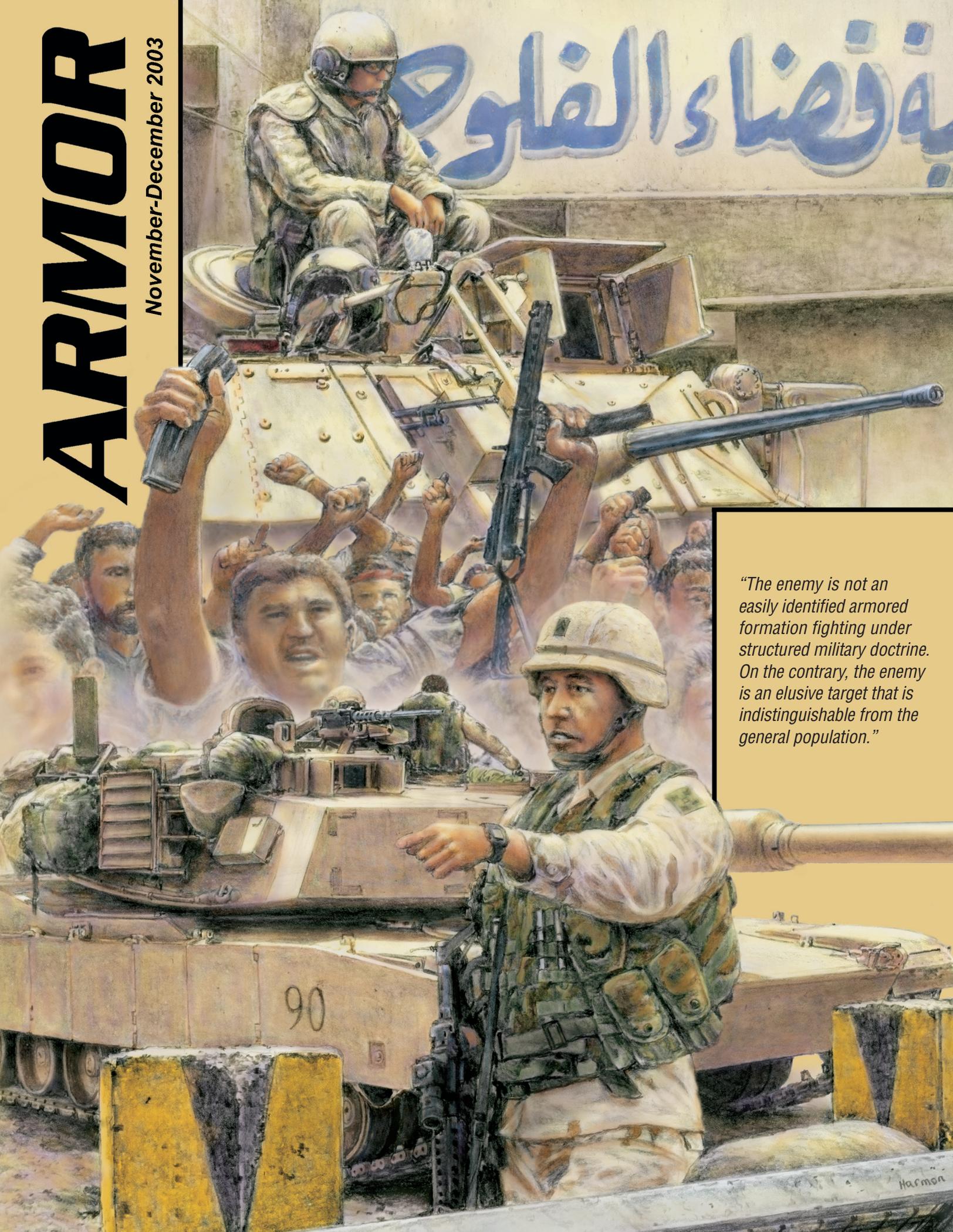


ARMOR

November-December 2003



"The enemy is not an easily identified armored formation fighting under structured military doctrine. On the contrary, the enemy is an elusive target that is indistinguishable from the general population."

Harmon

ARMOR

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Features

- 6 Preparing for Iraq: A New Approach to Combined Arms Training**
by Captain Chad Foster
- 10 The Support Platoon in Baghdad**
by First Lieutenant Jeffrey M. Kaldahl
- 13 Task Force Diehard: Lessons in Engineer-Armor Task Organization**
by Lieutenant Colonel Dale Cleland and Colonel Miroslav Kurka
- 18 Simplifying the Heavy Brigade/Task Force Operations Order**
by Captain Brian Hayes
- 22 A Potential Achilles' Heel: Integrity in Asymmetrical Warfare**
by Captain Sean M. Scott
- 26 Digital Battle Command: Baptism by Fire**
by Lieutenant Colonel John W. Charlton
- 30 Hill 755 — 15 Days to the End of the Korean War**
by Rod Frazer
- 36 Operation Anaconda: The Battle for the Shah-i-Kot Valley**
by Captain Ryan Welch
- 42 Active Component Armor/Cavalry Geographical Locations**
- 43 Active Component Unit List**
- 45 Marine Corps Tank Battalion List**
- 46 Army National Guard Unit List**
- 49 Army Reserve Unit List - 100th Division (Institutional Training)**
- 53 Training Warriors and Leaders for the Force (1st ATB)**
- 54 Patton Museum Receives WWI French Tanks**

Departments

- 2 Contacts**
- 3 Letters**
- 4 Commander's Hatch**
- 5 Driver's Seat**
- 52 Reviews**



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Once More Unto the Breach



We have entered a period reminiscent of what our military faced during the Philippine Insurrection from 1899-1903. After the U.S. military victory over Spain during the Spanish-American War, our forces occupying the Philippines faced an unconventional threat that necessitated our military to adopt new tactics and procedures.

After the defeat of Spain in 1898, the Philippines became a possession of the United States. At the time, our leaders did not understand the political turmoil surrounding the Philippines. There was no clear, concise plan developed by our government to pacify the Philippines. The U.S. Army was sent in to occupy the area, and immediately Filipino nationalists seeking independence launched a guerrilla war.

The counterinsurgency campaign fought by the U.S. Army during the Philippine Insurrection represented a new phase in American military history — combating counterinsurgency. A quick analysis of this campaign reveals that many of the same themes the Army is faced with today in Iraq were first encountered during the Philippine Insurrection.

The U.S. Army finally defeated the rebels, but not until the Army adopted tactics and procedures developed by small-unit leaders who were on the ground doing the yeoman's work in pacifying the countryside. It took almost 3 years and hundreds of casualties before the Philippine Insurrection was subdued; let's hope Iraq doesn't take as long.

Captain Chad Foster's article, "Preparing for Iraq: A New Approach to Combined Arms Training," explains that U.S. forces have the difficult mission of simultaneously battling an elusive guerrilla force, as well as conducting civil-military operations to improve local government and infrastructure to further stabilize the country. He establishes a foundation for integrating military police, intelligence assets, and civil affairs specialists closely with infantrymen and tankers as a "combined arms operation" to combat the complex battlefields of Iraq.

In his article, "The Support Platoon in Baghdad," First Lieutenant Jeffrey Kaldahl explains that with the right system in place, strong junior leaders, and the dedication to react appropriately, the support platoon can assist armor battalions by pulling guard, aiding in the event of a mass casualty evacuation, providing gun trucks, transporting detainees, supporting a battalion raid, delivering mail, as well as a variety of other missions. He illustrates the requirements to successfully create an efficient system that turns the support platoon into a force multiplier for the battalion.

Breaching operations are complicated and require a combined arms effort to be successful. Lieutenant Colonel Dale Cleland and Colonel Miroslav Kurka take a lessons-learned approach to engineer-armor task organization in their article, "Task Force Diehard: Lessons in Engineer-Armor Task Organization."

Long and complicated operations orders have several disadvantages as Captain Brian Hayes points out in his article, "Simplifying the Heavy Brigade/Task Force Operations Order." Long and complex orders have become accepted practice; producing orders that are clear and concise appear to be a challenge. Captain Hayes reminds us that current doctrine provides solutions to simplifying the operations order and, contrary to popular belief, encourages short, simple orders.

ARMOR's centerfold article this issue is an actual account of a battalion commander's first experience with the Force XXI Battle Command Brigade and Below (FBCB2) system. In his article, "Digital Battle Command: Baptism by Fire," Lieutenant Colonel John Charlton takes us into his field of vision on the first day of the war in Iraq. He provides a very intense account of his personal transformation to digital battle command — "baptism by fire" is accurate!

Rod Frazer, a veteran of the Korean War shares his tour of combat to defend Hill 812 against the 45th North Korean Infantry Division for more than 40 grueling days and describes how the 45th North Korean Infantry Division overran Luke's Castle; he would face them yet again — on Hill 755 as a platoon tank commander.

Captain Ryan Welch takes us to the largest infantry battle since Vietnam, "Operation Anaconda: The Battle for Shah-i-Kot Valley." He carefully reviews the strategic setting, the tactical situation, the significance of the operation, its long-term effects, and culminates with an in-depth analysis of the action and the lessons learned.

Integrity is a key component of leadership, which is the most essential element of combat power. In his article, "A Potential Achilles' Heel: Integrity in Asymmetrical Warfare," Captain Sean Scott reveals the paramount importance of integrity and how military members are constantly confronted with numerous ethical and moral dilemmas of varying degrees. He asks, "How often do breaches of integrity remain undetected and overlooked?"

Keep writing to preserve and share your experiences.

— DRM

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LETTERS

Reinstating the Combat Tanker Badge Stirs Mixed Emotions

Dear *ARMOR*,

I have been reluctant to enter the debate regarding the combat and expert armor badges. However, after reading the article by CPT Shawn Monien, "Reinstating the Combat Tanker Badge," in the September-October 2003 issue of *ARMOR*, I decided to put my oar in the water.

In the January-February 1988 issue of *ARMOR*, Commander's Hatch, (an editorial primarily written by Majors Scott Rowell and Bob Wilson), I stated we were developing a Scout's "rite of passage." The Scout Badge (SCB) proposed to be similar to the Expert Infantry Badge (EIB) and concentrated on individual scout skills. I also asked for your input. We designed the badge, similar to the EIB, except it had a saber instead of a rifle and was red and white. The requirements for the SCB were considered more difficult than those for the Combat Infantry Badge (CIB), as we did not want it to be considered, under any circumstances, to be easy. The design and requirements were sent through channels to the U.S. Army Training and Doctrine Command (TRADOC) and the proposal was turned down, either by TRADOC or Department of the Army — I do not remember which because consensus could not be reached by the sitting four stars. We fought the good fight and lost, saluted, and moved on.

Turning the calendar ahead to 1991 following Desert Storm, as Director of the Desert Storm Study Group, it was my pleasure to interview soldiers and leaders after the conflict and discuss things that went right and things that needed improving. My personal focus was with senior leaders (battalion-level commanders and above) and members of my team spent much of their time with troops. One thing that was very apparent was the disparity in awarding combat badges. For instance, the 1st Squadron, 4th Cavalry did not have enough 19Ds to man their tracks. They were given 11Ms and 11Bs as substitutes for the scouts. After the war, the infantrymen were given CIBs and scouts serving on the same track were given handshakes. The letter from Todd A. Mayer, reprinted in CPT Monien's article, which states that mortarmen in 4-64 Armor who never fired a shot received CIBs is another example of badges that were erroneously presented. When this type of information was presented to the DA General Officer Steering Group (GOSC) with a recommendation to create and award Combat Armor, Cavalry (Scout), and Engineer badges as they closed with, met, and destroyed the enemy, it was challenged by the Deputy Chief of Staff for Personnel, LTG Reno. When he stated it was not General Marshall's intent to give awards of this type to tankers, he was reminded that during WWII, Korea, and Vietnam it took 30 days of combat to receive a CIB. I also stated that I doubted General Marshall intended for infantrymen who rode around in Bradley Fighting Vehicles, mortar tracks, and busses to get them either. He relented. I am not trying to disparage our great infantry soldiers, but in my opinion, there are many others who fight and deserve equal recognition.

Once again, this went forward to the Chief of Staff of the Army and, once again, the four-star generals shot it down. I went to most of the division commanders who fought and to the two

corps commanders and they were either supportive or offered no objection.

It is also interesting to note that Armor officers were told they could not wear the Vietnamese Armor Badge, but all other branches wore whatever the Vietnamese gave them. I found it interesting that the late LTG Tom Kelly wore his as a member of the joint staff while being interviewed on an almost daily basis by the media during Desert Storm. We also used to wear gunnery qualification badges on our fatigues. When we went to BDUs, we were told to take them off. However, if one looks at the number of badges on the uniforms of other branches of the Army, none of this makes sense.

Let's dust off the 1988 study by Office of the Chief of Armor and resubmit. I doubt if anything has changed that much and this issue has been "studied" long enough.

THOMAS H. TAIT
MG, U.S. Army, Retired

Dear *ARMOR*,

Plaudits regarding your article in the September-October 2003 issue of *ARMOR*, "Reinstating the Combat Tanker Badge." Your approach to the subject, including the research documentation, covered the entire matter.

When I rotated out of the 73d Tank Battalion in February 1952, many of us wore the Combat Tanker Badge, unaware that the badge was not authorized. As soon as we arrived stateside, we were ordered to remove the badge. Again, we believed that General Abrams would solve this problem as Chief of Staff of the Army, which he did not. Apparently, the Infantry types talked him out of authorization because they have always overlooked the fact that other Army branches serve on the battlefield.

The Infantry, during World War II and Korea, lost some 85 percent killed and wounded, and I am certain that the Vietnam figures are close. The Combat Infantry Badge is not the Combat Casualty Badge, but rather recognition that the wearer participated in ground infantry combat, just as the Combat Tanker Badge would indicate that the wearer participated in combat in an armored vehicle. Armored vehicles, while nearly impervious to small arms fire, stand on top of the enemy's priority target acquisition list with all sorts of goodies for destroying armor.

If and when the Combat Tanker Badge is finally adopted, it will not be retroactive, but at least young lads will happily received theirs. I wear my Combat Tanker Badge at the occasional memorial service. With the proliferation of medals and ribbons for this and that, the time has arrived for the Combat Tanker Badge.

F.W. HEALY
SGM, U.S. Army, Retired

Dear *ARMOR*,

I must disagree with the September-October 2003 article "Reinstating the Combat Tanker Badge." The only reason Captain Shawn Monien could give for authorizing a Combat Tanker Badge was to, "get that warm feeling of seeing a distinctive insignia or strive to be the next person to

sew it on." While I applaud Captain Monien's attempts at justifying a distinctive badge to recognize the efforts of the armor and cavalry communities, I'm afraid he'll have to do better than that.

First, there is a very good reason why only infantry, medical service corps, and Special Forces personnel rate a distinctive combat badge. They are the only branches whose mission on the line is performed without the benefit of several inches of steel and ceramic armor. While I confess that other branches do serve directly at the front, only the aforementioned branches serve that mission without the benefit of some type of mechanization (armor, artillery, or aviation) or the luxury of returning to the rear area once the mission is complete.

Second, I served in the field artillery for 3 years before taking a commission in the aviation branch. Not once did I hear a fellow artilleryman or officer lament that he didn't have a badge recognizing his efforts on the line. Ironically, the field artillery could actually make this claim since historically gunners have served on the line with the infantry. As late as the Vietnam War, artillerymen were engaged in direct fire cannon missions at the enemy!

I have yet to read where the JAG Corps, Transportation Corps, or other support branches have demanded a unique combat service badge. I would have been more receptive to Captain Monien's article had he proposed an Army-wide combat service badge. Sergeant Graves (the NCO mentioned in the article) like all of us (excluding females), had a choice when he enlisted in the Army. His choice was armor; he could have easily chosen infantry. It is sad that Sergeant Graves was neither proud of his unit's combat service patch or his Bronze and Silver Stars for valor. Many a soldier has returned home in a flag-draped coffin with less, and I'm sure their families were very proud of their service.

Finally my uncle, a Marine infantryman who served in Vietnam, does not wear a Combat Infantry Badge. But, I can assure you we are just as proud of his service and understand the sacrifices that he made back in the 1960s. It is tragic that Mr. Graves did not feel same about his son's service, but that is between him and Sergeant Graves.

I can only image the amount of hostile fire I will draw from my friends and associates in the armor and cavalry communities, but the truth is only the infantry, combat medics, and Special Forces deserve this unique recognition. Gentlemen, you may fire when ready!

JAYSON A. ALTIERI
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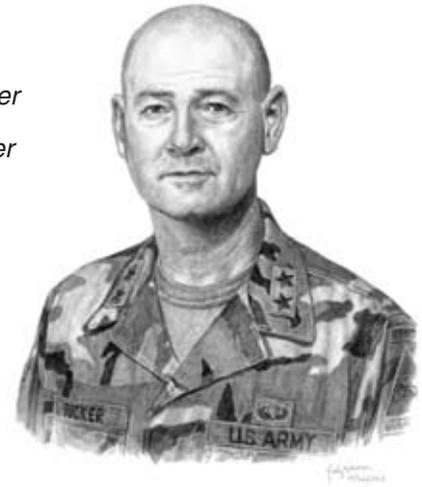
Snipers Require Special Skills

Dear *ARMOR*,

As an infantryman, I was mildly astonished to see *ARMOR* feature snipers on its cover (July-August 2003). Maybe others were as well. However, under some circumstances, it could be a topic of importance for mechanized infantry and armor units. I remember the World War II battle for Ludwigshaven, Germany. The terrain around Lud-

Continued on Page 51

Major General Terry L. Tucker
Commanding General
U.S. Army Armor Center



Managing and Developing Tankers and Scouts

My last transmission from the “Commander’s Hatch” addressed how we are working to train to standard here at the Home of Armor and Cavalry. In this edition of *ARMOR*, Command Sergeant Major DeSario and I are going to tag-team from the Hatch and Driver’s Seat to pass on some observations and concerns about the management and development of our great Tankers and Scouts.

First, I want to let you know how proud we are of you, and our magnificent Army. I take every opportunity to remind folks that every Army and Marine Tanker, every Mounted Scout, every Army and Marine Abrams maintainer, and every Bradley maintainer began Soldiering right here. It is an honor and privilege for us to be your Chief of Armor and Armor Regimental Command Sergeant Major.

As you know, U.S. Army Training and Doctrine (TRADOC) commands and installations are manned at reduced strengths as part of initiatives to fill fighting units. As it should be, but it obviously reduces our capability to meet standards and requirements. For example, Fort Knox is manned at 81 percent of authorized Armor noncommissioned officers. We are getting greatly appreciated support from Headquarters TRADOC and our Armor Branch at the U.S. Army Personnel Command; however, this directly affects our ability to conduct all training to standard.

I spoke with a captain attending the Armor Captains Career Course a few weeks ago who had been a tanker in a heavy di-

vision. He has since graduated and moved to his assignment with the Cavalry outfit of a light infantry division. He left here concerned that he had very minimal training to prepare for that assignment, and I can’t blame him. He is a motivated young man and will adapt, learn, and succeed, but we would all rather have a different situation.

I would like to ask for the Mounted Force’s help in trying to correct some trends that are not in the best interest of our Soldiers or our Force. First, the 19K, 19D, and 19Z NCO strength in the operational force is 110 percent. Intuitively, we know that this potentially limits the number of quality NCOs who could be teaching and training here at Fort Knox, filling an observer controller position at a combat training center, recruiting, serving in an AC/RC assignment, or on drill sergeant duty. We are also restricting opportunities for recently promoted NCOs to move into branch-qualifying positions.

Next, units are denying school opportunities for NCOs for operational reasons. I have also been asked to curtail training for a few officers, and to send officers directly to their units — bypassing Combined Arms and Services Staff School. As Field Marshal Rommel put it during WWII, “Not sending soldiers to school is eating the seed corn.” I could be reminded that times have changed, and even of the Field Marshal’s fate, but I believe we are in danger of mortgaging the future of the Armor Force by not training our future leaders.

Trust me, I understand that no commander wants to give up any resource; however, I’d ask that we all consider these decisions and the potential for long-term impacts, especially on our NCO Corps.

Lastly, we have a significant backlog of specialists who have not been to an NCO board, and obviously not promoted to sergeant. Clearly, commanders and NCO leaders determine which Soldier gets promoted. In this case, I ask we do right by these specialists, whether it is a board, a promotion, or a “thanks for your service.”

Our Mounted Force is about 5 percent of the Army’s end strength and definitely pulling more than 5 percent of the load. With most of the force deployed, preparing for deployment, or just returning, I acknowledge the reluctance to let people move in an effort to minimize turbulence. We ask that you keep an eye on the long-term future of our Armor Force — the NCO Corps in particular — to ensure we don’t “eat the seed corn.”

Finally, I want to pass on an overdue “thanks” to our readers in general, and in particular, those who contribute. Whether an article, a book review, commentary, argument, or report from the front, your contributions are outstanding. The Troopers and Civilians who use this professional journal, as envisioned back in 1888, are carrying on the tradition on the Cavalry of the American Frontier — Well Done!

FORGE THE THUNDERBOLT!

A Soldier's Path to Success

CSM George DeSario Jr., Command Sergeant Major, U.S. Army Armor Center

Many of our soldiers believe professional development involves doing only the things required for promotion. However, professional development is also the process of developing the Armor Force and the Army into the world's finest fighting force. While the professional development of the Armor Force has always been the priority, we have done both by closely managing our soldiers and carefully determining their assignments. This has been increasingly difficult since the end of the Cold War for two reasons. First, the decrease in warfighting force units through the draw down in divisions, followed by the Force XXI restructuring, resulted in the loss of one tank company per battalion. Second, the number of generating force positions in the training centers, AC/RC units, and Reserve Officer's Training Corps units have remained constant or increased. At some skill levels, 50 percent of our positions are in generating force units with many of them categorized as Priority I.

Recently, the focus has shifted from professionally developing the Armor Force to stabilizing individual units. Stabilizing has permitted units to sustain a cohesive and stable fighting force. The success of our armor and cavalry units in Iraq clearly shows the wisdom of this policy from the tactical perspective. For many of our soldiers in both the warfighting and generating forces, stabilizing means their professional development is on hold. Stabilizing has also made it increasingly difficult for generating force units to fully train leaders and soldiers because their unit strengths have been reduced to support warfighting force units.

We have developed a top-quality Armor Force by constantly rotating experienced warfighters into the training base. This permits the very latest skills, knowledge, and experiences of the current operating environment to be integrated into warfighting doctrine development and training and materiel systems development. After completing their tours, and hopefully promotions, we move our soldiers back into warfighting units where they use these new skills, knowledge, and experiences to implement newly developed doctrine and restart the learning cycle.

The highlight of this philosophy is the Project Warrior Program, where we use our best leaders to train our future leaders. To accomplish this, we send highly qualified platoon sergeants to one of the combat training centers to be observer controllers for a minimum of 2 years. Next, they are assigned to one of the training centers to train future platoon leaders and platoon sergeants and develop combined arms doctrine. Stabilizing so many soldiers has stopped the flow of leaders into observer controller positions. To fill the void at our training centers, we are moving a limited number of platoon sergeants, those with more than 40 months of platoon sergeant time, directly to Fort Knox from Iraq to fill Project Warrior Positions.

Each soldier must judge his career progression based on the career development models for his MOS and move forward at the first opportunity. If you are in a warfighting force unit, make the most of your opportunity. In the past, the standard was a minimum of 18 months of branch-qualifying time. This was necessary to continue the rotation of quality soldiers to generating force units. More branch-qualifying time is always better. However, the review of recent armor promotion boards shows that 30 months appear to be the maximum for professional development. They maintain that after 30 months, ratings are repetitious and do not normally enhance the soldier's record.

When the Chief of Staff changed the policy to fill the divisions and regiments at 100 percent, it made it more difficult for soldiers to get the assignment location they desired. Combined with current deployments and stabilizations, openings to fill branch-qualifying positions are extremely limited. If you pass on the opportunity for assignment to one of these positions, you may be moved to the end of the list and fall behind your peers.

The Army is on track to exhaust the promotion list within the time limit of the promotion list select objective. For the recent sergeant first class promotion list, it is 19 months; and for the current master sergeant and sergeant major list, it is 12 months.



We have a great need for Ranger-qualified 19Ds in Stryker units. This is an opportunity for motivated soldiers to attend the Ranger course and then fill one of these ranger-coded positions in the Stryker units. Interested individuals should determine if their unit or installation has a pre-Ranger training course. Fort Knox is currently working to establish a pre-Ranger training course for assigned soldiers.

For current trends in armor personnel issues, soldiers should review the Office of the Chief of Armor's web page at www.knox.army.mil/center/ocoa/. This site has downloadable copies of professional development models for each armor MOS — critical information for every soldier. The web page also offers an information paper from the Chief of Armor for each promotion board, the Armor Center's review and analysis of the board results, and starting with the most recent board, comments from panel members.

A key point to remember is that promotions are not given as a reward for past performance, but are earned on the potential for success at the next level. The number of fully qualified candidates for promotion always exceeds the number of promotions available. Highly successful performance during various assignments at different geographical locations combined with a highly successful branch assignment may be the factors that separate you from the pack.

The path to success for Armor soldiers is sustained excellence in key leadership positions, supplemented by quality performance in critical generating force assignments.

IRON DISCIPLINE!



Preparing for Iraq:

A New Approach to Combined Arms Training

by Captain Chad Foster

Current operations in Iraq present our armored and mechanized units with unique challenges that require a new approach to our traditional, National Training Center (NTC)-based training progression. Many of the tried-and-true maneuver fundamentals remain essential for success, but the nature of the tactical environment in Iraq demands that our forces refocus training in areas that have received little attention in the past or have been completely neglected due to our traditional training mindset. A prolonged U.S. presence in Iraq, requiring a series of rotational deployments among our heavy divisions, seems likely for at least the immediate future. This fact makes it imperative for armor leaders to closely examine reports from the front and incorporate lessons learned into home station preparations. The traditional NTC-style training progression that begins on the solid foundation of section and platoon maneuver, but then progresses to battalion and brigade-level operations, is hardly adequate to prepare units for what awaits them in the small towns outside Baghdad or in larger cities such as Tikrit or Samarra.

Iraq's Unique Tactical Environment

The Iraqi battlefield is a complex mixture of low-intensity conflict and political and economic reconstruction. Our forces have the difficult mission of simultaneously battling an elusive guerrilla force, as well as conducting civil-military operations to improve local government and infrastructure to further stabilize the country. There are no great battles of maneuver on the vast Arabian deserts. Instead, armored and mechanized task forces operate in or near population centers, compounding the difficulty of their assigned tasks. Such an environment presents them

with unique challenges that leaders could not have foreseen only 6 months ago when the allied coalition was smashing the Republican Guard on the way to Baghdad.

