ARMOR

May-June 2004

Arming the Knight

ARMOR

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Features

Departments

Once More Unto the Breach

For decades, subject-matter experts have predicted that the nature of warfare will change in the 21st century. Many of these predications have come to pass, as the nature of warfare has already changed dramatically. The Army continues to move toward changes that will conceive, shape, test, and field an Army prepared to meet the challenges ahead.

Throughout transformation, one thing has remained constant — the Soldier is indispensable. Soldiers — fierce, disciplined, well trained, and well equipped — ultimately represent and enable transformation. However, are we balancing the force by simultaneously transforming the institution and training and equipping soldiers to remain constant on today's battlefield as well as the future battlefield?

Captain Mike Sullivan sheds a bit of light on the matter of properly equipping our armored force for dismounted combat in "Arming the Knight." On the current battlefield, armored warriors are fighting from dismounted positions. Sullivan reminds us that our armored dismounted warriors must be properly equipped to fight from both mounted and dismounted positions.

During support operations and stability operations in Iraq, the United States has had a larger number of casualties than during the war. The recent uprisings by various groups testing our resolve and patience have further cemented our desire to seek a peaceful transition with a new provisional government. Major Bill Benson's, "Operational Thinking in a Tactical Environment and Targeting in Iraq," visualizes the battlefield and explains how important it is to fully understand your area of responsibility.

Government support teams are effectively building relationships with local politicians and figureheads, and have exploited these relationships to encourage a safe and secure environment for Iraqi citizens and coalition forces. Captains Gregory Mitchell and Christopher Haggard share their experiences as members of the 2d Squadron, 3d Armored Cavalry Regiment's government support team in Fallujah.

Transformation is a framework of continuous change. The Army's goal is to provide relevant and ready forces organized, trained, and equipped for joint, interagency, and multinational full-spectrum operations. To manage such a task, restructuring the current force is a must. Colonel Kevin C.M. Benson has contributed to this discussion in, "Thoughts on Restructuring Army Brigades." Drawing from ideas

presented in Colonel Doug MacGregor's book, *Breaking the Phalanx*, and from recent operations in Iraq, Benson enters the intellectual fray and stimulates thought from within the armored force on how we should transform.

Staff Sergeant Brendan Kearns adds a great deal of insight on "The Future of the Reconnaissance Professional." He discusses necessary changes in doctrine, training, and tactics, techniques, and procedures to successfully give scouts the edge they need on future battlefields.

"Flawed Lessons Learned: The Role of U.S. Military Attachés in Assessing Armored Warfare during the Spanish Civil War," by George F. Hofmann, Ph.D., examines tank warfare during the Spanish Civil War (1936-1939) and the effect military attaché reports had on influencing U.S. Army doctrine. As a result, the Army staff began to re-examine its warfighting doctrine, as did the mechanized cavalry at Fort Knox.

We must prepare all our soldiers for the harsh realities of the battlefield. In his article, "Train for the Fight," Captain Todd Clark, points out that we spend a lot of time concentrating on conventional training tasks, but tend to overlook the fundamental precursors to success — physical readiness, small-unit maneuver, and weapons proficiency. He states that the graduate level for readiness is merging these areas together.

Major Dennis Chapman shares his views on the importance of small-unit training. Chapman reminds us that the benefit of intense training at battalion and brigade levels has been amply demonstrated; however, training should be optimized to increase benefits at squad and platoon levels.

In other articles, Captain Brian Doyle demonstrates the value of "Using Geographic Information Systems in the Military Decisionmaking Process." First Sergeant Dennis White shares his experiences as a platoon sergeant to assist junior noncommissioned officers in, "Planning, Preparing, and Executing Your Role as the Platoon Sergeant."

As the armored force continues to transform, *ARMOR* remains an open-forum exchange to share your views, expertise, and experiences at this most critical juncture in the evolution of the armored force. Keep writing! I hope to see you at the Armor Conference.

– DRM

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LETTERS

It's Time for a Change in Tank Gunnery

Dear *ARMOR*,

Thanks for publishing Sergeant First Class Tim Gray's article, "Time for a Change in Tank Gunnery," in the March-April 2004 issue of *ARMOR*. His points are right on the money and obviously the product of his professional and personal experience and expertise. I believe it is important for the armor community to discuss gunnery doctrine and training for the Army, the current operating environment, and the war in Iraq. Even as we prepare to publish a new Abrams gunnery manual in May 2004, it is important that the discussion continue and that we are prepared to adapt our gunnery doctrine and training as the enemy and conditions evolve. Along those lines, I would make the following observations:

Tank combat in Iraq was a mixture of main gun, machine guns, and personal weapons such as rifle, pistol, and hand grenades. Yet, our gunnery training has always separated the tank weapons from the personal weapons. A tank commander (TC) in Iraq can be firing his .50-caliber one moment, directing main gunfire the next, and firing an M4 carbine a moment later. The same is true for the loader, so our training and qualification standards must account for that reality.

The conclusion drawn by senior leaders in World War II was that the tank's weapons were in order — the tracks, the machine guns, and the main gun — yet for decades our gunnery training gave primacy to the main gun engagements. In the Iraqi operating environment, both during major combat operations last March and April, and in the security operations since, the machine guns have been the most used and most critical weapons systems. Our training and qualification should account for this reality to prepare crews, sections, and platoons for today's combat. And, while we are increasing the machine gun training, we must account for reloading. There were multiple instances in the 3d Infantry Division's fight into Baghdad of loaders and TCs forced to reload the M240 and M2 while under fire. Of course, today's gunnery training contains no requirement to reload during Tables VIII, X, or XII. Absent doctrine and tactics, techniques, and procedures, the tankers were forced to develop their own. Similar to the small-arms qualification tables, machine gun engagements at crew and section level require a reload.

One area in which the Armor Center has been proactive since Operation Iraqi Freedom began is urban gunnery. The faster we gain a capability at each of our training centers and armor stations to execute such training, the more effective we will be in future operations. This capability must include a significant investment in short-range training ammunition (SRTA) for use in military operations in urban terrain (MOUT) sites.

One of the aspects of urban operations that SFC Gray highlights effectively is the greatly shortened distances at which engagements are conducted. I would add that short-distance, constricted-terrain engagements are not lim-

ited to villages and cities, but also include the palm groves found along rivers and canals. Scanning and search techniques are significantly more difficult in these types of terrain than at the Combat Maneuver Training Center or the National Training Center. Our home station and combat training center range complexes/live-fire areas must be modified to adapt to develop these skills.

All in all, we are on the right track. Let's maintain the momentum, discussion, and flow of lessons from the field and Iraq throughout the armor force.

JAMES K. GREER
COL, U.S. Army

ARMOR's January-February Issue Should Be Mandatory Reading

Dear *ARMOR*,

I found the January-February issue of *ARMOR* one of the best ever. While all the articles were on target and had substance, I would like to present special kudos to Captains Don Stewart, Brian McCarthy, and James Mullin for their article, "Task Force Death Dealers: Dismounted Combat Tankers," and Captain John Nall's article, "A Company Commander's Thoughts on Iraq." These two articles must be mandatory reading for all mounted soldiers headed to the Mid East or any region where peacekeeping and or/military operations in urban terrain (MOUT) are expected.

The similarities in Iraq to mounted force operations in Vietnam continue to surface. Having commanded a divisional armored cavalry troop in the Highlands in 1968, route security and convoy protection was our main task. As in Iraq, our unit rotated cavalry troops from one area to another every 2 months or so to keep us fresh and alert. However, once in an area, we tried to ensure the same platoon and same boots were on the ground each morning when we went looking for newly planted mines or improvised explosive devices along the roadside, or into areas susceptible to rocket-propelled grenade ambushes. Our folks became aware of the smallest details, such as dirt that had been shuffled during the night or signs of other roadside activity, and we checked out the area carefully before the daily convoys headed deeper up country to Pleiku, Kontum, or Dak To. The Iraqi terrorist is a bit more tactically and technically astute than the Vietcong and North Vietnamese Army; however, the environment is in many ways similar.

Iraq is a company commander's war, which includes platoon leaders, and squad leaders. Their articles reflect knowledge and lessons learned that will help all those who follow. Keep the reports flowing and thanks for the informative articles.

COLIN McARTHUR
COL, U.S. Army, Retired

Embracing the Uncertainty

Dear *ARMOR*,

Chief of Staff, Army, General Peter J. Schoomaker, has challenged the Army's leadership

and training institutions to develop "a campaign-quality Army with a joint and expeditionary mind-set." "Expedition," as defined in *Webster's New World Dictionary*, is "a sending forth or embarking upon a voyage, march, etc., for some definite purpose, as exploration or battle." The implications, quite appropriate since 9/11, involve many unpredictables as to time, place, and enemy. For our Army, senior leaders who were raised in the comfortable era of a known enemy, with a known doctrine, a known sandbox, and forward-positioned forces and equipment, the challenges are immense, the needed fixes perhaps counterintuitive.

Among the shibboleths widely considered sacred in U.S. Army combat operations are the importance of detailed planning to support the military decisionmaking process, synchronization, and rehearsal. All of these were exemplified with great success in the run-up to the 1991 Iraqi war. So convinced were our Army leaders of the rightness of our doctrine, that General Frederick M. Franks Jr., was reported to have given, as one of his three reasons for not continuing the VII Corps attack during the first night of that war (24-25 February 1991), that his units had not practiced breaching operations at night (James G. Burton, "Pushing Them Out the Back Door," *U.S. Naval Institute Proceedings*, June 1993, p.39).

To accomplish the planning detail expected in current doctrine, large staffs, checklists, and detailed processes have increasingly been the norm. Recent articles in *ARMOR* covering aspects of the processes include LTC Kevin D. Poling's "Course-of-Action Development for the Maneuverist Approach," May-June 2003; and CPT David A. Meyer's "On a Wing and a Prayer," July-August 2003. Both explain, in some detail, the procedures they consider necessary in current doctrine for their part of an operational plan.

The U.S. Army Chief of Staff's goal is unfortunately not new; previous efforts have always fallen short. Probably the most recent, General Gordon Sullivan's drive during his tenure as Chief to make the Army a "learning organization," met with early enthusiasm, but he did not have time to change the Army's culture, and without a cultural change, progress was inevitably fleeting and superficial.

There is unquestionably a serious threat today to the toys and games of the traditional armor community. The threat, largely unspoken, is implicit in the drive to achieve lighter, smaller, more rapidly deployable units; in the nature of the illusive, irregular enemy; in the increased — and increasing — role of special forces; and in the absence of a near-term traditional conventional threat. How to respond? How to ensure continued relevance? First and foremost, is to accept that armor's future roles will be significantly different than they have been in the past. We should embrace this uncertainty, look outside our historic sandbox, and reject the tendency to preserve our organizations, doctrine, and processes as they exist and are planned today — despite recent tactical successes. Everything must be on the table. There are probably few lessons of value from Iraq.

Captain Chad Foster takes a good first step in his article, "Preparing for Iraq: A New Approach to Combined Arms Training," in the November-December 2003 issue of *ARMOR*, which suggests a different relationship may be necessary between the battalion and the company team as units of action.

The recent practices associated with our three training centers have hurt readiness and positive warrior values as much as they have helped: by requiring units to fill, train-up, and conduct detailed preparations to avoid failure; by providing standard tactical set pieces and excessive planning times for events; and by emphasizing process over product and the importance of rehearsals. If we intend to be an important part of the expeditionary forces of the future, shouldn't our basic training games be variations of the meeting engagement? It is time for our thinkers, our mavericks, to map out an innovative, questioning search for armor's future role — not in the nebulous 21st century, but in the joint expeditions tomorrow and the day after.

JOHN C. FAITH
MG, U.S. Army, Retired

Salas a Little Too Far "Out of the Box"

Dear *ARMOR*,

I read Major Mark Salas' musings with great interest, especially his training center experience, in "Musings of an Armor Officer, January-February 2004, *ARMOR*. His experiences and fixes seem geared toward the National Training Center and the Combat Maneuver Training Center. He completely overlooks the Joint Readiness Training Center (JRTC) and its apparently unknown or forgotten benefits to heavy and light units. I will save the benefits of JRTC for a later article and will focus on the issues at hand.

I concur that training centers are an invaluable resource for deploying units but would submit that they are not as broken or out-of-touch as Salas portrays. First, the dismissal of the opposing force (OPFOR) and observer controllers (OCs) is a little too far "out-of-the-box" for me. These two components of the combat training center (CTC) system allow units to accomplish what they came to do in the first place, TRAIN!" Battalion commanders and command sergeants major, as well as company commanders and first sergeants, are absolutely capable of evaluating their soldiers. However, the OC brings experience from past units and rotations and an unbiased, doctrinally based observation to the training unit.

The second function of the OC allows the soldier in the position to read and study doctrine, begin graduate or undergraduate studies, and for a short amount of time, step out of the deploying units to a predictable and enjoyable assignment. The Army may be at a time where force structure is being questioned, but doing away with OPFOR units is a hasty fix that does not fully address the problem. Soldiers assigned to these units have the unenviable task of staying current on Army doctrine, as well as portraying the "enemy" to train our deployable

units. I do not see this as a waste of training time and dollars if deploying soldiers benefit from this training, which I believe they do. Our National Guard units have enough on their plates with deployments and stateside responsibilities. I do not think that the OPFOR mission requirements can be trained and accomplished one weekend a month or during annual training.

I disagree that units depart CTCs "knowing how to take a beating." I keep in contact with soldiers who are training at the JRTC and have read personal accounts of experiences from soldiers in Iraq and Afghanistan, and not once have I heard a complaint that the rotation was too hard or the training was not applicable. On the contrary, the comments were geared around how the experience prepared the unit and the training was realistic. I see no value in sending a unit away after an easy scenario so that they "feel good" about their performance.

I, too, would like to see units show up better prepared for their rotations, but there are many good reasons why this does not happen. The last three rotations at JRTC have encompassed situational training exercise (STX) lane training beforehand. The STX lane training focused on cordon and search, combat patrols, fixed-site security, convoy operations, and medical platoon trauma. This training is focused at company and below levels and provides soldiers the opportunity to conduct these missions prior to rotation. A brigade or battalion at home station cannot match the amount of resources and time spent putting together training scenarios. This accomplishes the ramp-up course of action as the soldiers focus on tasks they will conduct during force on force, as well as when deployed. Feedback thus far has been positive.

The dismissal of precombat inspections, rehearsals, and after-action reviews is puzzling. Spending most, if not all, of your time in the turret, foxhole, or command post with a radio to your ear and missing the opportunity to review what happened and potential fixes, does not make sense. Most soldiers will agree that the training center experience does not allow for complex fixes during the rotation due to time constraints, but the unit leaves with a take-home packet, which they can open at home station and collectively decide what to implement.

I have observed that rehearsals rarely extend below company level and precombat inspections are nothing more than lip service. Therefore, home station training is not cutting it. Chapter 6, "Assessment," FM 7-0, *Training the Force*, stresses the importance of training assessment and after-action reviews as they apply to training. While maneuver time is precious during CTC rotations, the time spent preparing beforehand and reviewing afterward is just as important.

The fact is, routine business in the Army is changing and we must change the way we train to ensure our soldiers remain ready. Lessons learned from Iraq and Afghanistan will help us accomplish this and have already been integrated into our training methodology. CTCs and

soldiers, civilians, and support personnel continue to ensure this happens.

"In no other profession are the penalties for employing untrained personnel so appalling or so irrevocable as in the military."

— General Douglas MacArthur, Annual Report of the Chief of Staff, Army 1933

CPT DENNIS ATKINS
JRTC, Fort Polk, LA

Dear *ARMOR*,

The purpose of this letter is to take exception to some of Major Mark Salas' recommendations in his article, "Musings of an Armor Officer," January-February 2004, *ARMOR*. While musing is a good thing, especially by officers young enough to make a difference in the future, extensive observation and 'thinking outside the box" is insufficient for taking action. Specifically, I would like to take exception to his recommendations to: do away with permanent opposing forces (OPFOR); gradually ramp-up the OPFOR; "we have made training too difficult;" and "instead of training, we are attempting to 'teach the test.'"

Do not do away with permanent opposing forces (OPFOR) if you value building skills and saving lives. In the 1990s, the Defense Advanced Research Projects Agency (DARPA) did an extensive review of training trends, contributors to effective training, and the relationship of training to combat effectiveness. All of the combat training centers (CTC) reported that, in spite of the resounding victory during the Gulf War, they were seeing units arrive at the CTCs less prepared than before the war. The Army Research Institute for the Behavioral and Social Sciences (ARI) was then undertaking an extensive and meticulous review of data from the National Training Center (NTC), see Holz, Hiller, and McFann, *Determinants of Effective Unit Performance: Research on Measuring and Managing Unit Training Readiness*, U.S. Army Research for the Behavioral and Social Sciences, Alexandria, VA, 1994. Among other things, this effort was the impetus to the current battlefield operating systems (BOS) and found that the most critical components to home station training, the CTCs, and exercises were the presence of a realistic, demanding set of battle conditions; a skilled demanding OPFOR that would take advantage of weaknesses (the studies found that the more skilled the OPFOR units trained against in their pre-CTC trainups, the more successful they were against the CTC OPFOR); and skilled observers who could record events and replay them for participants for reflection and exploration. In spite of best efforts, commanders are part of the training audience and need feedback just like their subordinates. Those deeply engaged cannot recall events accurately.

Ramp-up occurs at home station under unit control; the CTC is meant to be the best surrogate of battle we can produce. There may be

COMMANDER'S HATCH

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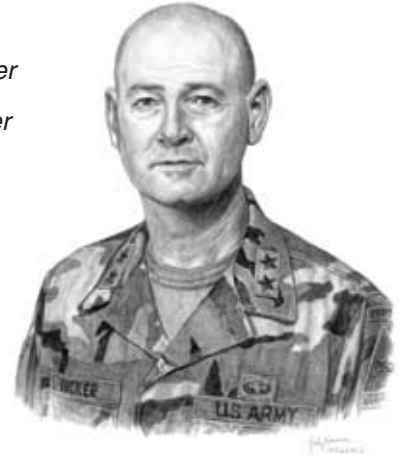
Restructuring the Force

The U.S. Army is in its initial stages of the fastest reorganization in 50 years, while simultaneously revising its manning system to balance the rotation-based system of global operations and minimize individual rotations. The Army must balance current readiness, Soldier well-being, transformation, and current operational commitments while approximately 50 percent of its force is mobilized. The pace of change is staggering — this is truly not business as usual.

There are many efforts underway to prepare the Army for the next decade. Two of these efforts are Task Force Modularity and Task Force Stabilization. These two major efforts will design units that are easier to deploy while providing increased cohesion and improved predictability for Soldiers and families. They will also have a significant impact on the structure of Armor organizations and the professional development of Armor Soldiers.

The goal of Task Force Modularity is to build a brigade-based Army that is more deployable, responsive, and capable, while simultaneously enabling joint and expeditionary capabilities. This provides the capability to concurrently deploy units rapidly from several different CONUS-based locations, and reduces deployment times for units that are organized for specific tasks.

Restructuring to a modular Army will transform the current 17 heavy and 15 light brigades into self-contained Armored and Infantry brigade Units of Action (UA) over the next 3 years. Additionally, division, corps, and Army headquarters, along with their missions, will be realigned. The Unit of Employment (UE) construct includes a division/corps-level tactical headquarters (UE$_x$), and a corps/Army-level operational headquarters (UE$_y$). While the allocation rules are still being finalized, looks like we will have approximately 48 UA brigades and 8 to 12 UE$_x$. The Stryker Brigade Combat Teams (SBCTs) will probably not be affected by this transition.

Each UE$_x$ will serve as a command and control organization for up to six UA brigades, as opposed to the current three brigades per division. Again, the decisions are pending, but the UE$_x$ will likely retain divisional "designations;" however, they may not deploy as a division. The UE$_x$ will also be supported by a number of support UAs. Force packages will be developed down to the individual UA brigade and units will be deployed based on theater requirements. Each UA brigade will consist of two combined-arms battalions structured with two mechanized Infantry and two tank companies. Each Armored UA brigade will have an Armored reconnaissance squadron with three ground cavalry troops, and the Infantry UA will have a reconnaissance, surveillance, and target acquisition (RSTA) squadron, which will have one dismounted and two motorized reconnaissance troops and a surveillance troop.

The Army National Guard will concurrently rebalance the force as it transforms to maximize readiness, relevance, and responsiveness to meet the needs of the combatant commander. The National Guard's transition will mirror the Active Component force and they will remain a critical component of our combat capability.

These modular organizations will be supported by a unit-focused personnel assignments system that has been developed by Task Force Stabilization. The goal of this concurrent effort is to increase personnel stability, synchronize Soldier assignments to the unit operational cycles, increase unit cohesion, and provide increased predictability for Army Soldiers and families. The program will also decrease nondeployable personnel within the UAs. In a 3-year cycle, units will initially reset the unit, train up to a capstone exercise, and then be available for deployment, if necessary, during the next 2 years. After the deployment cycle, the unit will repeat the process with 30 to 50 percent of the Soldiers remaining for the next cycle to provide stability. All of the Army's Armored/Infantry UAs will be alternately phased with approximately 75 percent in the ready phase at all times.

The Armor Branch will have expanded command opportunities under the UA structure based on the current proposal. There is the potential to significantly increase the number of battalion commands and branch-qualifying opportunities for majors. We will also see a significant increase in the number of scouts to man UA reconnaissance formations.

We are engaging the Center for Military History to ensure we effectively transition our Armor regiments and to provide an effective expansion of Cavalry regiments. The initial 3d Infantry Division regimental decisions were mandated by the need to make decisions with little lead-time. We are working to ensure that future decisions are made deliberately and support, to the maximum extent possible, the historic relationships between the cavalry regiments and the divisions (future UE$_x$).

Armor Branch, as the Army's proponent for reconnaissance and surveillance is analyzing the requirement for ground reconnaissance at the UE$_x$ level. And, we are expanding the training base to fill the increased requirement for scouts. Conversely, we will reduce 19K positions as we move to combined-arms formations in the Armored UA battalions.

Rest assured that the Armor Center is actively engaged in the Army's transition and will remain engaged as we build the future. We currently have the 80-percent solution. In the months to come, we will determine acceptable risk and continue to improve the Mounted Force. The future is now.

Forge the Thunderbolt!

DRIVER'S SEAT

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

Transparent Armor Gun Shield:
A Possible Solution to Enhance Soldier Protection

Roughly one year ago, U.S. troops invaded Iraq. Today, armor and cavalry soldiers remain on patrol throughout city streets with what some may argue is inadequate armor protection for their high mobility, multipurpose wheeled vehicles (HMMWVs). Troops in Iraq and Afghanistan are equipped with roughly 2,300 armored HMMWVs — only about half as many as commanders agree are needed to guard against roadside bombs that have become the insurgent's deadly weapon of choice. Soldiers have been using sandbags and Kevlar blankets on the floors of their unprotected HMMWVs to help improve levels of protection.

Production of armored HMMWVs has been increased and Army officials believe that by midsummer, a combination of newly manufactured HMMWVs, along with others from bases around the world, will arrive in Iraq and Afghanistan, which will bring the total number of armored HMMWVs to the needed 4,400. In the interim, General Peter J. Schoomaker, the Army's Chief of Staff, said the Army has been sending thousands of add-on armor plating kits to shield unprotected HMMWVs. Around 1,500 of the kits have been applied to Army vehicles and 6,900 more kits are expected to arrive between May and midsummer this year. Officials believe these add-on armor kits are an improvement; however, they have gaps and lack the full protection of the armored HMMWV.

Besides increasing the survivability of the vehicle, it is necessary to consider creating more protection for the HMMWV gunner while he is firing his MK19 automatic grenade launcher; M2, .50-caliber machine gun; or M240, 7.62mm machine gun. Commanders are always looking for innovative force protection techniques to increase levels of soldier protection and equipment survivability. A Department of Defense contractor has taken on this challenge and created a transparent armor gun shield (TAGS). This shield can be mounted on the M1025, M1026, M1043, or M1044 armament carrier configurations of the HMMWV family to protect the gunner from small-arms fire. The TAGS can also be mounted on other platforms, such as tactical vehicles, that support the universal gun mount.

The U.S. Army Training and Doctrine Command (TRADOC) System Manager for Abrams (TSM Abrams) has been working with the Fort Knox Master Gunner Branch by providing user feedback on a prototype TAGS design. The contractor has incorporated user recommendations following a demonstration and has made significant improvements to the product, which has the potential to add increased survivability for the HMMWV gunner. This protective measure offers ballistic protection that could possibly prevent injuries from small-arms fire to the HMMWV gunner's head, shoulders, and chest.

Currently, the HMMWV TAGS is undergoing Army testing at Aberdeen Proving Grounds, Maryland. Tests will be completed within the next few weeks. Commanders, who believe in the potential of this product, are field testing the initial prototype design in the Middle East.

Similar to the HMMWV TAGS, the contractor has also developed a prototype TAGS for the loader's weapon station for the M1A1 Abrams. TSM Abrams and Fort Knox Master Gunner Branch have provided user recommendations following two demonstrations to allow engineers to make significant improvements to the product, which has the potential to add increased survivability for the tank loader. User juries measured the serviceability of the product and determined if it interfered with any of the tank crew duties and field of view. Safety items were also evaluated to ensure the M240 machine gun could be stowed in the proper position, allowing the loader hatch to open and close without any interference. From a safety perspective, it is essential the tank loader hatch can be opened fairly quickly to evacuate the tank crew in an emergency.

Both of these products will be on display during the 2004 Armor Conference in May at Fort Knox, Kentucky. Senior leaders will have the opportunity to view these products and form their own opinions.

We, as leaders, owe our troops the best level of soldier protection while they execute their missions and fight the Global War On Terrorism. Units deploying to United States Central Command (CENTCOM) that believe these products can meet their requirements are encouraged to prepare and forward an operational needs statement through their chain of command to the Coalition Forces Land Component Command (CFLCC) for approval consideration.

A special thanks to Major Patrick M. Tiemann of TSM Abrams and Mr. Jake Fryer of United Defense, L.P., for their commitment to enhancing soldier protection for our armor force.

