

ARMOR

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ARMOR

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“From My Position...”

“It must be obvious, therefore, that periods of tranquility are rich in sources of friction between soldiers and statesmen, since the latter are forever trying to find ways of saving money, while the former are constantly urging increased expenditure. It does of course, occasionally happen that a lesson recently learned, or an immediate threat, compels them to agree.”

— General Charles de Gaulle,
The Edge of the Sword, 1932

Most articles found within the pages of *ARMOR* cover tactical- and operational-level subjects; after all, the majority of our readers and authors serve in the ranks of sergeant first class to lieutenant colonel. Our branch, however, has a long tradition of producing many top-level senior officers in our Army. General (Retired) Ronald Griffith is one of those armor officers who rose through the ranks to lead the 1st Armored Division in combat during Operation Desert Storm and later became the Vice Chief of Staff of the Army.

This past May, during the Armor Warfighting Conference, General Griffith served as the guest speaker for the U.S. Armor Association’s annual banquet. For those of you who were unable to attend, the complete text of his remarks is included in the lead article of this issue. Once you get past his humorous recollection of Private First Class Magully’s misguided attempts at qualifying as a hang glider pilot, you will find a frank and passionate argument for setting the Army’s priorities based upon the “six imperatives,” a successful framework once used to evaluate requirements and allocate resources. Although this is mainly a strategic discussion, soldiers who read *ARMOR* will nevertheless find that they have direct influence at their level over at least five of these imperatives and some influence over the sixth.

The other articles found in this issue cover a variety of useful, practical, and educational topics. Among these articles, Major Rich Rouleau and Captain John Hawbaker discuss defensive and evasive driver training. A few years ago, many soldiers assigned to organizations, such as the M1A2 Training Assistance Field Team and the Office of Military Cooperation-Kuwait, attended a defensive driving block of instruction that was part of the larger Individual Terrorism Awareness Course (INTAC) taught at Fort Bragg, North Carolina. This was a short, but very useful, block designed

to introduce students to techniques, such as shuffle steering, emergency braking, and evasive driving. By far, the best part of this instructional period was the opportunity to drive a 1970-era Ford LTD around a circular track and ramming it into junked cars to learn the basics of ambush avoidance. Although this course focused primarily on the peacetime application of these driving skills, many of those same skills are equally effective in an urban combat situation. In their article “Defensive and Evasive Driver Training,” Rouleau and Hawbaker do an impressive job of sharing lessons on how to set up a combat-focused course similar to that once taught at INTAC, but using HMMWVs instead of junked Fords or Chevys.

Finally, in the center of this issue, you will find an article written by Dr. George Hofmann, a long-time contributor to *ARMOR*, which discusses the history of the Constabulary, a post World War II formation designed from the ground up as a dedicated stability and reconstruction operations force that served in occupied Germany. Commanded by mounted leaders with extensive combat experience and structured for mobile, dispersed operations, the Constabulary helped re-establish order in that shattered country and formed the foundation of what we know today as the noncommissioned officer education system.

When conditions in Germany no longer required the Constabulary, its components were reorganized into Armored Cavalry Regiments and continued to guard freedom’s frontier throughout the Cold War. Soldiers assigned to the Constabulary were not only instructed on basic law-enforcement techniques, but were required to learn basic conversational German and introduced to German history and culture. In short, many of the subjects soldiers are covering today during pre-deployment training are very similar to those covered more than 50 years ago at the Constabulary School — albeit under different cultural and geographic circumstances. Incidentally, the model for the Constabulary School was none other than the Armored Force School headquartered at Fort Knox. Then, as now, the Armor School’s thunderbolt forge has more than one application and will continue to serve us well regardless of the nature of current and future conflicts.

S.E. LEE

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“Your Next Tank,” Driving the Debate in the Wrong Direction

Dear *ARMOR*,

While ongoing discussion on the future tank is critical, MG Williams' focus in his “Commander's Hatch: Your Next Tank,” *ARMOR*, July-August 2007, predetermines and drives the debate in the wrong direction. Weight is *not* the problem and should not be the driving factor.

The heavy brigade combat team (HBCT) is simply one type of combined-arms organization. Its lighter counterparts are the infantry BCT (IBCT) and Stryker BCT (SBCT), and an advanced technology counterpart is the future BCT (FBCT). Though defined by their specific equipment systems, all of these organizations are doctrinally and conceptually similar, and they are all capable of interoperating, to include cross-attaching subordinate organizations and elements at all levels.

So far as the main battle tank (MBT) is concerned, its sole criterion is to be effective in close combat. As long as it can maneuver with the force, it is not too heavy. The dread of heavy tanks is misguided and is unsupported by World War II and later experiences. I've never seen the quote of an allied tanker saying, “That 70-ton Nazi King Tiger is no good; it's too heavy, hah!”

Regarding the tank's cross-country mobility, it was the lighter but narrow-tracked early model M4 Sherman tank that notoriously bogged down, while the far heavier German Panther and Tiger tanks continued on due to broad tracks and resultant lower ground pressure.

When considering the tank's weight on bridges and poor roads, let's take into account the Battle of the Bulge. The Tigers were not blocked while Panzers maneuvered; on the contrary, all German units were bottled up on a jammed

up road net and stopped when key bridges were blown by U.S. engineers. Meanwhile, light and medium U.S. tanks were blocked and choked. That's what happens in rough terrain with poor roads during terrible weather.

Yes, German World War II tanks were notorious for poor reliability relative to U.S. tanks. Of course, the highly reliable M4 Sherman was no match for the German maintenance-intensive heavy Tiger or medium Panther, and that's the real lesson.

When considering maintenance problems attributed directly to weight, I suggest another explanation. Military vehicles are built as light as possible within specified characteristics. Accordingly, the automotive components and subassemblies are sized as light as possible to keep down overall vehicle weight. Then, after operational experience, they get weighted down with added requirements and capabilities. Now, those light mobility components become overtaxed and failed, causing maintenance problems to skyrocket, which was illustrated by the M4 Sherman-series when improvised armor was added, the Patton tanks when dozer kits were added, and the M728 combat engineer vehicle variant. This pattern was further illustrated by the M103 heavy tank, which used many components common with the M48 series, and is currently illustrated with the up-armored HMMWV and Stryker.

The remedy is to over-engineer, to actually build vehicles with heavier drive components to accommodate later weight growth. The U.S. Army has endorsed this concept for decades; in the 1980s, it was called “Pre Planned Product Improvement (P3I);” today it might be “spiral development,” but in reality, it was only talk. Nobody ever actually does it.

Regarding deployment, tanks and most combat forces arrive in theater by ship; even the SBCTs deployed to Iraq by ship. The mythology of massive air-delivered armor is just that — a myth. The only massive armor movement I recall was the delivery of Patton tanks by C5A transports to Israel during the Yom Kippur War in 1973, which was a deliberate *national command priority decision* and was strictly an administrative supply movement, not a combat operation.

The U.S. Air Force does have a limited capability to deploy perhaps a battalion- or even brigade-sized element to exploit a high-value opportunity, but that is exceptional. For emergency rapid deployment, XVIII Airborne Corps did have a battalion of M551 Sheridan armored recon/airborne assault vehicles (AR/AAV). If the Army so decides, it could acquire a replacement batch of light tanks or “mobile gun systems,” such as the recently approved, but then cancelled, M8. But trimming a few tons off of the Abrams, the best MBT on the planet, is a meaningless waste of time.

In my opinion, the more likely HBCT “be prepared” mission will be to cross-attach HBCT companies and battalions to other lighter BCTs when (not if) they will be needed. This is much like during World War II when general headquarters separate tank battalions and tank group headquarters reinforced infantry divisions, and on occasion, armor divisions detached organic tank battalions for the same purpose.

This is the contingency that armor's HBCT must master.

CHESTER A. KOJRO
LTC, U.S. Army, Retired

Commanders Should Realize the Value of Track Vehicle Recovery Assets

Dear *ARMOR*,

I enjoyed Captain Chad Ryg's article, “Track Vehicle Recovery Training,” in the May-June 2007 issue of *ARMOR*, and was pleased to learn that there is a formal training process for personnel assigned to maintenance and recovery.

It is rare that recovery gets any attention, even though it is an integral part of a combat unit's structure and mission. Well, very little is published about the people who keep your tanks on the move.

It has been nearly 50 years since the M51 heavy recovery vehicles arrived in Germany and were issued to units of the 3d Armored Division. As a PFC track mechanic assigned to 2d Squadron, 13th Cavalry, Ayers Kaserne, I was extremely fascinated with the vehicle. Of course, I had no idea that the vehicles were obsolete before they arrived and had a

multitude of bugs, including a tendency to catch fire.

If personnel performing maintenance and track vehicle recovery have a sense of being unit orphans in the current Army, then things have not changed in 50 years. The 3d Armored Division was short of personnel and functioning M48A1s in 1958 through 1960. Moreover, individual battalions, in many cases, had no one trained or experienced in tank recovery. I was overjoyed as a young man to be placed in charge of the M51, more so when I was asked to sign for the vehicle 2 months later, still a PFC. As for crew members, that all depended on who the motor sergeant happened to select from our group at any one time.

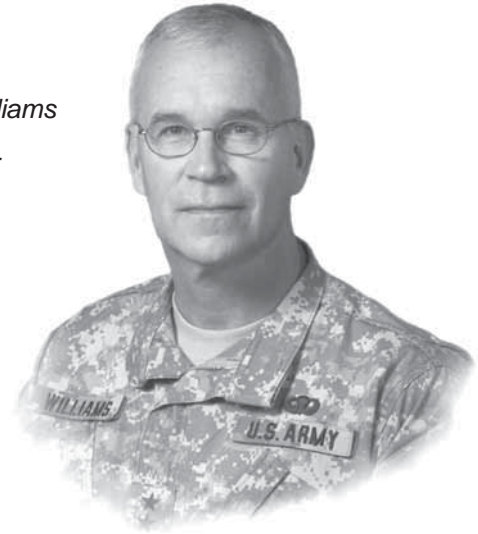
In my company, the crew was plopped into the recovery vehicle and hit the road on alerts, trips to Grafenwoehr, and other exercises. We didn't have any formal training; it was all on-

the-job training, and the same was true in the battalion's other three companies. The M51, sixty tons of machinery, often pulled an M48A1 through small German towns, all of its crew members self-trained. We became, through our own diligence and tenacity, competent recovery experts. But the fact that we were treated like the strange guys at the tank park and never included in exercise briefings helped nudge me back to civilian life. In my later career as a corporate executive, I demanded that everyone receive thorough and proper training — there were no “orphans.”

I hope that the Army is doing a better job today of training and supporting its recovery/maintenance teams. I wish Captain Ryg well with his mission to get more commanders onboard with his program so we do not have folks operating in machines they know little about.

RUDY RAU

Major General Robert M. Williams
Commanding General
U.S. Army Armor Center



Heavy METL: Standardizing Brigade Mission Essential Task Lists

In the “Commander’s Hatch” of the January-February 2007 issue of *ARMOR*, I highlighted the growing concern over the atrophy of Armor and Cavalry core competencies — those basic skills that form the bedrock of our branch’s mission and distinguish our branch from all others.

I have received some great feedback since that issue was published, and during our Armor Warfighting Conference in May, I had the opportunity to discuss this topic with senior Army leaders, as well as senior Armor branch commanders. These conversations were very productive, but most importantly, they revealed a common thread — the need to preserve our unique skills while maintaining our ability to conduct counterinsurgency and stability operations, which is a difficult balancing act that both our operational and generating forces must perform.

Few professionals feel the lethality and mobility inherent in the Armor force will be unnecessary in future conflicts; however, how can we effectively train *all* the tasks needed on the future battlefield? I think the first logical step is to define those tasks, which we can do through the development of a core mission essential task list (METL) and a directed METL.

Our benchmark manual for training, U.S. Army Field Manual (FM) 7-0, *Training the Force*, describes a METL as, “A compilation of collective mission essential tasks an organization must perform successfully to accomplish its wartime mission(s).” As we proceed with modularizing our brigades, we find each specific type of brigade was formed for a core mission.

For the heavy force, each heavy brigade combat team (HBCT) should be trained to identical standards on identical essential tasks. A uniform core METL for all HBCTs provides a common operating picture from which the Army can judge the readiness of its deployable brigades.

As defined in FM 3-90.6, *The Brigade Combat Team*, the core mission of the Army’s HBCT is “to close with the enemy by means of fire and maneuver to destroy or capture enemy forces, or to repel their attacks by fire, close combat, and counterattack.” To accomplish this core mission, an HBCT must be well trained in a variety of subordinate tasks. As a BCT enters the train/reset phase of the Army’s Force Generation Model (ARFORGEN), that BCT is prepared to train their core METL until they are given a directed mission. Once this happens, the BCT refines

their METL and begins to train tasks related to their directed METL.

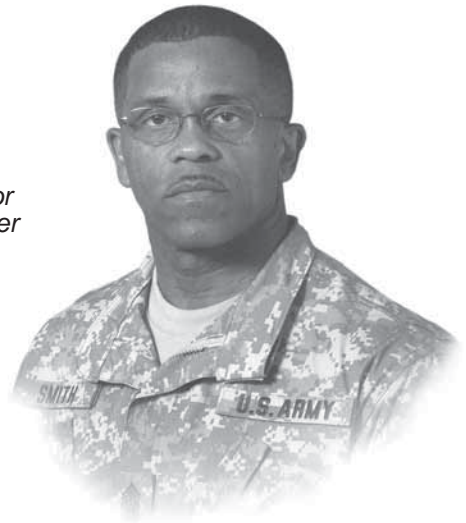
There are several schools of thought when it comes to developing these task lists. On one hand, the core METL could be so detailed that it encompasses every possible task for every possible environment, thereby reducing the friction caused by a directed mission and directed METL. On the other hand, we could leave the core METL sparse, focusing only on offensive and defensive operations and augment this list when given a directed mission.

Logically, the course of action we are pursuing is somewhere in the middle. Of course, all HBCTs must be trained in offensive, defensive, and stability operations, but they must also be trained on tasks, such as security operations and employing fires, to achieve their core mission. These tasks are critical to the Army’s success as an expeditionary force, and critical to the HBCT as the formation with the most combat power available to lead that force.

As a unit prepares for a directed mission as part of either the ready pool or available pool of the ARFORGEN cycle, its

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CSM Otis Smith
Command Sergeant Major
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Master Gunners on the Move

The need for units to possess specially trained and qualified noncommissioned officers (NCOs) to assist unit commanders with training soldiers has changed very little in the past years. One could not imagine an airborne unit devoid of jump masters or a maintenance team without a highly experienced team chief.

In the armor force, master gunners are the carefully selected NCOs who have completed a rigorous training program and have the knowledge to assist with tank gunnery programs, turret maintenance, and serve as the unit commander's resident expert with the advice and skill sets required to train soldiers for the armored platforms they operate.

Even in light of the fact that master gunners are critical to sustaining our armored fleet, the existing number of master gunners is dwindling and enrollment is dropping. For example, at the staff sergeant level, the force is only at 60 percent of its required strength; and the FY07 course is only enrolled at 80 percent of its maximum capacity. Combine these statistics with an ever-increasing cadre of pre-command captains who have never fired a qualification tank gunnery, which is about 30 percent, and we can quickly deduce a potentially disastrous situation of eroding armor core competencies.

The armor force remains as busy as ever with more than 80 percent of its soldiers either deployed or within 90 days of deployment. The Master Gunner Course is highly sensitive to the challenges and needs of our present day fleet and we are taking a few initiatives to help meet the demands of current operations.

One of these initiatives streamlined the current Master Gunner Course from 11 weeks to 9 weeks. This was accomplished by consolidating two test points and review days, restructuring armored fighting

vehicle identification (AFVID) instruction, and focusing on alternate troubleshooting procedures rather than outdated subjects, such as simplified test equipment-M1 (STE-M1). Dates for the 2008 calendar year resident course are currently posted in the Army Training Requirements and Resources System (ATRRS).

Perhaps the most exciting and innovative change is the development of a Master Gunner Mobile Training Team (MTT), which will provide training to deploying and redeploying units. Fort Knox and the Armor School have spared no expense to ensure the quality of instruction equals that of the resident course. Units scheduled for the Master Gunner MTT course can expect the same 9-week course load and quality program of instruction currently executed at the resident course. The MTT is equipped with state-of-the-art classrooms transported in new multimillion dollar semi-trailers and offers an opportunity to train up to 18 qualified NCOs per course.

To facilitate the Master Gunner MTT course at home station, units will be expected to provide adequate space on a hard stand or motor pool for a 9-week period, six to eight M1-series vehicles, access to unit prescribed load list (PLL) and additional supply list (ASL), and qualified NCOs solely dedicated to the pursuit of achieving the title of master gunner. (A memorandum of agreement outlining all logistics and administrative requirements is currently being drafted.)

The Master Gunner Course is also exploring requirements for the development of training oriented toward the Stryker mobile gun system (MGS). Representatives from the course have been visiting various Stryker units across the Army to capture the needs and desires of Stryker units.

As the Master Gunner Course evolves to meet the demands of a changing Army, it also needs the support of the force in developing the next-generation master gunner. It is evident that the Army is experiencing personnel and time constraints while simultaneously supporting stabilization efforts in Iraq. However, we all bear responsibility for ensuring the future armored force is abundantly supplied with technically adept NCOs who can meet the challenges of full-spectrum operations. The investment of a high-quality NCO for this 9-week course will yield great returns for companies and battalions well into the future.

It is imperative that units and prospective students understand that the course will maintain its very strict performance standards. Students can expect numerous hours of instruction, as well as self-study time during off-duty hours, to meet course requirements. Currently, the Master Gunner MTT is expected to be available at the beginning of 3d Quarter, FY08. If your unit is interested in becoming a part of history and the future of armored lethality, contact the Master Gunner Course at (502) 624-1150 or visit the Fort Knox website at <http://www.knox.army.mil/school/16cav/mgl.asp> to submit an official MTT request.

Special thanks to Major Bill Cavin for his contributions to this article. Major Cavin is the commander, M Troop, 3d Squadron, 16th Cavalry, U.S. Army Armor School, Fort Knox, KY. We thank him for his support and dedication to training and supporting the armor force.

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

THE SIX IMPERATIVES

Prioritizing for the Future Army

2007 Armor Conference Speech by General Ronald H. Griffith

General Wallace, General Williams, General Wojdakowski, other fellow general officers, distinguished tankers and cavalrymen, ladies, and gentlemen. It is truly a pleasure to be back at Fort Knox and to be among so many old friends and heroes from the past. It is also good to be here to celebrate our great armor branch and to recall the enormous contributions that our branch, and the tankers and cavalrymen who are our branch, have made to the Army and to the defense of our Nation.

As I am sure is the case with all of you retirees in the audience, I am frequently asked if I miss the Army. My response is always immediate and consistent — every day! When asked what I miss the most, my response requires a bit more thought because I miss so much — the comradeship and daily interaction with dedicated professionals, the excitement and challenges of training activities, such as gunnery, the National Training Center experiences, and the rigorous BCTP [battle command training program] warfighter exercises — that had a way of teaching us how much we didn't know — and the REFORGERS [Return of Forces to Germany exercises], Team Spirits, the GDP terrain walks and all the other experiences that shaped us as leaders. When you are responding to civilians, these sorts of observations and memories from the past generally don't have much meaning.

So, in most cases, I tell them that what I miss most are the soldiers. I miss their enthusiasm, their dedication and courage, and I miss the inevitable humor that is associated with leading and being around soldiers. I have often thought that if I were to ever write a book about my experiences of 37 years in the Army, I would put together a series of humorous anecdotes about experiences with soldiers. I will leave the serious scholarly works on strategy, operational art, and leadership to others more qualified than I to write on these matters.

But, if I ever write that book, I will certainly include PFC [Private First Class] Magully who, on several occasions, brought me the unwanted attention of my brigade commander. When I was commanding the 1st Battalion, 32d Armor in Friedberg, Germany, back in the mid 1970s, PFC Magully was a tanker in Company A, and he had acquired a hang glider shortly after arriving in Germany. One of his early flights was on a Sunday afternoon when he launched from the top of the post theater. His flight was brief, and shortly after takeoff, he crashed unceremoniously onto the parade field in the middle of the kaserne. That was

bad enough. But, in the process of taking off, he damaged a significant number of the roof tiles on the building.

My brigade commander called me early Monday morning and informed me of his displeasure with this serious breach of discipline and the resultant damage that a 1-32 Armor soldier had caused. The colonel was stern, but polite on this occasion.

However, he became much more animated with me after soldier Magully's next flight, which was launched from the top of the Friedberg castle at the exact time the city's annual fasching parade was in progress. The lord mayor of Friedberg, who, as it turned out, had little or no sense of humor, led the parade. Magully's flying skills had improved little from his prior flight off the post theater, and on this occasion, barely missing the lord mayor, he crashed into the middle of the parade, taking down a number of the participants. The lord mayor was not amused, nor was my brigade commander after he received a somewhat hostile phone call from the lord mayor's office.

In those days, we had a very handy tool called the expeditious discharge program.

This program allowed a commander to remove a substandard soldier from the ranks with the stroke of a pen. I concluded that our hang glider pilot was a great candidate for this program. As PFC Magully was out processing, he asked to see me under the commander's open-door policy. I initially said "No," but, at the insistence of the command sergeant major, I relented. Magully reported properly and asked for permission to speak. I told him to go ahead, and he commenced by admitting that he had not been a particularly good soldier while serving in the battalion. I responded, somewhat sarcastically, that his assessment of his performance was significantly understated. He then asked if he could make a request. I agreed to hear his request. He said, "Sir, would you please consider giving me a 60-day extension before sending me home?" My immediate response was "Absolutely not!" But as I thought about this request, my curiosity got the best of me, and I asked the soldier why in the world he would want to stay in the unit for 60 more days. His immediate and very sincere response was, "Sir, I've always wanted to fly from the top of the Zugspitze — the highest point in the German Alps — and I haven't had the chance to do that yet." Before dismissing PFC Magully, I told him that I very much regretted that I had not known of his desire several months earlier, as I would have ensured that he had gotten the opportunity to make that flight. I



was confident that his limited flying skills would have saved me from a great deal of trouble later on.

Now, I would like to spend a few minutes talking more seriously about our Army — the Army that all of us here love.

I would begin with the assertion that today's Army is in trouble and it needs our help. It remains a great Army, but is woefully under-resourced for the critical mission requirements it has been given in the support of our Nation's security objectives. Our soldiers have never been better — never more professional or more courageous. They have great leaders at every level, but their numbers are far too few. They and their families are paying a disproportionate price, relative to other elements of our society, in service to country. Our political leaders frequently assert that we are in a long protracted war against violent Islamic extremists. If that is the case, those same political leaders must support an army that is large enough for the task and take measures to ensure that it is appropriately resourced.

For 4 years, we have watched the evening news on our TV screens, and it should be clear by now to even the most casual observer that it is America's soldiers and Marines who are taking the war to the enemy. We all understand and value the contributions of the other services, but I would submit without hesitancy and with no apologies, that it is our ground forces, and more particularly, the United States Army, that is the cutting edge against today's threat, and those of the foreseeable future. The

Army, in short, is the Nation's strategic force. Soldiers on the ground are the only force that can ultimately compel our enemies to comply with our Nation's will.

T.R. Fehrenbach stated it clearly and succinctly in his book on Korea, *This Kind of War*. And, I paraphrase here, "to impose your will on your enemies, you must do it the way the Roman legions did by putting your young men in the mud." This is not a new truth, but it is a truth that runs cross-grain with the thinking of some senior policymakers in Washington. Certain ones in key national security positions believe that wars can be won almost exclusively through the employment of modern technology and with weapons delivered from standoff ranges of great distance. And, those same individuals advance policies and allocate resources based on this ill-founded belief. History has repeatedly demonstrated the fallacy of this perspective, and everyday in Iraq and Afghanistan new history is being written reinforcing the critical role — the decisive role — played by forces on the ground.

It is undeniable that our Army is too small for ongoing and future strategic missions. The question becomes how large an army do we need? General Gordon Sullivan has stated in recent AUSA [Association of the United States Army] editorials that our active Army's end strength should be in the neighborhood of 700,000. At the end of the cold war, while General Colin Powell was still the chairman of the Joint Chiefs of Staff and General Carl Vuono was the chief of staff of our Army, there was a comprehen-



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sive assessment done by the Joint Chiefs of Staff (JCS) looking at post-cold war force requirements. The results of that review concluded that we should maintain an Active Army of 12 divisions and, as I recall, an active Army end strength of around 600,000. That assessment was prior to the events of 11 September 2001.

