

# ARMOR

September-October 2003



Andy Harrison

# ARMOR

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# Once More Unto the Breach



Recent history has proven that it is very difficult to predict precisely who our adversaries will be and when or where they might threaten the United States. The preliminary lessons learned from Operation Iraqi Freedom (OIF) suggest that U.S. forces achieved a level of combat power that is several multiples greater than even the enormously capable forces that were deployed during Operation Desert Storm over a decade ago. This fact reminds us that we have yet to realize the full potential of what our forces' capabilities will be in the future.

During March and April 2003, coalition and U.S. military planners crafted a strategy for Northern Iraq worthy of a gifted chess master. At stake in this "game" was the defeat of Iraqi forces north of Kirkuk and coalition control of the critically important Kirkuk oil fields. In his article, "Checkmate on the Northern Front," Major Brian Maddox describes the 1st Battalion, 63d Armor's role in support of Operation Iraqi Freedom. During this deployment, task force leaders learned several key lessons for future air deployment of armor forces.

From what we have seen in Iraq, the United States defeated a country the size of California within a matter of weeks. This fact is not important — the way in which it was done is important. Captain Jay Pellerin explains the overwhelming "shock and awe" that tanks can have on the enemy. Recent events have proven once again that the U.S. military can achieve rapid dominance by using heavy units.

Captain Jason Miseli shares his experiences and frustrations with just-in-time logistics during Operation Iraqi Freedom. His article, "The View From My Windshield: Just-In-Time Logistics Just Isn't Working," explains that when soldiers cannot get more than one or two bottles of water per day, and must rely on locally purchased water and poor-tasting bulk water to meet essential sustenance, the just-in-time logistics system is not responding, let alone the abject collapse of the class IX repair parts resupply system. He also provides invaluable tactics, techniques, and procedures to make soldiers aware of their surroundings, which increases their chance of surviving during brutal attacks on convoy operations.

The approach used during OIF, reflects the concept of the battlespace replacing the concept of the battlefield. The battlespace concept produces critical requirements that demand commanders "know" their battlespace. Digital battle command is the perfect tool to provide commanders with the ability to navigate under lim-

ited visibility conditions, to move rapidly over great distances and synchronize their movement, and to communicate both vertically and horizontally over extended distances. In their article, "Blue Force Tracking — Combat Proven," Captains James Conatser and Thane St. Clair proclaim that during OIF, the Force XXI Battle Command Brigade and Below-Blue Force Tracking System gave commanders situational understanding unprecedented in any other conflict in history.

Stabilizing Iraq is not a uniform process and great progress has been made in some areas of the country. However, we continue to face an adaptive and determined enemy, though conventionally defeated, intent on killing Americans and Iraqis. In his article, "3d Squadron, 7th U.S. Cavalry Up Front — Lessons Learned During Operation Iraqi Freedom," Major J.D. Keith presents a few of the lessons learned by the squadron during this latest conflict that other divisional cavalry squadrons can capitalize on as they prepare for future missions.

Captain Matthew Kennedy and First Lieutenant McKinley Wood take us into their battlespace as they describe Task Force 2d Battalion, 69th Armored Regiment's "60 Hours in the Breach."

In keeping with this issue's lessons-learned focus, Captain Mike Sullivan and Master Sergeant Tom Pailliotet provide great insight on how to properly run a logistics package and offer helpful ideas on how to improve unit logistics battles.

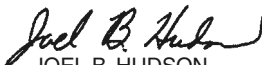
The debate over the Combat Armor Badge and the Expert Armor Badge has raged for decades. The issue has been brought forward during the tenure of every Army Chief of Staff since World War I. There is however a new twist to the on-going debate — there is no need to adopt new badges — we need to simply *reinstate* the armor badges. Captain Shawn Monien takes us through an 85-year historical debate that begins with the Combat Tanker's Badge, that was awarded to the "United States tankmen of 1918 who served in the organized American fighting Tank Corps," and ends with Operation Iraqi Freedom where Combat Infantry Badge ceremonies are being held for infantry soldiers who are attached to Armor units while their "brothers in combat arms" watch on.

We continue to devote military forces and other assets on the ground in Iraq. Perhaps winning the peace in Iraq is more challenging than winning the war. No one should have doubts about our maintaining a strong deterrent capability. — DRM

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# LETTERS

## A Designated Combat Armor Badge

Dear *ARMOR*,

I noticed in the current *ARMOR* that General Franks at TRADOC asked the Chief of Staff of the Army to approve Expert and Combat Armor Badges back in 1991. Apparently, the Chief of Staff of the Army did not approve.

You might be interested to know that U.S. advisors to the Vietnamese armor force have had a Combat Armor Badge since early 1966. In those days, Vietnamese armor had no tanks, only M113 armored personnel carriers. The desk jockeys at the Pentagon apparently thought they were armored infantry, because they awarded the Combat Infantry Badge to their armor branch advisors. When I was promoted to lieutenant colonel and moved from the 4th ARVN Cavalry to the Office of the Chief of Armor, he asked what my CIB was. When I told him, he said, "Oh, but where is your Combat Armor Badge?" When I told him we didn't have one, he said, "Very bad! I fix!" He cut me a general order, designating the Vietnamese armor branch insignia as a Combat Armor Badge, which U.S. Armor advisors have worn proudly over their right pockets since then and with the blessing of our own armor branch.

RAYMOND R. BATTREALL  
COL, U.S. Army, Retired

*Editor's note: For those interested in the continuing armor badge debate, please see "Reinstating the Combat Tanker Badge," on page 45 in this issue.*

## Feedback on Modifying the M1 for Urban Battle

Dear *ARMOR*,

I wish to congratulate Captains Evans and Bridges for their fine, thought-provoking article on fighting tanks in urban environments. They make some very telling arguments, especially in their examples from combat in Chechnya, to drive home the importance of being properly equipped and trained for urban combat. However, they make the statement, "individual tanks, working with a squad." I realize I am retired and not fully cognizant of modern doctrine, but no tank should be without his wingman in combat. That is the tank's best protection — another tank. True, armored cavalry units sometimes substitute M3s for a wingman in hunter-killer teams, but these are habitual relationships with everyone fully understanding each other's capabilities and limitations, and are bonded over years (at least months) of training. At some point, possibly when we transform to the Objective Force design with units of action, we might establish habitual relationships between squads of infantry and a single tank, but I doubt we will ever reach that level of training. When tanks were employed singly at the Joint Readiness Training Center, they were highly ineffective against the skilled Opposing Force. While an infantry or Marine ground commander might think a single tank working in conjunction with infantry is effective, he is probably just so happy to have a tank with him that he fails to real-

ize how much more effective they are when used in pairs (at a minimum). As armor leaders, you must train infantry leaders at all levels to understand this.

ALAN R. HORN  
LTC, U.S. Army, Retired

Dear *ARMOR*,

I'm writing in response to the article, "Modifying the M1 for Urban Battle," written by Captains Bridges and Evans in the July-August 2003 issue. In the article's discussion of survivability enhancements, the authors promote the use of the 80mm French Galix grenade launching system, overlooking the 66mm grenade launchers already mounted on every M1 tank. Presumably, the advantages of the Galix would be to fire "stun, smoke, flare, and tear gas [grenades] singly or in volleys." The 66mm systems already provide those capabilities as a result of significant development by the Army Product Manager Obscuration (PMO). For instance, the M6 discharger, already fielded to the Stryker, can be retrofitted to the M1 using an already developed kit. The M6 discharger provides the advantage of having two loaded salvos, and the ability to fire each tube singly or multiple tubes in volleys.

In addition to the discharger upgrade, the PMO developed obscurant grenades that can defeat visual, visual and infrared, and infrared and millimeter wave associated RSTA devices; and the PMO has developed a selection of non-lethal grenades, including tear gas, flash/bang, and blunt trauma variants.

The authors hit a very important point in the inclusion of laser warning systems as a means to increase situational awareness and respond to increasingly sophisticated threats such as beam-riding antitank guided missiles (ATGMs). However, the sensors *need* to be coupled with an upgraded smoke grenade fire control system. A launched obscurant cloud will actually defeat incoming ATGMs of all kinds. With a requirement from the Armor School, we could develop and field a sensor equipped fire control that will truly increase survivability.