Iron Discipline and Standards!

Arming the Knight for Dismounted Combat

by Captain Mike Sullivan

The squire checks his master's equipment again. Picking up the armored shield, he hands it to his master, followed by the lance with the hardened tip. Ensuring the leg armor for his master is securely fastened, the squire steps back and makes one last visual check of his now-mounted master. An imposing figure for sure, his master is prepped for mounted combat, complete with his shield to protect him from enemy blows and his lance to reach out and destroy any enemy he encounters. However, prior to departing toward the growing sounds of battle, his master hesitates and looks down at the squire through an open visor and speaks, "Prepare my mace and sword for ground combat." The squire stands dumbfounded. Does his master intend to dismount from his steed and engage the enemy on the ground? "Squire, my dismounted equipment!" calls out the knight with growing impatience. "Sire, you are a knight! There is no need to dismount and engage the enemy on the ground!" pleads the squire. "Squire," sighs the armored knight, "these are modern times. Armored knights can no longer stay mounted and engage such a spurious enemy. I need the proper equipment to fight both mounted and dismounted. Now go forth and procure equipment so I can destroy my enemy both from my mount and on the ground!"

Armored warriors no longer fight from mounted positions inside tanks on an open battlefield. As our mounted forces continue to dismount and fight ground battles, it is time to take a hard look at an armored cavalry unit's modification table of organization and equipment (MTOE) and determine if we, like the squire, are equipping our mounted warriors with the right equipment.

Weapons

There is no doubt we have the finest tanks and infantry fighting vehicles in the world. Their speed, firepower, and armor protection are among the best. However, akin to the long-standing

Marine motto, "every Marine is a rifleman," our tankers of today need rifles! More and more units are performing infantry-type missions and need to be equipped as such. From our experiences with a standard armor battalion and watching units rotate through the Combat Maneuver Training Center, one glaring discrepancy arises — once away from their tanks, tankers do not have the proper weapons systems for dismounted combat.

First and foremost, every soldier on the ground needs a rifle. Bottom line is every soldier must have the capability to reach out and touch his enemy with something more than a pistol. The current MTOE for armor companies assigns two rifles per tank. This is completely inadequate when soldiers are dismounted. In fact, two weapons would be an ideal mix for dismounted soldiers. A rifle should be a tanker's primary weapon and a pistol should be his secondary/backup weapon. Special operations soldiers, special weapons attack team members, and infantrymen understand the concept of weapons redundancy. However, this notion is foreign to tankers. Too many tankers are satisfied with simply carrying a pistol for convenience. As more tankers move away from their tanks, they need proper small arms. Equipping each tanker with a rifle and pistol will greatly enhance the lethality of tankers.

Each tank company is equipped with only two M203 grenade launchers. This is completely inadequate for a 70-man company. The M203 not only provides excellent suppressive capability, but its ability to fire pyrotechnic rounds assists in signaling, shifting fires, and marking sectors of fire (ground burst flares). One per tank crew would provide firepower similar to that found in an infantry fire team.

Each tank obviously is equipped with two M240 machine guns. Removing these weapons systems and using them for dismounted operations is possible but not recommended. First, the M240s need the dismounted conversion kit to make them semi-useful on the ground. Technical Manual (TM) 9-1005-313-10, *Operator's Manual for Machine Gun, 7.62mm, M240,* shows the components for the M240 conversion kit.[1] This kit has all the necessary materials to convert an M240C to a scaled-down version of the M240B (buttstock, trigger mechanism, and bipod), scaled-

down in that the conversion kit gives you the bare-bones version of what is necessary to successfully ground fire the M240 without some of the more advanced features, such as sights, found on an actual M240B.

The M249 offers a significant increase in firepower without adding the extra weight of the M240B. The squad automatic weapon (SAW) is not even listed on an armor company's MTOE, but would make a welcome addition to dismounted operations. In case of an emergency, the ability to lay down large amounts of suppressive fire with similar ammunition (5.56mm) requires another look at the SAW as a potential addition to the armor dismounted weapons kit.

Dismounted armor soldiers using small arms need to be well trained on the use of each weapons system. It is a world of difference firing an M240 from a coax or loader's position than it is from the ground. Training, weapons qualification, and live-fire training prior to deployment with the weapons systems they will use in actual combat is vital. Finally, do not neglect the necessary items that are frequently overlooked: when dismounted, how the M240 gunner will carry his ammunition (the SAW ammunition comes in a carry-ready magazine but the M240 ammunition does not); and if each weapon has a spare barrel and necessary items to conduct a rapid barrel change. These are small but necessary details required when dismounting these weapons systems.

Weapons Accessories

Everyone has seen the modified weapons used by infantry units in Afghanistan and Iraq. Not found on an armor company MTOE, sighting systems, such as the M68, close combat optic (CCO) and visible light (TACLIGHTS) systems, are vital to conducting combat operations in military operations in urban terrain (MOUT) environments. The CCO, when properly sighted, provides an added measure of accuracy in a reflexive fire environment where a split second is all it takes to decide between life and death. The M68, currently in the Army's inventory, requires training and proper mounting to be effective, but is another tool we can add to our armored knights as they dismount.

TACLIGHTs, which are flashlights mounted on weapons systems, are another tool we need to add to our soldier's kit bag.

White light is the preferred method for clearing buildings, even in daylight, due to the dark and constrained environment of MOUT. White light requires little additional training and no need to boresight, unlike infrared aiming lights such as the PAQ-4C and the PEQ-2. White light, much like infrared lights, do require discipline and should only

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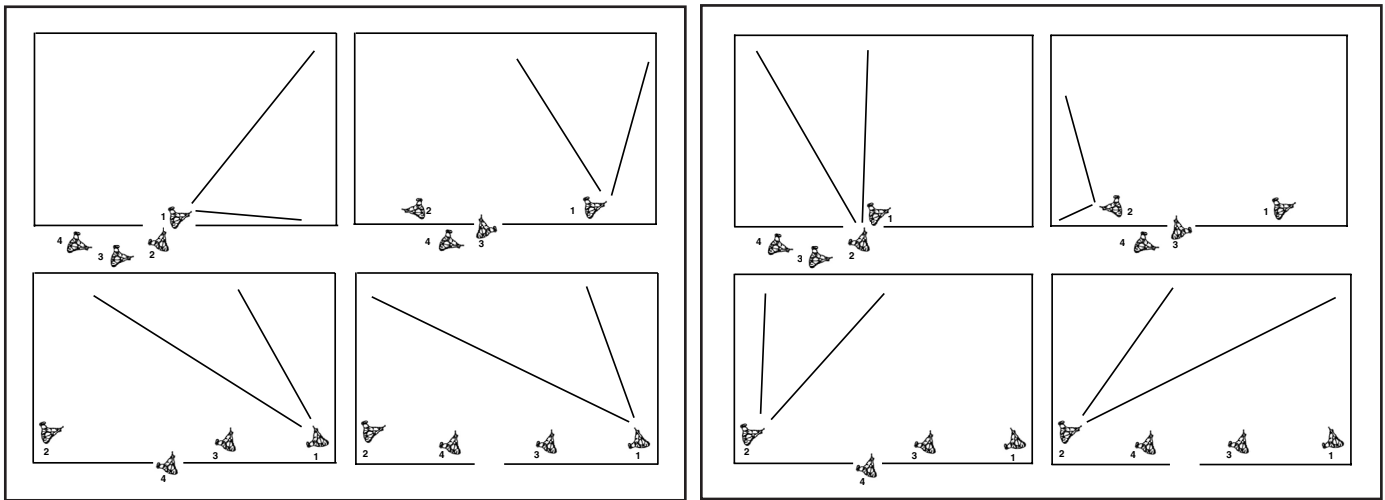
Figure 1. These diagrams from FM 3-06.11 show first and second man moving through entry point during room-clearing procedures.

be used once inside a building. These simple, yet highly effective tools can increase the efficiency of a soldier's search and improve his personal security.

MOUT Operations/ Breach Kits

We understand that to most tankers, breaching a building simply requires "Gunner, HEAT, Door!" This fire command, however, has limited value in the fluid MOUT environment our troops encounter today. Once dismounted, our armored warriors need to know how to breach doors to enter and clear a room.

Training MOUT is a necessary skill that can be taught with simple engineer tape and a knowledgeable instructor. Knowing what role each man needs in a three- or four-man stack is vital to MOUT survival. But before soldiers can execute the battle drill, they need to get into the building/room.

According to U.S. Army Field Manual (FM) 3-06.11, *Combined Arms Operations in Urban Terrain*, there are three major types of breaching methods: ballistic (shotgun), explosive (demolition), and mechanical. All three require specialized training and equipment. Mechanical breaching is the preferred method for a tank unit with little MOUT experience.[2]

A ballistic breach uses a ballistic entry method, be it a shotgun or an M1A1 main gun. Shotgun breaches require, of all things, a shotgun. Chances are most armor units do not have shotguns. Are they valuable? Absolutely! With the right training on how to conduct door breaches, shotguns can offer entry through just about any doorway.[3]

Explosive breaches require extensive training in the use of demolitions. Using C4, shock tube, det cord, and other devices, explosive breaches almost guarantee a way into a building. However, think about the last time you played with explosives in your unit. Again, this is another expert method of breaching and one that requires extensive training.

It is the mechanical method of breaching that often appeals to the tanker. Basically, use a tool to pry, rip, or disable an entry point, then enter the building. A tanker bar can be used in a pinch but highly specialized tools are available and should be added to the armor soldier's inventory. Halligan tools, sledgehammers, padlock busters, and other wicked tools used for years by rescue services are some mechanical breaching devices, which can make short work of a door. These devices are easily found online and through military supply catalogs. Again, proper training in using these devices is necessary; however, it does not take a lot of time to figure out how a sledgehammer works. By building mechanical breach kits, each squad or platoon will have the capability to rapidly breach any door or window with little specialized training. FM 3-06.11 provides a valuable list of breaching items, marking items, signaling devices and miscellaneous items valuable in building a platoon breach kit. Company commanders should fight hard to train soldiers and obtain equipment necessary for breaching operations.[4]

Battle Drill

Once the armored soldier has created a breach, the next step is to enter and clear the room/hallway. Figure 1 demonstrates prop-

(Center door)   (Corner door)
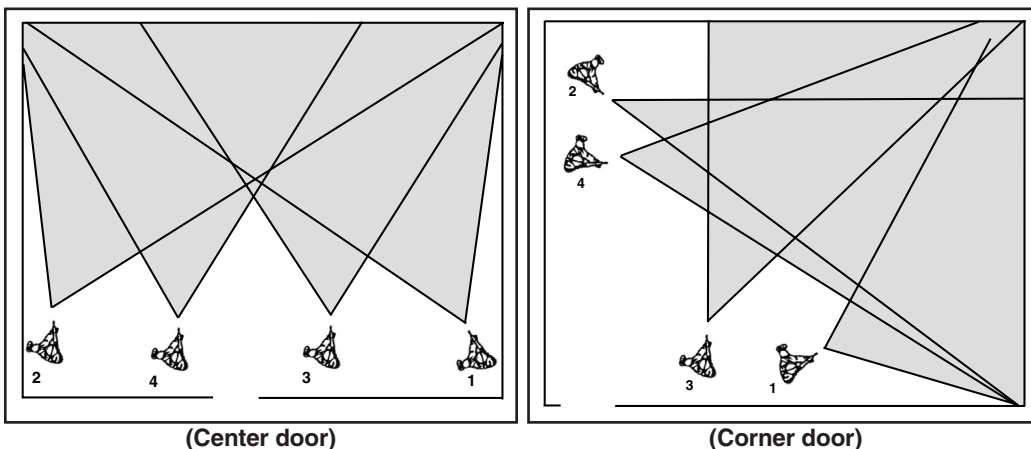
Figure 2. The diagram at left, from FM 3-06.11, shows the points of domination and sectors of fire for each team member during room-clearing procedures.

er room-clearing procedures that tankers need to know. Using Battle Drill 6 in FM 3-06.11, page 3-28, soldiers are broken down into three- or four-man teams and learn the role of each spot on that team.[5] Like any battle drill, repetition is key to learning. The battle drill clearly demonstrates the responsibility of each team member as they enter the room. Figure 2, from Battle Drill 6 in FM 3-06.11, depicts sectors of fire during room-clearing procedures.[6]

By practicing these drills daily, every tanker should be as skilled at these techniques as any member of a light infantry battalion. The enemy does not care if you are a tanker or a ranger, and neither should you. Every soldier preparing to deploy into harm's way needs to be proficient in these drills to ensure survival and continued success in MOUT operations.

ARMOR

Like the knight of old, our modern day mounted warriors have access to some of the best armor available. Kevlar and ceramic plates have replaced iron and steel. Each tanker on the ground needs to be equipped with the best available body armor and protective equipment. Obviously, the interceptor body armor must be made available to every soldier entering theater, complete with front and back ceramic plates. Ballistic eye protection is another overlooked vital piece of equipment every soldier should wear. Elbow and kneepads are simple pieces of equipment highly valuable in a MOUT environment and something many tankers are not used to wearing. Finally, every soldier

should have individual, hands-free hydration systems similar to Camelback and Hydrastorm designs. More than a simple convenience, these systems free up a soldier's hands to concentration on scanning for possible threats while remaining hydrated.

The Cold War days are long gone. Every tanker must now be a well-trained and successful infantryman, as well as a mounted warrior. Having the necessary skills and equipment to win in a dismounted environment are vital for today's armored soldiers. The equipment and training tools are there. Although, we have not discussed other necessary components of MOUT, such as mental and physical conditioning, reflexive firing techniques, and various MOUT movement techniques, all of these vital skills are found in FM 3-06.11.[7] As armor leaders, we must all be familiar with this FM and be prepared to win on another type of battlefield. Like our squire of old, we as leaders, must train and equip our mounted warriors for success.

After frantically searching, the squire returns with a mace, two-handed broadsword, and an axe. The knight nods approvingly at his squire and selects his weapon. Armed with the proper equipment to do battle on the ground, our knight moves forward to defeat his enemy once again.

Notes

[1]Technical Manual 9-1005-313-10, *Operator's Manual for Machine Gun, 7.62mm, M240*, U.S. Government Printing Office, Washington, D.C., July 1996.

[2]U.S. Army Field Manual 3-06.11, *Combined Arms Operations in Urban Terrain*, U.S. Government Printing Office, Washington, D.C., 28 February 2002, p. 3-26.

[3]Ibid., p. 3-25.

[4]Ibid, p. I-3.

[5]Ibid., p. 3-28, Battle Drill 6.

[6]Ibid, p. 3-32.

[7]FM 3-06.11.

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Operational Thinking in a Tactical Environment and Targeting in Iraq

by Major Bill Benson

The current threat environment in Iraq presents a series of challenges to conventional, linear methods of planning and conducting combat and stability operations. This fact demands that battalion staffs develop plans that address a variety of targets throughout the unit's battlespace and over the duration of its deployment. Using the steps in the military decisionmaking process to plan individual battles and engagements (a la the combat training centers) without developing a comprehensive campaign plan that addresses the variety of targets found in this environment is futile. Tactical-level staffs must think and plan at the operational level, as well as at the tactical level, to be successful. This article describes the current environment in Iraq and the techniques and procedures one armored task force is using to plan and conduct combat and stability operations.

Task Force 1st Battalion, 68th Armor Regiment (TF 1-68) is an armor task force operating north of Baghdad as part of 3d Brigade, 4th Infantry Division. When the task force moved south from Tuz, Iraq, into its current area of responsibility (AOR) on 25 June 2003, it was comprised of two armor companies, one infantry company, a headquarters company (scout and mortar platoons), a separate infantry platoon, a howitzer battery, an engineer platoon, and a civil affairs team. The task force later lost the howitzer battery, the separate infantry platoon, and the engineer platoon, and the infantry company was detached from December through February 2004.

The battalion's AOR measures over 500 square kilometers and is split by Highway 1, the primary north-south main supply route (MSR) in Iraq. The main population center is the Tarmiyah district, an outer agrarian suburb of the Baghdad Governate with an estimated population of 150,000. The AOR also includes an area south of the Balad airfield (corps logistics support area) that belongs to the Salah Din Governate. With the exception of Highway 1 and a few paved roads, irrigation canals and dirt roads dominate the area and become nearly impassable in wet weather. The area is host to the homes and farms of a large number of high-ranking Baathists, including "Chemical Ali" and others directly related to the former dictator. The population is highly tribal and generally unwilling to work with the coalition, unless coerced by money, force, or shame. To date, no local leader has come forward with relevant information about enemy attackers, and recruiting and arming attack cells continue.

The enemy has conducted more than 170 attacks in the area of operation (AO) just since June 2003. These have included mortar and rocket attacks on forward operating bases, rocket-propelled grenade (RPG) and small arms ambushes, and improvised explosive device (IED) attacks. In addition to attacks on coalition forces, the attackers have targeted contractors, police, local leaders, and Iraqi Civil Defense Corps (ICDC) soldiers. The task force's primary tactical missions include raids, cordon and searches, area security, route security, area and route reconnais-

sance, and mounted/dismounted ambushes. The task force has detained over 400 Iraqis and killed or wounded unknown numbers. Additionally, the task force has spent $1.1 million rebuilding 16 schools, completing irrigation projects, reforming the local government, and recruiting and training local police and more than 180 ICDC soldiers.

Most of us who have been assigned to battalion and higher staffs are familiar with the targeting meeting as a method to plan and coordinate lethal, and in some cases, nonlethal indirect fires. In a traditional role, the targeting meeting and targeting cell is most often used to address "deep" targets. On a linear battlefield, "deep" denotes distance. On a nonlinear battlefield, the term "deep" may denote distance, but also should be understood in terms of time. In this environment, a target may in fact be within a unit's area of effects, but because of incomplete intelligence, lack of available combat power, or political considerations, the unit may be unable or unwilling to engage the target with any immediacy. In this instance, the target's "depth" refers to its relevance to the current task force mission, as well as the ability of the task force to effectively engage the target.

Further complicating the planning process is the quantity and variety of targets and the length of time the unit must stay engaged. In an environment such as Iraq, battalions that address only certain types of targets, or address them without taking into account the third and fourth orders effects, may find themselves successfully accomplishing individual tactical operations without coming any closer to achieving desired goals or an endstate. While this may work on a conventional, linear battlefield with a well-defined enemy and endstate, it falls short in Iraq. The

variables are too many and the endstate too ambiguous at the tactical level. In this environment, a long-term plan, what could be referred to as a campaign plan, becomes a necessity. Accounting for environmental and mission variables while developing a plan that links various tactical-level engagements begins with visualizing the battlefield.

Visualizing the Battlefield — Defining the Tactical Problem

Visualizing the battlefield begins with the staff defining the tactical problem for the commander. In conventional combat operations, the tactical problem is usually associated with destroying enemy formations or seizing a piece of key terrain. Following major combat operations in Iraq, this approach would not work simply because defeating or destroying the main attack cell (assuming it could be identified), or occupying a specific piece of ground in the battalion AOR did not (and does not) equate to long-term success or mission completion. In Iraq, as in any environment requiring a unit to sustain combat and stability operations over an extended period of time, the staff must look beyond planning for individual battles and engagements and must instead think operationally, linking the various engagements into a comprehensive campaign plan. This is a departure from U.S. Army doctrine, which clearly places battalions at the tactical level of war.

Battalions develop these plans to link combat and stability operations and solve commanders' tactical problems. In Iraq, the majority of task force operations relate to long-term tasks that require synchronization and simultaneous execution to be effective. TF 1-68 is responsible for training and equipping local police forces, establishing a viable local govern-

ment, recruiting, training, and equipping the ICDC, securing the corps' MSR and logistics supply area (LSA), improving local infrastructure, and countering anticoalition information operations (IO). Of course, the task of destroying/defeating the enemy is omnipresent.

In this environment, targeting and destroying one attack cell is just one of many tasks to accomplish, and prioritizing resources against these tasks may mean some other task is not accomplished. Additionally, the method used to target the attack cell will impact all other tasks. For example, conducting a raid on a known attack cell that results in the death of innocent civilians may turn the local populace against the task force. As a result, the enemy finds it easier to recruit new members, the local police refuse to work with the coalition, ICDC soldiers quit and offer their knowledge of U.S. capabilities to the enemy, the local mayor resigns, and the population conducts demonstrations and produces flyers denouncing the coalition, just to name a few. This may be oversimplifying the situation, but these effects are being witnessed in Iraq and must be considered when developing tactical plans. So, when the staff attempts to define tactical problems for commanders, it must look beyond the obvious tactical targets and instead define tactical problems in relation to overall, long-term objectives.

The simple answer is to define the tactical problem by linking it to the purpose or endstate found in the higher headquarters' mission statement or commander's intent. The reality is that the purpose and endstate issued by higher headquarters may still be tied to the original, combat-centric task of destroying the enemy and not to the reality of securing an AOR and preparing a local population for self-governance. The staff owes the commander a recommendation and must be perceptive in recognizing and defining the tactical problem without specific guidance from higher. This is especially important in periods of transition from combat operations to combat *and* stability operations. In the case of TF 1-68, the tactical

"The only center of gravity the task force could identify in the AO was the power that local sheiks, government officials, and former Baath party officials held over the local community. For example, the mayor of Tarmiyah had purported ties to "Chemical Ali." He and the other local officials, such as the chief of police, maintained their influence over the local population through fear and extortion, in conjunction with many other local Baathists who actively supported returning Saddam to power."

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problem became how to set conditions to transition to a functioning civilian government.

Recommendations for Intent

Once the tactical problem is defined, the commander develops his intent to guide the staff's planning. Because of the complexity of the environment, the staff, S3, and XO, should expect to work with the commander on developing his intent. A recommendation for intent includes discussion of the decisive point, critical events, and endstate (friendly and enemy). The endstate should be tied directly to accomplishing the mission (tactical problem). The critical events become the task force's decisive and shaping operations. For TF 1-68, the decisive point became difficult to define. At the tactical level, the decisive point would normally be defined by an enemy's formation and capability, or a piece of terrain.

When the task force arrived in its AOR, it had practically no specific enemy intelligence and no obvious decisive terrain. The corps' MSR and LSA obviously had to be protected, but security operations are rarely decisive. The enemy was conducting frequent attacks against coalition forces traveling Highway 1, but reacting to contact is not decisive in relation to achieving a stated purpose and arriving at an endstate. Because of the lack of intelligence and unwillingness by the locals to divulge information, the task force rarely had actionable intelligence available to plan against targets. Many, if not most, of the offensive operations conducted by the task force during the first 5 to 6 months were the result of walk-up sources or actual contact that required immediate reaction. Little specific, offensive, tactical-level planning was conducted at the task force level.

Despite these problems, the task force was convinced that defeating the enemy was the decisive operation. But what was the decisive point and at what specific point would the task force win? Could a decisive point even be identified in this environment? The answer is "yes," but it required the task force staff and com- mander to think above the tactical level and consider the overall plan — the campaign plan.

The only center of gravity the task force could identify in the AO was the power that local sheikhs, government officials, and former Baath party officials held over the local community. For example, the mayor of Tarmiyah had purported ties to "Chemical Ali." He and the other local officials, such as the chief of police, maintained their influence over the local population through fear and extortion, in conjunction with many other local Baathists who actively supported returning Saddam to power. Because the power of these individuals influenced all of the task force's critical events, breaking that influence became the task force's decisive point. Because the task force initially could not attack this decisive point through planned offensive operations, it used its shaping operations, such as destabilizing influence and encouraging local support and informants, to set the conditions. Each of these operations required a long-term vision and plan. Once the vision/intent was developed, linking the vision and campaign plan to specific tactical operations became the purpose of the task force's targeting meeting.

Targeting

The task force's approach to targeting is simple: list decisive and shaping operations (based on critical events) developed in the campaign plan; determine the desired effects; and develop targets that contribute to accomplishing those effects. Targets were limited to those that required or demanded task force-level planning or resources to address.

During June and July, because of a lack of enemy intelligence, there were relatively few actual targets listed under the decisive operation — "defeat the enemy." However, by January there were over 40 named targets, grouped by attack cell. As targets were captured or killed, their names were removed. If a target had been on the list for several weeks with several unsuccessful attempts at engaging and no new intelligence gathered, it would drop below the line. The same situation was true with shaping operations. Under "secure the area of operations," the police chief became a target early on because of some unconfirmed reports of inappropriate activity. The effect for that target was to make a decision on whether to keep him as the police chief or fire him. Based on that effect, a number of methods were developed to gather the needed information, which units were tasked to collect.

Once the information was gathered and the decision was made to fire the police chief, the effect changed to "fire the police chief." A new method was then developed that included identifying and hiring replacements. Even the specific method of firing was discussed to determine the wider impact of the operation, such as to fire him publicly or privately, detain him, have the local police arrest him, and whom to place as the interim police chief. The ultimate decision was to fire him in person, banish him from the area, and conduct an IO campaign with handouts explaining why he was removed and who would now be in charge. Ultimately, the task force had to fire the interim police chief as well, but because of the IO campaign and other operations conducted simultaneously, such as increasing police patrols in the area, the firings actually had a positive outcome with the population.

