. The commander must answer essentially three questions, and the first sergeant should help ensure that individual Soldiers and NCOs understand and internalize correct answers.

These questions are:

1) Why should we treat prisoners and noncombatants humanely?

2) Why do abuses occur?

3) How do we prevent abuse problems?

Sergeant Kyran V. Adams

An 82nd Airborne Division Soldier escorts an Iraqi prisoner of war to a holding area in March 2003.

WHY SHOULD WE TREAT PRISONERS AND NONCOMBATANTS HUMANELY?

The bottom line is that violations of the Law of Land Warfare severely damage both the mission and the Soldiers, the two areas where a leader's most sacred loyalty rests. It might seem readily apparent, but a knowledgeable understanding of the reasons why ethical misconduct cannot be a part of our Army is crucial for Army leaders, particularly junior leaders. Reinforcing the reasons why detainees must receive appropriate treatment can help the commander's subordinates remain focused on professional conduct with

prisoners and noncombatants.

We follow lawful orders. The order to treat noncombatants (those essentially "out of the fight") appropriately is lawful, and therefore subordinates must obey. Obeying orders is tantamount to good order and discipline in a unit. The command to treat prisoners and noncombatants appropriately is one of the clearest orders in the U.S. armed forces. Prior to modern-day deployments, U.S. forces received only instruction on the rules of engagement (ROE) for the pending operations, but forces in the GWOT are also now issued ROE cards to carry in combat. These cards are the clear rules for conduct in the course of combat, to include treatment of prisoners and noncombatants. This ROE follows standards set in the Geneva Conventions, of which the United States is a signatory. It states that "prisoners of war must be humanely treated at all times," and they "must be protected, particularly against violence." Whether or not this is convenient for Soldiers and leaders on the ground in combat is immaterial. Those are lawful orders we receive and we must abide by them.

The orders for proper treatment of prisoners originate in the Geneva Conventions, and they are also reinforced (hence, reordered) frequently by our senior and national leaders. President Bush has constantly repeated the mandate for professional conduct, calling past Geneva Convention violations "disgraceful conduct" by people who "dishonored our country and disregarded our values." As a good measure, Soldiers should consider whether their impending action would be something that their Commander-in-Chief would approve, and whether or not they would feel comfortable committing the act in his presence (in the best case scenario, Soldiers fear disgracing their first-line supervisors as well). Secretary of Defense Donald Rumsfeld referred to abuse of noncombatants as "inconsistent with the teachings of the military" and "fundamentally un-American." Our national leaders have to answer questions for felonious combat acts committed even by the lowest ranking Soldiers. We must seek to obey the lawful orders prescribed by our leaders at the national and organizational levels.

Terrorists win when we abuse. U.S. Army Field Manual (FM) 7-98, *Operations in Low-Intensity Conflict*, describes one of the objectives of terrorists as forcing "reaction, overreaction, and repression leading to immediate public dissention." The Abu Ghraib abuses showed us just how possible it is for a single incident or undisciplined unit to affect public views towards the entire Army and its mission. Recent courts-martial action for abuses by non-prison units threaten to paint an undeserving image of close combat personnel as well. Opponents of the GWOT now have what they perceive as evidence that the U.S. is malignant in its intentions and conduct. Lieutenant General Lance Smith, deputy commander of the U.S. Central Command, stated that "unprofessional and malicious conduct" by Soldiers has "facilitated the efforts of our enemy to malign our national intent and character, and gives weight to the charge of American hypocrisy." The terrorists who watched the media coverage of the abuses were likely quite satisfied with the "overreaction and repression" of the American Soldiers and the "immediate public dissention" it created. The Soldiers' illegal actions were the best recruitment tool the terrorists could have desired. By committing abuses, Soldiers threaten to destroy the positive effects of all the difficult victories against terrorism that their fellow Soldiers have fought so hard to win.

FM 7-98 also describes the two imperatives for defeating terrorist insurgencies: "reduce the insurgent threat or activity and provide a favorable environment for the host country's development program." By helping the country develop, the armed forces help eliminate dissatisfaction that caused the insurgency to rise. When units have to focus time and effort on resolving possible war crimes issues, they have to redirect valuable resources away from destroying the terrorists and helping the civilians. Future reports will likely show that millions of dollars were spent on various legal proceedings related to U.S. abuses in the Global War on Terrorism, which otherwise could have been used to combat the enemy and support our Soldiers in combat.

Abuse hurts your buddies. Imagine a situation where someone in your neighborhood or family is unarmed but gets beaten by thugs or even the authorities. This would raise tensions to be sure, and could lead to violent action against the security threat. It would be difficult to reason that those were "good" individuals who rendered the abuse. Logically, the same response can be expected from the neighborhoods and families of individuals abused by U.S. servicemen. So instead of defeating or intimidating the enemy, a Soldier who abuses civilians or prisoners in fact simply creates more enemies. And more enemies mean more IEDs and ambushes to hurt or kill his fellow American comrades. Additionally, it prolongs the war, requiring the rotation of additional servicemen to hostile fire areas over a longer period of time. And history has taught us that Soldiers exposed to prisoner abuse are significantly more likely to develop psychological disorders later in life, particularly Post-Traumatic Stress Disorder (FM 22-51, *Leader's Manual for Combat Stress*). Soldiers who feel less than obligated to their moral responsibilities in combat show that they care little as well for their fellow comrades.

The practical rationale for not abusing prisoners or noncombatants can be summed up in one sentence. Abuse absolutely fails our two greatest commitments: the mission and the Soldiers.

WHY DO ABUSES OCCUR?

Leadership failure is the chief reason why abuses occur. How can Soldiers groomed under the Army Values possibly take part in such egregious offenses against humanity? Combat stress can sometimes be a contributing factor, but violations of the law of land warfare always have roots in leadership failure.