Finally, I was dismayed to find that every photo, figure, or sketch of an armored vehicle in the magazine showed the 66mm tubes empty and/or hidden behind the canvas covers. Video during the march through Iraq clearly showed the launchers loaded there, but for some unknown reason they're always empty during training, demos, and photo-ops here. I would love to see some photos with the grenades in use, and get some feedback from their use in theatre.

DAVID BROWN, P.E.  
Product Manager Obscuration

Dear *ARMOR*,

I must strongly disagree with the authors of "Modifying the M1 for Urban Battle." While they recommend intriguing modifications to the M1 tank, they have lost sight of the doctrinal fundamental role of tanks in military operations in urban terrain (MOUT).

MOUT is not a "combined arms team" in the sense that all members are equal. MOUT is an infantry fight with tanks supporting. Infantry leads, tanks overwatch. Tank platoons support infantry companies, with tank sections supporting infantry platoons. The infantry platoons designate individual squads to accompany (protect) individual tanks. The idea that tanks lead while watching out against dead-space potential targets is plain flat wrong.

Better communications are crucial and dedicated radio and telephone comms between the crew and squads is critical and must be practiced. However, a tank crew is already fully occupied without strapping on added last-minute new-fangled systems, especially if those systems become an excuse for misusing the tanks.

One other point completely missed is that the M2 Bradley can also support in MOUT. It has better gun elevation, a shorter barrel, and can fire precisely in the counter-sniper scenario where collateral damage is to be minimized.

Again, MOUT is tough. The doctrine exists and must be trained and practiced. Specialized modifications should be considered, but they must not result in bad tactics and poor operational planning.

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

## Use Caution When Employing Mech Snipers on the Force XXI Battlefield

Dear *ARMOR*,

I commend CPT Morrow for raising the issue on snipers in his article, "Mechanized Snipers on the Force XXI Battlefield," in the July-August 2003 issue. His unit's efforts are noteworthy. Still, I wish to caution him that some of the proposed tasks contradict proper sniper employment and should be executed by other soldiers.

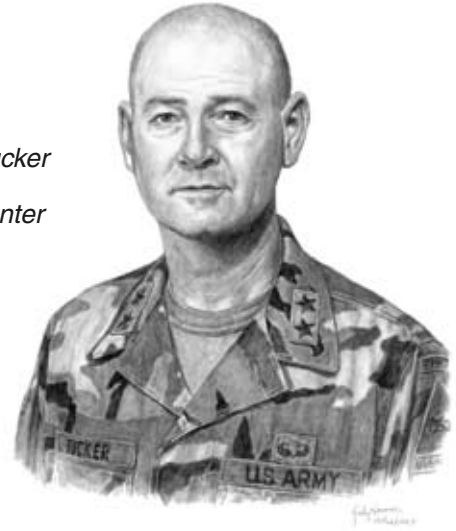
CPT Morrow is correct that doctrine, U.S. Army Field Manual (FM) 23-10, says little about employment by mechanized battalions. His bullet list of effective techniques that his unit employed is sound. However, placing all snipers under the scout platoon and assigning still heavier weapons like .50-cal rifles is counter-productive. While a sniper can do so, you do not need one to call in indirect fires. That is a common skill.

If heavy antitank rifles are needed for engaging light vehicles, then train the dismounted scouts to employ them as an alternate to AT-4 or Javelin.

Expecting a sniper to dismount and spray a high volume of fire against rapidly moving enemy vehicles as a form of hasty ambush is a complete misunderstanding of sniper techniques concerning stalking, stealth, and survival. Instead, train the other scouts and infantry to be better marksmen.

*Continued on Page 44*

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



## What We Are *Not* Doing to Uphold Training Standards

I would like to use this column as a forum to inform you of what we *are not doing* at the Armor Center to uphold training standards. We are *not doing* more with less, which in the training base normally means not meeting the standards for training soldiers or building leaders.

Training to standard is not an option — it is a requirement. The fact is we were not meeting the standard in all cases. It was not because of careless or negligent leaders, it was because training was not our first priority, and we were living outside our means. We did more with less, and did our best to meet standards.

With our Army at war, it is more important than ever for soldiers to leave the training base prepared to join their first unit of assignment in a combat zone. While supporting the war effort, training to standard is now clearly job one in the U.S. Army Training and Doctrine Command (TRADOC), and at the U.S. Army Armor Center. With the guidance and support of the TRADOC Commanding General, General Byrnes, we are not conducting training that we cannot conduct to standard. This is not a luxury — this is about standards and not sending unprepared soldiers and leaders to units.

Simply put, we are aligning priorities and resources, and making conscious, well-informed decisions to cancel or delay training that does not meet standards. Additionally, we have delayed updates and developing certain training and doctrine

publications. This process has been under the microscope to ensure efficient and effective use of every resource as part of each decision.

To state the obvious, the primary reason for not training to standard is lack of resources — primarily people. Many are simply not assigned here, they are filling critical requirements in the field, and some are tasked from Fort Knox to support other Army missions in combat zones.

You deserve to know the details. From May through September, we cancelled or reduced the load for the Senior Officer Logistics Management Course (56 officers not trained); the Cavalry Leader Course (46 students not trained); the Scout Leader Course (22 students not trained and potentially 29 more not trained); the Armor Captains Career Course (delayed for at least 73 captains); M1A2 additional skill identifier—9K10 K4 (189 students not trained); M3A3 Cavalry Fighting Vehicle Operator's Course (108 students not trained); and the Tank Commander's Certification Course (117 students not trained). We have delayed developing courses for reconnaissance vehicle crewmen, mobile gun system crewmen, leaders, and master gunners, as well as M3A3 scout certification until May 2004. We also delayed development of several training and evaluation program manuals.

These actions obviously impact the force. However, assigning unprepared and untrained soldiers to a unit fails the soldier,

the force, and our professional and moral standards.

The news is not all bad — in fact, it has gotten much better. These actions have extremely positive results. First, we are beginning to meet our mission to provide trained and ready soldiers and leaders to the field. Second, we are giving our great officers, noncommissioned officers, civilians, and contractors the best chance of accomplishing their missions to standard. Third, this is a forcing function that is working to bring resources to the training base.

With General Byrnes' active involvement and support, we are finding solutions to some of these issues. Examples include hiring contract support for missions such as teaching basic common skills tasks, training development, writing field manuals and training and evaluation programs, as well as working on Stryker and Objective Force requirements. The Armor branch has first-rate officers and non-commissioned officers assigned to the Armor Center as small group instructors and trainers.

This is a pretty fundamental change, which started with TRADOC establishing and supporting training as its first priority in supporting the war. The situation improves every day and there is light at the end of the tunnel. I pledge to conduct training to standard at Fort Knox and provide the best soldiers and leaders to the world's finest Mounted Force.

FORGE THE THUNDERBOLT!

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



## Safety First

Our Army is better now than it has been in my 26 years of service. Today, we have the best equipment, the best training, and the finest soldiers, civilians, and families in its history. We can deploy in a moment's notice to wherever we are needed and successfully meet mission requirements.

Safety and mission accomplishment are two important parts of every soldier's life. If we are serious about our Army's readiness, leaders must be serious about safety. It is our responsibility to ensure soldiers stay alive and uninjured while preparing for combat.

Day in and day out, soldiers perform the Army's mission; however, we cannot allow our mission to become routine. When the mission becomes so familiar that we begin to ignore safety procedures, disaster will strike. It is called complacency.

Complacency is that feeling of security, while unaware of potential danger. It can happen to any one of us. Therefore, soldiers must make a conscious effort to perform every task with attention to detail, which means remaining aware of their surroundings and taking necessary precautions to reduce risks. This isn't just a good idea — this is our job as leaders.

We cannot lose sight of one very important thing — accidental death is unacceptable. We must not let down our guard when it comes to risk management. We cannot continue doing things that are injuring and killing our soldiers, such as trucks rolling over because drivers are not properly trained or soldiers being crushed by turrets because they fail to pay attention.

Each soldier is an important member of the team and teammates do not let down their comrades. When leaders and soldiers exercise smart risk-management and make sound decisions, unit readiness increases and soldiers are not injured or killed.