It would be presumptuous of me to try to describe how the Army we need for the future should be constructed. I would suggest, however, that there are some touchstones that have helped past Army leaders make such critical decisions. For a number of years, during the late 1980s and early 1990s, one of the key frames of reference used by Army leaders to evaluate need and prioritize the allocation of resources was the “six imperatives.” Many of you will recall that you rarely heard General Vuono, during his tenure as our chief of staff the Army, speak without discussing the six imperatives and the importance of the inter-relationship of these imperatives to the overall readiness of our Army.

In the event some of you have forgotten, the imperatives are: adequate and appropriate force structure; quality soldiers; effective leader development programs; rigorous and realistic training; appropriate warfighting doctrine; and modern equipment. I’d like to briefly discuss each of these, as they are as relevant today as they were a generation ago.

Force structure. In the past, the Army and other service force requirements were determined based on specific threats and scenarios, or combinations of scenarios, developed by the intelligence community and approved by the JCS. At some point in recent years, this threat-based approach was shelved for a highly nebulous “capabilities based” concept. I am not suggesting that there was malice of intent in going to this approach. But, it certainly works counter to requiring military leaders, the Joint Chiefs of Staff, specifically, to lay out force requirements against potential threats and scenarios likely to emerge as a result of those threats, and then demanding that those leaders articulate to the National Command Authority, and Congress, the risks in not having these requirements adequately resourced. I fear that today our military leaders are asking for what they perceive to be affordable, not what is truly needed to assure success in potential contingencies.

As the world’s sole remaining superpower, and with the responsibilities that this label implies, we must have both robustness and full-spectrum capability in our forces. In our Army, we require light, heavy, and special operations forces, and each of these elements should be sized to assure high probability of success against the agreed-on threats and scenarios. We must not optimize the force to fight al Qaeda or any other single threat. And



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finally, the force must be sized to assure adequate combat support and combat service support to the combat arms and meet the inter-service support requirements provided by the Army. I cannot define the numbers to do all of this, but we certainly have the analytical capacity to inform us, if we use the right framework.

Quality soldiers and leader development. No one in this audience needs to be told about the importance of having quality soldiers in the ranks. Sound discipline, the ability to learn and adapt rapidly, motivation, and initiative are all qualities that are determined largely by the quality of the young people we bring into the ranks. We owe these quality soldiers the best, most realistic initial entry training that we can provide. Additionally, we must ensure that they are led by officers and noncommissioned officers who are competent, responsible and committed professionals — leaders who are second to none.

Our combat leaders of today were developed through programs put in place over several decades. These programs include rich training and educational opportunities at both service schools and civilian academic institutions. Our noncommissioned officers (NCOs) experienced leader development programs that truly prepared them to appropriately bear the mantle as the “backbone of the Army,” and made them the envy of every modern army in the world. These leaders, officers, and NCOs, also enjoyed appropriate developmental assignments and were encouraged to pursue other programs of study and self-development on their own. The shrunken size of our Army and the ongoing high-tempo operational requirements have seriously eroded these programs and experiences that contributed so greatly to building superbly competent leaders. These programs must be restored if we are to have a great Army in the years ahead. And, when our leaders sit down to compute the force requirements discussed earlier, it is imperative that the leader development requirements — a robust TRADOC school system and an overhead account that supports civilian education, fellowships, and other important leader development activities — be fully considered in these calculations.

Training. I think that all of you would agree that it was the tough, highly realistic training our soldiers, units, and leaders experienced in the three decades following Vietnam that was central to the renaissance of the Army. The intensive focus that was placed on training over several years gave us, in the view of many, the finest Army in our Nation’s history. It was rigorous and realistic training with effective feedback from seasoned professional observer controllers that led soldiers to comment after Desert Storm that the Iraqi republican guards were “a piece of cake” in comparison to the opposing force at the National Training Center. And, it was that same kind of training that enabled our airborne, air assault, special operations, and mechanized forces to make an extremely complex Panama operation, Just Cause, appear easy. We benefited from that training in the highly successful missions that our Army conducted in the Balkans, and later in the swift and highly successful attack that General Wallace and his V Corps conducted from Kuwait to Baghdad in 2002.

The operational demands on our units today and the related re-quirements following redeployments have greatly dimin-

ished the training opportunities possible during the more stable times of the past. But, in planning for the inevitable phase down of Operation Iraqi Freedom and Operation Enduring Freedom, Army leaders must reinvigorate our training capabilities and give high priority to the resource requirements associated with such a commitment. Units training at the combat training centers (CTCs) need not train against the same scenarios employed in the past. The CTCs should, however, be resourced to provide the same degree of rigor, the same level of professional feedback to the training units, and encompass the other essentials that go along with making the CTCs graduate-level training experiences for battalions and brigades. Finally, to reach this end, field commanders must be resourced sufficiently to enable the appropriate demanding home station training so that the very expensive CTC experiences are optimized in terms of results. The goal of a CTC rotation should be that units reach the upper end of the readiness band of excellence on completion of the experience — tough effective home station training prior to a CTC rotation is imperative to support this end.

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Doctrine. Our warfighting doctrine sets the basis for a wide range of critical functions — materiel development and systems acquisition, force development, command and control, and training and leader development, to name but a few. During the cold war, in the post Vietnam era, the doctrine development process was much simpler than in the current environment. While it was tough intellectual work and involved many of the Army’s most thoughtful leaders of the day, it was simplified by the fact that we had an overarching and galvanizing threat to focus on — the Soviets and their Warsaw Pact allies.

I think that it is fair to say that our senior leaders of that period were of the view that any contingency we might have to respond to would be appropriately covered by the AirLand Battle doctrine developed for the central Europe threat. Clearly, that proved to be the case in early 1991, immediately following the end of the cold war, when in the deserts of southwest Asia, two U.S. Army corps took on the fourth largest army in the world and left much of it burning in the sands of southern Iraq and Kuwait. The Army of Desert Storm achieved an overwhelming military victory while executing the AirLand Battle doctrine that we studied in our schools and internalized in our thinking from CTCs, BCTC [battle command training center] experiences, terrain walks, and other venues in which we studied our profession and thought about how to fight.

The doctrine developed for fighting in central Europe continues to have application against certain potential future threats. But, today the focus has shifted to developing, expanding, and refining our doctrine for counterinsurgency operations based on the experiences of Afghanistan and Iraq, and the nature of the threat from al Qaeda and other international terrorist groups. This renewed emphasis on counterinsurgency operations is right and appropriate, but it should not overshadow the need to think about, and prepare for, the full range of threats our Nation and our Army may face. While we enjoy the benefits of being the world’s sole superpower, we also bear the burdens that come with that status. As I stated earlier, our Army must be a full-spectrum force capable of fighting in the counterinsurgency en-

vironment, but equally as capable of being dominant on the battlefield in mid- and high-intensity conventional conflicts. As all in this room know, we have never been very good at predicting where, when, or against what enemy our next war will be fought.

Equipment. Clearly, having the appropriate modern equipment is important for success on the battlefield. And I think we should all be proud of the masterful job that our Army has done over the course of the ongoing conflicts to rapidly field the equipment our soldiers need to meet the changing threat environments. But, as we look to the future and the difficult resource prioritization decisions facing our senior leaders, I think that we will see little activity in the procurement of major Army weapons systems. On the other hand, we should expect large investments in the upgrade and refurbishment of existing equipment.

The future combat system (FCS) appropriately continues to be a priority for the Army, but it will be at least a decade before FCS will come on line in any numbers of significance. I personally do not view this with alarm; I cannot think of a contingency in the foreseeable future where we would not enjoy a very big weapons technology overmatch, even without the significant improvements that are planned for our existing combat systems and the ongoing FCS spin-off/spiral-down initiatives. So, from an equipment perspective, it seems to me that we are in reasonably good shape when equipment is considered in context with the pressing demands associated with the other imperatives that I have already discussed.

So what does all this mean to those of us who care deeply about our Army's future? Our new chief of staff, General Casey, has made it clear he wants to move to the new higher end-strength authorizations as soon as feasible. But, there are already those in positions of authority in Washington who are talking about Army end-strength reductions as soon as OIF/OEF phase-downs are initiated. Again, I would reiterate that the Army — our Army — is the Nation's strategic force. It is the most important military element of our Nation for as far into the future as we can see. We need to help Army leaders make that case at every opportunity. Many of you here tonight frequently speak to groups where you have the opportunity to tell the Army's story. And we all have congressional representatives who need, and in most cases want, input from those knowledgeable on national security matters. The lack of knowledge on national security by most congressional members is alarming. But, it is my experience that the strongest political supporters of our Army in Washington are on Capitol Hill. They will help us if we take the time and make the effort to educate them and assist them in focusing their support. We should never forget Congress is responsible, under our constitution, for resourcing the requirements of the Army.

To attain and maintain the Army that we need for the future will be expensive. National security is not cheap! But, with the present threats to our Nation's security — and by most accounts those threats are growing — we simply cannot, as a nation, afford not to provide for a robust, well-trained and well-equipped Army.

While on the surface, Army requirements appear to be dauntingly expensive, we need to understand these costs in perspective. Presently, the DOD [Department of Defense] budget, including the supplementals, is about 4 percent of our Nation's gross domestic product (GDP). And from an Army perspective, we are receiving less than 1 percent — actually, about eight-tenths of one percent — of GDP. This is at a time when our Army is shouldering, by far, the heaviest load in the Global War on Terrorism — the current administration and our government's highest priority endeavor.

If you look at the Army's budget, coupled with the recent and planned supplementals, the picture is fairly positive in comparison with the other services. But, the reality is that the Army's dollars, in large part, are being used to support the ongoing war effort. And, while the Army has been continuously forced to slip the fielding of the FCS-equipped brigade combat teams, the Air Force and Navy continue to program and budget for new fighters, bombers, and ships.

The other services are making long-term capital investments while the Army is, in large measure, paying for combat operations. I recently read an assessment that concluded that the Army will need in the neighborhood of one-hundred billion dollars just to replace and refit equipment that has been destroyed and used up in Iraq and Afghanistan.

If the Army is to do our Nation's business, it must be adequately resourced in the six im-

perative areas. And to achieve that, the Army needs a larger slice of defense dollars, both near term and for a considerable period into the future. Some say a sustained 30 percent slice of the DOD budget for the Army is about right. Clearly, jointness and collegiality in our relationships with the other services are important, but we must speak out strongly on behalf of our Army and be advocates for an appropriate balance in resourcing between the services. Balance has not been the case for a very long time and the health of the Army has consistently been put at risk as dollars went to big ticket weapons platforms for the other services.

Today, our Army is the Nation's "thin red line" in this protracted global war against Islamic terrorism. It needs our help and our support to tell its story. I encourage each of you to do that at every opportunity and in every venue of influence to which you have access. We owe that to our Army and to the great soldiers who serve so nobly in its ranks.

Again, it is a pleasure to be with all you great tankers and cavalrymen this evening and I thank you for your attention.



General (U.S. Army, Retired) Ronald H. Griffith serves as executive vice president, MPRI, Alexandria, VA. General Griffith retired from the U.S. Army on 1 November 1997 after nearly 37 years of active duty service, during which he served in various high-level positions, to include vice chief of staff of the Army and Department of the Army Inspector General. During the course of his career, General Griffith commanded combat organizations at every level through division and led the 1st Armored Division during the Gulf War of 1991.

Defensive and Evasive Driver Training

by Major Richard R. Rouleau and Captain John J. Hawbaker

Current U.S. Army operations in Iraq, primarily those in the larger cities, such as Baghdad and Mosul, require wheeled vehicle drivers to be well versed in congested traffic driving techniques. Although we employ measures to keep local traffic away from our vehicles and convoys, such as distance warning signs and hand and arm signals, the local population does not always obey. Unless drivers have previous experience driving in heavy urban traffic, they are learning on the fly. Even the most experienced driver will need training to overcome the dangers of driving in hostile environments. To ensure drivers are sufficiently trained to maneuver among obstacles common to urban environments, the Army needs to develop a train-the-trainer course in evasive and defensive driving techniques, to include practical exercises, for unit master drivers to use when conducting training for inexperienced soldiers prior to deployment.

The U.S. Army's current doctrine, Army Regulation (AR) 600-55, *The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)* and U.S. Army Field Manual (FM) 21-305, *Manual for the Wheeled Vehicle Driver*, are deficient in addressing evasive driver training.¹ Currently, the only training resource available to unit commanders for evasive/defensive driving techniques can be found on the U.S. Army Combat Readiness Training Center's website in the "Driver's Training Tool Box."² The site has a copy of the National Highway Traffic Safety Administration's *Emergency Vehicle Operators Training Manual*, as well as examples of courses taught by military police (MP) to MP students.³ MP driving courses are taught in accordance with AR 600-55 as indicated by the following excerpt:

Emergency Vehicle Operation

"Emergency vehicle operators must complete an emergency vehicle training program prior to assuming operator duties, and every 3 years thereafter. This training will include instruction in the subjects outlined in Appendix H and will be annotated on DA Form 348, section III, upon completion."⁴

In AR 600-55, Appendix H addresses the emergency vehicle driver training course and highlights the requirement, but fails to provide instruction on unit-level training. The regulation outlines tasks that may or may not support evasive driving techniques, but there is no recommended course of instruction that units can use to train on at home station.

Appendix H, AR 600-55, provides the following program of instruction:

- Unit A covers the introduction, course organization, and material review.
- Unit B covers state, local, host nation, and post traffic regulations and laws.
- Unit C covers selection of routes and building identification.
- Unit D covers use of radios and communications procedures.
- Unit E covers emergency vehicle driving, which includes lights and sirens, parking and backing, negotiating traffic, intersections, turns, following distances, road conditions, right of way, and negotiating curves.





“When vehicle patrols make enemy contact, the patrol has two choices: attack immediately or break contact. The better choice is usually to break contact. The patrol is most likely on another mission, and continuing the engagement will very possibly hinder the accomplishment of that mission.”

Chapter 8, FM 21-305, “Operating Practices and Maneuvers,” should address evasive driving techniques, but instead only focuses on driving practices, starting, steering, turning, braking, stopping, ground guide safety procedures, backing, turning around, parking, and the elements of safe driving.⁷

- Unit F covers handling unusual situations, such as adverse weather, collisions, skids, vehicle malfunctions, and placement of warning devices.
- Unit G includes specialized instruction broken down into:
 - Section I — ambulances. This section includes responsibilities, route planning, inspection and maintenance of medical supplies, life-support equipment authorized for the type of ambulance the individual is being tested for, driving to the scene, at the scene, directing traffic, and driving with a patient aboard.
 - Section II — police vehicles. This section includes responsibilities, emergency communications, pursuit driving, making a traffic stop, emergency escort of another vehicle, and directing traffic.
 - Section III — fire apparatus. This section includes responsibilities, inspection and maintenance of specialized equipment, vehicle characteristics, selecting routes, operating systems, and special considerations.
 - Vehicle dynamics.
 - Size and weight.
 - Speed.
 - Basic control tasks, which include steering, braking, shifting, backing, parking, and intersections.
- Unit H covers the introduction to the driving range and safety briefing.
- Unit I covers the driving range.
- Unit J covers operator’s performance evaluation.⁵

Wheeled Vehicle Operation

The *Manual for the Wheeled Vehicle Driver*, FM 21-305, covers the general principles of non-tactical wheeled vehicle operation. It also describes special instructions for tactical vehicle operation. Military and civilian drivers of government-owned vehicles use this manual as a guide for safe and efficient vehicle operation. Instructions in this manual help the wheeled vehicle driver maintain a high degree of driving efficiency. This manual does not restrict its contents to any particular vehicle. It is a guide to normal everyday operations and to driving under difficult conditions. When more information is needed for a specific vehicle, check the technical manual written for that vehicle.⁶

Typically, unit driver’s training standard operating procedures (SOPs) will include reviews of the above information with additional training that is unit specific or condition specific. For example, the objective is to establish a training program at the squadron and troop levels for motor vehicle drivers and equipment operators that promotes the highest standards of technical proficiency, equipment safety, and driver knowledge. The SOP should outline the following criteria, requiring unit leaders to:

- Ensure that, at a minimum, troop master drivers, under the supervision of the squadron master driver, license all soldiers who are not in command positions on high mobility multipurpose wheeled vehicles (HMMWVs) within 60 days of their arrival to the unit.
- Teach and/or sustain basic operator skills on motor vehicles and equipment.
- Instill in vehicle operators and supervisors a safety attitude and a greater sense of pride in his/her assigned equipment.
- Ensure soldiers are aware of all state and post environmental protection and traffic laws.
- Ensure that soldier’s motor vehicles and equipment are in proper operational status by complying with proper preventive maintenance checks and services (PMCS).
- Promote safety.

Breaking Contact

When vehicle patrols make enemy contact, the patrol has two choices: attack immediately or break contact. In those cases where continuing the engagement could hinder the overall mission, the better choice may be to break contact.

To effectively train vehicle drivers how to break enemy contact, a unit-level convoy leader’s handbook, which focuses on breaking contact, not evading it, should outline the following procedures:

- The platoon leader/convoy commander determines the convoy cannot gain fire superiority and the decision has been made to break contact.
- The platoon leader/convoy commander designates that either rally point “rear” or “forward” will be used. If necessary, both rally points may be used. Communications systems and appropriate pyrotechnic signals will be used to communicate “break contact” and “rally point.”

- Personnel will deploy obscuration measures, if available. Using cover and concealment, aid and litter team(s) will evacuate all casualty(s) under support of gun trucks and other protective fire(s).
- Personnel will maintain position and suppression in the contact zone and assist aid and litter team(s), as necessary.
- Disabled vehicle(s) will be abandoned or destroyed as directed by leaders.
- Vehicles will displace either backward or forward through the convoy lines under leader control. The most forward vehicle in the contact zone moves first, followed by the next most forward vehicle. Vehicles will continue to displace in order. As vehicles displace, gun trucks reposition, as necessary, until contact is broken.
- If breaking contact occurs with vehicles on both sides of the contact zone, displacement of vehicles will occur using an alternating displacement technique.
- Once the rally point is occupied, leaders will immediately position vehicles, security, and conduct consolidation and reorganization.
- If the convoy vehicles get separated when not in enemy contact, personnel and vehicles stay together and move to the closest rally or check point.

Evading Contact

Several federal agencies and private contractors have programs that emphasize evading contact. One of these programs offered by the Federal Bureau of Investigations (FBI) is the Tactical Emergency Vehicle Operators Course (TEVOC).

The TEVOC program instructs new agents and other law enforcement personnel on the basics of defensive driving and emergency vehicle operation techniques. It is used to improve driving skills and confidence of personnel and reduce the possibility of accidents. During the course, students receive classroom instruction in vehicle dynamics, defensive driving principles, and legal and liability issues. Students also are given skill-development exercises in skid control, performance driving, and eva-

sive driving techniques at the new tactical emergency vehicle operations center.

Sending master drivers to the TEVOC or other federally sanctioned courses would assist the Army in building a training base that would prepare units for combat driving in the big cities of Iraq.

Combat Drivers Assault Course (CDAC)

Below is a scaled-down/modified CDAC concept that was used to train soldiers who were participating in pre-deployment training. The purpose of the course was to improve drivers' survivability in a combat environment. The course consisted of limited classroom training and a series of driving exercises designed to teach drivers new techniques and instill confidence in their abilities. The following is an example concept brief used to brief the participants, and included the following training objectives:

- Free a trapped vehicle.
- Precision steering.
- Precision backing.
- Ramming techniques (trained only in a classroom environment).
- React to contact.
- React to media.
- React to civilians on the battlefield (COBs).

This particular unit used its home-station military operations in urban terrain (MOUT) site, which provided a great setting for the training. The personnel at the site were able to acquire every training aid requested, which included junked cars, telephone poles, tires, 55-gallon drums, and barriers, which made the training more realistic. Sound effects (call to prayer, weapons fire, and screams) were used to add realism. The MOUT theater also proved to be the ideal place to conduct classroom training and after-action reviews (AARs).

Old tires were used to protect the training vehicles from unnecessary damage. Tying used tires with parachute cord to the four corners of the vehicles took about 5 minutes per vehicle and was very effective in reducing training damage. Additionally, the vehicles never collided with anything while moving over 10 miles



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"The target audience for the driver's training course was wheeled-vehicle drivers, such as supply specialists, nuclear, biological, and chemical (NBC) specialists, and command group drivers. A small group was selected to ensure the student-to-instructor ratio was low. Initially, students were given classroom instruction (the crawl phase), followed by a controlled execution in the motor pool with traffic cones (the walk phase), and then an advanced execution (the run phase), with an instructor in the vehicle, inside an urban sprawl MOUT site."

per hour, and the tires prevented damage to the vehicles' lights and body. The low-speed collisions included contact with other HMMWVs, junked cars, and 55-gallon drums.

The student-to-instructor ratio is very important to providing proper instruction. One instructor for approximately every five students is the desired level. This permits smooth rotation of students and vehicles for each exercise, and it allows some instructors to do administrative work for the course, while others run exercises. The number of instructors also allows students to be split into small groups to better use all training sites in the limited time available.

Experienced HMMWV instructors were key to the success of this course. Without experienced instructors, the course would have easily taken several days. With experienced noncommissioned officers (NCOs), the course focused more on the specifics of each exercise. Classroom instruction followed by practical exercises and a written exam completed the certification.

Leader Certification

Unit leaders and trainers are certified in providing this type of instruction. The course instructor teaches unit master drivers the techniques to be trained and certifies them to teach these techniques. An example of the training included:

Leader Certification CDAC, Phase I

0900-0945	Overview/Read-ahead Review (MOUT Classroom)
0945-1030	Media/Civil Affairs Overview
1030-1200	MOUT Site Walk/Obstacle Set-up
1200-1300	Lunch
1300-1310	Motor Pool Orientation
1310-1400	Drive Motor Pool Exercises (all instructors)
1400-1600	Drive MOUT Site Exercises (all instructors)
1600-1700	Revise/Refine/Drive (as required) Obstacles and Exercises
1700	Return Vehicles to Motor Pool

*Instructors are responsible for reading instructor packet before leader certification to expedite leader training.

Driver's Training Program

The target audience for the driver's training course was wheeled-vehicle drivers, such as supply specialists; nuclear, biological, and chemical (NBC) specialists; and command group drivers. A small group was selected to ensure the student-to-instructor ratio was low. Initially, students were given classroom instruction (the crawl phase), followed by a controlled execution in the motor pool with traffic cones (the walk phase), and then an advanced execution (the run phase), with an instructor in the vehicle, inside an urban sprawl MOUT site.