Combat Stress. Stress is the "body and mind's process for dealing with uncertain change and danger." Combat, of course, is rife with different kinds of stressors, from the very real danger of incoming rounds to excessive worry about family and friends at home. Stress can be a good thing. It drives Soldiers to push themselves to the furthest extent of their abilities, and it increases alertness in tense situations. Left unchecked and extended over a long period of time, though (i.e. months or yearlong deployments), stress can result in misconduct stress behaviors, the most extreme examples being violations of the Law of Land Warfare. The emergence of IEDs as a main enemy weapon requires that our Soldiers maintain an even greater and constant awareness while on patrol, to include long convoy movements. The unpredictability of enemy mortar fire can cause Soldiers heightened levels of anxiety during all hours of the day and night. It is understandable if the requirements of a combat-deployed Army cause stress for

Sergeant Kyran V. Adams

First Lieutenant John Gibson of the 2nd Brigade Combat Team, 82nd Airborne Division, escorts an enemy prisoner of war in Iraq.

Soldiers; it is unacceptable, though, if Soldiers in a stressful environment commit atrocities.

Torturing prisoners may be "erroneously justified as necessary" by stressed Soldiers in order to "gain information and save friendly lives or to intimidate the opposition," particularly in conflicts against terrorists who blur the line between civilian and combatant (FM 22-51). Unfortunately criminals who trade their values and America's dignity for a chance at illegally obtaining information don't understand that it is a statistical improbability that subjects under torture will give accurate information. They will say anything to stop the pain, and just like many former American POWs subjected to torture, even the greatest physical pressure will not make a dedicated and trained subject reveal vital information.

Another manifestation of combat stress can be the tendency to "react with excessive force and brutality to episodes of provocation." The boundary between prudent responses to threats and excessive use of power can often be a very gray area in combat. If found guilty, the Soldiers accused of pushing two Iraqi men into the Tigris River (one man drowned) in Samarra last January for "violating curfew" certainly crossed that boundary in responding to threats. Additionally, the mistreatment of detained individuals immediately or shortly after surrender or disarming may be a misconduct behavior response to stress in intense combat situations. Since it cannot realistically be avoided, combat stress can be a contributing factor in violations of the Law of Land Warfare and the Geneva Conventions; however, the negative effects of combat stress can be mitigated by continual and effective leadership.

Weak Leaders. Abuses in combat are a direct result of weak leaders. In virtually every instance of noncombatant abuse by U.S. forces, the primary (in effect, the sole) reason for illegal transgressions is leadership failure. Even misconduct resulting from combat stress in actuality finds its roots in poor leadership ("It is the primary responsibility of leaders to limit the effects of combat stress," FM 22-51.). Leaders fail by not training their Soldiers properly and, ultimately, because of the leaders' own leadership deficiencies.

Leaders fail by not training their Soldiers properly, even though the training required uses the most inexpensive and readily available tools in the Army. By simply talking to Soldiers and making clear the expectations when confronted with noncombatants, a leader has already achieved a great deal in terms of setting the right conditions for ethical conduct in combat. He then listens to the questions and concerns of his Soldiers, constantly reasserting the unit's inflexible commitment to ethical conduct. FM 7-1, *Battle Focused Training*, identifies the Army Training and Leader Development Model, which focuses the "how" of mission accomplishment on an absolute dedication to ethics, values, warrior ethos, standards, and principles and imperatives. The leader must train his Soldiers for the inevitability of difficult combat decisions by giving them the tools for ethical decision-making.

Ultimately though, illegal combat activity is a result of weak leaders. In combat, Soldiers rarely go anywhere without a leader. The team leader level is the lowest division of forces we separate ourselves to, and even then a squad leader should be no more than a vocal shout or Motorola call away. In every professional development course, to include basic training but in particular all officer and NCO courses, instruction always highlights the requirement for U.S. Army members to adhere to the standards of conduct contained in the Army Values. Leaders know the standards, yet recent unethical combat conduct shows that a disappointing few fail to truly inculcate those values. Weak leaders choose to violate Army standards of conduct when difficulties arise. Weak leaders "break" in the face of adversity, choosing the "easier wrong" instead of the "harder right." Rather than attempting to solve problems using creativity, professionalism, and long-term vision, weak leaders react to situations seeking immediate results with disregard for the ethical requirements of the "how" and without concern for second and third-order effects. FM 22-100, *Army Leadership*, notes that leadership involves making decisions with due respect to the consequences of those decisions. In recent incidents of illegal Soldier conduct, ethically trained leaders were involved and failed in their moral obligation to professional conduct. Leaders committing illegal acts may consider themselves simply "aggressive" or "mission-focused," but there is nothing heroic or tactically and strategically profitable about abusing noncombatants or embarrassing one's country and fellow servicemen.

How do we prevent abuse problems?

No commander or leader would ever want something as tragic as a war crime to occur in his unit. To ensure proper treatment of noncombatants, the leader must take action before, during, and after combat.

Before combat. Prior to combat, leaders must ensure that ethical training receives equal emphasis as improving tactical and technical skills or physical attributes. FM 22-100 notes that leader attributes (such as self-discipline and judgment) are "learned and can be changed." It is essential today that commanders emphasize during training the importance of adhering firmly to standards of conduct during combat. In the 173rd Airborne Brigade's recent rotation to the Combined Maneuver Training Center (CMTC) in Hohenfels, Germany, Soldiers were issued and required to maintain a pocket-sized reference card. This reference card contained a replica of the ROE card for the Combined Joint Task Force 76 (CJTF-76) area of responsibility in Afghanistan, where the brigade will deploy in March 2005. It also defined the CJTF-76 Rules for Treatment of Persons Under Control (PUC). The most instructive part of the card was a series of training scenarios that tasked the reader with determining the correct ethical decision in a variety of situations involving enemy, civilians, and noncombatants. The training scenarios on the card facilitated "hip-pocket" training during deployment downtime, and they allowed Soldiers to hear ethical reinforcement from their most immediate leaders. The unit's leaders placed significant emphasis on ethical combat conduct by producing and then promoting the ethical reference cards in the training environment.

Based on the recent incidents of leader misconduct in combat, we have to prepare our Soldiers for the possibility that a leader would try to direct them towards unethical conduct. In no uncertain terms we must teach our Soldiers to say no when confronted with violations of the Army Values. We know that we will fight in combat exactly how we trained in garrison; based on that knowledge, I recently conducted focused ethical training with my platoon. Each one of my Soldiers had the opportunity to respond to fictional directives to violate combat ROE, with commands coming from different members of the platoon's internal leadership. I have confidence that none of my platoon's leadership will give unlawful orders in combat, but if my Soldiers move to another unit, (or if I receive new untested leaders while downrange), I want to ensure that the Soldiers have had practice in doing the right thing: refusing unethical orders. We must train our Soldiers and leaders before war so that they can make the right decisions in combat.