Without a doubt, the fight in Iraq is a low-intensity conflict. The enemy is not an easily identified armored formation fighting under structured military doctrine. On the contrary, the enemy is an elusive target that is indistinguishable from the general population. Former regime loyalists, criminals, and terrorists have replaced the Adnan and Medina divisions as our primary opposition. Small ambushes against patrols and convoys are this enemy's preferred tactics, and he takes special care to avoid openly engaging our forces in areas where we can bring heavy firepower to bear. It is our tank sections and infantry squads that invariably make contact with hostile forces, not companies or battalions. These engagements are usually small in scale and short in duration. A tank section moving with an infantry squad to establish a nightly checkpoint in support of a local curfew can easily expect to encounter a rocket-propelled grenade (RPG) attack and small arms ambush carried out by a team of four or five attackers. These attacks occur in restricted urban terrain that our forces cannot avoid, and the proximity of civilian residences and businesses mixed with the inability to easily identify targets preclude using maximum firepower in most instances.

The second type of military engagement that U.S. military units frequently encounter in Iraq is the deliberate raid. Human intelligence (HUMINT) sources are constantly providing information about known or suspected insurgents, and our forces are

obliged to act on that intelligence. Whenever possible, these raids are deliberately planned and executed, but due to the time-sensitive nature of some information, the raid may be a hastily planned and swiftly executed operation. Regardless of the nature of the intelligence, raids are always economy-of-force missions that usually involve a company supported by other elements such as a section of task force scouts or a squad of military police. Other forces, such as tactical HUMINT teams (THT) and tactical psychological operations (PSYOPS) teams (TPT), also play key roles in questioning detainees and conducting crowd control. Local police forces may also participate at times, if the nature of the threat allows or if the target is reported to be a criminal, rather than a military, threat to U.S. troops.

The circumstances above offer only a glimpse of the complex tactical environment in Iraq. Presence patrols, counter-ambush operations, checkpoints, and raids constitute the bulk of U.S. operations in the area, but there are a myriad of other missions and situations that armor leaders must consider. The most important thing to realize is that the Iraqi battlefield in no way resembles the standard scenarios that we encounter at the NTC. The operations are small in scale, which emphasizes crew- and section-level actions on contact. Additionally, our tankers and infantrymen are required to integrate tactically with unfamiliar elements such as military police, THT and TPT, as well as native police forces and American civil affairs (CA) specialists. Because of the vast difference between the actual situation on the ground in Iraq and the tactical scenarios that dominate our

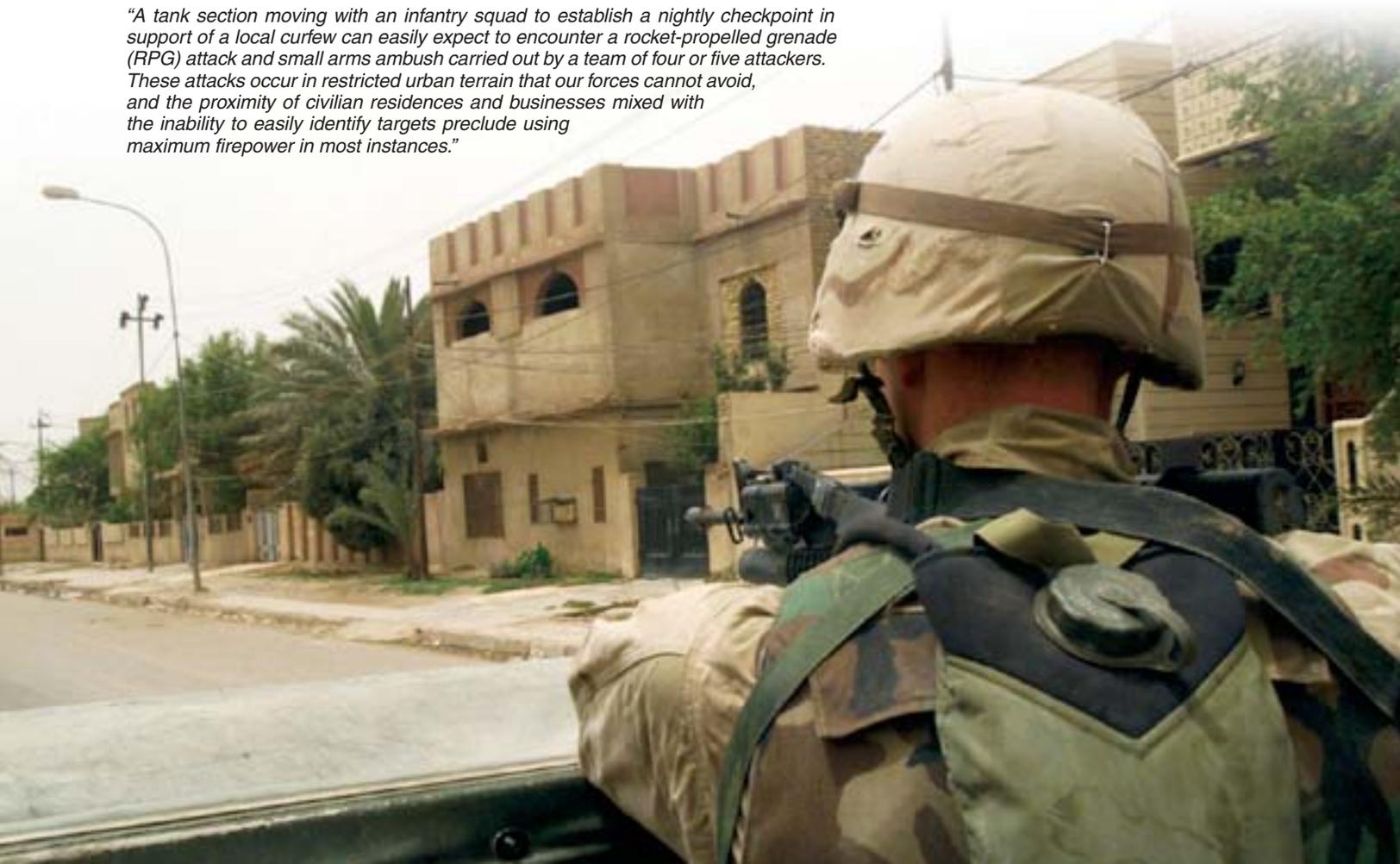
training, it is now necessary to consider some changes in preparing follow-on forces for duty on this complex battlefield.

A New Approach to Combined Arms Operations

Combined arms operations have always been the hallmark of armored and mechanized warfare. Armor leaders constantly strive to effectively coordinate ground forces, close air support, and indirect fires. This principle is, and will always be, an essential fundamental for maneuver leaders. As illustrated above, however, the unique tactical environment in Iraq requires a reexamination of the concept of combined arms operations. The overarching principle remains unchanged, but the elements that are essential to coordinate differ drastically from those familiar partners with whom our forces regularly train at home station and at the NTC. The field artillery, attack aviation, and combat engineers have been replaced with military police (MP), civil affairs (CA), and military intelligence collection assets.

The employment of artillery fires in populated areas is problematic, even in a high-intensity conflict. In a complex, low-intensity fight, such as the one in Iraq, the problems with indirect fires increases dramatically. Collateral damage is politically intolerable in any environment, but it is especially so in one where our soldiers are attempting to rebuild the local government and economy. The role of indirect fires is, therefore, greatly reduced and becomes limited to the employment of illumination, usually fired by task force mortar platoons rather than artillery batteries. Likewise, attack aviation and close air support are reduced,

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"Iraq is a fluid and ever-changing combat environment where our soldiers are asked to simultaneously fight the enemy and rebuild a country that has been ravaged by years of tyranny."

although not eliminated, on the Iraqi battlefield. Again, collateral damage is a key consideration, and the employment of direct fire by Apaches or A-10s must be carefully controlled and used only in open areas away from or on the outskirts of populated areas.

While the need to effectively integrate tanks and infantry remains paramount, the diminished role of some of the other familiar partners in combined arms operations has given rise to an increase in the role of other, less familiar partners.¹ As described above, tankers and infantrymen must quickly and seamlessly integrate MP, TPT, THT, and CA teams, and various other elements into tactical missions. In the past, our interaction with MPs has been limited to handling enemy prisoners of war or conducting lines of communications security operations while our interaction with THT and TPT has been practically nonexistent. This presents a problem when we consider that these are our primary partners while operating in Iraq.

U.S. Army Doctrine defines combined arms as the synchronized or simultaneous application of several arms to achieve an effect on the enemy that is greater than if each arm was used against the enemy separately or in sequence.² As maneuver leaders, we generally think of combined arms in terms of massing direct and indirect fires on the enemy at the decisive point on the battlefield. This is symptomatic of our institutional, NTC-based mindset. The standard NTC training progression is highly effective in preparing our forces for pitched battles against the Republican Guard on the desert plains of Kuwait and southern Iraq. However, in its current form, it is woefully inadequate on its own to prepare our leaders for the duty challenges in Iraq. Specifically, it does not prepare our forces to conduct unique combined-arms operations that are necessary in that theater. To correct this deficiency, we need not completely alter the NTC model. However, some key additions are essential to ensure that armored and mechanized task forces are ready to fight in the unique environment that awaits them.

New Tactical Scenarios and Objectives to Guide Training

Obviously, there is a need to make some changes to our training scenarios and objectives to prepare follow-on units for duty in the Iraqi theater of operations. The tactical training scenarios must focus on independent company operations that integrate MPs and other elements that will be key maneuver partners for our armor and mechanized infantry companies. This implies training under a task organization that reflects the force struc-

ture that will be used in Iraq. These changes in our approach are essential in effectively preparing our forces for duty in places like Tikrit and Samarra.

The first step is implementing an accurate task organization in the field at home station. This should involve attaching an MP platoon,

a THT, a TPT, and a CA team (or some similar combination) to each maneuver task force for the duration of the training exercise. Such a step will facilitate both tactical and logistical integration. The attachments will quickly learn and make valuable contributions to the maneuver task force's tactics, techniques, and procedures (TTP) for specific types of operations such as raids and local security missions. These TTP will find quick application once the units arrive in Iraq. Additionally, the integration of these attachments during training will familiarize all those involved with unique logistics requirements or procedures that arise from bringing these unfamiliar units together.³

Secondly, the tactical scenarios must match those that our forces will encounter in theater. This involves a departure from focusing on battalion- and brigade-level pitched battles against enemy mechanized and armored formations. Far more necessary are scenarios where individual companies and even platoons have to conduct independent missions against small enemy forces in highly restricted terrain. Urban terrain would be ideal, of course, but this may not be possible given the Army-wide shortage of military operations in urban terrain (MOU) facilities.

Armor and infantry task forces must be required to synchronize resources in support of independent company and platoon operations. Battalion staffs must train to conduct rapid mission analysis, allocate additional forces to company commanders, such as attaching a section of scouts or a squad of MPs to a company for a raid, and then turn the execution over to the commander at his discretion. In this way, the role of the battalion staff shifts away from planning, coordinating, and resourcing the simultaneous maneuver of several elements to analyzing mission requirements, providing resources to a specific company commander, and monitoring the execution of a single operation by that specific company. Of course, there will be other operations on-going at the same time, but they will not necessarily be connected with the raid or other tactical operations that a specific company is conducting.

Raids are the most instructive example for one to consider. Most often, the maneuver task force conducts raids of residences where enemy personnel either live or plan attacks against U.S. forces. Intelligence generally comes from walk-in HUMINT sources, and is seldom complete or detailed. Due to the restrictions of urban terrain, as well as a multitude of other operational requirements, such as force protection and convoy security missions, it is likely that only a tank platoon and an infan-

try squad are needed from a company team to complete a raid. However, the company commander in charge of the mission will require some additional forces from the task force to be completely effective. Since tanks are usually only useful in an outer cordon role to isolate an objective, he will need scouts to set an inner cordon to block enemy egress through alleyways and streets where tanks cannot travel. Additionally, military police are necessary for both detainee handling and, with the assistance of a PSYOPS team, civilian crowd control. The MPs also can provide female soldiers to conduct physical searches of any females found on the objective. This last capability is absolutely essential in Muslim countries with strict cultural morals. This type of task organization and tactical integration are not ones that our forces normally train during the standard deployment training progression. However, as explained above, such organization and integration are essential for success on the Iraqi battlefield.

Remaining Flexible on a Changing Battlefield

Iraq is a fluid and ever-changing combat environment where our soldiers are asked to simultaneously fight the enemy and rebuild a country that has been ravaged by years of tyranny. This battlefield requires tactical agility, just like any other. However, there are some unique characteristics, many of which were enumerated above, that demand special training and organization on the part of our forces. The current training scenarios and task organizations that our armor and mechanized infantry battalions use, culminating with a rotation at the NTC, is not sufficient for preparing them for duty in Iraq. The emphasis has to shift, at least in part, from battalion- and brigade-level maneuver, to small-scale operations that seldom rise above the compa-

ny level. Most importantly, however, armor and infantry leaders must retain a combined-arms mentality while adjusting it to fit the unique Iraqi tactical environment. In the place of artillery and close air support, we must integrate military police, intelligence assets, and civil affairs specialists closely with our infantrymen and tankers. The war belongs to tank commanders, platoon leaders and squad leaders, but we must learn to fight alongside MPs and other elements that have, until now, been far removed from our training focus.



Notes

¹This in no way implies irrelevancy for these branches. Artillery units are operating extensively in Iraq, but they are not being employed in a fire support role. They are operating as mechanized infantrymen, conducting dismounted and mounted patrols in various towns and cities. Likewise, attack aviation continues to be active, but direct fire engagements using Hellfire missiles are rare. Apaches remain incredibly useful as a highly effective aerial reconnaissance asset, one that carries real firepower to the battlefield if needed.

²U.S. Army Field Manual 3-0, *Operations*, U.S. Government Printing Office, Washington, D.C., June 2001.

³For example, an armored task force's maintenance team will be quite unfamiliar with the PLL required for an M1114-equipped MP platoon.

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The Support Platoon in Baghdad

by First Lieutenant Jeffrey M. Kaldahl

While training for deployment to Iraq, our platoon spent hours drilling on nuclear, biological, and chemical (NBC) procedures and reacting to contact, ambushes, and sniper attacks. As major combat operations drew to a close, it became clear that running multiple logistics packages (LOGPACs) throughout a 500-kilometer attack would be unlikely, and instead, we would be executing missions out of some type of forward operating base similar to how things are done during deployments to gunnery or the Combat Maneuver Training Center. However, when we arrived in Baghdad on 29 May, we quickly realized it would not be business as usual.

We have yet to run a large LOGPAC containing class III and V; no linkup with supply sergeants; and no synchronized plan to merge with first sergeants at a logistics release point (LRP). Instead, the support platoon is dispersed throughout the battalion sector to the companies — instead of constantly running class III and V resupply, our platoon's primary responsibility is to help Headquarters and Headquarters Company (HHC) guard the ministry of oil.

While this may sound like a problem, in reality it combines the strengths of the support platoon as well as the fundamentals of Army operations to create an efficient system that turns the support platoon into a force multiplier for the battalion. By using the flexibility of the platoon, it can perform a variety of tasks that provide the support needed for the rest of the battalion to accomplish its mission.

Organization

To understand this process, it is important to grasp how the platoon is organized

throughout the battalion sector. First, over half the platoon is consolidated with HHC at the ministry of oil. Our primary mission is to guard its facilities and allow Iraqi nationals to work at rebuilding Iraq's oil program. In addition to most of the platoon's soldiers, its senior leaders are located at this centralized location as well. This allows for quick dissemination and collection of necessary information, and gives squad leaders the opportunity to take charge of more than just the soldiers in their squads.

Throughout the rest of the battalion sector, each company has a specifically assigned number of fuel and cargo heavy expanded mobile tactical trucks (HEMTTs) for support. For example, one company has one fueler and one fuel handler assigned, and the other companies have two fuelers and one cargo HEMTT assigned. We base these requirements on the company's anticipated fuel consumption and how many cargo HEMTTs are needed to move heavy objects to and from base camps to improve security structures, as well as quality of life. Companies that have more than one vehicle also have at least one 77F20 team leader in each respective squad. He not only provides leadership for the support platoon soldiers, but he also has an opportunity to develop his own leadership style in a real world environment.

This organization works for several reasons. First, companies do not use their tanks everyday and fuel consumption is dramatically reduced. For example, during a normal gunnery rotation, the battalion consumes an average of 6,000 gallons per day. While in Baghdad, that has been reduced to less than 1,000 gallons per day, which means companies can go

days without refueling tanks. Fuel HEMTTs are only required to refuel every two or three days, reducing the number of fuelers and support personnel at each company.

The junior noncommissioned officer's (NCOs) ability to run a squad is critical to make this work. We are fortunate to have at least two junior NCOs (corporals and sergeants) in each squad, and every NCO is capable of running a squad. Additionally, team-leader preparation prior to deployment not only gave them confidence, but also gave the rest of the platoon the confidence to operate on their own, independent of squad leaders. If this element seeks to exist, this plan will fail. Another key is that the team leaders are all 77Fs. By providing the companies with fuel specialists, as opposed to transporters, they benefit from the working relationship the fuel handlers already have with our forward support battalion's fuel section to get the fuel they need when they need it.

While separating the platoon provides great advantages, there are also disadvantages. The first one is the inability for direct communication within the platoon. There have been several instances where we required information about soldiers or equipment that we could not obtain. To get the information meant conveying to the company or going through the company to get the information. Also, if we have to discuss MOS-related items, passing information through the company is more difficult because the basic technical knowledge is not always available.

Next, separation hampers the accountability of both personnel and equipment. While companies handle the green-two status of sensitive items, there have been

plenty of times when platoon level visual inspections of designated items were necessary, usually during specific monthly inventories and change of command inventories. Besides that, there is a constant challenge of dispatching vehicles, as well as keeping track of equipment inspections and maintenance worksheets (5988Es) each week. The squads are assigned to companies that cannot print out 5988E forms or dispatch vehicles, so vehicles are brought to the ministry to be processed.

There are several things that can be done to mitigate these problems. First, when vehicle operators pick up 5988E forms or re-dispatch their vehicles, we ensure they checked in. This allows us to not only know they are re-dispatching their vehicles, but we also get a quick update on what is going on and if they have any issues. Second, we visit them at their locations once or twice a week. Finally, we address any problems that require higher-level help at the first sergeant's LOG-PAC meeting held daily at our location.

Movement from Kuwait

The most difficult movement was from our base camp in Kuwait to Baghdad. It was a 28-hour road march with two rest stops no longer than one hour each. In addition to normal problems, such as security, food, and rest, the battalion had to contend with the fact that we would lose vehicles to mechanical failure, while only having two designated recovery assets. Furthermore, once everything was off the boats and we transformed into our tactical load plans, it became clear the battalion wanted to move a lot more equipment than originally planned. Who do you call in a situation such as this? You guessed it — the support platoon.

As any support platoon leader, HHC commander, and battalion XO knows, the space on the back of cargo HEMTTs is precious. This became clear almost immediately as we prepared for our move north. The best thing the battalion did was prioritizing its needs. It was class I because the initial class I shortage was still an issue. Over here, class I not only means meals ready to eat (MREs), but also cases and cases of water. Before anything else was planned, class I took up the space of five full cargo HEMTTs.

Fortunately, we did not have to carry class V. The companies received munitions and transported it on tanks, personnel carriers, or whatever other vehicles they could use. This saved an immeasur-

able amount of space because we did not have to carry any additional ammo basic load (ABL). This made space available for other priority items. Some ideas included refrigerators, air conditioners, class IX, supply room items, NBC equipment, as well as items needed to support the support platoon.

The bottom line is: someone must prioritize what goes on the HEMTTs, and it cannot be the support platoon leader because anyone else seeking space outranks him. The support platoon leader should seek assistance from the HHC commander and battalion XO. However, the support platoon leader must make clear what he can and cannot take. Eventually, someone is going to ask for more space than is available, and the platoon leader must make the priorities clear.

The battalion also used HEMTTs for recovery support. As mentioned earlier, there are only two recovery trucks in the battalion. With a 500-kilometer road march ahead, it would have been foolish not to anticipate more than two vehicle breakdowns. Cargo HEMTTs were a solution and the battalion distributed them throughout the four serials and used them to recover any medium (5-ton) or heavy (HEMTT) vehicle that broke down.

We had to borrow tow bars from the line companies because we did not own any. Light tow bars were best because we did not have to modify them to make them work. They are also significantly lighter, which makes it a lot easier for two or three people to lift. Since light tow bars were also used by high-mobility multi-purpose wheeled vehicles (HMMWVs) to recover broken down HMMWVs, we were required to put medium and light feet at the end of the heavy tow bar. We received these interchangeable feet from the maintenance section and put them on as many heavy tow bars as we needed.

Besides preparing the two bars, it was imperative that we trained and rehearsed the recovery plan with the platoon. Security along the main supply route was still a concern, so learning how to recover a vehicle on the route was a bad idea. We spent two days practicing hooking and unhooking HEMTTs until each person knew what to do, if necessary.

In addition to the cargo HEMTTs, we also used three M931 lowboys as recovery assets. We placed them in the last serial, and they were used as a last resort for recovering light vehicles. However, just prior to start point, one of the 5-tons with a build-up went down, so we had to



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use one lowboy to put the build-up on because it had most of the maintenance tools — another use for the lowboys. Keep some type of lift asset available to help load vehicles onto the lowboy. We had an M88 available to lift the build-up onto the lowboy, but used cranes from cargo HEMTTs to put trailers on the lowboy.

Trailers proved to be a chronic problem for the battalion. It is worth mentioning that besides putting broken trailers on lowboys, they also fit in cargo HEMTT beds. However, the decision to leave a cargo empty should be made at a higher level, but it is something worth considering, since trailers seemed to provide the biggest headache for recovery.

Finally, it is important to consider the possibility of having to tow a fueler. We left two fuel trucks empty, also in the final serial. In the event a fuel truck broke down, one of the empty fuel trucks could transfer the fuel, and a HEMTT or a 10-ton wrecker could then recover the broken fueler. While we were fortunate enough not to have to use this, it is another planning consideration that saves a lot of problems, if needed.

Daily Missions

Once we arrived in Baghdad and settled into a routine, certain missions began occurring daily. Although they are not part of our normal function, ask any soldier in the battalion and they will tell you they are grateful for what we provide.

First, because of the increased class I draw by the dining facility, we assist them by providing larger hauling capabilities. This is primarily for the bottled water. Additionally, we still draw MREs, and depending on the ration cycle, we receive either T-rations or the occasional A-rations.

Our second daily mission is more for the soldiers — the daily mail run. The longer we are here, the better the mail system gets. That means more packages as well as hundreds of letters. Each day we fill at least one cargo HEMTT full of



“One of our main tasks is the transport of detainees. This happens once or twice a week, depending on the number of detainees held at the battalion detention center. When there are enough detainees to move, our platoon transports them to Baghdad International Airport for further detention and questioning.”

mail, and this is one mission that soldiers know must get done!

The last mission is much like our normal tasks — refilling the main generator at our battalion tactical operations center. The generator powers several buildings, including the battalion headquarters, billeting, and the battalion headquarters and billets for 3d Battalion, 7th (3-7) Infantry. Currently, we rotate days with the 3-7 Infantry platoon, but when they are gone we fill it everyday.

These missions are all fairly routine, and are not manpower intensive. Since they regularly occur, these missions are easy to plan for and work into our guard schedule. Also, since the missions support other sections, we do not provide escorts, which further lessens the personnel impact. We make sure the .50 cal is ready and soldiers are given proper checks be-

fore being handed off to the sections they support.

On Order Missions

Not only do we perform daily missions, we also perform missions tasked by the battalion. These tasks normally involve using the lift capacity of the HEMTTs in conjunction with procuring large amounts of items. For example, several times the S4 has needed HEMTTs to move air conditioner units to improve quality of life in the billets. Other times, we have hauled large refrigerators or freezers. While we usually receive a 24-hour notice, there are times we receive no notice, and it helps to have a system that keeps our manpower flexible enough to respond immediately.

Another on-order mission has been to transport connexes from Baghdad International Airport back to the battalion. While the battalion could rely on external units to bring the connexes to us, our ability to transport connexes on our lowboys and a 24-hour-or-less notice allows the battalion to get the connexes quicker. Furthermore, our forward support battalion used our lowboys to move its connexes. This not only helped them, but also helped

our battalion by providing our maintenance teams with class IX held in those connexes. Also, by facilitating a positive relationship, the forward support battalion gave us extra class III packaged products that were in short supply.

In short, remaining flexible has allowed the support platoon to assist the battalion in several ways, often with little notice, to improve not only the security of the battalion, but the quality of life. Throughout the rest of our deployment, we know we can expect more on-order missions consisting of various tasks.

Operational Support

It is important to note that in addition to the support we provide the battalion to

Continued on Page 21



Task Force Diehard: Lessons in Engineer-Armor Task Organization

by Lieutenant Colonel Dale Cleland and Colonel Miroslav Kurka

Breaching operations are complicated operations that depend on a considerable amount of effort, coordination, and synchronization to be successful. They are not strictly engineer operations but require a combined arms effort to achieve success. At the brigade level, this requires specific task organization and gives the limited maneuver assets under Division XXI nontraditional task organization.

During National Training Center (NTC) Rotation 02-06 during March 2002, the 1st Brigade Combat Team (1BCT), 1st Infantry Division (Mechanized), planned and executed two deliberate attacks that included brigade breaches. During both of these breaches, 1BCT used the 1st Engineer Battalion (1EN) along with an operational control (OPCON) armor company team, C Company, 2d Battalion, 34th Armor (C/2-34 AR), as the brigade breach force — a maneuver task force not typically seen in brigade operations. In the preparation, planning, and execution of these missions, 1BCT and 1EN thoroughly reviewed obstacle breaching doctrine as outlined in U.S. Army Field Manual (FM) 3-34.2, *Combined-Arms Breaching*

Operations, and developed the tactics, techniques, and procedures (TTP) for executing and controlling brigade combined arms breaching operations.¹

Preparation

The 1BCT began to prepare for combined arms breaching operations in late August 2001 with a series of officer professional development sessions focused on breaching operations. During this time, the brigade commander proposed attaching an armor company team to the engineer battalion to create the breach force, with the armor company team providing both the tank plows for the reduction element and the direct fire for the breach force internal security element. An armor or infantry task force traditionally performs these roles with engineers attached as the reduction element.

The list of tasks and tools necessary for an engineer battalion to function as the nucleus of a task force was created during subsequent professional development sessions. Topics included direct fire planning and safe distance zones, maneuver, and synchronization. Early in the prepara-

tion phase, 1BCT designated C/2-34 AR, as the armor company providing the direct fire and tank plows to the breach force. C/2-34 AR contributed maneuver TTPs to the preparation and planning process, as did the 2-34 AR staff.

The first test for Task Force (TF) Diehard (named for 1EN Diehard Battalion) occurred during a platoon simulated training exercise (STX) in October 2001. Tank plows from C/2-34 participated in Engineer Qualification Tables (EQT) X and XI conducted by 1EN A and C Companies. While these tables focus on the tasks performed by the reduction element, it gave the engineers valuable experience in the command and control of an attached element. Following four very successful platoon runs at EQT, the task force assembled on the northern edge of Fort Riley for its first run as TF Diehard-Breachex, which was executed with two engineer companies and a platoon of tanks from C/2-34. The resultant lessons on timing, logistics, maneuvering, and communications were gathered and put back into the planning in preparation for the next run during 1BCT's NTC train-up in 2002.