This technique of adapting a conventional tool (the targeting matrix) for use in tracking, prioritizing, and delineating targets related to combat *and* stability oper-

Operation	#	Effect	Target	Location	Means	Method	Assessment
Defeat the Enemy (Decisive)	1	Defeat Ghamizy Attack Cell	High-Value Target #1	MC123445	BN TF	Raid on **JAN 04	
	2		High-Value Target #2	MC125678	BN TF	Raid on **JAN 04	
	3		High-Value Target #3	MC127654	BN TF	Raid on **JAN 04	

Figure 1. Example of Targeting Matrix for Defeat the Enemy

Operation	#	Effect	Target	Location	Means	Method	Assessment
Secure the AOR (Shaping)	1	Install an effective county police chief	Tarmiyah Police Chief	MC123445	S2 CA S6	Interview local residents and police; inspect police records, check on police operations	Recommend to fire police chief based on ineffective policing and reports of extortion and bribes
	2	Police can communicate throughout county	Tarmiyah Police Force	Police Station	S4-contracting	Purchase radios	Limited to 50k on contracting, follow up on *** JAN with BDE
	3	Uninterrupted power at police stations	Tarmiyah Police Force	Police Station	S5 S4	Determine requirement, purchase generator	Unreliable local power, recommend purchase 100 KW generator

Figure 2. Example of Targeting Matrix for Secure the AOR

Operation	#	Effect	Target	Location	Means	Method	Assessment
Improve Infrastructure (Shaping)	1	Improve schools in Mushaedah	1 boys school, 2 girls schools	MC123445, MC987654, MC567765	CA	Accept bids on named schools up to 70K, half payment available at start of work	
	2	Improve drinking water in county	County water supply	TBD	Animal Company CMO	Recon water distro plant NLT 24 DEC	County Engineer to list problems and make bid for work
	3	Improve gasoline supply	Gasoline stations	MC123678 MC098765 MC236745	All units CA	Distribute IO product on rules and procedures regarding black marketing of gasoline; detain individuals who violate new regulations	Not all citizens know of new regulations; continue with IO campaign

Figure 3. Example of Targeting Matrix for Improve Infrastructure

ations was cumbersome at first. The staff struggled with definitions and format. After a few weeks, however, the task force commander and staff relied on this matrix to coordinate and synchronize battalion resources to address more than 60 targets at a time, which ranged from high-ranking Baath party members to lower level attackers, sheikhs, city councilmen, school rebuilding projects, and the ICDC.

A formal targeting meeting was conducted weekly to review old targets and nominate new ones. The commander, S3, XO, S2, S5 (fire support officer), civil affairs team leader, company commanders, and company civil-military operations (CMO) representatives attended these meetings.

The S3 ran the meeting — the reality of operating several base camps means that the XO is fully engaged in base camp support. He still surges in the tactical operations center for specific operations, but does not orchestrate the daily security and stability operations for the task force. In addition to the formal targeting meeting, numerous informal and often impromptu targeting meetings took place with ad hoc groups. During peak times, these occurred daily. It is important to note that few targets were ever provided by higher headquarters. Virtually all the targets, with the exception of two or three, were developed from interaction between company/battalion leaders and local civilians, and all of the offensive operations conducted (with the exception of support to other government agency missions) were initiated by the task force.

One important note — the targeting meeting and targeting matrix do not preclude or replace detailed planning. The MDMP (albeit modified) still has its place in developing operation orders and fragmentary orders and cannot be disregarded. For TF 1-68, the targeting meeting and matrix became a tool for the commander to prioritize targets for the staff and ensure courses of action being developed for combat operations in the S3 shop were coordinated and synchronized with the civil-military operations being planned by the civil affairs and CMO representatives. This sounds elementary, but the reality is that the contemporary operating environment is so complex and requires so many different targets to be addressed simultaneously that, unless units have a plan to do this, it will not get done.

The takeaway for tactical-level staffs is that they must be prepared to develop long-term plans across the spectrum of combat and stability operations that link individual engagements and tactical missions. No other headquarters can accomplish this for the task force because no one will (or should) understand the task force's AOR like its staff and commanders. The size of the area, the length of the deployment, and the number and variety of tasks being conducted simultaneously necessitate this type of planning. Using the traditional targeting meeting and targeting matrix in a slightly unconventional way is one technique to make the process manageable and maximize the effectiveness of the task force's resources and combat power. Ultimately, it was not the product, but the orchestration of effects the process produces that proved invaluable to the success of TF 1-68 Armor in Iraq.

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2d Squadron, 3d Armored Cavalry Regiment

The Government Support Team in Fallujah

by Captain Gregory Mitchell and Captain Christopher Haggard

Prior to Operation Iraqi Freedom, the city of Fallujah, and Iraq as a whole, relied entirely on the directives from the Baath party and the political and personal goals of Saddam Hussein for political and administrative guidance. Baath political directives were the only source of authority, which maintained stability and peace in a town of smugglers, religious zealots, and tribal strife. When the regime fell, the city of Fallujah entered a lawless period when, without Saddam and the former party apparatus, the people of Fallujah fell back on the traditional sheikhs and Islamic clerics (Imams) for their leadership.

In the absence of the Baath Party, the tribal sheikhs and Islamic clerics presented themselves to the coalition and the community as the legitimate voices of political authority in the city. Their post-war ascendance in Fallujah has been a mixed bag for coalition authorities. In addition to serving their community, the Imams and the sheikhs have also exploited this lawlessness to increase their authority and wealth in the city. Coalition forces were

forced to form a tenuous partnership with tribal leaders and Muslim clerics whose leadership is inherently undemocratic. Their power lies in ancient family relationships and medieval religious laws that make democratic change difficult. Unlike Baghdad, Fallujah does not have a strong professional class, therefore tribal and Islamic religious leaders will continue to dominate city politics in the near and long term. The Iraqi political landscape will challenge the efforts of commanders to establish safe and secure environments.

During the 2d Squadron, 3d Armored Cavalry Regiment's (2/3 ACR) tenure in Fallujah, the unit's government support team (GST) was the coalition's primary political liaison with local Iraqi authorities in Fallujah. The mission of the GST was twofold: to prepare the city of Fallujah for a democratic form of civil government and improve cooperation between U.S. forces and the local population. The GST in Fallujah was initially established and led by Captain John Ives of 2d Brigade, 3d Infantry Division, during that unit's occupation of the city from 9 June

through 26 July 2003. In mid July, Coalition Provisional Authority (CPA) members attempted a meeting with Fallujah's mayor, Taha Bedawi, to discuss establishing a CPA office in Fallujah. When the CPA delegation arrived, they were greeted with a mortar attack on the mayor's compound, orchestrated by Taha Bedawi's city manager and right-hand man, Mr. Ziad. Ziad had left the building as the delegation entered and probably signaled the attackers with his satellite phone. Ziad was arrested and is currently in coalition custody. The only casualty of the attack was CPA's willingness to open an office in Fallujah, which would have paved the way for millions of relief project dollars and civilian civil engineering expertise above and beyond what U.S. Army civil affairs can provide. Because Fallujah remained an unpermissive environment, the city's relationship with the coalition would continue to be brokered through the GST office for which 2/3 ACR assumed responsibility on 26 July.

The 2/3 ACR's GST staff was comprised of an armor captain, a field artillery first

"The political team had a separate twofold mission: identify legitimate political and religious leaders in the community who warrant an audience with the squadron commander, as well as political and religious figures opposed to coalition efforts, to establish a safe and secure environment in the city. This was accomplished in the GST office through a series of meetings with local tribal, political, and religious personalities."

lieutenant to staff the political liaison and claims office, and a team of engineer officers and noncommissioned officers from 489th Engineers, South Carolina National Guard, to man the engineer office. Reconstruction projects were proposed to the engineer office, which worked with an Iraqi engineer committee from the local community and U.S. Army civil affairs assets attached to the squadron. The political team had a separate twofold mission: identify legitimate political and religious leaders in the community who warrant an audience with the squadron commander, as well as political and religious figures opposed to coalition efforts, to establish a safe and secure environment in the city. This was accomplished in the GST office through a series of meetings with local tribal, political, and religious personalities. All meetings were conducted within the relative security of the mayor's cell compound, and at 2/3 ACR's compound for the Mujehadeen Al Khalaq based on the eastern edge of the city.

Through civil engagement, the GST identified 11 tribes, 22 major tribal leaders, and 11 approximate tribal geographical boundaries. The squadron commander effectively leveraged influence in these tribal areas by personally reviewing engineering projects and approving or disapproving them based on the security situation in the different regions. The GST was the vehicle for this leverage and the platform for the commander's dialogue

with sheikhs regarding security in the city and outlying rural areas where tribal influences are strongest.

Identifying tribal leaders and the geographic boundaries of their influence in the area of operations allowed the squadron commander to hold the local sheikhs accountable for anti-coalition violence in their tribal areas. The commander approved or denied engineer projects based on a sheikh's willingness to accept responsibility for the tribe's actions. On several occasions, sheikhs came forward to offer intelligence on criminal and terrorist activities of certain members of their tribe or other community members. To exploit this intelligence, the GST worked closely with one of the squadron's attached tactical human intelligence teams (THT). Tribal leaders and other prominent members of the community would come forward to the GST team leader and the team leader would conduct a handoff to the THT. The importance of the GST's role in improving the commander's relationship with local leaders cannot be overstated. Through the GST, the squadron commander developed valuable personal relationships with local leaders, which had an enormously positive impact on 2/3 ACR conducting operations in the area of operations.

Sorting through hundreds of tribal and religious figures, who all claim to represent thousands of followers, became a pri-

mary goal of the GST in Fallujah. When 2/3 ACR relieved the 2d Brigade, 3d Infantry Division, a sheikh council was established to assist coalition forces and the mayor in stabilizing and reconstructing a badly neglected city infrastructure. This sheikh council chose Taha Bedawi to lead the city through its reconstruction period. We discovered that after several weeks of dealing with Mayor Taha and his council of sheikhs, there was a second council of 15 major tribal leaders, who did not participate in the mayoral election and held equal, if not greater, political influence in the streets of Fallujah. Passive information collected from daily engagement patrols conducted by an attached tactical psychological operations team from the 361st Psychological Operations Company, confirmed general discontent with Taha's mayoral regime and his camp of sheikhs. The opposing sheikhs claimed that the mayor and his supporting sheikhs embezzled coalition reconstruction project funds. One of the regiment's THT teams concurred with sources among the opposing sheikhs that the mayor's team of civil engineers and contractors were embezzling much of the money supplied by the coalition for reconstructing city schools and infrastructure. Contracts were also disproportionately awarded to contractors from two of the seven major tribes of the Fallujah area.

At times, the GST had to directly manage certain activities of the mayor's office and its control of the city. The arrest of Mr. Ziad left the second most important position in the city's government vacant. Ziad had acted as an executive officer for the mayor and his absence caused a major backlog of unfinished business, everything from hiring and paying facility protection service officers guarding important infrastructure in the city to monitoring departments within the public works office. The city's sewage and water infrastructure was in disrepair and little was being done to address the problem. With the squadron and regimental commanders' approval, the GST recommended Mr. Ra'ad, a close ally of the coalition's efforts, for the position. Ra'ad was a competent administrator who had the backing of several powerful sheikhs. He was also opposed to the corruption that plagued the mayor and his staff. Most of the mayor's staff were part of his extended family and all benefited from the black-market sale of diesel and gasoline in the city. The mayor was also guilty of misappropriating funds paid by the 2d Brigade, 3d Infantry Division, which were earmarked for project funds. Through Mr. Ra'ad's appointment, the coalition had

the means to ensure a greater degree of accountability within the mayor's office and city administration.

The GST makes efforts to identify political parties and educate individuals who do not entirely rely on their tribal affiliation for personal status. One of the GST's last acts prior to relief in place with the 2d Brigade, 82d Airborne Division, was coalition recognition of a group in Fallujah, the *al Mujtema al Medeny* or "civil society," which is run by local lawyers, teachers, doctors, and political bosses. A democratic future in Iraq will depend on widening the franchise of educated men and women whose identity and self worth is based on more than their tribal and religious affiliations.

Public Relations

In addition to assessing and affecting the political conditions in Fallujah, the GST directly engaged the local population through its public relations (PR) office. The PR office had three tasks: to accept, investigate, and forward claims to the regimental judge advocate general's (JAG's) office for compensation from U.S. forces in accordance with the Foreign Claims Act (FCA); to identify and locate detained Iraqi family members; and to return vehicles that were seized from thieves or improperly seized to their rightful owners. These tasks were complex and at times very difficult to accomplish; however, the attempt, even if unsuccessful, proved very valuable in winning local support for coalition forces in and around Fallujah. The PR section of the GST demonstrated to the Iraqi public respect for private property and unit commanders accepting accountability for their soldiers' actions, a character trait noticeably absent in Saddam's Iraq.

The 2/3 ACR GST forwarded claims, ranging from minor property damage to death, to the JAG office. With the assistance of locally hired interpreters, the claimant told the story of how they or a family member were injured or their property was damaged or destroyed by U.S. forces. The requirements for personal injury claims and property damage claims were similar. Personal injury claims required a narrative of how the person came to be injured, the medical care rendered, and witness statements from both U.S. forces and Iraqis involved. Property damage claims required more detailed documentation from the claimant. To file a claim for property damage, the claimant provides a narrative of the incident, photographs of the damage, estimates to repair the damage or replace the property,

and witness statements from U.S. forces and involved Iraqis.

To determine the validity of the claims, the provisions of the FCA were applied. According to the FCA, foreign nationals may make claims for compensation against the U.S. Government for death, injury, or property damage suffered during noncombat operations, or due to negligent or wrongful acts of U.S. Armed Forces personnel. By strictly applying the FCA to the claims collected, only eight claims out of 56 collected were approved for payment. All eight of those claims were for property damage. Eleven claims were filed for death or injury and the regiment did not approve any of the claims for payment. The commander of the 2d Brigade Combat Team (BCT), 3d Infantry Division authorized using the commander's discretionary funds for making *solicia* payments for death and injury. Payments of $500 and $1,500 were made to Iraqis for injuries and death, respectively. The citizens of Fallujah and the surrounding countryside were very receptive to these payments and the 2d Brigade contended they became more supportive of coalition efforts. These *solicia* payments to Iraqi families were based on an ancient Iraqi tribal tradition of paying blood money (Ta'aweedth) to end a tribal feud. Ta'aweedth worked to end revenge and reprisal attacks on U.S. forces. The 2/3 ACR was unable to continue the *solicia* payments that 2d BCT, 3d Infantry Division began due to legal and financial constraints.

Establishing the Foreign Claims Commission (FCC) in Iraq augmented the coalition's efforts to build a safe and secure environment. However, its effects were limited by the regiment's strict interpretation of the law. The following example illustrates the limits of the FCC:

On 25 August 2003, a patrol being conducted by 2/3 ACR on Highway 10 near the town of Habbinyah was ambushed with improvised explosive devices (IEDs), rocket-propelled grenades (RPGs), and small-arms fire. A supporting unit reinforced the patrol by launching the quick reaction force (QRF), comprised of two M1A2 Abrams tanks. Arriving on scene, the reinforcing unit's section engaged enemy dismounts with suppressive fire to cover the evacuation of the wounded. During the suppression of enemy fire, an Iraqi civilian approached the ambush site in his personal vehicle. During the Iraqi's attempt to turn around and leave the scene, the QRF tank section fired on him. The Iraqi's car was completely destroyed. The next day, the Iraqi, who was uninjured, arrived at the GST's PR section to file a claim for the loss of his car. The Iraqi had all the required documents with the exception of statements from the U.S. forces involved. The Iraqi said he was un-

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armed, in the car alone, and in the area to pick up his brother for a trip to Baghdad. The U.S. soldiers involved stated they thought the car was part of the attack. The claim was eventually denied because U.S. forces were reacting to an ambush in self-defense.

This example is just one of many difficulties in operating in an urban environment against an enemy force that does not wear uniforms or use military vehicles or traditional tactics. This makes identifying combatants very difficult. The QRF had engaged enemy forces hidden in a field when a civilian car approached along a heavily traveled highway. The occupant of the car attempted to leave the area, was unarmed, and did not threaten U.S. forces. In this case, the Iraqi clearly was not a combatant, but because his car was destroyed during a combat operation, the FCA did not allow compensation for the loss. In this one instance, U.S. forces lost the support of an Iraqi national who may have previously supported the coalition.

To resolve this apparent conflict between western laws and eastern customs, a training program should be instituted that allows both commanders and soldiers to know how their enemies and possible allies think. U.S. forces have already begun this process by respecting a few Iraqi customs, such as having female soldiers search female Iraqis and showing proper respect to identified local leaders. Coalition forces may benefit from a deliberate study of traditional tribal conflict resolution, including the payment of blood money (Ta'aweedth) for the loss of innocent life.

Detained Persons

The second facet of the PR section was to assist Iraqis in locating family members who were detained by U.S. forces. This seemed like a fairly easy and straightforth task; however, it proved to be extremely difficult. The root issue of finding detainees was properly identifying persons we were trying to locate. Identifying an Iraqi by name proved difficult due to the number and order of the names a specific Iraqi national uses, as well as how the names are spelled. Using transliteration to convert Arabic phonetics into English proved difficult to standardize. A standard Arabic transliteration system exists and is used by academics and linguists. The U.S. Army should adopt this system in the Iraqi theater to limit confusion in the detainee process. To complicate matters, Iraqis use up to five names to identify themselves. Identifying a person by name is difficult even if it is spelled properly. The first name is the person's given name, the second name is the father's name, and the third name is the grandfather's name. Iraqis sometimes use a fourth name, often their great-grandfather's name, and a fifth name often identifies a person's tribal affiliation. One individual could identify himself with any combination of these names.

Identifying an Iraqi by a prisoner of war (POW) capture tag number was also difficult. The military police (MP) units were very good at processing the proper documentation (POW capture tags) for each detained person. Other units were not thoroughly trained to properly process capture tags, and developed unique alphanumeric identification systems that were confusing to other units. This numbering system was further confused when identification numbers were changed or reassigned at higher echelons without notification to subordinate units. V Corps' provost marshal's office attempted to consolidate a theater-wide detainee list in a spreadsheet format. However, this list contained over 5,000 names and was extremely cumbersome to use due to nonstandard spelling, nonstandard tracking numbers, and the number of names for each person listed.

In the future, all units deploying to a theater of operation should receive training on detaining, processing, and holding foreign nationals. A standard should be developed by the theater command and strictly adhered to by all subordinate units. This standard should include training on using POW capture tags, prescribed methods of recording and reporting detainee information to higher units, and disseminating consolidated detainee rosters to subordinate units. With strict use of POW capture tags and standards for spelling and listing the five names for each individual, the consolidated detainee list could have been a powerful tool to locate detained Iraqi family members.

Returning Seized Vehicles

The third and final facet of the GST's PR section was to identify and return seized vehicles to their rightful owners. There were two main reasons seized vehicles were returned: vehicles seized when owners were detained and subsequently released, and vehicles seized from wrongful owners at traffic control points or during raids. Identifying the proper owner of a vehicle was very easily accomplished. Vehicles in Iraq have vehicle identification numbers and chassis numbers that are printed on registration cards that the owners must present to prove ownership. Once ownership was established, the owners gathered outside the main gate to the squadron's compound once a week. The PR section would then escort the owners on to the compound to claim their vehicles.

On occasion, it was difficult to find vehicles. Units were authorized to use nontactical vehicles (civilian vehicles) for mission essential tasks. Because units misunderstood the intent of this authorization, some units would keep these vehicles and take them to other areas of operation following a relief in place. For ex-

ample, unit blue would seize a vehicle in Fallujah and then take it to Tikrit after unit green relieved unit blue in Fallujah. An Iraqi, whose vehicle was seized in Fallujah by unit blue, would come to unit green, now operating in Fallujah, asking for his vehicle. Unit green would not know anything about this vehicle because unit blue took the vehicle to Tikrit. This particular situation occurred many times and it was extremely difficult, if not impossible, to locate these vehicles and return them to their proper owners.

Another situation that made returning vehicles difficult was that some units used vehicles for base camp operations. During these operations, vehicles would get damaged and the Iraqis had to file a claim to have their vehicles fixed. These claims were rarely approved due to lack of accountability on the U.S. forces. Units would insist that the damaged condition of the vehicle was the condition in which the vehicle was seized.

Training on properly using Department of the Army Form 4137, Evidence/Property Custody Document, and enforcing its use would have made the process of finding seized vehicles easier. Using this form would have also enforced accountability for using seized vehicles as well.

The 2/3 ACR built on the successful GST model developed by 2d Brigade, 3d Infantry Division during their period of responsibility for the city of Fallujah. The GST identified important political influences, developed relationships with important figures, and exploited these relationships to encourage a safe and secure environment for Iraqi citizens and coalition forces. The administration of Iraqi civil government is made easier if we empower individuals who share our goals of democratic city governments. There are Iraqi men and women who are willing to put their personal interests aside and serve their communities, but finding them in a city such as Fallujah is difficult and requires a GST dedicated to studying local tribal and civil politics. Because of a variety of cultural factors, Iraqis are prone to corruption and nepotism. If not closely monitored, they will embezzle aid money and misappropriate resources provided by the coalition. Commanders must carefully study Iraqi candidates before appointing them to vacant positions in the civil administration. A competently led GST can assist a commander in screening qualified candidates.

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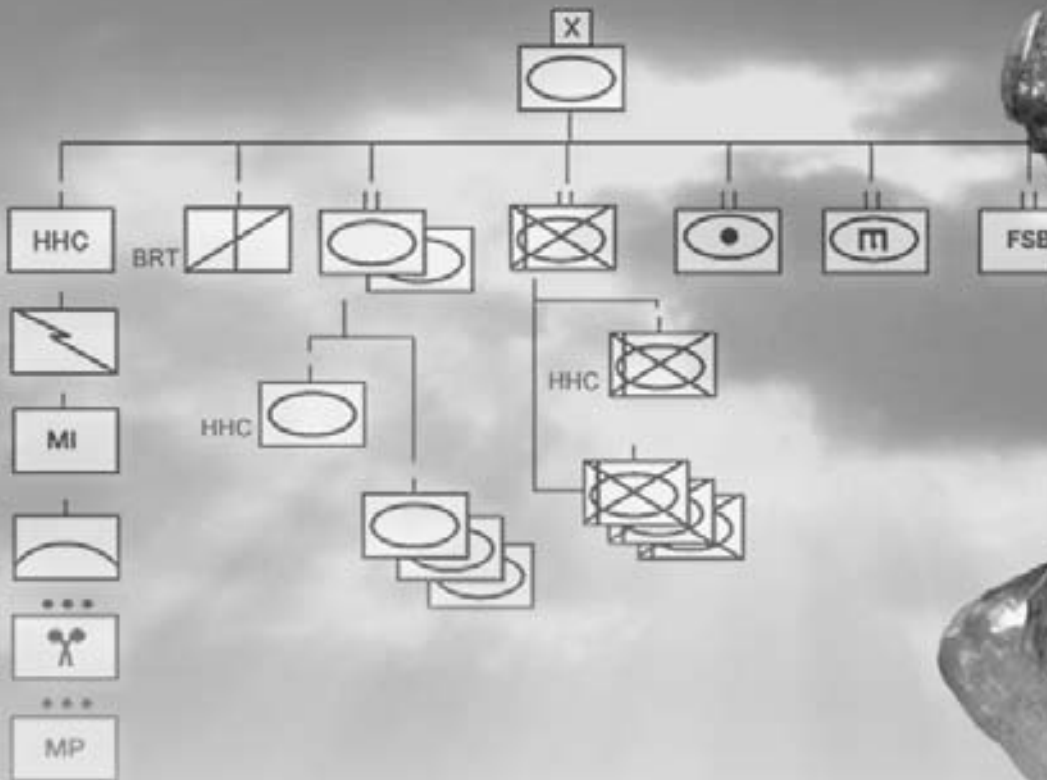
Thoughts on Restructuring Army Brigades

by Colonel Kevin C.M. Benson

"I want to know if he can turn his three brigades into five maneuver brigades, and if I provide the right equipment, could they be one and a half more lethal than before…This is just a question, but I believe with the right enablers it can be done."[1]

The U.S. Army's Chief of Staff, General Peter J. Schoomaker, has called on our Army's best efforts to restructure the current force so we can send our forces into the ongoing fight with the best developing equipment, and more importantly, the best war-tested concepts for deploying and fighting. One such task force is meeting now under the U.S. Army Training and Doctrine Command (TRADOC) auspices to determine the size of the so-called unit of action or brigade combat teams.

Drawing from Colonel Doug MacGregor's "Breaking the Phalanx" ideas for a regimental based force and from recent operations in Iraq, the purpose of this article is to enter the intellectual fray and stimulate thought from within the armored force. Far too many people adhere to the notion that the Army cannot transform from within, as we are too hidebound, too wedded to orthodoxy.

Clear-sighted, forward-thinking mavericks founded our armored force; the armored force *is* innovation and transformation. One of our founders, Brigadier General Adna Chaffee, defined the armored force as a team of all arms, with equal glory for all. Glory may be passé or antiquated in this post-modern era, nonetheless our proposal seeks to stimulate thought, rekindle the fire of debate within the armored force, and perhaps even contribute to the debate in a meaningful way; lest all "debate" take place behind closed doors away from the ideas of our armored force officers. Indeed, this effort is so important, as are all of our Chief of Staff, Army (CSA) focus areas, that all Army officers are obligated to write and present proposals on how we change our forces. We cannot let this process go on behind closed doors. We are at war, but our forefathers in the armored force were also at war and found the time to write, think, and debate on the structure of their armored divisions, weapons, and means of making war. We can do no less.

The proposed brigade combat team (BCT) must be lethal, balanced, and modular (previously known as task organized). Modular also means we can deploy the BCT and have it almost literally either "plug" into established/establishing theater support units or remain plugged into its home installation/projection platform for all manner of combat service support and resupply. This is a very different way of looking at these forces. We cannot let the standard answer to a regional combatant commander be a division or nothing. Our previous CSA reminded us that we might not like change, but we will like irrelevance a great deal less.

General Schoomaker asked, "Can we balance our force structure and develop increased modularity so as to enhance our critical role in effective joint contingency operations while maintaining our campaign qualities?"[2] In the short term, the newly redesigned armored force BCTs should fall in on established pre-positioned sets of equipment.[3] In the long term, as we field the future force, the BCT must accept the future combat system family of vehicles with minimum effort and new equipment training to reduce the time a BCT is unavailable.

This effort is actually underway at the 3d Infantry Division. I have no link to Fort Stewart, but the redesigned armored BCT should come from the Marne Division and others within the armored part of the current force. The 101st Airborne Division will, I understand, also recast into more modular BCTs on return from operations in Iraq. True modularity will require the armored BCT and the air assault BCT to share a common operational picture from the start of operations, as well as link into a common higher headquarters, regardless of that headquarters'

form, either based on an armored division or an air assault division.