The morning of Day 1 included classroom instruction for afternoon execution. Soldiers were trained on the fundamentals of evasive driving using a serpentine course (see Figure 1) under controlled conditions, and were required to complete a practical exercise (PE) in the afternoon at a typical urban sprawl MOUT site. Each vehicle had a driver, vehicle commander/instructor, and two additional students. As each student executed the course, they were immediately evaluated by the instructor and their peers on the application of the techniques trained. Soldiers executed numerous iterations of the course, and due to immediate feedback and a low student-

to-instructor ratio, they retrained effectively. An example of a Day 1 schedule is:

Day 1 CDAC, Phase I

0900-1030	Fundamentals of Evasive Driving/4WD Applications (MOUT Classroom)
1030-1200	Media/Civil Affairs Considerations (MOUT Classroom)
1200-1300	Lunch
1300-1330	Prep Vehicles for Operations (Motor Pool)
1330-1430	Drive Serpentine Course (Motor Pool)
1430-1600	Drive Basic Urban Steering Course (MOUT Site)
1600-1630	Review (MOUT Site)
1630-1700	Return Vehicles to Motor Pool

The morning of Day 2 included the fundamentals of precision backing (see Figure 2), lane change (see Figure 3), and precision steering courses (see Figure 4) under controlled conditions with traffic cones. A PE was conducted in the afternoon at a typical urban sprawl MOUT site. Each vehicle consisted of the driver, the vehicle commander/instructor, and two additional students. As each student executed the course, an AAR was immediately performed by the instructor and the student's peers on the application of the techniques being trained. Soldiers executed numerous iterations of the course, and due to immediate feedback and a low student-to-instructor ratio, they were able to retrain effectively. A sample Day 2 schedule is listed below:

Day 2 CDAC, Phase I

0900-0930	Prep Vehicles for Operations (Motor Pool)
0930-1030	Drive Precision Backing Course (Motor Pool)
1030-1130	Lane Change Exercise (Motor Pool)
1130-1300	Lunch/Course Set-up
1300-1330	Walk Precision Steering Course (Motor Pool)
1330-1500	Drive Precision Steering Course (Motor Pool)
1500-1530	Walk Advanced Urban Steering Course (MOUT Site)
1530-1600	Drive Advanced Urban Steering Course (slow, MOUT Site)
1600-1800	Return Vehicles to Motor Pool

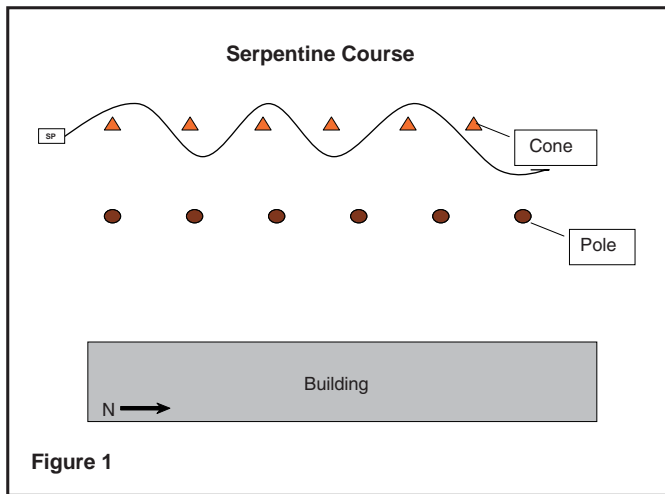


Figure 1

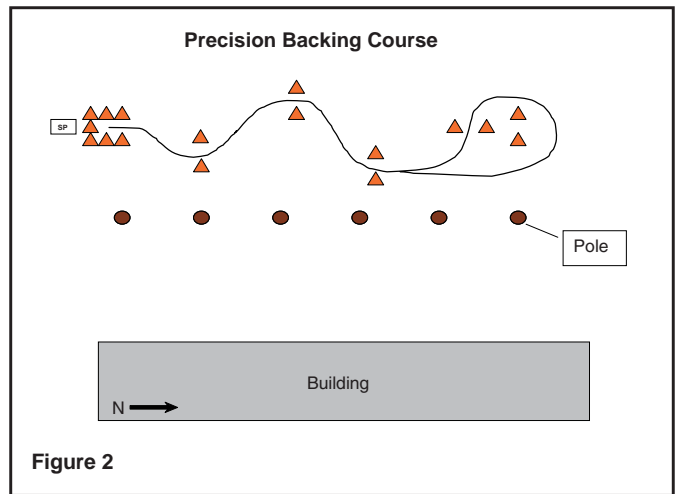


Figure 2

The morning of Day 3 included a review and execution of advanced urban steering, freeing a trapped vehicle, and classroom instruction covering evasive driving techniques followed by a PE. Again, an initial introduction to training was first executed under controlled conditions with traffic cones, followed by a PE in the afternoon at a typical urban sprawl MOU site. For advanced techniques, each vehicle used consisted of the driver and the vehicle commander/instructor. As each student executed the course, an AAR was immediately performed by the instructor and the student's peers on the application of the techniques being trained. Soldiers executed numerous iterations of the course, and due to immediate feedback and low student-to-instructor ratios, they were able to retrain effectively. A sample Day 3 schedule is listed below:

**Day 3
CDAC, Phase I**

0700-0730	Prep Vehicles for Operations (Motor Pool)
0730-0900	Advanced Urban Steering Course (fast, MOU Site)
0900-0930	Free Trapped Vehicle (MOU Site)
0930-1000	Evasive Driving Overview
1000-1200	Evasive Driving Exercise (MOU Site)
1200-1300	Lunch
1300-1600	Evasive Driving Exercise (MOU Site)
1600-1630	AARs
1630-1700	Return Vehicles to Motor Pool

The purpose of this course was to improve vehicle drivers' survivability in a combat environment and with a small student-to-

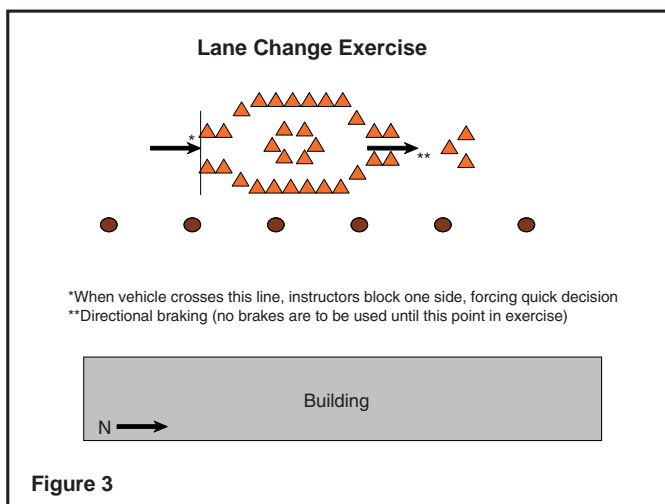


Figure 3

instructor ratio of the first execution CDAC, which was completed in 4 days. Day 4 was left for retraining, vehicle maintenance, and site clean-up as follows:

**Day 4
CDAC, Phase I**

0900-1200	Retraining
1300-1430	AAR (MOU Classroom)
1430-1700	Clean-up (MOU Site)/Post-ops PMCS (Motor Pool)

Listed below are some of the resources required to execute the training. Again, this training was adaptive to meet the goals of the unit commander, based on available resources and knowledge.

**Resource Requirements
CDAC, Phase 1**

Personnel:

- Instructors — 5x NCOs (troop master drivers)
- Set-up/tear-down detail — Instructors + 5 soldiers
- Minimum student-to-teacher ratio — 5:1

Land:

- Classroom — MOU Site Classroom
- Urban Obstacle Course — MOU Site
- Skills area — Motor Pool

Vehicles:

- 1 x dedicated medic HMMWV
- 5 x training HMMWVs

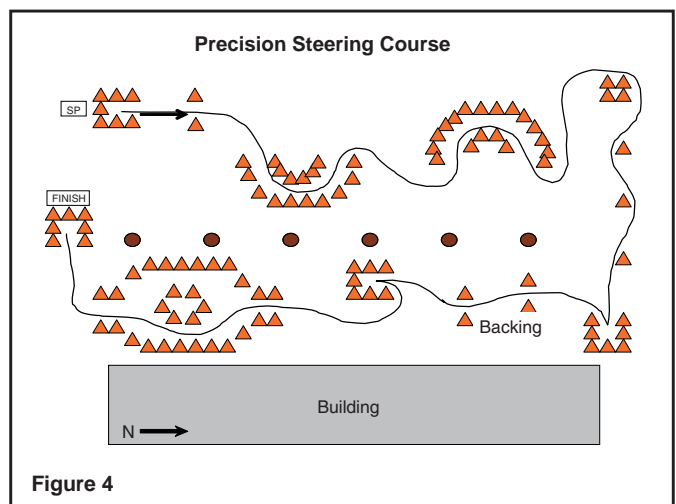


Figure 4

Other:

- Urban Obstacle Course —
 - 20 55-gallon drums (empty) or equivalent
 - 10 plastic jersey barriers (empty)
 - 10 junk vehicles (kept at MOUT site permanently)
- Skills Area — 100 road cones/pylons, 18-36" height
- Targets (simulate COBs)

The days of conducting simple operator/driver's training in a sterile environment are gone. Convoy live fires are now a way of life for units preparing for combat. Even in the third world, urban sprawl and modernization have made defensive and tactical driving in congested urban environments a fact of military life, requiring the careful application of creative training by unit leaders. This brief article shows how one unit maintained its combat edge by using any and all available tools on hand. Leaders must continue to draw on the experiences of seasoned combat veterans who served during operations in Afghanistan, Iraq, Somalia, Haiti, and Bosnia. Commanders should never stop refining tactics, techniques, and procedures that will improve their unit's ability to meet the challenges of urban operations.



Notes

¹Department of Army, U.S. Army Regulation (AR) 600-55, *The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)*, U.S. Government Printing Office (GPO) Washington, DC, 31 December 1993; Department of Army, U.S. Army Field Manual (FM) 21-305, GPO, Washington, DC, 27 August 1993.

²U.S. Army Combat Readiness Training Center website at <https://crc.army.mil/drivertraining/toolbox/evoTrainingManual.aspx>.

³National Highway Traffic Safety Administration, *The Emergency Vehicle Operators Training Manual*, online at the U.S. Army Combat Readiness Training Center website: <https://crc.army.mil/evoTrainingManual.aspx>.

⁴AR 600-55.

⁵Ibid., Appendix H.

⁶FM 21-305.

⁷Ibid., Chapter 8.

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"The days of conducting simple operator/driver's training in a sterile environment are gone. Convoy live fires are now a way of life for units preparing for combat. Even in the third world, urban sprawl and modernization have made defensive and tactical driving in congested urban environments a fact of military life, requiring the careful application of creative training by unit leaders."



“Operation Active Harvest”

by Captain Daniel Tschida

In most developed nations, illegal or unwanted weapons and ordnance collection and destruction is traditionally a local government and police function with select support from national government agencies such as the military. Since the conclusion of the Bosnian war in 1995, such a system failed to evolve with any sort of consistency in Bosnia-Herzegovina. Failing to disarm the civilian population presented a constant threat to a fragile peace agreement outlined by the Dayton Peace Accords of 1995.

In May and June 2002, stabilization forces (SFOR) conducted Operation Active Harvest to demonstrate to local government and police officials of the three ethnic groups (Serb, Croat, and Bosnian) a successful model for weapons collection and make a nationwide impact on collecting and destroying illegal military weapons and ordnance.

During Active Harvest, our unit, Echo Troop, 238th Cavalry, was attached to 1st Battalion, 151st Infantry, 76th Separate Infantry Brigade, Indiana Army National

Guard. Our troop's deployment to Bosnia-Herzegovina was part of a larger deployment that placed us and our higher infantry battalion under the U.S. Army's, 25th Infantry Division (Light), which commanded the Multi-National Division-North (MND-N) SFOR in Bosnia.

Our troop was based out of Forward Operating Base Morgan and our area of operations was a 60 by 40 kilometer area about 20 kilometers north of the Bosnian city of Brcko, located near the international border with Croatia, and covered from east to west the cities of Oraje (B-Croat), Samac (B-Serb), Modrica (B-Serb), and Odzak (B-Croat).

Preparing for the Operation

My responsibilities as troop executive officer during the operation focused on logistics, records documentation (chain-of-custody forms), transportation requirements, and small-unit coordination to execute my troop commander's taskings and intent. Our troop's mission was to organize and execute a weapons collection program over a 6-week period during May

and June 2002 by using an extensive information operations campaign and developing a working relationship with local host-nation government officials, local police, and coalition partners. Our mission was intended to show local civilians that Americans and Bosnians could work together, and have the Bosnians take the lead whenever possible. The end state of the operation was to reduce the amount of weapons and ordnance available to the civilian population, all weapons and explosive munitions collected were to be publicly destroyed, and a working model of a weapons-collection program was to be presented to local Bosnian leaders so they could execute future missions with minimal or no support from SFOR.

This effort was particularly important because 2002 was thought to be the last year that SFOR would have enough soldiers in Bosnia-Herzegovina, due to political and military cutbacks, to effectively make a nationwide impact on collecting and destroying illegal military weapons. At about this time, the U.S. Congress was pushing hard to minimize the U.S.



"Displaced civilians were still living in displaced civilian houses from when evacuations occurred due to fighting, or when homes thought to be abandoned during the civil war were occupied by homeless persons and families. Here, the Bosnians were being asked to give up a piece of security in their lives and trust the U.S. Army and the Bosnian government to protect them."

military's footprint in Bosnia and transfer more of the responsibility to NATO and other European partners.

Overcoming the Obstacles

From my personal experiences as an Indiana state police officer, I realized just how much we were asking Bosnian civilians to give up. Only 7 years prior, the Bosnians were in the middle of a civil war that included genocide, ethnic cleansing, and high-intensity combat in the very same areas that we were to go house to house with local police officers asking citizens to turn over their weapons. Tensions between ethnic groups, city officials, and police could still be seen and felt in how they related and spoke, or didn't speak, with one another. Displaced civilians were still living in displaced civilian houses from when evacuations occurred due to fighting, or when homes thought to be abandoned during the civil war were occupied by homeless persons and families. Here, the Bosnians were being asked to give up a piece of security in their lives and trust the U.S. Army and the Bosnian government to protect them.

In looking back at this situation, such a program would not have worked in the United States. For example, imagine U.S. Army soldiers and the Los Angeles police department going house to house asking civilians to voluntarily turn over their weapons shortly after the Los Angeles riots in the mid 1990s — probably would have been a disaster. The awkward position my unit was already in was complicated by the fact that many local leaders and police felt resentment toward SFOR

forces because they stopped the Bosnian civil war and were given the authority to usurp local leaders, if they were proven obstructionists. All of these negative feelings, and the impression of some Bosnians that SFOR was really an occupation force, were the perceptions we had to overcome to successfully complete our mission.

Based on these considerations, our troop commander determined that an aggressive information operations campaign was critical to the success of our operation; he sent out platoon leaders and platoon sergeants to deliver advertising material to local newspapers, and asked the local radio station to air a live show about Active Harvest. The information operations campaign was important because within just a few weeks, soldiers and police were scheduled to visit civilian homes and ask the occupants to voluntarily give up their weapons.

Our troop commander also wanted to address any fears the local populace may have had about SFOR soldiers and local police forcefully entering their homes. Publishing the rules of engagement on this subject in advance helped prevent counter-information operations from occurring. To add a personal touch, our troop commander often visited with local officials and explained the details of the operation. I often assisted the commander with these visits, as many were often scheduled for the same day. The most important of my meetings was with one of the local chiefs of police from a B-Croat dominated city. Relying on my experiences as a police officer, I felt confident

in talking with another police official. I also knew that if I failed to win the support of the police chief, he was in a position to effectively prevent all meaningful support for the operation.

In an effort to build a good working relationship with the chief, I requested the assistance of the local international police task force (IPTF) magistrate who was a German police officer, and one of the police chief's own officers who had assisted Echo Troop as a Bosnian explosive ordnance disposal (EOD) technician. We had worked with and built a good relationship with both of these men and they would be a positive influence in gaining the police chief's support.

During the meeting, the chief of police was concerned that Active Harvest was an unnecessary operation and that it was a waste of time. I explained that our troop was given an order from higher headquarters to conduct Active Harvest as a cooperative operation with his police officers, and that the SFOR would not be giving his officers any direct orders. This clarification of the command relationships and the mission's intent was what the police chief needed to hear from an American military officer to help ease his concerns. After my short speech and a lengthy endorsement from the German IPTF officer regarding the opportunities the operation would provide for the local police in terms of training and public relations, the chief of police agreed to support the operation.

Conducting the Operation

FOB Morgan was not equipped with an ammunition holding area (AHA) or an unexploded ordnance (UXO) pit. Assets had to be sent from Eagle Base and the 25th Infantry Division G4 shop supported this effort. These assets were in the form of two 20-foot conexes in which to hold munitions in one and collected weapons in the other. Having this hasty AHA on FOB Morgan required special authorization from the division commander to store the large amount of land mines, grenades, and rocket-propelled grenade (RPG) rounds the scout platoons would bring back each evening. Any material that was potentially a problem was given to the EOD teams, which operated at a very high operating tempo (OPTEMPO). For example, our task organization had five scout platoons, each with four up-armored M1114 HMMWVs that were available for weapons collecting. However, only two EOD teams at any one time were available due to their high OPTEMPO and requirements to destroy stockpiles of ordnance at the demolition pit at Eagle Base in Tuzla. Having the EOD

teams with the collection teams proved highly valuable many times over for their technical abilities and advice on how to package and store unused military munitions. I recall one particular incident where having the EOD team assigned as a counterpart to the collection team paid off. We were conducting a collections operation when a young Bosnian male, who resided at the home we were visiting, advised us he had a Russian PMN-2 mine in his bedroom that he would like to get rid of. This mine turned out to be armed and inverted in the young man's closet on a top shelf. After the mine was carefully removed by an EOD technician, taken to the backyard, and detonated under controlled circumstances, the mother of the young man made her appreciation known, as she was unaware of the land mine's presence in her home. After this, she immediately had a discussion with her son on her expectations about not bringing UXO material into the house again.

After about 4 weeks of collecting UXO materials and weapons, it was time to destroy the collected weapons during a public event using a Bradley fighting vehicle and several large 8x8 wooden beams. Echo Troop's commander invited all the local mayors, police chiefs, police officers, and local news media to FOB Morgan. The public event was a dramatic weapons destruction with weapons propped on

8x8 wooden beams while Bradley fighting vehicles ran them over.

As the executive officer, my job was not finished until all the chain-of-custody forms were completed, confirming the destruction of each weapon by serial number, and forwarded to the battalion S3 operations shop for archiving. Together, with the EOD teams, we had to ship the remaining unused military ordnance to the demolition pit at Eagle Base. In the 4 weeks of collecting material, Echo Troop filled its 20-foot conexes with antitank/antipersonnel land mines, grenades, RPG rounds, and all calibers of bullets, ranging from 5.45mm to 20mm. It took two civilian 5-ton trucks, which had been modified to contain sand-filled boxes, to move the entire unused military ordnance from FOB Morgan to the demolition pit at Eagle Base.

Lessons Learned

After-action reviews and discussions following Operation Active Harvest revealed: EOD support from other battle groups and task forces were essential to our troop's success; media saturation and high-profile weapons destruction events are high payoff events that make good news; and meetings with local authorities at platoon and company levels are effective in convincing local authorities to work with SFOR. If correctly executed, operations,

such as Active Harvest, are a springboard for greater community interaction and lead to positive relationships between local populaces and military forces.

There were two noted areas that caused our work to be incredibly restrictive — UXO handling restrictions and lack of EOD resources. To streamline mission requirements, the government should train EOD teams to handle all UXO — this should be a Bosnian government-led effort. Also, speed and flexibility of information operations and psychological operations will go a long way toward making your operation successful; ensure they are well funded and staffed.

Successful weapons collection programs that integrate local forces, such as law enforcement and military forces, will eventually allow peacekeeping forces to leave the country after training and establishing a credible government force to take its place.

The overall outcome of this operation was successful — Echo Troop collected and destroyed enough machine guns, assault rifles, mortars, antitank rockets, and munitions to outfit a light infantry company with a full unit basic load of ammunition. This operation significantly changed the Bosnians' perception of the soldiers of Echo Troop and SFOR from a neutral/hostile opinion to a more favorable one. This change of perception was first noticed by our interpreters and then by our soldiers. Following Active Harvest, noticeably fewer and fewer obscene gestures were made toward soldiers on patrol, and communications with local leaders and police officers became more comfortable. During Active Harvest, Bosnians saw firsthand that American soldiers would take risks and support them while performing the potentially dangerous work of unused munitions and weapons collection. Working together on a difficult task changed the way both sides saw each other and paved the way for better relationships.



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Integrating Air into Ground Unit Planning, Training, and Operations

by Captain Brad Bertinot

In May 2004, I found myself en route to the city of Karbala, Iraq, as the air mission commander of four OH-58D Kiowa Warriors. Our air cavalry troop's mission was not significantly different from its other missions, except it was on a larger scale than usual. The operation included armor and infantry units, as well as Army and Air Force aviation assets — it truly was a combined-arms fight that would test the abilities of the leaders involved.

As we prepared for the fight, a minimal number of aviation officers were involved in the planning process, leaving air support assets with a lesser understanding of how ground maneuver forces would accomplish their mission. The lack of shared information made it impossible to understand how air assets could best support the

operation. As the air mission commander, I was responsible to voice my concerns during the planning process, but did not — a mistake I will not likely make again.

During the fight, it was evident that the air and ground units had not considered each other during the mission planning process. Both air and ground units had planned in a vacuum; neither fully understood how the other was operating. The consequences of this mistake resulted in a limited ability of air assets to provide the best possible reconnaissance, as well as the inability of ground assets to implement direct fire controls that considered friendly aircraft. This fight helped me to gain an appreciation for the importance of shared operational understanding between air and ground units. Although it was too late for

the Karbala operation, I began to realize that I needed to do my homework as an Army aviator to increase my working knowledge of ground maneuver. After all, infantry and armor units are our main customers; however, unlike our civilian business counterparts, we do not always take time to understand our customer and how he operates. Additionally, the customer does not fully understand what the supplier, in this case Army aviation, can and cannot provide.

It was through this initial assessment of my own weaknesses that I made the decision to attend the Armor Captains Career Course. I planned to learn from and with Armor officers how to better integrate ground and air planning and gain a better understanding of operations dur-





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ing real conflicts. If I was going to spend the rest of my military career working with and for “tankers and grunts,” then they were the best source of information. I also knew that they could learn from my experiences and observations as an aviator. I hoped to foster a desire on both sides to understand how the other performs.

If both sides identify that it is important for the “customer” and the “supplier” to understand each other, how do we accomplish this task? It is the humble recommendation of this young aviator that it be accomplished using the following keys to successful air-ground integration (AGI):

- Conduct introductory AGI briefings.
- Train at all levels at every possible opportunity.
- Integrate leaders of Army aviation units into planning.
- Develop leaders to understand how each component works.

Conduct Introductory AGI Briefings

The easiest way to begin AGI is through the use of AGI briefings. These briefings usually consist of the capabilities and limitations of available Army aviation assets and can be coordinated through the supporting aviation unit. AGI briefings are normally given by pilots from the supporting aviation unit and may also include a tour of the airframe to be employed during the mission.

During Operation Iraqi Freedom, our unit was asked by several battalion commanders and S3s to fly to various forward operating bases (FOBs) to conduct AGI briefings. This was an excellent opportunity to introduce junior armor and infantry leaders to their air counterparts. These briefing requests were always welcomed by our aviation unit because they helped increase the ground leadership’s understanding of how to best use air assets during missions.

It is important to remember that you do not have to be deployed to request an AGI briefing; they should be conducted prior to any training exercise or unit deployment that includes aviation. The briefings should be conducted down to the lowest possible level. It is not always possible to have all of your soldiers receive an AGI brief, but at a minimum, all ground platoon leaders and platoon sergeants should be involved in an AGI briefing. Armor leaders should also request the aviation unit to take junior leaders on a recon in the aircraft. It is important that scout platoon leaders or platoon sergeants understand the perspective of the pilots in the air; it provides them a greater understanding and appreciation when they receive spot reports from aircraft.

Below is an example of an AGI agenda; the ground unit commander can tailor the briefing to fit the unit’s needs:

- Aircraft specifications (capabilities and limitations) include weapons

systems (maximum effective ranges); sights/video equipment (what they can and cannot see); and range (fuel restrictions and on-station time).

- Marking techniques (what they can and cannot see).
- Radio procedures.
- Close-combat attack (most aviation units have a close-combat attack card that explains the unit’s standing operating procedures).

Train at All Levels and at Every Possible Opportunity

It is imperative that leaders at all levels integrate aviation units into their training; aviation should not be the “notional unit” during every training exercise. Soldiers and leaders will garner a greater understanding and appreciation of the capabilities and limitations associated with working with aviation counterparts through this training.

Whether it is a lieutenant colonel’s battalion gunnery or a lieutenant’s platoon situational training exercise (STX) lane, aviation can and should be integrated into training. The division cavalry unit days are gone, but that does not mean that air and ground units cannot train together regularly. Most armor leaders would be surprised at how willing aviation commanders at all levels would be to accommodate their training. Aviation leaders are always looking for new and exciting ways to incorporate soldiers into realis-



"Aviation leaders are always looking for new and exciting ways to incorporate soldiers into realistic training scenarios. It can be as simple as a team of two OH-58D Kiowa Warriors providing reconnaissance for a platoon or squad, or as complex as a company being air assaulted into an objective as part of a task force mission. The important thing is to train with aviation units as often as possible."

tic training scenarios. It can be as simple as a team of two OH-58D Kiowa Warriors providing reconnaissance for a platoon or squad, or as complex as a company being air assaulted into an objective as part of a task force mission. The important thing is to train with aviation units as often as possible.

As a new aviation lieutenant on the Korean Peninsula, it was not long before I began training alongside my ground counterparts. I was assigned to a division cavalry squadron, so it was understood that we would be in support of a ground unit almost every time we lifted skids. However, we supported more than just the ground units in our squadron; we also supported all of the division's infantry and armor units during training. Whether due to the unique structure of the division, or the complexity of the real-world mission that we were always ready to execute, the 2d Infantry Division placed a high emphasis on AGI at all levels.

This emphasis trickled down to all levels — the armor and infantry officers and NCOs I worked with gained great experience in integrating aviation in their planning, training, and employment of aviation assets. This created an environment that fostered leaders who were confident in their ability to integrate air and ground, which resulted in measurable advantages on the battlefield. Unfortunately, this emphasis is not the experience in all units. It is crucial that armor officers at the highest levels instill this emphasis in their soldiers and leaders. A good place to start is at the armor and infantry officer and non-commissioned officer basic courses. This will help ease some of the tensions that new armor lieutenants and junior NCOs have about working with aviation.