Planning and Rehearsal

Full-fledged planning and rehearsing at a pace more closely resembling the NTC battle rhythm began on 3 January 2002. 1EN moved to the field with 1BCT for 2 weeks of company team training lanes, followed by Gauntlet (a 1-week TF vs. TF training exercise) and a combined arms live fire exercise (CALFEX). During Gauntlet and CALFEX, a total of three brigade breaches were programmed, two under live-fire conditions. During company STX, the engineer companies worked closely with C/2-34 on various company team missions in more conventional command and control relationships, further strengthening the teamwork required for breach force operations.

To fully support an engineer battalion based task force, in addition to C/2-34, 1BCT attached a fire support team (FIST), a fire support officer (FSO), a medical treatment team with M113 ambulances, and a Bradley-Stinger Fighting Vehicle (BSFV) section. TF Diehard gave its FSO a radio and battle position in the battalion commander's M113 to facilitate responsive fire support. A major training ob-

jective for Gauntlet was the formation and training of the engineer battalion task force and its employment as the breach force. This allowed the remaining two maneuver task forces to serve as the support force and the assault force, roles where the direct fire capabilities of the M1 and M2 were used to best effect. Tactical planning for employing the engineer battalion as a maneuver force was enhanced by the collocation of the engineer battalion TOC with the BCT main command post (CP). This allowed the engineers to draw on the expertise of numerous elements located in the BCT main CP, including the brigade reconnaissance troop liaison officer, the brigade fire support coordinator (FSCOORD), the brigade chemical officer, the air defense coordinator, and the brigade S4 planner.

The scenario for the force-on-force deliberate attack had 1BCT supporting the division's main effort in the west by conducting a deliberate attack. 1BCT planned for a brigade breach using an armor task force (2-34 AR) as the support force, an infantry task force (1st Battalion, 16th Infantry) as the assault force and the newly created TF Diehard as the breach force.

During 1BCT's deliberate attack, the armor company team for breach force consisted of an armor platoon and an infantry platoon. After attaching three plow-mounted tanks to the reduction element (engineer platoons), two tanks remained in the security element. This provided sufficient firepower against a point of breach defended by OPFOR infantry, but not enough firepower in the event OPFOR had armor to range the point of breach. Using this task organization, 1BCT successfully breached two lanes through enemy defenses and passed 1st Battalion, 16th Infantry onto the objective.

The final stage of preparation was a CALFEX in which the entire 1BCT participated in two deliberate attacks, each maneuver task force rotated as the support force, while the engineer task force served as the breach force during both iterations. Live artillery, main gun rounds, small arms, and demolitions were used against remote-control targets and actual obstacles. During the CALFEX, the security element of the breach force consisted of an armor company team of two armor platoons. Both missions were a success, each providing the task force with

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"A major training objective for Gauntlet was the formation and training of the engineer battalion task force and its employment as the breach force. This allowed the remaining two maneuver task forces to serve as the support force and the assault force, roles where the direct fire capabilities of the M1 and M2 were used to best effect."

valuable lessons in direct fire control and maneuver.

Execution

On 15 March 2002, 1BCT deployed to the NTC and trained against the Krasnovian OPFOR. The training objectives for the 1BCT were to shoot, move, and communicate using all the brigade's assets; shape the battlefield to mass at the decisive time and place; and to kill Krasnovians whenever the opportunity was present. The engineer task force objectives for breaching operations were to operate effectively as a maneuver element to establish the point of breach at the time and place that supported the brigade plan. Two of the brigade's eight missions were deliberate attacks: the third force-on-force mission was a deliberate attack with a brigade breach in the central corridor east of the Iron Triangle; and the sixth mission was a live-fire deliberate attack through the Arrowhead and Alpha/Bravo Pass obstacle complexes into Echo Valley.

The brigade employed the five planning tenets of the breaching portion of the deliberate attack: intelligence, breaching fundamentals, breaching organization, mass, and synchronization. These were applied in the preparation phase, but examined anew with each mission.

Intelligence. For combined arms breaching, obstacle intelligence is critical to both the maneuver elements and the breaching force. It determines the point of breach, the point of penetration on the objective, and the location and orientation of the support force. It feeds the first key steps of the military decisionmaking process (MDMP) and comes from all available sources.

The majority of 1BCT's ground intelligence came from the brigade reconnaissance troop and the maneuver task force scouts, and focused primarily on OPFOR disposition, strength, and movement. The obstacle intelligence was further developed by the engineer task force's engineer reconnaissance platoon, consisting of three four-man engineer reconnaissance teams (ERT), whose mission was to pinpoint the obstacle location and composition, and refine the point of breach or identify a bypass.

MDMP intelligence considerations for the engineer task force go beyond the engineer's traditional focus on the obstacle. During intelligence preparation of the battlefield and mission analysis, as well as focusing on the obstacle reduction or enemy engineer effort, TF Diehard planners had to account for templated opposition firepower in terms of requirements

to destroy or neutralize the enemy — an aspect traditionally left to the support force or security element. Equally important was to determine terrain suitability for the armor security element to support the breach, and decide what additional reconnaissance information was required by the attached armor.

It is critical to call on the attached armor company team's planning expert early. This requires early communication of the expected task organization from the brigade staff. Keep in mind that the engineer planning time begins with the assistant brigade engineer typically 12 hours before the brigade OPORD is issued.

During mission analysis, the armor planner brings a different perspective to the task force on how the situation template will effect operations, as well as an understanding of his unit's capabilities. This information produces a set of implied tasks that engineer planners do not necessarily derive from the same information. Additionally, the armor planner provides critical information on constraints and assumptions unique to the heavy force. With practice, task force planners began to incorporate these factors, but initially, it took a tanker to ensure the critical elements were included.

Breaching Fundamentals. Breaching fundamentals are to suppress, obscure, secure, reduce, and assault (SOSR-A). These fundamentals apply whether a unit is breaching a minefield or crossing a river and require a combined arms approach to be successful.

Much like the preparation phase, each breaching operation was approached as a brigade operation, involving armor, infantry, artillery, air defense artillery, and engineers. They each play critical roles in SOSR-A and are task organized to best fill these roles. In 1BCT, suppression resulted from a combined effort of direct fire from the support force and indirect fire from the artillery and organic mortars.

Obscuration was planned for both indirect smoke and mechanical smoke. Mechanical smoke was planned for both breaching operations but weather conditions prevented it from being effective for the point of breach. The support force initiated the indirect smoke, which came under the breach force control once the objective had been suppressed. The FSO and FIST attached to the engineer task force, with the assistance of the brigade FSCoord, planned and controlled both indirect smoke and indirect destructive fires. Collocating the engineer battalion's TOC and the FSCoord's cell with the BCT's main command post (CP) facilitated fire support planning for TF Diehard.

The armor company team was critical in providing the security fundamental for the point of breach. This presented one of the greater challenges for task force planners, especially as the dramatically different weapons ranges and vehicle capabilities were considered. The legacy force engineer company, equipped with M113A3s and armed with M2 .50-caliber machine guns and Dragons, were employed dramatically different from the 3,750-meter TOW standoff and 2,500-meter M1 main gun effective ranges. In some situations, all weapons systems were effectively employed after careful planning and further refinement on the ground. In other situations, such as a breach along the north wall of the central corridor, the shorter ranges of engineer weapons prevented them from playing a major role in providing security until the reduction elements moved forward to the point of breach.

These missions demonstrate the importance of including the armor commander in the course of action (COA) development. While the basic battlefield calculus can be done by any Combined Arms and Service Staff School graduate, the

nuances of exactly how to array the maneuver element for best effect, placement of support by fire positions and deconfliction of the safe distance zones proved the benefits of having a tanker involved in COA development by producing a solid COA on the first attempt, rather than one developed in a vacuum by engineer planners.

Reduction of the obstacle is the bread and butter of the engineer battalion, but even here, the armor company provided invaluable assistance. The tank-mounted mine plow is the ideal tool for proofing the lane through the obstacle — as long as the point of breach is on suitable ground. Our well-rehearsed teams of sappers with a tank plow reduced Krasnovian mine-wire obstacles in 5 to 10 minutes, versus 30 minutes or more when a lane had to be proofed by hand or with an armored combat earthmover. These minutes were critical to the survival of both the breach force elements and the assault force.

The final fundamental is the assault, which applies to the breach force and the assault force. The breach force must have sufficient firepower remaining after the reduction to secure the far side of the breach until the assault force passes through the lane and assaults the objective at the point of penetration.

Breaching Organization. The organization of the friendly forces for the breach has been alluded to throughout this article. To reiterate, there is a support force whose role is suppressing the objective; a breach force for securing the point of breach and reducing the obstacle; and the assault force whose mission is to seize the far-side objective.

1BCT organized along doctrinal lines, with the exception of creating the breach force around the engineer task force. By task organizing an armor company team, the breach force had both a reduction element and a security element with sufficient assets to accomplish each of the SOSR-A tasks.

Consistent with lessons learned during the Gauntlet train-up, the breach force was also task organized with the following slice elements: a FIST, an FSO, a medical treatment team with M113 ambulances, and a Stinger section. Additionally, a smoke platoon and two military police sections were OPCON to the TF. The command and control of these elements changed as the battle progressed.

Mass. By executing a brigade breach, the brigade commander was able to mass reduction assets (engineers) at the point of breach. The concept of mass also ap-

plies to all three elements in a breaching operation. As in all operations, the objective of mass is to bring the maximum effects of the different combat systems to bear at the right place. For the engineer task force (breach force) this was also accomplished by coordinating in advance the placement of the tank plows so that they could provide additional direct fire when they were not proofing the lane. Correct task organization within the support force placed firepower under the control of the commander who could most execute suppression and allow the conduct of the breach.

Synchronization. The most important element in a brigade breach is the synchronization of all the elements so that they play their role at precisely the correct time and in the correct sequence. Critical to synchronization is reverse planning and rehearsals. As mentioned above, bringing the maneuver company commander into the planning process early allows engineer task force planners to understand and incorporate aspects of maneuver, command and control, and logistics with which they were unfamiliar.

Detailed reverse breach planning and wargaming took on new importance as the armor company commander introduced new aspects of planning with which the engineers had not previously had to contend. These include the logistics of arming and fueling a heavy force on the battlefield (M1s consume fuel three times faster than engineer equipment), and maintaining weapons platforms for which the task force was not resourced. Working with C/2-34 AR and their parent task force early in the preparation phase produced several TTPs that served the engineer task force well during subsequent fights.

Lessons Learned Recap

As mentioned earlier, to fully operate as a maneuver task force, in addition to tanks and plows, an engineer battalion must have a FIST, a medical treatment team, air defense artillery assets and additional combat service support assets. Experts for employing these attachments came from the attachments and from the expertise of numerous elements collocated with the engineer battalion TOC in the BCT main CP.

The armor company team OPCON to an engineer task force must come with a slice from the parent armor task force's support element. This slice should include maintenance capability or support arrangements, recovery assets, class V, and unique class III resupply capability, depending on the duration of the task organization, and ideally, one-third of the

"During mission analysis, the armor planner brings a different perspective to the task force on how the situation template will effect operations, as well as an understanding of his unit's capabilities. This information produces a set of implied tasks that engineer planners do not necessarily derive from the same information. Additionally, the armor planner provides critical information on constraints and assumptions unique to the heavy force. With practice, task force planners began to incorporate these factors, but initially, it took a tanker to ensure the critical elements were included."



support platoon's bulk fuel and haul assets.

The engineer battalion S4 developed a set of standard planning factors for supporting the engineer task force. These factors included support from the engineer battalion's organic assets. These include class I, bulk class III, inclusion into the logistics resupply breakouts, and casualty evacuation — especially when few or none of these assets came with the armor company.

Rehearsals are absolutely critical to success. For a task force that does not habitually fight together, the rehearsal provided the perfect opportunity for the engineer task force commander to ensure all elements of the breach force understood their roles and timing in the operation. It also afforded the armor commander the opportunity to educate the engineers on maneuver, as well as ensure maneuver schemes fit the engineer mission. A full mounted rehearsal ensured that coordination issues, such as movement and fire controls, were fully understood.

TF Diehard was created around an engineer battalion to serve as the breach force for brigade breaching operations. With the addition of an armor company

to provide direct fire capability, the engineer task force accomplished each mission, which gave the brigade commander flexibility with his two maneuver task forces.

With the help of C/2-34 AR, TF Diehard learned many lessons each time the TF assembled. While a success from the beginning, by the final live fire deliberate attack, TF Diehard pulled all these elements together for the final attack mission. As the brigade breach force with a balanced company team as support and assault elements, TF Diehard breached the Arrowhead obstacle complex and Alpha Pass just 3 hours after the BCT crossed the line of departure, and passed the entire assault force and part of the support force into Echo Valley to defeat the Krasnovians once and for all. Our thanks to the armor officers and noncommissioned officers who taught us what it means to be a maneuver task force.



Notes

¹U.S. Army Field Manual (FM) 3-34.2, *Combined-Arms Breaching Operations*, U.S. Government Printing Office, Washington, D.C., 31 August 2000, *Change 3*, 23 February 2001.

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Simplifying the Heavy Brigade/ Task Force Operations Order

by Captain Brian Hayes

A disturbing trend has gripped today's heavy force — an increasingly long and complicated operations order (OPORD). Leaders must reverse this trend. Clear, concise operations orders are essential if we are to consistently plan and fight effectively under combat conditions. Fortunately, current doctrine already provides effective solutions to this problem.

The Challenge

A long, complicated OPORD has the following disadvantages:

- **Time.** A complex OPORD takes a great deal of time to produce. Doctrinally, this is an inherent disadvantage. Leaders owe their subordinates at least two-thirds of available planning time. The more time spent on OPORD production means less time for subordinates.

- **Potential for confusion.** If an order is repetitive, it wastes production time. If it is contradictory, it creates other problems. The longer and more complicated an order, the more likely it is to contain inconsistencies. A good rule of thumb to prevent such inconsistencies is if something is in the body of the order do not put it in an annex. The same holds true for the reverse — say what needs to be said once.

- **Challenges of planning in a field environment/continuous operations.** The sterile classroom environments where military schools teach planning gives leaders and staffs a false sense of security about producing an order in the field.

Most planning exercises assume that the commander and entrenchment staff will be able to assemble and work to produce an order according to an approved timeline. The combat training center

battle rhythm reinforces this view. However, this assumes that no enemy contact or other significant issue demands their attention elsewhere. When the realities of continuous operations are factored in, the likelihood is that deliberate planning is the exception and not the rule.

Producing schoolhouse-quality orders and matrices in a realistic timeframe requires computers, printers, and copiers. The demands of office equipment, such as electricity and shelter, push units to establish larger, less mobile, and less secure command posts. Noise and light signatures increase when generators, lights, and computers run at all hours. Tactical operations centers (TOCs) that have to wire offices every time they jump tend to jump less often, and are consequently easier to locate and destroy. If the enemy attacks, the TOC's best option for security (displacement) must now be balanced against losing the unit's ability to plan if it abandons its office equipment.

Moreover, at some point, whether due to enemy action, weather, maintenance, or supply, computer equipment will fail. On one hand, excessively long orders contribute to computer failure. Each page through a printer or copier takes another bit of ink off the ribbon, or another copy off of the machine's life expectancy. What is more important, however, is that units must prepare to produce effective orders when technology breaks. This means going back to pens, markers, and carbon paper, which makes it impossible to produce anything but concise, simple OPORDs. Planners must be ready to write them; subordinates must be accustomed to putting them into practice. Leaders must embrace simple orders during training to be prepared for them in combat.

Where We Are: OPORD NAVAJO:

To best see how long and complex OPORDs have become accepted practice, consider the school solution. For example, OPORD NAVAJO is 22 pages long without annexes. The Field Artillery Captains' Career Course uses it to train prospective battalion fire support officers on fire support planning in the heavy brigade offense.

The discussion below is organized as issue, example from OPORD NAVAJO, and discussion.

Issue 1. Task organization wastes space by detailing habitual/standard operating procedure (SOP) assignments.

OPORD NAVAJO:

TF 1-2

1-2 AR (-)
B/1-78 MECH
C/1-78 MECH
1/A/1-441 ADA (Linebacker)(DS)
A/501 EN (DS)
1/1/ (Smk Plt) 52 Cml Co (2xM1059)
FSE 1-40 FA
COLT 1, 6
TACP

TF 1-78

1-78 MECH(-)
A/1-2 AR
A/1-3 AR
3/A/1-441 ADA (Linebacker)(DS)
C/501 EN (DS)
FSE 1-40 FA
COLT 3
TACP

TF 1-3

1-3 AR (-)
D/1-78 MECH
2/A/1-441 ADA (Linebacker)(DS)
B/501 EN (DS)
1/1/ (Smk Plt) 5-5 Cml Co (2xM1059)
FSE 1-40 FA
COLT 2
TACP

BCT CONTROL

1-40 FA (155, SP M109A6)(DS)
1/C/1-21 FA (Q-36, TAB)
1-616 FA (155, SP M109A5) (R 1-40 FA):
DNE 70% CSR, O/O GS
A/1-441 ADA (-)(Linebacker)(DS)
501 ENG(-)(DS)
3/52 CML (-) (Decon)(DS)
A/123 MI (DS)
FSE 1-40 FA
COLTs 4, 5
1st FSB
1/A/52 MP
1/A/52 SIG TF 1-78
TACP

Discussion. It is essential to list changes to the task organization in detail. Many attachments, however, habitually fight with the same organization. For example, a maneuver brigade will typically have the same associated direct support artillery battalion. The direct support battalion provides a fire support element, and the Air Force a tactical air control party, to each supported maneuver task force. Each tank/mechanized battalion will have an attached engineer company, and so on.

Task force commanders and staff do not need to be told that their people are still around — they just need to know if the brigade commander wants to send them somewhere. Save time and space by omitting any task organization that is part of SOP.

Issue 2. The “Enemy forces” subparagraph and/or Annex B contain extraneous raw information, not intelligence. For example:

“OPORD NAVAJO:

SITUATION

1. Enemy forces.
- (2) Capabilities.

(a) The T-80UM is equipped with the AT-11 antitank guided missile (ATGM) (5,000m range); 125mm smoothbore gun (armor-piercing, fin-stabilized, discarding sabot (APFSDS) 2,500m, APFSDS-DU 3,200m), and the Agava M1 fire control system with integrated Buran-PA thermal imaging device (3,600m range).

(b) The BMP-2 is equipped with the AT-5b Spandrel ATGM (4,000m range) and a 30mm stabilized auto-cannon (2,500m range). This version of the BMP does not contain a thermal sight. The BTR-80 is equipped with a 30mm main gun with an armor-piercing tracker range of 2,000m and a high explosive incendiary range of 4,000m.

(3) Enemy COAs.

The companies doctrinally deploy 3,000m in width and 1,000m in depth, based on terrain. Platoons defend a frontage of 800 meters with 100 to 200 meters between tanks, again based on the terrain. Each company will deploy from one to three squad-sized combat security outposts within direct fire range of the tank company defense. The 127th Mechanized Infantry Brigade (MIBR) will construct fire sacks, integrating natural and man-made obstacles in front of the platoon position, a belt at 3,000 meters (two-thirds range of AT weapons). The 127th MIBR may use a reserve slope defense if the terrain permits. The 41st Military Intelligence Detachment (MID) can also employ remote antiarmor mine systems (RAAMS)-type minefields. At a minimum, there should be 1 x 2S6 vicinity each company position. Forward of the BMP company defenses (3 to 5kms, based on terrain), elements of the reconnaissance companies (four to six OPs, BMP/BRDM across the BCT zone) will be deployed.”

Discussion. By definition, intelligence is the finished product of evaluation, integration, and analysis.¹ In contrast, the above excerpt is merely raw information.

Reference material on threat capabilities and doctrine has its place, but it does not belong in the OPORD. A good task force S2 will have this information on hand and provide it to task force company commanders as necessary. In addition, the usefulness of this type of information at company level and below is vastly overrated. Companies and platoons execute battle drills. Does a platoon leader bring his platoon on line differently, or a tank commander engage a T-80U differently because they know that it has an M1 Agava fire control system?

S2s frequently publish excess information in other areas as well. General country-study information, such as detail on major rivers or mountains and the ethnic make-up of populations, is very useful for planning in the initial stages of a campaign. However, this information does not change and does not need to be included in tactical OPORDs after arriving in theater. Weather and light data can also be driven to pointless levels of detail. Knowing about a thunderstorm tomorrow is useful — knowing the average rainfall for the month of April in the area of operation is probably not useful. Similarly, if the sun rose at 0615 hours today, it will rise around the same time tomorrow, give or take a few minutes.

Enemy forces paragraphs and Annex B need to focus on intelligence products that are useful to task force commanders planning tactical operations.

Issue 3. Mission and Execution paragraphs are too long and repetitive.

“OPORD NAVAJO:

2. MISSION. 1st Brigade Combat Team (BCT), division supporting effort, attacks NLT 080400 XXX YY to destroy enemy forces in zone, and reestablish forward line of own troops (FLOT) at Phase Line (PL) FLORENCE to protect the eastern flank of 2d BCT.

3. EXECUTION.

INTENT: 1st BCT attacks to destroy enemy forces in zone and secures Objective (OBJ) GREEK and OBJ ATHENS. O/O 1st



“Producing schoolhouse-quality orders and matrices in a realistic timeframe requires computers, printers, and copiers. The demands of office equipment, such as electricity and shelter, push units to establish larger, less mobile, and less secure command posts. Noise and light signatures increase when generators, lights, and computers run at all hours. Tactical operations centers (TOCs) that have to wire offices every time they jump tend to jump less often, and are consequently easier to locate and destroy. If the enemy attacks, the TOC’s best option for security (displacement) must now be balanced against losing the unit’s ability to plan if it abandons its office equipment.”

BCT continues its attack to destroy the enemy in zone and establishes a defense along PL FLORENCE. The endstate for the operation is 1st BCT occupying defensive positions along PL FLORENCE prior to the arrival of the 17th Tank Division (TD).

a. Concept of the operation. See Annex C (operations overlay).

1st BCT attacks with two task forces abreast, with the third task force conducting a follow and assume mission. This attack must be swift and violent to quickly destroy the enemy in zone and seize key terrain to support the commitment of the BCT reserve into the attack. The BCT reserve rapidly passes forward to destroy remaining enemy forces vicinity OBJ TROY, and establishes defensive positions along PL FLORENCE before the arrival of second echelon enemy forces. The BCT must be ready to defend along PL FLORENCE prior to the arrival of the 17th TD.”

Discussion. Notice the repetitiveness and excessive wording in this excerpt — 198 words and 20 lines of text. Examples include:

- The BCT will attack in zone — mentioned three times.
- The BCT will defend along PL FLORENCE — mentioned four times.
- The attack will be swift and violent — shouldn’t all attacks be violent?
- We must seize key terrain — sounds like a good idea.

In contrast, consider the following two paragraphs:

“Mission: Attack NLT 080400 to destroy enemy in zone and reestablish FLOT along PL FLORENCE to protect 2 BCT eastern flank.

Execution: Attack w/2 task forces up and one back. O/O reserve task force passes forward, destroys enemy on OBJ TROY, and defends along PL FLORENCE. Intent is to be prepared for enemy 17th TD counterattack.”

These paragraphs express essentially the same information as the longer two listed above; however, they take up only 57 words and 6 lines of text. Effective graphics, rehearsals, and SOPs can make this an easy order to execute.

One of the more ridiculous common statements is, “My intent is to complete the operation at 70 percent strength.” What does this mean? It certainly is not the commander’s goal that 30 percent of his force die, or that 30 percent of his vehicles be destroyed. Instead, is this intent what the commander expects to happen? If so, why say anything about it? This is another statement that does not belong in the OPORD.

Issue 4. Do not recap doctrine or SOP.

“OPORD NAVAJO:

3a. Concept of the operation. Each task force must be prepared to conduct a deliberate breach in zone but will bypass or conduct in stride breaches of obstacles whenever possible.

Discussion. This is absolutely true. It is also absolutely unnecessary, because doctrine has already addressed this very issue. “The force must attempt to cross any obstacles it encounters without loss of momentum by conducting in stride breaches. Lead security elements bypass or breach obstacles as quickly as possible to maintain the momentum of the movement.”²

Other examples:

- Seize key terrain — repeats Field Manual (FM) 3-0.
- Masking criteria — should be included in unit SOP.
- Evacuation criteria for damaged vehicles — should be SOP.
- Casualty evacuation procedures — should be SOP.

Where We Want to Be: VII Corps Field Order 18

Doctrine already provides potential solutions to simplify the OPORD. Every commander and staff officer should read and take to heart Appendix H to FM 101-5.³ This appendix clearly demonstrates that, contrary to popular belief, current doctrine encourages short, simple orders.

Appendix H contains Field Order 18 — the OPORD for the VII Corps exploitation from the Remagen bridgehead in World War II. Remember that OPORD NAVAJO, a brigade order, was 22 pages without annexes. Contrast it with Field Order 18 — a *corps* order for a complex operation, consisting entirely of a five-page base order, a sketch, a seven-page intelligence annex, a fire support annex, and an overlay.

FM 101-5 makes several important points about Field Order 18:

- Although brief and simple, it is complete and doctrinally correct.
- VII Corps produced the order under time pressure and in a combat environment.
- Oral orders, an overlay, experience, and good SOPs made the order effective.
- Subordinate commanders clearly understood the concept and executed effectively.⁴

Support Platoon in Baghdad from Page 12

improve quality of life, we also support security operations.

One of our main tasks is the transport of detainees. This happens once or twice a week, depending on the number of detainees held at the battalion detention center. When there are enough detainees to move, our platoon transports them to Baghdad International Airport for further detention and questioning. When the battalion conducts a large-scale raid, such as the raid where several high-ranking Fedayeen were captured, we are on standby to transport captured persons to the battalion detention center, and possibly on to Baghdad International Airport.

We are also on standby in the event of a mass casualty evacuation. We have been fortunate to avoid that situation, but with the help of a medic in the bed of a truck, we are ready to transport multiple casualties to the nearest aid station or hospital.

Our last major operational task is to provide gun trucks. Based on the various threat levels, a certain number of crew served weapons are required in each con-

voy. When we have the vehicles available, we use our gun trucks for missions such as dining facility and mail runs. However, there are times we use a cargo HEMTT with guns, specifically to provide extra crew served weapons.

Hopefully, it is easier to understand how the support platoon can be an effective tool as well as provide class III and V. In fact, this article demonstrates how little we focus on class III and V. Instead, our focus has been on pulling guard and a variety of other missions. Whether it is carrying class I, delivering mail to soldiers, or supporting a battalion raid, the soldiers in a support platoon are not only capable, but they are also motivated to mission success.