Based on experiences drawn from Operation Iraqi Freedom, the BCT should have an internal capability to perform reconnaissance. If we assume that in future fights, divisions, corps, field armies, or joint task forces will succeed in applying operational fires to shatter the enemy force's command and control capabilities and large organized formations capable of maneuver, then the fights conducted at BCT level and below will be movements to contact against disorganized enemy forces. A corollary to this assumption is we must assume that any potential enemy will learn from our recent operations and not present organized targets for our operational fires again, placing a demand for reconnaissance on our redesigned forces. A BCT commander must therefore not only have the built-in command and control capability to link with division and higher intelligence systems, but he must also develop/refine the situation on his own as he sets the conditions for his battalion task forces' success.

Also, based on ongoing operations, the BCT must have the requisite on-ground infantry strength, as well as reconnaissance strength, to engage in stability and support operations. Any new structure for our BCTs must be balanced combined arms teams, where infantry is an absolute requirement. We saw in the opening stages of Iraqi Freedom that armor and armored infantry present the enemy with an overwhelming combination of speed, mobility, shock effect, and firepower. Our new BCT must have the capability to close with and destroy the enemy; the requirement for close combat will not go away. Following the assumption stated above, the BCT commander must have on-the-ground combat strength to fight and conduct stability operations because he may have to do both simultaneously.

For the purpose of this article, we will accept the theory that the clash of massed conventional armies is unlikely, at least in our operations for the foreseeable future; therefore, armored forces will most likely be used in either pre-hostility operations, such as show of force, or combat and post-hostility operations against remnant, irregular, or unconventional forces.[4] Strike operations with heavy forces are possible and even likely if we can succeed in developing a more rapidly deployable BCT.

The BCT structure of the current force may be better organized as indicated below.[5]

- BCT headquarters comprised of:
  - A brigade headquarters and headquarters company (HHC) with a rifle platoon for tactical operations center (TOC) security.
  - A brigade reconnaissance troop.
  - An unmanned aerial vehicle (UAV) company for extended reconnaissance.
- Two combined arms battalions:[6]
  - Each task force has four maneuver companies (each company has two tank platoons of four tanks and two mechanized infantry platoons of four M3A2s).
- Fire support battalion with:
  - One howitzer battery, two mortar batteries, and a UAV battery.
- Combat support battalion staffed with:
  - Engineer, psychological operations (PSYOP), civil affairs (CA), signal, and military police (MP) companies.
- Forward support battalion staffed with:
  - Medical, transport, supply/distribution, and maintenance companies.

This structure's success depends on making network centric communications work. The BCT headquarters must be able to fight within a battlespace-encompassing network of information-sharing devices that give the BCT commander and his subordinate commanders not only a common operational picture of where friendly and enemy forces are arrayed on the battlefield, but also a total picture of supply and maintenance status. The network must support commander centric planning and execution, as well as staff to staff information sharing on status of key systems and units. The BCT must be able to integrate its communications systems into the common operational picture of the higher headquarters and with the home station/projection platform, depending from where the BCT draws its supplies.

The CSA wants these smaller, more lethal units to be half as powerful as the current BCTs. This can only be done with superior information and decision superiority, which will enable our units to achieve a mobility differential over any enemy force in a major combat operation, stability operation, or show of force deterrence operation.

The BCT headquarters will coordinate the supply and resupply function for the task forces. Given that BCTs will have the capability to operate independently from division control, we can remove the G4 element from division headquarters, thereby making division headquarters more of a command and control element. G4 actions will go from BCT level to installation level (when at home station), or corps or Army service component headquarters (when deployed), or even the proposed joint logistics task force currently under development by Department of the Army G4.

The two task forces of the BCT will be balanced. Each task force will have two tank companies and two mechanized infantry companies. The task forces will retain their scout platoons. This organization of two tank and two mechanized infantry companies is a reminder of the U.S. Army's attempt at combined arms battalions that were established in the 1st Cavalry Division in the late 1980s and early 1990s. We must go beyond that experi-

"The proposed brigade combat team (BCT) must be lethal, balanced, and modular (previously known as task organized). Modular also means we can deploy the BCT and have it almost literally either "plug" into established/establishing theater support units or remain plugged into its home installation/projection platform for all manner of combat service support and resupply."

ment. The proposed company team organization requires that officers assigned to the company be familiar with both the Bradley and the Abrams fighting systems, as well as the requirements of training both infantry and armor troopers. The company headquarters must have an M1A2 and a Bradley A3 in the headquarters platoon. The task force headquarters company must also have a section of tanks and a section of Bradleys in place of the standard tactical operations section. A task force would therefore have 38 M1A2s and 38 M2A3s as the combat power of the BCT — total tanks and Bradleys would be 78 M1A2s and 82 M2A3s.

The fire support battalion will consolidate the two mortar platoons of the original battalions into batteries. This fire support battalion will respond to the immediate fire requirements of the task forces. Adding a UAV battery will enhance the fire support commander's observation assets and provide links for reinforcing fires from restructured division artillery.[7] The fire support battalion would have 12 120mm mortars, six M109A6 Paladin howitzers, and four Shadow UAVs. The fire support battalion would also continue to provide fire support coordinator teams to the maneuver companies and task forces. Although the UAV battery extends forward observer eyes for the battalion, it should also be organized to provide data links to the BCT UAV compa-ny, thereby extending the entirety of the BCT common operational picture from scouts, UAVs, and linked data systems from higher headquarters.

The combat support battalion will consolidate previously reinforcing capabilities into one command for direction during training periods, prior to commitment to combat operations and focused sustainment, and after commitment to an active theater. Ordinarily, CA, MP, and PSYOP units are attached to the BCT, but this proposal attaches these units as part of the BCT's permanent structure. Constructing the usual cross attachment of engineers, MP, CA, and PSYOP units into a standing battalion increases the modularity of the entire BCT. It also removes the "ad hoc-ery" usually found in the always late cross attachment of other combat multipliers we face prior to going into battle. Cavalrymen familiar with the command and control squadrons of the border regiments during the Cold War will recognize this organization. It was a good idea then and remains a good idea.

The forward support battalion commander will have the dual role of supply coordinator and commander of logistics troops for the BCT. Placing both task forces' support platoons and the fire support battalion into the structure of the forward support battalion increases the forward support battalion's ability to accomplish the extremely important mission of dis-tributing supplies within the BCT battle-space. Distribution and distribution management will be the major challenges of sustaining operations, especially on a truly nonlinear battlefield.

The commander of the BCT logistics troops must have both the means to distribute supplies and a situational awareness of the BCT's supply status along with an operational picture to conduct operations in support of the BCT. The combat service support (CSS) unit's common operational picture must be a part of, and not distinct from, the BCT's overall common operating picture. The CSS commander must further have the means to integrate his picture into the joint task force or land component picture to anticipate combat units' needs and coordinate the arrival of supplies not "just in time," but ahead of time and necessity. While increasing reliability of our systems is a worthy goal, we must deal with the builders of our combat systems — the supply and distribution system itself must give "Murphy" his due. The needed repair part *will* be late or get lost, or the essential truck carrying A34's final drive will be the lone loss in an ambush. Knowing this will happen, as history does repeat itself, informed decisions must be made in designing these battalions, the BCT, and the network that sustains the BCT. Present and future professionals of our nonlinear battles would do well to study logistics.

"Based on experiences drawn from Operation Iraqi Freedom, the BCT should have an internal capability to perform reconnaissance. If we assume that in future fights, divisions, corps, field armies, or joint task forces will succeed in applying operational fires to shatter the enemy force's command and control capabilities and large organized formations capable of maneuver, then the fights conducted at BCT level and below will be movements to contact against disorganized enemy forces."

"Also, based on ongoing operations, the BCT must have the requisite on-ground infantry strength, as well as reconnaissance strength, to engage in stability and support operations. Any new structure for our BCTs must be balanced combined arms teams, where infantry is an absolute requirement. We saw in the opening stages of Iraqi Freedom that armor and armored infantry present the enemy with an overwhelming combination of speed, mobility, shock effect, and firepower."

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Another extremely necessary — indeed mandatory — ability that our information and vehicle systems must have is to link commanders at all levels, from vehicle commander to BCT, to the relevant common operating picture. The commanders' presence on the battlefield is still a requirement of leadership. Personal leadership must still be exercised on these most ferocious of battlefields as we face shattered remnants and irregulars. Commanders must lead from wherever the front happens to be and must always be aware of the immediate situation, both physically and virtually. When a commander's "horse" is shot out from beneath him, he must have the ability to leap onto any available "horse" and regain his link to the larger common operational picture. We must also recognize that we might have a situation where a junior lieutenant might have to assume command of the BCT because he happens to be the surviving senior officer or is at the decisive point. This too has happened in our Army's history.

There is a need for a close hold on potential courses of action. We are living in an age where it is easier to denigrate than offer constructive criticism. We are also an Army at war and must temper our debates for the greater need of the service. I believe though that there must be debate and mining for ideas from the force at large. We cannot allow such major shifts in our Army's structure to merely happen and then wonder why. Our CSA sounded the call for new thinking and questioning. What is right for the Nation is good for the Army. What are you doing to answer the call to arms?

Notes

[1] Speech by General Peter J. Schoomaker, Chief of Staff, Army, at the annual Association of the U.S. Army Convention, Washington, D.C., 7 October 2003.

[2] General Peter J. Schoomaker's arrival speech during his swearing in as the 35th Chief of Staff, Army, 1 August 2003.

[3] This assumes two things: that 3 and 5 sets of equipment will be reconstituted both by repair and additional equipment as required, as well as supporting ongoing operations in Iraq; and that the Army Materiel Command can bring in line the associated property books and property management systems with reorganization. The second task is within capability; the first depends solely on money.

[4] Post-modern theories on using military force abound, and while germane to the structure we propose, are rightly the subjects of different essays for different journals.

[5] Proving the old maxim if you want a new idea read an old book — my proposal for mixing tanks and infantry has distinguished roots. See Maurice de Saxe, *My Reveries Upon the Art of War,* in *The Roots of Strategy,* edited and translated by Brigadier General T.R. Phillips, Stackpole Books, Mechanicsburg, PA, 1985, p. 210, "Since what I write is only a game to dissipate my boredom, I want to give full play to my imagination. I would form my body of infantry into legions, each composed of four regiments, and every regiment of four centuries; each century would have half a century of light-armed foot and a half century of cavalry."

[6] Kevin C.M. Benson in "The Armor Battalion After Next," *ARMOR,* September-October 1997, p. 12, I proposed a structure for the battalion headquarters and headquarters company that greatly reduces the organic combat service support within a battalion.

[7] A proposal for a restructured division artillery is beyond the scope of this essay; however, it must be considered in light of the CSA's directions. It might be time to focus the power of the division artillery on lethal and nonlethal fires, a true effects coordination center, thus mixing counterbattery radar, missiles, and cannons with cyberattack means and information operations.

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The Future of the Reconnaissance Professional

by Staff Sergeant Brendan F. Kearns

Military occupational skills (MOS) 11H, heavy antiarmor weapons infantryman, and 11M, fighting vehicle infantryman, have been successfully combined with the 11B, infantryman, MOS. The Stryker brigade combat team's infantry battalion recon platoon (SBCT's IBRP) has been introduced, and the Infantry Center has proven its ability to train scouts and snipers for long-range surveillance (LRS) and infantry battalion scout platoons. These changes require the armor branch to relinquish the 19D cavalry scout MOS and the myth that it provides the force with reconnaissance and security.

Not long ago, 19D cavalry scouts were trained to perform reconnaissance and security tasks for the force. The mission essential task list (METL) was as vast and varied as the units to which a cavalry scout could be assigned. Light units, such as the 10th Mountain Division, 82d Airborne Division, 25th Infantry Division, and the 2d Armored Cavalry Regiment (ACR) are outfitted with the M1025/M1026 high mobility, multipurpose wheeled vehicle (HMMWV), requiring the cavalry scout to master light gunnery skills employing the tube launched, optically tracked, wired-guided (TOW) missile, MK19 grenade machine gun, M2HB Browning machine gun, and the M60/M240 machine guns.

Scouts must be comfortable and familiar with both LRS-detachment (LRS-D) and LRS-company (LRS-C) operations to support corps and division deep reconnaissance, as well as the IBRP's recon and sniper sections to ensure a smooth reconnaissance handover and passage of lines. These scouts can reconnoiter routes, conduct screening missions, and escort convoys because they do not need extra equipment, additional troops, or special training. This leaves the austere resources of the division or corps commander to be used at more critical points on the battlefield.

A 19D assigned to the 2d ACR could be assigned to a cavalry troop antiarmor platoon or a squadron antiarmor company, requiring him to be competent in antitank fire and well versed in antiarmor tactics. On the other hand, a cavalry scout as-signed to a heavy force has a good chance of being in a brigade recon troop, armor, or mechanized infantry battalion scout platoon with HMMWVs or on an M3 Bradley Fighting Vehicle (BFV) in the divisional cavalry squadron. All cavalry scouts assigned to the 3d ACR are mounted on the M3. Being in a unit with the M3 BFV demands that the cavalry scout be knowledgeable in mounted and dismounted reconnaissance, and be a subject-matter expert on Bradley maintenance as well as Bradley gunnery.

The 19D cavalry scout soldier's manual encompasses not just recon and security tasks normally associated with scouts, but also almost all tasks covered in the former 11H, 11M, and 11B soldier's manuals. Today, the 19D and new 11B soldier's manuals are nearly identical. Career management fields (CMF) are used to group together jobs with similar or closely related skills; however, today's 19D performs tasks similar to or exactly the same as the 11B, not like those of the 19K, M1 armor crewmember, their CMF counterparts.

While the United States Army Armor Center is responsible for 19D initial entry training, the basic noncommissioned officers course, the advanced noncommissioned officers course, and developing training packets for the Regional Training Institute of the National Guard under the Total Army School System program, very little else relevant to scouting and reconnaissance is released or taught by the Armor Center.

During the 1960s and 1970s, the Armor Center trained MOS 11D, armored reconnaissance specialists, the forerunner of the 19D cavalry scout. During the Cold War, the armor branch produced doctrine, helped design vehicles, and modified unit equipment and personnel tables to counter the threat and keep reconnaissance and security the main focus of the 11D, and later, the 19D. These soldiers were equipped with and trained on the M551 Sheridan, M113 armored personnel carrier, M901 improved TOW vehicle, and jeeps equipped with machine guns and TOWs. They were an integral part of infantry, armor and cavalry units conducting reconnaissance in Vietnam and keeping watch on the East German border. Later, with the introduction of new equipment, such as the M3 and HMMWV, Fort Knox seamlessly incorporated these new platforms into training and doctrine.

Fort Knox supplemental manuals passed on new information and helped reorganize units, such as the light infantry division reconnaissance squadron, which fought everything from low-intensity conflicts to repelling Warsaw Pact units on the battlefields of Germany. Each field manual (FM) used by these soldiers had specific sections dedicated to the soviet system of battle, including how they fought, what equipment was used, its appearance, and how the units were organized.

The Armor Center produced some valuable FMs, training circulars, leader notebooks, and standard operating procedures, but focused mainly on mounted armored reconnaissance. The emphasis on mounted and armored reconnaissance, started during World War II, and hit its zenith during the 1980s with the anticipation of a North Atlantic Treaty Organization (NATO) versus Warsaw Pact showdown on the plains of Western Europe. With the demise of the former Union of Soviet Socialist Republics (USSR), the Armor Center remained fixated on mounted reconnaissance, relying on sensors and optics, armor, and firepower.

"Death before Dismount" is the unofficial motto of the Armor Center. Because of this creed, vital field craft and dismounted skills needed by scouts to survive and succeed on the battlefield started to suffer. Some good information is still published and taught by the Armor Center. FM 17-12-8, *Light Cavalry Gunnery*, is a superb training tool to go hand in hand with the 19D soldier's manual and associated weapons manuals to train scouts in the use of weapons systems and engagement techniques, but does little for scouting skills.[1] FM 17-98, *Scout Platoon*, was once an outstanding source of information for scouts, but several rewrites in the past decade have omitted valuable scout know-how, such as tracking enemy foot patrols, counter-tracking techniques, and using chain link fencing to protect vehicles from rocket-propelled grenade attacks while in a laager position, as well as a complete change in the way the fundamentals of reconnaissance are currently presented and taught.[2]

The Scout Leaders Course (SLC) is a valued course for scout leaders, but is not easy to obtain, is oriented on mounted reconnaissance procedures, and is not offered on a temporary-duty-en-route basis. Specialists and privates first class, lead by newly promoted sergeants, perform most dismounted patrols and observation posts. These soldiers are not the intended audience for SLC and are not eligible to attend. There is a serious lack of skills-based doctrine or formal training for dismounted reconnaissance. Other than check-the-block and career-progression courses, cavalry scouts seeking information and training in reconnaissance, field craft, and scout skills must look to another training center — Fort Benning.

Fort Benning, Georgia, the home of infantry and the Infantry School, has many formal courses and manuals that enable scouts to be better prepared, more knowledgeable, and more task proficient. The Infantry School is responsible for all small arms, mortars, and antiarmor weapons manuals, including TOW and TOW gunnery. It is also responsible for information included in FM 23-1, *Bradley Gunnery*, and managing the Bradley master gunner course by training MOSs 11B, 14R, 13F, 12B, as well as 19Ds, from the 3d ACR and Bradley-equipped cavalry squadrons, to become master gunner qualified.[3]

The infantry leader has realized that scout and sniper roles and training are so closely related that not only are they organized together in the same platoon in the light infantry force, but many mechanized infantry battalions are attaching their 11B snipers to 19D-manned scout platoons. 11Bs in LRS and light infantry scout platoons attend Pathfinder School, Ranger School, and Sniper and Long-Range Surveillance Leaders Course, or a combination of these courses, to be trained for their current duty positions. While 19Ds are authorized to attend these courses, command emphasis is not placed on their attendance.

11Bs are offered these courses at E-2 and E-3 pay grades so these soldiers can start their reconnaissance careers early and successfully. These are excellent courses that provide superior field craft training, skills and knowledge on small-unit tactics, as well as individual soldier capabilities. When that scout, sniper, or LRS soldier returns to his unit, he takes with him tactics, techniques, and procedures essential to battlefield success. The infantry community has long used these courses to increase the effectiveness of its scouts, snipers, and LRS operators. For the rest of the infantry force, the Infantry School offers courses for leaders going to Bradley or antiarmor units for the first time. The Bradley Leaders Course and the Antiarmor Leaders Course allow leaders to become familiar with each system and provide instruction on how to use these systems. This training prevents the learning curve from becoming too steep for new leaders. These courses would be ideal for 19D cavalry scouts leaving Bradley units en route to the 2d ACR, or leaving light units en route to Bradley-equipped units, their only experience on a Bradley coming from IET years ago.

Since the Infantry School and Fort Benning are responsible for the main variant of the Stryker and the SBCT, it has formed the IBRP to perform reconnaissance and security tasks for the SBCT infantry battalion commander and manned it with 11Bs. Like the scouts in the light infantry, snipers are organic to this recon platoon. The IBRP and the reconnaissance, surveillance, targeting, acquisition

Flawed Lessons Learned:

The Role of U.S. Military Attachés in Assessing

by George F. Hofmann, Ph.D.

This article examines tank warfare during the Spanish Civil War (1936-1939) and the effect military attaché reports had on influencing U.S. Army doctrine. For many countries, including the United States, the civil war provided a proving ground for formulating warfighting doctrine, including a reassessment over future strategic and tactical missions of armor. At the War Department in Washington, D.C., the G2 Military Intelligence Division (MID) started accumulating large numbers of intelligence reports from attachés in Spain and Europe. As result, the Army staff began to reexamine its warfighting doctrine, as did the mechanized cavalry at Fort Knox.

The first significant deployment of tanks during the civil war occurred late in October 1936 after 50 six-ton T26s arrived in the left-wing Spanish republican government from the Soviet Union. The T26s were a licensed copy of the British Vickers Cardon-Lloyd and designed by the Red Army to be deployed as infantry accompanying tanks.

Red Army tank crews took charge early in the civil war in support of a government nonmechanized infantry attack against nationalist fascists at Sesena. Fifteen T26s were anxiously deployed without supporting infantry. In spite of the confusion, the T26s scattered insurgents for days in the village and sur-rounding areas, including destroying a few Italian tankettes that were armed with machine guns and flamethrowers. The republican forces, however, were unable to consolidate the attack because of a lack of coordinated command and control between tank crews and infantry. As we shall see, this lack of coordination that attachés reported proved to be characteristic over and over again during the civil war, thus influencing Army's elites to reassess U.S. tank doctrine.

The following month, Colonel Stephen O. Fuqua reported on the disjointed Sesena operation. He was the U.S. Army Chief of Infantry from 1929 to 1933, and at that time, an outspoken proponent that tanks were strictly infantry accompanying weapons. Furthermore, he believed that in modern warfare there was no place for armored cavalry. Fuqua had an unrestricted pass in republican-controlled Spain and over the years sent numerous attaché reports to the MID for analysis and distribution to various army schools and combat arms branches. He reported that the T26s were vulnerable to antitank guns because of their light armor. More so, he believed tanks operating alone were doomed to disaster. Fuqua found tank crews at Sesena neither efficient nor exhibiting sufficient cooperation with other combat arms. He soon realized and reported that the war was becoming brutal and he expected a long, drawn-out conflict. Correctly, Fuqua anticipated it would be a war of total annihilation rather than a war of subjugation.

Armored Warfare during the Spanish Civil War

Early in 1937, the U.S. Army attaché in London reiterated Fuqua's observations, reporting that the T26s would have been more successful if supported by republican militiamen. One of the problems, he noted, was that the militiamen were mediocre and undisciplined. Even at this early stage in the civil war, it was evident to the attaché that there was little knowledge exhibited by the combatants on the tactical use of new weapons, especially tanks. There was no training organization for incorporating tanks with infantry. One reason offered by the attaché was that Spaniards were not considered products of a motorized society; therefore, they had problems managing and handling modern military equipment. The report to the MID warned that the poor quality of the combatants justified prudence in assessing lessons, especially avoiding early conclusions on military operations in Spain. One intelligence source in England also blamed initial tank failures on the crews, commenting that some Spanish tankers were so shaken at seeing their comrades burned to death that they resorted to any method necessary to avoid combat.

Meanwhile, the U.S. Army attaché in Paris reported to the MID that tanks used by the nationalists, such as the slow-moving obsolete Renault, the 6-ton German PzKpfw I armed with two machine guns, and the 3-ton Italian Fiat-Ansaldo tankettes, were all too lightly armored as were the republican's T26s. Antitank guns firing solid armor-piercing projectiles, he reported, easily penetrated these tanks. It was noted that the most effective and popular antitank weapon used by the nationalists was the Wehrmacht's PAK 36 37mm antitank gun. The nationalists also used Bodensperren ground barriers, a horizontal-sided camouflaged trench designed to trap and hold tanks, thus making them susceptible to destruction by hand-delivered petrol containers called "Molotov cocktails." Many military observers now assumed that the reputation of the tank as an independent fighting vehicle was over.

In the meantime, General Francisco Franco continued the nationalist siege of Madrid. To deal with Franco's attempt to encircle and capture the city, international volunteers were formed into infantry brigades, along with a newly formed Soviet/Spanish tank brigade under Red Army tank expert, Demetri G. Pavlov. These republican units repeatedly shattered Franco's forces. Enrique Lister, a prominent communist military commander, who participated with Pavlov in the defense of Madrid, claimed the T26s were useful in counterattacking and overcoming national defense lines. However, on one occasion, Pavlov was unable to expand an attack because of a lack of tanks and accompanying infantry.

At the same time, an *Associated Press* correspondent, who recently returned from Madrid, commented to the U.S. Army attaché in Paris that the Soviets were becoming somewhat lukewarm toward the Spanish political situation, because both bel-

ligerents were burdened with too many diverse political and tactical views. These differences, he told the attaché, were so complex that it could drag out the war. The correspondent believed that when the war was finally resolved, it was questionable whether the country would embrace communism. The correspondent also observed that Spaniards were entirely too individualistic to accept communism, but would make ideal anarchists. Apparently, the republicans were beginning to question the Soviet-style of communism that was being politically interjected into their war aims.

By now, considerable opinions over the tactical deployment of tanks were being expressed and reported to the MID by the attachés. The attaché in London reported a conversation he had with the German attaché, who was concerned over the combat capabilities of the PzKpfw I. His negative assessment was made because of the effectiveness of antitank guns. It was evident to the German attaché that the light PzKpfw I was a poor assault vehicle. After the conversation, the U.S. Army attaché reported that, at this time, drawing conclusions was risky, reasoning that modern weapons being used in Spain were still unfamiliar and probably ill-used in most military engagements.

Discouraged in their attempts to capture Madrid, the nationalists now turned north of Madrid toward Guadalajara. The purpose was to break the stabilized situation by outflanking besieged Madrid with an Italian motorized corps from the north and then linking up with nationalist forces. The goal of the corps' motorized divisions was to execute a deep operation with speed and surprise, attacking south between the Tajuna and Henares rivers over the Madrid-Zaragoza highway that paralleled the rivers. The divisions had a mixture of Fiat-Ansaldo tankettes, armored cars, infantry, field artillery, engineers, chemical, and antitank gun elements. Tactical airpower was tasked to support the motorized ground attack.

On 8 March 1937, the motorized divisions started their attack. The Italians, however, failed to take into account developing meteorological conditions. Freezing temperatures, snow and rain, and a cold wind soon began to sweep across the *meseta,* turning the ground into a quagmire of mud, thus grounding planned air support. Resistance at first was light, and as a result, the attack made some progress.