During Combat. In the midst of combat operations, leaders have the important responsibility to ensure that ethical violations do not occur. Leaders are responsible for everything their men do or fail to do, and this extends to ethical conduct. Misconduct stress behaviors resulting in violations of the ROE are the responsibility of commanders. FM 22-51 lists several strategies for reducing misconduct in combat, such as constantly explaining the ethical, legal, practical, and tactical reasons to obey the rules. For example, "Provoking us to commit atrocities is exactly what the enemy is trying to do to achieve his objectives, not ours." Additionally, develop a sense of "family" that makes illegal behavior repugnant and morally unacceptable, as well as punishable. And, of course, the commander and leaders must always set the example in their own moral conduct in combat.

Moreover, when dealing with PUC situations, it is important that the PUC be brought to the rear and out of the hands of the front-line troops as soon as possible. This has to be done for several reasons. First, the detaining unit must ensure that the trained military interrogators (typically located at battalion or brigade-level) receive the prisoners before sensitive information is lost to time or circumstances. Secondly, it helps protect the front-line troops from unfounded claims of abuse by detainees. Finally, it keeps the front-line troops focused on their mission of closing with and destroying the enemy, while the battalion and brigade elements provide support via their battlefield operating systems (in this case, intelligence). Recent (yet isolated) disgraces with respect to U.S. control of PUCs require that higher headquarters maintain a greater level of oversight in detainee operations.

After Combat. Once they complete their combat tours, commanders and leaders have a responsibility to discuss with their peers in other units the difficulties they experienced in combat. For example, the Center for Army Lessons Learned (CALL) operates a website where leaders can interact and relate firsthand stories and participate in discussions on ethical considerations and improvement strategies in combat. It is absolutely imperative that we pass along the hard-won lessons to other Soldiers and leaders as they replace us in the different deployed areas of operations. These lessons include insights into the moral obligations inherent in combat while serving under the American flag.

Units composed of professional Soldiers and ROE-supporting leaders will be more effective because individual members will have no reason to fear or over-monitor others for possible ROE violations or unethical conduct. Some skeptics might be tempted to caution that we could hurt the aggressiveness of the Soldier by putting too much of an emphasis on ethical conduct. On the contrary, confident, cohesive units are much more lethal than those composed of weak leaders and individuals willing to compromise national objectives, their small-unit mission, and the safety of their fellow Soldiers. Violations of the ROE are failures to follow orders, they help the terrorists to win, and they hurt our buddies; ultimately, abusing noncombatants fails the mission and the Soldiers. Weak leaders allow these unethical transgressions to occur. Current combat operations require leaders who take responsibility for the ethical development and decision-making of their Soldiers and units before, during, and after combat. Our mission as an army in the Global War on Terrorism makes violations of the ROE and the Laws of Land Warfare absolutely unacceptable.

First Lieutenant Thomas Anderson served as a rifle platoon leader with the 2nd Battalion (Airborne), 503rd Infantry, 173rd Airborne Brigade for seven months during Operation Iraqi Freedom. Lieutenant Anderson will deploy as a mortar platoon leader in March 2005 with the 173rd as it supports the Southern European Task Force (SETAF) in Operation Enduring Freedom in Afghanistan. Anderson is a 2002 graduate of the U.S. Military Academy.

TRAINING FORWARD

The Expeditionary Training Center in Bulgaria - BULWARK 04

MAJOR MICHAEL A. BODEN

Sergeant Teodora Mocanu

Soldiers from the 2nd Battalion, 130th Infantry (Air Assault), Illinios National Guard, conduct urban operations training during BULWARK 04.

The uncertain future of American military presence in Western Europe has provided not only challenges, but also opportunities, for the Seventh Army Training Command (ATC) in Germany. During the Cold War, units throughout Europe regularly conducted training at Grafenwöhr and Hohenfels. This high training tempo continued in the 1990s during the initial years of American military presence in the Balkans, despite the decade-long drawdown of forces. After September 11th, however, the landscape of training in Europe changed, first with the departure of many of the USAREUR-based units to lengthy deployments around the globe, and second, through the national announcements of force restructuring in Europe, with the projected endstate a considerably smaller military force in Germany. An aspect of these new circumstances, however, provided an opportunity for the Combat Maneuver Training Center (CMTC) at Hohenfels, Germany, to demonstrate its capabilities as part of the 7th ATC's Expeditionary Training Center (ETC) by deploying and conducting training to other, former Eastern Bloc countries in Europe. The initial deployment and mission in this endeavor was exercise BULWARK 04. In

July and August, 2004, observer/controllers (O/Cs) from CMTC's Timberwolf Team and the 2nd Battalion, 130th Infantry (Air Assault) of the Illinois Army National Guard, deployed to Bulgaria to conduct training for the first time at Novo Selo Training Area.

Far from demonstrating how difficult a forward deployed training rotation could be, BULWARK 04 fulfilled a key function in the continuous development of an Expeditionary Training Center. The exercise validated the company/team-level training model, providing insights and lessons learned that will assist USAREUR in execution of the FY05 planned battalion task force force-on-force event, leading to

the end state expeditionary BCT training model. BULWARK 04 also proved that a highly effective and successful training density could be conducted using on-hand resources hundreds of miles from an established U.S. military combat training center. The ETC leadership and support structure addressed and minimized the unique challenges of such an enterprise through standard training programs and application of doctrine. While this exercise admittedly involved only a single battalion training on small unit collective tasks and battle drills, there is no reason why the principles and practices applied by the ETC to this exercise cannot be successful when training companies and battalions. The

Table 1

proof will occur in the summer of 2005, when the ETC again deploys and trains forward, this time to Romania for exercise ROMAR 05.