Several things make mission success much easier: strong junior NCOs enabling the platoon to be separate and run several different operations at one time, which provides squad leaders opportunities to run missions requiring more experienced supervision and decisionmaking; it is important that the mission system allows the platoon to have the flexibility to

As the introduction to Appendix H illustrates, a well-trained unit with a strong SOP can succeed in executing a complex operation based on a very simple order.⁵

Commanders and staff must be prepared to plan as VII Corps did in 1945 — in the field, in contact, and under time constraints. The most effective way to ensure success under these conditions is to produce orders that are as clear and concise as possible. By turning to the solutions already present in our doctrine — matrix orders, overlay orders, rehearsals, SOPs, and short written orders such as Field Order 18 — today's heavy brigades and task forces can ensure that they will fight and win on future battlefields.



Notes

¹U.S. Army Field Manual (FM) 3-0, *Operations*, U.S. Government Printing Office (GPO), Washington, D.C., 14 June 2001, p. 11-8.

²FM 3-90, *Tactics*, GPO, Washington, D.C., 4 July 2001, p. 4-12.

³FM 101-5, *Staff Organization and Operations*, GPO, Washington, D.C., 31 May 1997, Appendix H.

⁴*Ibid.*

⁵*Ibid.*

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adapt to last minute missions; and the platoon should remain flexible and be ready to respond to a given problem with little or no notice. A friend of mine explains that when leaders ask for flexibility, they are really asking that no one complains when there are changes. This applies 10-fold in Baghdad, where day-in and day-out things are always changing. But with the right system in place, strong junior leaders, and the dedication to react appropriately, the support platoon can continue to do more for armor battalions than just move class III and V.



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A Potential Achilles' Heel: Integrity in Asymmetrical Warfare

by Captain Sean M. Scott

*"I have just been offered two hundred fifty thousand dollars and the most beautiful woman I have ever seen to betray my trust. I am depositing the money with the Treasury Department of the United States and request immediate relief from this command. They are getting close to my price."*¹ — Arthur MacArthur

Integrity is a key component of leadership, which is the most essential element of combat power. According to U.S. Army Field Manual (FM) 22-100, *Army Leadership*, "Leadership is influencing people — by providing purpose, direction, and motivation — while operating to accomplish the mission and improving the organization." In fact, our Army recognizes integrity as an imperative of leadership as encompassed within "competence and character."²

While no American military professional would be likely to argue the paramount importance of integrity, how often do we

pay lip service to this crucial facet of leadership? In the daily routine of military life, we are constantly confronted with numerous ethical and moral dilemmas of varying degrees. While we would like to believe that military professionals would always do what is right, the media has highlighted numerous examples of misconduct involving soldiers from junior enlisted to general officers. These cases involve some of the more egregious and scandalous affairs that attract media attention; however, most soldiers could easily name instances of unethical behavior that fall below the noise level of the media. The majority of incidents are dealt with appropriately by the chain of command; yet, how often do such breaches of integrity remain undetected or overlooked?

A key element of ensuring a soldier remains true to Army values lies in education. In his *Republic*, Plato outlines his conception of the guardian class as per-

forming an essential function within a society.³ By protecting the *polis* from external threats, guardians not only ensure a state's existence but set the conditions for it to prosper. Considering their function so vital to the society's future, Plato asserted it was critical to select only the most qualified citizens for extensive education and training. Rather than being solely a warrior, a guardian "is both warrior and philosopher."⁴ The guardian is not only competent enough to fight and win on the battlefield, he also has the character to serve the ideals of his society. This key distinction extends the oft-cited formula of tactical and technical competence as indicative of being a successful military professional, to include ethical competence.

Marcus Tullius Cicero expanded on the guardian concept by noting that "the wisest and bravest still guarded their State by arms and counsel, and their influence continued to be supreme because, while

they surpassed the masses in preferment, they had a smaller share of the pleasures of life, and in property were not, as a rule, better off than their fellows.”⁵ Cicero not only warns against the establishment of a Praetorian Guard mentality among guardians, but also reminds them of the hardships inherent to their duty. While not all soldiers have read Plato or Cicero, necessity charges them with living up to the ideals of the guardian class.

In the current national military strategy, transnational threats are of prime importance. International criminal organizations, many with links to terrorist factions and insurgents, are growing in power and influence across the globe. In the coming years, America’s military must face the prospect of direct confrontation with such transnational organizations. In future operational environments, potential adversaries of the United States with extreme fiscal resources will attempt to exploit the integrity of the U.S. Armed Forces as a means of asymmetric warfare. Are major criminal organizations, including drug cartels, a new form of society that is competing with a set of societal norms and fiscal resources of unparalleled magnitude?

Drug Cartels — A Transnational Threat for the 21st Century

International drug cartels constitute their own society in numerous ways. Relative to most modern societies, cartels have a nontraditional set of societal norms. It is perilous to offer any standardized set of societal norms capable of encompassing the diversity of groups involved in drug trafficking; however, most are driven solely by the motive of profit while an increasing number have ideological agendas supported by the drug trade. By their nature, most of these organizations present an amorphous threat that involves a convoluted network of production, dis-

tribution, security, and financing that spans multiple continents.

Sun Tzu’s axiom of formlessness presents one of the most significant challenges to undermining the drug cartels.⁶ Using elaborate means to provide operational security makes it difficult to identify and strike at the cartel’s center of gravity. With seemingly unlimited fiscal resources, cartels buy political influence and judicial leniency. This contributes to their ability to remain formless by extensive use of bribery, kickbacks, extortion, and intimidation to secure their networks against political, judicial, law enforcement, military, and media threats.

Viewing the cartel as a society, the role of the guardian class is fulfilled by mercenaries. In recent years, many of these hired guns have taken over the networks they were initially contracted to protect. The most foreboding of these trends involves insurgent and terrorist groups who fund their ideological agendas with drug money.

Unlike other major international criminal organizations whose revenues are not all tied to the production and distribution of drugs, cartels need land to grow their products. The need for land places them in direct confrontation with governments trying to control their territories. This unfortunate relationship leads cartels to maintain standing armies to control their drug fields; thus, the seeds of insurgency are sown. With or without a political agenda, governments force cartels to fight a war for land not far removed from an insurgency; however, for those cartels composed of insurgents with a well-defined ideological agenda, the drug trade is an

attractive means to nest financial needs with political goals.

We are predisposed to underestimate the abilities of these mercenaries and insurgents due to our own professional bias. Much like the Russians underestimated the Chechens by referring to them as “criminals and bandits” rather than “fighters.”⁷ This indication of the Russian mindset led to military misadventures that cost an inordinate amount of blood and national treasure. Today’s guardians of the drug trade have access to the latest military weapons and equipment, as well as sophisticated intelligence networks. Of greater importance, they possess the will to win without respect for the law of war.

Given this situation, it is clear that cartels possess the ability to conduct revolutionary warfare in a low-intensity environment to achieve limited theater political-military objectives. If our allies are unable to meet the challenges posed by such groups, the potential exists for friendly nations to call for more direct U.S. military assistance in maintaining the legitimacy of their governments. If the weight of the American military comes into direct confrontation with cartels, they will certainly attempt to fight asymmetrically to maintain their drug networks.

Integrity in Asymmetrical Warfare

The chief question regarding potential conflicts between the American military and drug cartels revolves around whether or not U.S. military personnel are vulnerable to exploitation due to the vast fiscal resources available to the cartels. The simple answer to this question is a resounding “yes.” A sophisticated opponent would not be hard pressed to use in-

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formation warfare to obtain personal financial information and addresses of dependents as targeting information. Anyone who has been to a personnel services battalion (PSB) recently can attest to the ease with which information may be obtained. Junior enlisted soldiers in unsecured areas have access to reams of information that would allow cartels to build an impressive targeting list. Routinely, soldiers within PSBs are pressured to provide favorable personnel actions or speedier service by friends and significant others. Anyone on the payroll of a cartel could walk into a PSB and attempt to gain access to information on soldiers deployed on a counternarcotics mission. If soldiers cannot resist the temptation to help their friends on a daily basis, how can they be expected to resist an offer of five times their annual pay for simply providing some social security numbers, birthdates, and mailing addresses? What if the friend happens to be the one on the payroll? The possibilities are frightening.

When their existence is threatened by massive, direct military intervention or more limited assistance, drug cartels will seek to pit their advantage against the frailties of human nature. This could lead to bribery and kickbacks directed against key U.S. military leaders and soldiers. How much would it cost to entice an E-5 to take his patrol 500 meters off of its route and fail to interdict a drug shipment? This is an interesting question, especially taking into account he will ETS from the military at the conclusion of his deployment and is not being asked to directly hurt any of his comrades in arms. How would a company commander react if he were informed that the life of his daughter depends on whether or not his unit continues to successfully interdict the flow of drugs from his area of operations? Of course, there are no easy an-

swers to these questions. Once a soldier begins to accept any form of compensation, he may be blackmailed in addition to the other weight leveraged by the cartels.

Given the potential for this type of warfare, it is critical to examine the force protection measures available and what resources exist to emplace them. First and foremost, we must recognize that the Department of Defense (DOD) could not hope to compete fiscally with the drug cartels. DOD does not have the resources to put thousands of dependents into protective custody when they are threatened. For the most part, force protection measures will be procedural in nature. Army personnel commands should definitely consider stricter control of personal financial information. The Army has already revised its websites to remove potential data of interest to terrorists for targeting senior leaders. The Army's subversion and espionage directed against the Army program must be revised in light of the increased threat posed by drug cartels. While there are no "silver bullets" available for force protection, it is evident that further measures could reduce the vulnerability of U.S. personnel.

We must address another essential question: how do we detect breaches of integrity? If the enemy remains formless, he may be subverting the mission without our knowledge. Yet again, there are no easy answers to this problem. At a systemic level, it would be extremely difficult to detect small bribes and other relatively minor infractions; however, the net effects of dozens of such incidents could have crippling results.

Grand Strategic Perspective

The U.S. military must understand that it is only one policy instrument incapable of bringing potential conflicts with

"When their existence is threatened by massive, direct military intervention or more limited assistance, drug cartels will seek to pit their advantage against the frailties of human nature. This could lead to bribery and kickbacks directed against key U.S. military leaders and soldiers."

drug cartels to resolution without a shrewd combination of political and economic instruments orchestrated in a manner that shapes peace. Liddell Hart accentuated the need to keep the endstate of conflict at the forefront of developing policy, "While the horizon of strategy is bounded by the war, grand strategy looks beyond the war to the subsequent peace. It should not only combine the various instruments, but so regulate their use as to avoid damage to the future state of the peace — for its security and prosperity."⁸ The nature of U.S. involvement in a future confrontation with drug cartels must remain beholden to this principle. In addition to this, it is critical to understand the nature of the war in which we are involved and refrain, as Clausewitz advises, from "trying to turn it into, something that is alien to its nature."⁹ While this seems elementary, the potential for the U.S. to become embroiled in a vicious counterinsurgency could easily evolve from a more limited initial objective.

The deteriorating situation in Colombia has the greatest potential to involve direct confrontation between the U.S. military and drug cartels. According to the Drug Enforcement Agency, the Medellin and Cali controlled trade in the 1980s and early 1990s has devolved into hundreds of smaller decentralized operations across all aspects of the drug trade. According to Drug Enforcement Administration (DEA) estimates, several billion flows into Colombia each year from cocaine traffic alone.¹⁰ While the problems in Colombia are foreboding, the U.S. has had remarkable success in Bolivia and Thailand. In Thailand during Operation Trap Tiger, the DEA working in concert with the Thai law enforcement and military disrupted the Shan United Army, the largest trafficker of heroine in Southeast Asia, with a combination of high-tech equipment, training, and interagency cooperation.¹¹ These experiences demonstrate a potential model for dealing with the transnational threat presented by drug cartels.

The U.S. has many economic policy instruments at its disposal. While the U.S. routinely freezes the financial assets of criminals and those who support their infrastructure by laundering the cash flow generated from the drug trade, it also has the ability to influence nations by impos-

ing sanctions on countries that support drug cartels. Despite U.S. efforts to stem both the demand for drugs and inhibiting the ability of drug cartels to market their products, the sources of production remain under their firm control.

The Colombian government's \$7.5 billion, 6-year counternarcotics plan, issued in October 1999, pledges \$4 billion to support the plan and calls on the international community to provide the remaining \$3.5 billion. The U.S. recognizes the need to support its allies in their efforts to eradicate drugs within their borders; therefore, in July 2000, the U.S. Congress appropriated over \$860 million for fiscal years 2000 and 2001, including \$519 million for equipment and training.¹² It is difficult to gauge the effects of this commitment of U.S. resources since the Colombian government has continually mismanaged its allocated money.¹³

The political options available to the U.S. involve both domestic and foreign policy. Obviously, the U.S. retains the right to censure countries that choose to aid drug cartels. The U.S. has found many cost effective ways to leverage the expertise of its federal, state, and local law enforcement agencies with its allies. Government and nongovernment agencies continue building infrastructure for allies to aid in establishing and maintaining legitimacy. Johnnie Marshall, Administrator of the DEA, states extradition of suspects connected to drug cartels is one of the "absolute most valuable tools we've used."¹⁴

While often referred to as a "drug war," retired U.S. Army general and former "drug czar" Barry McCaffery has compared America's drug problem to "a cancer that must be treated."¹⁵ The statistics, which lend credence to his perspective, are appalling. In the year 2000, 16,000 U.S. citizens died of overdoses and total drug-related deaths exceeded 50,000.¹⁶ Under his leadership, the Nation's policy toward the "drug war" began to transform into treating the "drug disease" that was plaguing the American people. While his emphasis on reducing the demand for drugs led to a 55 percent spending increase for prevention and 34 percent increase for treatment, most of the \$19.2 billion budget continues to be allocated toward interdiction and law enforcement.¹⁷ Strict law enforcement, coupled with tougher drug laws and sentencing by the U.S. judicial system, has the potential to serve as a catalyst in reducing the demand for drugs. The net sum of these policy instruments leverages the United States' ability to combat drug cartels.

In its most extreme form, U.S. military policy could manifest in direct intervention to help establish or maintain the legitimacy of an allied nation. As mentioned earlier, the U.S. Congress has authorized vast resources for training and equipping counternarcotics forces in Colombia. In addition to this financing, the United States offered military expertise from the U.S. Southern Command. Federal agencies continue to provide intelligence from national assets to allies. The Coast Guard, coupled with its sister services, continues to interdict the flow of drugs into the Continental United States and increase the cost of distribution for drug cartels. The options available for employing the U.S. military range the full spectrum of conflict.

Given the current state of affairs, how can the U.S. military adequately address the potential for its enemies to exploit integrity asymmetrically? The answer is simple, yet profound: internalization of leadership values and understanding the primacy of the guardian's role within our society. Leaders must heed Clausewitz's guidance to take advantage of every opportunity to "rekindle the flame of purpose in all others; his inward fire must revive their hope."¹⁸ Two other military minds offered their guidance regarding the need for patriotism to be the guiding purpose within the guardian class, Pericles and Giuseppe Garibaldi. Thucydides quoted Pericles, "This empire has been acquired by men who knew their duty and had the courage to do it, who in the hour of conflict had the fear of dishonor always present in them, and who, if ever they failed in an enterprise, would not allow their virtues to be lost to their country, but freely gave their lives to her as the fairest offering at her feast."¹⁹ Garibaldi proclaimed, "I offer neither pay, nor quarters, nor provisions; I offer hunger, thirst, forced marches, battles, and death. Let him who loves his country in his heart and not with his lips only, follow me."²⁰

To protect our forces, we must become formless and win the information war. The Nation's leaders must demand that the military further restrict access to potential targeting data to protect our guardians and allow them to focus on their mission. Furthermore, we must emplace further measures to detect breaches of integrity. When we discover those unable to demonstrate tactical, technical, and ethical competence as leaders, it is our duty to police the ranks of our profession. While that may involve taking an unpopular stand, it is our duty to the

People that have granted us the privilege of serving our Nation. As General Douglas MacArthur so eloquently stated, "No nation can safely trust its martial honor to leaders who do not maintain the universal code which distinguishes between those things that are right and those things that are wrong."²¹



Notes

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²¹*Ibid.*, p. 163.

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Digital Battle Command: Baptism by Fire

by Lieutenant Colonel John W. Charlton

The 1st Battalion, 15th Infantry, 3d Brigade Combat Team, 3d Infantry Division, recently returned from 13 months of training and combat operations in Kuwait and Iraq. Task Force 1-15 Infantry fought eight major engagements during 21 days of intense combat during Operation Iraqi Freedom and was the first U.S. unit to attack across the Euphrates River toward Baghdad.

Converting to Digital Battle Command

There were 13 separate map sheets in the bustle rack of my Bradley when I crossed the line of departure (LD) into Iraq. Each was specially cut and numbered so that my task force operational graphics lined up correctly on the map. I had the current map sheet on my 18- by 24-inch map board while the extra map sheets were stored away in a map case. When I reached the end of a particular map sheet, I had to take the map board apart, pull the adjacent map sheet out of the map case (hence the numbering system), and attach the new map to the map board. Invariably, these map changes usually happened on the move and at night. My driver and I spent nearly two days cutting, aligning, and marking these map sheets prior to the start of the war. Leaders everywhere were doing the same drill. We were using 1:100,000-scale map sheets for the operation. When you have to travel

over 700 kilometers, you sacrifice detail to limit the number of map sheets you have to carry. We compensated for the lack of detailed maps by using imagery and engineer terrain team products.

I had to simultaneously juggle my map board and the imagery just as when we began our attack into Talil airfield on the first day of the war. We crossed about 200 kilometers of open desert en route to our objective and then attacked right into a dense urban environment. I was using the 1:100,000-scale maps for the long approach march and imagery for the actual attack. Since it was a night attack, I was also trying to maintain control of a small flashlight so I could see all these battle command aids.

I should have spent the entire time focusing on the small screen attached to my coax door. The screen had been accurately tracking my location as well as the location of my key leaders and adjacent units throughout the attack. It had a map database of various scales and satellite imagery for the entire country of Iraq. Of course, I am describing the Force XXI Battle Command Brigade and Below (FBCB2) system. The 3d Infantry Division received a “dumbed down” version called the BLUEFOR tracking system. It did not have all the “bells and whistles” like the full FBCB2 suite, but it did offer basic messaging and situational



awareness capabilities. Contractors installed the systems in key-leader vehicles throughout the division. They also gave crash courses on how to use the system.

I did not use the system very much on the first attack of the war because I had only received a short burst of training on the system and had never really put it to the test. I knew how to use it, but lacked the level of experience that I needed to give me the confidence to rely on it during combat. As a result, I fell back on my “old school” battle command techniques of juggling maps in the turret of a Bradley. I didn’t completely ignore the new system; I just didn’t fight with it. I managed to survive the first couple days of combat using my trusty map sheets, but little did I know that my days of relying on paper map products were about to come to an end. My own personal transformation to digital battle command would be during operations in a little Iraqi hot-spot called, “As Samawa.”

Task Force 1st Battalion, 15th Infantry (1-15) initially was not supposed to fight in As Samawa. We were headed northwest to linkup with the 2d Brigade Combat Team (BCT) south of Karbala. However, shortly after we began our movement west, I received a fragmentary order (FRAGO) to move to As Samawa

and relieve the 3d Squadron, 7th Cavalry. Our mission was to isolate As Samawa from the V Corps main supply route to the south. Sadaam Fedayeen forces had infested As Samawa and were a tremendous threat to logistics units moving along the supply route. The problem was that I did not have any imagery of the town since there was no plan to fight there. This meant we had to use our 1:100,000-scale maps to produce operational graphics. The graphics were almost useless since the maps showed virtually no detail of the As Samawa urban area. Fortunately, one of my company commanders was getting pretty skilled at using the FBCB2 graphics feature and he transferred my acetate graphics to digits. What an amazing difference — we could switch map scales and even use digital imagery to see every street in the town relative to our graphic control measures. We used the mission data loader (MDL) to transfer the graphics to every system in the task force.

I was impressed with the abilities of the FBCB2 system, but was still not confident enough to go fully digital, so I continued fighting from my map board. My complete conversion to digital battle command would not happen until the infamous sand-storm of 25 March 2003.





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We were conducting a reconnaissance in force to find and destroy Sadaam Fedayeen forces. I was planning on using the sandstorm as cover for our movement and we would use railroad tracks as a handrail to guide us into our positions. I had two scout sections along to provide surveillance on the objective. Both company commanders and the scouts had FBCB2, as did my track. We were all using FBCB2 1:50,000-scale maps to track our movements since the sandstorm created zero-visibility conditions. We were literally dead reckoning through the sandstorm using the FBCB2 system.

We ran into problems about halfway through the movement when we tried to navigate around the As Samawa train station. Even the 1:50,000 maps did not show all the details of the train station. Vehicles were getting stuck on the converging tracks and had to maneuver around several buildings that were not identified on the maps. The sandstorm made it impossible to see our surroundings and we had several breaks in contact. To help us get around the train station, one company commander suggested we all switch from maps to imagery to see the details of the train station. We were literally maneuvering by instruments like pilots in bad weather, but the imagery and global positioning system (GPS) functions of the FBCB2 system allowed us to bypass the train station in the middle of a sandstorm. The experience of being forced to use and rely on FBCB2 during a combat mission under impossible weather conditions completed my conversion to digital battle command. I did not use another paper map product for the remainder of the war and fought every fight thereafter using FBCB2.

Digital Battle Command: What Works Well

FBCB2 has revolutionized tactical battle command in many ways. The digital maps and imagery were a tremendous capability — I literally had the entire country of Kuwait and Iraq at my fingertips. I could pan across the maps, zoom in, change to imagery, zoom in on the imagery, change scale, and even change the color of the gridlines on the map — a very handy feature. I did not have to worry about changing map sheets — the screen updated as I moved. I did not need a flashlight to read the maps and imagery because the screen had an adjustable backlight. The FBCB2 imagery was not quite as clear as a hard copy product, but it was definitely suitable for every mission we executed. It enabled us to navigate through the narrow streets and alleys of Baghdad or determine if a canal road was suitable for tracked vehicle movement. I relied solely on FBCB2 imagery for all urban operations. If I had to pick the single best thing about FBCB2, it would be the maps and imagery capabilities.

Even though I had a limited number of systems in my task force, FBCB2 greatly improved my ability to battle track friendly units and improve my overall situational awareness. I not only knew

where my scouts and company commanders were, I knew the location of all adjacent units and command posts. This greatly facilitated linkups. I did not have to call to get a company commander's location, I saw his icon on the screen and FBCB2 guided me to his location. I am certain that FBCB2 battle tracking capabilities were instrumental in preventing fratricide. This was particularly important in urban areas where friendly units frequently converged and were often masked by buildings and other structures. Finally, FBCB2 allowed me to track the progress of the battle and know if things were going according to plan. When my task force seized a key highway intersection south of Baghdad, I could see the company commanders' icons at each blocking position and I knew we had control of the objective. That cut down on a lot of radio traffic and allowed leaders to concentrate on the fight instead of giving frequent situation reports.

Shortly after arriving at As Samawa, my task force received a mission to send a company-sized force to seize a section of terrain to the west and establish blocking positions. This mission was similar to the one the task force was given in As Samawa: isolate the built-up area and protect the V Corps supply route to the south. I had four companies (two armor and two mechanized infantry), so the loss of combat power would not degrade my operations in As Samawa. The problem was that the company's objective was 70 kilometers west of As Samawa. I would have no way to communicate with my separated company using organic FM radios. Even using a retransmission station, the distance was too far — FM radios were typically good for about 10 to 20 kilometers. The company enlisted tactical air controller had satellite communications, but could only be used for controlling close air support and emergency medical evacuations. The only way to maintain daily communications with the company was through FBCB2. The FBCB2 system was satellite based, so distance was not an issue and I sent and received text messages to and from my separated company. The task force was eventually pulled off As Samawa and we moved about 200 kilometers to linkup with the 2d BCT south of Karbala. I still had a company securing the separate objective, but we were able to maintain continuous communication and FBCB2 allowed them to later linkup with us south of Karbala. The entire separate company mission simply would not have been possible without the satellite communication capabilities of FBCB2.

Digital Battle Command: What Needs Fixing

The biggest problem with FBCB2 was that our digital pipe was too small. This caused several problems with communications,

battle tracking, and navigation. We were forced to limit our message size to a few hundred bytes. Much of that allocation was consumed just by message header information, which limited the typical free-text message to only a couple of paragraphs. Even the most simple FRAGO had to be segmented and sent in several messages. The effect on sending graphics was even worse. A standard set of battalion operations graphics required several separate messages to comply with bandwidth limitations. Obviously, every digital system is going to have some limitations, but FBCB2 must allow the transmission of basic FRAGOs and operations graphics to be a truly useful battle command tool.

The lack of bandwidth also hampered navigation and battle tracking. My position would update about every 10 to 15 seconds, but all the other friendly icons would update about every few minutes. This really made battle tracking on the move difficult. For example, during one of our attacks, my icon appeared to be leading the task force even though there were other elements in front of me. FBCB2 was updating my position faster than the other systems around me. Even the smallest delay in updating my position caused problems while navigating in dense urban areas. It was easy to miss a turn because the FBCB2 updated too slowly relative to the actual position of the vehicle. Ironically, my low-cost civilian GPS (my digital backup) was updating my position in real time, down to one-meter accuracy, while my sophisticated digital battle command system could not keep pace. One of the FBCB2 technicians told me that this was a software problem as well as a bandwidth problem. Either way, it is a serious shortcoming and should be fixed immediately. FBCB2 should have the capability to update all friendly unit positions in real time.

Everyone I talked to about FBCB2 complained about the operating system and graphic user interface (GUI). It is about the most non-intuitive operating system and interface that I have ever used. Even the simplest task took multiple steps to accomplish and some of the procedures simply did not make sense. Useful features like “drag-and-drop” and “right-click menus” are nonexistent in the FBCB2 GUI. FBCB2 developers really need to work on making the GUI more intuitive and user-friendly. You should be able to customize the interface and put links to frequently used applications right on the desktop. Perhaps designing it to resemble a web page would help. Nearly every U.S. citizen knows how to navigate the Internet and is very familiar with the functions of a web browser.

The operating system also appeared to be very unstable. If users failed to follow

“Shortly after arriving at As Samawa, my task force received a mission to send a company-sized force to seize a section of terrain to the west and establish blocking positions. This mission was similar to the one the task force was given in As Samawa: isolate the built-up area and protect the V Corps supply route to the south. I had four companies (two armor and two mechanized infantry), so the loss of combat power would not degrade my operations in As Samawa.”

the shutdown procedures explicitly, bad things happened the next time the system was turned on and booted. Somehow, improper shutdowns created bugs in the system and we had to wipe and reload hard drives several times to correct the problem. The operating system simply needs to be more robust and forgiving. The time it took for the system to boot up was also annoying.

The message applications need to be improved. The messages were so cumbersome that nobody used them. The only formatted messages I received throughout the entire fight were the chemical-downwind messages from the 3d Infantry Division’s main command post. Everything else was a free-text message. One of the FBCB2 technicians told me that 90 percent of the messages sent by Fort Hood units during FBCB2 testing and training were free-text messages, which I believe completely. The other message formats are too complicated and time consuming to be of use.