On the 10th, a republican scout plane, flying from the south and less hampered by weather, spotted the Italians entrucked and strung out for miles along the highway. The surprise was now lost. Subsequently, the republican forces began to move infantry reinforcements and Pavlov's tanks to deal with the threat. On the 12th and subsequent days, the long Italian columns were subjected to persistent and devastating air attacks by Soviet volunteer flyers, causing many of the motorized vehicles and the Fiat-Ansaldo tankettes to scatter off the road and into the mud. Republican ground forces moved into action, taking advantage of the immobilized and confused Italians. The Fiat-Ansaldos proved no match for the T26s' 45mm tank cannons, as few were destroyed and captured. Demoralized, the Italians began a hasty retreat, but not before blunting an attack by republican forces. This final action of the campaign allowed the Italians to recover and return to their original line of deployment. It was an embarrassing defeat, especially for the pompous Benito Mussolini, the fascist dictator of Italy and a Franco supporter.

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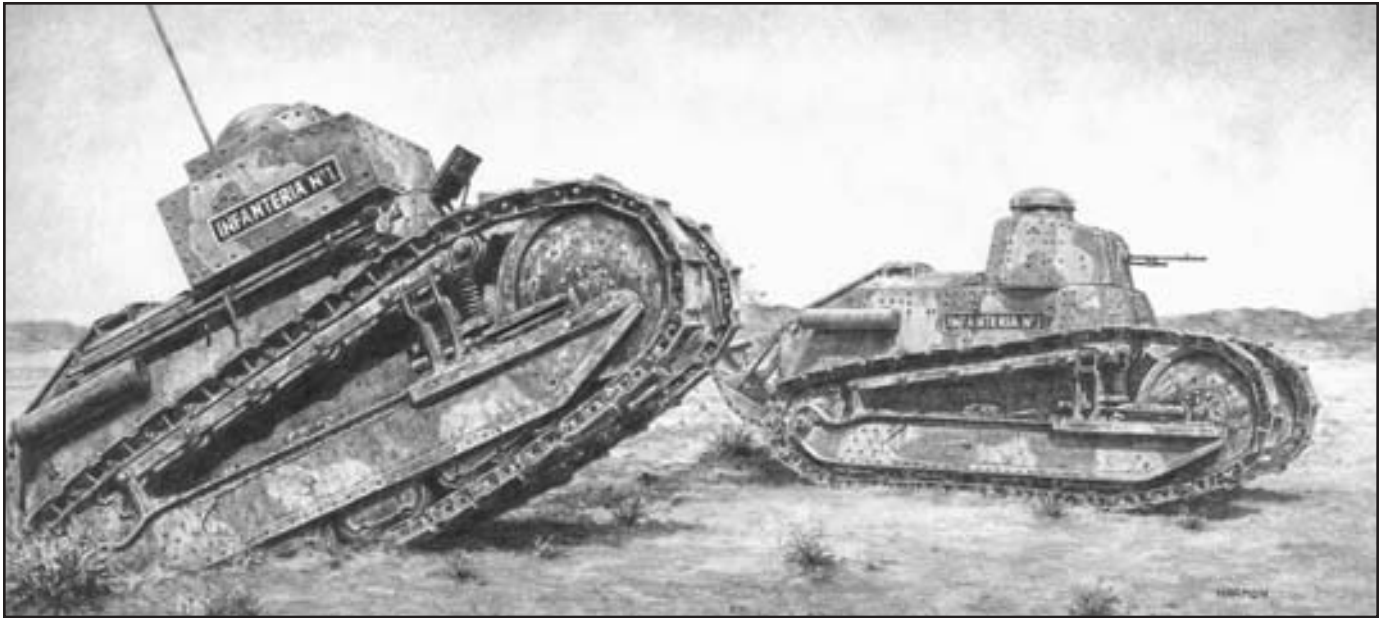
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Commenting on the Guadalajara operation, the U.S. Army attaché in Paris advised the MID that tank deployment with a motorized force would be futile unless command of the air and co-ordinated artillery and infantry support were provided. Also assessing the battle, Fuqua found republican intelligence lacking. Even though the Spanish antagonists spoke the same language and had numerous intelligence sources, the Italians, he reported, moved hundreds of miles by rail and roads and then concentrated within striking distance, causing little reaction from the republicans. Fuqua blamed this on traditional Iberian inertia and notorious Spanish indiscretion. The Italians, Fuqua reported, were too overconfident. Later, after visiting Italian prisoners, he concluded they were deficient in intelligence and lacked training to carry out a motorized operation.

After the Italian defeat at Guadalajara, it was the republican government's turn to become overconfident. An independent tank attack was planned on Mount Garabitas, a key artillery position for Franco's forces. Media correspondents were invited to view the attack. Strangely, this move made it impossible to keep the attack a secret. Pavlov's tanks, reportedly 50 T26s, attacked. Shortly, 22 fell into a Bodensperren and were captured. More discouraging for Pavlov was that a number of his attacking tanks broke down before they even engaged the enemy. The remaining tanks were met with antitank fire. Only 14 were able to retreat back to friendly lines. Fuqua concluded that cowardice played a large part in the battle. This, he blamed, was again due to poor troop training and coordination. Again, conclusions were reached that tanks should not be independently used unless supported by infantry and artillery. Fuqua's reports on the Guadalajara campaign became one of the most appealing lectures at the U.S. Army Command and General Staff School.

In October 1937, at Fuentes de Ebro, approximately 40 infantry, carrying T26s and recently arrived BT5s, again attacked nationalist positions without artillery and infantry support. For deep independent cavalry operations, such as pursuit and exploitation, the Red Army had produced thousands of fast BT5s that were derived from the American Christie design. The deployment of BT5s as mechanized cavalry, however, would not be the case in Spain. The defending nationalist Moors permitted the infantry carrying T26s and BT5s to overrun their trenches.

One attaché reported the Moors had a "Roman holiday," picking off the mounted infantry. Some of the T26s and BT5s made progress, but as before, a Bodensperren stopped them and they were captured. Nevertheless, Fuqua was optimistic about the potential role for infantry carrying tanks, advising the War Department that a new tactical role for tanks had been demonstrated.

In the meantime, students at the U.S. Army War College began a series of detailed studies of the civil war. This included lessons learned on using mechanized vehicles, especially the deployment of tanks and antitank weapons. One major study compiled in October 1937 concluded that mechanization had not revolutionized the conduct of the war. It was noted that the gun-armor race favored antitank weapons, and the range of operations was now reduced by time-space factors that had, in the past, benefited mechanization.

In January, another war college analysis concluded that operations in Spain constituted no special case and no conclusions should be drawn. The war experience, the analysis noted, should only be considered as having a general military application. The reason for this observation was that the belligerents did not have a pre-war strategic operational plan. It was a civil war. As a result, commanders reacted to the tactical necessity of the moment rather than formulating a long-term strategic goal. Concerning tanks, the war college analysis claimed their employment had been strikingly faulty; vehicles lacked armor and armament, and were not supported by infantry and artillery. It was determined that the defense was superior to the offense, especially with the extensive use of antitank guns. This defensive mindset reflected an attitude similar to what existed on the Western Front during most of World War I. Most important, the Army War College explorations set the stage for a significant War Department General Staff policy over a future strategic and tactical doctrine on the employment of tanks. More so, the policy set the tone for an emerging antitank doctrine.

U.S. military professional journals also addressed in detail how the conflict shaped the course of future military operations. The *Field Artillery Journal* recorded that the best available lessons came from Spain. It admitted, as did most military journals, that tanks by themselves did not accomplish much. The article indi-

cated the war paralleled a lesson from World War I that there would be no progress in any attack unless sufficient artillery was provided, adding that victory depended on sufficient firepower at the decisive point. The branch journals also republished articles that appeared in French military reviews, which were preoccupied with the methodical battle and the idea of static warfare driven by the Maginot Line mentality. France lacked faith in independent armor deployment and kept their tanks closely tied to the infantry.

The *Cavalry Journal* concluded from an article in *La Revue d'Infanterie* that armaments favored the defense, because speedy and lightly armored vehicles were incapable of coping with modern antitank guns. The *Infantry Journal*, also drawing heavily from French sources, recorded that tanks in Spain were not capable of carrying through an independent attack. This source came from an article that appeared in *La Bulletin Belge des Sciences Militaires*. Quoting from the *La Revue d'Infanterie*, another *Infantry Journal* article noted that the development of antitank weapons nullified the World War I theory that tanks would dominant the future battlefield. The influential *Infantry Journal* claimed antitank guns had the edge over tanks. If developed further, the journal noted, antitank guns would neutralize the greatest ground threat of modern warfare. By now, most attachés and journal writers had reported on the eclipse of the tank due to the emergence and dominance of the flat trajectory antitank gun.

In April 1938, the U.S. War Department finally resolved the conflict over a tank policy by issuing, "Policies Governing Mechanization and the Tactical Employment of Mechanized Units." This reactive policy was primarily based on key information provided by attachés on military operations in Spain. The role of armor, the policy stated, was solely that of infantry accompa-

nying tanks. It intended that tanks were to support the infantry and not operate beyond artillery. The new policy had strong support from General Malin Craig, the Army Chief of Staff.

The traditional American doctrine of linear open warfare, relying on massed artillery and maneuverability of the infantry, was the acknowledged doctrine through the 1930s. This infantry branch-driven dogma stifled the potential for increasing a movement toward a combined arms mechanized force necessary to achieve mobile dynamics at an operational level of warfare. General Craig, who was influenced by events in Spain, viewed a future American military force still capable of engaging in the traditional war of fire and maneuver dominated by the infantry and tactically supported by mounted cavalry and horse-drawn artillery. The Army Chief of Staff supported the infantry's position that tanks were to assist assaulting foot soldiers, and not engage in deep independent offensive operations. This attitude was heavily reinforced by attachés in Europe, especially Colonel Fuqua, who for years had been a tenacious opponent of an independent mechanized force.

By 1939, the U.S. Army Field Service Regulations (Tentative), which drew heavily from the 1923 manual, specified the primacy of the infantry and that antitank guns were first in defensive importance against mechanized forces. During the Spanish Civil War, most attachés emphasized the growing importance of antitank guns, thus bringing into question the eclipse of the tank. This attitude found its way into the War Department, the Army War College, and the U.S. Army Command and General Staff School. The reports from the attachés were reinforcing traditional doctrine, which gave dominance to the infantry over other combat arms. Conversely, studies were lacking on solutions to overcome numerous errors in tank deployment by the belligerents in Spain. The mechanized cavalry at Fort Knox was an

"The attaché in London reported a conversation he had with the German attaché, who was concerned over the combat capabilities of the PzKpfw I. His negative assessment was made because of the effectiveness of antitank guns. It was evident to the German attaché that the light PzKpfw I was a poor assault vehicle. After the conversation, the U.S. Army attaché reported that, at this time, drawing conclusions was risky, reasoning that modern weapons being used in Spain were still unfamiliar and probably ill-used in most military engagements."

"In Spain, tank formations were used in numbers too small to execute independent deep operations, such as pursuit and exploitation at an operational level. The T26s and BT5s were usually filtered away in small numbers at the tactical level and never used in mass."

exception, making efforts to resolve the issue of wrong lesson learned from the civil war.

One of Fuqua's critics, Major General Daniel Van Voorhis, Commanding General, V Corps, and the first commander of the mechanized cavalry at Fort Knox in 1931, commented on the attachés' reports. He argued that tank casualties in Spain were more representative of war expediencies rather than reflecting on a new theory in armor warfare. In Spain, tank formations were used in numbers too small to execute independent deep operations, such as pursuit and exploitation at an operational level. The T26s and BT5s were usually filtered away in small numbers at the tactical level and never used in mass. An observant U.S. Army attaché reinforced Van Voorhis' view, reporting that tanks used by the republican forces were never sufficiently used in mass to form an opinion. In addition, the republicans, at numerous times, deployed small units of tanks as offensive-defensive fire units.

Contradicting the attitudes emitting from Spain that the tank was dead, Van Voorhis instead moved the mechanized cavalry at Fort Knox on a path of relevance and readiness for a possible war. During Spring 1938 maneuvers, Van Voorhis — then in command of the 7th Cavalry Brigade (Mech) — demonstrated his resiliency by increasing the depth of mechanized combat in time and space with a balanced two-column thrust deep into the south at a mythical invader landing at Charleston, South Carolina. As the brigade formed up, Van Voorhis controlled the attacking force by radio from a two-seater Douglas O-46A observation plane. Over 500 vehicles of various sorts, including combat cars, were engaged to test a new organizational structure, equipment, and tactics. This dynamic maneuver, executing a deep two-column thrust with a mechanized force, was the prototype organizational structure of World War II armored divisions' combined arms combat commands.

In spite of the efforts at Fort Knox, the flawed lessons added to a multifaceted U.S. Army armor policy. For example, the imprecise lessons led to a defense-mobile reactive policy, the ill-fated tank destroyer doctrine. An artilleryman and chief of staff of the activated General Headquarters in 1940 and later commander of the Army ground forces in 1942, Lieutenant General Lesley J. McNair, drove this antitank doctrine. For him, armored divisions were too expensive, as was the necessity for motorized infantry. The deployment of tanks, he believed, was for pursuit and exploitation. He emphasized that the center of warfighting was the traditional infantry-artillery grouping, thus abating the status of the armored force as a separate combat branch during Word War II. In 1950, Congress made armor a separate combat branch and abolished cavalry.

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Train for the Fight

by Captain Todd J. Clark

This article depicts lessons learned from the experiences of the officers, noncommissioned officers, and troopers of L Troop, 3d Squadron, 2d Armored Cavalry Regiment, both prior to and during the war in Iraq. L Troop did not have the luxury of a "training" period prior to the war. The troop was identified for deployment as a separate unit in September 2002 and arrived in Kuwait on 1 October 2002, where we immediately began conducting route and area security missions.

With the onset of the war (and the maintenance company ambush in An Nasiriyah), we transitioned to securing the main supply route in Iraq under the command of the 504th Military Police Battalion. Subsequently, we were reattached to 2d Armored Cavalry Regiment as a subordinate unit of 3d Battalion, 7th Infantry Regiment, 3d Infantry Division (3ID). While attached to 3ID, we conducted combat operations, stability operations, and support operations in southeast Baghdad.

This article addresses missions conducted prior to the war in Kuwait and discusses things we could have done to prepare for operations in Iraq. In my role as the commander of L Troop, the major payoff during operations in Iraq was building confidence in my unit and equipment.

"Shoot, move, and communicate" is the way to win the fight. There are many things that soldiers must do to win a fight, but it is very easy to overlook the basics. We spend a lot of time concentrating on traditional training tasks; however, we fail to dedicate adequate attention and resources to the fundamental precursors to success — physical readiness, small-unit maneuver, and weapons proficiency.

Physical Readiness

Typical physical training regimens consist of the "daily dozen," and for the most part, are oriented toward high Army physical fitness training (APFT) scores. However, APFT tasks do not accurately reflect the demands of a combat soldier. Soldiers must be strong, tough, and confident in their abilities. Battle focus must be integrated into the physical readiness (as opposed to physical training) program.

During combat, soldiers are expected to perform intense activities while wearing combat equipment. As such, it is necessary to do the proverbial "train as we fight." While battle dress uniforms (BDUs) and combat boots are not ideal athletic gear, its what we wear to the fight.

To train as we fight, we began conducting weekly battle-focused physical training, in which we wore our BDUs and boots. Soldiers were given the discretion to include load-bearing equipment, body armor, and other necessary equipment. The commander's intent was to hurdle obstacles, crawl beneath objects, ascend and descend obstacles, and jump from objects. The goal was to develop stamina while simultaneously familiarizing the body with impact and conditioning the soldier's agility. Distance running must be kept to a minimum; however, soldiers must be briskly moving for the duration of the event. For example, a squad-sized element conducts exercises in the squadron area. The squad leader leads his element under picnic tables, over fences, and mounts and follows small walls. Directional changes, combined with executing basic obstacles, develop agility, balance, and endurance.

In hindsight, more attention should have been devoted to developing muscular strength. Each soldier must be capable of using unarmed nonlethal or lethal force against a larger opponent. While technique is obviously critical, and will be discussed later, there is a definite need for strong fighters. Integrating a weight-training program into the training schedule is a great way to program gym sessions and dedicate time to improving. We must consider this training as an important facet of daily operations, and not just focus on the 0630 to 0730 hour physical training time. During post-deployment, we scheduled weight-training sessions in the afternoons several days per week. In addition to weight training, using pull-ups/dips assists in developing upper-body strength.

Strength is virtually useless without a means of delivery. Integrating combatives, grappling, takedowns, and boxing will instill the discipline and technique required for successful unarmed contact. Soldiers must be as capable in handling confrontations without weapons as they are with weapons. Soldiers must be prepared and willing to detain unruly persons or eliminate threats.

In the aforementioned physical readiness program, we must be conscious of risks involved. There is a clear potential for increased injuries. However, we must not let the risk prevent the training. Bumps and bruises obtained during training will make us tougher, and teach us methods to prevent bumps and bruises during combat.

Small-Unit Proficiency

Sergeants and staff sergeants normally serve as senior leaders during operations in Baghdad. As such, it is imperative that we not only ensure they are technically and tactically proficient, but that they are empowered. Strong junior leaders develop strong subordinates, which develop strong teams. We cannot assume that our subordinate leaders will develop adequately through their participation in higher command level exercises, such as external evaluations and simulated networking. Adequate time and resources must be dedicated at the small-unit level. In Iraq, no fight in which our troops were involved was ever won at the troop level.

Squads and sections must become synchronized, which demands frequent training in challenging situations. Replicate high levels of stress, to include hunger, sleep deprivation, and harsh environmental conditions. As squads conduct training together, their team solidifies. They learn each other's strengths and weaknesses, which they come to anticipate. As proficiency increases, confidence inevitably increases.

Small units must continually train together, and direct a significant focus to cross training. While conducting combat operations, there is minimal time to think about or analyze the situation; reactions must be well developed through tough, realistic, and frequent training. Basically, this exemplifies the entire "train as we fight" concept. A great mentor once explained, "you cannot make a fist without five fingers, and those fingers must all close at the same time to make a fist. You don't even think about making a fist, it's a reaction — small teams must learn to react as a fist."

Our squads and sections must be experts at land navigation (with or without global positioning systems), using tactical maneuver, battle drills, and actions on contact. As these tasks are trained, we must also ensure that individuals are cross-trained, to include preparing junior soldiers to assume leader positions in the event there are casualties. Furthermore, each team member should be capable of assuming at least one other team member's duties, to include radio telephone operators, machine gunners, and drivers.

The great thing is that this "basic skills" training requires virtually no resources, with the exception of time for noncommissioned officers to conduct it — most can be done in a small open field, parking lot, or picnic table. Constant emphasis must be made to ensure that training opportunities are seized. There are countless hours wasted with soldiers standing around waiting for something to happen — junior leaders must step forward and take charge. A junior leader cannot wait for his platoon sergeant to give him a mission.

Training must also be focused on decisionmaking and taking initiative in a stressful environment. We must develop strong small units with leaders (and soldiers) who can think fast, decide, and execute. Many times, guidance is simply not available, or there is absolutely no time to request it.

Inevitably, confidence in equipment is essential to small-unit proficiency. We must be allowed to push our equipment to its limits during training so that we know what can and cannot be done in combat. For example, we must know that our high mo-

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"As with other equipment, we must be confident in the capabilities of our weapons and aware of their limitations. Using many positions, such as prone, kneeling, off-hand, or even unconventional hasty positions, modes of fires, and varied ranges will allow soldiers to develop confidence. Also, using different target materials, such as wood, concrete walls, sandbags, and glass will allow soldiers to understand ammunition capabilities and limitations against materials that they may have to shoot through during combat."

bility, multipurpose wheeled vehicles (HMMWVs) can cross a median without getting high-centered, or that they can fit down an alley in pursuit of gunmen. Just as we must push ourselves to our limits in training, we must do the same with our equipment.

Great training activities may include squad simulated training lanes, leader's reaction course, or squad land navigation course. The key is to conduct demanding battle-focused training together. Developing this confident team will ensure they function properly "where the metal meets the meat."

Weapons Proficiency

Weapons proficiency is more important than weapons qualification. For many in today's Army, personal weapons qualification is the endstate for marksmanship training. Qualification is simply a gate, from which units can begin to train. Very rarely will a well-rested soldier conduct an engagement from a comfortable prepared fighting position.

We must integrate many variables into weapons training. Most engagements in Iraq occur during patrols. As such, we must become proficient in firing weapons from vehicles, while moving, and from various types of cover and concealment positions. Furthermore, introducing fatigue, discomfort, or stress during training will replicate the battlefield. Once again, safety is a pertinent concern, but should not prevent tough, realistic training.

Many people have remarked that soldiers are "scared" of their weapons. Sacred is probably an inaccurate description; however, a few are intimidated by carrying loaded weapons because it is something out of the ordinary. Soldiers simply must have more exposure to working with a loaded weapon. While the best case would be for us to carry live ammunition for every training event, this is obviously not possible. However, including blank ammunition in any training event where personal weapons are used is completely valid.

A perpetual issue with using weapons and live ammunition is incorrectly termed "accidental discharge." "Negligent discharge," a far more appropriate term, results from either a lack of training and/or lack of attention. By continually training with loaded weapons, our soldiers will become more attuned to their weapon's carry status.

As with other equipment, we must be confident in the capabilities of our weapons and aware of their limitations. Using many positions, such as prone, kneeling, off-hand, or even unconventional hasty positions, modes of fires, and varied ranges will allow soldiers to develop confidence. Also, using different target materials, such as wood, concrete walls, sandbags, and glass will allow soldiers to understand ammunition capabilities and limitations against materials that they may have to shoot through during combat.

Once again, personnel should be cross-trained on various weapons systems. Each member in a command should be able to correctly operate any weapons system that he may have to use in combat. This may also include orientation to threat weapons that may be used in a contingency or as a capabilities and limitations display.

The graduate level for readiness is merging these areas together. Each area is independently important, and a great means to achieve strong small units. However, integrating each into operations is the true catalyst for success. Under fire, a squad will need to shoot, move, and communicate to complete the mission. We must give our small units the assets they need to be competent and confident.

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An Element of Strength: Reinvigorating Small-Unit Training

by Major Dennis P. Chapman

"The companies and battalions will be more dispersed, and the men less under the immediate eye of their officers, and therefore a higher order of intelligence and courage on the part of the individual soldier will be an element of strength."[1]

– William Tecumseh Sherman, 1875

An insurgency, such as the conflict in Iraq, can demand more of junior officers and noncommissioned officers than any other kind of conflict. The United States' involvement in Iraq calls for a reexamination of how to prepare U.S. forces for combat. One observer recently notes, "The current training scenarios and task organizations that … our battalions use, culminating with a rotation at the [National Training Center], is not sufficient for preparing them for duty in Iraq. The emphasis has to shift, at least in part, from battalion and brigade-level, to small-scale operations that seldom rise above the company level."[2]

While indisputably correct, this remark is also somewhat misleading because it implies that superior small-unit leaders would have been less important in the large-scale conventional fight envisaged during the Cold War than in the struggle we face today. Our Warsaw Pact adversaries might have agreed, believing as they did that a large force would inevitably overwhelm a better quality but small-

er opponent, whose qualitative advantages would prove ephemeral in the face of aggressively and intelligently applied numerical superiority.

Victory would be achieved at the operational level by rapidly massing superior forces at decisive points on the battlefield. The tactical effectiveness of companies and platoons was of little consequence — it was *mass* that mattered. But Soviet orthodoxy was American heresy. We were just as eager to rapidly concentrate combat power at the critical time and place, but knowing that we could never numerically match the Soviets gun for gun or man for man, we counted on better technology and better training to offset their superiority. We took it as an article of faith that soldiers were our secret weapons; in motivation, initiative, intelligence, and training our soldiers would more than match the horde of conscripted, poorly trained automatons the Soviets would hurl against us. Our *soldiers* — few though they were — would give us the margin of victory.

Having previously pinned our hopes for victory on soldiers at the lowest echelon, it may seem strange that we now hear at least one voice of caution, warning that our approach to training, with its heavy emphasis on rigorously exercising units at the brigade or battalion level, may be failing our junior leaders. This is not as strange as it seems. Reflecting on recent conflicts, small-unit leadership has not been as decisive a factor as we anticipated during the Cold War.

Relentlessly hammering enemy command and control nodes, logistics infrastructure, and combat units with a crushing weight of ordnance delivered with an accuracy and impunity not seen before, we so demoralized and degraded our foes that they were defeated before our first rifleman squeezed his trigger. The respective quality of our own, versus enemy, small units has become less decisive. We have become more like the Soviets, in that we no longer look to dynamic small-unit leaders for the key margin of victory, but look instead to brutally applied combat power. For the Soviets, this meant hurling massive numbers of men and machines against decisive points at critical times, a torrent of force delivered on the ground with a ferocity and speed they thought would eclipse any qualitative enemy advantage.

The U.S. approach is different. Our keys to victory have been our ability to disrupt enemy communications, dislocate his plans, and degrade his forces through air superiority, as well as our seemingly limitless logistics resources. We have preempted effective enemy small-unit action by so demoralizing him early in the campaign that he can only collapse when finally confronted by our tactical forces. Unfortunately, however, events now unfolding in Iraq remind us that we cannot always avoid an ugly slog at the squad level.

For once, we face a foe who has effectively preempted *us* — by relying on suicide attacks, roadside bombings, and similar acts, all perpetrated amidst the urban populace, Iraqi guerrillas have taken our firepower and technology advantages out of the fight both by creating an unacceptable risk of civilian casualties and by depriving us of lucrative targets. As a result, initiative, enterprise, and valor are once again at a premium.