The objectives for this mission were numerous. The 18th Engineer Brigade served as exercise control (EXCON) with the mission to "deploy to Novo Selo, Bulgaria, to enhance partnership with a new NATO ally by conducting BULWARK 04 in order to assess exercise infrastructure and provide CTC quality training for the 2-130th IN (ILARNG)." The 18th Engineer Brigade Headquarters concentrated on the first aspect of the mission. To meet the objective of providing "CTC quality training" for the rotational unit, many different agencies from throughout 7th ATC worked closely together to coordinate all events, from the set-up of the actual training facilities to the instrumentation of the Soldiers and the conduct of training.

The Expeditionary Training Center concept has developed in the past few years with the mission to "provide world-class training to joint, combined, and service component forces and leaders in support of the combatant commands, and to serve as USAREUR's focal point for training support, and contribute to EUCOM's Security Cooperation Strategy." Simply put, in today's fluid and volatile world situation, the Combat Training Centers (CTCs) must be able to project fully capable training teams and packages that can provide training support to not only the American Army, but to other allied nations as well. Such deployments may be forecast far in advance of the actual mission execution, or they may be short-notice targets of opportunity. In either case, they can and will occur at a myriad of different locations around the globe. It is noteworthy that simultaneously with BULWARK 04, CMTC also conducted two "standard" CTC rotations at Hohenfels, convoy live-fire exercises at Grafenwöhr, and maintained two training teams in Iraq which were training the new Iraqi Army as part of the Coalition Military Assistance Training Team (CMATT).

Table 1 portrays the ETC METL that gives the charter for such training exercises. While BULWARK 04 assessed each of these METL tasks, to some degree, the deployment to Bulgaria primarily focused on the third of these METL tasks. In support of the deployment, 7ATC deployed a robust training resource package to Novo Selo. Twenty-nine Soldiers from Hohenfels were present to provide O/C support as well as the associated maintenance and audio-visual support. From Grafenwöhr, approximately two dozen personnel were present to facilitate range operations and instrumentized feedback on the training.

The exercise itself occurred during the end of July and first few weeks of August 2004, focusing on specific squad and platoon tasks determined by the 2-130 IN "Blackhawks." These tasks centered on around four different training events: a squad and platoon live-fire lane, an urban training (MOUT) exercise, individual marksmanship ranges and assault courses, and a convoy security lane. For the first three of these events, the rifle companies in the battalion rotated through five-day schedules, while select elements of the Blackhawks executed the convoy security lane throughout the 15-day training density (See Table 2). D Company and Scouts were integrated in each lane with specific tasks designed to enforce not only collective training tasks, but to encourage and necessitate cross talk between platoons and sections as well. Specifically, the Scouts conducted zone reconnaissance on the live-fire lane and observation post activities at the MOUT site, while D Company established outer cordon positions at the MOUT site and conducted escort missions for the convoy STX lane.

Range Facilities

The Novo Selo training complex

Table 2: BULWARK 04 Rotation Schedule

	July 28; Aug. 2, 7	July 29, Aug. 3,8	July 30, Aug. 4,9	July 31, Aug. 5,10	Aug. 1, 6
	DAY 1	**DAY 2**	**DAY 3**	**DAY 4**	**DAY 5**
Convoy Security (Day)	Executed according to unit training level. HHC/2-130 is the primary unit to be trained. Other units may be trained as a target of opportunity/ throughout based on one convoy every three hours as per unit schedule.				
MOUT (Day/Night)	Team/Squad MOUT Techniques (basic enter & clear tasks)	Squad MOUT (movement/ recon/integration/enter & clear)	Squad MOUT (advanced techniques/execution)	Platoon MOUT (walk)	Platoon MOUT (run)
Live Fire (Day)	Squad LFX (staggered with rehearsals & TLPs; culminating with sequential blank/live iterations.			Platoon LFX (blank)	Platoon LFX (blank/ live)
ARM/OPFOR	OPFOR Support/Weapons Qualification and Familiarization/Small Unit Individual and Collective Training				

possesses characteristics that both facilitate and hinder training. Many of these same traits will be present at any Eastern European nation's facilities to which the U.S. Army chooses to deploy for extended training. On the positive side, the training area itself is very large (approximately 125 square kilometers), and provides ample space to conduct training without any of the prohibitive environmental constraints which too often adversely affect training exercises in Central Europe. A number of control towers dot the landscape and for this exercise were utilized to help the OCs and Range Control personnel manage training. Additionally, Novo Selo possesses a small MOUT site, consisting of approximately 40 concrete, roofless, structures replicating a small town. The Bulgarian Army garrison at Novo Selo provided a great deal of logistic support, and the Bulgarian military was very helpful and easy to work with.

The range itself, the targetry, and all range resources, however, were extremely outdated and in many cases unsafe. Although we were afforded the opportunity to use the existing targetry on the range, because of safety concerns we opted to construct the range "from scratch." Additionally, while the towers and MOUT complex proved adequate and useful, approximately half of the structures (both towers and buildings) were unsafe and unusable. Common to all former Eastern Bloc military training sites, range upkeep and maintenance is severely lacking at Novo Selo. We must be prepared to construct, from the ground up, any range complex we wish to utilize in the near future. Fortunately, the resources of the ETC proved more than adequate for the task and were able to construct the necessary facilities before the arrival of the training unit.

To meet these challenges, the 7ATC deployed a full range package set of over one hundred target lifters. Mr. Joe Neubauer, head of 7ATC Safety, and Sergeant First Class Robert Anderson, the USAREUR Master Gunner, oversaw range construction and set up. With much of the foundation for the range construction conducted prior to the actual deployment following range recons, the set up of these facilities took less than two weeks.

Instrumentation and Training Simulations Equipment

BULWARK 04 afforded the opportunity for the various military units involved to evaluate the different technological training simulation tools utilized during a deployment. In using these systems, we not only assisted the training by providing the unit detailed, individual, feedback, but also assessed the feasibility of

Sergeant Teodora Mocanu

Bulgarian and U.S. Soldiers complete training during BULWARK 04. Note the use of DIS-E by the Bulgarian Soldier at center.

deploying different systems for similar missions in the future. For BULWARK 04, the system used was the Deployable Instrumentation System-Europe (DIS-E). BULWARK 04 provided a suitable testing ground for this new equipment. DIS-E is a home station/deployed training capability used as an interim capability pending the fielding of the Expeditionary Instrumentation System (EIS) to the Combat Maneuver Training Center in FY06.