By working with aviation units, armor leaders will be able to understand the unique tactics, techniques, and procedures (TTP) that aviation units employ. Conversely, the supporting aviation unit and its leaders will develop a much greater understanding of ground maneuver and armor/ground TTP. This cross-training will lead to a seamless transition to combined operations and greatly contribute to overall mission success.

Integrate Army Aviation Leaders into Planning

Unfortunately, while in support of ground units during Operation Iraqi Freedom, I normally spoke with ground units for the first time as I conducted aircraft check-ins just prior to the mission. This is much too late, and although there may be certain circumstances that make this an unavoidable situation, all too often it is SOP, which should be avoided, if at all possible. Not all ground units have an aviation liaison officer on staff and units often plan without input from aviators, but the Army is currently working to eliminate this problem by staffing each brigade combat team with a brigade aviation element.

Aviation leaders, from the brigade commander to the air mission commander (AMC), need to be included in as much of the ground maneuver planning as possible. For the ground commander, this ensures that the mission is fully understood by the aviation elements, ensuring aviation assets are used to their maximum potential.

One of the easiest ways to integrate aviation leaders into the planning process is to contact the supporting unit to identify the AMC for the mission, who is usually a lieutenant, captain, or senior warrant of-

ficer responsible for the mission's aviation assets. The AMC should be identified early enough to be integrated into the mission analysis conducted by the ground unit commander and his staff, which during a company mission, may include the AMC participating in the company commander's planning sessions. This will allow the ground commander and staff to have a subject-matter expert available to ensure the ground unit gets the most out of the training or operation. The AMC should be present for all phases of the mission, to include planning, rehearsals, execution, and after-action review.

If it is not possible for the AMC to be present for all phases of the mission, an aviation liaison officer, who can be requested through the S3 office, could be integrated into the planning phase. The aviation liaison officer assigned through the S3 is often a lieutenant, captain, or junior warrant officer who will attend all planning sessions. The aviation liaison officer can be used to help integrate Army aviation assets into the ground scheme of maneuver. The liaison officer should be a subject-matter expert on the use of all Army aviation assets and be able to advise the commander and staff on the capabilities and limitations of those assets. The liaison officer will also facilitate communications between ground and air units. Even if this is the only method available, the AMC should be used during the rehearsal process. The aviation liaison officer role is now being filled at the brigade level by the brigade aviation element (BAE). The BAE should have an aviation major, an aviation captain, an aviation warrant officer, and several flight operations enlisted soldiers.

If all else fails, go directly to the unit and request planning and training support. Do not be afraid to ask for direct contact with your supporting aviation unit to get the right people to your planning sessions. I have received many phone calls from my armor counterparts asking for aviation support. As long as the missions are planned safely and to standard, these types of interactions should be encouraged. Some of the best training missions start off as a phone call from one lieutenant to another. Most pilots are eager to provide air support in any way possible.

Develop Leaders to Understand How Each Component Works

It is critical that armor and infantry leaders instill the importance of understanding, planning, training, and operating with Army aviation assets into their soldiers.

This should start at the armor and infantry officers and noncommissioned officers courses and must continue when these junior leaders get to their new units. AGI should not be limited to the battalion staff; it is just as important, if not more so, for the new lieutenant or NCO who will be the direct customer on the battlefield.

Aviation officers should conduct AGI classroom training in both officer basic courses. This will provide subject-matter experts for students and provide them the opportunity to ask questions of their aviation counterparts. Additionally, this training needs to be reinforced by integrating aircraft into more lieutenant-level field training exercises. This will give them the opportunity to communicate with the aircraft and better understand the complexities of integrating aviation assets into planning.

Armor and infantry leaders need to ensure that the first time a young officer or staff sergeant sees or communicates with aircraft it is not during a firefight. Just the simple act of having an aircraft on sta-

tion communicating with junior leaders can pay huge dividends during subsequent training events and operations. Many junior leaders do not understand the importance of such training, and it is the job of experienced officers to ensure junior leaders understand. It also ensures that junior aviation leaders understand how important it is for the air assets to understand ground maneuver. The training and planning discussed in this article will help facilitate these factors, if integrated into air and ground assets at the lowest possible levels.

Air-ground integration is not a new idea, nor will it go away any time soon. Our Nation and Army face new enemies in urban environments that force us to fight in new and innovative ways. It is now more urgent than ever, as we face an ever-changing insurgency, that air and ground leaders at all levels possess the ability and understanding to focus the full impact of the combined-arms Army on the enemy. This can only be achieved through a coordinated staff effort between air and ground assets. Failing to properly inte-

grate air assets with ground forces results in combat reduction, where as the intent is combat multiplication. Employed correctly, air-ground integration is a lethal addition to our fighting force. Leaders at all levels owe it to their soldiers and junior leaders to place an emphasis on air-ground integration training.



Captain Brad Bertinot is currently serving as the assistant S3, 4th Squadron, 6th Air Cavalry, Iraq. His military education includes the Armor Captains Career Course, the Joint Combat Operations Course, the Close Air Support Course, Airborne School, and the Aviation Officer Basic Course. He has served in various command and staff positions to include aeroscout platoon leader, 1st Squadron, 1st Cavalry (1-1 CAV), 1st Armored Division (1AD), Iraq; aviation liaison officer, 3d Brigade Combat Team, 1AD, Iraq; aeroscout platoon leader and aviation support platoon leader, 4th Squadron, 7th Cavalry, 2d Infantry Division, Camp Stanton, Korea; aeroscout platoon leader, XO, and squadron S4, 1-1 CAV, 1AD, Budingen, Germany; and assistant S3, 4th Aviation Brigade, 1AD, Fliegerhorst, Germany.

“By working with aviation units, armor leaders will be able to understand the unique tactics, techniques, and procedures (TTP) that aviation units deploy. Conversely, the supporting aviation unit and its leaders will develop a much greater understanding of ground maneuver and armor/ground TTP. This cross-training will lead to a seamless transition to combined operations and greatly contribute to the overall mission success.”



MORE BOOTS ON THE GROUND: The Army National Guard Answers the Call

by Major General Wesley E. Craig



The soldiers of the U.S. Army National Guard (ARNG) have served the Nation superbly as citizen-soldiers during military operations in Iraq. For many years, the Guard has been a deep reserve for the Army Active Component (AC); however, the Guard has endured a staggering operational tempo and increased missions in recent years as they transitioned to an operational force. On several occasions in the past 5 years, National Guard soldiers have made up as much as one-half of U.S. Army forces in Iraq, while the National Guard simultaneously shouldered the lion's share of the homeland defense mission.

However, the Guard has not received the appropriate level of funding, force structure, or resources commensurate with its increased responsibility. Indeed, the opposite has occurred, the Army recently re-

duced the force structure of the ARNG by more than 25 percent.

The demands of the current operating environment (COE) have made it clear that the Nation needs more combat forces, not less. The most recent Quadrennial Defense Review (QDR), completed in January 2006, recommended the Army reduce its number of brigade combat teams (BCTs) from 77 (43 in the AC and 34 in the ARNG) to 70! The ARNG was saddled with most of the force reductions, as its force structure manning was reduced by 27,000 soldiers and the number of ARNG BCTs was reduced by six. The recommendations of this QDR are outdated and not in touch with reality — they need to be re-examined and modified in short order.

A reduction in ARNG combat power and force structure is both foolish and

dangerous, given all that the ARNG is required to manage. The Guard has proven that when properly equipped and given time to train, ARNG formations are equivalent to AC units. Just ask insurgents in Iraq or Afghanistan! The dispatch of 50,000 ARNG troops to Louisiana and Mississippi for Hurricane Katrina relief operations again showed the Guard's value during domestic emergencies.

As operations in Iraq and Afghanistan continue, the Army is faced with sending AC units back to the fight with considerably less down time than the desired 2 years. Moreover, the Chief of Staff, Army has requested that the Department of Defense allow him to remobilize ARNG units that have already expended their 24 months of mobilization permitted under current partial mobilization authority due to the heavy demand for "boots on

the ground” in these two conflicts. The question that needs to be addressed is obvious: Why would we persist in the plan to reduce the now-veteran ARNG BCTs by 20 percent and decrease the available pool of combat forces?

The U.S. Congress acted promptly and rejected the QDR-proposed reduction in ARNG manpower by restoring the end-strength authorization to 350,000 soldiers. The ARNG’s highly successful recruiting efforts over the past year and a half have grown the ARNG to 102 percent strength! The growth is continuing and clearly shows that the ARNG can man this level of force and larger. Additional end strength can be successfully recruited and retained, if the Guard is allowed to man units over strength or if the force structure is increased. This ensures ARNG units will be at 100 percent available strength when they are summoned to duty.

Congress is still very concerned about the proposed reductions in BCTs. Strong language from a Congressional Research Service (CRS) Report for Congress makes this concern crystal clear: “The Administration’s FY2007 request provides funds for 333,000 Army National Guard (ARNG) troops rather than the 350,000 authorized and reflects a decision to reduce the number of combat brigades in the ARNG from 34 to 28.

“A more controversial issue is the Army plan to reduce the number of new, modularized ARNG combat brigades. As Army officials explain, the purpose of the change is to fully man the new brigades within authorized ARNG end-strength and to fully equip the combat units within available budget constraints. The change will likely mean that ARNG units in some states that will not, as had been planned, be outfitted as new, more capable combat brigades, will lose personnel. The units that remain, therefore, will also likely have less ability to carry out state disaster response and homeland defense missions. As a result, state governors and some National Guard leaders have been very critical of the plan.”¹

Three-quarters of the ARNG BCTs targeted for elimination are heavy BCTs equipped with Abrams tanks and Bradley fighting vehicles. This move is penny-wise and pound foolish, as these units have proven to be extremely valuable during combat in Iraq. Units that have heavy armored vehicles win all confrontations with insurgents — the enemy fears the combat power inherent in these units. Units that do not have heavy combat vehicles suffer more casualties. Lawrence Korb, former Under Secretary of Defense,

asserts that: “Tanks and armored personnel carriers have been out of favor with advocates of military transformation for so long that their value and versatility in Iraq has come as something of a revelation ... not only have they provided critical capabilities in waging urban battles, but they have proven surprisingly relevant in the conduct of counterinsurgency operations. Iraq has demonstrated that heavy armor remains important.”²

In recent years, the U.S. Army developed and fielded the Stryker brigade combat team (SBCT). The SBCT is built around a digital network that shares situational awareness with all commanders at all levels simultaneously. The brigade is mounted in the Stryker family of vehicles, which are medium weight, extremely mobile, wheeled, and armor protected. They have proven to be ideally suited for combat in Iraq. Indeed, their success through three completed rotations in Iraq moved the commanding general, Multinational Force (MNF-I), to hold the 172d SBCT in country past its redeployment window earlier this year. Since this type of unit has proven to be so successful, perhaps the Army could mitigate an extension of this kind in the future by adding more SBCTs to its total force structure. These SBCTs are also ideally suited for the ARNG’s domestic missions. Since Stryker vehicles can self-deploy on the road, most variants have direct application to state-level missions. SBCTs would improve state-level

force structure by increasing utility, protection, and communications for existing units. The SBCT will become the Army’s (and the ARNG’s) bridge to its Future Combat System force.

Regarding domestic missions, the unit of choice is the BCT (infantry, heavy, or Stryker). The value of BCTs serving in response to natural disasters was clearly shown during Hurricane Katrina relief efforts. The AC committed the 82d Airborne Division with several of its BCTs; the ARNG committed four BCTs and numerous combat-arms battalions. The teamwork, communications equipment, and heavy wheeled vehicles these combat formations brought with them proved to be decisive. Agreeing to substitute ad hoc groupings of combat support and combat service support units for BCTs would shortchange our states and place their citizens in great peril for the next Katrina.

Perhaps the correct and affordable mix of ARNG BCTs would be to raise the number to 36 (allocating 24 IBCTs, 9 HBCTs, and 3 SBCTs) and increase the force manning level by 10,000 soldiers, bringing the number to 360,000. The IBCTs and HBCTs already exist and the ARNG currently has one SBCT assigned to the 28th Infantry Division, Pennsylvania National Guard. The 34 BCTs currently in the ARNG are all partially equipped.

Continued on Page 50



“A reduction in ARNG combat power and force structure is both foolish and dangerous, given all that the ARNG is required to manage. The Guard has proven that when properly equipped and given time to train, ARNG formations are equivalent to AC units. Just ask insurgents in Iraq or Afghanistan! The dispatch of 50,000 ARNG troops to Louisiana and Mississippi for Hurricane Katrina relief operations again showed the Guard’s value during domestic emergencies.”

Cold War Mounted Warriors: U.S.

by Dr. George F. Hofmann

As the post-World War II U.S. Army was rapidly downsizing, a new breed of mounted warriors emerged to deal with the political, military, economic, diplomatic, and personnel turbulence of occupation and communist expansion. There were, however, serious doubts about their ability to succeed as the cold war began to escalate. As Carl von Clausewitz noted, the study of war and lessons learned are significant; however, each new age of warfare takes on a nature all its own. This is the story of the U.S. Constabulary during a period of international tensions.

In May 1945, Prime Minister Winston S. Churchill advised President Harry S. Truman, “An iron curtain is drawn down upon their [Soviet Union] front. We do not know what is going on behind.”¹ At the end of the year, Allen W. Dulles, from the Office

of Strategic Services and later director of the Central Intelligence Agency, addressed the Council of Foreign Relations. He noted, “Germany today is a problem of extraordinary complexity,” adding, “It defies a solution.” In East Germany, Dulles said, “An iron curtain has descended over the fate of these people and very likely conditions are truly terrible.”²

Events in Germany began to move rapidly toward unmanageable chaos. When the Nazi regime was totally defeated and surrendered that spring, the U.S. Army entered into a period of displacement. The war was won and American troops in Frankfurt, shouted, “We wanna go home.”³ The mood of many soldiers had drastically changed. By the end of 1945, redeployment back to the United States became almost a surge. Experienced war veterans were clamoring for their “ruptured duck,” an insignia

“For greater mobility, the troops were equipped with jeeps and M8 and M20 light armored cars. Ten light armored cars were assigned to each troop... Also, supporting weapons, such as recoilless rifles and mortars, were provided. Troopers were armed with pistols, and when necessary, with rifles and sub-machine guns. Provisions were also made for motorcycle and horse cavalry troops, and L5 observation planes. M24 light tanks were positioned as mobile reserves in and around major cities when a show of force was necessary.”



Constabulary in Occupied Germany

worn on the right chest signifying honorable discharge. Mountains of wartime equipment were stored and began to fall into disrepair.

The Soviet military was also undergoing reorganization in their occupied countries. Unlike the United States, Premier Joseph Stalin was determined to keep a formidable force in Eastern Europe, equipped with a staggering number of offensive tanks manned by over a million men. Even before the United States could implement a suitable military government policy, the Soviet high command began a major reconstruction of its military forces. The emphasis was placed on greater mobility with large mechanized formations and new equipment. The provocation for a military conflict with the Soviet Union was becoming more and more a possibility.

Furthermore, the Red Army began expelling millions of Germans from their former territories in the east and Sudetenland. Traditional German boundaries were redrawn as determined by President Franklin Roosevelt, Winston Churchill, and Joseph Stalin at the Yalta Conference in February 1945. Meanwhile in the American zone, depleted American military units became primarily static, trying to manage not only German refugees but also displaced Poles. In addition, anti-Semitic attacks and pogroms in Soviet-occupied Poland in 1945 and 1946 led to the immigration of thousands of Jewish refugees into the American zone.

Lieutenant General Joseph T. McNarney had more than a daunting summons. He succeeded General Dwight D. Eisenhower in November 1945 as the military governor and commander of



"The man General McNarney chose to "inherit the wind" was a cavalryman and armor warrior, Major General Ernest N. Harmon. Known for his profane language in the tradition of General George S. Patton, he became the driving force to construct an elite mobile force based on the wartime cavalry organization model. Harmon believed the cavalry spirit was ideal for operations in the unruly atmosphere existing in the American zone."



U.S. forces in the European theater. How was he going to bring some semblance of order to the chaos in the occupied American zone? What type of organization and leadership would be required to establish structural integrity for a country destroyed by total war and undergoing disarmament and demilitarization? Adding to this process was the growing political discord between the victorious powers.

The man General McNarney chose to "inherit the wind" was a cavalryman and armor warrior, Major General Ernest N. Harmon. Known for his profane language in the tradition of General George S. Patton, he became the driving force to construct an elite mobile force based on the wartime cavalry organization model. Harmon believed the cavalry spirit was ideal for operations in the unruly atmosphere existing in the American zone. He planned to have the Constabulary fully organized and operational by 1 July 1946, with a mobile force of up to 38,000 men to patrol 40,000 square miles, including 1,400 miles of interzonal boundaries. Approximately 16 million Germans lived in this area composed of flatlands, hills, mountains, and forests all crossed by numerous meandering streams.⁴ Most provocative, however, were Red Army forces positioned in eastern European countries.

Immediately, Harmon went to work, outlining his proposed mission for the U.S. Constabulary: "To maintain general military security and to assist in the accomplishment of the objectives of the military government in the occupied zones of Germany and Austria by means of an active patrol system prepared to take prompt and effective action to forestall and suppress riots, rebellions, and acts prejudicial to the security of the U.S. occupational forces."⁵

General Harmon's mobile force was under the command of another cavalryman, Lieutenant General Lucian K. Truscott Jr., commander of the Third Army. Known for his gravel voice and a determination to win, Truscott once told his son every good commander must "have some son-of-a-bitch in him."⁶ Though too optimistic, his idea was to use the Third Army as a general reserve tactical force and



the Constabulary as a first line of mobile defense.

Part of General Harmon's planning team were Colonels William S. Biddle, former commander of the 113th Cavalry Group, and Charles H. Reed, former commander of the 2d Cavalry Group. Both had impressive wartime records. After the war, they became important members of the general board on evaluating wartime mechanized cavalry operations and equipment. Harmon told the surprised officers, "operational elements of the occupational forces were to comprise two major forces — a tactical force, comprising roughly of a corps, and a Constabulary force."⁷ Reiterating Truscott's intent, Harmon mentioned to his team that before the Constabulary could be used as a mobile defense force

it had to restore order in the American zone.

The planning team decided, with Harmon's concurrence, to establish a table of organization and equipment for a multi-capable police security force. The Constabulary was to be organized in three brigades with three regiments each. Each regiment had three squadrons of five troops (see Figures 1 and 2). However, their equipment excluded heavy weapons, such as self-propelled artillery, medium tanks, and tank destroyers. For greater mobility, the troops were equipped with jeeps and M8 and M20 light armored cars. Ten light armored cars were assigned to each troop. In addition, two troops were motorized with 1½-ton utility trucks. Also, supporting weapons, such as recoilless rifles and mortars, were provided. Troopers were armed with pistols, and when necessary, with rifles and sub-machine guns. Provisions were also made for motorcycle and horse cavalry troops, and L5 observation planes. M24 light tanks were positioned as mobile reserves in and around major cities when a show of force was necessary.⁸

The 1st and 4th Armored Divisions, and wartime cavalry groups became the nucleus for the Constabulary. Major General Fay B. Prickett, who commanded the 4th Armored Division, was stunned by Harmon's new proposal. At the time, the division was deployed as a tactical static occupation force. Part of Prickett's team was another cavalryman, Lieutenant Colonel Albin F. Irzyk, who recalled, "We were hit by a thunderbolt." Like many in the 4th, Irzyk was astonished over the new police security mission, "we were forming a unit such as had never before been in the Army. This was a completely new drawing without any precedent."⁹ Prickett had to divest the division of the armored equipment

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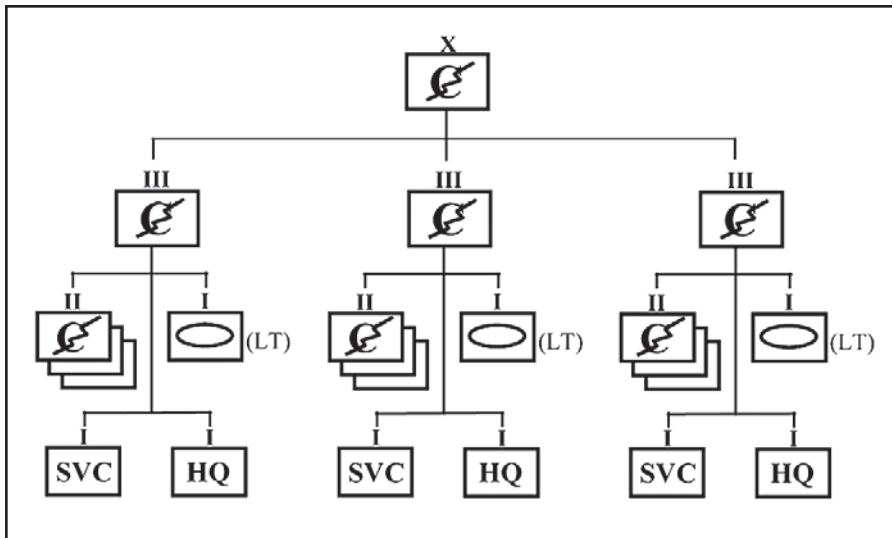


Figure 1

that propelled it across Europe and create an organization with light mobile equipment.

To establish pride in his unique unit, Harmon prescribed a readily distinguishable uniform. He chose the combined-arms symbol and modified it. Like the armor insignia, he selected the colors blue and yellow with a red lightning bolt. The insignia colors, however, were rearranged. The spirit of the insignia signified the quick striking power of a mounted unit. Vehicles and special helmet liners were rimmed with yellow and blue stripes. The unit's motto, "Mobility, Vigilance, Justice," became the watchword throughout the American zone.

Critical to the development of leadership, Harmon and his staff prescribed a training school for the new force. His emphasis on leadership was always a priority. He once stated, "More training must be devoted to the meaning and requirements of one's combat mission. This will require commanders of all echelons to be more careful and concise in the assignments of the mission."¹⁰

In March 1946, the Constabulary Training School at Sonthofen was established in the southernmost tip of Bavaria. The proposed school had an interesting history. It was Adolph Hitler's strong belief that a force of arms never defeated Germany during World War I. Germany's problem, he stated, was due to a lack of strong uniformed political leadership. The objective was to form a preparatory school for the National Socialistic Ordensburgen, which meant a castle of a religious order or fraternity. As a result, a male youth school was created on "behalf of and for the Nazi Party." Selected students were expected to be of Aryan descent, in perfect health, demonstrating an unimpeachable character and a proficiency in sports. Also considered were leadership abilities while members of the Hitler Jugend. Nazi Party leaders, not parents, selected students. They were to be guided by the principle, "state first, individual second." The school was named "Die Adolph Hitler Schule."

The guiding educator at Sonthofen was Colonel Henry C. Newton, who graduated from the Los Angeles Polytechnic University and was commissioned in field artillery. During World War II, he had considerable experience with the armored force at Fort Knox, engaging in research and tactics on armored infantry. He

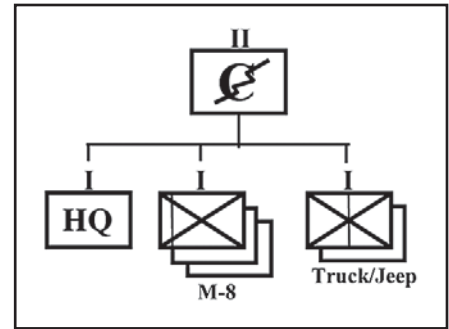


Figure 2

was also instrumental in organizing and commanding the Armored Force Officers School, which included courses in tactics and techniques in armor warfare. The school's graduates referred to the institution as, "Newton's College." Newton's new mission at Sonthofen was to manage and coordinate the activities of six academic

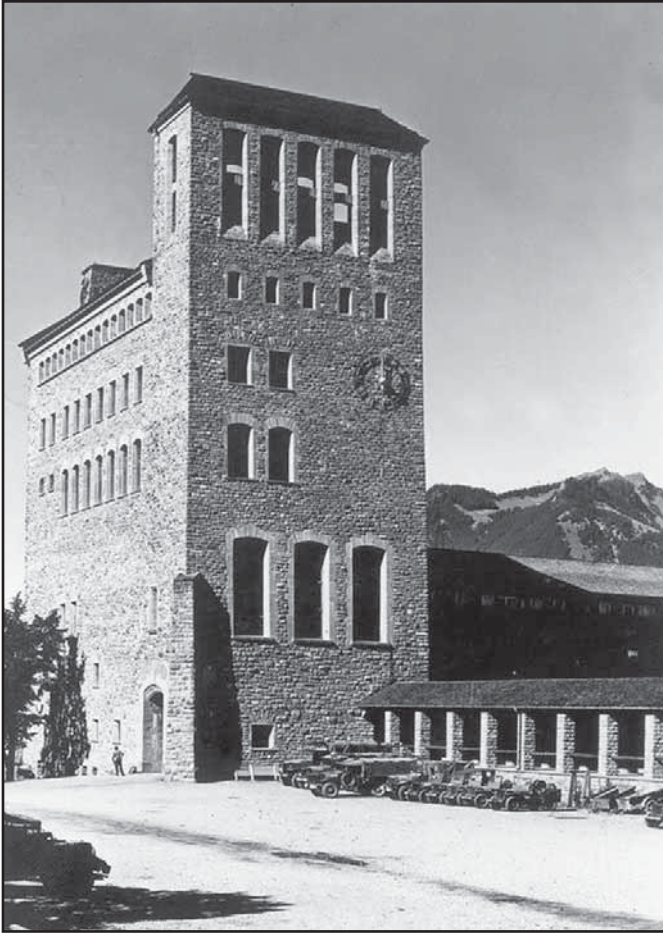
departments, tactics, communication, vehicle maintenance, public safety, general subjects (map reading and unarmed defense), and geopolitics. The latter department provided courses on German history, the country's geography, politics, and characteristics of the German people.¹¹ To assist in training, the *Trooper's Handbook* was distributed to all Constabulary units.¹² The book was written under the direction of Lieutenant Colonel Warren D. Haskell, a former state police commissioner. Eventually, the school became the heart and soul of the Constabulary.