Obviously, we should use all the resources at our disposal to reduce the enemy to an empty, brittle husk before the ground fight begins. But we cannot count on always being able to do so. We may someday face a conventional foe positioned to offset our technological advantages. To guarantee future victory, we must give our junior leaders what they need to defeat a fresh, unbroken foe who may be equipped and supplied as well or better

than our own soldiers. Unfortunately, we have not always done so, as David Hackworth illustrates, "I found one West Point-trained platoon leader, for example, attacking a dug-in 'enemy' across a pool-table flat field. I chewed his ass, only then realizing he really didn't know any better. He'd had a lot of book learning thrown at him, but little hands-on training to experience how to do it the right way … So, I made the guy do it again. I made him call for simulated supporting fires this time … made his troops use fire and maneuver and concealed avenues of approach. Then I made him do it again. And again. He learned, but it shouldn't have been my job to teach him: why hadn't his company commander shown him the right way? Or his battalion commander? *The problem was that these guys were so busy juggling commitments they didn't have the time"* [emphasis added].[3]

This incident occurred in 1965 with 1st Brigade, 101st Airborne Division, but the problem at the root of Hackworth's anecdote remains with us. I have observed similar mistakes among 10th Mountain Division soldiers, Army National Guard troops, and Reserve Officer Training Corps cadets. As in Hackworth's day, in the press of urgent requirements and major training events, small-unit training gets pushed aside. To understand the impact this has on small-unit readiness, we need only follow Hackworth's lead and explore how well our junior leaders execute their most basic tactical responsibil-

ity: exploiting fire, movement, and terrain to accomplish their mission.

Everyone understands how to use fire and movement to gain advantage over the enemy: one element fixes and suppresses the enemy with a high volume of accurate fire, while another maneuvers against a vulnerable flank or rear. Properly executing this simple procedure will produce an enemy who, having focused on the force to his front, is shocked to find another descending on him from an unexpected direction. Unfortunately, we often execute this drill poorly. What should be a bold move against enemy vulnerability ends up as an old-fashioned frontal attack. Soldiers often forget the key to effective fire and maneuver — skillful exploitation of terrain. Many leaders conceive the value of cover and concealment too narrowly. We all know how to use cover to facilitate the fire and movement of individual soldiers, but many leaders fail to see terrain as a combat multiplier for small units.

Figure 1 illustrates a properly executed drill for a stationary supporting element that lays down suppressive fires. Under the protection of these fires, an assault element executes a bold, deep maneuver, moving by a covered and concealed route, using available terrain, vegetation, smoke, or distance to mask the movement from enemy observation and fire. When executed properly, the enemy remains oblivious until the assault element falls on the
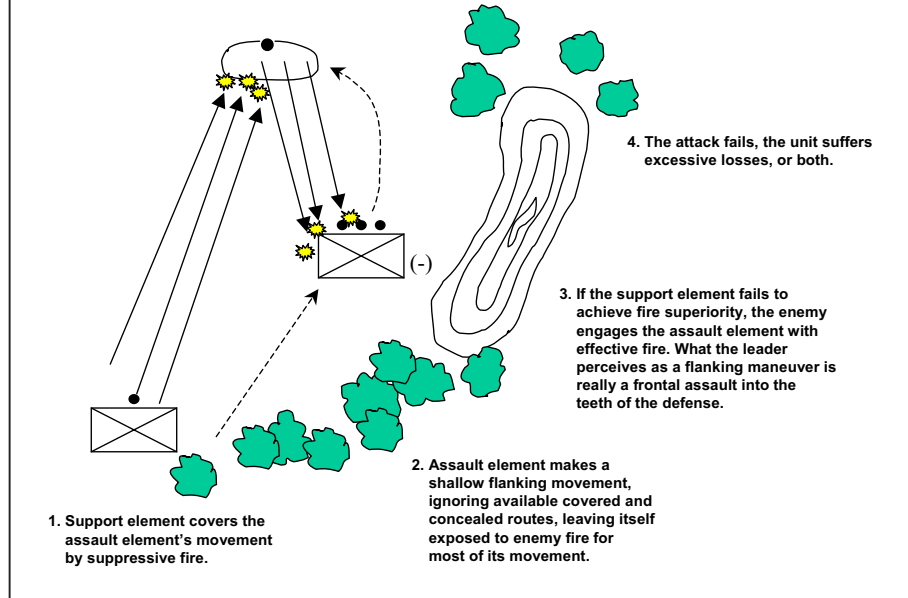
enemy flank or rear. This is much more difficult than it sounds, as shown in Figure 2.

Many platoon leaders go through the motions of the drill but sacrifice its synergy by failing to factor terrain characteristics into the plan. Instead of a bold maneuver, the assault element often makes a shallow flanking movement that ignores available cover and concealment, exposing itself to enemy observation and fire throughout the assault. If the support element achieves fire superiority (that is, if its fires are effective enough to prevent the enemy from returning effective fire of its own) then the attack may still succeed; but if not, the enemy will engage the assault element with effective fires throughout its movement. The result will be excessive casualties, a failed attack, or both.

The issue does not appear to be that soldiers lack tactical skills. The real question is whether the Army fosters thorough junior leader development. In my view, it does not. Instead, we have a system that brings most junior leaders to a common baseline; however, proficiency does not encourage further growth into junior-level experts.

One reason for this is that our entire collective training effort is built around combined-arms, multiechelon training at the brigade or battalion level, culminating in combat training center (CTC) rotations. This approach has certainly born tremendous fruit, as evidenced by our stunning victories during Operation Desert

Figure 2. What we often *really* do:

1. Support element covers the assault element's movement by suppressive fire.

2. Assault element makes a shallow flanking movement, ignoring available covered and concealed routes, leaving itself exposed to enemy fire for most of its movement.

3. If the support element fails to achieve fire superiority, the enemy engages the assault element with effective fire. What the leader perceives as a flanking maneuver is really a frontal assault into the teeth of the defense.

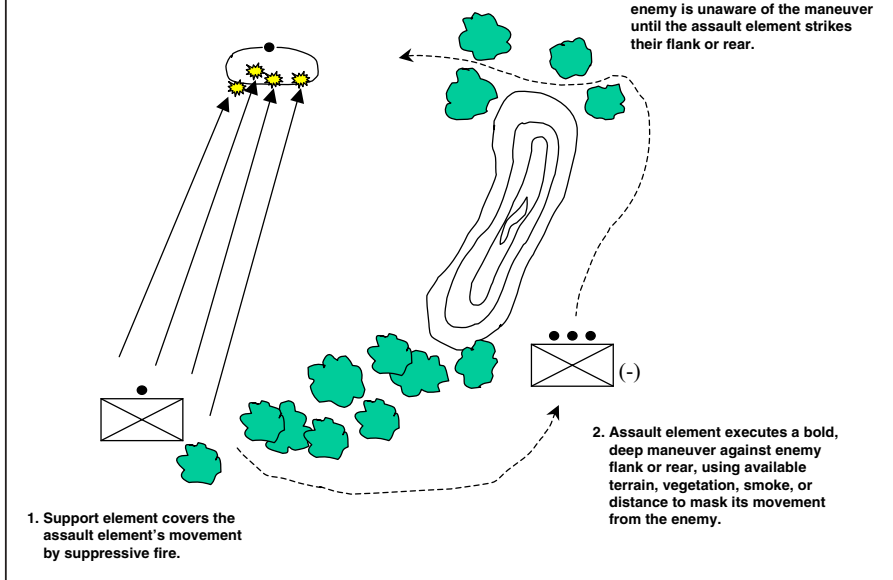4. The attack fails, the unit suffers excessive losses, or both.

Storm and Iraqi Freedom. The unintended consequence, though, is de-emphasizing training at lower echelons — the proficiency mentality. Under our CTC training model, small unit tactical proficiency becomes not an end, but a mere steppingstone to higher-echelon training. As units prepare for CTC rotations, squads and platoons get just enough dedicated training time to ensure they can support the commander's higher-echelon training objectives. While this training is valuable, we do not train enough to bring our crews, squads, and platoons to their full potential.

This is understandable, given the principle of scarcity. Commanders have finite time, money, fuel, ammunition, and access to ranges and training areas needed to train units. They must apportion these scarce resources among competing training priorities, including the very different training needs of soldiers at the lowest echelons versus the needs of those at the highest echelons. Clearly, at some point, commanders must shift their emphasis from small-unit training to collective training aimed at larger units and staffs. But this has become the permanent, almost exclusive training emphasis; small-unit training never rises to the fore. Rather than providing their small units with numerous, repeated opportunities to apply, hone, and improve tactical skills again and again, commanders build training programs that merely check the box, exercising critical skills just often enough to provide a refresher and verify baseline proficiency, but not to produce skills of the highest order.

Crews, squads, and platoons do participate in brigade- and battalion-level training because these events are multiechelon training. The commander and his staff maneuver their subordinate elements on the ground, forcing them to execute those tasks that support the brigade or battalion mission. The idea of multiechelon training is to get the most out of limited resources by training all echelons, from the fire team or vehicle crew to the brigade staff, simultaneously during a single event. Using this method, every soldier does receive training. The problem is that not every soldier receives *equal* training.

Figure 1. What we *should* do:

3. Assault element takes enemy by surprise. When executed properly, enemy is unaware of the maneuver until the assault element strikes their flank or rear.

2. Assault element executes a bold, deep maneuver against enemy flank or rear, using available terrain, vegetation, smoke, or distance to mask its movement from the enemy.

1. Support element covers the assault element's movement by suppressive fire.

"Everyone understands how to use fire and movement to gain advantage over the enemy: one element fixes and suppresses the enemy with a high volume of accurate fire, while another maneuvers against a vulnerable flank or rear. Properly executing this simple procedure will produce an enemy who, having focused on the force to his front, is shocked to find another descending on him from an unexpected direction. Unfortunately, we often execute this drill poorly."

During CTC rotations and similar exercises, battalion and brigade battle staffs endure a grueling test of mettle. Small units, on the other hand, can easily go the entire rotation with little or no opposing force (OPFOR) contact. This was the case during my own National Training Center (NTC) experience years ago.

As a new second lieutenant, struggling to fill a captain's shoes as a light infantry battalion S1, I endured a very stressful rotation indeed. But some months later, having moved down to the line as a rifle platoon leader, I heard about the rotation from a different perspective: from the troop's point of view, the NTC was just a series of long marches through the desert to empty objectives.

I will not argue that a long march through the desert cannot be good training — exercising the troop leading procedures is valuable training, whether or not it culminates with enemy contact. But a long march to an empty objective is hardly *optimal* training. Similar examples occurred during an assignment with a training support brigade preparing Army National Guard units for Joint Readiness Training Center (JRTC) rotations. During their brigade-level rehearsal exercises, it was a real challenge to ensure that platoons met their training objectives. We solved this by improvisation, vectoring OPFOR toward platoons and vice versa to ensure that every platoon experienced at least one contact during the exercise. The CTCs compensate for this problem, at least in part, through the small unit live-fire ex-

ercises they conduct each rotation. However, as good as this training is, the CTC target training audience remains battalion and brigade commanders and staffs. Clearly, that is the right audience, but the CTC model has focused on that audience almost to the exclusion of all else. Small-unit training has become little more than a poor relation.

Part of the problem is that the proficiency mentality implicitly embraces a flawed theory of learning. Small units and individual soldiers are trained and evaluated on key tasks at periodic intervals. Having met the standard, further training is implicitly treated as unnecessary and wasteful. I encountered this as a lieutenant working in the battalion S3 shop. Toward the end of one year, we found ourselves with a surplus of small-arms ammunition and were looking for a way to dispense it. Innocently, I made what seemed the obvious suggestion — send the troops to the range. To my surprise, this was dismissed out of hand, not because we had something better to do but because, "we already did that." The subtext was clear: marksmanship training is not about making our soldiers as lethal as they possibly can be with their individual weapons; it is about satisfying a regulatory requirement.

Another example comes from a friend in Germany, assigned to a mechanized infantry battalion, he described a lengthy training density where vehicle crews conducted gunnery while the dismounts sat idle in bivouac. When asked why the bat-

talion did not conduct some sort of concurrent small-unit training, he replied, "We did that the month before." Underlying these examples is the implicit assumption that once soldiers have trained to standard on a given task, additional training on similar tasks is a waste. But this ignores how people learn — *repetition*. Iterations of given tasks provide insight, which provides the framework for future iterations. As this process of repetition continues, we develop an intuition about the task that allows us to adapt to variations, make inferences, and predict outcomes even as conditions change. This is exactly the kind of mental agility that we need in our small-unit leaders. But it will only come through intensive effort focused on them and their subordinates.

The benefit of intensive training at battalion and brigade levels has been amply demonstrated. We must optimize our training to increase the benefits at squad and platoon levels, while retaining the benefits at higher echelons. We do not need to revamp our doctrine or methods as much as change the minds of those responsible for training — leaders at every level. Part of the solution requires striking a better balance between small-unit and higher-echelon training. We must strike this balance carefully, however. The last thing we need is a whole new layer of training requirements to rob soldiers of their already limited family time. This means making judicious use of the time we already devote to training. In part, it requires shifting some of that time from training aimed at higher echelons to small-unit training; not a radical shift that would undermine the hard-earned skills of commanders and staffs, but a moderate one that would better meet the training needs of soldiers serving at all levels.

Perhaps the best way to improve small-unit training is for leaders at those echelons to take charge of the matter themselves — assume ownership of their own training. But these captains, lieutenants, and sergeants follow the lead of their superiors; they cannot fill the vacuum left by senior-leader focus on higher-echelon training *unless they are empowered to do so.* Two comments made by fellow officers early in my career illustrate this. One officer described the light infantry platoon leader's main garrison duty as "putting his feet up on the desk and reading the paper." Another related his perception of a light infantry soldier's chief garrison activity: playing video games in the barracks.[4] Reading those remarks today,

one might condemn these officers as indolent. But this was categorically not the case. As with all the officers in the battalion, they were extremely dedicated and highly effective leaders. Nor are these remarks inconsistent with the assertions of Mr. Hackworth and myself that commanders and staffs are too busy to attend adequately to small-unit training. In fact, they constitute further evidence of the insufficient attention we give to small-unit training. In this instance, the battalion commander and staff were busy — very busy. But the troops at the line had time on their hands for training. Why didn't we use it? Because the commander and his staff were consumed with other demands, but the unit's junior leaders did not perceive themselves as empowered to deal with the matter.

Empowerment means two things. First, it means affirmatively providing junior leaders both the latitude and the resources they need to plan and execute training at their level during whatever time they have available. More importantly, though, *it means explicitly holding them responsible for putting those resources to good use.* It requires stimulating junior leaders to plan and execute training on their own initiative, using whatever assets they have available; it means involving them more extensively in planning the training directed by their superiors by ensuring that they understand the training objectives of their commanders; it means allowing — expecting — junior leaders to develop training and objectives at their own level that support those at higher levels; finally, it means expecting noncommissioned officers to develop individual training goals that support the collective training objectives of the their superiors in the chain of command.

Empowering small-unit leaders to plan and execute train-

"Rather than providing their small units with numerous, repeated opportunities to apply, hone, and improve tactical skills again and again, commanders build training programs that merely check the box, exercising critical skills just often enough to provide a refresher and verify baseline proficiency, but not to produce skills of the highest order."

ing at their own level is risky business. Senior leaders need to be realistic about what such training will look like, and they need to remember that training can be valuable, even if it is rough around the edges. When a battalion commander directs training, he can provide all the bells and whistles such as rehearsals and certified instructors. A squad or platoon leader might not have the resources to prepare training that thoroughly, but that does not mean that he cannot train well. While the amenities a battalion commander can provide certainly add value to training, we need to make sure that our junior leaders do not wait until they can make training pretty before they start.

Empowering junior leaders means risking and accepting mistakes. We need to accept this risk if we are to strengthen small-unit training. We also need to keep the risk in perspective — for our junior leaders, planning and executing their own training is training itself, even if they make a mistake or two along the way.

In closing, let me emphasize that nothing in this article is meant to denigrate the fine young men and women leading teams, crews, squads, and platoons in our Army. We are blessed with the finest and most ably led soldiers that our Army or any army has ever had. Nor do I contend that they are anything less than capable and effective. However, as good as they are, we can and must help them become

even better. We owe them and our Nation nothing less.

Notes

[1]William Tecumseh Sherman, *Memoirs of General William T. Sherman*, D. Appleton and Company, New York, 1875, volume 2, p. 395.

[2]Captain Chad Foster, "Preparing for Iraq: A New Approach to Combined Arms Training," *ARMOR*, November-December 2003, p. 6.

[3]David H. Hackworth, *About Face*, Simon and Schuster, New York, 1989, pp. 456–457.

[4]I hasten to acknowledge that these comments came from officers in a light infantry battalion. With no tracked vehicles to maintain, we admittedly had a much smaller workload in garrison than a mechanized or armor battalion would. Nonetheless, I suspect that the basic issue of complacency toward small-unit training probably applies to units of all types.

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Using Geographic Information Systems in the Military Decisionmaking Process

by Captain Brian J. Doyle

Throughout the history of warfare, chief weapons of all victorious armies have been not rifles or bombs, but maps. As David Livingstone explains, "Throughout its history, geography has frequently cast itself as the aide-de-camp to militarism… maps, it was long known, were as vital implements of warmongering as gunnery."[1]

Maps are used at all echelons to command and control the fight, plan the next battle, and analyze the last one. They convey information to the rifleman and the general. However, current maps found in command posts, from company to division levels, are outdated. The information represented, in its two-dimensional portrayal of the contested terrain, is incomplete and inadequate compared to today's technology.

Geographic information systems (GIS) are quickly becoming the medium of choice for governing, maintaining, and policing communities across the nation, but its inroads to military services are extremely limited. Even in our "digitized" divisions, the ability to convey and portray information spatially has not been developed to the optimum level. The age of the map board with its acetate overlays and alcohol pens should be over. The capabilities of the GIS can revolutionize the way we conduct war.

Geographic information systems are, as Gregory Johnston describes, "integrated computer tools for handling, processing, and analyzing geographic data, that is, data explicitly referenced to the surface of the Earth."[2] These computerized tools are common today in all realms of society from government to commercial to academia. Johnston further explains that GIS uses include, "the automated mea- surement and analysis of geographically distributed resources, and the manage- ment of distributed facilities."[3]

The Corps of Engineers has extensively used this technology for analyses and in producing maps and graphics.[4] GIS' use can and should be expanded. This is a tool that is not solely useful to higher echelon staffs. The dynamic information that is produced and analyzed from a spatial database can be used by battalion-level staff officers and company-level commanders. The question of implementing this tool becomes chiefly one of information management. This article explores an avenue for future exploitation of this technology.

Implications for the applicability of GIS are most clearly seen in the seven steps of the military decisionmaking process (MDMP). This process is carried out in various manners at all levels of command.

Among its steps specifically, mission analysis, course of action development, course of action analysis, and course of action comparison, the use of a GIS could revolutionize how leaders and their staffs visualize the battlefield.[5] Many factors such as topography, friction surfaces, soils, and line-of-sight analysis are currently conducted using a 1:50,000 map and possibly a few aerial photographs of key terrain. By linking these resources and the multitude of additional information available, commanders could have instant access to a much-enhanced picture from which to base their tactical decisions.

Current Applications

Currently, the engineer branch maintains GIS capabilities. They have a system in place that builds, maintains, and operates the GIS by organizing assets down to division-level topographic companies that provide assets as needed to the brigade. They have two different organizations for their topographic companies, a digital division and a nondigital division, with the primary difference being the integration of the digital assets to the information database assembled.

This organization is well thought out and incorporates many different battlefield operating systems and their specialized geographic information needs.[6] However, it still falls short of what it can provide leaders. Further, this technology is not well known and therefore not fully exploited in the lower command echelons. For example, U.S. Army Field Manual (FM) 17-95, *Cavalry Operations*, Annex B, which details the new innovations pertaining to "digital cavalry," makes no reference at all to the capabilities that the division topographic company could lend to the cavalry fight.[7] All commanders (digital or not) are constantly engaged in the quest for information on terrain and environment and could benefit greatly from integrating a GIS database into their decisionmaking cycle. We need to educate and train the force, and then imbed our doctrine with the advantages that this technology offers to battlefield commanders.

Proposed Integration

The MDMP is a series of steps conducted at each level of command.[8] Many of these steps would benefit from including GIS technology. Of specific interest are the steps that make up step three, "Make a tentative plan."[9] This is the step that will benefit the most from including GIS in the planning process. At the brigade and battalion levels, this will revolutionize the way in which our battles are planned. Instead of staff officers huddled around a two-dimensional map board, making subjective decisions concerning the terrain and environment, a GIS will enable informed decisions based not only on topographic maps, but remote sensing, aerial photography, recent surveys, visual descriptions from local noncombatants, census data, statistical data, digital elevation graphs, digital elevation models, digital orthophotoquads, and many other sources.[10]

GIS has the ability to analyze areas based on weighted terrain values, which greatly assists in determining the key terrain

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and likely avenues of approach. This will allow the tentative plan to be developed quickly and accurately and provide models from which to explore the impacts of the terrain on the different courses of action. This would also allow planners to better mitigate or exploit the impact of the physical environment.

This should be a skill incorporated into all captain's career courses. The ability to operate a GIS and to use its analytic capabilities is akin to reading maps at this level of planning. This base of knowledge would allow the Army to attain a higher level of situational awareness at tactical decision points.

Case Study for Implementation

At the Combined Maneuver Training Center (CMTC) in Hohenfels, Germany, no place is more feared or respected than the killing ground known as fifteen tango (15T). In this 1.5-kilometer by 5-kilometer box of rolling hills with permeable wood lines on all edges, platoons, companies, troops, and battalions are put to the test monthly. Control of this key avenue of approach is often the only variable that exists between winning and losing in any east-west fight at the CMTC.

For the purposes of a case study in GIS application, we are going to look at the advantages this technology would provide a commander of a heavy division cavalry troop. This study is largely based on an actual battle that took place at the CMTC between 14 and 15 September 2000, with A Troop, 1st Squadron, 1st United States Cavalry in support of the 173d Infantry Regiment.

At 0300 hours, at the squadron tactical operations center, the squadron commander issues his guidance for the squadron's mission that will commence the following day. The squadron, as part of a light infantry brigade, will screen in depth to identify and destroy elements on the enemy's reconnaissance patrols. Then, following identification and destruction of the lead regiment's combat reconnaissance patrol, A Troop, in the south, will collapse its screen, move northwest and form a defense in depth behind B Troop, centered on the western edge of 15T. In this position, the squadron will guard the northern boundary of the brigade, and de-

ny the enemy penetration of that boundary.

Further constraints require that the rear movement of A Troop occur at 0200 hours the following evening. The A Troop commander cannot rehearse this move and cannot recon the terrain for fear that local observers will provide information to the enemy that will lead him to suspect such a maneuver. The intent is to have the enemy believe that the force that destroyed his reconnaissance element, namely a screening force of two troops abreast, is still the formation he will face when his main body arrives. Due to the existence of these informants and dismounted reconnaissance teams, no movement toward 15T by A Troop is permitted prior to execution time.

The A Troop commander must now select a route that will allow his unit of 13 cavalry fighting vehicles, nine tanks, and two track-mounted mortars, a total of 24 combat vehicles, to move along a route 10-kilometers long through friendly positions in the middle of the night. He must then establish a defense in depth focused on an engagement area that will not be visible in daylight until 30 minutes after the expected enemy attack.

This mission was executed with slightly less than perfect results. A 1:50,000-meter map, minimal terrain analysis information, and applicable Army Field Manuals were used. The unit could have great-

ly expanded their horizons with the aid of GIS.

Most GIS software packages today can easily be loaded onto laptop computers. This package can be set up and operating in the back of any command post vehicle, enabling the commander to analyze the terrain, model possible routes, and identify probable defensive positions prior to devising a plan for the unit to execute.

The A Troop commander needed compact disks from the S2 containing the applicable data layers, which could be distributed with the operation order. Going back to his troop tactical operations center (TOC), the commander could then load the information and run the analysis. No other link would be needed. Obviously, if there was a way of connecting the TOCs in real time, then information could be updated in both directions, but the emphasis on this system is its independence. The commander will gain benefit with systems that exist today; no future technology is needed to make this system operable. He could, for example, analyze the possible routes through a network function to determine the most direct and quickest routes, or which routes provide the best cover and concealment.

Using FM 3-90.1, *Tank and Mechanized Infantry Company Team*, as a guide, the commander could systematically analyze the engagement area by using these engagement development steps:[11]

Step 1 – Identify likely enemy avenues of approach. Through the network analysis, the commander could identify what road would hold which vehicle at what rate of speed. By analyzing the biodensity of the wooded areas, the GIS could provide an idea of other possible routes of infiltration.

Step 2 – Determine likely enemy scheme of maneuver. Likely routes into the area and the routes needed to get to the objective can be easily determined through spatial analysis of the slope and aspect of the terrain.

Step 3 – Determine where to kill the enemy. Through spatial analysis, those areas that form the deadspace will be identified, as well as those areas which will bottleneck the enemy's movement. This information can be quickly translated into target reference points (TRPs) for concentration of artillery fires. This same information also will allow the commander to plan and integrate obstacles.

Step 4 – Plan and integrate obstacles to further deny the enemy ability to maneuver.

Step 5 – Emplace weapons systems. Focusing on the emplacement of weapons systems is tailor made for GIS. In this scenario, vehicle commanders do not have the luxury of seeing the actual terrain and sighting in their fighting positions. Through information regarding land cover, elevation slope aspect, and slope angle, as well as through line-of-sight analysis, the commander can determine the ideal locations for all of his vehicles to affect the fight.

Step 6 – Plan and integrate indirect fires. The results of Step 5 will translate nicely into Step 6 by identifying indirect fire targets and clearly identifying areas difficult to engage with indirect fire.

Step 7 – Rehearse the execution of operations in the engagement area. GIS can also assist the commander through its ability to model different possibilities; through modeling, the commander will identify holes in the plan or how the plan can be improved prior to execution.

During the battle described above, the element of time was crucial. A Troop had plenty of time on the screen line, but not enough in their defensive positions. Time in the assembly area is often a long and uneventful prelude to a confusing and rapidly developing period of action. These periods of planning can be greatly enhanced through applying GIS during the planning cycle. Generally, the enemy's presence denies us the opportunity to re-

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hearse on the ground on which we will fight. However, GIS can better prepare the commander for the future fight and provide him with invaluable perspective in visualizing the battle.