Track vehicle accidents continue to be a concern throughout the armor force. Soldiers are driving into other vehicles, roadside objects, such as trees and power poles, or into obstacles, such as ditches and rocks, while maneuvering cross-country. There are several reasons for accidents related to driving tracked vehicles. The most common include driving too fast for road conditions, improper use of night vision (or failure to use night vision devices all together), and failure to identify other vehicles or personnel in the area prior to moving. Track and heavy wheeled vehicles can be hard to control on slippery road surfaces. Drivers and vehicle commanders need to be familiar with slippery roads and must adjust their speeds to prevent accidents. Roads can become slick after a rainfall and when covered by snow, sand, or mud. A driver moving too quickly can lose control of the vehicle, striking whatever is in its path. Track vehicles are often much larger than other vehicles, and cause greater accidents resulting in serious injury or death.

As part of their risk-management process, leaders need to consider these hazards when defining movement speeds. Drivers and vehicle commanders often have limited visibility. During night operations, some crews will fail to use night vision devices, or during "dust out" conditions fail to reduce vehicle speed and, as a result, they run into other vehicles or even dismounted soldiers. Leaders must enforce the proper procedures regarding vehicle speed reduction and use of night vision devices during night operations.

Safety is both a reality and a state of mind. Leaders must demonstrate safety in garrison as well as in the field environment. Prior to moving vehicles, leaders must train soldiers to ensure that the intended path is clear of other vehicles and personnel. During movement in congested areas, such as motor pools, assembly

areas, or wash racks, ground guides must be used.

In most military vehicle accidents, the operator was not trained, tested, selected, or licensed properly. Sometimes the failure is only in one of these areas; others times it is a combination of the four. We must identify high-risk individuals.

The leading cause of accidental death is attributed to POVs. Most POV accidents occur relatively close to the soldier's duty station, although long-distance driving does account for a small number of the accidents. Off-duty POV accidents remain the number one killer of soldiers.

We must take every precaution while operating a vehicle. Buckle up! Seatbelts do save lives. While POV accidents account for the majority of our losses, they are not the only killers, use the common-sense approach and beware of dangerous situations and areas. Every summer, we lose soldiers to all types of hazards.

In today's complex world, safety is becoming a significant challenge. Our mission plates are full and we have fewer and fewer soldiers available to accomplish countless missions. Soldiers must be trained to follow correct procedures in every task. The present operational tempo and increased hazards mandate no shortcuts. Leaders at all levels must manage risk properly and maintain a vigil against complacency, shortcuts, and improper procedures. We cannot afford to continue to make the same mistakes.

Remember, we are a standards-based organization, and when we violate a published standard, accidents happen. NCOs must always enforce our standards to safeguard our soldiers and equipment.

**Iron Discipline!**

# “Checkmate on the Northern Front”

## *The Deployment of Task Force 1-63 Armor In Support of Operation Iraqi Freedom*

by Major Brian Maddox

### Strategic Chess Match

Chess is a game of strategy where an indirect approach is often more valuable than overt strength. A skilled player deliberately maneuvers to eliminate his opponent's options and then, at the right time, boldly moves toward the objective — checkmate. During March and April 2003, coalition and U.S. military planners crafted a strategy for Northern Iraq worthy of a gifted chess master. At stake in this “game” was the defeat of Iraqi forces north of Kirkuk and coalition control of the critically important Kirkuk oil fields.

Diplomatic differences with a newly elected Turkish government prevented the planned deployment of a large coalition force to open a second “Northern Front” in Iraq. Military planners turned to a different option that relied more on finesse and flexibility to accomplish

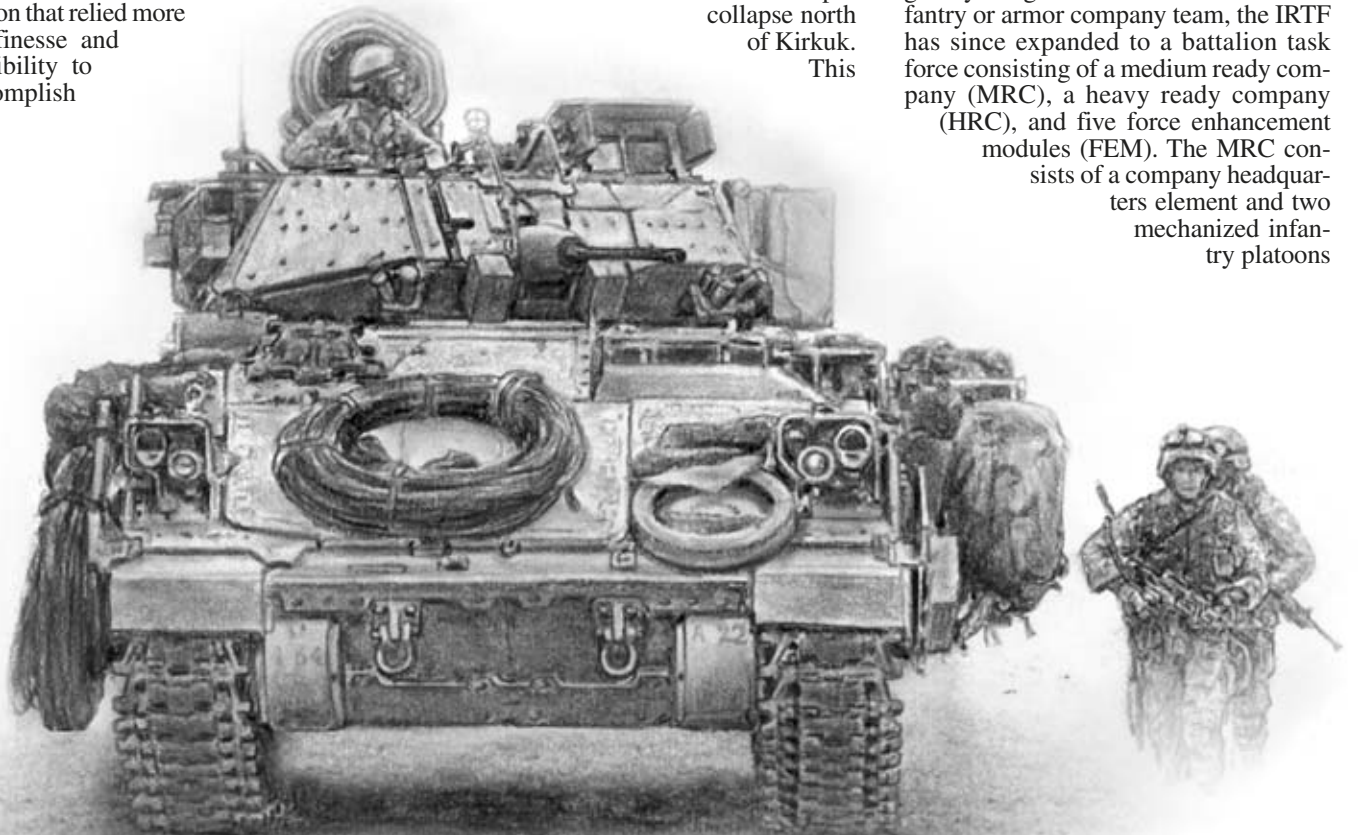
stated objectives. This strategy involved a diverse group of forces and organizations that included national intelligence agencies, conventional U.S. Army and Air Force units, Special Operations Forces, and Kurdish Pesh Merga fighters. One of the conventional units involved in this campaign in Northern Iraq was the 1st Battalion, 63d (1-63) Armor, 3d Brigade, 1st Infantry Division, Vilseck, Germany.

The air deployment of Task Force (TF) 1-63 Armor to Iraq in April 2003 played an essential role in the success of the Northern Front. TF 1-63 Armor's deployment demonstrated that the United States could project a viable heavy armor force anywhere in the world. The mere presence of U.S. armor in Northern Iraq weakened the resolve of defending Iraqi forces in the region and contributed to their rapid collapse north of Kirkuk. This

article outlines TF 1-63 Armor's unique organization, briefly describes the unit's actions in Northern Iraq, and provides lessons learned from this historic deployment.