The easiest fix for this problem would be to eliminate standard messages completely and design the system so units could install their standard operating procedure (SOP) message formats. Units train with their SOP message formats and use them to communicate information quickly and effectively. FBCB2 would only enhance the utility of unit message SOPs. Combat messages, such as medical evacuation and spot reports, were more useful but they too need to be simplified to make them user-friendlier.

The FBCB2 graphics application also needs a drastic update. It did not contain all the graphic control measures and unit symbols found in U.S. Army Field Manual 101-5-1.¹ Many of the symbols could not be manipulated. For example, I could not label my attack by fire (ABF) positions. I used a work-around involving other graphic symbols but it took a lot of extra time just to perform this simple task. The graphics application also needs more free-form drawing tools and it must incorporate “drag-and-drop” features. Users should have the option to quickly duplicate graphic control measures and rotate or flip them as required. If this sounds like basic PowerPoint features, you are right on track.

Continued on Page 50



Hill 755 — 15 Days to the End

by Rod Frazer

It was 10 July 1953. A light helicopter flew into Dodge Range, where I had for a short time commanded a small tank training facility north of Chunchon. I saw it coming, ran up to it, and reported to the new battalion commander, Lieutenant Colonel Francis X. O'Leary. We had never met. He was a large man, and asked right away, "Are you Nimrod?" "Yes Sir, I am Nimrod." I replied.

He said, "You are the man I am looking for. Are you ready to go?"

I had 34 points. Maybe he was talking about rotating home. I had been in Korea 9 months, which seemed forever. However, he was referring to another tour of combat.

"Be at my command post tomorrow morning. You are going back to the hill," he ordered.

The 45th North Korean Infantry Division, an extremely experienced and dangerous unit, was once again on the offensive against the Republic of Korea — this time against Hill 755. They were the best of the reorganized North Korean Army. Just two months earlier, I helped defend Hill 812 against the 45th North Korean Infantry Division for more than 40 grueling days. The 45th North Korean Infantry Division overran the hill known

as Luke's Castle. Soon, I would face them again on Hill 755 as a platoon tank commander assigned to the 140th Tank Battalion, 40th U.S. Infantry Division, 10th Corps.

The fall of Luke's Castle caused a major change in the lines. The main line of resistance (MLR) had shifted south by three-quarters of a mile. These changes had an emotional impact on



of the Korean War

me. Young and arrogant, I kept thinking that the fall of Luke's Castle should never have been allowed to happen.

The battalion adjutant sent me to the C Company command post (CP) by Jeep. While staying overnight with the commanding officer, Captain Harney, he told me that Hill 755 had become a focal point of the new North Korean advance. This now-critical hill was on the west side of the Soyang Gang, where the MLR crossed the river. If the enemy took 755, about five miles of the plain to the south would be open to them. In that event, they would be at the rear of the Republic of Korea (ROK) 52d Regiment, the 140th Tank companies, and the ROK Artillery Battalion — a potentially disastrous situation for United Nation's forces.

Recon Company of the 52d ROK Infantry Regiment was the unit responsible for Hill 755. The 52d had about 120 men on 12 July. Lieutenant Lee, the company commander was young and experienced. Our job was to support him and his people.

Private Robert J. Vreeke took me to Hill 755 the next morning, 12 July.

He drove the Jeep fast for the "under observation" part of the trip. Vreeke was to be our steady lifeline to the hill by delivering a hot meal and mail most nights. Vreeke would also evacuate casualties. I put a bottle of Ballantine's Scotch whiskey in his glove compartment for an emergency.

Another lifeline to Hill 755 was the driver of the open armored personnel carrier (M39) that brought gas and ammo. This driver was the same devil-may-care guy called "California," who delivered supplies to my platoon on Luke's Castle during the winter and spring.

While on Hill 755, I visited each tank and met the tank commanders (TC) and crews of our five M46s. I was the TC on one tank, as well as the platoon leader, and had responsibility for everyone. Between the crews, the medic, and myself, we num-



bered 26 Americans on the hill; we did not have a mechanic. I wrote everyone's name down in a small notebook carried in my breast pocket. Little did I know that during the next 10 days things would happen so fast that I would not get to know some of my men. This lack of familiarity was made worse by the constant personnel turnover.

My first tank on 755 had a good crew; they knew the hill, and we followed exact standard operating procedures for the first night, which was quiet. Everyone realized the situation was serious; there was no malingering or dissembling. Corporal John Henry Shelly was the gunner and ranking enlisted man on the tank. Corporal Charlie E. Hux was the bow gunner; Kowalcheck (called "Pollock" by the men) was the driver; and I fail to remember the loader's name.

Communications were a constant source of frustration; our radios never worked. Incoming fire made it dangerous to lay wire for telephone communications and impossible to keep wire in place. There were no interpreters; communications between the Americans and the South Koreans were awkward.

Our tanks and men could fight well in the mountains because they had experience. Tanks supporting infantry worked, even in rough terrain, and we put them to good use in keeping the enemy infantry at bay. The key was laying down heavy fire and doing it often, but here the situation was different. We were closely joined with the enemy. We were forced to react to their attempts to penetrate the hill's defenses almost every night.

At various times during the 2 weeks preceding 27 July, we believed enemy forces from two squads, a platoon, and a company hit us.

There was no communication with our company or battalion CPs, other than my notes asking for supplies. The supplies always came through, but we had no sense of how the war was going or of what was happening to units to our right and left. Our only U.S. source of information was Major Sowa, an expert American infantry officer, and he rarely said much. Sowa was the Korean Military Advisory Group (KMAG) advisor to the ROK Regiment.



Other than what we saw at night, daily visits to Lieutenant Lee's bunker was the best way to keep up with the action. Shortly after I arrived on 755, he got a frag wound in his left side. It would have been serious enough for an American to be evacuated, but he was not and I had our medic visit him regularly. We sure didn't want to lose Lieutenant Lee. Recon Company was getting casualties nearly every night and sometimes during the day, but received no replacements. Dead ROK soldiers were stripped of weapons and web equipment before being hand-and-foot tied to poles and carried by Korean Service Corps (KSC) civilian workers to the immediate rear, where they were burned on biers of logs. Slightly wounded soldiers were not evacuated and the badly wounded walked to the rear. Our own casualties were always promptly replaced but never with experienced tankers. Hill 755 was getting weaker every day and the North Koreans were stepping up the pace of their offensive. We could feel it. The soldiers held up well, but I was worried.

Nothing happened during the first night; however, a series of bad all-nighters followed. The attacks grew bigger, and on the night of 15 July, a company-sized force may have hit us. There was some welcomed news the next morning; Major Sowa came up to tell us we were going to get a South Korean counterattack.

The North Koreans continued their attempts to penetrate our lines. They hit us on the night of 16 July and continued through the nights on 17 and 18 July.

On the 19th, the ROK counterattack was to kick off from the northwest side of 755, west of Lieutenant Lee's CP. Until then, all attacks against us had been up the draw from the north, but it was obvious that we could be hit from the west as well. The drop off toward the enemy from our ridgeline was relatively flat. It was a natural avenue of approach for North Korean forces from the west, from 812, and from the North Korean strong points between 812 and 755. It was also the natural avenue for our proposed counterattack, which was to jump off between two tanks in place on the west ridge: the command tank that was in defilade on the south end of the jump-off point and the firing tank I commanded on the north. There was a distance of about 150 yards between them.

Tension mounted. The morning before the counterattack was extremely hot; Major Sowa came up to look around. He told me that his Jeep was back down the hill around the bend, "There is a thermos of ice water on it if you want a drink."

We were getting incoming, but I jogged down the narrow trail. The major's new Jeep was sitting in a bend out of my command tank's sight. The Jeep was pulled tightly into the hillside that rose straight

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"While on Hill 755, I visited each tank and met the tank commanders (TC) and crews of our five M46s. I was the TC on one tank, as well as the platoon leader with responsibility for everyone. Between the crews, the medic, and myself, we numbered 26 Americans on the hill; we did not have a mechanic. I wrote everyone's name down in a small notebook carried in my breast pocket. Little did I know that during the next 10 days things would happen so fast that I would not get to know some of my men."



up on one side of the road and dropped off steeply on the other. It seemed to be a safe enough place. The Jeep's canvas-covered windshield was clamped down over the hood. I sat on the passenger's side by the driver with my Cochran jump boots propped up over the windshield, which seemed more like having my feet propped on a desk. The ice water was fine, and the American driver and I had a nice chat. I relaxed, thanked him, and headed back to my tank. In a few minutes, a soldier came running up to report that Major Sowa's driver was dead. A heavy mortar round had landed squarely on the Jeep where I had rested a few minutes earlier. It was smashed flat.

Later that afternoon, elements of ROK infantry started coming up the hill to counterattack. They were good-looking soldiers; fresh, clean, and covered with vegetation stuck in helmet netting and web equipment as camouflage. I watched them from the turret of the command tank where I sat with the hatch nearly closed for protection. It was captivating to see these infantrymen approach an assault knowing that some were certain to die. Feelings of pride, anticipation, and fear swelled in me as they came up that hill. One soldier in the file was hit by mortar fire a few yards from my tank. He died instantly and settled back on his heels in the road. The butt of his shoulder-slung rifle jammed into the ground. The dead soldier knelt upright as the file stepped around him and trudged on. The body stayed in that position until the next day.

The ROKs continued to stream up all afternoon and into the early night until the rifle company was in place along the trail between our two tanks. There was sporadic incoming fire. The infantrymen were strung out in a dry ditch alongside the road beneath the jump-off ridge. I walked past them the 150 yards to my tank's firing position. The North Koreans continued shooting into the early evening, then quiet. The stillness was eerie. The North Koreans had seen the ROKs moving up all day and, of course, they saw our tanks. My stomach was burning with anxiety. The crew and I rotated duty all night in the turret of our tank, two hours on and four off. None of us slept much between shifts, so during the night, I visited the other tanks on foot.

The heat was oppressive and damp at first light. As our counterattacking troops moved out, I felt a shortness of breath. At

first, there was little incoming mortar and artillery fire. Ground fog made visibility poor, so I used the glasses to look for targets. After the jump-off, the air cleared quickly as the sun came up. There was small arms fire from both sides. I was afraid of shooting our own infantry, so the first rounds fired from our 90mm were at targets on Hill 812, probably more than 2,000 yards away. We saw small bunches of enemy troops, as well as individual soldiers, and shot at everything that moved. Mostly we used high-explosive ammunition. We switched to armor-piercing rounds and fired at two U.S. M-46s that were abandoned in June, just in case some enemy soldier was foolish enough to use them for protection.

It was eerie to see a group of enemy soldiers on the trail by our old CP bunker. They ran out toward the firing position we had often used. They were on my ground and seeing them there made me feel exploited. When I rotated off 812 in April, I left my Coleman lantern with the soldiers that were using that bunker. I seethed, as I had many times before, that the hill had been lost. North Korean soldiers ran and ducked around a small bunker. We shot several rounds of high-explosive ammunition into the area. Then we shot some white phosphorous. It sprayed and burned, it was the closest thing we tankers had to napalm. We probably hit some North Koreans. Terrain around the bunker offered little protection to the running enemy, but we could not be sure about kills because smoke obscured parts of the hill.

The battle was picking up, but my tank did not encounter incoming enemy just then. The North Koreans were using their mortars and artillery against the attacking ROK infantry. I left my tank and ran to the other tank that was shooting into the draw to the north on the other side of Lieutenant Lee's CP. Then I ran south for a look from the observation post. The counterattack seemed to be going well, and our tanks were okay. Returning to my tank, I shot the .50-caliber machine gun at 812 and at avenues of approach that were located closer to us. Visibility got better. As the fight developed, we shifted the 90mm fire in closer.

A North Korean squad running in our direction headed toward a depression. Before it could get there, I gave the fire command, "gunner, troops in open, Willie Peter, range 200," and called

steady-on as the gunner traversed the turret. The troops dropped out of sight as I watched them from my hatch that was cracked open. Leaning over the gunner, I used his pistol grip aiming device to place the 90mm tube where the troops had hit the ground. Then I gave the last element of the fire command, "FIRE!" The round went long. Both the gunner and I sensed the round; we saw it hit. The gunner took over the aiming, shortened the range, and shot from left to right and right to left until we had expended about 10 rounds of white phosphorous. After that, we laced the area with high-explosive rounds. From then on, there was absolutely no more movement from that sector.

Despite the partially opened tank commander's and loader's hatches, it was hot and acrid in the smoke-filled fighting compartment. There was also little fresh air coming from the open pistol port. The ventilation system did not work, which made breathing difficult. Occasionally, I opened the hatch for fresh air but did not leave it open because mortar rounds were hitting all around us. I feared a round would drop through the open hatch or hit the turret while the hatch was open. Our tank was visible to enemy everywhere — we were fully exposed. An explosion blew off the radio antenna, but the radio had already been inoperable for some time. The day wore on. Later, we backed into defilade long enough to reload our 90mm ammunition, then reoccupied our position on the crest of the hill and resumed firing.

The loader fainted from the heat and fell out on the floor of the fighting compartment. The bow gunner took his place as the pace slowed, then stopped. There was no more incoming artillery. The fight was over by mid-afternoon.

None of the ROK assault infantry came back to our ridge. We could not see them and did not know how far they had advanced. We had no information from anyone, but could see that there had been no change on Hill 812, the secondary objective. The soldiers were happy that the counterattack had pushed back the North Koreans.

As I sat in the quiet night, I knew that the ROKs and our tanks were successful, but it was anybody's guess as to the next move. I continued to worry. I knew those North Koreans were not finished. To me, it was a replay of the first assault they made on 812: the unsuccessful one during the winter. I believed the North Koreans would continue to hammer until they took 755 and we were not going to let that happen.



It was not possible to establish any kind of routine. Something bad and unexpected was always coming up. The next crisis came when Lieutenant Arthur Dillmuth's tank was pulling into firing position at the slot east of Lieutenant Lee's CP and threw a track. The crew was unable to repair it because their location was awkward and dangerously exposed. We sent for help and battalion maintenance sent us an officer. I was at the command tank when he arrived by Jeep. He was cheerful and I thanked him for coming up. He drove north on the trail to the disabled tank's position, about 150 yards away. Immediately, I heard explosions, then the roar of the Jeep coming toward me. The maintenance guy was covered with blood and shredded by shell fragments from head to toe. His flak vest was ripped. The driver stopped the Jeep long enough for the wounded officer to tell me that lots of mortar fire had come in right on top of them.

The disabled tank blocked the narrow trail. I ran to it, worrying because it cut off another tank further to the east. Hearing noise underneath the vehicle, I crawled there to find the body of the gunner, Corporal Shelly, and the badly wounded driver, Kowalcheck. He had lost one foot and part of the other, and was in a state of panic. Still under the tank, I took off Kowalcheck's belt and made a tourniquet for his leg that was bleeding the most, the right one. He was crying, but my attention calmed him. Except for his crying, everything was completely quiet. The loader showed up but the medic was nowhere to be seen.

Thank God! Vreeke got there with his Jeep and a stretcher. Fearing another mortar attack, we pulled Kowalcheck out from under the tank, loaded him onto the stretcher, and placed it in the Jeep on the passenger's side. There was no way to tie it down. Vreeke left there driving with his left hand while holding the stretcher and badly wounded soldier with his right arm.

The missing medic turned up, he had taken off when the rounds came in. Darkness fell and the medic could not find his aid kit, but he did help search for the missing Corporal Hux, whose body had rolled down the hill. We were to get it out the next morning.

The moon had not yet come up. The reliable Vreeke returned with the blacked-out Jeep and picked up Shelly's body. I was up all night worrying that the North Koreans knew we were knocked out and would try to make a run at us up the draw in front. They almost reached the tank slot a few nights earlier. It would have been easy for them to walk straight to us this time.

That night was spent going back and forth from the vacant tank slot on the north, the one east of the ROK CP, to my tank on the ridge at the west slot. I had a pistol in my hand throughout much of it. I was physically and emotionally exhausted. There was silence everywhere, which made me more anxious. I did not see a ROK infantryman all night.

"My first tank on 755 had a good crew; they knew the hill, and we followed exact standard operating procedures for the first night, which was quiet. Everyone realized the situation was serious; there was no malingering or dissembling."

Cursing the moon, I was depressed. Only a few nights before, Shelly had discussed personal problems with me as we sat on watch in a tank turret. Hux had told me that he was put on tanks because he had worked at an arsenal in Galveston, Texas. Together, we knew fear and exhaustion. I knew Shelly and Hux better than any of the soldiers on 755. I felt personally responsible for their deaths.

The night of 24 July 1953 was exceptionally long. Early the next morning, our replacements arrived. Battalion maintenance fixed the disabled tank and it moved back into position at the head of the draw. We were back in business as usual, almost as if the counterattack had not happened at all. I was filled with anxiety, worn out, and waiting for the North Koreans to attack once more.

That was not going to happen and we would never be able to retake Hill 812.

The war was ending. We were stunned when a messenger Jeep drove me to the rear to hear the cease-fire order read aloud. I returned to 755 and passed on the details to everyone. The war ended the next day, 27 July. The order called for firing to stop at 2000 hours (8:00 in the evening). It was another scorching, humid day. Nothing happened that morning. Around noon, I had every man get in position inside his tank. By mid-afternoon there was intermittent firing up and down the line. At first, it was just small arms but the big guns and mortars started shooting as the afternoon wore on. It was a crescendo. We knew those hills and had a good idea where the North Koreans were. I picked targets all over the place and enjoyed giving the fire commands. We even shot up the approaches. The North Koreans were shooting too. We got a lot of incoming mortar fire, some of it from heavy mortars. I did not want to be the last man to die in Korea, but I hung out the turret and fired the .50-caliber machine gun a number of times.

We were but a small part of a huge wave of noise and explosions, rolling as far as you could see and hear to the east and to the west.

Things started to get quiet as 2000 hours approached. There was total silence for the last few minutes or so before 2000. Then everyone got off the tanks. The ROK infantrymen came out of their positions. All were in a state of disbelief — the ROKs and soldiers. We watched the enemy positions and saw movement. There was still daylight. By then, Vreeke had come up with the Jeep. I told him to get out the bottle of emergency scotch. I broke the seal and opened the whiskey and passed it around. Then we went up to Lee's CP, a small, low-earth and log bunker covered with shot-up sandbags. There was joy everywhere. A couple of ROK lieutenants came in after many days and nights on outposts. We were all filthy and hot, wearing wet and sweaty clothes. It was more than two weeks since my last bath in the Soyang River back at Dodge Range. There was a lot of laughing, handshaking, and embracing. I offered the bottle all around but got few takers; the Koreans were not much on drinking.

The wounded Lee, his officers, and I went to the bunker's aperture. It opened to the north and was about 10 inches high and five feet wide. Visibility was excellent. The full moon was high in the sky. The hills were bathed in lights that flashed off and on as low clouds scudded past in front of the moon. Soldiers up and down the line were shouting obscenities across to the North Koreans, who had formed into a large square of troops. Our Army would call it a battalion mass, a perfect box on the for-

ward slope of the facing hill at a range of 400 yards. There were hundreds of enemy soldiers in the formation, maybe nearly a thousand. They were chanting in unison and singing martial songs. I wish that Frederick Remington could have painted that fabulous night scene. It was the most history I was ever to see with my own eyes.

Then there was an explosion. Dulled by exhaustion, whiskey, and excitement, I looked at my watch. It was exactly midnight. My first thought was that the whole cease-fire discussion was a ruse and we were being attacked again. However, an unlucky ROK trooper had stepped on a mine.

The next morning, we wrecked and burned the log bunkers on 755. Recon Company and our tanks withdrew that afternoon. A demarcation line two miles wide was established between the UN forces and the North Koreans.

The overrun Hill 812 was on the North Korean side of the new main line of resistance. Hill 755 was on the South Korean side. My men did their duty and our unit, the 140th Tank Battalion, was awarded the Presidential Unit Citation for its part in defending against the war's last North Korean offensive. The United States, along with a coalition of 21 other nations, were an important part of what the next 50 years would bring to a democratic nation. With continued protection from the United States, South Korea has become an economic success.

Now South Korea is in a new era, free from the Cold War and dominated by economic interests and trade. North Korea is still suffering from abject poverty and is led by a dangerous ruler. New generations in South Korea have forgotten, or would rather not know, that the United States gave their country freedom and capitalism. Many do not grasp that we saved them from certain enslavement. Their politicians now say they do not want to be so closely identified with the United States. Yet they need us to defend them now just as they did when North Korea invaded the country 50 years ago. Of course, we will give them that defense, even in the face of anti-American demonstrations from some of their young people. Our troops will remain there and will continue to be in harm's way. We shoulder that burden for the sake of Japan, as well as Korea. Our U.S. markets will remain open to their trade. We will continue to be a huge part of Korea's economic successes and will continue to deal diplomatically with their foolish brothers to the north. Unification will come and will have staggering results. Millions of poverty-stricken North Koreans will flood south in search of jobs, democracy, human rights, and western-style opportunity. Their stability and liberty must be guaranteed. A resulting larger and more complicated nation with huge unemployment statistics will need our help and they will get it.

Perhaps young Koreans will come to grasp the special friendship that the people of the United States have for them, a friendship created by shared hardships and co-mingled blood.



Rod Frazer entered the Army in 1950 with the Alabama National Guard and was commissioned as a second lieutenant of Armor at Fort Knox, KY. Volunteering for Korea, he served two important tours as a tank platoon leader: 40 days at Hill 812 (Luke's Castle), which fell after he rotated; and the last 15 days of the war on Hill 755. He was awarded the Silver Star for gallantry in action and his unit, the 140th Tank Battalion, was awarded the Presidential Unit Citation for its role in defending against the last North Korean offensive of the war.



Operation Anaconda: The Battle for Shah-i-Kot Valley

by Captain Ryan Welch

Until a few weeks ago, the battle for Shah-i-Kot Valley, located roughly 60 miles south of the city of Gardez, Afghanistan, was the largest light infantry battle since Vietnam. It was a textbook example of how the modern military can mass the effects of overwhelming joint firepower in the most difficult and hostile environments in the world. The battle, which began on 2 March and concluded on 14 March 2002, illustrates the need for unity of command and synchronization to maximize the effects of the coalition forces' technological superiority and lethality on the battlefield.

Coalition forces, under the command of United States Central Command (CENTCOM), were led by the Combined Forces Land Component Command (CFLCC), 10th Mountain Division. Primary combat forces in the execution of the mission were the 3d Brigade Combat Team, 101st Airborne Division, and the 1st Battalion, 87th Infantry, 10th Mountain Division.

Operation Anaconda also included aviation elements from the 15th Marine Expeditionary Unit, soldiers from the 75th Ranger Regiment, and special operations elements from the United States, Canada, Germany, Australia, Denmark, France, and Norway. Afghan interim authority

forces participated in the battle and were led by a local warlord. It is suspected that overall command of opposing forces during the battle were the responsibility of Mullah Omar, the spiritual and political leader of the deposed Taliban regime.

Local Afghan fighters, loyal to the Taliban, were joined by Uzbeks and Chechen fighters (Muslim extremists) to create a hodgepodge (albeit formidable) opposition. Primary resources for this battle analysis are briefings and excerpts from the Infantry Leaders' Conference in July 2002, as well as personal experience and involvement in the planning process. Secondary resources include numerous newspaper articles and internet documents to facilitate the accurate sequencing of events as they occurred. Many resources are not available due to classification and ongoing combat operations in Afghanistan.

The Strategic Setting Review

The cause of the conflict in Afghanistan is a direct result of the terrorist attacks against the United States on 11 September 2001. President George W. Bush initiated combat operations against the Taliban and al-Qaeda on 7 October 2001 in response to the Taliban regime's unwillingness to turn over the spiritual lead-

er of al-Qaeda, Osama Bin Laden. The campaign began with massive coalition air strikes combined with covert operations.

In December of 2001, coalition air force elements, in conjunction with special operations forces and anti-Taliban Afghan (Northern Alliance) Forces, began a massive bombing campaign in the Tora Bora mountain region of Afghanistan. Here, it was believed that al-Qaeda leaders, including bin Laden, had taken refuge in Soviet war era cave complexes.

Following the bombing campaign, many Talibs and al-Qaeda members scattered throughout the Panjshir valley, some crossing over the border into Pakistan, others seeking places to mass combat power in the Khowst and Gardez provinces. These forces scattering resulted in a decentralization of command within the ranks of al-Qaeda. Local leaders, or "Mullahs" quickly took control of small groups of 50 to 250 fighters, moving them in and amongst the populous to blend in with civilians, as well as quell any anti-Taliban resistance within the numerous small villages within these provinces.

Coalition forces under the control of CENTCOM had 5,000 personnel in coun-

try and were supported logistically by air contingents located in the Mediterranean Sea, and had units operating from Uzbekistan and Pakistan. Units within Afghanistan operate primarily from airfields located at Kandahar, 300 miles south of the Shah-i-Kot Valley, and Bagram, located 100 miles west of the Shah-i-Kot Valley.

The noncontiguous nature of this battlefield environment was a logistics nightmare for coalition forces, due to the extreme environments of the Afghan desert and mountain regions that could hamper airborne resupply for weeks at a time. Northern alliance commanders benefited from coalition support with weaponry, food, and ammunition. Al-Qaeda and Taliban forces enjoyed good logistics, as the local population could provide much of their sustenance, and much of their required ammunition and weaponry was scattered throughout the countryside in arms caches left over from the Soviet-Afghan War.

Coalition forces also benefited from the latest information in warfare equipment technologies. Real-time transmission of data from assets such as unmanned aerial vehicles and satellites are the rule, rather than the exception. Extensive signal and human intelligence were used as well. Opposition forces relied completely on word-of-mouth and limited phone and radio communications as their primary means of intelligence.

The morale of coalition forces in the days leading up to Operation Anaconda was high, mostly due to the perceived success of the bombing campaign in Tora Bora. Afghan interim authority commanders, in support of the coalition, were riding a wave of high spirits under the recent string of victories over the Taliban. Similarly, morale of enemy forces was thought to be high, as evidenced by the numerous Pakistani, Chechen, and Uzbek fighters that were flooding the region to join in the coalition expulsion.

Review of the Tactical Situation

Mission. The 3d Brigade Combat Team was to be a blocking force for the local Afghan commander's force and facilitate his attack. His was to be the main effort and the coalition forces were the supporting effort.

It is important to note why the task force was a supporting effort. One of the main goals of the coalition's campaign was to maintain the legitimacy of the Afghan interim authority and the Afghan military forces. For the coalition to bear the bur-

den would have undermined these efforts. Furthermore, it was almost impossible for coalition forces to distinguish al-Qaeda or Taliban fighters from the indigenous population. Only Afghan forces were capable of this.

Al-Qaeda/Taliban mission. Al-Qaeda and Taliban fighters were to defend from fortified positions and caves, carry out the Mujahideen concept of "death by a thousand cuts," use guerrilla warfare techniques honed during the Soviet occupation to demoralize coalition forces, and turn public opinion against the war.

Equipment. Coalition infantry forces used the latest in small arms (M4 Carabines instead of AK47s). Al-Qaeda had advantage by using standoff (over 500 meters) with the larger 7.62x39mm cartridge. Coalition forces had an overall advantage because they used air superiority to deliver pinpoint air strikes with aerial munitions and AH-64A helicopters. And because of their technologically superior night vision systems, coalition forces owned the night.