Information Management

In discussing battlefield visualization, FM 101-5, *Staff Organization and Operations*, states: "It is critical to mission accomplishment that commanders have the ability to visualize the battlefield. Therefore, in his intent statement, the commander must clearly articulate his battlefield visualization to his subordinates and staff to ensure the optimum development and execution of his concept of operations."[12]

What better way to bring this visualization to life than through the use of GIS? In discussing the relevance of this type of data, FM 3-34.230, *Topographic Operations*, states: "Computer technology has changed the Army's mapping, data-collection, and battlefield-planning processes. As computer power and accessibility have grown during the 1970s and 1980s, new methods of map making and terrain analysis have been developed. Military commanders have long realized the interdependence of the earth's land features and their success on the battlefield. Those military leaders who stand out in history visualized the terrain and its effects on the battle's outcome. Today's topographic engineer (along with his GIS tools) is able to represent the terrain and its effects more accurately and faster to help the commander visualize the terrain. The commander's knowledge of the terrain will allow him to obtain a superior advantage in shaping the battle space; it is a key portion of information dominance leading to successful operations."[13]

The key to how technology can benefit the fight is the level to which the information is disseminated. Current doctrine shows that this information is often developed at division as part of the division engineer's function and pushed down to only brigade commanders.[14] This manual was published in August 2000; however, based on the comment in the above cited paragraph concerning the progress computers made in the "1970s and 1980s," I think its safe to assume that little has actually changed since its original publi-

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cation as FM 5-105 in 1993.[15] Since then, technology has taken even greater steps, and with available laptop computers and writable CD ROM drives, battalion-level staffs should have the ability to create GIS layers, and company-level commanders should have access to the information as part of their decisionmaking process.

GIS technology exists. The issue is primarily one of information dissemination and awareness of existing capabilities. For as long as we have had an Army, we have relied on maps. Our ability to develop overlays on acetate to depict every part of the battle and every influencing factor is well established. The problem has always been our ability to digest data and create useful information. The GIS provides an almost unlimited ability to digest all spatial data. Further, through analytic capabilities, a battlefield commander can manage this information in ways that are not possible with traditional maps.

The future Army, with its goal of interconnecting all combatants in a constant flow of data and images, offers even more possibilities in which GIS can process and present information. The time to establish this technology is now. We can actively employ GIS at the company level through currently in-place systems by purchasing GIS software and training programs to develop user proficiency. This system is the next step for the map, and it will provide combat leaders with the information that they need to make decisions that will win battles and save lives on future battlefields.

Notes

[1]David Livingstone, *The Geographical Tradition*, Blackwell Publishing, Oxford, 1992, p. 352.

[2]Johnston, Gregory, Pratt and Watts, *The Dictionary of Human Geography, 4th Edition*, Blackwell Publishing, Oxford, 2000.

[3]Ibid.

[4]U.S. Army Field Manual (FM) 3-34.230, *Topographic Operations*, Department of the Army, U.S. Government Printing Office, Washington, D.C., 3 August 2000.

[5]FM 101-5, *Staff Organization and Operations*, Department of the Army, U.S. GPO, Washington, D.C., 31 May 1997, Figure 5-1.

[6]FM 3-34.230, *Topographic Operations*.

[7]FM 17-95, *Cavalry Operations*, Department of the Army, U.S. GPO, Washington, D.C., 24 December 1996, Annex B.

[8]Ibid., Figure 2-3.

[9]Ibid.

[10]Michael N. Demers, *Fundamentals of Geographic Information Systems*, John Wiley & Sons, 2000.

[11]FM 3-90.1, *Tank and Mechanized Infantry Company Team*, Department of the Army, Washington, D.C., 9 December 2002.

[12]FM 101-5, *Staff Organization and Operations*.

[13]FM 3-34.230, *Topographic Operations*.

[14]Ibid.

[15]FM 5-105, *Topographic Operations*, Department of the Army, Washington, D.C., 1993, superseded by FM 3-34.230.

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Planning, Preparing, and Executing Your Role as the Platoon Sergeant

by First Sergeant Dennis White, U.S. Army, Retired

To be a successful noncommissioned officer and leader, it is your responsibility to mentor subordinates to an even greater success than your own. The awesome task of platoon sergeant is demanding and requires planning and preparation to successfully execute this challenging role.

In today's ever-evolving Army, the noncommissioned officer (NCO) is continuously reacting to changes and transforming soldiers to meet current mission essential requirements. Because of what seem to be endless days, NCOs are finding it more and more difficult to prepare for leadership positions.

One of the first leadership positions an NCO will completely assume is the role of platoon sergeant. Adopting some practical tactics, techniques, and procedures (TTPs) can make the difference between successful leadership positions and unsuccessful leadership positions. Below is a list of practical TTPs that have aided in the success of many NCOs.

Planning

During the planning process it is imperative to learn how to be a successful platoon sergeant and leader. Some of the most effective techniques are:

• Seeking out successful platoon sergeants and first sergeants and ask questions — keep notes.

• Imagining yourself as a successful platoon sergeant — daydream a little.

• Designating someone to be your mentor and let that person know you are watching.

• Starting a reading list and include *The Platoon Sergeant* and *The Mentor* by Command Sergeant Major Bobby Owens; *Warriors Words* by Peter Tsouras; *Small Unit Leadership* by Colonel Mike Malone; *The Three Meter Zone* by Command Sergeant Major Dave Pendry; and all applicable field manuals, technical manuals, and Army regulations.

Make Tentative Goals

Setting and attaining goals are imperative to planning and preparing for any leadership position. Helpful goal-setting ideas include:

• An average physical training score of 260.

• Attaining 50 percent expert with weapons systems.

• Maintaining 95 percent readiness rate with assigned equipment (maintenance programs).

• Building strong team-oriented squads, crews, and platoons.

• Updating and validating platoon SOPs as necessary.

● Planning for educational opportunities for your soldiers (Army Knowledge Online is great!).

● Maintaining a high state of readiness.

● Having a system that prepares soldiers for local boards.

● Sending highly motivated and capable NCOs to be master fitness qualified.

● Having a good billet SOP and uniform standards.

● Remembering that all goals should be realistic and attainable.

Platoon Neat and Fun Stuff

Esprit de corps builds teams, raises morale, and fosters trust and loyalty between unit members. Some ideas for leader development may be:

● A platoon motto.

● If you have assigned vehicles, devise a marking system with pennants or small flags that helps you visualize how your platoon is arrayed or where it is located. This increases pride within your platoon.

● When a soldier leaves your platoon, ensure he receives more than just a piece of paper with the battalion commander's signature. Whatever you choose, it should be an item the soldier will cherish for years to come — use your imagination. We used sabot petals with the soldier's name, bumper number, and position painted on them. Good soldiers deserve recognition from their subordinates, peers, and leaders.

● Planning a quarterly hail and farewell with soldiers and families, possibly at your home, ensuring it is closely supervised.

● If a soldier beats your APFT score, lunch is on the platoon sergeant! This will motivate both of you.

_____

"In today's ever-evolving Army, the noncommissioned officer (NCO) is continuously reacting to changes and transforming soldiers to met current mission essential requirements. Because of what seem to be endless days, NCOs are finding it more and more difficult to prepare for leadership positions."

Prepare Your Mind, Body, and Soul

This cannot be overemphasized. Soldiers depend on leaders for intellectual, physical, and emotional support. If you cannot deal with your own issues, you will be of little use to your soldiers. Here are a few tips:

● Know and learn current doctrine and TTPs.

● Build a sensible leader's book with useful information (not fluff) and make it the platoon standard.

● Know your unit's mission essential task lists (this is a great place to find individual training tasks that are often neglected).

● *You must be very physically fit!*

● If you happen to be a person of faith, seek guidance daily!

● If possible, visit a national memorial or battlefield (this is a humbling and sobering experience and will help you fully understand the awesome responsibly you have or will assume — if you're taking this job only to "punch a ticket," seek other employment!

● Talk with your family, prepare them for long hours, phone calls in the middle of the night, and the possibility of frequent deployments.

● Develop your own philosophy or rules to live by; use Army Values as a base.

Execution

To undertake the duties and responsibilities of a platoon sergeant, you are expected to be at the top of your game. Anything less will certainly cause unnecessary turmoil within your platoon. To be an effective leader:

● Foster a "warrior spirit" within the platoon.

● Have a tactical mindset in all operations.

● Truly care about soldiers and their families (go to family readiness group meetings).

● Be a team player within the company (remember there are 3 more platoons on your flanks, stay in your lane).

● Grow accustomed to tireless activity (first one in, last to leave).

● Be a mentor; willingly share experience, knowledge, and wisdom.

● Ensure that maintenance is a priority — put that technical manual on the front slope!

● Know your soldiers — be observant, listen, and communicate.

● Be involved in all aspects of platoon operations (this does not mean micromanage).

● Form good professional working relationships with the commander, first

This article suggests a few ideas that have helped many platoon sergeants be successful. It is our task to prepare for combat, win decisively, and bring our troopers home.

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sergeant, peer platoon sergeants, and other battalion leaders.

• Understand the commander's intent, vision, and what he expects from his platoon sergeants.

• Build an *excellent* relationship with your platoon leader, remembering to coach, teach, and mentor to ensure the platoon leader's success.

• Examine goals quarterly, adjust, and refocus as needed with the platoon leader's assistance.

• Delegate — this is critical.

• Counsel NCOs on a regular basis; ask to see their goals.

• Continue to grow and learn!

• Enjoy what you are doing!

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some "ratcheting" or scaffolding that could enhance learning, but there is precious little time in the rotation do "gradual" anything. Potential solutions may be to lengthen CTC rotations, which increases costs and reduces the number of opportunities available to the total force, or proved mobile training teams for OPFOR to home station training events to increase the rigor of home station training. The CTCs fulfill the purpose for which they were designed — all services have seen a decrease in combat casualties after the implementation of world-class CTCs.

We have not made training too difficult. The first and most important stage of learning is learning what we do not know. War is difficult and unpredictable, so too should be training. Training research literature (much of it sponsored by the Army) is replete with evidence to support that training transfer is directly related to the faithfulness of the training environment to the employment environment. That does not mean that "bells and whistles" make good training. As Major Salas points out in his own anecdotes, "creative commanders can conduct enlightening training opportunities in pretty austere conditions, if they do not sacrifice performance standards in the process." There is nothing in Army training doctrine that prevents leaders from conducting crawl- and walk-level training events that are most beneficial to the skill levels of their units. However, learners should be challenged to the highest level they can be and still have the capability to absorb and practice new skills. To the extent that the three features identified by the ARI study are compromised, the overall transferability of the

training event to the real world will be compromised. The best performers in every endeavor are those that are overtrained to the task to be performed.

Teaching the test can be excellent training, if you have a robust enough test. Teaching the test is superbly efficient if the test is sufficiently robust to represent the full set of demands that will be faced by the learner in application. Teaching the test becomes hazardous if the test is only a sample of behaviors needed in combat, or cannot replicate the full range of conditions that will be found in employment. If a sample test must be used, or the environment is not known well enough to faithfully reproduce it at the CTC, then units need to be provided multiple attempts with the conditions changed each time to capture as much of the environment as possible. Units will learn how to handle the ambiguity in specific environments and create solutions to cope, but mistakes made in training are a legitimate part of the learning process.

I encourage CTCs to remain the closest surrogate to the most demanding combat conditions we might face on contemporary battlefields. I think that the philosophy of the CTCs combined with mission rehearsal training has been validated over and over again. Our soldiers and units have taken on more complex and diverse missions than ever before in our history, and excelled. Admittedly, we always have more to learn, especially about how to make and keep the peace.

Of course CTCs need to be continually reviewed and updated to ensure that their ver-

sion of war does represent the most challenging contemporary and emerging capabilities we might face. After repeated exposure to those standards, individuals and units will elevate their competency after each exposure, but they have to "know what they don't know" first, and that should be faced on friendly, if demanding, turf.

As Major Salas implies, "perhaps we need to focus more attention and effort on how to conduct quality home station training." This is not going to be achieved by more regulations and job performance aids, but by an in-depth look at how to train units as cohesive effects-producing entities, and backward building that into our unit training programs and training institutions. We have to stop disaggregating units into branches and MOS specialties, and look at how the pieces contribute or retard overall unit performance, and train units to compensate when broken or disabled.

DR. STEVEN L. FUNK
COL, U.S. Army, Retired

Kudos to Kojro

Dear *ARMOR*,

Kudos to Colonel Kojro's letter in the January-February issue of *ARMOR*, "Army Transformation Done Right." He is absolutely correct in his assertion that transformation is easily accomplished if we would just stop wasting time trying to reinvent the wheel. The armored cavalry regiment does indeed represent an almost perfect combined-arms organization and

should be the basis of our future mounted warfare doctrine and organization.

I would go further, however, and return the entire Army to the real regimental system we used before the Pentomic reorganization of the late 1950s.

Make the regiment an administrative and operational entity. Not only would this rid us of the confusing and all but meaningless regimental affiliations that currently exist within the Army, it would greatly facilitate cohesion among units within the regiments and encourage a far more profound sense of unit loyalty and pride in our soldiers. This last consideration has significant implications now that the Army envisions fewer changes of station for individual soldiers. Let's not be cynical. Unit pride does contribute to combat effectiveness and soldier retention.

Erwin Rommel correctly asserted that greater battlefield dispersion requires greater cohesion, not less. Yet, everything I see involving transformation seems to be leading us away from this fundamental truth, from potential "plug and play" tables of organization to the current infamous Army recruiting slogan, "An Army of One." I don't care what some civilian consulting firm says about attracting recruits. The Marine Corps has no problem filling its quotas, yet you don't see them resorting to Madison Avenue double-speak to attract enlistees.

So much of our success is based on mindset. That mindset must reflect an urgency and intensity that our soldiers will experience on the battlefield, not the "kinder, gentler" sensitivities we see increasingly undermining institutions and organizations in the civilian world. If we are really serious about Army transformation, removing the debilitating effects of cynicism and political correctness needs to be the first step.

THOMAS A. REBUCK
1LT, U.S. Army
Pennsylvania Army National Guard

Tankers Deserve Better

Dear *ARMOR*,

I am a new member of the Armor Association and still consider myself a tanker. After reading the January-February issue of *ARMOR*, I was dumbfounded to learn that Armor units are dismounting their tankers and turning them into infantry and military police. Is there a shortage of military police and other personnel better suited to the mission in Iraq? Where were the tanks parked while crews dismounted and performed house-to-house searches? Did they send back the tanks early so they could perform as "dismounted combat tankers?" For armored crewmen, the tank is their strength, identity, and home. I don't know how this new generation of tankers feel, but if I was going to be dismounted and walk all over hell's creation, I would have joined the infantry.

During my service to my country in the Army, I performed some duties not usually associated with armor crewmen. Once while a driver in a tank company, my beloved tank was deadlined and stripped for parts. My crew and I were issued two HMMWVs and simulated So-

viet antiarmor guns on trailers. This hurt deeply, but I performed my duties to the best of my abilities. Secondly, while serving in a tank company during Operation Desert Shield/Storm, my tank towed a disabled M88 back to the boneyard. The M88 broke down while towing damaged and disabled tanks. Now, that's something you don't see everyday.

I understand the Army is moving forward and maybe this is necessary due to personnel shortages, but it seems tankers deserve much better treatment. I also believe that tankers should be recognized for excellence. We have the Excellence in Armor program, but if a tank crew shoots a perfect score of 1,000 points, there is no badge (CIB) to show that excellence. Finally, I would like to give thanks and respect to the tankers, cavalry scouts, and M88 crews who serve their country proudly.

JOSE A. BARRIO
U.S. Army, Retired

Creating a Combat Action Badge Could Put an End to "Badge Wars"

Dear *ARMOR*,

I am a late arrival in the Combat Armor Badge discussion. I have silently watched the dialogue in *ARMOR* and other publications since the issue first surfaced. I feel that I must now throw my views on the Combat Armor Badge into the mix. Bottom line up front — we do not need a Combat Armor Badge. I know that cavalrymen and tankers the world over are now cursing my name! Not so fast brothers! Read on.

First, let me assure you that I fully recognize the disparity in recognition between an 11-series combat veteran and a 19-series veteran. I saw it firsthand after my return from Desert Storm. I have often asked the rhetorical question: What was the difference between an 11-series soldier filling an 88M slot in an infantry battalion support platoon and a 19-series soldier performing the same duties in an armor battalion during Desert Storm? Both performed the duties in combat conditions, yet the 11-series soldier received the Combat Infantryman's Badge (CIB) and the 19-series soldier received nothing.

What is the difference between the combat vehicle crew (commander, gunner, and driver) of an M2 Bradley Infantry Fighting Vehicle, an M3 Cavalry Fighting Vehicle, and an M1A1C Abrams main battle tank? The crewmembers of all three maneuvered their combat systems to a position of advantage and engaged the enemy with devastating results. The crews of all three combat vehicles endured similar hardships and faced comparable dangers. The only difference that I can ascertain is that the M2 crew received recognition for their contributions to the direct firefight in the form of the CIB. I don't want to beat a dead horse here, but I can think of no better illustration of this disparity than that of Specialist (SPC) Vineyard.

Long story short, SPC Vineyard is a cavalry scout assigned to E Troop, 238th Cavalry, 76th eSB, Indiana Army National Guard. Shortly after he and his unit returned from a 6-month stabilization forces (SFOR) rotation in Bosnia, SPC Vineyard volunteered to join a sister unit

in the 76th eSB that was mobilizing, but not at full strength. SPC Vineyard was assigned to D Company, 1st Battalion, 293d Infantry, as a driver in a tube-launched, optically tracked, wire-guided (TOW) missile platoon.

While I do not know the particulars of D Company's exploits during Operation Iraqi Freedom, I do know that the company's soldiers, to include the soldiers on SPC Vineyard's truck, were awarded the CIB. Despite the fact that SPC Vineyard shared the same hardships and danger of his fellow soldiers, he did not receive the CIB because of his military occupational series (MOS).

There is one point that I do not believe has surfaced. The 3d Infantry Division is in the process of transformation. Soon, all of their maneuver battalions will be combined arms battalions with a mix of either two armor companies and one infantry company or two infantry companies and one armor company. A similar combined arms battalion is the centerpiece of the future unit of action. It is time for a change in the way that we do business. Will future CIB award ceremonies in the 3d Infantry Division involve two-thirds of the unit being awarded the CIB, while the other one-third stand in formation and observe?

I agree with those who have written that soldiers in direct-fire contact with an enemy, deserve recognition beyond wearing a combat patch on their right shoulder. However, I do not believe that for our 19-series soldiers it should come in the form of a Combat Armor Badge. Don't get me wrong, I think the designs are great and I am sure that they would be a mark of pride and distinction for our soldiers. In fact, after looking at the designs, particularly the 1986 design, I almost did not write this letter in the hopes that the badge would get approved. But, I believe that it is not in the best interest of our Army to have such a badge.

Fellow troopers, I submit to you that our Army would be better served by recognizing our soldiers who have faced an enemy in direct-fire combat with a Combat Action Badge. We are an Army in transformation. A few years ago, we donned the black beret as a symbol of that transformation. It is time for the disparity of the Combat Infantry Badge to end. It is time for the perceived badge wars to end. It is now time to take our transformation one step further. It is time for the Combat Action Badge.

What is the Combat Action Badge? Simply put, it is a badge of distinction that recognizes hardships endured by and dangers faced by soldiers who have encountered an enemy in a direct-fire battle. I don't know the criteria for the Combat Action Badge — there are plenty of smart people who can figure out the particulars. As I envision the criteria, the badge should be awarded to any soldier, regardless of MOS, who has maneuvered in a direct firefight against an armed enemy. How will this new symbol of excellence look? Again, I am not sure. But I ask you, what better existing symbol is there than the present Combat Infantry Badge that could be adopted as the new Combat Action Badge?

Your thoughts?

MATTHEW R. De PIRRO
MAJ, U.S. Army

(RSTA) squadron recce platoon use the reconnaissance vehicle variant of the Stryker and the long-range advanced scout surveillance system.

The RSTA uses a four-vehicle recce platoon and each Stryker is manned by six 19Ds (two crewmembers and four dismounted scouts) with a 97B human intelligence (HUMINT) source specialist attached to the squad. The IBRP uses a four-vehicle setup with the platoon divided into two sections of two vehicles each. One section is heavy with two recon teams (one per Stryker), and the other section is light with one recon team and the headquarters element. The infantry scouts are aligned in three five-man recon teams; a command element that includes the platoon leader, platoon sergeant, and medic; and a sniper squad currently experimenting with all-terrain vehicles for increased mobility and stealth. The sniper squad is assigned a squad leader and two three-man sniper teams.

The difference in manning reflects the opposing views and experience brought to the SBCT by the two separate branches. The light infantry force (airborne, air assault, and light infantry) supplements its scouts with snipers to enhance the platoon's effectiveness, simplify training, and increase its ability to shape the battlefield. The IBRP continues this habitual association of scouts and snipers, as is reflected in new doctrine. The IBRP manual is well thought out, doctrinally sound, and written in clear, simple, concise language without any vague doctrinal buzzwords. The manual currently used by the recce platoon and all other 19D scout platoons, FM 3-20.98, *Reconnaissance Platoon*, is loaded with buzzwords and is simply too jam-packed with tactics for three different types of scout platoons using various vehicles in one all-encompassing book.[4] The Fort Benning manuals, dealing with the three different units responsible for performing reconnaissance, LRS, IBRP, and light infantry scout platoon, are tailored to each element. While these manuals, FM 7-92, *Infantry Reconnaissance Platoon and Squad*, FM 7-93, *LRS Unit Operations*, and FM 3-21.94, *SBCT IBRP*, do have overlapping material, nothing is omitted by trying to make one be-all and end-all manual.[5]

19Ds and 11Bs perform the same tasks in a variety of units. While the majority of 11Bs perform traditional infantryman tasks, more and more are working as the commander's eyes and ears. The opposite can be said of 19Ds, as evidenced by the 3d Squadron, 7th Cavalry Regiment during its drive north out of Kuwait and on to Baghdad, and the 2d ACR's battle of 73 Easting during Desert Storm. While these units fulfilled a traditional cavalry role, the individual cavalry scout engaged and destroyed targets from Bradleys just as did their 11B, and at that time, 11M counterparts. Those troopers became decisively engaged closing with and destroying the enemy, completing a traditional infantry task.

"Cavalry is a state of mind!" I've heard that on more than one occasion. I have always believed that cavalry filled the maneuver forces need for reconnaissance and security on the battlefield, which took a specific soldier trained, ready, and able to accomplish that task. If cavalry oper-

"The infantry leader has realized that scout and sniper roles and training are so closely related that not only are they organized together in the same platoon in the light infantry force, but many mechanized infantry battalions are attaching their 11B snipers to 19D-manned scout platoons. 11Bs in LRS and light infantry scout platoons attend Pathfinder School, Ranger School, and Sniper and Long-Range Surveillance Leaders Course, or a combination of these courses, to be trained for their current duty positions."

"Reconnaissance is performed mounted and dismounted. While mounted, it is conducted in vehicles that are armored and unarmored. The tasks are not fundamentally different; it is the way and the mindset in which they are performed that are different. The infantry branch has recognized this, and has adjusted and instituted changes in doctrine, training, and tactics, techniques, and procedures to successfully give scouts the edge they need on future battlefields. The Armor community still has a narrow view of how to conduct reconnaissance."

ations are just a doctrinal approach to the employment of force on the battlefield, rather than a function of specially trained and led soldiers performing unique tasks on the battlefield, then tankers and infantrymen can do these jobs as an ad hoc combined arms team at the company or battalion level to replace cavalry soldiers, or at the very least, assign tankers and infantrymen to troop and squadron positions.

Tankers are already in cavalry units as well as armor units. Since 19Ks crew the M1 Abrams in both organizations, why is the BFV crewed by two separate MOSs to do one job? Isn't it a waste of manpower and resources to have two different soldiers, trained at two different locations by two separate branches, fill two different MOSs and perform the same tasks? Is being cavalry really a leadership function of employment of troops and equipment rather than a trooper's display of skills that define how reconnaissance and security are performed?

Reconnaissance is performed mounted and dismounted. While mounted, it is conducted in vehicles that are armored and unarmored. The tasks are not fundamentally different; it is the way and the mindset in which they are performed that are different. The infantry branch has recognized this, and has adjusted and instituted changes in doctrine, training, and

tactics, techniques, and procedures to successfully give scouts the edge they need on future battlefields. The Armor community still has a narrow view of how to conduct reconnaissance. Armor leaders have placed their faith in electronic means to conduct reconnaissance. Sensors and optics enhance the scout on the ground capabilities; it does not supersede them. By perpetuating this view of mounted, armored reconnaissance, the scout is limited and hampered, handicapped by short sightedness and exposed on tomorrow's battlefield.

The Army, and the armor branch specifically, need to reassess the necessity to keep an MOS like 19D in the armor community. Is it beneficial for the soldier and the Army to keep it as is or combine it with 11B? If it is not, consolidating the MOS needs to be fully supported by the Armor Center with better training, manning, doctrine, specifically defined tasks, and dedicated platforms with a mission statement that demands all reconnaissance from corps to battalion, across the full spectrum of the force, light, medium, and heavy, current and future, be dedicated to the 19D.

With scouts, both cavalry and infantry, using the Stryker reconnaissance vehicle, shooting the same TOW and Bradley tables, and approaching the same coordi-

nation point, while leading a dismounted patrol conducting reconnaissance and security for the force, I see something at the beginning of the 21st century that happened early in the 20th century, proud members of the cavalry put out to pasture — this time instead of four-legged mounts, it is the 19D cavalry scout.

Notes

[1]U.S. Army Field Manual (FM) 17-12-8, *Light Cavalry Gunnery*, U.S. Government Printing Office (GPO), Washington, D.C., 16 February 1999.

[2]FM 17-98, *Scout Platoon*, U.S. GPO, Washington, D.C., 10 April 1999, superseded by FM 3-20.98, *Reconnaissance Platoon,* 2 December 2002.

[3]FM 23-1, *Bradley Gunnery*, U.S. GPO, Washington, D.C., 18 March 1996, superseded by FM 3-22.1, *Bradley Gunery,* 28 November 2003.

[4]FM 3-20.98, *Reconnaissance Platoon* U.S. GPO, Washington, D.C., 2 December 2002.