### Background and Organization of the Immediate Ready Task Force

TF 1-63 Armor deployed to Northern Iraq as the U.S. Army Europe (USAREUR) Immediate Ready Task Force (IRTF). The IRTF is a unique organization with an unusual organizational structure. Born in the wake of Task Force Hawk, the USAREUR IRTF was designed and equipped to accomplish a wide range of short-notice missions. In 1998, USAREUR identified the requirement for an armor force capable of deploying rapidly anywhere in the European Command (EUCOM) area of operations (AOR). Originally designed around a mechanized infantry or armor company team, the IRTF has since expanded to a battalion task force consisting of a medium ready company (MRC), a heavy ready company (HRC), and five force enhancement modules (FEM). The MRC consists of a company headquarters element and two mechanized infantry platoons





equipped with M113A3s and four dismounted infantry squads. The HRC consists of one M1A1 Abrams platoon and one M2 Bradley platoon with two dismounted infantry squads. An additional M1A1 or M2 serves as the HRC commander's vehicle.<sup>1</sup>

In addition to the HRC and the MRC, five supporting FEMs provide the IRTF commander with the force multipliers needed to accomplish various missions. For example, the command and control FEM consists of two modified M997 ambulances equipped with an array of communications and computer equipment. These vehicles provide the IRTF commander a highly mobile tactical operations center (TOC) capable of planning and tracking armor operations. The four remaining FEMs consisting of combat service support assets, engineers, military police, and scouts complete the IRTF's organization. Each FEM is air deployable and capable of supporting task force-level operations or, with proper support, limited independent operations.

The IRTF was not originally designed to deploy or operate independently. The IRTF was created to provide a light infantry organization with a viable armor capability. In the EUCOM AOR, units serving as the IRTF often trained with the 173d Airborne Brigade based in Vicenza, Italy. This brigade provides a lethal, highly mobile infantry force, but lacks a heavy armor punch. The IRTF is designed to provide that armor punch. A series of successful training exercises conducted at the Combat Maneuver Training Center, Hohenfels, Germany, and training deployments to Hungary and Poland in which various IRTF units trained with the 173d Brigade, cemented a successful working relationship in a training environment. In Northern Iraq, TF 1-63 Armor and the 173d Brigade validated this relationship during combat operations.

*"Early morning 8 April 2003, the first M1A1 Abrams tank drove off the back ramp of an Air Force C-17 at Bashur Air Field in Northern Iraq. This was the first time an M1A1 had air landed in support of a combat operation. The task force operations officer arrived on the ground with the first M1A1 and began to coordinate the arrival of the rest of the task force."*

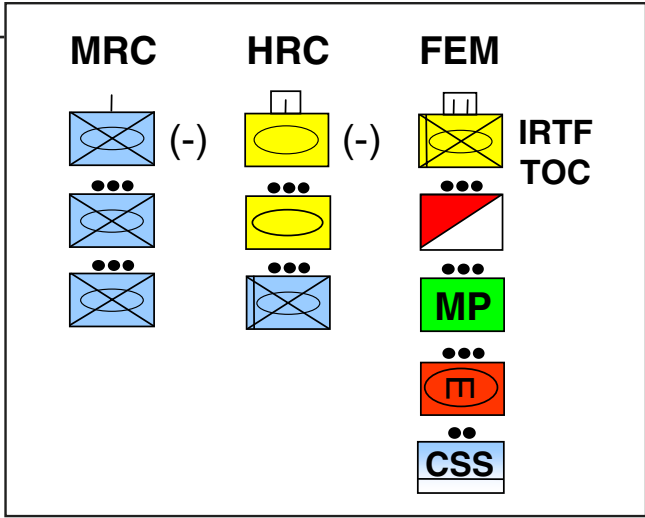


Figure 1. IRTF Organization

**Bashur Landing and Operations in Northern Iraq**

Early morning 8 April 2003, the first M1A1 Abrams tank drove off the back ramp of an Air Force C-17 at Bashur Air Field in Northern Iraq. This was the first time an M1A1 had air landed in support of a combat operation. The task force operations officer arrived on the ground with the first M1A1 and began to coordinate the arrival of the rest of the task force.

The task force commander's plan was to first deploy the HRC's tank platoon, an M88 recovery vehicle, and small command and control elements to quickly get an organized force on the ground capable of conducting and sustaining combat operations. By 10 April, the situation in the vicinity of Kirkuk began to change

rapidly. Kurdish Pesh Merga fighters continued to press their attacks against Iraqi forces defending north of the city.

The 173d Brigade commander believed the time was ripe for a concerted move on Irbil. The task force commander arrived at Bashur at approximately 0300 hours on the morning of 10 April and immediately received a verbal warning order to be ready to move south in three hours. At that time, TF 1-63 Armor had five M1A1 tanks and two M2 Bradleys on the ground at Bashur. No recovery or maintenance assets had yet arrived. TF 1-63 Armor soldiers hurriedly finished off-loading the last of

the vehicles to arrive and began to prepare for offensive operations.

The task force commander decided to assume risk and prepare to move what force he had toward Irbil. The commander believed that the mere movement of an armored force south toward Irbil and Kirkuk would provide coalition forces an important psychological advantage. Intelligence reports indicated that Iraqi forces, dug in north of Kirkuk, did not expect to encounter American armor moving from the north. Even a small armored force moving from Bashur might convince the Iraqis to abandon their defenses. Likewise, Kurdish Pesh Merga fighters, energized by the presence of armored vehicles, could press home their attacks against Iraqi positions.





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For over a decade, Kurdish fighters struggled against Saddam Hussein's regime with antiquated small arms and homemade artillery and explosives. The Kurds fought valiantly, but they lacked the heavy weapons to defeat Iraqi forces dug in and supported by artillery. For days, Kurds wondered when the tanks would arrive.<sup>2</sup>

Prior to the arrival of the main body of TF 1-63 Armor at Bashur, the task force operations officer and the liaison officer conducted leader's reconnaissance of two possible routes to Irbil and Kirkuk. The liaison officer traveled the direct route down Highway 3 to a point just North of Irbil. Any forces traveling this route could secure the Irbil airfield and if necessary skirt the western edge of Irbil and continue south on Highway 2 toward Kirkuk. This route had two advantages: it was

suitable for armored vehicle traffic, and it allowed coalition forces to use the Irbil airfield to stage future operations to the south.

The disadvantage of the Irbil route was that it led right into the teeth of the Iraqi defenses north of Kirkuk. Forces moving south along this route must travel through a wide valley with steep rolling hills. The imposing Kani Domlan Ridgeline dominates the southern edge of this valley. Iraqi infantry and artillery positioned on this key terrain continued to hold this ground despite weeks of heavy bombing by coalition aircraft and attacks by Pesh Merga fighters and U.S. Special Operations Forces. Forces moving along this route would also have to cross the Little Zab River at the town of Altun Kupri. Local Pesh Merga reported that Iraqi in-

fantry occupying a small stone castle on the east side of the river heavily defended Altun Kupri. Intelligence reports indicated that these troops would strongly resist any effort to dislodge them.

The liaison officer and the task force operations officer also conducted reconnaissance on an eastern indirect approach route south toward Kirkuk. This route winds southeast of Bashur through small villages and numerous narrow mountain switchbacks to the town of Taqtaq located on the Little Zab River. The advantage of this route was that it avoided the strength of the Iraqi positions along the Kani Domlan Ridge.

Approximately 10 kilometers north of Kirkuk, there is a gap in the ridgeline where a small tributary of the Little Zab



*“TF 1-63 Armor entered Kirkuk with the combat power and sustainment needed to conduct stability operations. The task force successfully accomplished the strategic objective of providing an armor presence in Kirkuk to demonstrate coalition resolve and deter Iraq’s neighbors in the region from attempting to gain control of the Kirkuk oil fields.”*

River flows into Kirkuk. The commander of the 173d Brigade referred to this gap as the “sweet spot.” He believed that if the route was trafficable for armored vehicles, he could use the gap in the Kani Domlan to envelop the Iraqi positions on the ridgeline to the northwest.

The route south from Taqtaq was not suitable for armored vehicle traffic, unfortunately. Several of the bridges along the route were incapable of supporting Abrams tanks. Additionally, road conditions deteriorated significantly south of Taqtaq. Unimproved mountain roads and narrow village streets greatly restricted armored vehicle mobility. This route was, however, suitable for lighter vehicles and was used by the 2d Battalion, 503d Infantry (2-503d) during their attack on Kirkuk. The success of this operation validated the 173d brigade commander’s analysis of Iraqi defenses and his desire to exploit key terrain to defeat a potentially strong enemy position.