The system itself proved very useful in the conduct of after action reviews and hot-washes by providing individual soldier movement, engagements, and activities during all training events. The clarity of the system was relatively easy to issue, maintain, and use. Each training lane integrated DIS-E playback into the unit AARs. The individual tracking also gave the OCs on site an additional safety feature which could alert leadership to potential unsafe situations prior to their occurrence. It did, however, draw a large amount of attention from higher headquarters and visitors, which caused a distraction from the actual training that, while seldom affecting the Soldiers and leaders training on the ground, consumed significant amounts of time from the battalion leadership and the 7ATC leadership. The focus of distinguished visitor briefings and agendas eventually turned away from the conduct of the actual training and towards the training aids and systems. True, when dealing with both local national civilian leadership and other military personnel, both U.S. and allied, the focus on training simulations provides "something shiny" that visitors can observe and at which they can express wonder. It does not, however, replace the value of the actual training and should at no time become the reason for the exercise. Such distractions will be common allowances that training units must come to grips with. However, by conducting a skillful information operations campaign focusing on the potential of the new system, in addition to careful visitor management (removing the guests from direct interference with the conduct of the training) the distractions can prove of more benefit in the long run.

The training demonstrated clearly that DIS-E, and other simulations equipment, can be deployed with relative ease and utilized effectively in a forward training site. This success has led to the Army's decision to field the aforementioned Expeditionary Instrumentation System to the CMTC to provide the full brigade combat team capability for the ETC. This includes

	Civs. on the Battlefield	OPFOR	Civ. Clothing Sets	NTVs	Interpreters	AK-47s (M16/M4)	AK-47-RD (R...
Convoy Security (Day)		3					2
MOUT (Day/Night)		4 / 4	11 / 11	15 / 15			8 /
Live-Fire (Day)							
Total (Day/Night)		4 / 4	14 / 11	15 / 15	0	0	10 /

Figure 3 - BULWARK 04 Resourse Matrix

coverage over a 20 x 40 km area with full instrumentation, a reachback distributive capability via satellite and/or T1 lines, and embedded video and audio capabilities. But the key lesson learned from the integration of the training devices is that while simulation equipment can be a valuable asset to the training of a unit, it cannot replace the actual execution of training; it is not a magical talisman that single-handedly determines the success or failure of training. The focus of a deployment such as BULWARK 04 must remain on those individual and collective skills that together form the core of infantryman (in this case) skills.

Conduct of the Training

For the actual conduct of training, there were few special considerations for conducting operations as the ETC in Bulgaria as opposed to Hohenfels, or any other U.S. training site, for that matter. The 15-day cycle was broken down into 3 five-day training periods, during which each line company rotated through each training lane. Additionally, for the second iteration of the cycle, a Bulgarian Rifle Platoon trained with 2-130 IN on the MOUT site. While enhancing the teamwork between the U.S. and Bulgarian militaries, the exchange also provided an opportunity to demonstrate the compatibility of the present instrumentation systems (DIS-E) with weapons from other, allied countries. The Bulgarian Soldiers were equipped with organic equipment, but instrumented with the same devices as their American counterparts. The AARs were fully

Figure 4 - BULWARK 04 Collective Training Tasks

instrumented and resourced in exactly the same manner as the American platoons.

The resourcing of the actual training was relatively simple as well. For opposing force (OPFOR) Soldiers, the battalion resourced themselves out of the company in the five-day ARM cycle of training. For specific equipment and training aids, the few remaining requirements were provided by CMTC, and transported as part of our MILVAN equipment, taking a minimal amount of space. With the assets shown in Table 4, it was easy to resource a full range of training opportunities and events for the rotational unit.

Lieutenant Colonel Mark Jackson, commander of the 2-130 IN, commented during the final days of training that this is the first annual training event he recalled where Soldiers were complaining about having to depart. This attitude is a testament not only to the leaders and Soldiers

of 2-130 IN, but also to the focus of the entire 7ATC team and their commitment to the ETC concept and dedication to the guarantee of effective training. With the ongoing pace of combat operations, the assurance of quality training, worldwide, is critical for the successful preparation of units. BULWARK 04 demonstrated the Expeditionary Training Center (ETC) preparedness and ability to conduct such training events with relatively little support at forward training bases in Eastern Europe.

Lieutenant Colonel Mike Boden is currently the Senior Operations Observer/Controller on the Timberwolf (Infantry) Team at the Combat Maneuver Training Center, Hohenfels, Germany. An Armor officer, he has served in various command and staff positions, most notably as a company executive officer with 3-67 Armor, 2nd Armored Division, during the Gulf War and as the task force XO for 1-77 Armor, 1st Infantry Division, during KFOR 4A.

WHINSEC Tactical Training

LIEUTENANT COLONEL ROBERT G. FAUSTI

People ask me what I do, and for a long time I simply stated, "I work at the Western Hemisphere Institute for Security Cooperation (WHINSEC)." However, after receiving consistent blank looks I now reply, "I train men to go into the jungles of Colombia and fight." It registers. Simple in nature, but undeniably true, the men I train either pull triggers or support those who do.

We train soldiers and police from almost every country in the Western Hemisphere. The majority of the foreigners we train are Colombians. Most Americans have no idea of the brutal nature or the consistency of killing in this country. In comparison to the Colombian Army, our losses in Iraq are small.

I was the Director of Tactics and Special Operations (DTSO). This department has the mission to train soldiers in combat and combat support operations. We conduct all the high-risk operations within the institute: airborne, fast rope, close quarters battle (CQB), special demolitions and others. There are three main divisions in DTSO: the Special Operations Detachment, Combat Services Support Division, and the Military Intelligence Detachment. These three units are responsible for their particular areas, which are described below.