[5]FM 7-92, *Infantry Reconnaissance Platoon and Squad*, U.S. GPO, Washington, D.C., 23 December 1992, Change 1, 13 December 2001; FM 7-93, Long-Range Surveillance Unit Operations, U.S. GPO, Washington, D.C., 3 October 1995; and FM 3-21.94, *Stryker Brigade Combat Team's Infantry Battalion Recon Platoon*, U.S. GPO, Washington, D.C., 18 April 2003.

SSG Brendan F. Kearns is a 19D cavalry scout assigned to the divisional tactical command post, 4th Infantry Division. He has served in the New York Army National Guard and in armor and aviation units. He was awarded the Draper Leadership Award for his performance during 19D Basic Noncommissioned Officers Course.

REVIEWS

The Iraq War edited by Martin Walker, Brassey's Inc., 2004, 220 pp., $19.95

Journalists write the first rough draft of history! - Phillip Graham, *Washington Post*

Martin Walker, the chief international correspondent for *United Press International* has collected some of the best writings and photos on political and military events that lead up to the U.S.-led coalition's invasion of Iraq. Walker's collection of dispatches from the front line and world capitals is a useful history of the buildup to the war. Walker's book presents the war as it was happening without the benefit of hindsight, which makes *The Iraq War* a relevant history given the current debates raging about its purpose. *The Iraq War* takes the reader through the buildup to the war, the decisions made on how to conduct the war, the actual 21 days of large-scale combat operations, and the aftermath of the war.

The Iraq War is a raw account of Operation Iraqi Freedom. Especially interesting are the dispatches from embedded reporters who, since the Vietnam War, followed coalition forces from beginning to end. Their accounts of close-quarter combat in the 21st century will set a standard for journalists for years to come. The front-line dispatches are useful tools for future commanders going to war. The reporters' style and verve, used to describe soldiers, sailors, airmen and Marines in combat, has a major impact on the will of citizens engaged in war. Operation Iraqi Freedom demonstrated that the media can have a positive impact on the U.S.'s ability to conduct combat operations.

After Vietnam, the gap that developed between the military and the media seriously hampered the republic's ability to conduct combat operations. The military, distrustful of media bias, kept journalists away from the front lines. The media, suspecting that the military had something to hide, sometimes wildly speculated on the methods and conduct of combat operations. The most painful example of this rift occurred during the first Gulf War when the media severely criticized Major General Barry McCaffrey's decision to order air strikes on an Iraqi armor force withdrawing on what became known as the "Highway of Death."

Secretary Donald Rumsfeld's decision to allow journalists to accompany military forces into combat was one of the great coups of the war. The inaccurate portrayal of soldiers as "baby killers" was finally exorcised during this war. To quote Walker from one of his dispatches, "We saw how hard they [coalition military forces] tried to avoid civilian casualties and the risks they took by the self-restraint." This one sentence captures the flavor of the reports filed by journalists from the front lines in Iraq. Perhaps it was because many reporters came under combat fire for the first time that their attitudes toward the men and women in uniform differed from those of another generation. Geraldo Rivera's recent reports with the 82d Airborne Division, where he refers to soldiers as "our guys" and "our mates," demonstrates the success of the embedded reporter program.

Interestingly, *The Iraq War* does not include a great deal about the weapons of mass destruction debate that existed before and during the war. The book concentrates more on the rift that developed between the U.S. and U.K. as they led the international coalition, and, to quote Donald Rumsfeld, "Old Europe."

The Iraq War should be required reading for any professional development course. Walker and his fellow journalist's insights are an honest portrayal of combat operations. Officers and noncommissioned officers at all levels should read and study this book. Embedded journalists are here to stay, just as judge advocate general and public affairs officers have become a part of any combat operation. *The Iraq War* provides an excellent study guide on how members of the military can successfully deal with the media on today's battlefield.

Walker worked for 25 years with the London newspaper, *Guardian*, where he served as bureau chief in Moscow and the United States, and as European editor before he began working for *United Press International.* He is a regular broadcaster on BBC, National Public Radio, and CNN, and has appeared as a panelist on "Inside Washington" and "Capitol Gang Sunday." He has held fellowships at the World Policy Institute at the New School for Social Research in New York, and the Woodrow Wilson International Center for Scholars. His numerous books include *Waking Giant: Gorbachev and Perestroika*, *The Cold War: A History,* and *America Reborn*.

JAYSON A. ALTIERI
MAJ, U.S. Army

Beyond Valor: World War II's Rangers and Airborne Veterans Reveal the Heart of Combat by Patrick K. O'Donnell, Touchstone Books, March 2002, 366 pp., $14

Beyond Valor portrays combat as the Ranger and Airborne soldiers of WWII experienced it. Perspective is paramount as this book is intended to serve as a medium allowing veterans to share tales of heroism, humanity, and humor. While O'Donnell fills his book with detailed campaign maps and numerous photographs, *Beyond Valor*'s authority is derived from the vivid memories of soldiers. As the author states, these are the stories of "privates, corporals, sergeants, lieutenants, and a few captains — the men who fought the war from foxhole level." *Beyond Valor* is not a far-removed history lesson with the accent on famous generals or politicians. Rather, each of the 13 chapters focuses on the men who fought in combat operations of WWII.

The author, Patrick O'Donnell, is a historical consultant who assisted with making the miniseries, "Band of Brothers." O'Donnell states that *Beyond Valor* "is not really for romantics or war buffs . . . [but rather, for] preservation, done in gratitude for a generation that sacrificed so much." Indeed, the author's ability as a historian is quite evident; however, it is his ability to delve into, and expertly relate, the essence of the subject matter, which has gone missing.

While many of the individual stories are interesting, it seems as though O'Donnell simply presents them without a sense of commonality, purpose, or continuity; quite often they go wide of the chapter's purported emphasis. For example, one unit's actions constituted the awarding of a Presidential Unit Citation, yet the corresponding narrative is too short, terribly vague, and fails to answer the question, "why?" In addition, many narratives are laborious and confusing, riddled with redundancies, contradictions, and verbose narration. Storytelling technique failures are plentiful, and as a result, ultimately detract from the books mission, energy, and command.

Conversely, *Beyond Valor* does have its worthy sections. The chapters relating to the Invasion of Normandy, The Battle of the Bulge, and the Battle for Hürtgen are thick with narratives, many of which are well composed, informative, and highly intriguing. Another example is the chapter devoted entirely to America's first African-American Paratroop Infantry Battalion, the 555th.

Beyond Valor is neither a bad book, nor is it harmful to the to men it seeks to laud; it is just poorly constructed. The author would have better served his cause of "preservation and gratitude" had he wove the edited narratives into a more compelling and easily traceable story line. In the end, *Beyond Valor* reads as though O'Donnell attempted to accomplish too much, as though wanting to meld the book, *Band of Brothers,* with the epistolary collection, *Dear Mom: Letters home from Vietnam*.

JODEY C. KING

Günther Rall: A Memoir by Jill Amadio, Tangmere Productions, May 2002, pp. 304, $28.95, hardcover

Günther Rall: A Memoir is an excellent book. I met the author, Jill Amadio, at a book expo and we discussed the book. Günther Rall was a Luftwaffe ace during World War II who shot down 275 aircraft. Jill said many authors tried to get Günther to agree to participate in a book, but he was looking for a writer to tell his life story, not just his war years, and one that would not be too technical in nature. Jill definitely succeeded in fulfilling Günther Rall's wishes.

The book begins after World War I, when Germany did not have an air force. Planes were new and exciting to Günther. *The Versailles Treaty* forbade Germany's government from creating an air force. It was not until 1933, when Adolph Hitler took control of Germany and ignored the treaty, that Germany started building and creating an effective air force.

Günther Rall's recollections of his World War II experiences add a lot to understanding how the Germans fought the war. The war on the Eastern Front was completely different from the Western Front. The pilots lived in tents and moved often. The conditions were primitive and the weather was miserable. The Luftwaffe would hunt enemy planes behind the lines, quite different from the Western Front. On the Western Front, if you bailed out, you were in

friendly territory and returned to your adopted home. On the Eastern Front, if you bailed out, you were usually in Russian territory and would be killed by the Russians.

Günther Rall was shot down numerous times during the war and was told after his first crash he would never fly again. He proved them wrong and with the help of a doctor, who later became his wife, he flew to become a triple ace.

Unlike the Americans, German pilots did not have a set number of missions to fly before they could rotate home. The Germans flew until they were killed, wounded, or unable to fly. Luftwaffe pilots flew five to eight missions daily. They would land to refuel, rearm, then return to the skies. Russia's aircraft were obsolete and it was easy for the ME-109 to shoot them down. This changed later in the war when the Russians had numerical superiority as well as better fighters that were as good as, if not better than, the Luftwaffe.

The book also covers Günther's private life. He had many jobs after the war, which he performed well, but his true love was flying. He received an invitation to be part of a new German air force. Of course, he agreed and went back to flying fighters. He trained in the United States and learned to fly the F-104 Starfighter. Later, he was promoted to general and became a highly respected NATO officer.

I would like to meet General Günther Rall some day. Duty, honor, and country were his watchwords. Though he fought against the Allies during the war, he fought with honor. *Günther Rall: A Memoir* is well worth the time to read.

ERIC SHULER
CPT, U.S. Army

Victory at Mortain: Stopping Hitler's Panzer Counteroffensive by Mark J. Reardon, University Press of Kansas, 2002, 384 pp., including appendices and notes, $39.95

Lieutenant Colonel Reardon is a senior military historian at the U.S. Army Center of Military History. He was formerly assigned to the joint staff as an assistant deputy director of operations in the National Military Command Center.

The Battle of Mortain was a desperate attempt by the German army to stop Operation Cobra, the U.S. breakout from Normandy. The most astounding aspect of this battle was not the American victory, but the fact that the Germans were unable to achieve a significant victory the first day of battle. The Germans held almost every advantage at the start of the fight: local superiority of forces, more experienced units, better equipment, and, most importantly, surprise.

The Americans, on the other hand, had a single infantry division spread over too large an area (much like the Battle of the Bulge). The only American advantages were a very good artillery capability and the continual pressure placed on German forces by the U.S. VII Corps

and 3d Army. This pressure probably saved the day by overrunning German assembly areas and diverting additional forces from the attack.

Even with this pressure, the German attack achieved numerous local successes on the first night. The American defense degenerated into small-unit fights and individuals who refused to accept defeat. This defiant attitude, combined with highly effective artillery and somewhat effective close-air support, enabled American forces to survive and slowly push back the German assault over a period of several days. The battle finally ended due to 3d Army attacks that severed the German supply lines. The resulting withdrawal became better known as the Falaise Pocket and is the subject of numerous other books.

This book does not provide many insights into the application of maneuver warfare, although it does touch on attacks at the end of the battle by the 2d Armored Division and 3d Army. However, it is very good reading and clearly demonstrates the capabilities of well-integrated artillery strikes in support of defensive positions. It also demonstrates how small groups of determined soldiers can destroy the time lines of much larger attacking forces. I would recommend this book for anyone interested in World War II. This is a good book on a subject that is often overshadowed by the Normandy Invasion on one hand, and the race across France on the other.

SHAWN A. McMANAMY
CPT, U.S. Army

Back to the Front: An Accidental Historian Walks the Trenches of World War I by Stephen O'Shea, Walker & Company, 2001, 205 pp., $13.95

World War I destroyed empires, gave rise to of a host of totalitarian regimes, mortally wounded colonialism, and continues to influence international events from the Middle East to the Balkans. Unfortunately, both American historians and the general public largely ignore the war. *Back to the Front* is author Stephen O'Shea's account of his personal odyssey into the history and memory of the Great War. O'Shea, an Irish-Canadian journalist with family links to the conflict, writes of his experiences walking the 450-mile course of the Western Front, from its beginnings on Belgium's North Sea coast to its terminus on the Swiss border. This lively and thought-provoking "travelogue of misery" offers the American reader an excellent opportunity to put a human face on a war quickly fading from our collective memory.

By physically walking the entire length of the front, O'Shea is uniquely suited to comment on the terrain and the present condition of the Western Front. The scope of the author's journey also allows him to comment not only on the mass killing grounds of Ypres, the Somme and Verdun, but also on the largely forgotten (to Americans at least), but equally deadly, battlefields of Artois, the Champagne, and the

Vosges Mountains. He also explores the quiet sectors of the front where geography and mutual exhaustion led to tacit cease-fires between the belligerents for months on end. The result is a masterful blending of history and how the events of nearly 90 years ago are remembered and commemorated today. The author's personal experiences traveling the trench lines gave him empathy for the Great War's common soldier, which is one of the true strengths of the book. O'Shea's insights into the soldier's ordeal and the human costs of the war are aided by having had two grandfathers that served with the British army during the conflict.

While the book is relatively well researched, O'Shea readily admits that he is a journalist and not a historian. He is opinionated and makes no efforts to hide his distaste for Douglas Haig, Joseph Joffre, and many of the war's other military leaders. His antimilitarism and acid comments on "the military mind" will probably antagonize many present-day soldiers. Given his subject matter, many of his barbs at the military are perhaps justified. Although Haig and Joffre's often inept leadership and indifference to the suffering of their soldiers deserve censure, it is ironic that a journalist so well versed with the terrain and conditions of the Western Front has so little sympathy for the challenges faced by the commanders.

Few, if any, officers in 1914 had any inkling of how technology and the modern state's ability to raise, equip, and maintain massive armies had changed warfare. None had the training or experience to deal with a battlefield dominated by machine guns and artillery — a battlefield, which offered no assailable flanks as their soldiers dug in to escape the fury of mass industrial warfare. In fairness to the commanders that O'Shea lambastes, it should be said that they also tried innovative weapons and tactics, such as tanks, poison, gas and aircraft, and not just manpower, to try to break the trench stalemate.

Back to the Front is an engaging and enjoyable book. Anyone with an interest in World War I, or in visiting its battlefields, will find O'Shea to be informative and provocative. However, a reader seeking to gain a deeper understanding of the war and its lessons for today's military professional, may first want to read Martin Gilbert or John Keegan's general histories of the conflict, or the more specific works of Tim Travers, Denis Winters or Martin Samuels.

RICHARD FAULKNER
MAJ, U.S. Army

The Road To Victory: The Untold Story of World War II's Red Ball Express by David P. Colley, Brassey's, Washington, D.C., 2000, 248 pp., with illustrations and maps; $25.95

"Red ball" is a term that many of us have understood for years to mean, "move fast." It came from U.S. railroad practice, much in the same manner as "high ball," which was another variation for a signal to move out expeditiously. When I was a kid, there was even a

brand of sneakers — Red Ball Jets — that the manufacturer apparently expected kids my age to want as they were guaranteed you make you run faster.

During World War II, red ball became associated with the high-speed truck convoys that ran supplies to the front, which some writers and generals credit as winning the war. But other than one rather dull Warner Brothers film on the subject, and a 1973 television show called "Roll Out," with black actors Mel Stewart and Stu Gillam, there has really never been a good history of what red ball really was or how it worked.

This small, easy to read book (the chapters are nearly self-contained sections of the book, making it an easy read and great for the busy reader as it fits in nicely on a plane or other mode of travel) by former *Baltimore Sun* writer, David Colley, fills the gaps and presents a very good history of the Red Ball Express and the other convoy routes and systems used to supply the troops in Europe.

As many other books written since 1994 have pointed out, the invasion of Europe in 1944 was one of the most thoroughly planned and thought-through operations in military history. One of the critical problems that had to be solved was how to supply the troops in combat with the essentials — ammunition, food, water, and fuel. While the tonnages had been worked out in exercises, the main problem was going to be how to get it to the soldiers.

Railways had been the prime supply route since 1863, but in this case, it had been determined that in France this would not be possible. It was pretty much a given fact that once the U.S. Air Force was turned loose on the French SNCF, there would be little usable railway rolling stock or trackage that could be used for some time. Ergo, the decision was made to organize and use quartermaster truck regiments and companies to carry loads.

There were some considerations that had to be taken into account. First, 70 percent of truck companies were manned by black soldiers, but led by white officers. Some friction over the presence of African-Americans had been noted in England, with fights breaking out and a number of rather unfortunate racial incidents occurring between white and black units. There were a lot of bad misconceptions at the time — "blacks are lazy and cowardly, and not capable of taking their place in combat units without breaking and running away," being one of the most prevalent and racist. Since Quartermaster Corps transportation units were considered combat service support, most blacks that were drafted wound up in these units, or other similar service units such as laundry, bakery, shower, and bath units.

Needless to say, some of the other predictions were not working out either. Ports and facilities that planners had counted on for bringing in supplies were not taken on schedule, or the Germans had done too thorough a job in destroying the physical plant in those ports to permit them to be used without a lot of rebuilding and repair first. As a result, most of the supplies had to come into the beachhead in Normandy, and the only way to move them was by truck.

Once the U.S. Army broke out from the hedgerow country, the other problem was that the Germans collapsed faster than anticipated and U.S. troops advanced faster than was considered likely. U.S. forces were not anticipated to reach the Seine River until D+90, but they actually did it by D+79. This placed an even greater strain on supply lines, as they got longer, and the demand for supplies went up geometrically.

The figures that were being used by planners saw a flow of supplies being equal to 27,000 long tons (30,000 short tons) a day for 12 divisions, 37,000 long tons for 16 divisions, and 46,000 tons for 21 divisions. This required the use of channel ports and multiple supply routes. The reality of things was that this was not possible. Only small ports with capacities of around 1,000 tons per day became available to U.S. transshipment points for supplies, so much of it had to come in over the manmade facilities near the original invasion beaches. In July 1944, 392,000 tons came in via those beaches — some 88 percent of all supplies delivered — and all of it had to be moved by truck.

Once lines began to stretch out and supply lines began to clog or slow down, things began to cause grave headaches for planners, and the two supported U.S. Army Groups (1st and 12th) had to slow to await supply. General Omar Bradley glumly admitted at the time that: "Logistics — this is the dullest subject in the world…but logistics were the lifeblood of the Allied armies in France." 1st and 3d U.S. Armies each used about 400,000 gallons of gasoline a day, all of which was provided in 5-gallon jerry cans via truck. Without enough fuel, the offensive ground to a halt.

The first attempts at setting up dedicated routes to move supplies began on 14 July, when bulk shipments using 750- and 2000-gallon tankers began to inland depots. On 23 August 1944, a meeting was held to fix the problem. The result was the Red Ball Express, a concept based on some preliminary efforts in England to move priority shipments without interference.

The concept was simple. They set up a single, round-robin route and kept strict enforcement of the route to ensure that supply truck convoys ran undisturbed to the front and returned. Each truck carried up to 7,000 pounds of cargo to dumps near the front, where units would pick them up, The trucks then went back to the supply depots to carry out maintenance, reload, and continue.

Once the route was rolling, a complete circuit took about 3 days from start to start. The initial start saw the commitment of 67 quartermaster truck companies and 3,358 trucks. This quickly shot up to 132 companies and 5,958 trucks in only 4 days. The numbers were based on the fact that one-third of the trucks were moving forward, one-third were returning, and one-third would be down for maintenance at any given time.

While the African-American troops felt insulted at the treatment that they received and the comments about not being fit combat troops, many of them took pride in this job, and found out very quickly that "noncombat" was a relative term. Many times they had to fight it out with bypassed pockets of Germans or German fighters trying to strafe the convoys. Eventually 4,560 volunteered for service in infantry units, and over 2,200 were trained, assigned, and served with distinction. But in the racial environment of the 1940s, this was glossed over until the mid 1990s. Mr. Colley points out how the failures of white units, such as the overrunning and capture of the 106th Infantry Division at the Battle of the Bulge, were spun into heroic efforts, rather than inglorious defeat and surrender, and some African-American veterans still resent this to this day.

But there were other problems. Soldiers soon found that they could have a good time and do well on these runs, and "breakdowns" became common near either known black market sites, brothels, or just places where soldiers could swap some gas or cigarettes for food, wine, or time with prostitutes.

Overall, the Red Ball Express got the job done, but just barely. Trucks were worn out or destroyed in great numbers, and, at one point, all units with GMC CCKW-type trucks were stripped of many of them to make up for losses and damage. Black marketeering also cost a goodly amount of the supplies, and some soldiers in the book express regret today for those actions.

One thing most people do not realize, and Mr. Colley points out, is that the Red Ball Express, per se, only covered one area and only lasted until mid-October 1944. The concept was refined and reworked, and other routes were used later on — White Ball, Red Lion, Green Diamond, ABC, XYZ, and even a Little Red Ball during the Battle of the Bulge. The names changed on staff maps, but to the soldiers driving the trucks, they were all still part of the Red Ball Express.

As noted earlier, the Red Ball Express has not been well served by writers or Hollywood, partially for the reasons cited by General Bradley — it seemed dull. The movie from Warner Brothers further added insult to injury, for other than using a cliché-ridden script and a romance between two white officers over a nurse, the drivers were all white and no blacks were shown. The 1973 comedy, *Roll Out*, came out during a time when no one was sure what to do with service comedies — *Gomer Pyle* was on its way out, *MASH* was on its way in, and *Hogan's Heroes* split the difference. This show tended to revolve around static sets as Stu Gillam tried to come up with Bilko-esque scams more suited to the Phil Silvers sergeant.

They deserve better, and Mr. Colley has provided an excellent and highly entertaining read on their achievements.

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Piloting Changes to Prepare First-Time Combat Soldiers for Today's Battlefields

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Infusing warrior ethos into each and every soldier, regardless of military occupational specialty, is one of the key lessons learned from the current operational environment (COE) in Iraq. The Chief of Staff, Army, convened Task Force Warrior at Fort Benning, Georgia, to determine key warrior tasks and drills required to help first-time combat soldiers develop warrior ethos that would enable them to fight, survive, and win on today's battlefields. Based on Task Force Warrior results, only 16 of the 40 core warrior tasks, and only 3 of the 9 core warrior drills, are trained in the current basic combat training (BCT) program of instruction (POI). To prepare soldiers for combat and relieve gaining units of the entire responsibility for training these tasks and drills, this training must start during initial entry training (IET). Two iterations of BCT pilots that included these concepts were recently conducted by the 1st Armor Training Brigade (1ATB) at Fort Knox, Kentucky.

D Company, 2d Battalion, 46th Infantry Regiment, 1ATB, began its first pilot on 8 January 2004. One of the key components of infusing warrior ethos and training core warrior tasks and drills is limiting the ratio of privates to drill sergeants. During the BCT pilots, the number of soldiers was limited to 200 (normally around 240), and the number of drill sergeants was increased to 16 (normally 12). This provided the opportunity for drill sergeants to train soldiers at a 12.5:1 ratio, instead of a 20:1 ratio, which is more typical of a BCT cycle. With a lower ratio, drill sergeants get to know soldiers and can better train them by providing more personal attention, compared to dealing with larger groups. Soldiers who need more help can be given more attention, and drill sergeants have more time to develop emerging leaders as well. Moreover, many soldiers respond better to smaller group settings and more one-on-one attention, instead of getting lost in larger groups.

Most officer educational system (OES) and noncommissioned officer educational system (NCOES) training is done using the small-group concept, and the same idea was applied to the BCT pilots for most of the same reasons. As a drill ser-

geant deals with his squad, he also gains experience he can apply when he has completed his tour and returns to the force. This small-group experience is more relevant to the force because soldiers and cadre are immersed in experiences that identify with the COE. The 1ATB is incorporating this concept into tanker, scout, and mechanic one-station unit training (OSUT) by surging instructors to key training events, such as field training exercises (FTX), to create favorable ratios with small-group benefits.

Another key portion of the BCT pilot was challenging soldiers to operate in the COE. Instead of an administrative or garrison setting, many training events were linked to tactical scenarios conducted in the COE. During this training event, soldiers were exposed to a violent, uncertain, complex, and ambiguous (VUCA) environment, including encountering improvised explosive devices and unexploded ordnance, applying rules of engagement to civilians on the battlefield (COBs), media on the battlefield, and operating in an urban environment. We acquired several World War II barracks, which were scheduled to be torn down, and upgraded them to conduct urban operations during BCT. Our tankers, scouts, and mechanics also incorporated these ideas into their OSUT training.

The capstone for C Company, 1st Battalion, 46th Infantry Regiment, 1ATB, was constructing and conducting operations out of the forward operating based (FOB) down range for the last 23 training days of BCT. The current BCT POI calls for a 3-day FTX, but the last 23 days of training for our "immersion" pilot was conducted in the field and based out of the

FOB. Here, soldiers and cadre were truly immersed in the COE, and a tactical setting, as they lived and trained out of the FOB for 23 days. In addition to moving tactically to and from daily training events, every minute in the field became a learning experience for soldiers as they mentally and physically coped with tactical challenges of living in an FOB, and constant exposure and mentoring from drill sergeants. While participating in ongoing BCT POI lessons, soldiers also learned to man checkpoints, man guard towers, operate supply convoys, perform field physical training, manage personal hygiene, and apply tactical questioning as part of the "every soldier on patrol" concept. BCT soldiers were constantly kept on their toes by the COE opposing force, civilians on the battlefield, and the media who conducted daily activities outside the wire, approached checkpoints, and probed positions. During these 23 days in the field, soldiers were immersed in warrior ethos and learned to speak Army Values and Ethos as a first language.

The BCT pilots will include additional training on combatives, weapons, and additional equipment not usually trained in BCT. Most important to the changes in BCT, advanced individual training, and OSUT will be the overall change in culture from a peacetime mindset to one of an Army that must train soldiers for war. Changes to the culture must come from senior leaders through drill sergeants and instructors, who recognize the importance of infusing Army Values and warrior ethos, who will train the core warrior drills and tasks, and who will resource these efforts.

During World War II, IET transitioned from a shorter, large-group, garrison, and lecture format to a longer, small-group, field tactical training course to meet the needs of a Nation, Army, and soldiers at war. We are at war again and will be for the foreseeable future, so adjusting our training to meet the current threat and give our soldiers and Army the knowledge, skills, and abilities they need to fight, survive, and win is a must.

Please continue to send comments to 1ATB at:

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A tribute to the past, present, and future of U.S. Army Cavalry, this print will make its debut at the 2004 Armor Conference.

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