At approximately 0600 hours on 10 April 2003, TF 1-63 Armor began its movement to Irbil. The brigade’s mission was to conduct a reconnaissance in force in the vicinity of Irbil to demonstrate coalition resolve in Northern Iraq.<sup>3</sup> The brigade commander learned that Pesh Merga planned to attack Iraqi forces located in Altun Kupri. This accelerated the brigade’s movement timeline. The brigade commander assigned 1st Battalion, 508th Infantry (1-508th) the mission to move along Highway 3 to Irbil and support the Pesh Merga attack on Altun Kupri. The 1-508th would also secure tactical assembly area (TAA) Boston located to the west of the Irbil Airfield. From TAA Boston, the 1-508th, if needed, could conduct reconnaissance to the west and determine the location and strength of any Iraqi forces moving east from Mosul. TF 1-63 Armor’s mission was to follow

1-508th to Irbil and occupy TAA Boston. The task force would then prepare for future combat operations.

During the movement to Irbil, the soldiers of TF 1-63 Armor experienced a mixture of emotions. The tension and wariness of moving south toward an enemy defending in unknown strength stood in sharp contrast to the overwhelmingly friendly and joyous reception that greeted the task force as it moved toward Irbil. Elated Kurds greeted soldiers with flowers and embraces as they passed by. Large banners with “welcome to the liberation army” greeted the armored troops as the long column of vehicles snaked toward the south.

When TF 1-63 Armor reached Irbil, the cost of conducting a 50-kilometer road march, without any heavy maintenance and logistics support, hit home with a vengeance. Two of the M1A1s had major problems that required considerable time to repair. The task force commander faced the difficult decision to push on with the limited combat power remaining or wait for the sustainment package, which was scheduled to arrive in the next 24 to 36 hours. The task force commander decided to see how the situation developed involving 1-508th operation near Altun Kupri. He was prepared to support the 508th with what combat power he had available, if necessary. If the 1-508th was successful in their mission without armored support, TF 1-63 Armor could build combat power and prepare for follow-on operations in Kirkuk.

Deployment of TF 1-63 AR						
	7 APR	8 APR	9 APR	10 APR	11 APR	12 APR
	CHALK 1 1 X C-17 1 X M1 (1)	CHALK 4 1 X C-17 1 X M1 (2)	CHALKS 2 & 5 2 X C-17 1 X M1 (3) 1 X M2 (1) 1 X HMMWV (1) 2 X AMB (2) 1 X TRL	CHALKS 3, 6, & 16 3 X C-17 2 X M1 (5) 1 X M2 (2) 1 X M113 (1) 1 X HMMWV (2)	CHALKS 7, 8, 9, 14, 10, & 11 6 X C-17 2 X M2 (4) 6 X M113 (7) 1 X M88 (1) 10 X HMMWV (12) 1 X TRUCK (1) 2 X HEMTT (2)	CHALKS 12 & 18 2 X C-17 1 X M2 (5) 3 X M113 (10) 4 X HMMWV (16) 1 X HEMTT (3) 2 X TRUCK (3)
13 APR	14 APR	15 APR	16 APR	17 APR	18 APR	19 APR
CHALKS 13, 14, & 17 3 X C-17 1 X M113 (11) 3 X HMMWV (19) 2 X HEMTT (5) 1 X TRUCK (4)	CHALKS 20 & 21 2 X C-17 3 X M1064 (3) 1 X HMMWV (20) 2 X HEMTT (7)	CHALK 22 1 X C-17 1 X M113 (12) 1 X M1064 (4) 3 X HMMWV (23)	SCT CHALK 1 1 X C-17 5 X HMMWV (28)	MP CHALK 1 1 X C-17 7 X HMMWV (35) 2 X TRL (3)		MP CHALK 2 1 X C-17 2 X HMMWV (37) 1 X PLS (1) 1 X TRL (4)
<b>TOTAL NUMBER OF VEHICLES</b>						
<b>CBT VEH</b>		<b>SPT VEH</b>		<b>AIRCRAFT USED</b>		
5 X M1 5 X M2 12 X M113 4 X M1064		1 X M88 37 X HMMWV 7 X HEMTT 4 X TRUCK 2 X AMB 4 X TRAILER 1 X PLS		24 X C-17		

Figure 2. Actual Airflow of TF 1-63 Armor

The task force commander's decision was difficult, but it paid long-term dividends during initial support and stability operations in Kirkuk. The Pesh Merga assault on Altun Kupri was successful and led to the ultimate collapse of Iraqi forces defending in and around Kirkuk. The 1-508th and the 2-503d followed in short order and secured the strategically important Kirkuk oil fields. TF 1-63 Armor entered Kirkuk with the combat power and sustainment needed to conduct stability operations. The task force successfully accomplished the strategic objective of providing an armor presence in Kirkuk to demonstrate coalition resolve and deter Iraq's neighbors in the region from attempting to gain control of the Kirkuk oil fields.

### Lessons Learned

During the deployment of TF 1-63 Armor in support of Operation Iraqi Freedom, task force leaders learned several key lessons for future air deployment of armor forces. These lessons learned primarily deal with deployment preparation and execution, task organization, and operational employment.

The austere configuration of the IRTF does not allow its structure to be reduced without severely degrading its capabilities. The task organization contains a limited amount of combat power, command and control assets, and logistics to function operationally. Any reductions in this configuration can cause the IRTF to be combat ineffective in a high-intensity conflict (HIC) environment.

Due to limited airflow, it took over two weeks for the IRTF to deploy to Northern Iraq. This piecemeal approach reduced the combat effectiveness of the organization until more assets arrived in theater. The IRTF needs to flow as an entire force over a relatively short time. This ensures that all command and control and support assets are in place to support the limited combat systems.

If the IRTF is to be deployed for future HIC operations, the combat power of the organization should be increased to include two additional heavy platoons — one M1A1 platoon and one M2 platoon. This would enable the HRC to operate as a tank-heavy team with two M1A1 platoons and one M2 platoon, and the MRC to operate as a mechanized infantry team with two M113 platoons and one M2 platoon. Without this added combat power, the capabilities and firepower of the MRC are severely limited with only M113s. If one task organizes the M2 platoon to support the MRC, the HRC is left with only one tank platoon. These two additional

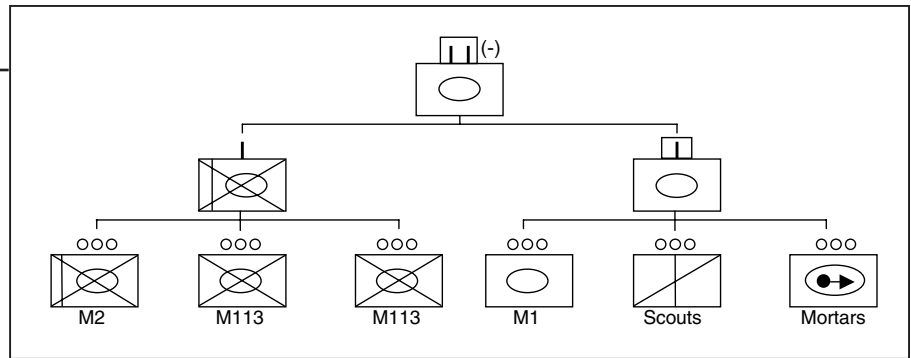


Figure 3. Actual Task Organization used by TF 1-63 AR

platoons allow the HRC and MRC to operate as true company teams and both maintain sufficient combat power to operate in an HIC environment.

When TF 1-63 Armor deployed to Operation Iraqi Freedom, the commander task organized to balance the firepower and mobility between the HRC and the MRC. The task organization in Figure 3 was in effect for the majority of missions in Northern Iraq. Without such a balanced task organization, the two company commanders would have been unable to resource the troops to tasks assigned.

Once fully deployed, there is great temptation to break apart the IRTF and attach its assets to light airborne units, thus significantly increasing the firepower of each light element. This technique, however, does not afford the brigade commander the shock effect and combat power of a heavy task force to react to armored threats.

*"...TF 1-63 Armor's deployment to Northern Iraq validated the concept of deploying an armored force by air anywhere in the world. The M1A1 Abrams and the M2 Bradley are powerful symbols of America's military power."*

Even during support operations and stability operations, the IRTF was a very effective resource to project coalition resolve and provide overwhelming presence at trouble spots. The IRTF is best used as a separate heavy force capable of rapidly reacting to armored or mechanized threats. The task force commander often stated "don't task us for equipment, give me the task and we will accomplish the mission."<sup>4</sup>

In summary, TF 1-63 Armor's deployment to Northern Iraq validated the concept of deploying an armored force by air anywhere in the world. The M1A1 Abrams and the M2 Bradley are powerful symbols of America's military power. The ability to deploy these systems by air

provides a tremendous psychological edge and credible combat power to light units.