To facilitate his movement throughout the American zone, Harmon liberated former Reichsmarschall Hermann W. Göring's private train and had it painted in Constabulary colors.

However, he kept Göring's interior fittings intact because it "suited my purpose just fine."¹³ When he stepped from his train, Harmon was impeccably dressed with cavalry britches and highly polished boots. This demeanor became his hallmark, and for some young officers and troopers, created many anxieties, especially those who did not meet his expectations. Senior officers greeted him with snappy salutes, which were returned in kind. Many of his public actions were also designed to impress the Germans. At first, they called the Constabulary, "Harmon's Gestapo." Soon the population realized the troopers' importance in maintaining law and order and attitudes began to change. The Germans now had another name for the Constabulary, "Blitz Polizei." Harmon remembered the populace of Munich calling his arrival, "The Second Coming."¹⁴

No doubt, Harmon left an unforgettable impression. One trooper recalled the general coming on like a tiger. On one occasion after a detailed squadron inspection, he made a "ferocious speech laced with every known profanity and a few that he must have created. We thought that he was really something." Another newly arrived trooper recalled Harmon stating, "It was time to get off our beer-soaked asses and become soldiers again."¹⁵

When Colonel Biddle from Harmon's planning staff took command of the 11th Constabulary Regiment, he was not as abrupt as his boss: "Troubles are not new to the 11th Cavalry. For example, in 1901 [when the regiment was organized], the commander of the 1st Squadron telegraphed the War Department for



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more officers, saying, "I have 400 horses that have never seen a soldier, 400 recruits that have never seen a horse, and four second lieutenants that have never seen either a soldier or a horse." Biddle added that the squadron got over that hump. He reminded his command that the 11th Cavalry's motto is "Allons;" in other words, "let's go."¹⁶

Meanwhile, Secretary of War Robert P. Patterson announced in April 1946 a planned merger of the cavalry and armored force into a single combat arm. The War Department advanced this opinion based on wartime experiences and President Harry S. Truman's initiative for service unification. The Army had already prompted some preliminary unification earlier with the abolition of horse cavalry units, which were formed into mechanized cavalry groups and cavalry reconnaissance squadrons during the first years of the war. However, Harmon planned to reintroduce horse cavalry units to traverse rough terrain and neutralize hostile crowds and riots.

When Secretary Patterson made his announcement, the Constabulary was experiencing its most taxing organizational period. Nevertheless, Harmon was determined to complete his mission, even though more and more American soldiers were demanding to be demobilized and sent home.

Before long, the question of fraternization became a volatile issue. Most German and Austrian civilians resented fraternization with American soldiers. German women who did were loathed

and insultingly referred to as "Yank brides" and "chocolate girls." The Germans felt the policy of open fraternization led to serious disturbances. Part of the problem was the failure to understand the situations that led to prostitution by many Fräuleins. For them, it was a period of wartime desperation. They had to rely on basic human needs for survival. Many had children and families to support. This obviously made it difficult for the Constabulary to curb the oldest profession. More so, Constabulary headquarters feared that German resentment regarding American soldiers having relationships with Fräuleins could lead to the birth of a new German nationalism.¹⁷

Another display of resentment occurred when a Bürgermeister's wife gave a Nazi salute followed by, "Heil Hitler" to a Constabulary patrol passing through a small town. These leftover attitudes of Nazi feelings were not uncommon among many Germans. The Constabulary also discovered subversive clubs, whose purpose was to place obstructions and decapitating wires on and across roads frequented by U.S. military patrols.¹⁸

That critical April, a counterintelligence corps (CIC) detachment was assigned to the Constabulary. This relationship was especially important during cases of Frageboden violations. A Frageboden was a questionnaire used by the American military government to identify Nazi officials, such as party members and dreaded members of the Sturmabteilung (SA) and Schutzstaffel (SS) who attempted to falsify questionnaires to avoid arrest. While coordinating with the Constabulary, the CIC interrogated and apprehend many suspected National Socialistic officials. By the end of 1946, Constabulary troopers apprehended 22,000 illegal border crossers and turned them over to the military government for legal disposition. Due to activities of the troopers and German border police, this negative trend was gradually reversed until the Czechoslovakia crisis in 1948.

To supplement Constabulary operations, Harmon used reconstituted German border police, whose members were selected only after being cleared of any connections with the National Socialist Party, its philosophy, and members of the SA and SS. The formation of such a force had a positive effect on the civilian population. More so, it allowed the Constabulary to spend more time monitoring political agitators, displaced persons, border incursions, and gathering intelligence.

A year after the war ended, it was still evident that security threats in the American zone continued to come from local and infiltrating communists, former Nazis, and a restless German population. Adding to these concerns were two divergent and problematic groups of displaced persons — the Poles and Jews. For centuries, the Poles hated the Germans for past territory violations and invasions. The Jews, in turn, wanted revenge for the Nazi Holocaust. With the Holocaust behind them, many were anxious to move to their traditional home in Palestine. Consequently, they had no desire to assimilate into the German population because of the Nazi anti-Semitism that still existed.

Another problem Constabulary headquarters became aware of was the issue of dismantling and reparations. The communists, more than the other zonal powers, were determined to strip East Germany of heavy industry, plus acquire what they could from West Germany. The rationale was that the Soviet Union demanded Germany make good their war losses. Stalin's goal was to transform his occupation zone into a single-party communist political system and, at the same time, denude the economic base for a unified Germany. Coal mining equipment, aluminum, locomotive engines, jet engines and ball bearing plants, just to mention a few, were among the wartime industries dismantled. The Krupp works and I.G. Farben chemical facilities located in

the Eastern zone met the same fate. Hydrogenation plants that were producing synthetic gasoline were totally dismantled and sent to the Soviet Union. They did not hesitate to dismantle all plants engaged in manufacturing arms, ammunition, tank parts, and other military equipment.¹⁹

During the first 6 months after becoming fully operational, Constabulary elements uncovered numerous black-market rings involving scarce merchandise, much of which was coming from the Soviet zone. Germans, Jews, and Poles operated the illegal rings. By the end of the year, 2,681 major black-market operations were exposed. The problem leading to this situation was an overabundance of currency and a scarcity of agricultural goods, which were being hoarded by German farmers. Also the black marketeers dealt with jewelry, drugs, cigarettes, clothing, large sums of money, and aforementioned agricultural goods. Most of the Constabulary "swoop raids" were conducted in displaced-persons camps and German homes. One typical example occurred in November 1946 when a Constabulary squadron discovered the largest cache of black-market money at the time. An alert sergeant found over two million Reich Marks hidden in a civilian sedan crossing over from the Soviet zone into the American zone.²⁰

An exciting Constabulary mission for these young troopers was to chase down cattle rustlers, which was a flourishing business as soon as the war ended because of the huge demand for fresh meat. Horse cavalry elements gained the honorable distinction, as did many of their fellow troopers, of being called "Circle C Cowboys."

The Constabulary also had a serious problem with refugees from the Baltic countries. They had no desire to return to their homelands, which were overrun and now occupied by Soviet military forces. The most sensitive issue was the situation of the Ukrainians and anti-Soviet Russians, many whom had joined the Nazi war machine. Other refugees in eastern European countries, such as Czechoslovakia, Hungary, and Rumania, fled their homelands and refused reparation. These people resented the Soviet Union's domination and communization of their homelands.²¹

One of the least recognized activities was the Constabulary's G2 function. A historian later wrote that the intelligence net created by Colonel A.R. Reeves, assistant chief of staff, Constabulary G2 section, was "exemplary." This was because the Constabulary was spread throughout the American zone, and as a result, they were able to acquire pertinent information. Each trooper was constantly reminded to be "intelligence-conscious." Weekly classes were held on how to cooperate with other intelligence agencies. These intelligence operations were critical; they kept the military and political network abreast of all activ-



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ities that potentially threatened internal security, such as communists and socialists engaging in promoting strikes, population unrest, propaganda activities, and supporting political uprisings and riots.²²

Aside from the intelligence and police security missions, Constabulary elements paid considerable attention to political activities of the KPD (German communist party) and SED (socialist unity party of Germany). The military government, now under



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"The doctrine directing the reconstituted Constabulary elements to armored cavalry regiments was finally resolved by end of the decade. The regiments were to deploy as a light armored force 'to engage in offensive or defensive combat, either mounted, dismounted, or a combination of both, primarily in execution of security and reconnaissance missions.'"



the command of General Lucius D. Clay in Berlin, was concerned over the shortage in essentials of life, such as food, shelter and clothing, in the American zone. This could lead to political agitation, plus the potential for a major German uprising directed against American supply areas and command posts.

The military government made Reeves's G2 section aware that interviews with various German communists and socialist party members indicated their prevailing suspicious attitude of anything American. The communist agitators demonstrated a mood that was becoming increasingly more antagonistic. Reeves observed that the transition from wartime cooperation to the current period of suspicion and dislike was reflected in the communist publication, *Das Neue Wort*. One article noted that KPD members in the American zone were convinced that a final military conflict between communists and capitalists was inevitable. Reluctantly, a few members of the KPD and SED interviewed admitted that in the Soviet zone political freedom was restricted, reasoning, "it only affected the reactionaries who deserve to be restricted." As the Soviet Union was consolidating its control over their zone and eastern Europe, its authoritative one-party communist system did not tolerate dissenting opinions. German communists rationalized that the Soviet zone was more "security-conscious," because it was, as paranoid propagandists would have it, under constant attack from the west.²³

In September 1946, Secretary of State James E. Byrnes delivered his startling Stuttgart speech indicating there would be a change in U.S. foreign policy regarding the German economic situation. It was evident that Germany could no longer be treated as a separate economic unit for each occupying power. Byrnes stated that it was obvious that the military role of the allied powers in western Germany had changed. At first, it was one of occupation and control; the new goal was to defend and revitalize Germany. Byrnes let it be known that the removal of heavy industries by the Soviets should not be continued. Now, he argued, there was a necessity for generating peacetime German econo-

my, trade, and self-sufficiency.²⁴ Consequently, the United States and the United Kingdom moved to create Bizonia as a single economic unit and suspend dismantling operations.

By now, the most noticeable effect redirecting the Constabulary's mission was the result of the breakdown of the Four Power Authorities (United States, England, France, and Soviet Union) arrangements over the sensitive issue of German reparations. At the end of 1946 and into 1947, Stalin tightened his totalitarian grip over conquered countries. President Truman, along with a concerned state department, believed communist expansion was bent on probing for European economic and political weaknesses. These events now signaled the President to issue early in 1947 historic doctrine that provided economic and military assistance to deal with the immediate communist menace in Greece and Turkey.

The impact of a new direction in U.S. foreign policy was based on containment and a fear of appeasement. With this in mind, the War Department made a final decision a year after Secretary Patterson's announcement that the cavalry and armored force be consolidated into a single armored cavalry arm. The combination term "armored cavalry" soon became controversial and unpopular because of branch disagreements. The traditionalist upheld the term "cavalry" because of long historical association with horses and the modernist felt armor and mechanization was the new method of warfighting requiring an independent designation and branch.²⁵

Nevertheless, the transition to a tactical force was put in motion. General Clay, the military governor, told Lieutenant General Albert C. Wedemeyer, director of Army Plans and Operations at the Pentagon, that arrangements had been drawn up to round out U.S. forces in Europe. Clay proposed to reorganize the Constabulary into armored cavalry regiments, with two additional supporting artillery battalions. Clay also requested three armored infantry battalions from the states to be incorporated into armored cavalry regiments as a combined arms mobile force.²⁶

By now, General Harmon felt he had set the course, and it was time for a new commander. Organizing the Constabulary had taken its toll on the armor warrior. Setting up a police security force at a time of rapid demobilization of officers and enlisted personnel had been more than an exhausting challenge. By early 1947, the Constabulary had reached its peak strength of nearly 30,917 men. General Harmon lamented that the Constabulary was constantly suffering from a loss of trained personnel due to persistent turnovers. On 1 May 1947, Major General Withers A. Burress took command.

It was now evident that the Constabulary elements were becoming engines of change. Plans were made to inactivate most units and reorganize the 2d, 6th, and 14th Constabularies into armored cavalry regiments.

In June 1947, Secretary of State George C. Marshall launched his economic assistance plan designed to deal with the plight of Europe, which was still responding from the destructive nature of total war and the demonic effects of hunger, poverty, desperation, and harsh European winters. Stalin's foreign minister, V.M. Molotov, rejected the plan, calling it a capitalistic scheme that meddled in the internal affairs of other countries. Stalin made sure that east European countries under Soviet occupation did not comply because part of the Marshall plan required participating nations to have freely elected democratic institutions.

While the debate was going on over the Marshall plan, the Constabulary G2 received an alarming report in August from the European Command advising that the Soviets were operating three uranium mines in Czechoslovakia with hundreds of German prisoners of war. One mine was reported to have the richest uranium vein in eastern Europe. Once extracted, the ore was crushed, washed, rinsed, boxed, and rushed to the Soviet Union.²⁷

During General Burress' tour, tensions became even more volatile when a communist coup occurred in Czechoslovakia in February 1948, causing again a large flow of Sudeten Germans and Volksdeutsh from other east European countries into the American zone. The creation of another Soviet satellite caused intense intelligence gathering by Reeves's G2 and CIC elements. It seemed this international provocation by the Soviets would accelerate the organization of armored cavalry regiments. However, diplomatic efforts were not in agreement with military capabilities. No sooner had General Burress taken command when the European Command advised him that troop cuts were again expected.

The major personnel and equipment problems had originated in the United States. The President and Congress routinely cut Army budgets while a national military strategy began to rely more on nuclear weapons. An economy-minded, Republican-controlled Congress made the Army's future unstable. An influential Republican isolationist and proponent of limited government, Senator Robert A. Taft, challenged the country's post-war role in internationalism. The Ohio senator was not enthusiastic about committing American ground forces in Europe. For national defense, he supported the Navy and a strategic policy relying on nuclear airpower. The military cuts were so drastic that during his tour as chief of staff, General Eisenhower remarked that implementing the rapid demobilization of the wartime Army was more unpleasant than being head of the occupation forces in Germany.²⁸

Meantime, Major General Isaac D. White had succeeded General Burress. White served under Harmon during the war as an armor commander, later commanding the 2d Armored Division. At the time, he commanded the Cavalry School at Fort Riley, Kansas. His mission, beginning in May 1948, was to continue

to reorganize the Constabulary based on an Army general board report for a new table of organization and equipment for new armored cavalry regiments (light). Lieutenant General Clarence C. Huebner, the commander of U.S. ground forces in Europe, told White to reform the Constabulary from a police security force to a multitasked, hard-hitting armored cavalry fighting force as soon as possible.

Like his predecessors, General White's mission was far from easy. He had the task of organizing and training a new military force predisposed by personnel turbulence, budget cuts, equipment problems, and the uneasiness of the cold war. The tactical concept he perceived was to use armored cavalry as a fast-moving, combined-arms team to penetrate and disrupt the enemy's communications and supply installations. His view was to mold armored cavalry into a self-contained organization similar to the regimental combat teams of World War II known for their ability to use cavalry tactics of exploitation and pursuit.²⁹ In June 1948, the Constabulary school at Sonthofen was closed.

That same month, the Soviet Union withdrew representatives from the quadripartite administration of Berlin. Days later, the western powers officially announced currency reform for Trizonia (United States, England, and France). Consequently, the Soviets stopped all ground traffic in and out of Berlin. Thus, began the infamous Berlin blockade, which was finally lifted in May 1949.

Colonel George A. Rehm, meanwhile, reported to General White and took command of the 6th Armored Cavalry. Rehm's objective was similar to what was happening with the other armored cavalry regiments. For example, he immediately began a rigorous training schedule, stressing the importance of armored cavalry as a mobile defense element. The problem he had, as did the other armored cavalry commanders, was ensuring the regiments could defend the American zone with fewer soldiers all armed with worn-out World War II equipment. Thus, Huebner and White's tactical ideas at the time were far from realistic. In reality, the armored cavalry regiments became more of a defensive combat force. Unfortunately, the armored cavalry regiments' tactical recourse was to act as tripwires if the Soviets crossed the border with their massive manpower and tanks.

The doctrine directing the reconstituted Constabulary elements to armored cavalry regiments was finally resolved by the end of the decade. The regiments were to deploy as a light armored force "to engage in offensive or defensive combat, either mounted, dismounted, or a combination of both, primarily in execution of security and reconnaissance missions." The principle of economy of force was added to the field manuals, meaning high commanders now had the means to discriminate employment and distribution of their forces. In addition, the regiments were to be tasked as screening, reconnaissance, and counterreconnaissance elements as prescribed by higher echelons for independent action without reinforcements.³⁰

Finally, the Constabulary's intelligence, and police security missions came to an end. The United States, England, and a reluctant France, agreed on an occupation statute for western Germany, assuring the Germans self-government and economic independence. All dismantling provisions and industrial restrictions had been removed, giving West Germany more economic freedom and opportunities. On 8 May 1949, the Basic Law was adopted and the Federal Republic of Germany was established with Bonn as its capital. Meanwhile, the North Atlantic Treaty was signed and went into effect in August 1949 as a defensive counterbalance to expected Soviet aggressive overtures. For the first time in U.S. military history, a peacetime integrated armed force was created under a single command and employed as a

defensive deterrent supported by American nuclear power. There was no place for a Constabulary in this new international arena and a restored democratic West Germany. The Constabulary headquarters was inactivated in November 1950, and by end of 1952, the last few operational Constabulary squadrons met the same fate.

Earlier, General Clay had returned to the United States with the satisfaction of seeing the transfer of military government to German civil authority. Regarding the Constabulary, Clay said, "It won the respect and admiration of all, including the German population." This was a ringing endorsement from one of the Army's greatest leaders and administrators during the early cold war period.³¹ In the 1950 Congressional Record, 81st Congress, recorded that the Constabulary was "probably the keenest, most vigilant eye" the country possessed, always "ready to live up to [its] mission."³²

In June 1950, Congress passed the Army Reorganization Act. The traditional offices of the chief of infantry, chief of cavalry, chief of field artillery, and the chief of coast artillery were abolished. This congressional action finally gave legal recognition to the armored force, which had actually occurred in 1942. The armored force now absorbed the cavalry branch. Mechanized cavalry simply became armor. The act was the *coup de grace* to traditional cavalymen, who held fast to past historical exploits, and a victory for the modernists.

The U.S. Constabulary was built on the cavalry organizational model and created during a tumultuous period in American military, diplomatic, and political history. Surely, it was a period of

postwar uncertainty. Armored and mechanized cavalry elements, along with supporting units, were called on to perform a unique mission under unparalleled conditions. They adjusted to extraordinary international tensions and internal complexities.

It can be persuasively argued that the Constabulary was instrumental in liberating the Germans in the American zone from the chains of their totalitarian past. These young troopers filled a void created by the redeployment of World War II veterans eager to get home. Isolationism again became a postwar demand by many Americans and their congressmen. Army budgets were cut, seriously affecting manpower and research required for mechanized warfighting. All these actions stifled preparedness for the emerging contingencies of the cold war. Yet, in spite of this, the Constabulary spirit prevailed, redirecting its legacy toward a tactical orientation, armored cavalry. Certainly, the Constabulary became a distinct engine of change. It created a model and doctrine for today's mounted force and became a new breed — the U.S. Army's "cold war mounted warriors."

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Master Gunners, Step Up

by Sergeant First Class Cory R. Kozielski

The appointment of a master gunner is an ancient one. In the past, monarchs appointed masters, such as wagon masters and trench masters, to specialize in particular military arts. All of these masters of military arts — with the exception of the master gunner — have faded away.

In the early days of gunning, the master gunner was required to know all about guns — even how they were constructed. However, around the 1400s, the gunner's main tasks were reduced to preparing ammunition and loading and shooting the gun — making guns was handed over to gunfounders and gunsmiths.¹

The master gunner has held ground for more than six centuries; as soon as gunners became soldiers, master gunners were in charge of them, whether on board ship, in the field, or in coastal defense forts.

The U.S. Navy's master gunner eventually lost the "master" portion of his title and simply became "gunner." In the field, the master gunner served as the execu-

tive officer in charge of artillery trains and, as such, was responsible for training his men and maintaining the equipment in his charge. The master gunner disappeared with the appointment of commissioned 'artillerists' to manage the trains. From the earliest days in forts, the master gunner was not only answerable for the care and maintenance of ordnance, ammunition, and stores, but was also in executive command of the guns and gunners. It was only with the appearance of the coast artillery commissioned officer that he relinquished the last duty and became responsible solely for properly maintaining and accurately accounting for the guns, ammunition, and associated stores.²

The modern-day master gunner is not that different from those of the past. The model for creating master gunners has worked for 30 years, beginning in 1975 with the first Master Gunner School at Fort Knox, Kentucky, training soldiers on the M60A1, M551, and M60A2 tanks. The programs of instruction (POI) dur-

ing those early years would eventually be replaced with programs of instruction (POIs) for the M60A3, M1, M1A1, M1A2, M1A2SEP, and mobile gun system (MGS), either as entirely new POIs or as transition courses to update trained master gunners on subjects specific to each tank. Success of the tank master gunner program has been such that, as the saying goes, "imitation is the highest form of flattery."³

The Infantry School at Fort Benning, Georgia, decided early to emulate the training approach of the U.S. Army Armor School for Bradley crewmen. Immediately after the Bradley was fielded in 1983, the Bradley master gunner program was initiated. As a mechanized armor system, the principles for training tankers and units seemed a natural fit to Bradley crewmen. Other master gunner courses began forming in the 1990s, based on the rationale of an undisputed increase in lethality that master gunners brought to a unit's warfighting capability, as exhibit-

“The Infantry School at Fort Benning, Georgia, decided early to emulate the training approach of the U.S. Army Armor School for Bradley crewmen. Immediately after the Bradley was fielded in 1983, the Bradley master gunner program was initiated. As a mechanized armor system, the principles for training tankers and units seemed a natural fit to Bradley crewmen.”

ed during Operation Desert Storm. Therefore, to shape and improve soldier training, master gunner programs were designed for weapons systems beyond the tank and Bradley.⁴

The aviation community began designating certain pilots to act as unit master gunners to improve gunnery training. Although aviation master gunner training has less focus on maintenance, due to the background of the candidate soldier, the functions of the master gunner position were similar. In 2003, the Aviation School at Fort Rucker, Alabama, formalized this program into one that would produce soldiers with an additional skill identifier to fill designated unit master gunner positions. Similarly, field artillery had unofficial programs that trained soldiers to be master gunners at division level through the 1990s. The Field Artillery School at Fort Sill, Oklahoma, formalized this early attempt at a master gunner program and standardized training, forming the first artillery master gunner pilot course in mid-2005. The Air Defense Artillery School at Fort Bliss, Texas, created its program in 2002 to produce master gunners for Avenger units.⁵

As each program was developed, the mold used to train master gunners remained fairly consistent. The philosophy guiding each program was to produce soldiers who were experts on maintaining weapons systems, gunnery experts in fighting weapons systems, trainers, and true subject-matter experts (SMEs) on many subjects.⁶

Today’s constantly-changing battlefield places great demands on master gunners — to remain masters of weapons systems. This requirement is extremely challenging and involves a great deal of time and hard work. For example, a tank unit preparing to go to Iraq will most likely not use tanks as primary fighting vehicles; they will likely field M1114 high mobility, multipurpose wheeled vehicles (HMMWVs) or M1117 armored security vehicles (ASVs). These platforms employ many different weapons systems that tank master gunners are not trained on — he must master these systems during the pre-deployment process. His commander and soldiers will rely on him to have all the answers. “Go ask the master gunner,”



is often heard on the boresight line or in the motor pool. Soldiers expect master gunners to have the answers; they depend on master gunners to have the answers.