Special Operations:

This division is responsible for our Counter Drug Operations Course (TAC-6). TAC-6 is designed for mid-level NCOs and junior officers. It is an interagency course which combines infantry, military police, and Drug Enforcement Agency training. However, the meat of the course is infantry training. We teach operational planning and skills such as: advanced marksmanship, land navigation, infiltration/exfiltration techniques, first aid and patrolling. Think of it as a specialized Ranger course and you are pretty close to the mark.

A graduate of TAC-6 will have the skills necessary for planning, leading, and

> **Most American have no idea of the brutal nature or the consistency of killing in (Colombia). In comparison to the Colombian Army, our losses in Iraq are small.**

executing a tactical operation. This planning focuses on the platoon level and below. We emphasize individual skills and squad operations. Graduates will be able to do the following: select and engage targets from ranges 50 to 200 meters, navigate using map and compass on legs of 200 to 6000 meters, and operate as a member of a fire team, squad and platoon. We teach and reinforce skill sets from the simple (camouflage, basic radio communications) to the complicated (insert by air assault and FAST rope operations). This individual has to be able to operate in a rural, semi-permissive or non-permissive environment. In this environment, he must have the ability to subdue and apprehend suspects and secure a crime scene. This also entails collecting evidence, and destroying illicit sites and materiel not used as evidence.

What does the above really mean? We train soldiers and police to do direct action missions. In their home countries, our students conduct live missions in ugly places. Usually this involves a raid on a drug lab that is located in guerrilla territory and heavily defended. Due to the violence of action, casualties are common. Once the objective is taken, they must be able to do the police work of apprehension and collection of evidence for criminal prosecution as well as intelligence. They also must be able to destroy what is left behind, whether it's a chemical-filled drug lab or a clandestine airstrip.

Combat Service Support:

The CSS division consists of an engineer section and a medical section. These two

units conduct the Engineer Course (TAC-8) and the Medical Assistance Course (TAC-7). Both courses are intensive in specialized training. They prepare soldiers to go on live missions with infantry units. These soldiers must be prepared, just like our medics and sappers, to patrol and live in the field with the infantry.

The TAC-8 course teaches: land navigation, mountaineering, special demolitions, light construction and survival. They also conduct FAST Rope and air assault operations. Special attention is given to booby traps and the clearing of mines. We are also leveraging knowledge gained with IEDs. Though this is a new concern with our Army, the Colombians have faced this threat for years.

The course is only 10 weeks long. Nevertheless, it is knowledge and skill intensive. It is built to enhance the capabilities of the average engineer at the NCO and junior officer level. In essence, it is the U.S. Army Sapper course in modified form. The final exercise involves the building of actual structures on a demolition range, and insertion to an unknown point. Then, the students patrol back to the range, conduct surveillance, raid the structures, and using demolitions, destroy the target.

The Medical Assistance Course (TAC-7) is one of the most essential courses we teach. For combat medics, I know of no other training that is equal to it. TAC-7 is a combination of fieldwork and classroom instruction. We teach both male and female soldiers in a six-week curriculum. The students learn the fundamentals of medication administration (i.e., morphine and other high-level medications). They also work with moulage kits, animal cadavers and other training devices to learn the intricacies of ballistic wounds, combat surgery and suturing techniques. The cadre also coordinates for guest instructors (doctors and senior physician assistants) from Martin Army Community Hospital to enhance training.

One of the most important classes

students receive is evacuation of casualties. We place emphasis on mountaineering and use Ranger Training Brigade facilities at Fort Benning and Dahlonega, Georgia, to conduct this training. In essence, we produce an EMT "plus" medic, who not only serves combat units; but like his civilian counterparts, can assist noncombatants as well.

Military Intelligence:

Military intelligence Division conducts the Intelligence Officers Course (TAC-2) and the Counter Narco-Terrorists Analyst Course (TAC-10). Both of these courses involve Intelligence Preparation of the Battlefield (IPB) and the intelligence cycle. We structure the courses to show a systems approach to intelligence.

They emphasize techniques and procedures to process and analyze intelligence in a rapid and effective manner. TAC-10 emphasizes a Common Operating Environment (COE) doctrine and methodology. Whatever you want to call it, Small War, MOOTWA or COIN, it is the meat and potatoes of the training. Small unit actions and seemingly isolated incidents are pieced together to decipher how the enemy operates and determining his intentions and future operations. Both courses use the Joint Conflict And Tactical Simulation (JCATS) exercises to enhance training.

The two main areas of focus are the Commander's Intelligence Requirements and the limits of collection. Both are key. We ensure students understand that the first area is the basis of true needs and effective intelligence. Their work can and will affect everything that follows in subsequent tactical operations. For the second area, we ensure, from the U.S. perspective, that students understand there are certain boundaries that are not crossed. Legal and ethical considerations are always highlighted.

Our Legacy

In essence, WHINSEC is an economy of force mission and a combat multiplier. The importance of even the simplest training event cannot be over emphasized. In many cases, the students who come to us have poor combat skills. From fire team "react to contact" drills to PCIs and patrol orders, we truly show these soldiers "what right looks like" and therefore help them to survive.

The professional and personnel benefits of being assigned to WHINSEC are obvious. There are Brazilian, Colombian, and Chilean Special Forces NCOs and officers assigned to the department. These individuals are highly professional and have taught their U.S. counterparts different techniques and procedures.

This environment truly opens one's eyes to different worlds.

My officers and NCOs also work with interagency and joint staffs. We are linked into the U.S. Southern Command (SOUTHCOM) Commander's Theater Engagement Plan. Our tactical programs directly support US. policy in the region. We also teach the most comprehensive human rights and law of land warfare training within the Infantry and Special Forces community. With the Global War on Terrorism, we are now developing relationships with U.S. Northern Command (NORTHCOM) and WHINSEC's links to Latin America and Canada dovetail directly with the NORTHCOM mission of Homeland Security. By our very existence, the members of our department have an inherent opportunity for professional growth and education as U.S. soldiers.

We also are paid more than a standard TRADOC instructor. A WHINSEC soldier has the potential to make $200 in language pay and $150 in parachute pay. This is combined with an excellent opportunity for schooling. Fort Benning is the home of all the infantry schools. Slots to Ranger, Pathfinder, etc are common. For officers, WHINSEC is home to a resident Command and General Staff Officer Course (CGSOC). The opportunities to assist in overseas TDY operations in the SOUTHCOM AOR are also available. All the above factors increase one's perspective and professional abilities.