Terrain. Al-Qaeda forces had home-court advantage. The foothills of the Himalayan Range — the roof of the world with peaks over 14,000 feet high — rival the Rocky Mountains in altitude and majesty, proved to be an inhospitable climate for conducting air-assault operations. Lim-

ited availability of landing zones and reduced performance of rotary-wing aircraft at these altitudes greatly hindered operations. Thin air and subzero temperatures for most of the battle took a toll on ground combat troops.

Troops available. Though no firm numbers of enemy troops were available, it is generally accepted that coalition forces enjoyed numerical superiority over al-Qaeda and Taliban forces in the Shah-i-Kot Valley. Over 1,500 coalition troops participated in the battle. It is estimated that there were between 700 and 1,000 al-Qaeda and Taliban fighters engaged in the battle.

Time available. Time proved to be an advantage to the defending al-Qaeda and Taliban forces, as they could fight when they wanted, and for the most part, where they wanted. Because of the coalition's extended logistics tail and the difficulty of resupply in the mountain environment, time was critical.

Describing the Action

The plan was a relatively simple hammer-and-anvil approach. Task Force Rakakan, occupying their blocking positions on the eastern ridgeline, would provide the anvil (supporting effort). Special Forces units leading groups of Afghan forces would form the hammer (main attack), sweeping in from the north and south en-



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trances to the valley, known as Objective Remington, and clearing the enemy from the villages.

Coalition special operations forces, in conjunction with Afghan forces, provided the “outer ring.” These units were tasked to stop small bands of al-Qaeda and Taliban forces from escaping to the north, east, and south of the valley.

The aviation support plan included preparatory attacks on two enemy caves, and antiaircraft and mortar positions. Strike Eagles (F-15Es) dropped ordnance, including 2,000-pound bombs, on cave openings near blocking positions Amy and Ginger. Immediately following these strikes, B-1Bs dropped a string of bombs on “The Whale,” a mountain that borders the Shah-i-Kot Valley, to suppress known enemy positions on the ridge. Special reconnaissance units, previously inserted, destroyed an antiaircraft machine gun (DShK) on the ridgeline in the south, known later as the Task Force Rakkasan Tactical Command Post (RAK TAK) Ridge.

Following the preparation fires, the first Apache helicopters swept into the valley to clear the landing zones for the first landing force, 2d Battalion, 187th Infantry (2-187). The battalion immediately came under fire from enemy positions as soon as the first lift helicopters exfiltrated from the objective.

1st Battalion, 87th Infantry (1-87) of the 10th Mountain Division, was attached to Task Force Rakkasan for the mission. Their mission was to occupy blocking positions Eve, Ginger, and Heather. Immediately on landing, they began taking heavy fire between blocking positions Heather and Ginger. Almost all of the landing zones were hot. For the next 18 hours, they fought to reach their objectives, despite al-Qaeda fighters shooting down on them from prepared positions high on the mountainsides to their east, north, and west. They were also continuously shelled by 82mm mortars.

Minefields and accurate fire at the northern entrance to the valley had stopped Afghan forces under General Zia. Taking numerous casualties, he made a hasty retreat back to Gardez — the supporting attack was now the main attack.

Meanwhile, the brigade tactical air command (TAC) had inserted on the small ridge south of the valley. From here, the brigade commander had a commanding view of the entire valley, and was able to get “eyes on” the objective, as well as a feel for the terrain and the tactical situation. However, the TAC was also immediately under fire, and fought back repeated al-Qaeda attacks for the rest of the day.

Company A, 2-187 was inserted into the battalion’s northernmost landing zone.

The 1-87 was unable to take its objectives having been split in two by the enemy, and the RAK TAC’s position was untenable. The 1-87 had to be extracted and repositioned. The units to the north of Ginger were given orders to move north to make room for air strikes in the south, and to secure the northern landing zones for follow-on forces.

During this course of events, the enemy committed a very bad error: the civilian populous was allowed to move out of the towns, allowing the task force to engage targets at will. The objective (to include the villages) was now declared a hostile zone, and heavy firepower was brought to bear. A B-52 strike was called on a large concentration of enemy fighters in the village of Marzak. In the following hours, the villages of Marzak, Babulkhel, and Serhankhel would be rubble by continuous bombardment.

When night fell, the brigade combat team’s air liaison officer directed an Air Force AC-130 attack against al-Qaeda targets to provide cover for a medical evacuation chopper to evacuate wounded from 1-87. The majority had suffered shrapnel wounds from the enemy’s mortars.

The AC-130 attacked again to support the extraction of the brigade TAC. After the TAC left its ridge, the position was overrun by al-Qaeda fighters. The brigade combat team’s seven AH-64 gun ships made continuous turns in support of forces in contact, flying through withering small arms and antiaircraft artillery fire to engage targets — some as close as 200m. By nightfall, five of the seven aircraft were nonmission capable due to damage; many were merely held together by 100-mile-an-hour tape. Late on D+1, and into the morning hours, 2-187 and the remaining company from Task Force 1-87 moved north to consolidate their positions. With the responsibility of the battle squarely in coalition hands, the joint task force commander decided to commit the reserve (1st Battalion, 187th Infantry) to take the objective.

On D+2, bomber boxes were established by the Air Force to facilitate faster target engagements on “The Whale,” and what was now known as Objective Ginger. Special reconnaissance teams were ordered to use fires to seal off passes being used by escaping enemy fighters. Early the same day, Task Force 2-187 came under intense enemy mortar fire coming from prepared positions on “The Whale.” The battalion’s terminal air controllers hit



“Coalition infantry forces used the latest in small arms (M4 Carbines instead of AK47s). Al-Qaeda had advantage by using standoff (over 500 meters) with the larger 7.62x39mm cartridge. Coalition forces had an overall advantage because they used air superiority to deliver pinpoint air strikes with aerial munitions and AH-64A helicopters. And because of their technologically superior night vision systems, coalition forces owned the night.”

“Al-Qaeda forces had home-court advantage. The foothills of the Himalayan Range — the roof of the world with peaks over 14,000 feet high — rival the Rocky Mountains in altitude and majesty, proved to be an inhospitable climate for conducting air-assault operations. Limited availability of landing zones and reduced performance of rotary-wing aircraft at these altitudes greatly hindered operations. Thin air and subzero temperatures for most of the battle took a toll on ground combat troops.”



back, calling in air strike after air strike. Special Forces teams from Task Force 64 moved north to seal off the southern entrance to the valley.

Two companies from the brigade combat team’s quick reaction force were successfully inserted into the landing zone secured by 2-187. The task force was ordered to press the attack south toward Objective Ginger. Fire missions continued on al-Qaeda fighters attempting to resupply from stores hidden in the valley. The quick reaction force pressed the attack at night, and early on D+7, they established positions from which they could observe and control Ginger Pass.

On D+4, all 24 AH-64s assigned to 3d Battalion, 101st Aviation Regiment, 101st Airborne Division (Air Assault), were now on the ground and in the fight. They began conducting attacks and air assault escort missions. They conducted round-the-clock operations, destroying numerous targets of opportunity during Objective Remington.

A new Afghan force arrived on D+5 to resume the main effort. They prepared to conduct an attack with the help of Special Forces teams. Task Force Summit was ordered to attack and seal off the enemy’s main escape route through Ginger Pass.

Task Force 64 moved north and east to block the pass from the south. Isolated pockets of al-Qaeda fighters were engaged for the next 3 days, but it was clear that “the back of the enemy had been broken.” No more large-scale contact would be made with al-Qaeda forces for the rest of the battle.

Later on D+13, the 3d Princess Patricia’s Canadian Light Infantry was air assaulted into the valley to search the caves dotting “The Whale.” This was the end of the battle for Shah-i-Kot and the beginning of “Operation Harpoon.”

Significance of Operation Anaconda

The short-term effects of the success of this battle were the destruction of what was believed to be the last organized units of al-Qaeda and Taliban forces in Afghanistan. In this battle, U.S. and coalition forces suffered only 40 casualties during the course of engagements over 2 weeks of intense fighting (8 deaths), while it is estimated that al-Qaeda and Taliban lost nearly 500 personnel, as well as an unknown number of wounded. Despite rapid changes in situation and the relatively hostile environment in which the battle was fought, U.S. and coalition forces adapted the plan to maximize its effectiveness and lethality.

Long-term Effects of Anaconda

The most prominent or important long-term effect of the battle is the fact that since this battle, never again have al-Qaeda and Taliban forces massed in an organized effort against coalition forces.

Documents and weaponry excavated from the caves in the Shah-i-Kot valley have led to the engagement and apprehension of numerous al-Qaeda agents. The post-battle exodus of al-Qaeda and Taliban fighters across the border into Pakistan, enabled coalition intelligence to pinpoint concentrations of fleeing fighters to enable Pakistani agents to appre-

hend a number of al-Qaeda leaders and fighters.

The last long-term benefit of Anaconda is the validation of newly implemented tactics, techniques, and procedures never before used on the modern battlefield. Lessons learned during Operation Anaconda have proven critical to the successful employment of new technological advantages during our recent campaign in Iraq.

Analysis of the Action and Lessons Learned — Tenets of Army Operations

Depth. Due to the extreme distances traveled by coalition forces to Shah-i-Kot, and the limited ground support structure during this battle, depth was a difficult component to achieve in the structure of the coalition combat force. Using the reserve (1-187 Infantry) proved to be a key to the success of this operation, though leading to the widespread view that depth was adequate during this battle.

Agility. This battle is a textbook example of how agility plays a key role in the outcome of battle. Anaconda was the highest altitude battle ever fought by the U.S. military. Difficult and realistic training at home station, and the month leading up to this battle in theater, enabled coalition forces to surmount the severe climactic swings and unforgiving terrain on which Anaconda was fought.

Versatility. The ability to change a combat order in mid-battle is a hallmark trait of U.S. forces. Shifting U.S. forces from supporting effort to main effort took significant measures to perform. Air assault movements are complex actions that nor-

mally require significant amounts of time to plan and execute. In this case, the air assault component of the brigade combat team was able to adapt the plan in mid-flight and shifted forces within the Shah-i-Kot Valley, ultimately assuring the survivability of forces near Objective Ginger, as well as an overall victory in the battle.

Initiative. Terrain, coupled with the extreme distances in communication with command and control facilities, severely inhibited the level of initiative that combat commanders could use on the battlefield. As soon as it was discovered that enemy positions were many thousands of feet above the landing zones of TF Rakkasan and TF Summit, the ability to maneuver to attain an advantage was negated. The initiative shifted rapidly to the enemy as soon as airlift capability was gone. Over time, initiative was slowly regained through suppression missions with airlifted mortar assets and close air sup-

port provided by fixed and rotary wing aircraft.

Synchronization. This was perhaps the Achilles' heel of coalition forces during this battle. Because forces were operating on the timetable of Afghan forces initially, timing was at best difficult. The extreme distances traveled by coalition aircraft to reach the engagement area (100 nautical miles (NM) for rotary wing and 500-plus NM for fixed wing), responsiveness for air assaults and close air support were basically nonexistent. Continuously rotating or "stacking" fixed-wing aircraft, such as AC-130s and F-16 sorties, as well as the arrival of the 3d Battalion, 101st Aviation Regiment's remaining attack assets, solved this problem.

Battlefield Operating Systems

Fire Support. Because of high-density altitudes and the severe climate in Afghanistan, no towed artillery or self-propelled artillery was shipped into theater.

Initially, indirect fire support was provided by organic 60mm mortars. Late on D+2, 120mm mortars were air assaulted in and consolidated in a battery to provide responsive fire support to infantry units in contact. Effects of indirect fire were limited due to the rocky terrain and many defilade positions provided by jutting rocks, caves, and gravel embankments.

Intelligence. This was the first infantry battle in which real-time intelligence feeds were provided directly to the fighting unit's headquarters via unmanned aerial vehicles and satellite. This was a necessity due to the difficulty of communications (tactical satellite only), and the limited reconnaissance and surveillance capability on the ground near Shah-i-Kot. Search and reconnaissance units assigned to special operations forces identified many targets and threats prior to actual ground combat. However, during the air assault, many commanders learned that



"1st Battalion, 87th Infantry (1-87) of the 10th Mountain Division, was attached to Task Force Rakkasan for the mission. Their mission was to occupy blocking positions Eve, Ginger, and Heather. Immediately on landing, they began taking heavy fire between blocking positions Heather and Ginger. Almost all of the landing zones were hot. For the next 18 hours, they fought to reach their objectives, despite al-Qaeda fighters shooting down on them from prepared positions high on the mountainsides to their east, north, and west."

these teams and photoreconnaissance could only provide a partial picture of the enemy situation.

Logistics. From D+5 to D+8, TF Rakkasan and TF Summit units learned the difficulty of logistics in a mountainous environment. Because of the rapidly changing weather, ceilings dropped to well below rotary-wing minimums for operations (below 300 feet above-ground level). Para-drop assets were virtually nonexistent as well, due to the limited airlift capability provided from Uzbekistan and Turkey. Food and water were rationed until resupply was made on D+8.

Maneuver. Because of the harsh climate and terrain, maneuver was limited for survivability purposes. Limited instances occurred in which infantry units maneuvered to engage isolated enemy positions, but large-scale forms of maneuver were practically nonexistent, unless done via air assault.

Battle command. On D+1, RAK TAC positioned in the objective area because of limited over-the-horizon communications in theater. This proved to be an extraordinarily wise decision, as the brigade combat team commander was on the ground to make the decision to extract 1-87 and reinsert them to the north. This also enabled the joint task force commander to make an informed decision to employ the reserve on D+2.

Air defense. Coalition forces enjoyed air superiority for the duration of this battle. Al-Qaeda air defenses (small arms and rocket propelled grenades) were formidable against rotary wing, destroying one CH-47 and causing damage to four more, as well as seven AH-64 gun ships. No fixed wing aircraft sustained damage during this battle.

Mobility and survivability. Limited engineer assets were available to the brigade combat team. Al-Qaeda forces used old, Soviet type antipersonnel and anti-tank mines to fix Zia Gulbuddin's forces as they approached the valley, effectively engaging his forces at standoff with mortars.

Principles of War

Maneuver. All types of maneuver were extremely difficult, as the severe climate and terrain sapped the strength of ground combat units. The extreme altitudes at which rotary-wing air assets operated (attack aviation in particular) negated the ability to hover and engage targets at standoff ranges. The mountainous terrain severely inhibited mounted maneuver.

Numerous chokepoints throughout the valley would prove deadly for mounted enemy units, as they were easily engaged by coalition firepower.

Offensive. The initial insertion into Shah-i-Kot was an offensive maneuver, although it would transition to defensive blocking positions as the plan unfolded and Afghan forces assumed the retro-

"The short-term effects of the success of this battle were the destruction of what was believed to be the last organized units of al-Qaeda and Taliban forces in Afghanistan. ... Despite rapid changes in situation and the relatively hostile environment in which the battle was fought, U.S. and coalition forces adapted the plan to maximize its effectiveness and lethality."

grade. The offensive tempo of the operation would ebb and flow for the duration of the battle, changing rapidly due to the enemy's ability to use terrain to his advantage.

Surprise. It is argued that al-Qaeda forces knew in advance of the coalition's plans to move through the Shah-i-Kot Valley, a common occurrence when Afghan forces were involved in a coalition operation. However, introducing two battalion-sized task forces into the objective area within minutes ultimately provided the necessary surprise to prevent al-Qaeda from mounting a coherent or mutually supporting defense.

Security. Using special forces elements to secure the flanks of coalition forces as they entered the Shah-i-Kot Valley proved deficient on this noncontiguous battlefield. Ultimately, ground forces were responsible for their own security, with help from aerial platforms.

Mass. Using air assault movement would have provided the necessary mass to overwhelm the enemy, if had he been in the valley below. The enemy's defilade positions above the initial coalition positions negated the ability of these forces to mass the effects of their fires to achieve a decisive end.

Objective. The objective of this mission was clearly enemy-oriented, as there was no intent to occupy the towns within Objective Remington. As the battle raged on, the objective was shifted to mass the effects of combat power on the greatest enemy concentrations during Objective Ginger.

Unity of Command. Although ultimate authority for the operation fell under the joint task force commander, there was a clear disconnect between coalition and

Afghan forces entering the Shah-i-Kot valley. It is easy to see that General Zia Gulbuddin's desire to complete the mission differed from that of the joint task force commander. Unity of command proved to be a major contributing factor to the initial execution of this operation.

Simplicity. Simplicity was a key ingredient in developing this plan. Because of

the many international special forces and Afghan units involved, simplicity was paramount to ensure its overall success.

Economy of Force. The initial intent for this mission was to seal off escape routes for fleeing al-Qaeda and Taliban forces as Zia's forces moved through Objective Remington. As such, a large amount of ground forces were needed to execute the mission to secure numerous exfiltration routes. The economy of using B-52s and multiple air strikes to subdue an unorganized military force can be debated as well.



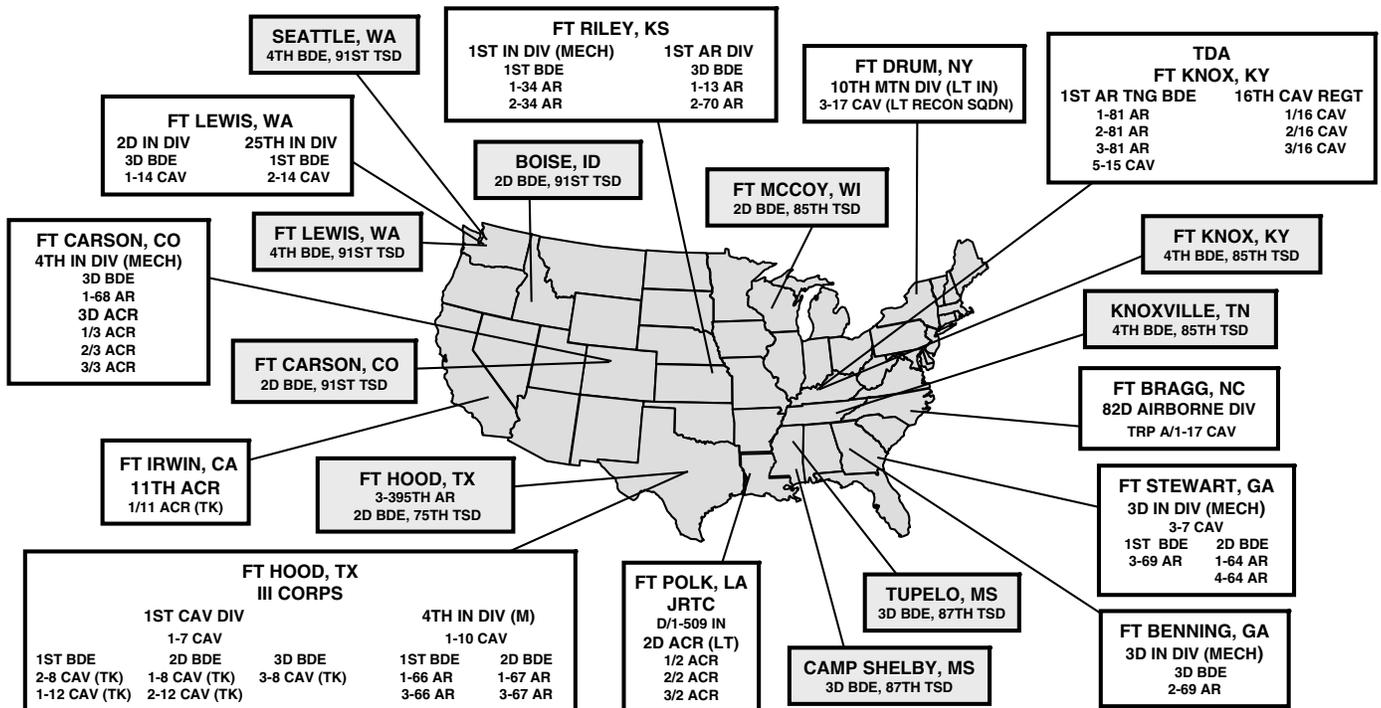
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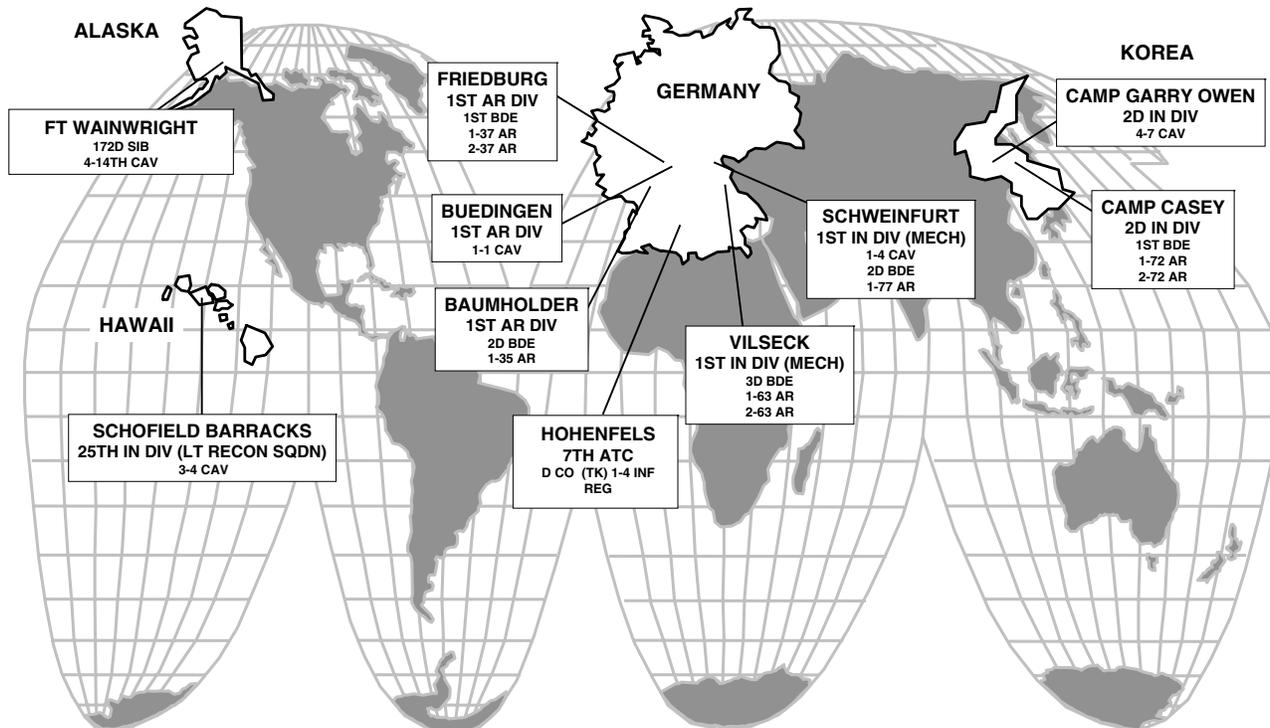
Active Component Armor/Cavalry Geographical Locations

CONUS FY03



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

OCONUS FY03



Active Component Units

Source: Office, Chief of Armor, Armor Proponency Division

<u>Unit</u>	<u>Location/APO/ZIP</u>	<u>Phone/DSN</u>	<u>Equipment</u>	<u>CDR/CSM</u>
V CORPS				
1AD	1 BDE	Friedberg, GE 09074	324-3821	COL P.R. Mansoor CSM Cooke
	1-37 AR	Friedberg, GE 09074	324-3072/3071	M1A1/HMMWV LTC G.P. Bishop CSM Schindler
	2-37 AR	Friedberg, GE 09074	324-3238/3080	M1A1/HMMWV LTC R.P. White CSM Houston
	2 BDE	Baumholder, GE 09034	485-7290	(IN CSL) COL R.O. Baker CSM Santoscruz
	1-35 AR	Baumholder, GE 09034	485-6368	M1A1/HMMWV LTC R.C. Lane CSM English
	1-1 CAV DIV CAV	Buedingen, GE 09076	321-4884	M1A1/M3A2 3 GND X 2 AIR LTC C.E. Williams CSM Blackwell
1 ID (M)	2 BDE	Schweinfurt, GE 09226	353-8728/8679	(IN CSL) COL R.A. Dragon CSM Calpena
	1-77 AR	Schweinfurt, GE 09226	353-8648/8821	M1A1/HMMWV LTC D.B. Hubner CSM Fourhman
	3 BDE	Vilseck, GE 09112	476-2791	COL D.J.H. Pittard CSM Peters
	1-63 AR	Vilseck, GE 09112	476-2527/2767	M1A1/HMMWV LTC K.H. Riddle CSM Harris
	2-63 AR	Vilseck, GE 09112	476-2748/ 2850/2450	M1A1/HMMWV LTC J.J. Kulp CSM Bartoszek
	1-4 CAV DIV CAV	Schweinfurt, GE 09226	353-8602/8258	M1A1/M3A2 3 GND X 2 AIR LTC J.H. Chevallier CSM Rose
8TH ARMY				
2 ID	1 BDE	Camp Casey, Korea 96224	730-2770	COL A.R. Ierardi CSM Zettlemoyer
	1-72 AR	Camp Casey, Korea 96224	730-4991/6229	M1A1/HMMWV LTC P.J. Laughlin II CSM J.T. Williams
	2-72 AR	Camp Casey, Korea 96224	730-2229/ 2941/2965	M1A1/HMMWV LTC N.B. Jocz CSM Daniels
	4-7 CAV DIV CAV	Camp Garry Owen, Korea 96224	734-2862	M1A1/M3A2 3 GND X 2 AIR LTC B.J. Preler CSM Norman
PACOM				
25 ID	3-4 CAV LT RECON SQDN	Schofield Bks, HI 96857	(315) 456-9340	HMMWV 1 GND X 2 AIR LTC M.J. McMahon (AV CSL) CSM C. Taylor
	4-14 CAV, 172 IN BDE	Ft. Wainwright, AK 99703		IAV LTC R.G. Williams CSM Dunham
I CORPS				
2 ID	3 BDE	Ft. Lewis, WA 98433	357-2720	(IN CSL) COL M. Rounds CSM Du
	1-14 CAV	Ft. Lewis, WA 98433	357-8532/7494	IAV LTC D. Carman Jr. CSM Shover
25 ID	2-14 CAV, 1 BDE	Ft. Lewis, WA 98433	357-9331	IAV LTC M.A. Davis CSM Walden
III CORPS				
1 ID (M)	1 BDE	Ft. Riley, KS 66442	856-4014	COL A.W. Connor Jr. CSM Riling
	1-34 AR	Ft. Riley, KS 66442	856-5616/4588	M1A1/HMMWV LTC J.B. Swisher CSM Burrowes
	2-34 AR	Ft. Riley, KS 66442	856-9068	M1A1/HMMWV LTC O.J. Hall IV CSM R. Moore