The new battlefield requires these highly talented noncommissioned officers to reach out and seek the expertise of fellow master gunners from different fields, as well as learn new operating and weapons systems to high levels of proficiency. The tank master gunner should not be uncomfortable asking his infantry brother to teach him how to efficiently operate an M68 close-combat optic (CCO) or AN/PEQ-2 target pointer/illuminator/aiming light. The master gunner will be the on-site expert at the zero range to make things work. Opening a field manual on a new weapons system is never a bad place to start. As master gunners, we encourage our soldiers to use the “book,” yet at times, we fail to take our own advice. Having current field and training manuals on all of your unit’s weapons downloaded onto a laptop is good advice. Ensure you have a copy of the small arms integration book, which can save you hours on a range preparing for deployment.

We expect today’s soldiers to be proficient in their assigned occupational specialties, as well as every aspect of the current operating environment (COE). The master gunner has to step up and take this challenge too. Tankers have given up their tanks in most armor units, which means tank master gunners will have to become experts on other weapons systems, such as the MK19, M4 (with all its attachments), M240B, and M249 (squad automatic weapon). Commanders will seek advice from master gunners on weapons employment in urban areas — master gunners must have the answers.

Master gunner schools cannot teach everything a master gunner needs to know,

but they do teach soldiers how to troubleshoot and pay attention to detail. These two areas are critical tasks in all combat environments and must be used by commanders in preparation for and during deployment.

The Army is currently focused on fighting a war, not using its primary fighting platforms. The master gunner must come to the front once again and take the lead. These highly trained noncommissioned officers have been through some of the Army’s toughest schools to earn the title, “master;” it is now time to show why they were chosen for such critical roles. Master gunner, step up; the Army needs you, commanders need you, and soldiers expect it from you! Do not let them down!



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Sergeant First Class Cory R. Kozielski is currently serving as operations sergeant major and battalion master gunner, 1st Battalion, 34th (1-34) Armor, Fort Riley, KS. His military education includes M1A1 and M1A2 Master Gunner School, Basic Noncommissioned Officers Course, and Primary Leadership Development Course. He has served in various duty positions, to include platoon sergeant and company master gunner, B Company, 1-34 Armor, Fort Riley; tank and truck commander, B Company, 1-34 Armor, Ramadia, Iraq; master gunner instructor, M Troop, 2d Squadron, 16th (2/16) Cavalry, Fort Knox, KY; and instructor, Armor Officer Basic Course, H Troop, 2/16 Cavalry, Fort Knox.



Reorganizing the Recon Squadron to Enhance Heavy Brigade Combat Team Capabilities

by Lieutenant Colonel Jeff Broadwater

With the U.S. Army's transformation of the modular brigade combat team (BCT) into two combined-arms battalions (CABs) and a reconnaissance squadron, there has been much debate about the proper organization of the reconnaissance squadron in light of its doctrinal role. U.S. Army Field Manual (FM) 3-20.96, *Reconnaissance Squadron*, states the reconnaissance squadron shapes successful modular brigade operations in several ways:

- It provides the BCT with a significant dismounted, mounted, and aerial reconnaissance force.
- It enables the brigade commander to decisively employ his maneuver battalions and joint fires and choose times and places of contact to his advantage.
- It maximizes security of the BCT by providing timely, accurate, and relevant combat information. It helps the BCT achieve an important tenet of modern warfare — *information dominance, when achieved, is security.*¹

Due to large urban populations or the size of the terrain that encompasses a BCT's area of operation (AO) in Iraq, the reconnaissance squadron is serving as a third maneuver battalion in an economy-of-force role for the BCT, typically conducting the same operations as the two CABs. During stability and reconstruction operations (SRO), the squadron must be capable of developing actionable intelligence and creating opportunities to seize the initiative and defeat the enemy through offensive actions internally, as opposed to developing the situation for the CABs to destroy the enemy. The squadron must be able to conduct SRO, which requires additional dismounts, enabling the squadron to focus its operations on engaging the population to deny insurgents sanctuary and isolate them from the population.

During battle in a major combat environment, the recon squadron does not have enough combat power to conduct reconnaissance missions forward of the BCT. This will likely force one of the CABs to

fulfill that role. Regardless of the operating environment, which will constantly change just like the terrain, the reconnaissance squadron can achieve both desired methods of employment with two additions to the reconnaissance squadron. The first is a modified table of organization and equipment (MTOE) change to increase the number of dismounts in each scout platoon (platoon strength from 30 to 42 troopers) to conduct multidimensional reconnaissance in any environment. The second change is to assign a tank company to the squadron to conduct reconnaissance forward of the BCT (see Figure 1).

We must constantly take into account urban terrain factors and the requirement to interact with the civilian population, which requires more dismounts to collect actionable intelligence. Adding additional observers gives the squadron the ability to conduct dismounted reconnaissance while still providing local vehicle security. It also blends dismounted patrolling techniques and vehicle capabilities that prove to lead to the most suc-



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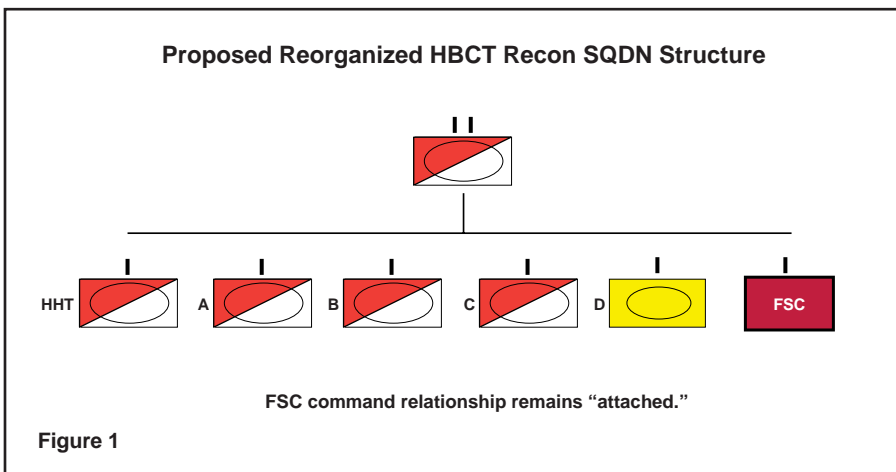
successful reconnaissance methods. Currently, the scout platoon has 30 men and is equipped with five high-mobility, multi-purpose, wheeled vehicles (HMMWVs) and three cavalry fighting vehicles (CFV) at the platoon level, giving the platoon a 6-man dismount capability, leaving 24 men to man the positions of truck commander/Bradley commander, gunner, and drivers for the 8 vehicles. The current structure does not allow all vehicles to adequately provide local security as two vehicles have only three-man crews. Six

men are clearly insufficient where collecting multidimensional information is required.

In the current fight, the reconnaissance objective ranges from threat, society, and infrastructure, to terrain, making it necessary to provide the recon squadron the additional dismounted capability to engage the local population and still provide local security. Adding 12 scouts to each platoon gives a dismounted capability of 16 scouts, each vehicle with a 5-

man crew, and 2 CFV vehicles, each with a 6-man crew, which provides two 9-man dismounted squads. The extra observers provide adequate local security while allowing the platoon to conduct dismounted reconnaissance operations simultaneously. It also provides each platoon with enough security to conduct infantry battle drill number six (enter and clear a room), by allowing the platoon to establish a secure foothold then continue their reconnaissance operation. The added dismount capability also allows each platoon to clear possible ambush sites in restrictive terrain, including urban areas, and look for indicators of these types of enemy actions outside the vehicle.

In a major combat environment or in rural terrain, the troop can be reorganized into three platoons to maximize command and control; enhance making contact through sensors and additional intelligence, surveillance, and reconnaissance (ISR) assets; and provide an overwatch force capable of destroying an armored or mobile threat. The reorganization also maximizes vehicles to cover more terrain and interdict a mobile threat during security operations. The ideal structure for reorganizing each line troop using current vehicle platforms within each scout



platoon is two scout platoons of three HMMWVs and three CFVs to conduct traditional reconnaissance and security operations, (see Figure 2).

The third platoon is called the surveillance, acquisition, and weapons (SAW) platoon, which is a four-vehicle HMMWV-based platoon where the vehicles (two each) are taken from each of the scout platoons. The SAW platoon provides depth to the recon or security operation and allows freedom of maneuver by providing an overwatch element for the lead scout platoons. The SAW platoon also operates the troop's Raven unmanned aerial vehicle (UAV) from an overwatch position to provide the lead platoons early warning and free up the lead scout platoons to focus on information collection. Integrating and maximizing the long-range scout surveillance system (LRAS3) and Javelin systems in each platoon allows the SAW platoon to reduce the lead platoons' vulnerability to enemy direct fire contact by maximizing the range of the Javelin and optic capabilities of the command launch unit (CLU). With the additional observers in each platoon, the two scout platoons can still conduct local security and limited dismounted operations as they collect intelligence. This organization also allows the troop commander to have an element serve as a positional reserve capable of reacting to direct fire contact with the forward scout platoons or react quickly enough to exploit success.

Another change to the reconnaissance squadron that will enhance the BCT's war-fighting capability is adding a tank company. This modification gives the squadron the capability to fight for information. Adding a tank company solves the constant problem of never having enough time to conduct reconnaissance operations because the enemy has a vote, and fighting for intelligence has been, and will always be, a factor we must plan to execute. It also allows the BCT commander to truly shape his AO with a forward ground element that can provide accurate information over the width of the BCT's frontage while still employing the two CABs along multiple avenues of approach. This does not add additional tanks to the BCT, which leaves two possible courses of action (COA). The first COA is to take a tank company from one of the CABs, which has the added advantages

Proposed Reorganized Cavalry Troop Structure Using Additional Dismounted Capability and Internally Organized SAW Platoon

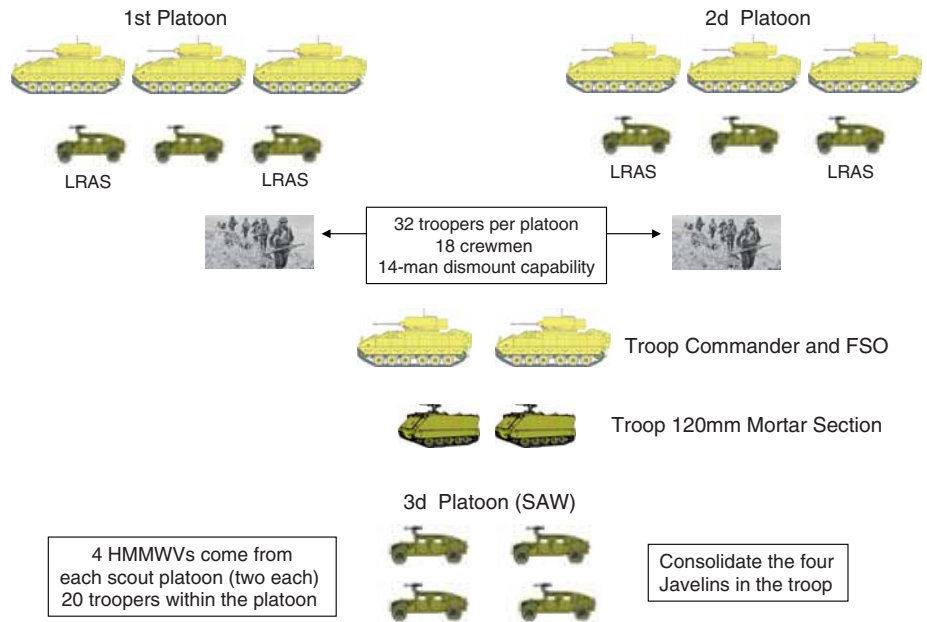


Figure 2

COA1: BCT Structure with Tank Company Assigned to the Recon Squadron

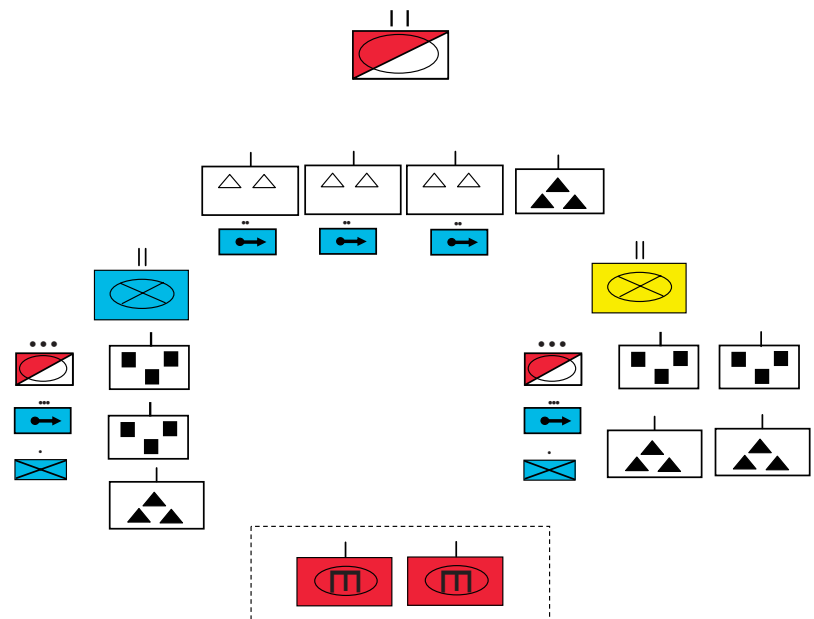


Figure 3

Note: Graphic is not intended to show task organization within each CAB, only to show combat power available.

of the company having an established command and control element and a sustainment package easily provided by the

current forward support company (FSC). (See Figure 3.) The second COA is to take one tank platoon from each CAB and

form another platoon by combining the four XO tanks, one from each of the tank companies within the BCT. (See Figure 4.) The advantage of the second COA is that both CABs still remain balanced.

The tanks also reduce the risk to the squadron by providing direct fire standoff and lethality in open and rolling terrain when a heavy armor threat is anticipated. The BCT and squadron can still make contact through sensors and additional ISR assets, but now the squadron has the capability to conduct counterreconnaissance and truly independent economy-of-force operations. Intelligence can be collected and quickly acted on when weather conditions hinder ISR assets and systems (fixed and rotary wing aircraft) that might be employed to achieve the desired effect on the enemy.

Each CAB still has the ability to task organize internally using its scout platoon and lead company as an advanced guard traditionally used to provide layered reconnaissance between the recon squadron and the CABs. This internal change within the BCT also provides the BCT commander an organization other than the CAB to conduct reconnaissance in force. This type of reconnaissance mission is not what the squadron is currently de-

signed for, but it now allows the BCT commander to avoid overtaking a CAB to find, fix, and destroy the enemy.

Depending on the threat array, the BCT does not have to lose momentum by conducting a battle handover between two battalion-sized units to destroy the enemy's reconnaissance assets, or run the risk of the enemy mixing into the population because the reconnaissance squadron did not have enough combat power to isolate and destroy the enemy in an urban environment. The tanks enhance the squadron's survivability by providing a direct fire platform capable of destroying armored threats offensively if contact is made unexpectedly. It also provides the squadron commander a force that can serve as a squadron reserve capable of reacting to contact quickly within the squadron's AO to support a troop or rapidly exploit success.

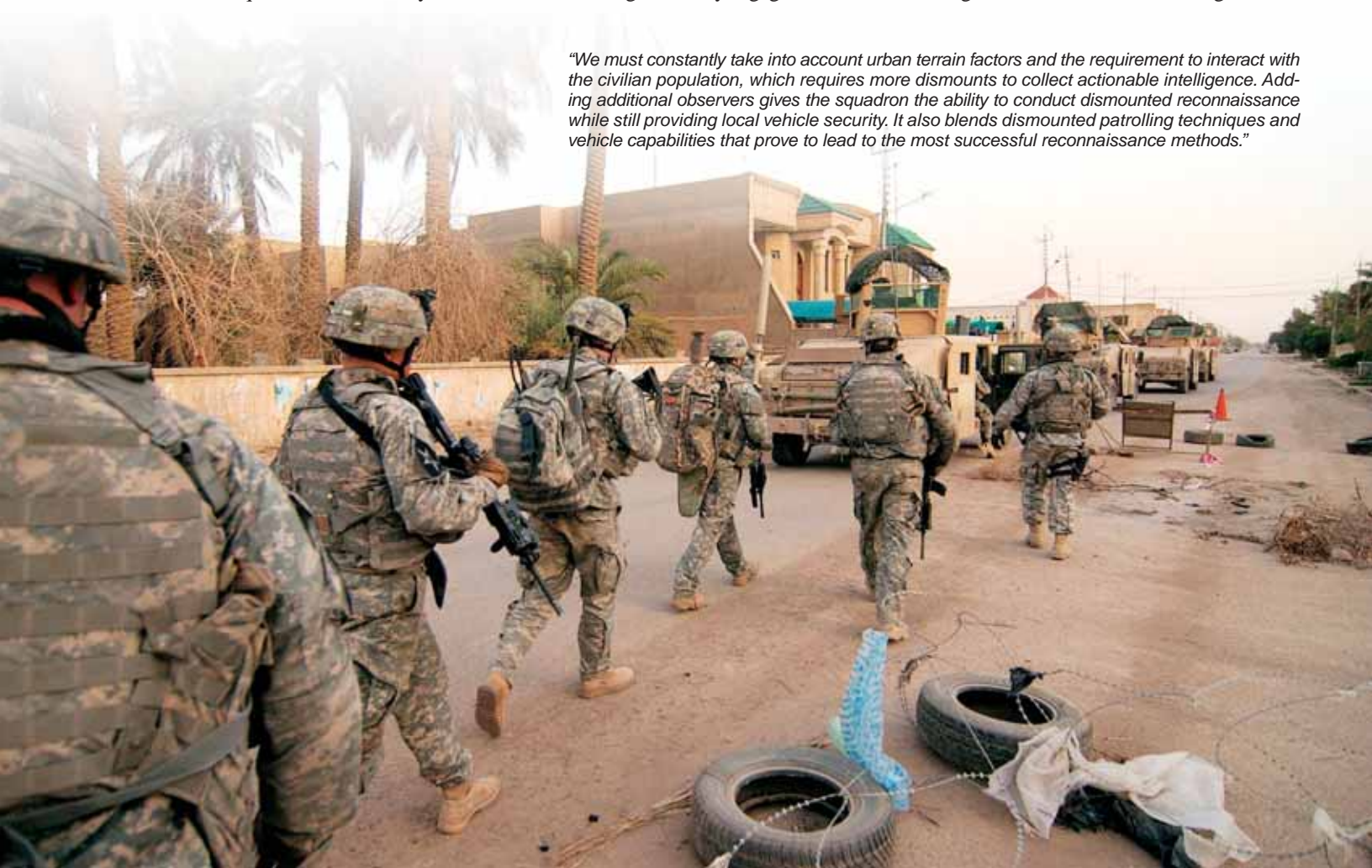
The BCT and squadron will always employ the fundamentals of reconnaissance in all planning and execution of reconnaissance operations regardless of the structure of the reconnaissance force. The tanks give the squadron an enhanced capability to develop the situation and retain freedom of maneuver by preventing the scouts from becoming decisively engaged. Grant-

ed, technology allows more of our initial contact to be made through acquisition assets, rather than by a chance meeting, but most sensors are not "all-weather capable" nor can you land a UAV to interact with the local population. Without an offensive heavy armor destroying capability, we greatly increase the risk of becoming decisively engaged and will suffer the inevitable decline in survivability of our ground reconnaissance soldiers and platforms.

Establishing a permanent command relationship and assigning tank crews to the squadron, instead of just making a task organization change based on mission requirements, is key because it allows interaction and training between tankers and scouts, enabling them to operate together in any environment. It also allows the squadron to train and prepare to conduct continuous operations as a third maneuver element in an economy-of-force role for the BCT by providing the squadron additional platoon combat power. The permanent command relationship also reduces the complexity of deployment planning.

Logistically, as mentioned earlier, assigning a pure tank company with its normal logistics slice from the donating bat-

"We must constantly take into account urban terrain factors and the requirement to interact with the civilian population, which requires more dismounts to collect actionable intelligence. Adding additional observers gives the squadron the ability to conduct dismounted reconnaissance while still providing local vehicle security. It also blends dismounted patrolling techniques and vehicle capabilities that prove to lead to the most successful reconnaissance methods."



talion's habitually attached FSC is the easiest way to support the tank company, but it reduces the capability of one of the CABs in the BCT. Organizing the three separate tank platoons and assigning one tank platoon to each cavalry troop accomplishes the same task and purpose, but requires the squadron's tank logistics resources to centrally locate or have the ability to distribute to the three line troops. At a minimum, the tanks should have nine tank mechanics (three of them noncommissioned officers), one additional M88, three M978 fuelers, one M977 cargo heavy expanded mobility tactical truck (HEMTT), and two palletized load systems with drivers assigned to the squadron's FSC to accomplish its mission. Special tools, such as ground hop kits, will be a problem with the second COA because they are tank company assets. Working through these challenges is a topic for another article, but is achievable without greatly reducing the capability of the two CABs.

The U.S. Army will conduct future and current operations in a continuously evolving environment, which requires us to quickly counter enemy efforts and emerging tactics, techniques, and procedures. The reconnaissance squadron must

maintain its flexibility to gain information dominance for the BCTs — we must understand that to gain that dominance we must be organized and prepared to quickly fight for intelligence in any terrain or environment.

Notes



¹U.S. Army Field Manual (FM) 3-20.96, *Reconnaissance Squadron*, U.S. Government Printing Office, Washington, DC, September 2006, p. 1-1.

Lieutenant Colonel Jeff Broadwater is currently serving as commander, 3d Squadron, 7th U.S. Cavalry, 2d Brigade, 3d Infantry Division, Iraq. He received a B.S. from the University of Kentucky and a M.S. from the Naval Post Graduate School. His military education includes U.S. Army Command and General Staff College, Armor Officer Basic Course, Armor Officer Advanced Course, Ranger School, and Airborne School. He has served in various command and staff positions, to include XO and S3, 1st Brigade, 1st Infantry Division (ID), Fort Riley, KS; XO, 2d Battalion, 34th Armor, 1st ID, Fort Riley; commander, B Company, 3d Battalion, 73d Armor (Airborne), 82d Airborne Division, Fort Bragg, NC; and scout platoon leader, G Troop, 2d Squadron, 11th Armored Cavalry Regiment, Germany.

Heavy METL

from Page 4

METL must change to reflect that mission. The brigade's directed METL may be composed of the core METL with other tasks added, or it could be a complete departure from the brigade's normal requirements, depending on the assigned operation.

This is where we address the ever-important question: "So what? Why is it important for us to standardize our brigade METLs?" Well, as any of our high-speed cavalry troopers will tell you, always watch for indicators. The Army's decision to require core METLs is an indicator that the Army acknowledges the force's concern about the atrophy of core competencies, and that they want to have an accepted set of metrics to measure unit readiness in terms of those competencies. Developing a core METL should also allow our units to better focus their training during these demanding times. Of course, this is not a new problem; company and battalion commanders have always had the challenge of too many tasks to train and not enough time.

I realize the problem will not entirely go away with new METL delineations; however, we will have the ability to better predict what needs to be trained instead of using the ever-growing laundry list to which we have grown accustomed. While we are still faced with the difficulty of training for missions outside of our traditional roles, codifying the METL with respect to our core competencies will keep our training and reset focus on those skills for which the armor force was created.

As always, we can use your thoughts and ideas to help us solve what will certainly be a significant challenge for years to come. I look forward to reading your responses.

Forge the Thunderbolt!

COA 2: BCT Structure with Three Tank Platoons Assigned to the Recon Squadron

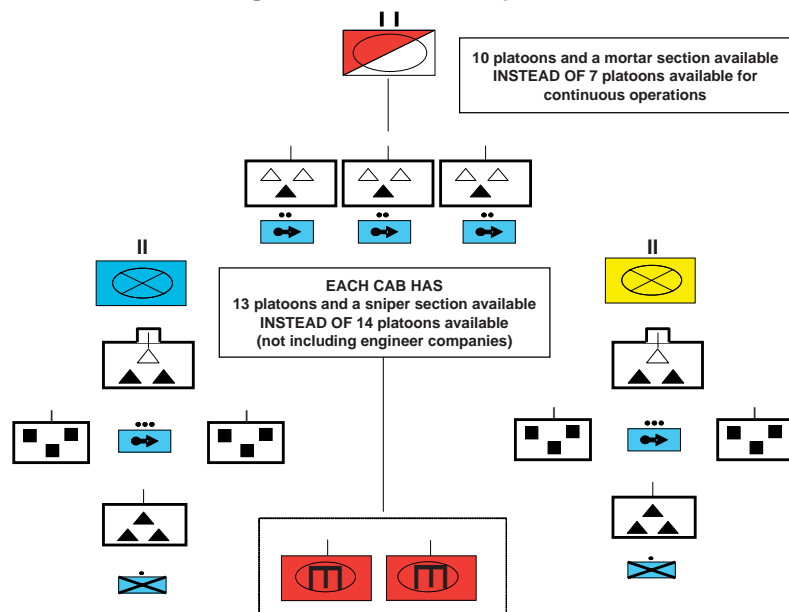


Figure 4

Note: Graphic is not intended to show task organization within each CAB, only to show combat power available.