The intention of this article is to inform the reader. WHINSEC's mission is often misunderstood or unknown, but we are an integral part of the war effort. The United States' reliance on coalition forces will not end. Today, El Salvadorians and other Western Hemisphere countries have units in Iraq and Afghanistan. WHINSEC has trained many of these soldiers or the leaders who planned their deployments and orders. The traditional problems south of our borders will not be resolved in the near future. If anything, they will probably increase. Homeland Security issues now direct international coordination on all fronts. Traditional approaches to security of our northern frontiers and shores are obsolete. Because of the in-depth and multifaceted training we do, WHINSEC has been and will continue to be a valuable asset in both the war against drugs and the war against terrorism.

Lieutenant Colonel Robert G. Fausti has served in the U.S. armed forces for more than 20 years. He has served with both conventional and Special Operations units. LTC Fausti is a graduate of Ranger, Jumpmaster, Pathfinder and the U.S. Marine Corps Scout Sniper Instructor Course at Quantico, Virginia. LTC Fausti graduated magna cum laude from Northern Illinois University and has a master's degree from Vanderbilt University.
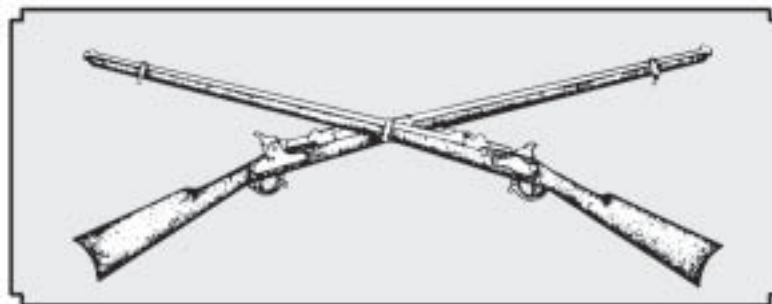
BOOK REVIEWS

The Black Devil Brigade, The True Story of the First Special Service Force in World War II, An Oral History. **By Joseph A. Springer. Motorbooks International. 344 pages. $29.95.** Reviewed by Harry D. Stumpf.

This extraordinary, timeless reference is destined to become a classic. Like author Cornelius Ryan in *The Longest Day, A Bridge Too Far*, etc., Joseph A. Springer interviewed hundreds of veterans of the fight for this riveting, nonfiction thriller. The story is told by these veterans who made history as members of an elite infantry force the likes of which the world has never seen.

Until now this saga was little known; *The Black Devil Brigade* is the first book thoroughly documenting the events which occurred half a century ago.

The heroes described here (few, if any, of these Soldiers were not heroes) were characters. The recruiters who, in early 1942, initially formed the unit were looking for single men between the ages of 21 and 35 who had completed three years or more of grammar school, within the occupational range of lumberjacks, forest rangers, hunters, northwoodsmen, game wardens, prospectors, and explorers.

It helped if they had experience with explosives and could ski. They came from the armies of Canada and the United States. The result was a selection of the "most rugged from a most rugged generation;" average age: 26. In the vernacular of 2003, they were a brigade-sized outfit of hard-core, ass-kicking, hooah volunteers, led by keen, young officers and NCOs as hard as they were, all commanded by a West Pointer. At the end of their grueling training, they were a cohesive multinational military unit composed of expert marksmen, explosive experts and hand-to-hand night fighters, who were chomping at the bit to meet the enemy. They would see all too much of him.

This book is for academics studying behavior sciences and leadership, familiar with the works of S.L.A. Marshall, John Keegan, and other prominent military scholars; students of history; Soldiers; and all of us who enjoy thriller novels. It will entertain you, make you proud, make you laugh, then make you cry. At the end, it was no longer a multinational unit. They were Forcemen.

The author is the nephew of one of the devils who lost his life in combat at Anzio and is a veteran himself.

Six Days of War: June 1967 and the Making of the Modern Middle East. **By Michael B, Oren. Oxford University Press, 2002. 446 pages. $30 (Hardcover).** Reviewed by Lieutenant Colonel Harold E. Raugh, Jr., U.S. Army, Retired.

The single most important event to take place in the Middle East since the establishment of the state of Israel in 1948 was the "Six-Day War" of 1967. This one-sided Israeli victory transformed the modern Middle East and sowed the seeds of strife that led to the Israeli occupation of the West Bank and the Gaza Strip, the 1973 Yom Kippur War, and the current Palestinian *intifida* (uprising).

Author Michael B. Oren, a former director of Israel's Department of Inter-Religious Affairs, sets the stage by chronicling the complicated and detailed events supposedly leading up to the 1967 war. He considers two incidents in which Palestinian guerrillas planted explosives along the Jordanian border on 31 March 1967 as Syria's provocation of Israel, to which Israel responded by sending armored tractors into the demilitarized zone (DMZ) with Syria in early 1967. On 7 April, Israel again sent tractors into the DMZ, and the Syrians responded with cannon fire. The situation quickly escalated, with the Israeli Air Force being called in to neutralize Syria's long-range artillery – which was arguably not involved in the engagement. The author does not mention that this action, apparently a part of Israel's program to dispossess Arab farmers and illegally seize land in the DMZ, was approved by the Israeli Cabinet on 3 April.

Israel, after making threats for weeks, began the war on 5 June 1967 with a series of purportedly preemptive air strikes that crippled the various Arab air forces. The author does not mention that at the time Israel fabricated reports of Egyptian attacks to justify its own aggression. (These Israeli stories have since been discredited.) The reader is left with the impression that the Arabs were massing for an attack on Israel, rather than mobilizing their forces to defend against Israel's threatened attacks, when Israel attacked to protect itself. This tone permeates the book.

In writing *Six Days of War*, Oren set out to write "the balanced study of the military and political facets of the [1967] war, [and] the interplay between its international, regional, and domestic dimensions." While this book presents the continuing inter-Arab struggle as a source of friction in the Middle East and as a cause of the 1967 War, it is not balanced.