During Operation Iraqi Freedom, TF 1-63 Armor demonstrated that armor and mechanized forces work well with Special Operations Forces and light infantry units in remote environments. The U.S. Army must continue to work with its sister services to ensure that we develop the joint capabilities to transport and sustain heavy forces to future battlefields. One Special Operations soldier operating near the town of Taqtaq put it in plain language: "We have done all that we can do. We've bombed these guys for three weeks. We need tanks and heavy infantry to drive them off the ridge." Unthinkable? Not anymore — checkmate.



### Notes

<sup>1</sup>If a mechanized company is assigned to the HRC mission, the commander's vehicle is an M2.

<sup>2</sup>One Special Operations soldier working with a group of Pesh Merga outside the village of Taqtaq reported that the Kurds wanted to know when the Big Red One would arrive.

<sup>3</sup>Operations Order Brief for Operation Bayonet Deterrence, 2 April 2003.

<sup>4</sup>Concerning the integration of heavy and light forces, there were occasions where the IRTF placed platoon-sized elements under the operational control of the light battalions. The armored protection and additional firepower provided by the heavy unit nearly doubled the capability of the light unit (platoon or company) to which they were attached.

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# The View From My Windshield: Just-in-Time Logistics Just Isn't Working

by Captain Jason A. Miseli

At 1845 hours on 21 May 2003, I washed down my beef with mushrooms meals ready to eat (MRE) (only a handful are tolerable anymore) with a bottle of Zulal, pure natural mineral water from Mesopotamia. The 3d Brigade Combat Team (BCT), 3d Infantry Division (3d ID) (Mechanized), contracted the water on 20 May 2003 from a local manufacturer in Northwest Baghdad after significant groundwork by the commander of C Company, 2d Battalion, 69th Armor (2-69 Armor).

Cobra 6 had responsibility for Zone 52 since the transition from combat operations to stability operations and support operations on 14 April 2003. He developed a rapport with the local water manufacturer as part of his security and stability plan. Since the transition, combat service support to the task force (TF) remains significantly deficient, and the critical water shortage alone was a command issue with TF Panther.

With temperatures exceeding 100 degrees daily, high relative humidity, and continuous missions in body armor, load bearing vests and helmets, soldiers were consuming significantly more than the two 1.5 liter bottles per-man, per-day controlled supply rate. It is unthinkable that commanders had to acquire water on the forward edge, after having just participated in Operation Iraqi Freedom and leading a division from Kuwait to Baghdad — just-in-time logistics are failing the U.S. Army.

Successes are isolated events without real linkage to the supported organization's requirements. The Panthers need 10 bottles per man, per day, but the controlled supply rate (CSR) appears to be written in stone, unchanging in the face of our actual re-

quirements on the ground. "They" have limits on what we can get because of haul and prioritization limitations in theater, or in simple tanker's terms, have failed to accomplish their fundamental mission: supply the soldier on the line.

On 6 April 2003, TF 2-69 Armor led the 3d BCT into Northwest Baghdad, and has maintained a continuous presence in the Kazimiyah district. On 13 April 2003, the TF consolidated, following the closure of the field trains on forward operating base Panther. To illustrate my harsh premise, I will examine combat service support (CSS) to my TF primarily from 13 April to 21 May 2003. To be clear, this is not acceptance of the equally unreliable and insufficient CSS we received during combat operations. The only CSS success during the war, from my perspective, was fuel. The reasons for this success will be discussed later. To provide a less cluttered background, the focus of this discussion will be CSS in the completely static environment in which the 3d ID (M) has operated since 14 April 2003.

TF 2-69 Armor limped into Baghdad due to extremely limited class IX resupply during the war. Upon occupation of forward operating base Panther, the TF rolling slant (number of combat vehicles that could shoot, move, and communicate even with limitations) was 29 of 30 tanks and 13 of 14 Bradley Fighting Vehicles (BFV). However, the actual slant (per 10 standards) was 0 of 30 tanks and 7 of 14 BFVs. These two slants illustrate how incredibly tough the M1 tank and M2 BFV are as combat systems. These vehicles survived immeasurable volumes of small arms, heavy machine gun, rocket-propelled grenade (RPG), and indirect fires, as well as suicide attack by cars, vans, and heavy trucks. These vehicles also illustrate that big, heavy class IX items, such as track, road wheels, road arms, and torsion bars, which a task



*“Equally appalling is the complete lack of progress in improving soldier quality of life by providing reasonable class I. Since 14 April 2003, we have received one class I supplement of fruit, muffins, and cereal bars, and one delivery of ice. Beyond those supplements, our ration cycle has consisted of about one unit ground ration (UGR) per day and two MREs for over 5 weeks of static operations.”*

force cannot carry in significant quantities, greatly affect operational readiness rates.

Three factors saved us from a rolling slant of 0 of 30 tanks and 7 of 14 BFVs. The first was a robust prescribed load list (PLL) put together by our battalion maintenance team. The PLL took from 8 January to 19 March 2003 to build, and we crossed the border with approximately 24 percent lines zero balance of over 1,100 total lines. The second factor was exceptional battlefield damage assessment and repair by experienced and empowered mechanics under outstanding leaders. Lastly, we recovered a destroyed M1A1 near An Najaf and stripped every usable part we could, to include both sides of track, all road wheels, and all usable road arms. With the exception of one delivery of road wheels and M1 track in early April, we did not receive any significant class IX deliveries during the war. This class IX catastrophe was clearly exacerbated by the fact that until April, the main support battalion’s authorized stock list was located at Camp New York, Kuwait, almost 700 kilometers by main supply route from Baghdad.

Our expectation on consolidation in Baghdad was simple — now that we were no longer attacking across Iraq, knowingly outpacing our logistics, we should see nonmission capable class IX components flow forward. That expectation was not to be met. Instead of the class IX floodgates opening, we saw barely a trickle, and 5 weeks later, we still sit at an actual slant of 0 of 30 tanks and 7 of 14 BFVs. Nary a requirement has gone past the forward support battalion (FSB) since we occupied Baghdad,

and even now, our maintenance technician and support operations officer fight for the simplest of parts, such as HMMWV tires, to keep our essential wheels moving.

Equally appalling is the complete lack of progress in improving soldier quality of life by providing reasonable class I. Since 14 April 2003, we have received one class I supplement of fruit, muffins, and cereal bars, and one delivery of ice. Beyond those supplements, our ration cycle has consisted of about one unit ground ration (UGR) per day and two MREs for over 5 weeks of static operations. The class I problem, as discussed earlier, extends well beyond UGRs versus MREs for breakfast and dinner (although it is quite interesting to visit Baghdad International Airport during meal time in comparison). That issue ultimately becomes one of quality of life and preference more than essential sustenance. When critical supplies, like bottled water, are unavailable in sufficient quantity in a hot weather climate like Baghdad’s, then the just-in-time system has failed. Unfortunately, considering the combat arms ethos of mission first, soldiers do not always appear to exist throughout the logistics realm, especially at the upper echelons of support. Mission failure is often shrugged off in one of three ways: blaming the system, accepting the failure as the norm, or commanders addressing issues at higher headquarters to get senior commander involvement. The combat arms mindset exemplified throughout this war — accomplishing your mission so others might accomplish theirs — appears to be in direct contrast to the just-in-time logistics concept and the culture.

When a mechanized infantry BCT cannot get more than one or two bottles of water per soldier, per day, and must subsequently rely on locally purchased water and poor-tasting bulk water to meet essential sustenance, does our just-in-time logistics system respond? The answer is simply no. Instead, we default to the failure culture and the associated safety nets that support that culture. As of 15 May 2003, the CSR for the 3d ID was two bottles per soldier per day because our division was fifth in the theater's priority of resupply. By 21 May 2003, the response to our requests for water was even less acceptable: the 3D BCT was supposed to leave in mid-May. Well, the grim reality is that we are here, and we are now drinking Iraqi water. Sadly enough, it tests as clean or better than our own bulk water, and fortunately, 24 hours later, none of us have had any adverse reactions.