Key to Success in Future Battles: Independent Combat Logistics Patrols

by Captain Jerry L. Wood Jr.

The heavy cavalry support platoon leader's role in future operations will be dramatically different from its current role in support of Operation Iraqi Freedom. The days of support platoon leaders linking up with first sergeants at logistics resupply points (LRPs) are over; we now enter the days of support platoons providing logistics support to troops in contact and those deployed to micro forward operating bases (FOBs).

Historically, the support platoon depended on the unit that it supported to provide combat power to enable it to move throughout the battle space. This methodology is not effective in the current operating environment. Many logisticians and commanders frown on the idea of independent support platoons providing logistics packages (LOGPAC) because they train to fight linear battles. Operation Iraqi Freedom has changed the way the Army fights and its organization, which requires commanders to change the way their forward-deployed units receive supplies.

Most leaders are under the impression that LOGPACs should have an escort. Three months into a combat rotation, my unit conducted its first logistics patrol from FOB Falcon to Baghdad International Airport without a combat escort; ironically, we were escorting combat vehicles that were earmarked to be updated with armadillo armor. This mission proved that not only can independent combat logistics patrols (ICLPs) be conducted, but that they are imperative for any unit's success on an asymmetric battlefield. Having support platoons that can operate independently provides three critical benefits to the organization it supports: faster distribution of supplies, economy of force, and an increase in maneuverability.

Faster Distribution

Reaction time is measured by the amount of time required for the support platoon leader to receive a supply request and deliv-

er the supplies to the requesting unit. Using ICLPs significantly decreases reaction time because LOGPACs will not have to wait on combat units to supply an escort. The platoon leader, platoon sergeant, or section sergeant conducts intelligence preparation of the battlefield (IPB), prepares an operations order, conducts pre-combat inspections/checks, and begins the mission, which frees up time for commanders and leaders to devote to planning, inspecting, and preparing for operations. The additional time will expedite the unit's ability to seize new objectives, because the re-fit and reorganization time greatly decreases.

Economy of Force

The second benefit of having a support platoon that is equipped to conduct ICLPs is the ability to provide the supported unit with economy of force. The supported unit will not have to allocate any combat power from its line units to conduct routine resupply/LOGPAC operations. The support platoon can provide independent LOGPAC operations with four M1114s (HMMWVs), two M978 (fuelers), and two M977 (HEMTT cargo trucks) to permanent patrol bases, micro FOBs, and observation posts. This basic composition of the ICLP can provide enough classes of supply to resupply any company/troop-sized organization and most light infantry battalions. Implementing ICLPs will allow commanders to focus 100 percent of their combat power on developing and shaping their areas of operation.

Maneuverability

The third benefit of having ICLPs is maneuverability. Units are married to their trains and/or supply lines. If their trains are not moving, they cannot maintain a rapid tempo. Support platoons with the ability to maneuver between supporting units to gather supplies and independently deliver them to forward-deployed units enables battalion-sized units to maneuver more

"Units are married to their trains and/or supply lines. If their trains are not moving, they cannot maintain a rapid tempo. Support platoons with the ability to maneuver between supporting units to gather supplies and independently deliver them to forward-deployed units enables battalion-sized units to maneuver more efficiently throughout the battle spaces."



efficiently throughout the battle space. Independent combat logistics patrols would no longer be slaved to enemy offensive operations. Currently, support platoons rely on combat escorts to fight their battles; with the implementation of the ICLP, support platoons will have the capability to destroy or suppress the enemy, until relieved, and then continue their mission.

Equipping the ICLP

As shown in Figure 1, the platoon would need at a minimum four up-armored HMMWVs: one HMMWV leading the patrol; one in the center for command and control; one in the rear to provide rear security/herding duties (herding the vehicles without communications abilities); and one conducting services, and serving as a stand-by force multiplier, if the enemy increases his offensive pressure in the area of operations and the logistics patrol needs an additional gun truck. Due to their speed and agility, the HMMWVs would provide a base of fire during an ambush and retain the ability to fix, close with, and destroy the enemy. Along with HMMWVs, the ICLP should be equipped with four additional crew-served weapons, 7.62mm or greater, to augment the new platforms.

Most support platoons are equipped with single-channel ground and airborne radio system (SINGARS) radios that provide the ability to securely communicate over long distances. SINGARS enable the patrol to remain in communication with its higher headquarters and conduct FM link up with the unit it supports. Commanders and soldiers understand the use of SINGARS, but they must understand that the patrol/platoon needs more than two or three radios. At a minimum, the patrol needs six radios: two each in the command and control vehicles (a total of four) and one in each additional vehicle. Most logistics patrols have a maximum of three radios divided among two vehicles (normally the lead and rear vehicles). What happens if one of these vehicles is destroyed? How will the remainder of the convoy manage command and control with just one radio — using the “follow-me” concept? What if the last vehicle breaks down during black-out operations? Could they use a maximum bit transfer rate (MBTR) radio or a Motorola walkabout radio? The major problem with these devices is they cannot be heard in a moving vehicle. Commanding a patrol is possible under these conditions, but grossly inadequate when the platoon makes contact. The MBTR and walkabout are also susceptible to electronic jamming devices; not only does the convoy commander have to fight through vehicular noises, but he also has to fight electronic jamming. We had to turn off our electronic jamming devices on several occasions to communicate with our logistics patrol vehicles. Commanders who want to maneuver independently throughout the battlefield must look deeper into equipping support platoons with the ability to operate independent logistics patrols.

Training the Support Platoon to Conduct an ICLP

To conduct ICLPs, support platoons must continue to train on convoy operations so they do not lose their fundamental skills;

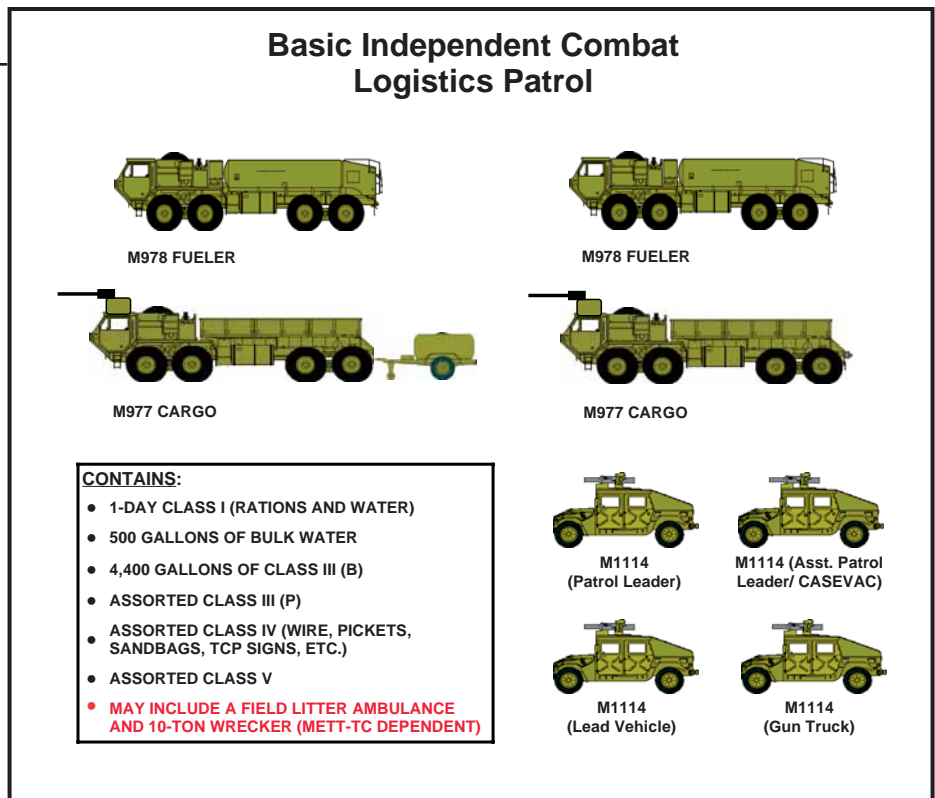


Figure 1

however, they must now train as hunters. They need to train with the high-intensity “I am a warrior” mentality. Using HMMWVs, the entire platoon negotiates movement to contact, react to improvised explosive devices (IEDs), and react to complex ambush lanes using the same training standards that tank and mechanized scout platoons use to negotiate these same tasks. The support platoon must also master the convoy escort task, which is an implied task of an independent combat logistics patrol, but its importance should not be underestimated. U.S. Army Field Manual (FM) 3-20.15, *Tank Platoon*, Chapter 5, Section 4, provides the best concept for support platoons to use.¹ The battle drills listed below were part of an untitled tactical standard operating procedure (TACSOP) used to train tank and scout platoons how to conduct ICLPs:

Independent Combat Logistics Patrol (ICLP) Battle Drills

REACT TO AMBUSH:

1. Engage the enemy with direct fire.
2. Report contact to convoy commander, including enemy location.
3. Vehicles in the kill zone immediately increase speed to clear it.
4. Convoy commander reports contact and requests assistance.
5. Use smoke to obscure convoy from the enemy.
6. The convoy will not leave any personnel in the kill zone; if a vehicle is disabled, the platoon must suppress the enemy and assist the crew of the disabled vehicle.
7. The convoy commander accounts for all vehicles before departing for the rally point.
8. Elements ahead of the kill zone rally at the forward floating rally point (gold), one terrain feature or 1km from the lead of the convoy when attacked.



"Using ICLPs significantly decreases reaction time because LOGPACs will not have to wait on combat units to supply an escort. The platoon leader, platoon sergeant, or section sergeant conducts intelligence preparation of the battlefield (IPB), prepares an operations order, conducts pre-combat inspections/checks, and begins the mission, which frees up time for commanders and leaders to devote to planning, inspecting, and preparing for operations."

9. Elements that cannot bypass the kill zone rally at the rear floating rally point (black), one terrain feature or 1km from the trail of the convoy when attacked.
10. Senior man at each location will lead his element in consolidation and reorganization.

REACT TO AMBUSH (ROUTE BLOCKED):

1. Engage the enemy with direct fire.
2. Report contact to convoy commander, including enemy location.
3. Convoy commander reports contact and requests assistance.
4. Vehicles not in the kill zone set a support-by-fire position to cover vehicles in the kill zone.
5. Use smoke to obscure kill zone.
6. Vehicles in the kill zone work to turn the vehicles around and evacuate them from the kill zone.
7. Report casualties and disabled vehicles to the convoy commander.
8. Convoy commander will decide if any equipment must be left behind in the kill zone; no personnel will be left behind.
9. Once all elements have evacuated the kill zone, the convoy commander directs the convoy to set a perimeter at black (rear floating rally point).
10. Conduct consolidation and reorganization inside perimeter.
11. Return to base or use alternate route.

CONSOLIDATION AND REORGANIZATION:

1. Establish 360-degree perimeter.

2. Gain accountability of all personnel and equipment.
3. Reestablish chain of command if necessary.
4. Send situation report (SITREP).
5. Evaluate and treat casualties.
6. Cross-level class I, III, and V.
7. Develop course of action (return to base, use alternate route to objective, or maintain current position).

REACT TO IED:

1. Stop convoy.
2. Establish 360-degree perimeter.
3. Scan area for possible triggerman/ambush.
4. Convoy commander will move a team to assist damaged vehicle. Team watches to ensure there are no more roadside IEDs.
5. Evaluate, treat, and medically evacuate casualties as necessary.
6. Stop civilian traffic-hasty roadblock.
7. Convoy commander will develop a recovery plan:
 - a. Recover vehicle with organic assets; or
 - b. Request additional assets, such as wrecker or heavy-equipment transporter to recover vehicle.
8. Continue to secure the area until all personnel and equipment can move.

REACT TO MINESTRIKE:

1. Stop convoy.
2. Establish 360-degree perimeter.

3. Scan area for possible ambush.
4. Move up to the damaged vehicle, while staying within its tracks.
5. Evaluate, treat, and medically evacuate casualties as necessary.
6. Stop civilian traffic-hasty roadblock.
7. Convoy commander will develop a recovery plan:
 - a. Recover vehicle with organic assets; or
 - b. Request additional assets, such as wrecker or heavy-equipment transporter, to recover vehicle.
8. Continue to secure the area until all personnel and equipment can move.

DEAD-DRIVER DRILL:

During an ambush, when a driver is killed or wounded and cannot drive:

1. Vehicle in the rear of the convoy with extra personnel approaches stopped vehicle, keeping stopped vehicle between it and the enemy.
2. Notify the convoy commander of the situation.
3. Use machine guns and smoke to cover and obscure the vehicle.
4. The new driver will get in the vehicle from the side opposite the enemy.
5. Both vehicles evacuate the kill zone.

SECURITY HALT:

Security halts occur anytime the convoy must stop outside the FOB. The convoy commander is responsible for choosing an appropriate location based on enemy situation, weapons stand-off, weather, civilians, and friendly unit locations.

When security halts are necessary:

1. Establish 360-degree perimeter.
2. Establish accountability of all personnel and equipment.
3. The convoy commander ensures there are no gaps in the perimeter.
4. After 15 minutes, sector sketches for all machine guns are complete, dead space identified and compensated for, and rally points are disseminated.
5. After 30 minutes, the convoy commander will ensure that dead space is visually inspected by reconnaissance and surveillance (R&S) patrols; and platoon defense plan is complete.
6. Priorities of work will begin once security is established. The convoy commander will manage the security level.
7. R&S patrols will conduct area reconnaissance at regular intervals, to include after begin morning nautical twilight (BMNT).

Training these battle drills will increase the lethality and survivability of ICLPs; however, a greater emphasis should be placed on land navigation — all soldiers, especially patrol leaders, should attend a semiannual land navigational program. This program should include mounted/dismounted land navigation courses using only a compass and a protractor and mounted/dismounted land navigation courses using only Army-issued electronic land navigational devices. Successfully training support platoons on these tasks allows units to perform faster and fight more lethally on the battlefield, thus increasing their survivability.

Since our Nation's earliest battles, commanders have always been burdened with getting supplies to their soldiers in contact with minimum effort. The answer is the independent combat logistics patrols. The support platoon can no longer depend on the units they support for protective combat escorts. If commanders are to be aggressive, lethal, and efficient on the battlefield, the support platoon must be able to conduct ICLPs.



Notes

¹Headquarters, Department of the Army, U.S. Army Field Manual 3-20.15, *Tank Platoon*, U.S. Government Printing Office, Washington, DC, February 2007.

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“To conduct ICLPs, support platoons must continue to train on convoy operations so they do not lose their fundamental skills; however, they must now train as hunters. They need to train with the high-intensity “I am a warrior” mentality.”

Training Today's Soldiers: The 46th Infantry Perspective

by Captain Winn S. Blanton

The mission of basic combat training (BCT) is to produce well-disciplined, motivated, and mentally and physically fit future combat service support soldiers, who are ready to immediately contribute to a values-based Army. While this mission remains constant, the fact that we are a Nation at war, the conditions of the modern battlefield, and the daily interchange between combat commands currently engaged in combat operations and those assigned to the U.S. Army Training and Doctrine Command (TRADOC), have all transformed the training methodology by which BCT units promote the health of the Army.

Prior to 11 September 2001, we were essentially a Nation at peace. BCT primarily revolved around developing self-disciplined and mentally and physically fit soldiers. As such, training foci centered on soldierization, drill and ceremonies, military customs and courtesies, and basic rifle marksmanship (BRM) because BCT graduates had maximum time at initial permanent duty stations to train on specific individual and collective tasks they may have been called upon to employ during wartime. However, this is no longer the case; today's BCT graduate is expected to immediately contribute to an Army at war. This necessitates soldiers departing BCT with baseline knowledge and skill sets that qualify them to shoot, move, communicate, and render first aid to self and others immediately on integration with their unit downrange.

Accordingly, in addition to yesteryear's instruction, today's BCT soldier receives instruction and participates in practical exercises (PEs), situational training exercises (STXs), and field training exercises (FTXs), as applicable, in the below listed concentrations of study:

- Shoot — BRM and advanced rifle marksmanship (ARM) training on the M16A2 rifle; land mine, improvised explosive device (IED), unexploded ordnance (UXO), and hand grenade training; and familiarization training on the AT4, M203 grenade launcher (GL), M240B machine gun (MG), M249 squad automatic weapon (SAW), and M2 .50-caliber MG.
- Move — basic land navigation training, to include determining ground location and moving from one point to another dismounted.
- Communicate — perform voice communications on a RT-1523E single channel ground and airborne radio system (SINCGARS).
- First aid — casualty evaluation, to include cardiopulmonary resuscitation; combat lifesaving measures for open abdominal, chest, and head wounds; and combat lifesaving measures for extremity bleeds.
- Fight — move under direct fire; react to direct and indirect fire while dismounted and mounted; hand-to-hand combatives; react to UXO/IED;

and nuclear, biological, chemical (NBC) training.

- Battle drills — react to chemical attack, react to direct/indirect fire, and react to near/far ambush and squad attack.

The intent underlying this change in training methodology is the need to address current combatant commands' requirement for plug-and-play soldiers who can be integrated more easily into home-station units.

The 46th Infantry Regiment transforms civilian volunteers into technically and tactically competent soldiers through a comprehensive three-phased soldierization program. Each phase has associated goals to provide intermediate objectives that give soldiers a common direction and purpose and serve as milestones during BCT. The training cadre informs soldiers of the goals and standards for each phase of training; and movement from each phase is viewed as a gate for each soldier. At the conclusion of a phase, the training cadre evaluates each soldier's performance according to phase standards before advancing him to the next gate.

Phase I

Phase I, the Red Phase, encompasses training weeks 1, 2, and 3 of BCT and consists of an environment of total control, where active, involved, positive leadership is used to begin the transforma-





“On Friday, training week 8, each squad conducts urban operations at the Burcham Urban Assault Course, which familiarizes soldiers with the arduous conditions of the current battlefield landscape that shortly befalls them on entering the force. Using paintballs to provide instant feedback is significant to achieving desired lessons learned during this urban operations training.”

tion of civilian volunteers into soldiers. Specific to this training period are activities devised to promote strict attention to detail, conformance to established standards, and effective teamwork; in other words, self-discipline. Of equal emphasis is physical fitness. Given that soldiers report to BCT with varied physical fitness levels, the primary foci of the physical training (PT) program are to safely train soldiers to meet the Army Physical Fitness Test (APFT) graduation requirements of BCT; meet the physical demands of their military duties; and prepare them to better stem the physical and mental dullness that accompanies combat fatigue. In sum, the primary purpose of Red Phase is to lay the foundations of self-discipline and physical fitness on which the pillars of shoot, move, communicate, and render first aid to self and others are soon to be laid. However, soldiers are also required to undergo a multitude of soldierization classes and receive instruction and PEs in the areas of first aid, communications, NBC, land navigation, rifle bayonet, and hand-to-hand combatives.

Phase II

Phase II, the White Phase, encompasses training weeks 4, 5, and 6 of BCT and is centered on the development of basic

combat skills, with special emphasis on weapons proficiency with the M16A2 rifle. For 2 weeks, soldiers receive intensive BRM instruction and live-fire training on the M16A2 rifle. This training culminates with a for-record qualification of the M16A2 rifle, immediately followed by 2 days of ARM training, where soldiers are taught reflexive fire drills in day/night environments and with and without day/night ocular devices. The White Phase concludes with hand grenade qualification training, familiarization training on the AT4, the M203 GL, the M240B MG, the M249 SAW, the M18A1 Claymore, and instruction on land mine/UXO/IED warfare with PEs. White Phase also incorporates skill sets learned during Red Phase, such as conducting various foot movements and road marches to and from ranges in the form of STXs. Resultantly, skill development, self-discipline, and team building characterize White Phase.

Phase III

Phase III, the Blue Phase, encompasses training weeks 7, 8, and 9 of BCT. This final training phase concentrates on continued individual skill development, self-discipline, and a demonstration of teamwork, which is encapsulated during a 7-day FTX, known as Warrior Challenge.

During training week 7, the training cadre train soldiers, formally and informally, on collective tasks, such as checkpoint operations, convoy operations, urban operations, and squad battle drills, in preparation for the forthcoming Warrior Challenge during training week 8.

Warrior Challenge is the capstone event of BCT. It is 168 hours of continuous operations designed to evaluate soldiers and squads on their ability to perform a set of prescribed individual and collective tasks in a combat environment filled with activity both from within and outside the forward operating base (FOB). Further, the FTX enables training cadre to more closely approximate the effects of mental and physical stressors, combined with fatigue, which soldiers will encounter when they enter the force.

On Saturday of training week 7, soldiers deploy, as a company, on a 10k tactical road march to the FOB. During the course of this foot movement, soldiers encounter three STXs, requiring the use of both individual and collective tasks for successful mission completion. On establishment of the FOB, soldiers divide the next 48 hours between constant FOB operations and individual task testing in preparation for future operations.

On Monday and Tuesday of training week 8, soldiers divide their time between a mounted combat patrol live fire exercise (MCPLFX) at Yano Range and FOB operations. The MCPLFX at Yano Range is designed to test soldiers' reaction to contact, both mounted and dismounted, using dismounted and mounted enemy contacts and IEDs.

Wednesday and Thursday of training week 8 is devoted to the Warrior Challenge STX lanes. In this event, individual squads, under the command and control of a training cadre, conduct three successive STX lanes, which includes conduct vehicle resupply (STX 1); conduct movement to contact (STX 2); and conduct security patrol/enter and clear a building (STX 3). Each STX lane is designed to evaluate individual and team skill proficiencies under duress. Specifically, during STX 1, each squad is required to conduct a vehicle resupply mission where the squad is required to react to direct fire while mounted, and react to an IED while mounted and close to ambush dismounted. During STX 2, each squad is required to conduct a dismounted movement to contact where the squad is subjected to sniper fire and ultimately must conduct a squad attack on a known objective. During STX 3, each squad is required to

ter and clear a building housing an insurgent remnant. Of note, is the fact that the difficulty level for each sequential event, from the beginning of STX 1 to the ending of STX 3, is predicated on the soldier's ability as an individual and as a squad member to identify, assess, and use readily accessible information throughout the operation. The greater the situational awareness exhibited by a squad, the easier the iteration, and vice versa.

On Friday, training week 8, each squad conducts urban operations at the Burcham Urban Assault Course, which familiarizes soldiers with the arduous conditions of the current battlefield landscape that shortly befalls them on entering the force. Using paintballs to provide instant feedback is significant to achieving desired lessons learned during this urban operations training.

On Friday evening, training week 8, the soldiers redeploy, as a company, on a 15k tactical road march to the company barracks. During the course of this foot movement, the soldiers again encounter three STXs requiring the use of both individual and collective tasks for successful mission completion. The soldiers are also required to negotiate the night infiltration course during the course of this movement.



conduct a security patrol that culminates with the squad entering and clearing a building. During the conduct of this mission, the squad is exposed to indirect fire, encounters civilians on the battlefield (COBs), and is finally forced to en-

The soldiers return to the company barracks on Saturday morning where they undergo rites of passage. The final week of training is spent conducting recovery operations, equipment turn-in, and out processing in preparation for graduation

and follow-on training at advanced individual training (AIT).

By graduation, these soldiers should have learned that self-discipline and physical fitness, combined with the ability to shoot, move, communicate, render first aid, and be a team participant, equals battlefield survival.

In truth, the desired endstate of BCT is the graduation of technically and tactically proficient soldiers who are confident in their individual skill competencies; in other words, riflemen are shipped off to AIT to learn their respective military occupational specialties (MOSs), knowing full well they are expected to be riflemen first.

Recent Training Innovations

Identification of peer leaders. Initially, soldiers are selected for key leadership positions based on education levels and past experiences from programs such as Reserve Officers' Training Corps (ROTC) and Boy Scouts. These soldiers assist the training cadre with integrating soldiers into the BCT environment. On training day 1, soldiers conduct Victory Trace, a course designed and developed to be successfully negotiated only through teamwork. Given the mental and physical stressors imposed on soldiers by the task, standard, and conditions for each event, the training cadre can readily identify soldiers who possess natural leadership abil-

"On Friday evening, training week 8, the soldiers redeploy, as a company, on a 15k tactical road march to the company barracks. During the course of this foot movement, the soldiers again encounter three STXs requiring the use of both individual and collective tasks for successful mission completion. The soldiers are also required to negotiate the night infiltration course during the course of this movement."

ities. In addition to promoting teamwork as a critical aspect of Army operations, Victory Trace is also a tool by which the training cadre proves its initial leadership selections.