<u>Unit</u>	<u>Location/APO/ZIP</u>	<u>Phone/DSN</u>	<u>Equipment</u>	<u>CDR/CSM</u>
III CORPS (cont.)				
1 AD	3 BDE	Ft. Riley, KS 66442	856-5014	COL R.D. Gold CSM Hopkins
	1-13 AR	Ft. Riley, KS 66442	856-4511/5899	M1A1/HMMWV LTC F.V. Sherman Jr. CSM Pring
	2-70 AR	Ft. Riley, KS 66442	856-5820/1036	M1A1/HMMWV LTC L.A. Quintas Jr. CSM Skidmore
1 CD	1 BDE	Ft. Hood, TX 76546	737-0831	COL R.B. Abrams CSM Small
	1-12 CAV	Ft. Hood, TX 76546	737-0823	M1A2/HMMWV LTC T.E. Meredith CSM Battle
	2-8 CAV	Ft. Hood, TX 76546	737-3516/4178	M1A2/HMMWV LTC F.L. Carter CSM Squiabro
	2 BDE	Ft. Hood, TX 76546	737-6560/0702	COL M.D. Formica CSM Ciotola
	1-8 CAV	Ft. Hood, TX 76546	737-0431/7659	M1A2/HMMWV LTC J.W. Allen CSM Lee
	2-12 CAV	Ft. Hood, TX 76546	737-0683	M1A2/HMMWV LTC J.T. Ryan CSM Booker
	3 BDE	Ft. Hood, TX 76546	738-6701/3930	(IN CSL) COL J.M. Murray CSM Sellards
	3-8 CAV	Ft. Hood, TX 76546	738-1968/1552/7404	M1A2/HMMWV LTC R.J. Campbell CSM Glenister
	1-7 CAV DIV CAV	Ft. Hood, TX 76546	738-2811/9063/3394	M1A2/M3A2 3 GND X 3 AIR LTC W.R. Salter CSM Chandler
4 ID (M)	1 BDE	Ft. Hood, TX 76546	738-2886/2840/8434	COL J.B. Hickey CSM Wilson
	1-66 AR	Ft. Hood, TX 76546	737-3794/3837/3763	M1A1/HMMWV LTC R.F. Gonsalves CSM Moody
	3-66 AR	Ft. Hood, TX 76546	737-3468/3456	M1A1/HMMWV LTC L.A. Jackson CSM Keeler
	2 BDE	Ft. Hood, TX 76546	738-7502/2166	COL D.R. Hogg CSM F. Johnson
	1-67 AR	Ft. Hood, TX 76546	738-2083/5988/6583	M1A2 SEP/HMMWV LTC J.M. Martin CSM Barnett
	3-67 AR	Ft. Hood, TX 76546	738-1958/3435	M1A2 SEP/HMMWV LTC M.A. Young CSM D. Roberson
	1-10 CAV DIV CAV	Ft. Hood, TX 76546	738-7797	M1A2 SEP/M3A2 3 GND X 2 AIR LTC R.E. Allen CSM List
	3 BDE	Ft. Carson, CO 80913	691-5132/6755	(IN CSL) COL F. Rudesheim CSM D. Johnson
	1-68 AR	Ft. Carson, CO 80913	691-4567/2777	M1A1/HMMWV LTC A.L. Garner II CSM Cheesebrow
3 ACR	3 ACR	Ft. Carson, CO 80913	691-6445	COL D.A. Teeple CSM Caldwell
	1/3 ACR	Ft. Carson, CO 80913	691-9668/5159	M1A2/M3A2 LTC G.D. Reilly CSM Cooper
	2/3 ACR	Ft. Carson, CO 80913	691-2952	M1A2/M3A2 LTC C.M. Hickey CSM Teel
	3/3 ACR	Ft. Carson, CO 80913	691-8862/3903	M1A2/M3A2 LTC H.A. Kievenaar III CSM Thompson
18 ABN CORPS				
3 ID (M)	1 BDE	Ft. Stewart, GA 31313	870-8655	(IN CSL) COL W.F. Grimsley CSM Grant
	3-69 AR	Ft. Stewart, GA 31313	870-4595/4314	M1A1/HMMWV LTC E.P. Marcone CSM J. Moore
	2 BDE	Ft. Stewart, GA 31313	870-7663	COL J.P. Disalvo CSM Barnello
	1-64 AR	Ft. Stewart, GA 31314	870-7643	M1A1/HMMWV LTC E.C. Schwartz CSM Callender
	4-64 AR	Ft. Stewart, GA 31313	870-7690/7600	M1A1/HMMWV LTC R.M. Roth CSM Oggs

<u>Unit</u>	<u>Location/APO/ZIP</u>	<u>Phone/DSN</u>	<u>Equipment</u>	<u>CDR/CSM</u>	
18 ABN CORPS (cont.)					
3 ID (M) (cont.)	3-7 CAV DIV CAV	Ft. Stewart, GA 31313	870-7420/7428	M1A1/M3A2 3 GND X 2 AIR	LTC A.H. Fowler CSM Berhane
	3 BDE	Ft. Benning, GA 31905	784-4111	(IN CSL)	COL S.L. Salazar CSM Baker
	2-69 AR	Ft. Benning, GA 31905	784-2211/2856	M1A1/HMMWV	LTC J.R. Sanderson CSM Andrews
2 ACR	2 ACR	Ft. Polk, LA 71459	863-0509/2060		COL B.W. May CSM Blackwood
	1/2 ACR	Ft. Polk, LA 71459	863-4585/2502/4412	HMMWV	LTC M.E. Calvert CSM Jenks
	2/2 ACR	Ft. Polk, LA 71459	863-8206/8204	HMMWV	LTC C.K. Hoffman CSM Waters
	3/2 ACR	Ft. Polk, LA 71459	863-0884	HMMWV	LTC R.A. Burns CSM Johndrow
82 AB DIV	TRP A/1-17 CAV	Ft. Bragg, NC 28310	239-9060	HMMWV	CPT C.S. Carmanlau 1SG Clark
10 MTN DIV(LT)	3-17 CAV LT RECON SQDN	Ft. Drum, NY 13602	341-9052	HMMWV 1 GND X 2 AIR	LTC R.P. Mason (AV CSL) CSM Troxell
FORSCOM					
JRTC	D/1-509 IN	Ft. Polk, LA 71459	863-0484	M551 (IN CSL)	CPT R.L. Tisdale 1SG Reed
11 ACR	11 ACR	Ft. Irwin, CA 92310-5068	470-3499		COL J.A. Moore CSM S. Flood
	1/11 ACR(TK BN)	Ft. Irwin, CA 92310-5068	470-3706		LTC R.B. Akam CSM Middlebrooks
TRADOC					
1 ATB	1 ATB	Ft. Knox, KY 40121	464-6843		COL J.K. Greer Jr. CSM Green
	1-81 AR	Ft. Knox, KY 40121	464-6345/7910	M1	LTC S.B. Edwards CSM Pearce
	2-81 AR	Ft. Knox, KY 40121	464-2645	M1	LTC R.W. Symons II CSM Wilson
	3-81 AR	Ft. Knox, KY 40121	464-1313		LTC T.T. Seidule CSM J. Davis
	5-15 CAV	Ft. Knox, KY 40121	464-8286/8226	M3	LTC M.S. Gavula CSM Burns
16 CAV	16 CAV	Ft. Knox, KY 40121	464-7848		COL G.T. Lockwood CSM Ashley
	1/16 CAV	Ft. Knox, KY 40121	464-7965/4072	(VEH. SPT.)	LTC E.G. Clayburn CSM Gongora
	2/16 CAV	Ft. Knox, KY 40121	464-6654/7481	(AOB/SPLC)	LTC J.K. Chesney CSM Fite
	3/16 CAV	Ft. Knox, KY 40121	464-5855	(AOAC/CLC) (PCC/BMOC)	LTC J.W. Adams CSM Morris

Marine Corps Tank Battalions

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

<u>Unit</u>	<u>Parent Unit</u>	<u>Location</u>	<u>Phone/DSN</u>	<u>CDR</u>
1st Tank Battalion	1st Marine Div	MCAGCC, Box 788260, 29 Palms, CA 92277	957-6793	LtCol J.B. Chartier
2d Tank Battalion	2d Marine Div	Box 20091, Camp LeJeune, NC 28542	751-1851	LtCol D.C. Morse
4th Tank Battalion (Reserve)	4th Marine Div	9955 Pomerabo Rd., San Diego, CA 92145-5295	577-8109	LtCol J.A. Brush I&I LtCol T.R. Gaughran
8th Tank Battalion (Reserve)	4th Marine Div	439 Paul Rd., Rochester, NY 14624-4790	(716) 247-3330	LtCol S.P. Williams I&I LtCol D.N. Gill
Marine Detachment Fort Knox		Garry Owen Regt. Rd., Bldg 2372, Fort Knox, KY 40121	464-5950	LtCol E.T. Dunlap

Army National Guard Units

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

Divisional Brigades

	<u>Unit</u>	<u>Address</u>	<u>Phone/Fax</u>	<u>CDR / CSM/OPS SGM</u>
1st Army	2d Bde, 28th ID	125 Goodridge Lane Washington, PA 15301	(724) 223-4570 (724) 223-4426	COL H. Coulter CSM T. Honkus
	55th Bde, 28th ID	900 Adams Ave. Scranton, PA 18510	(570) 963-4558 (570) 963-3139	COL J. Gronski CSM V. Conti
	56th Bde, 28th ID	2700 Southampton Rd. Philadelphia, PA 19154	(215) 560-6010 (215) 560-6036	COL P. Carlin CSM R. Curran
	1st Bde, 34th ID	107 E. Chestnut St. Stillwater, MN 55085	(651) 275-4334 (651) 282-4540	COL Kelly CSM Julin
	37th Bde, 38th ID	3990 E. Broad St. Columbus, OH 43216	(614) 336-6040 (614) 734-7542	LTC J. Lee CSM T. Dillon
	46th Bde, 38th ID	1200 44th St. SW Wyoming, MI 49509	(616) 249-2741 (616) 249-2470	COL W. Ewald CSM J. Shipley
	3d Bde, 42d ID	27 Masten Ave. Buffalo, NY 14204	(716) 888-5641 (716) 888-5672	LTC(P) J. Luthringer CSM W. Springhorn
	50th Bde, 42d ID	151 Eggert Crossing Rd. Lawrence, NJ 08648	(609) 671-6610 (609) 671-6635	COL S. Hines CSM R. Trainor
	86th Bde, 42d ID	161 University Dr. Northfield, VT 05663	(802) 485-1802 (802) 485-1850	COL M. McCoy CSM K. White
	5th Army	149th Bde, 35th ID	2729 Crittenden Dr. Louisville, KY 40209	(502) 637-1250 (502) 637-2650
2d Bde, 40th ID		7401 Mesa College Dr. San Diego, CA 92111	(858) 573-7043/7004 (858) 573-7019	COL L. Haskins CSM S. Hallman
3d Bde, 40th ID		933 Kansas Ave. Modesto, CA 95351	(209) 550-0339 (209) 527-7907	COL C. Bradfield CSM Clark
2d Bde, 49th AD		5104 Sandage Ave. Fort Worth, TX 76115	(817) 923-1010 (817) 924-7018	COL J. Johnson CSM E. Chamblis
3d Bde, 49th AD		1775 California Crossings Dallas, TX 75220	(972) 556-0350 (972) 401-0610	COL D. Blackorby CSM B. Hendry
36th Bde, 49th AD		15150 Westheimer Parkway Houston, TX 77082	(281) 558-1742, ext. 3811 (281) 558-6206	COL E. Spurgin CSM H. Rigsby III

Separate Brigades

	<u>Brigade</u>	<u>Associated Div/Corps</u>	<u>Address</u>	<u>Phone/Fax</u>	<u>CDR / CSM/OPS SGM</u>
1st Army	30th SIB	24th ID, XVIII Corps	101 Armory Dr. Clinton, NC 28328	(910) 251-7225 (910) 251-5108	BG D.H. Hickman CSM L. Morgan
	48th SIB	24th ID, XVIII Corps	475 Shurling Dr. Macon, GA 31211	(478) 464-3104 (478) 464-3194	BG R.S. Rigdon CSM J. Nelson
	155th SAB	III Corps	P.O. Box 2057 Tupelo, MS 38803	(662) 891-9707 (662) 891-3721	BG R.L. Shields CSM S. Booker
	218th SIB	24th ID, XVIII Corps	275 General Henderson Rd. Newberry, SC 29108	(803) 806-2018 (803) 806-2040	BG H.L. Newton CSM S. Cooper
	278th ACR	V Corps	P.O. Box 10167 Knoxville, TN 37939	(865) 582-3278 (865) 582-3208	LTC(P) D. Adams CSM Pippin
5th Army	81st SIB	I Corps	1601 W. Armory Way Seattle, WA 98119	(253) 512-8389 (253) 512-8049	BG O. Hilman CSM A. Ohler
	116th SAB	I Corps	4650 W. Ellsworth St. Boise, ID 83705	(208) 422-4664 DSN 422-4659	COL A. Gayhart CSM J. Reeves
	256th SIB	V Corps	1806 Surrey St. Lafayette, LA 70508	(337) 593-2065 (337) 262-1422	BG J.P. Basilica CSM J. Mays

Units by State

<u>ST</u>	<u>Unit</u>	<u>Parent Unit</u>	<u>Address</u>	<u>Phone/Fax</u>	<u>CDR / CSM/OPS SGM</u>
AL	1-131 AR	149th Bde, 35th ID	3971 US 231 S. Ozark, AL 36360	(334) 774-8075 (334) 774-2858	LTC J. Barnard CSM J. Haney
AR	E/151 CAV	39th SIB	591 Hwy 243 Marianna, AR 72360	(870) 295-3355 (501) 212-7858	CPT J. Pfisher 1SG G. Bradshaw
CA	1-185 AR	81st SIB	266 E. 3rd St. San Bernadino, CA 92410	(909) 383-4532 (909) 884-7753	LTC J. Sayers CSM A. Hines
CA	2-185 AR	2d Bde, 40th ID	7401 Mesa College Dr. San Diego, CA 92111	(858) 573-7011 (858) 573-7040	LTC T.J. Swann CSM C. Mitchell
CA	1-149 AR	3d Bde, 40th ID	140 Colonel Durham St. Seaside, CA 93955	(831) 393-8407 (831) 393-8406	LTC M. Malanka CSM Waterhouse
CA	1/18 CAV	40th ID	950 N. Cucamonga Ontario, CA 91764	(909) 983-5998 (909) 983-1174	LTC P.M. Summers CSM E. Hackney
FL	E/153 CAV	53d SIB	900-1 SW 20th St. Ocala, FL 34474	(352) 732-1210 (352) 732-1211	CPT T. Huff 1SG V. Robinson
GA	E/108 CAV	48th SIB	1015 S. Hill St. Griffin, GA 30223	(770) 229-3281 (770) 229-3282	CPT J. Alderman 1SG S. Jones
GA	1-108 AR	48th SIB	P.O. Box 36 Calhoun, GA 30703	(706) 624-1340 (706) 624-1341	LTC J. King CSM D. Knowles
IA	1-113 CAV	34th ID	3200 2nd Mech Dr. Sioux City, IA 51111	(712) 252-4347 (712) 252-4348	LTC R.A. Johnson CSM W. McCarty
ID	2-116 CAV	116th SAB	1069 Frontier Rd. Twin Falls, ID 83301	(208) 422-7000 (208) 422-7003	LTC M. Woods CSM H. Chin
IN	E/238 CAV	76th SIB	500 E. Spring St. Bluffton, IN 46714	(260) 824-3328 (260) 824-3199	CPT D.J. Tschida 1SG R. Spade
KS	1-635 AR	1st Bde, 40th ID	1709 S. Airport Rd. Manhattan, KS 66503	(785) 539-0241 (785) 539-3487	LTC M.A. Raney CSM J.C. Romans
KY	2-123 AR	149th Bde, 35th ID	920 Morgantown Rd. Bowling Green, KY 42101	(270) 607-2214 (270) 607-2250	LTC S.A. Campbell CSM R. Bogle
LA	1-156 AR	256th SIB	400 E. Stoner Ave. Shreveport, LA 71101	(318) 676-7614 (318) 676-7616	LTC T.B. Plunkett III CSM G. Sonnier
LA	A/108 CAV	256th SIB	500 Fairgrounds Rd. Natchitoches, LA 71457	(318) 357-3195 (318) 357-3195	CPT M. Williams 1SG E. Reliford
MD	1/158 CAV	29th ID	18 Willow St. Annapolis, MD 21401	(410) 974-7400 (410) 974-7304	LTC P. Burke CSM O'Connell
MI	1-126 AR	46th IN Bde, 38th ID	1200 44th St. SW Wyoming, MI 49509	(616) 249-2756 (616) 249-2751	LTC D. Leatherman CSM L. Ott
MN	2-94 AR	1st Bde, 34th ID	4015 Airpark Blvd. Duluth, MN 55811	(218) 723-4769 (218) 723-4876	LTC K. Gutknecht CSM Keppler
MN	1-194 AR	1st Bde, 34th ID	1115 Wright St. Brainerd, MN 56401	(218) 828-2572 (651) 268-8111	LTC E.B. Kerska CSM Mills
MS	A/98 CAV	155th SAB	P.O. Box 70 Hernando, MS 38632	(662) 429-6333 (662) 429-1280	CPT R.D. Ferguson 1SG R.L. Wiggington
MS	1-198 AR	155th SAB	P.O. Box 158 Amory, MS 38821	(662) 256-3741 (662) 256-5066	LTC L.M. Journey CSM R. Coleman
MS	2-198 AR	155th SAB	P.O. Box 278 Senatobia, MS 38668	(662) 562-4494 (662) 562-9470	LTC C. Phillips CSM G. Davis
MT	E/163 CAV	11th ACR	P.O. Box 4789 Helena, MT 59604	(406) 324-3655 (406) 324-3658	CPT M. Boardman 1SG R. Wood
NC	E/196 CAV	30th SIB	P.O. Box 265 Elizabethtown, NC 28337	(910) 862-3242 (910) 862-3407	CPT R. Bumgardner 1SG J. White
NC	1-252 AR	30th SIB	P.O. Box 64158 Fayetteville, NC 28306	(910) 484-1849 (910) 484-5132	LTC G. Thompson CSM D. Schawb
NE	1/167 CAV	35th ID	2400 NW 24th St. Lincoln, NE 68524	(402) 309-1750 [DSN 279] (402) 309-1783	LTC M. Apprich CSM T. Eyler
NJ	5/117 CAV	42d ID	2560 S. Delsea Dr. Vineland, NJ 08360	(856) 696-6799 (856) 696-6798	LTC M.V. Schute CSM D. Kenna
NJ	2-102 AR	50th Bde, 42d ID	550 Rt. 57 Port Murray, NJ 07865	(908) 689-1068/1355 (908) 689-0403	LTC J.M. Manfre CSM W. Kryscnski
NV	1-221 CAV	11th ACR	6400 N. Range Rd. Las Vegas, NV 89115	(702) 632-0506 (702) 632-0540	LTC J. Isaak CSM J. Haynes
NY	E/101 CAV	27th SIB	300 Main St. Geneva, NY 14456	(315) 789-0134 (315) 789-0229	CPT D. Bauer 1SG J. LeBlanc

<u>ST</u>	<u>Unit</u>	<u>Parent Unit</u>	<u>Address</u>	<u>Phone/Fax</u>	<u>CDR / CSM/OPS SGM</u>
NY	1-101 CAV	3d Bde, 42d ID	321 Manor Rd. Staten Island, NY 10314	(718) 442-8728 (718) 442-8607	MAJ E. Durr CSM K. Church
NY	1-127 AR	3d Bde, 42d ID	27 Masten Ave. Buffalo, NY 14204	(716) 888-5616 (716) 888-5668	LTC D. Zysk CSM Hutley
OH	1-107 AR	2d Bde, 28th ID	4630 Allen Rd. Stow, OH 44224	(614) 336-6778 (614) 336-3782	LTC J. Perry Jr. CSM Whatmoughy
OH	2/107 CAV	38th ID	2555 Countyline Rd. Kettering, OH 45430	(614) 336-6690/6694 (614) 336-6698	LTC J. Harris CSM W. Belding
OK	E/145 CAV	45th SIB	309 E. Polk McAlester, OK 74501	(918) 421-3270 (918) 421-3298	CPT J.A. Junkins 1SG M. Ridley
OR	G/82 CAV	116th SAB	822 W. Highland Ave. Redmond, OR 97756	(541) 548-3213 (541) 548-1456	CPT Chinen 1SG R. Walker
OR	3-116 AR	116th SAB	404 12th St. La Grande, OR 97850	(541) 963-4221 (541) 963-7865	LTC C. McCabe CSM J. Brooks
OR	F/82 CAV	29th SIB	350 W. Maple Lebanon, OR 97355	(541) 451-5758 (541) 451-7602	CPT L. Simshaw 1SG G. Black
OR	E/82 CAV	41st SIB	1630 Park Ave. Woodburn, OR 97071	(503) 982-1811 (503) 981-8523	CPT S.W. Hildebrandt 1SG M. Storm
PA	1-104 CAV	28th ID	5350 Ogontz Ave. Philadelphia, PA 19141	(215) 329-2622 (215) 967-5474	LTC H. Redditt CSM T. Zaengle
PA	1-103 AR	2d Bde, 28th ID	565 Walters Ave. Johnstown, PA 15904	(814) 533-2443 (814) 533-2611	LTC P. Logan CSM T. Wiczorek
PA	2-103 AR	55th Bde, 28th ID	900 Adams Ave. Scranton, PA 18510	(570) 963-4644 (570) 963-3121	LTC A. Stankinas CSM R. Schimelfenig
PA	3-103 AR	55th Bde, 28th ID	580 US Route 15S Lewisburg, PA 17837	(570) 523-3468 (570) 522-0560	LTC A. Schafer CSM M. Moretz
PR	E/192 CAV	92d SIB	P.O. Box 1152, Camp Santiago Salinas, PR 00751	(787) 824-7467	CPT D. Davila 1SG W. Borges
SC	B/202 CAV	218th SIB	1 Cavalry Lane Beaufort, SC 29901	(843) 524-4929 (843) 524-0720	CPT D. Mixon 1SG J. McCrackin
SC	1-263 AR	218th SIB	1018 Gilchrist Rd. Mullins, SC 29574	(803) 806-1073 (803) 806-1036	LTC C. Murff CSM J. Harrelson
TN	1/278 ACR	278th ACR	413 County Road 554 Athens, TN 37303	(423) 744-2807 (423) 744-8304	LTC M. Hart CSM Ridgell
TN	2/278 ACR	278th ACR	4401 W. Stone Dr. Kingsport, TN 37660	(423) 247-2278 (423) 247-2399	LTC F. McCauley Jr. CSM Peck
TN	3/278 ACR	278th ACR	P.O. Box 2189 Cookeville, TN 38502	(931) 432-4117 (931) 432-6252	LTC J. Holmes CSM J. Kyle
TX	1-112th AR	3d Bde, 49th AD	700 N. Spring Creek Pkwy. Wylie, TX 75098	(972) 442-4679 (972) 442-4858	LTC D. Madden CSM R. Godfrey
TX	2-112th AR	2d Bde, 49th AD	2101 Cobb Park Dr. Fort Worth, TX 76105	(817) 531-8737 (817) 531-3463	LTC B. Hammerness CSM A. Smith
TX	3-112th AR	2d Bde, 49th AD	5601 FM 45 S Brownwood, TX 76801	(325) 646-0159 (325) 646-0340	LTC R.F. Neal CSM P.D. Callaway
TX	4-112th AR	36th Bde, 49th AD	1700 E. 25th St. Bryan, TX 77802	(979) 822-9059 (979) 823-2995	LTC M. Alayon CSM Brown
TX	5-112th AR	3d Bde, 49th AD	2109 Warren Dr. Marshall, TX 75672	(903) 938-4613 (903) 935-2428	LTC P. Hamilton CSM J.T. Merrill
TX	1-124th CAV	49th AD	2120 N. New Rd. Waco, TX 76707	(254) 776-1402/1821 (254) 776-5829	LTC W. Smith CSM A. Craddieth
VT	1-172 AR	86th Bde, 42d ID	State Armory, Fairfield St. St. Albans, VT 05478	(802) 524-7904 (802) 524-7906	LTC M. Lovejoy CSM M. Larose
VT	2-172 AR	86th Bde, 42d ID	15 West St. Rutland, VT 05701	(802) 786-8800 (802) 786-8017	LTC T. Williams CSM J. Goodrich
WA	E/303 CAV	81st ESB	622 4th Ave. SE Puyallup, WA 98372	(253) 840-4670 (253) 840-4587	CPT D. Palmer 1SG C. Lia
WA	1-303 AR	81st SIB	24410 Military Rd. Kent, WA 98032	(253) 945-1831 (253) 945-1800	LTC R. Kapral CSM K. May
WI	E/105 CAV	32d SIB	106 Memorial Drive Merrill, WI 54452	(715) 536-6323 (715) 536-6863	CPT D. Ellenbecker 1SG R. Clay
WV	1-150 AR	30th SIB	2915 Old Bramwell Rd. Bluefield, WV 24701	(304) 589-3361 (304) 561-6143	LTC G. Wilcoxin CSM L. Vance

TASS Armor Battalions

<u>Region</u>	<u>Parent Unit</u>	<u>Address</u>	<u>Phone/Fax</u>	<u>CDR / CSM/OPS SGM</u>
A	1st AR Bn, 254 Regt	P.O. Box 277 Sea Girt, NJ 08750	(732) 974-5960 (732) 974-5975	LTC E. Huggard MSG M. Beierschmitt
B	1st AR Bn, 166 Regt	Bldg 8-80 Fort Indiantown Gap, PA 17003	(717) 491-2809 DSN 491-8401	LTC J. Jahnke MSG S. Mosholder
C	1st AR Bn, 218 Regt	5411 Leesburg Rd. Eastover, SC 29044	(803) 806-2401 DSN 583-2332	LTC P. Brooks CSM G. Williams
D	2d AR Bn, 117 Regt	Bldg 638, TNARNG Smyrna, TN 37161	(615) 355-3794 DSN 683-3797	LTC J. Gentry MSG D. Schmidt
E	1st AR Bn, 145 Regt	8208 S. Perimeter Rd. Columbus, OH 43217	(614) 336-6443 (614) 336-6447	LTC D. Barbee MSG J. Fouch
F	1st AR Bn, 136 Regt	P.O. Box 5218 Austin, TX 78763	(512) 782-5552 DSN 954-5980	LTC F. Rodriguez SFC Hoxie
G	1st AR Bn, 204 Regt	Bldg 810, 5050 S. Junker St. Boise, ID 83705	(208) 422-4848 DSN 422-4863	LTC T. Kelly MSG S. Woodall

Army Reserve Units

100th Division (Institutional Training)

<u>Unit</u>	<u>Parent Unit</u>	<u>Address</u>	<u>Phone</u>	<u>CDR</u>	<u>CSM</u>
	1st Bde	1051 Russell Cave Pike, Lexington, KY 40505	(859) 281-2200	COL J. Swarts	CSM L. Owens
1-397 CAV	1st Bde	P.O. Box 147, Richmond, KY 40475	(859) 623-3589	LTC J. Karas	CSM S. Alley
2-397 CAV	1st Bde	1051 Russell Cave Pike, Lexington, KY 40505	(859) 281-2211	LTC C. Hulsewede	CSM J. Golver
3-397 CAV	1st Bde	1840 Cumberlandfalls Hwy., Corbin, KY 40701	(859) 528-5765	LTC T. Sherdakoff	CSM C. Douglas
	2d Bde	7 Dublin Lane, Owensboro, KY 42301	(859) 686-3960	COL G. Russell	CSM D. Thomas
1-398 AR	2d Bde	7 Dublin Lane, Owensboro, KY 42301	(270) 686-3944	LTC D. Ostrowski	CSM C. Ashby
2-398 AR	2d Bde	1600 Woodson Dr., Hopkinsville, KY 42241	(270) 885-3660	LTC R. Kilburn	CSM M. Bacon
3-398 AR	2d Bde	2956 Park Ave., Paducah, KY 42001	(270) 442-8284	MAJ K. Abner	CSM J. McGuire
4-398 AR	2d Bde	Bldg 1511, 745 McDonald St. Maxwell AFB, AL 36114	(334) 416-3328	LTC L. Turner	SGM D. Grace

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Digital Battle Command from Page 29

The FBCB2 system we used during the war lacked any type of collaborative planning tools. I had one FBCB2 system in my S3 M577 and one FBCB2 laptop for the tactical operations center. The laptop was not wired into the FBCB2 network and was only for creating orders and graphics. The problem was that only one person at a time could use the system. Each staff officer had to wait to type in his section of the FRAGO. It would have been much better to have a networked laptop with each staff section and mission planning tools that allowed those staff sections to collaborate and assemble their products digitally on FBCB2.