The excellent prose and fast pace of this narrative, seemingly the result of exhaustive research and with pretensions of objectivity, disguises the author's factual and logical omissions. *Six Days of War* misleads readers. It continues to perpetuate a biased account of modern Middle East military and political history that portrays Israel as the innocent victim of Arab aggression and attempts to justify Israel's current practices in the occupied Palestinian territories.

Cleanse Their Souls: Peace-keeping in Bosnia's Civil War 1992 -1993. **By Monty Woolley. Pen & Sword Books Ltd, 2004. 232 pages. $28.50 (Hardcover).** Reviewed by Lieutenant Colonel Jim Larsen.

A most relevant book for the deployed or deploying U.S. Army or Marine small unit leader, *Cleanse Their Souls* offers an insightful and frontline perspective of Bosnia's civil war – before the Implementation Force (IFOR) and its successive Stabilization Force (SFOR) — through the eyes of a young British lieutenant. Armed with a woefully inadequate United Nations mandate, overly restrictive rules of engagement, and a complex chain of command at higher echelons, the author brings to light the significant challenges he and his reconnaissance troop of the 9th/12th Lancers faced to maintain the peace in the three-sided civil war between the Bosnian Serbs, Croats, and Muslims. Whether the mission was escorting a humanitarian aid convoy or establishing a check point, he makes no qualms that there was little peace to be maintained, as his unit gradually became mere spectators to the warring factions.

Monty Woolley, a veteran of the first Gulf War and Operation Iraqi Freedom, uses extracts of his detailed diary throughout the memoir to not only offer the reader firsthand accounts of the tragic plight of Bosnia's civilian population, and the numerous dilemmas he faced as a young officer, but also to share his frustrations, successes, failures, and tactical and cultural lessons learned. He is strikingly candid in evaluating his own performance, especially in his leadership and with the struggle to maintain necessary neutrality. Any veteran combat leader will easily empathize with the author as he faces the ambiguity, uncertainty, and potential for mission creep that so often characterize the contemporary operating environment. It quickly becomes obvious to the reader that the author's heart lies initially with the Muslim cause and its people, though he poignantly reveals towards the end of his tour that no side of this war is innocent with all equally committing atrocities.

Following a concise history of the war in the Balkans and several detailed maps, the book begins and ends with the author's second deployment to Bosnia, this time as part of SFOR. He meets with members of the International Criminal Tribunal for Yugoslavia who are investigating the infamous Ahmici Massacre of April 1993, during which he was first on the scene in its aftermath — a coincidence that would land the author in The Hague to testify. His testimony would ultimately lead to the conviction of several People Indicted For War Crimes (PIFWC).

Cleanse Their Souls is a well-rounded, easy to read and gripping account of one young officer's deeply personal perspective of the civil war in Bosnia. If the book lacks in any way, it is only with regard to the limited captions describing some of the photos and that numerous lessons learned are scattered throughout the book instead of consolidated in one of the closing chapters. Short of these minor blemishes, this is an essential read for today's deployed or deploying NCO or officer from lieutenant to lieutenant colonel. With the potential of civil war breaking out in Iraq and an arguably tenuous peace between warlords in the new and fledgling Afghanistan democracy, there is no doubt we can learn from Monty Woolley's experiences and apply them to the ongoing operations in Iraq and Afghanistan.

The Battle of Ideas in the War on Terror: Essays on U.S. Public Diplomacy in the Middle East. **By Robert Satloff. The Washington Institute for Near East Policy, 2004. 105 pages. $19.95.** Reviewed by Lieutenant Commander Youssef Aboul-Enein, USN.

We often focus on the war fighting aspect of the Global War on Terrorism. Yet even the Defense Secretary in many public statements said that this war will take all elements of national power to win. One area that the United States is making headway is in the battle of ideas. The central question involves raising a generation of young Muslims who are not susceptible to Al-Qaeda's manipulation of Islamic texts and blatant racism. The Washington Institute for Near East Policy is a think tank that dives into many questions pertaining to the formulation of U.S. policy in the Middle East. Its executive director, Robert Satloff, has brought together a series of essays that offer fresh ideas on tackling U.S. public diplomacy in the Middle East.

One of the ideas that Satloff urges is a U.S. administration that raises state-sponsored anti-Americanism and anti-Semitism in discussions with Arab allies. He wisely discusses the need to design country-specific public diplomacy campaigns and not undertake the current efforts of designing a campaign for the Arab or Muslim world. The books also makes a compelling argument for the need to encourage moderate Muslim clerics and scholars or cajole political leaders to convince local religious leaders to stay on message the Bin Laden is not preaching "true Islam." The role of American Muslims is not to demonstrate how well economically they live in the U.S., but more importantly how religious tolerance in American society has fostered new, constructive, and innovative historical and theological explorations in Islam.

Another central thesis of the books is to lay out U.S. policy before the Arab people and introduce them to its complexity and rationale, not apologize for it and expose the fact that Arab masses are being exposed to a caricature of U.S. policies in local media. He advocates taking advantage of Arab media hungry for interviews with U.S. officials who dispel conspiracies and explain policies thereby making it routine in Arab airwaves, print and media. The author writes that there is no single office coordinating and countering anti-American propaganda. An interesting idea proposed is the training and investment of State Department Foreign Service Officers (FSO) to what is known as a 4.0 level of proficiency in Arabic, Dari, Persian and Turkic family of languages to act as media spokespersons for the U.S. in Middle East stations.

A chapter is devoted to strategies to counter raising a new generation of Islamic militants through such ideas as making English-language training affordable for those in middle and lower income families. Satloff identifies that jihadic and Islamic radical groups offer social services as a means of recruitment and political support. Islamic fundamentalist groups make loans, operate healthcare facilities and much more. The U.S. and its allies must counter this with such programs as American School Abroad Support Act (HR 4303) that provides full and partial scholarships for lower income foreign students to attend American sponsored school abroad. The book contains some excellent discussions of how Morocco and its monarch, King Mohammed VI, are attempting to bring moderation in Islamic discourse and counter the fundamentalist Wahabi strain of Islam favored by many jihadists.

In the Next Issue:

- **Clearing Ambush Alley**

- **Cultural Awareness**

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