Physical training (PT). On training day 1, soldiers are administered a 1-1-1 diagnostic APFT. The results of this diagnostic tool are used to determine the baseline physical fitness level for each train-

ing platoon, and for the company as whole. A stair-step approach to physical training is then applied, which is designed to prevent injury and better promote soldiers' ability to meet the BCT for-record APFT standard; for example, 50/50/50 in each fitness event for a minimum score of 150 points.

Casualty of the day. On completion of first-aid training during training week 2,

"The third STX involves contact with a squad-sized enemy unit, requiring the element in contact to react to an ambush; evaluate, treat, and transport casualties; and conduct an enemy prisoner of war search. These STXs, coupled with the ESS and IED exercises, all emphasize accurate and constant observance of the operating environment — inattention to detail greatly jeopardizes mission accomplishment."

each squad is assigned primary and alternate aid and litter teams with the task to evaluate, treat, and transport any and all casualties that may be incurred during the course of the day. One or more casualties are then assessed during a foot movement either to or from the dining facility or during a training event outside the company footprint. While the squad establishes 360-degree security, the primary and alternate aid and litter teams must evaluate and subsequently treat one or more casualties. Once casualties are stabilized, they are transported via poleless litter by the aid and litter teams, under the security of the squad, to a designated terminal point for the event.

Every soldier as a sensor (ESS). Soldiers are trained to accurately observe details related to the commander's critical information requirements (CCIR) in an area of operations, and to accurately report their experiences, perceptions, and judgments concisely, accurately, and usefully. As future leaders, it is imperative that soldiers understand how to optimize the collection, processing, and dissemination of information within their organization to generate timely intelligence.

Improvised explosive device (IED). Soldiers are informally introduced to IEDs by the training cadre during the initial week of training. This instruction familiarizes soldiers with the various types of IEDs, IED-placement techniques, and the

importance of being situationally aware at all times (complacency kills soldiers). Following this block of instruction, the training cadre replaces IED training aids in and around the company area to check

element in contact to react to an ambush; evaluate, treat, and transport casualties; and conduct an enemy prisoner of war search. These STXs, coupled with the ESS and IED exercises, all emphasize



training; should soldiers fail to observe and report these IEDs, the casualty-of-the-day scenario takes effect.

Standardization of tactical road marches. The tactical road march is no longer just a means of promoting soldiers' physical strength and stamina; it is also designed to promote situational awareness. Every tactical road march that is 8 or more kilometers in length now has a minimum of two STXs. Typically, the first STX involves an encounter with COBs, requiring the element in contact to dominate the battlespace, establish rapport, glean, and disseminate information to promote the company's situational awareness.

The second STX involves an encounter with an IED, which requires the element in contact to identify, assess, and control the situation. If the contact element successfully identifies the IED and conducts the react to IED battle drill, no casualties are assessed. If, on the other hand, the element in contact fails to identify the IED, the IED detonates, resulting in multiple casualties that must be evaluated, treated, and subsequently transported.

The third STX involves contact with a squad-sized enemy unit, requiring the el-

accurate and constant observance of the operating environment — inattention to detail greatly jeopardizes mission accomplishment.

Obviously, BCT has drastically changed over the past couple of years. As we are constantly reminded, we are an Army at war; as such, it is incumbent that BCT units continue to be versatile and agile to meet the needs of combatant commands. This requires a constant dialogue with combatant commands to identify and assess how to better address their needs. Ultimately, our objective is to field soldiers that combatant commands can readily employ within their units without reservation, be it an Army at peace, conflict, or war.



Captain Winn S. Blanton is currently serving as commander, A Company, 2d Battalion, 46th Infantry, Fort Knox, KY. He received a B.S. from the University of Maryland. His military education includes U.S. Army Command and General Staff College, Infantry Captains Career Course, and Infantry Officer Basic Course. He has served in various command and staff positions, to include task force liaison officer, 3d Battalion, 15th (3-15) Infantry (Mechanized), Fort Stewart, GA, and rifle platoon leader, A Company, 3-15 Infantry, Fort Stewart.

Army National Guard from Page 25

The current Army plan (per the 2006 QDR) is to fully resource only 28 BCTs (6 heavy, 21 infantry, and 1 Stryker). The two new proposed SBCTs would have to be fully equipped at the cost of approximately \$800M each. The three additional HBCTs would cost about \$900M each and the three IBCTs would cost about \$500M each. An investment of less than \$6B in new equipment is a modest price (about one and a half percent of the total Department of Defense budget) for adding eight more BCTs to the force.

It would also be necessary to grow the ARNG by 10,000 soldiers to man the two proposed SBCTs. A force of 36 BCTs and 360,000 National Guardsmen would allow the ARNG to answer the concerns of the House-Senate Conference Committee, generate the forces required by the Army Force Generation Model, and still retain a robust force for use by state governors. Based on the “one year deployed and five years at home” methodology laid out in this model, the ARNG would have the capability to supply six BCTs every year to the Army for overseas deployment, as opposed to four, using the forces recommended by the 2006 QDR. The

mix of these BCTs would vary every other year from four IBCTs, one HBCT, and one SBCT to four IBCTs and two HBCTs. This would enable the ARNG to field a significant amount of combat power on a regular rotational basis.

Increasing the number of BCTs in the ARNG is very affordable; until mobilized, an ARNG unit’s annual costs are about one-tenth of an AC unit’s costs. The ARNG BCTs have proven their effectiveness in combat. Growing the ARNG by 10,000 spaces to a total of 360,000 and increasing the number of BCTs to 36 has the additional benefit of increasing state capabilities for homeland defense and disaster relief. The Chief of Staff, Army has been calling for an increase in the Army’s troop strength due to the pressures of the COE. Why not grow the dual-mission ARNG to 36 BCTs as part of this increase?

We are at a critical point in the history of the Guard and our Nation. Ensuring the proper alignment of manpower, unit, and equipment levels to adequately support the ARNG’s current and projected future missions is a key issue facing our Nation.

We must ensure that the conditions are set for our soldiers to prevail in all missions assigned, at home and abroad. To be successful, we need *more* boots on the ground, not *less*. The Army National Guard is an important part of the answer — at an affordable price!



Notes

¹Stephen Daggett, Congressional Research Service (CRS) Report for Congress, “Defense: FY 2007 Authorization and Appropriations, The Library of Congress, Washington, DC, May 5, 2006, p. CRS-8.

²Lawrence Korb, Loren Thompson, and Caroline Wadhams, “Army Equipment After Iraq,” Center for American Progress, online at http://www.americanprogress.org/kf/equipment_shortage.pdf, April 2006, p. 9.

Retired Major General Wesley E. Craig commanded combat units at every level from company through division during his 38-year career. While serving as commanding general, 28th Infantry Division (ID), he oversaw the mobilization, deployment, and redeployment of 1,200 soldiers to Kosovo and 5,000 to Iraq and Afghanistan, as well as the transition of the 56th Brigade, 28th ID from mechanized infantry to the Army National Guard’s only Stryker brigade combat team.



“In recent years, the U.S. Army developed and fielded the Stryker brigade combat team (SBCT). The SBCT is built around a digital network that shares situational awareness with all commanders at all levels simultaneously. The brigade is mounted in the Stryker family of vehicles, which are medium weight, extremely mobile, wheeled, and armor protected. They have proven to be ideally suited for combat in Iraq.”

REVIEWS

Through Mobility We Conquer: The Mechanization of U.S. Cavalry by George F. Hofmann, University Press of Kentucky, Lexington, KY, 2006, 578 pp., \$45.00 (hardcover)

Professor George Hofmann, author of this important and interesting book, has spent a professional lifetime researching and writing armor and cavalry topics. *Through Mobility We Conquer* is the product of prodigious research in a wide range of military and academic archives and libraries and is informed by his own comprehensive knowledge of, and obvious affection for, the cavalry in all its manifestations.

Several fascinating stories are woven throughout the text. The central theme, of course, is how the cavalry evolved from a purely horse-mounted element through motorized and mechanized versions to become the versatile and highly capable arm of the European battlefields during World War II. In his illuminating account, Hofmann not only details the key elements of doctrine, equipment research and development, organizational experimentation, and budgetary considerations, but also writes with sympathy and insight about the grip that love of the horse had on old-time cavalymen. In turn, that leads to another important thread in the account, the difficulties of adaptation and change under the influence of such emotional attachments, not to mention budgetary and political constraints, and internecine warfare between branches.

Providing a framework for these fascinating stories is Hofmann's depiction of the larger context, from the days of America's brief involvement in World War I through the sloughs of the great depression, the ramp-up for and triumphant days of World War II, and finally the first years of the Cold War, including an excellent account of the unique outfit, led by cavalymen and based on mechanized cavalry units, known as the United States Constabulary.

These pages are crammed with a colorful and contentious cast of characters, from the early proponents of mechanization to the combat leaders who starred at several levels in the fighting in Europe. Hofmann is fascinated by the volatile J. Walter Christie, tank inventor (and gadfly), and returns again and again to his influence. Among the early proponents of mechanization, he properly gives credit to the often neglected Frank Parker. He treats Major General John K. Herr, last chief of cavalry, with respect and sympathy. All the others who brought mechanized cavalry to brilliant battlefield successes are here, from Chaffee and Van Voorhis to Robert Grow, Bruce Palmer, Willis Crittenberger, Lucian Truscott, Jacob Devers, and a host of others.

A learned and insightful introductory essay by General Donn A. Starry adds greatly to the interest and value of the book. Starry especially provides an authoritative testimonial to the way in which young officers of the emerging mechanized cavalry, largely on their own, invented the doctrine, organization, and tactics needed to employ those forces to great advantage on the battlefield.

The book's major flaw, and it is a significant one, is a great deal of unnecessary and annoying repetition, extending in the most extreme case to the same idea being stated in almost exactly the same language twice within a single paragraph.

Nevertheless, all who have been privileged to serve with the mounted force will savor this compelling account of these chapters in its rich history. All who have been sentenced to labor in the bureaucracy will wince in sympathy at descriptions of each roadblock, digression, and reverse on the long road to modernization and mechanization.

Hofmann has produced a definitive account of the clash of old cavalry tradition with new technological possibilities and the imperatives of modern warfare. It is a story filled with drama, valor, excitement, disappointment, and ultimately triumph; and Hofmann's story-telling skills are equal to his material.

This work deserves an honored place in the library of every practitioner, and every serious student, of the art of mounted warfare.

LEWIS SORLEY

The Afghan Campaign: A Novel by Steven Pressfield, Doubleday, New York, 2006, 368 pp., \$24.95 (hardcover)

Sometimes reading an historical work of fiction provides more insight into warfare than reading nonfiction historical books. Steven Pressfield has the magical ability to transform readers into the minds of common soldiers, capturing the hopes and realities of war. His latest book takes readers along the journey of Matthias, a young Macedonian infantryman in the service of Alexander the Great's army during its most trying campaign in Afghanistan.

Alexander's phalanx and cavalry tactics used to defeat the mighty Persian Emperor Darius was useless in the mountains of Afghanistan where Alexander was mired in wars from 330 to 327 B.C. Alexander could not win by force of arms alone, and the war ended with the marriage of Alexander to his chief rival Oxyartes. When Alexander left for India, he left 10,000 infantry and 3,500 cavalry (a fifth of his army) to keep the country from reverting into insurgency and tribal warfare. The bastion of Taliban power in the 21st century, the city of Kandahar, was founded by Alexander then called Iskandahar, after the Persianized name of Alexander.

Matthias takes us on a journey of companionship, a belief in Macedonian leaders, and difficult marches through the mountains of Afghanistan. The Macedonian infantryman waited for mail, which was not subject to toll, and in these letters, sons, daughter, and friends write about many of the same things people write about today.

The Macedonians never encountered such a fierce people as the horsemen of the steppe, where women would fall on wounded soldiers, mutilate their bodies, and pour turpentine on them, setting them alight while they were still alive. But the Macedonians also married wom-

en considered outcasts and without tribal protection, a situation still found in modern Afghanistan today.

The book also shows a respect for the adversary's tactics that depend primarily on the use of terrain to negate western tactics. At the book's end, one realizes that Matthias' morale is eroded and the book concludes with: "I have come to fear this god of the Afghans. And that has made me a fighting man, as they are."

The Afghan Campaign: A Novel is an excellent read for those wanting to enhance their understanding of basic tribal and insurgency tactics as practiced throughout centuries in Central Asia. It gives you the feel of the terrain, the hunger, and the hardships of a place that Alexander could not subdue by force alone.

YOUSSEF ABOUL-ENEIN
LCDR, USN

Operation Jedburgh: D-Day and America's First Shadow War by Colin Beavan, Penguin Group, 2006, 401 pp., \$27.95 (hardcover)

"I've got a little story to tell you, its all about spies."— From the television adaptation of John le Carré's *Tinker, Tailor, Soldier, Spy*.

Operation Jedburgh was the first and perhaps the most ambitious covert operation undertaken by the United States and Great Britain until Operation Enduring Freedom in 2001. Operating behind German lines in France, Holland, and Belgium, the Jedburgh operatives were to perform missions vital to the success of the allied invasion of Normandy in 1944, and ultimately the defeat of German forces in the west. Colin Beavan's book links the strategic, operational, and tactical missions of the Jedburgh operatives. Starting with the 24 December 1941 Anglo-American Arcadia Conference that detailed joint US/UK strategy down to the British, French, and U.S. officers and soldiers fighting alongside the resistance forces in occupied France.

In 1943, prior to the D-Day landings in France, allied war planners recognized a crucial gap in their covert strategy. German counter-resistance forces, along with their Vichy allies, were rapidly arresting allied agents serving in secret resistance networks in France, just prior to the opening of the Second Front in Europe, when resistance networks would be most valuable. Since allied agents, especially British, were in short supply, the decision was made to use volunteer U.S. officers and soldiers to fill the gaps left in allied and resistance leadership, thus the beginning of Operation Jedburgh.

Operation Jedburgh, named after a Scottish border town whose medieval defenders would use the heads of captured English prisoners for sport (invoking images of Braveheart), began with the infiltration of 300 young American, British, and French soldiers who volunteered to drop into occupied France to unite various resistance organizations fighting the Germans and Vichy government. This was a daunting task given the myriad of French resistance

fighters. Many resistance organizations were communists and took their orders from Moscow. Others consisted of lawless bands simply trying to avoid the mandatory Germany labor drafts common across most of Europe. Prior to 6 June 1944, establishing their bona fides early, the "Jeds" launched an effective economy-of-force mission that ultimately tied up more than 15 German divisions.

As one reads *Operation Jedburgh*, the reader will note that asymmetrical warfare and swarming are not new to the modern battlefield. Using human intelligence sources, ranging from small children to local government officials, Jedburgh teams were able to develop a common operating picture of the battlespace in occupied France. This allowed the Jeds to know precisely how and when German forces would react to the allied invasion and which choke points needed to be targeted. Beavan's book provides a detailed description of how allied agents used this intelligence to infiltrate the Germans' decisionmaking cycle. For example, the Jeds knew which signals were used to alert specific German forces within a local area, such as a school bell for one group of German soldiers and an ambulance siren for another.

Beavan's book also highlights, in scenes eerily similar to the fighting in Afghanistan and Iraq, the dark side of both covert operations and the liberation of Europe. As German forces retreated before the allies in France, resistance fighters and common citizens took a stand and expressed their suppressed anger. German soldiers, Vichy officials, Milice (the French equivalent of the SS), collaborators, and even innocent civilians were rounded up, humiliated, raped, tortured, and killed by gangs of French resistance fighters and mobs of citizens. Many Jedburghs were witness to these atrocities, but admitted later not trying to intercede, because it was not their fight. Ultimately, close to 30,000 died in the post-occupation "purification" of France, almost exactly the same number killed by the Germans during 4 years of occupation.

Operation Jedburgh was the type of covert special operation that has dominated American military and political history up to the 21st century. Jedburgh was originally a coalition operation with the British and French, but it was the first of its type for the United States and became the standard for operations such as the Bay of Pigs in Cuba and Operation White Star in Laos. Beavan focuses on key Jedburgh junior leaders, such as William Colby, who would later become the director of the CIA; Colonel Aaron Banks, founder of the Green Berets; and General John Singlaub, who became embroiled in the Iran-Contra affair.

The author, whose grandfather helped direct Operation Jedburgh for the Office of Strategic Services, drew on scores of interviews with surviving Jeds and their families to tell how common soldiers and thrill seekers carried out America's first special forces missions.

Students of military history and intelligence wishing to have a better understanding of how U.S. covert operations have evolved since World

War II will appreciate the detailed accounts of insurgents fighting in an occupied nation. I highly recommend this book for future strategists and planners.

JAYSON A. ALTIERI
LTC, U.S. Army

Not a Good Day to Die, The Untold Story of Operation Anaconda by Sean Naylor, Berkley Caliber Hardcover, New York, 377 pp., 2005, \$25.95 (hardcover)

Sean Naylor's chronology of events leading up to and during Operation Anaconda provides the reader with unique insight into the decisions regarding the first use of conventional U.S. ground forces in Operation Enduring Freedom. This operation is destined to become the most disputed and talked about battle in the ongoing war against terrorism. Naylor's unique access to the officers and soldiers participating in the campaign provides the reader with insight into both the planning and execution of a complicated joint operation.

Not a Good Day to Die does an excellent job capturing the difficulties and intricacies in planning and executing a joint operation on the modern battlefield, especially focusing on the divide existing between the conventional Army and Special Operations communities. The author's detailed attention to the difference in the planning and the execution phases of the operation, which clearly illustrates the lack of lateral communications and clear commander's guidance between the two communities, emphasizes the importance of detailed reconnaissance and intelligence dissemination to all involved.

Naylor's excellent chronological examination of the battle enables the reader to visualize and comprehend the events leading up to the operation and the decisions associated with the commitment of conventional forces in the Sha-I-Kot Valley. Most historians will appreciate the detail of these chapters as they provide valuable insight into the mindset and decisionmaking process of the senior leaders associated with the operation. Specifically, these chapters clarify the "ad hoc" command relationships associated not only with Operation Anaconda, but those prevalent throughout the theater of operations.

Cavalry officers will find this book especially interesting as it clarifies the importance of clear and concise intelligence on the battlefield. Additionally, it stresses the importance of reporting not only what you "see," but what you don't "see." No longer are cavalry officers called on to execute the "old standard" reconnaissance operation of reporting on the CRP or FSE, but they have to adjust to a new enemy with a dynamic noncontiguous way of fighting. The book also emphasizes the importance of physical training and individual soldier skills as they are the building blocks for ultimate success on the battlefield.

Overall, *Not a Good Day to Die* is an excellent read for the arm-chair historian and professional army officer. The ultimate lesson of

this book is that a single commander is imperative to successfully execute a joint operation.

MARK J. AITKEN
MAJ, U.S. Army

No Holding Back: Operation Totalize, Normandy, August 1944 by Brian A. Reid, Robin Brass Studio, Toronto, 2005, 491 pp., \$37.50 (hardcover).

American and British efforts to break out of the Normandy beachhead were a complex series of operations with many components. Therefore, it is not surprising that historically some of these operations have been glorified while others, such as Canadian Operations Totalize and Tractable, have been ignored. Brian Reid's book, *No Holding Back: Operation Totalize, Normandy, August 1944*, seeks to remedy the score for the first of these cases. Reid's superbly researched and crafted book adeptly provides an insightful study into this operation and affirms Totalize's importance in the context of the allied Normandy Campaign.

Totalize was the first Canadian attempt to penetrate the German defenses between Caen and Falaise, but after 3 days of ferocious fighting, was unable to achieve the sought-after breakthrough, despite numerous local successes. As the first major independent Canadian operation of the war in Europe, Reid devotes a large portion of his book to studying the Canadian army and its pre- and early-war development. When discussing the actual fighting, he is very precise in all aspects, many times discussing individual vehicle interactions and incidents, as well as relevant tangential issues such as indirect fire and aviation support.

Reid divides his study into four parts, each supporting the in-depth examination of this operation. The first section studies the pre-war Canadian army and the roots of its organization and doctrinal development along British models. The remaining chapters are devoted to Operation Totalize specifically, and Reid's conclusions are founded solidly on his research and laid out concisely in his epilogue. In the final analysis, Reid asserts that the failure of Totalize rested not with the quality of Canadian troops, but with the substandard quality of Canadian leadership, doctrine, and equipment at this early stage of the war.

This is a complete and masterful book. Besides his high degree of scholarly foundation, Reid includes appropriate pictures, informative and non-intrusive figures of key equipment and formations, and an excellent set of tactical maps. *No Holding Back* is a complete package, and will serve as the standard account for not only Totalize, but for initial Canadian operations during World War II for years to come. The author states in his preface that he will contribute a companion volume on Operation Tractable, which is eagerly anticipated to complete this important, but relatively unknown, chapter on the allied breakout from Normandy.

MICHAEL A. BODEN
LTC, U.S. Army

Improved Flame-Resistant Uniforms Reduce Burn Injuries

U.S. soldiers serving in Operation Iraqi Freedom face a greater threat of burn injury than soldiers in previous conflicts, and the Army is responding by providing soldiers a wide array of flame-resistant clothing that provides head-to-toe protection.

In Iraq, an increasing number of soldiers are routinely exposed to roadside bombs and other improvised explosive devices. Program Executive Office (PEO) Soldier provides flame-resistant uniforms to every soldier operating in environments where burn injury is a threat.

To gain insight on how to offer soldiers better protection, developers with Product Manager Clothing and Individual Equipment (PM CIE), part of PEO Soldier, continue to collaborate with burn experts from Brooke Army Medical Center in San Antonio, Texas, one of the world's premiere burn treatment facilities. The developers concluded that increased burn injury protection is essential for today's combat soldier. Whereas, exposed skin is almost guaranteed to burn in a flash fire or explosion, simply covering the skin greatly reduces the risk of burns.

Starting from the head down, current fire protection includes the Army combat helmet, protective eyewear, an anti-flash hood, and flame-resistant gloves and uniforms. Mission-specific, flame-resistant clothing, such as an improved coverall for combat vehicle crewmen and flame-resistant cold weather gear, provides greater protection to soldiers who work in environments with higher threats of burn injury.

Working with the Thermal Protection and Comfort Center (TPACC) at North Carolina State University, and with researchers at Natick Soldier Center, PM CIE is evaluating various combinations of fibers that might improve flame-resistance. For a fiber to qualify as flame-resistant, it must self-extinguish, not fuel a fire, and not melt.

Nomex® has long been considered the gold standard and continues to be an important component of Army flame protection, but Army engineers are not satisfied with the status quo; they continue to team with industry to develop high-performance alternatives, such as flame-resistant Rayon, Modocrylic, and innovative treatment processes, to develop something better.

CIE has developed a flame-resistant Army combat uniform (ACU) that is comfortable and

reinforced at the garment's known stress points. Rather than redesigning the garment, engineers used the current ACU to develop the flame-resistant ACU, which should begin fielding late in the 4th quarter of Fiscal Year 2007.

In addition to the flame-resistant ACU and the improved coveralls, PM CIE is working on flame-resistant Army combat shirts, Army aircrew combat uniforms (A2CU), fleece jackets, and Ghillie suits, as well as the fire-resistant environmental ensemble (FREE), which is a multi-layered clothing system designed for aviators and combat vehicle crews working in a range of climates. These soldiers have mission demands that require less-bulky clothing. Testing of prototypes is underway, and soldier feedback will help drive the final configuration and design of the clothing ensembles. Product developers at PEO Soldier take feedback seriously; every comment on every user survey is read and carefully evaluated.

The improved combat vehicle crewman coverall (CVCC), shown at left, which will replace the current green and tan CVCC, is under evaluation by tank battalions and armored vehicle crewmen — again, feedback is critical to its final design.

Soldiers' demands for a comfortable garment to wear under interceptor body armor (IBA) led to developing the new Army combat shirt (ACS). The ACS features a moisture-wicking fabric in the torso and flame-resistant sleeves with pocket placements that mimic the ACU. This garment is designed to only be worn under body armor. Brooke Army Medical Center's extensive research on burn injuries and collection of burn victim data indicate the IBA provides significant protection against burns to a soldier's torso.

Even as these garments are being fielded, research and development continues on clothing that provides soldiers even better protection and gives them further advantages in combat.

Special thanks to PEO Soldier for making it their "job to provide soldiers with the best equipment money can buy and technology can produce."

—BG R. Mark Brown, Program Executive Officer



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