One class of supply can be deemed a success story from combat operations and is generally no longer relevant, given current operations. For several reasons, TF 2-69 Armor departed the An Nasiriyah area on 22 March 2003, without 5,000-gallon fuel truck augmentation. Despite continuing our attack without this essential resource, we had only one critical fuel shortage, on 25 March 2003, when we had less than 4,000 gallons on hand across our 13 M978 fuel heavy expanded mobility tactical trucks (HEMTTs).

Within 24 hours, the 1st BCT (to whom we were cross-attached) completely met our requirements. The success of refueling operations during the war does not stand as logistics success, but instead further illustrates the cultural differences that must be resolved before the next conflict. Fuel resupply happened because it had tremendous commander visibility from the TF to corps level. The warrior ethos clearly permeated fuel operations throughout the war. On 23 March 2003, for instance, the assistant division commander (support) for the 3d ID was personally present at a corps refuel site southwest of As Samawah ensuring distribution to maneuver forces. Why? Because fuel had to happen — it had *command emphasis* because fuel was critical to mission success.

For combat arms organizations, success is the norm, not the exception, and mission failure is not tolerated. Until success (defined as meeting the requirements of the supported organization when needs are identified) becomes the norm for our logistics system in every endeavor, then the quality of our collective mission accomplishment and the quality of our Army as a whole will never be maximized. If our logistics systems cannot deliver sufficient class IX at the National Training Center (NTC) or sufficient potable water at the Joint Readiness Training Center, then those failures must not be tolerated. If we, as an Army, cannot get M1A1 starters to tank battalions at the NTC, then it is really no surprise that we cannot get road wheels, track, and arms to a tank battalion in Baghdad.

The cultural clash becomes even more evident in examining the class IX example. Typically, during training, the just-in-time logistics failures are allowed to exist as combat arms organizations

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simply bypass logistics obstacles to solve their own problems. Battalion maintenance officers, technicians, and motor sergeants Army-wide clearly understand this, as they search for class IX components throughout their brigades, divisions, installations, and even theaters to sustain operational readiness rates in the face of just-in-time logistics failures.

Now, the difficult part: proving that our tactical logisticians are not at fault for the shortcomings of the system in which they operate. Throughout Operation Iraqi Freedom, I fought alongside many professional and dedicated logisticians who were appalled at the actual application of just-in-time logistics in modern maneuver warfare. Even the NTC, with its seeming vastness, pales in comparison to our initial 140-kilometer movement from the international border to assault position Barrows, south of An Nasiriyah (the first 24 hours of the war for the 3d BCT). Did our team do everything they could to give us the resources they had? Absolutely. Did they have or get any significant supplies other than MREs, bulk water, and fuel after An Nasiriyah? No. The problem is not the soldiers and leaders in the FSB; it is larger and esoteric.

As an Army, we created a system designed to save money in the short term by delivering precisely what the trooper on the line needs just as he runs out of that item. This system forces us to live day-to-day, even during combat and stability operations. Instead of desperately hanging on for the next water push, we should be maintaining sufficient inventories of supplies to meet ongoing requirements for longer periods of time (perhaps 5 to 7 days) and any contingencies. I never thought that mindset would infect the U.S. Army — historically the best supported Army in the world. I also never thought that U.S. soldiers would buy blocks of ice from Iraqi street vendors to chill their one daily bottle of Zula water.

The following is an after action review of the lessons learned from the field trains command post, TF 2-69 Armor, during execution of combat operations in support of Operation Iraqi Freedom:

### **Combat Service Support**

#### **Subject: Class I**

**Observation 1: The TF Red One report is based on assigned and attached personnel only, and is the basis for class I distribution.**





*Discussion:* The TF Red One report reflected 731 soldiers at the onset of Operation Iraqi Freedom. With operational control (OPCON) personnel added in, however, the headcount varied between 850 and 900 soldiers throughout the war. Although all Orange One requests reflected the number of personnel on hand, our TF only received rations and water to feed the 731 personnel with each class I push. Extended lines of communication (LOC) and continuous operations prevented OPCON personnel from receiving class I from their parent organizations, so the TF provided rations and water for them to meet basic sustenance requirements. Meeting these requirements caused the TF to continuously operate in a class I deficit during combat operations.

*Recommendation:* Modify the Red One report to include OPCON personnel and use the expanded number as the basis for rations issue. If this recommendation is not feasible, use the TF Orange One request as the issue basis.

**Observation 2: Damage and loss of rations due to enemy fire.**

*Discussion:* Many combat vehicles in the TF load-planned their MREs and bulk water on the outside of their vehicles during operations. Each time a combat vehicle received small-arms, RPG, or indirect fire, their rations were exposed to the effects of these fires, and quite often rations were damaged or destroyed. When loss due to enemy action is coupled with already existing shortages, the rations situation became critical within the TF; and for several days, some elements were living day-to-day on MREs.

*Recommendation:* Distribute a 5 percent overage with all class I pushes to allow for losses and late changes in the TF headcount.

*“As an Army, we created a system designed to save money in the short term by delivering precisely what the trooper on the line needs just as he runs out of that item. This system forces us to live day-to-day, even during combat and stability operations. Instead of desperately hanging on for the next water push, we should be maintaining sufficient inventories of supplies to meet ongoing requirements for longer periods of time (perhaps 5 to 7 days) and any contingencies.”*

**Observation 3: Potable bulk water for Headquarters and Headquarters Company (HHC).**

*Discussion:* HHC, TF 2-69 Armor is authorized three M149A1 water trailer tanks per the Fiscal Year (FY) 03 modification table of organization and equipment (MTOE). At line of departure (LD), HHC had four water trailers, but only the authorized three could haul potable water. As the TF transitioned to consuming bulk water, consumption forward in the TF battlespace for HHC elements exceeded 400 gallons per day (the capacity of one trailer). Three trailers did not allow a sustainable bulk water cycle for the TF. Two water trailers were required forward in a 24-hour period, and distances between the field trains and the TF allowed only one logistics package (LOGPAC) per day. To provide sufficient bulk water without shortages, two trailers needed to be forward (being consumed) while two trailers were in the field trains being resupplied. This MTOE deficiency forced HHC elements to draw bulk water from company teams, affecting their resupply operations in terms of time and quantity of water available.

*Recommendation:* Add a fourth M149A1 water trailer tank to the MTOE for a tank battalion HHC (LIN W98825).

**Subject: Class II**

**Observation: Five-gallon water can resupply during combat operations.**

*Discussion:* In addition to damaging rations, small-arms, RPG, and indirect fires also destroyed five-gallon water cans nearly every time the TF had contact. Some combat vehicles attacked into Baghdad with no five-gallon water cans and were sustained by refilling 1.5-liter water bottles they had already consumed. As of 22 April 2003, no five-gallon water cans had been received per class II requisitions. The total TF requirement at the end of hostilities was approximately 75 water cans.

*Recommendation:* Add or carry at least 100 five-gallon water cans in the alternate storage location (ASL) at all echelons of support.

**Subject: Class III (P)**

**Observation: TF reached zero balance on critical class III (P) items during operations to secure Baghdad.**

*Discussion.* TF 2-69 Armor used a tiered system of class III (P) unit basic load (UBL). First and foremost, all combat vehicles maintained 100 percent UBL at all times. Their replenishment came from the combat trains' UBL, which was the second tier of UBL. As combat vehicles were resupplied from the combat trains, the combat trains were resupplied from the field trains. On 5 April 2003, the field trains went zero-balance on select products, and on 9 April 2003, the combat trains went zero-balance on the same fluids. When the division transitioned on



14 April 2003, combat vehicles were well below UBL on the same fluids. Critical shortages were: 10W, 15/40W, 30W, and grease, artillery, and automotive (GAA).

*Recommendation:* Increase class III (P) quantities in the ASL at all echelons of support; modify UBL at combat trains and field trains.

**Subject: Class V**

**Observation: Availability of class V for resupply.**

*Discussion:* Following the battle at Al Kifl, the TF was short on M1A1 120mm high-explosive antitank (HEAT) and multi-purpose antitank (MPAT) rounds, 120mm mortar high-explosive rounds, 12-gauge shotgun shells, and 40mm M203 ammunition. Requests for resupplies were submitted on 27 and 28 March 2003 with limited success (.50 cal requirements met). Tank main gun ammunition was not received until 2 April 2003 after subsequent requests were made when reattached to 3d BCT. Quantities received on 2 April 2003 were much lower than required, but the ammo pushed us from critically low on HEAT to functional for the Karbala attack.