The FBCB2 system is physically too large to use in combat vehicles. The central processing unit (CPU) was about the size of your average desktop computer and was bolted next to the radios in the rear of the turret. The screen was attached to my coax machine gun door. The antenna was bolted on the outside of the turret. Multiple cables connected all these components together and would frequently fail or come loose, which caused system malfunctions. During one firefight, my coax jammed and I spent several very long minutes trying to get the FBCB2 screen out of the way so I could open the coax door and clear the malfunction. Today, we have palm-sized personal digital assistants (PDAs) and tablet PCs. There should be no reason why the entire FBCB2 system cannot be contained in one small, thin, package. It should also be portable to allow users to dismount with the system to attend order briefings, or go over the digital map with subordinates on the ramp or the hood of a vehicle.

The mission data loader (MDL) is too large, slow, and unreliable, and the procedures for transferring files are tremendously difficult. We actually had to print a separate instruction page just to show users how to transfer and load files to and from the MDL. The cable connections were very unreliable. Sometimes we had to connect the MDL to the CPU, while other times we could only get the MDL to work when we attached the cables to the FBCB2 display connections. FBCB2 should use infrared (IR) ports for data transfer just like all PDAs use today. Users could dismount their “all-in-one” FBCB2, carry it to the operations order brief, and get the new order “beamed” into their machine. The file transfer software should be cleaned up and offer “drag-and-drop” features to make it user-friendlier and intuitive.

The Road to Digital Battle Command

It may seem that the purpose of this article is to nitpick and find fault with the FBCB2 system. While the system certainly has many shortcomings, they should be relatively easy to correct. More importantly, FBCB2’s capabilities were *decisive* during combat operations in Iraq. For the first time, ground commanders navigated, maintained situational awareness, and communicated freely — all to the credit of FBCB2. This was the first time the system was used on a large scale in combat and it was a huge success. FBCB2 helped prevent fratricide and enabled commanders to conduct operations at a much more rapid pace than the enemy. I never want to go into combat without FBCB2 — it’s that good.

The real purpose of this article is to provide feedback on the advantages of using a digital battle command system in combat. This issue goes beyond the context of a particular machine or

system. The compelling issue is that the U.S. Army and Department of Defense need to increase the funding and fielding priorities for digital battle command systems, and should include intelligence, surveillance, and reconnaissance (ISR) systems in the top priority category as well. Simply put, we need to convert our entire military to interconnected digital battle command systems. Every tank, helicopter, ship, supply truck, and command post should be equipped with some type of digital battle command system. It is a tragedy that our mechanized tactical operations centers are still based on archaic M577s and modular tents. Every command post in the military must be mobile, survivable, interconnected, and digital. The real challenge will be providing digital battle command systems to dismounted infantry and special operations forces, but today’s technology has solutions for them as well.

Digital battle command must be fully integrated into our doctrine and our institutional training. Officers and enlisted soldiers should be trained at every level on these systems and how to use them to enhance planning and execution of military operations. Our Army and joint doctrine should be updated to exploit the capabilities of these new systems, just like we update doctrine to exploit the capabilities of new weapon systems. Our training and doctrine should allow our soldiers to master digital battle command systems so they are not forced to convert to using it during combat.

Maybe I did not have enough training, or failed to understand the full capabilities of the FBCB2 system, or perhaps the FBCB2

“light” version that we were using pales in comparison with the real thing. All that is probably true, but misses the point. I fought in combat with a very good digital battle command system that had some minor problems. Based on my experience, I am convinced that digital battle command is the key to success in current and future conflicts. As we look at lessons learned from Operation Iraqi Freedom, we need to embrace digital battle command and recognize its importance in 21st-century warfighting.



Notes

¹U.S. Army Field Manual 101-5-1, *Operational Terms and Graphics*, U.S. Government Printing Office, Washington, D.C., 30 September 1997.

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LETTERS from Page 3

wigshaven is as flat as a pancake. The massed 88mm anti-aircraft guns defending the city from air attack merely lowered their barrels and placed fire on the armored vehicles coming at them. We were told that one attacking tank battalion lost 25 tanks to the 88s before the surviving tankers called off the attack. In that manner, the massed 88s defeated the attacking 10th, 11th, and 12th Armored Divisions. During circumstances such as these that cause armored unit attacks to stall, snipers could become important to an armored unit.

Snipers must have three key military skills:

- The ability to bring direct fire on the enemy using pinpoint accuracy at long range.

- Field craft, which is the ability to move silently, exist in the field and not be seen, and identify a camouflaged and concealed enemy.

- Positional awareness when in the zone of direct fire. Positional awareness makes one aware of the view the enemy has of you and your position. Positional awareness includes reacting to all the interacting variables of the battlefield, including a kind of calculus, for as one battlefield condition changes all other battlefield conditions change. With positional awareness one survives the direct fire close battle, and does so in battle after battle. Sergeant York of WWI fame was a skilled sniper. York's sniping skills gave him the positional awareness that made it possible for him (and the few men with him) to avoid becoming casualties when essentially all other men in their battalion were lost.

Audie Murphy was also a sniper. His positional awareness made it possible for him to survive battle after battle in a division that had more casualties than any other division in WWII. Murphy earned his Congressional Medal of Honor in a battle where he used a .50-caliber machine gun as a sniping weapon.

No discussion of sniping is complete without mentioning the fabulous sniping done by Marine Sergeant Carlos Hathcock during Vietnam. In one instance, Sergeant Hathcock used a .50-caliber machine gun (in the single shot mode) to obtain one-shot kills at a range of more than 2,000 yards.

Men who are not skilled shooters tend to lack positional awareness. They tend to be fearful about situations that are not dangerous, and at the same time, they fail to discern other situations that are very hazardous.

During WWI, the 37mm gun was developed for the specific purpose of sniping at enemy machine gun nests. At other times during WWI, a "French 75" field artillery piece was manhandled (pushed by a crew of soldiers) into a front line position and used as a sniping rifle.

During WWII, LTC Benjamin Thurston, commanding officer of the Third Battalion, 376th Infantry, 94th Infantry Division, Third Army, was such a good marksman that he picked up a German (K-98 7.92mm) bolt-action rifle and did some sniping at a distance of 1,000 yards. On another occasion, he set up and very effectively used a 57mm anti-tank gun as a sniping rifle. (The 57mm gun was the standard anti-tank gun for infantry units in WWII.)

The Germans used the 88mm gun as a sniping weapon. WWII newspaper reporters found our

apprehension of being shot at by an 88 very hilarious, but in German hands, the 88-mm gun was a very effective sniping weapon.

Using the definition of sniping as long-range, pinpoint accuracy in direct fire, an example could be presented that an 8-inch howitzer was used as a sniping weapon in WWII. (It was used to remove an enemy observer from a church steeple when no other available gun would effectively do so. And, yes, I know that howitzers are not guns). The WWII 105mm and 155mm howitzers were "area" weapons and were sloppily inaccurate; whereas, the towed 8-inch howitzer was capable of deadly, long-range accuracy in the direct fire mode.

In Korea, according to one report that I read many years ago, the 90mm tank gun was used as a sniping rifle (probably printed in *Infantry*).

So, what kind of gun does a sniper use? Whatever he chooses to use. It should be noted that on average, it takes about 5 hits with .30-caliber bullets to stop a man. I am acquainted with one soldier who was hit by two .30-caliber (7.92mm) bullets and did not know that he had even been hit until hours later. I had a platoon sergeant who had three 9mm (.38-caliber) bullets across his chest and was able to fight his way out of the jam he was in. So what kind of gun does a sniper use? Again, the answer should be, "whatever he chooses to use." In an armor unit, every tank gunner should be mentally prepared to use the tank gun as a sniping rifle (or give it to a sniper who will). Every crewmember of a Bradley should be prepared to use the 25mm gun as a sniping weapon or to give it to a sniper who will.

My interpretation of following combat orders comes from the way General Patton ran the Third Army. General Patton addressed every regiment in my division. As he told us, the commander says "what" he wants done, but at the squad level, we decide "how" it is done.

And so it should be with snipers. Officers may tell a sniper "what" to do, but "how" it is done should be the sniper's decision, and snipers should have the guns they want.

ROBERT P. KINGSBURY
LTC, INF and FA, U.S. Army, Retired
Rifleman for General Patton

Scout Platoons Need Snipers

Dear *ARMOR*:

The article in the July-August 2003 issue of *ARMOR* by Captain Timothy Morrow, "Mechanized Snipers on the Force XXI Battlefield," hits the nail right on the head.

The light infantry, airborne, air assault, and Stryker Brigade Combat Team (SBCT) infantry battalions have already addressed the issues brought forth by Captain Morrow and have started to implement some of his suggestions. An example of this is using the .50-caliber sniper rifle in the Sniper's Course at Fort Benning, Georgia, and the introduction of the XM107 .50-caliber sniper rifle in the sniper squads of the SBCT. I agree with Captain Morrow that the scout platoons of the armor and mechanized infantry battalions do need snipers.

The current MTOE of a mechanized infantry battalion has one sniper team composed of two 11B

infantrymen in each of its three infantry companies. While moving these snipers to the battalion scout platoon is a good idea for training and employment, you are taking away a vital combat multiplier from company commanders who want to use their sniper teams to support missions. This also leaves a problem with the scout platoon in the one or two armor battalions in the brigade combat team that do not have 11Bs in their organizations from which to draw snipers. How do we address the sniper shortage in those elements?

I suggest leaving the 11B snipers in their present positions with the infantry company, and add six 19D cavalry scouts as a sniper squad to the scout platoons of the armor and mechanized infantry battalion. The squad can be organized as three 2-man sniper teams equipped with the M24 sniper weapons system (SWS) and M203, or like the snipers in the SBCT, in two 3-man sniper teams equipped with the XM107, M24 SWS, and M203. The three 2-man sniper teams would be organized with a staff sergeant as squad leader and sniper with a private first class as his sniper/spotter, a sergeant as senior sniper with a specialist as his sniper/spotter and the third team consisting of a specialist sniper with a private first class as his sniper/spotter. The 3-man sniper teams would be identically organized with one noncommissioned officer as XM107 sniper, one specialist M24 SWS sniper, and one private first class as security with the M203. All six positions would be B4 coded, the additional skill identifier for graduates of the Snipers Course. 19Ds are already authorized to attend the Sniper's Course run by the Infantry School at Fort Benning. The sniper squad leader would be responsible for training snipers, as well as employing or offering employment advice of the sniper teams to the platoon leader, S2, or the battalion chief of reconnaissance. The sniper squad leader of the scout platoon in the mechanized infantry battalion would also be tasked with maintaining a training plan for the snipers in the battalion line companies and may even have them attached to the platoon for training purposes while at home station.

Six 19D snipers configured in either the 2- or 3-man sniper team offer greater flexibility for deployment and mobility on the battlefield while still being supported by the six M1025/M1026 high-mobility multipurpose wheeled vehicle (HMMWVs) of the platoon. The armored force can use stay-behind operations as successfully as the light infantry and Stryker forces do today. The snipers from line companies, scout platoons, and/or a combination of both, can be used behind the enemy forward line of own troops or main battle area to impede, harass, and destroy the enemy, as well as maintain valuable hides and observation points to support any action by the armored task force by placing indirect fires and precision long range fires on the enemy while keeping the reconnaissance picture updated for the task force commander.

This increase in combat power will have to be supported by the armor community with an increase of 300 additional 19Ds. I do not see the cost of a few extra rifles, radios, optics, and personnel as something too prohibitive for such an increase in combat power and battlefield lethality for the mechanized warrior.

SSG BRENDAN F. KEARNS
Tikrit, Iraq

REVIEWS

The March Up: Taking Baghdad With the 1st Marine Division by Bing West and Retired Major General Ray L. Smith, USMC, Bantam Books, New York, NY, 2003, 320 pp., \$24.95 (hardcover).

The March Up is a tribute to the 1st Marine Division written in recognition of their triumphant 900km attack from Kuwait to Baghdad and beyond. In an easy to understand style, the authors combine their talents to chronicle the action of the U.S. Central Command's supporting effort during Operation Iraqi Freedom. Both West and Smith use their experiences and understanding of military operations, which they gained during service with the same division in Vietnam, to provide the reader with an unparalleled understanding of battlefield events.

To write this book, the authors were given unfettered access to the leaders and soldiers of the Blue Diamond Division. They spent time with 18 separate units and were in combat for over 16 days while collecting stories. By literally becoming part of the unit, West and Smith delivered a firsthand account of the successes and failures of these Devil Dogs from a soldier's perspective. In separate chapters, they describe, in great detail, the U.S. Marines' seizure of the Az Zubayr pumping station, the crossing of the Tigris River, the assault into Baghdad, and the battle for Tikrit.

In addition to the warrior ethos oozing from its pages and the picture it paints of front line conditions, the U.S. Army community should read this book because of what can be gleaned from a kindred organization. West and Smith successfully capture the essence of the modern hoplite and how that spirit can be harnessed. As they describe the events on the battlefield, it becomes clear to the reader that the character, the toughness, and sense of teamwork inside each U.S. Marine was responsible for the success of the 1st Marine Division.

From beginning to end, *The March Up* provides the reader with a unique view of contemporary combat as seen through the eyes of the Marine grunt. Regardless of service, rank, or operational specialty, one will thoroughly enjoy reading about the experiences of the Blue Diamond Division as it consistently demonstrates why U.S. Marines are "no better friend, and no worse enemy."

MAJ MIKE MONNARD
School of Advanced Warfighting

Russia's Heroes: 1941-1945 by Albert Axell, Carroll and Graf Publishers, New York, NY, 2001, 250 pp., \$13.00.

Every nation in war has its heroes. The length of World War II, the total number of men under arms, and the sheer brutality of the war ensured that thousands and thousands of men would become heroes. Thousands of normal soldiers received the highest award in the Soviet Union during World War II, the "Hero of the Soviet Union"

award. Albert Axell's book, *Russia's Heroes*, seeks to familiarize historians and history fans alike with these extraordinary men and women. The author provides the reader with entertaining and inspiring accounts of heroism and sacrifice. The book, while entertaining and inspiring, is not, however, a source on which to base historical research. In addition, the book, while occasionally based on primary sources, such as interviews, is written by an admitted Russophile, and is sparsely documented.

As Americans, we are quite familiar with names like Audie Murphy and General George Patton. Many historians are familiar with names like Michael Wittman, Heinz Guderian, and Erwin Rommel, as well as other German World War II warriors. Heroes of the Soviet Union, however, are less familiar to us. Aside from names such as Georgi Zhukov, Vasily Chuikov, and Ivan Koniev, most historians cannot name another Soviet hero, especially one who was not an officer. Perhaps the only Russian soldier's name we are familiar with today is Vasily Zaitsev, recently made famous by the movie "Enemy at the Gates."

The author cites numerous other examples of heroism during the war, ranging from partisan warfare to the accomplishments of male and female snipers. Overall, the individual stories are inspiring and, at times, tragic. Axell effectively stresses the truly egalitarian nature of the Soviet army throughout the chapters of his book.

Russia's Heroes exposes the reader to numerous examples of tremendous courage and great sacrifice. Examples range from Major Pyotr Gavrilov's stubborn defense of the Brest fortress without relief for over 2 months, to "Night Witch" Nadezha Popova flying and commanding night bombing missions in an outdated biplane, even after being shot down twice. Perhaps the most inspiring chapters involve those people from the most humble origins. Axell discusses in-depth the contributions of General David Dragunsky, a Russian Jew born during the pre-Revolutionary Imperial, who, by the end of the war, commanded a tank brigade in spite of the obvious anti-Semitic slant of the Soviet government.

The major problem with *Russia's Heroes* is the lack of documentation and historical evidence. Axell provides neither footnotes nor endnotes, and has a very limited bibliography. In the first chapter, Axell discusses Operation Barbarossa and earlier military endeavors with the flair of a lay historian grounded in the ideas of self-aggrandizing authors such as B.H. Liddell-Hart. In defense of the author, he was trained as a journalist, not a historian. The ultimate effect of these shortcomings, however, is a lack of historical accuracy that proves especially problematic to the overall work. For example, when Axell writes about specific casualty numbers, he states on pages 246-247 that the Soviet army only had 30 percent more casualties than the Germans in World War II. On the following page, Soviet General Dmitri Volkogonov states that the Soviet army lost three soldiers to every one German soldier. Axell provides no sources for his numbers and contradicts himself through one of his primary sources.

Additionally, Axell completely overlooks the crimes committed by the Soviet army during World War II. While discussing specific crimes committed by the Germans to a great degree, he never addresses mass slaughter and ethnic cleansing conducted by the Red Army against the German civilian population during the last several months of WWII.

Russia's Heroes is an entertaining book. It possesses, however, little research value, due to the lack of citations and its limited bibliography. The stories of individual exploits, leadership qualities, and self-sacrifice are inspiring and worthy of veneration. The men and women in *Russia's Heroes* possess the qualities that all nations want their soldiers and leaders to emulate.

1LT AARON J. KAUFMAN
Camp Magrath, Kosovo

Leadership in the Crucible: The Korean War Battles of Twin Tunnels and Chipyong-Ni by Kenneth E. Hamburger, U.S. Army (Retired), Texas A&M University Press, College Station TX, 2003, 272 pp, \$32.95 (hardcover).

This exceptionally readable text by a retired soldier and former instructor at the U.S. Military Academy provides an account of the U.S. Army's 23rd Infantry Regiment and the French Army's *Battailon de Coree* during the Korean War battles of Twin Tunnels and Chipyong-Ni, as well as their relief by Task Force Crombez of the U.S. Army's 5th Cavalry Regiment. Dr. Hamburger uses these engagements and the actions of the participants in an attempt to illuminate that murkiest of subjects: effective combat leadership. By examining the training of these units and the circumstances of these pivotal battles, the author tries to divine those common elements that led to their success in a brutal series of clashes with Communist Chinese "volunteers" in central Korea in the winter of 1951. Dr. Hamburger's account of the battles is masterful. Resolving many controversies, the author provides what will surely be the definitive narrative of these actions. The importance of this contribution cannot be understated, as the Korean War following 1950 is seriously lacking in formal study.

Unfortunately, the secondary purpose of the text, examining leadership in combat, offers few new insights. A solid, if unspectacular, overview of the conventional wisdom on the subject is the most this volume offers. These ideas are useful for the beginner and as a unifying theme for the text, but hardly revolutionary. That being said, Dr. Hamburger's history is meticulous in detail without resorting to drudgery, and provides an invaluable glance into the nightmare world of the stalemate battles of 1951-1953. It is a laudable history, and one that belongs in the library of any true student of that conflict.

SGT MICHAEL A. ROSS
USMC, Retired

Training Warriors and Leaders for the Force

1ST ARMOR TRAINING BRIGADE

Commander
COL James K. Greer

To better inform the armor force on how we are training warriors and leaders at Fort Knox, *ARMOR* has granted the 1st Armor Training Brigade space to provide an update in each issue. Just as important as informing you how we are training soldiers is the *feedback* you provide us regarding the update. We are trying to improve the communication, understanding, and crosstalk between the training base and the operational force.

For those not entirely familiar with the 1st Armor Training Brigade, in this update we will focus on the organization, mission, and general information about the brigade.

Organization. The 1st Armor Training Brigade is organized into seven battalions: a reception/retraining battalion (46 AG); two basic combat training battalions (1-46 IN and 2-46 IN); a 63A/M Abrams/Bradley Mechanics One Station Unit Training (OSUT) battalion (1-81 AR); a 19K tanker OSUT battalion (2-81 AR); a training support battalion (3-81 AR); and a 19D scout OSUT squadron (5-15 CAV).

Due to mobilization missions at Fort Knox and personnel shortages because of the global war on terrorism, we also currently have a Reserve Component task force attached to the brigade from the 100th Division (institutional training). They help augment instruction and support across the brigade, and we routinely integrate Reserve Component Division (individual training) support into our instruction and training during training base expansion (TBE) each summer and during their annual training (AT) and weekend drills throughout the year.

Our one U.S. Army Forces Command (FORSCOM) unit is the 233d Transportation Company (Heavy Equipment Transport) whose mission in garrison is to haul vehicles to and from training, but who recently deployed in support of Operation Iraqi Freedom. They also train all U.S. Marine Corps tankers and tank mechanics, run 63A/M Basic Noncommissioned Officer's Course, and help train U.S. Military Academy and Reserve Officer's Training Corps cadets during the summer. Each year, we train over 7,500 soldiers in basic combat training, and more than 2,500 tankers, 2,000 scouts, 500 mechanics, and 300 Marines.

Command Sergeant Major
CSM James L. Green



Mission. The 1st Armor Training Brigade provides initial military training to standard to soldiers who are technically and tactically competent, focused on teamwork, infused with the warrior ethos, and ready to take their place in a values-based Army at war.

We are committed to producing quality soldiers and warriors who are ready to immediately contribute to their first operational unit. Our focus is on the skill-level 10 tasks that they will need to fight and survive if they deploy with their first operational unit to combat. Our soldiers must be warriors who understand Army Values and can work as part of a team. Our core documents are U.S. Army Training and Doctrine Command (TRADOC) Regulation 350-6, *Enlisted Initial Entry Training (IET) Policies and Administration*, the program of instruction (POI), and training support packages for each course and lesson. We follow the POI for our training, but are always reviewing tasks and updating conditions to train soldiers to these standards.

The heart and soul of the brigade are our drill sergeants, instructors, junior officers, and senior NCOs who are with soldiers 24 hours a day, 7 days a week, as role models to infuse the Warrior Ethos and Army Values and supervise the daily care and training for our soldiers. They take civilians who arrive in the reception station and turn them into soldiers/warriors ready to serve in the force. We rely on their professionalism, dedication, commitment, and expertise to care for and train the soldier/warriors and future leaders of our Army. We also rely on our civilian support staff and instructors to sustain the diverse and persistent pace of training in the brigade.

Motivated, professional cadre and time are our most critical resources. As committed as we are to providing quality soldiers to the field, we are limited by the time we have to train soldiers — 9 weeks

to get ready for advanced individual training (AIT), 15 weeks for tankers, 16 weeks for scouts, 21 to 23 weeks to train mechanics on all the basic, technical, and tactical skills they need as soldiers and warriors. Our cadre trains soldiers 6 days a week, including holidays, to accomplish as much training as possible within a limited time.

The companies in the basic combat training battalions typically run four to five 9-week missions annually. The companies/troops in the OSUT battalions/squadrons run about three missions annually. In between missions, the units recover from previous missions and prepare for future missions. With the amount of time our cadre spend focused on training soldiers, cadre wellness, family activities, cadre certification, MOS training, and updating our initial entry training tactics, techniques, and procedures are a lot to pack into the few weeks. The only lull in training during the year is for 2 weeks over the winter holidays when we deploy and redeploy over 2,000 new soldiers home so they and our cadre can spend the holidays with their families.

We are also committed to providing a developmental experience for our cadre, so that they are better-trained soldiers by having served in the brigade. They must also be ready to return to the operational force and contribute to their unit. They should have a better understanding of the core skills they trained here in the brigade and be effective leaders because of their experiences training initial entry soldiers.

We will be conducting a visit to 3d Infantry Division to gather feedback on how our soldiers performed in combat, and to update our tasks, conditions and standards. While we conduct a survey of the field every year, we tremendously value feedback on how we are doing. It is difficult for us to completely assess the quality of our soldiers here at Fort Knox because the ultimate test of their qualities is how they perform in their first operational unit.

In the next issue of *ARMOR*, we will further discuss some of the ongoing initiatives in the brigade and respond to your questions/feedback.

Please provide questions/feedback to Mr. Joe Pena at Jose.Pena@knox.army.mil.

Patton Museum Receives WWI French Tanks

During September 2003, the Patton Museum of Cavalry and Armor at Fort Knox, Kentucky, came into possession of two extraordinary artifacts from the arid mountains of Afghanistan. A superbly preserved pair of World War I FT-18 French Renault tanks was discovered in a military scrap yard and recovered with the help of many past and present Fort Knox soldiers.

This type of tank was supplied to the fledging U.S. Tank Corps developed by then largely unknown Colonel George S. Patton in 1918. Patton was the only man in the new organization who had ever driven a tank, and when the railroad flatcars arrived with his first meager issue of vehicles for training his tankers, he personally unloaded the first, jarringly driving it right off the back of the flatcar.

The FT-17 and slightly more advanced FT-18 tanks represented the birth of tank design as we have known it since. Other French and British tanks of the period resembled land battle-ships or mobile pillboxes with sponson-mounted or fixed guns. The FT-17/18 had its main armament in a centrally mounted re-

volving turret, a sprung suspension, the engine in the rear, and the driver in the front. It was the most successful light tank of World War I and, along with its derivatives, was still in service in many parts of the world at the beginning of World War II. In fact, American tankers in the 1st Armored Division first bloodied their M3 Stuart and Lee tanks against French armored forces equipped with FT-17/18 tanks in the opening days of the invasion of North Africa in 1942.

Over the coming year, the Patton Museum staff and volunteers will begin the careful process of research, documentation, and eventual restoration of both pieces to fully operable condition. The most challenging aspect of this project will be the fabrication of missing power plant parts. One of the most astonishing discoveries related to these artifacts was the presence of substantial remnants of the original World War I camouflage paint scheme. Through an analysis of the remaining paint, it will be possible to duplicate very closely the startlingly colorful and bold scheme used during the War.



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