*Recommendation:* Class V combat-configured loads (CCLs) must be available immediately upon commencing operations for all critical DOD identification codes.

**Subject: Class VII**

**Observation: Availability of complete TA-50 sets.**

*Discussion:* Nine Soldiers in TF 2-69 Armor lost all TA-50 and on-hand organizational clothing and individual equipment (OCIE), due to enemy action between 6 and 10 April 2003. The

first three soldiers received a partial TA-50 issue of odd sizes and all available items. The issue proved marginally useful due to the limited items available, and the subsequent six soldiers could not get an issue for several days, as the division support area (DSA) was zero balance on most TA-50 items. Additionally, the soldiers did not receive OCIE for a week after their clothing was destroyed.

*Recommendation:* Carry full sets of TA-50 and necessary OCIE items at ASL in theater to meet combat losses when vehicles are destroyed.

**Subject: Class IX**

**Observation 1: Availability of repair parts outside of TF PLL.**

*Discussion:* TF 2-69 Armor put considerable time and effort into building a very strong PLL while preparing for combat in Kuwait. Even with this robust PLL, the TF would not have sustained beyond Al Kifl, if we had not recovered a destroyed tank from 3d Squadron, 7th Cavalry and stripped it of every usable part. The parts we gained from this cannibalization sustained us until our first significant class IX push (M1A1 road wheels, track, and arms) on 13 April 2003. On 1 April 2003, we drew two major assemblies directly from the main support battalion (MSB) but could not draw from the ASL because it was located at Camp New York, Kuwait, at that time. Once reattached to 3d BCT, our TF met some class IX requirements from the 203d FSB ASL, but many requests had to be passed back to the DSA. As of 22 April 2003, class IX remained a critically short commodity with our PLL virtually stripped of high demand items and the ASL critically short.

*"To protect our combat trains and CSS assets, a scout section provided security during movement and LOGPAC operations; however, this was not sufficient to deter the enemy on one occasion and the TF lost an M977, M978, and M1025 to an ambush. The presence of a tank or M2 section may have deterred the enemy or facilitated his destruction more quickly in this ambush than light-skinned scout trucks."*



*Recommendation:* Conduct PLL and ASL reviews to ensure they are carrying what is truly needed through the execution of combat operations. Push ASL as far forward as possible or dedicate lift assets to moving nonmission capable class IX forward by air.

**Observation 2: Availability of critical communications parts and batteries.**

*Discussion.* The 15-day unit basic load (UBL) of batteries sustained the TF for approximately 20 days before certain batteries were critically low. Battery resupplies were isolated events and limped us through to transition to stability operations and support operations. The TF could not have sustained combat operations beyond the transition date without significant resupply. A similar problem with basic communications equipment (antennas, hand microphones, and cables) existed as well. The TF did not receive requested parts before movement to attack positions, and could not draw off 3d FSB or 203d FSB ASL. Similar to vehicle repair parts, combat losses and scrounging kept us functional for the short term. As with batteries, the TF could not have sustained operations much beyond the transition date.

*Recommendation:* Ensure basic communications equipment is carried on ASL at all echelons of CSS. Carry at least a 21-day UBL of batteries and as much equipment as possible at the TF level.

**Observation 3: Tire consumption in urban combat.**

*Discussion:* Debris, glass, and maneuver in highly restrictive urban terrain took its toll on tires during the attack into northwest Baghdad. At one point, the TF needed 20 HMMWV tires to keep scout and critical-leader vehicles fully mission capable, and supply sergeant 2½-ton trucks were each destroying 2-to-4 tires running LOGPAC. Similar problems occurred across the wheeled fleet from Al Kifl onward.

*Recommendation:* Increase number of tires, tubes, and seal kits on PLL and ASL. Additionally, add complete wheels (tires mounted and inflated) to ASL and issue as many spares (complete) as the TF can haul. Prioritize complete wheels higher in the TF haul plan or reconfigure load plans before entering urban areas.

**Subject: Combat Service Support Operations**

**Observation 1: Ensure supported units have every opportunity to self-resupply.**

*Discussion:* During the battle at Al Kifl, we did not push bulk water to the company teams for over 36 hours after the TF first entered the city. When the TF attacked into Al Kifl, every combat vehicle had between a 3-and-5 day supply of MREs and bottled water, and full bulk water. The first LOGPAC consisted of class III, class V, and class IX only because the field trains command post (FTCP) had not received a push of MREs or bottled water, and we erroneously assumed that consuming an additional 24 hours of class I would not have a significant impact on the company teams. Our assumption forced many crews to use the remaining water from their UBL, dropping them to 1 to 2 days of supply on hand. The second LOGPAC into Al Kifl consisted of MREs, bottled water, and bulk water, but we had created an irrecoverable bottled-water deficit that followed us for the remainder of the war.

*Recommendation:* Conduct resupply of every available resource at every opportunity. Treat each LOGPAC as if it may be the last

one ever in an effort to preserve combat vehicle UBL of all classes of supply.

**Observation 2: Haul capacity versus haul requirements for an armored TF.**

*Discussion:* TF 2-69 AR attacked with 12 M977 cargo HEMTTs and two M916 five-ton tractors with lowboy trailers. One tractor was hauling the TF roller, and the other initially carried M1A1 Vee packs and TF Sanator. The 12 cargo HEMTTs were configured with eight carrying class V, one carrying class I, one carrying tents and soldier bags, and two carrying class III (P). Above and beyond what was load-planned on individual vehicles or on cargo trucks, a great deal of HHC MTOE equipment was left in storage at Camp New York, Kuwait. The supplies carried forward under this haul plan were critical in sustaining the TF for an extended period, given the supply constraints we experienced. If we had hauled other supplies or more MTOE equipment, we would not have sustained the TF for as long as we did.

*Recommendation:* Increase haul capacity for armor battalions by adding at least four, if not six, HEMTT trailers to the MTOE. This allows the TF to configure class V CCLs on trailers and move with M978 fuel HEMTTs as prime movers, reducing the number of vehicles the company teams must control during LOGPAC, and freeing up M977s to haul critical items such as mounted tires or major assemblies.

**Observation 3: Combat vehicles escort CSS assets when contact is likely.**

*Discussion:* Iraqi soldiers and irregular forces learned quickly that attacking an M1A1 or an M2 was costly. To protect our combat trains and CSS assets, a scout section provided security during movement and LOGPAC operations; however, this was not sufficient to deter the enemy on one occasion and the TF lost an M977, M978, and M1025 to an ambush. The presence of a tank or M2 section may have deterred the enemy or facilitated his destruction more quickly in this ambush than light-skinned scout trucks. Given the absolute importance of each M977 and M978, every reasonable effort should be made to protect them during combat operations.

*Recommendation:* Assign at least one M2 section to the combat trains to protect all CSS assets during movement and LOGPAC operations. If available, attach a military police section to the TF for route and LOGPAC security (if equipped with M1114s) to keep all combat power forward in lieu of the M2 section.

**Observation 4: Psychological operation (PSYOP) efforts on main supply routes (MSRs) once combat power passes through.**

*Discussion:* On several MSRs, Iraqis interfered with CSS traffic more and more after combat power had already passed. To avoid this tactical and safety risk, PSYOP efforts should be sustained as possible on BCT or division MSRs to ensure they remain clear of Iraqi citizens or enemy activity.

*Recommendation:* Allocate PSYOP resources to rear area security along with a strong military police presence.

**Observation 5: Support platoon leader presence in combat trains vice field trains.**

*Discussion:* Combat trains are not resourced to control large vehicle convoys and, at times, more than half of the support pla-

toon was forward in the combat trains. The support platoon leader's presence in the field trains during combat operations is not necessary as the commander, first sergeant, and executive officer are available to execute movement forward to the TF logistics release point (LRP) and coordinate resupply from the battalion support area (BSA). The support platoon leader's presence in the combat trains greatly simplifies control of HEMTTs during movement and LOGPAC operations, allowing the TF S4 to focus on coordination and upcoming logistics considerations.

*Recommendation:* Have the support platoon leader remain in the combat trains with his forward elements to assist in controlling combat trains command post (CTCP) moves, execution of TF LOGPAC, and linkup at the TF LRP with field trains assets.

**Observation 6: CSS continuity during cross-attachment of TFs.**

*Discussion:* Following the 3d BCT attack vicinity of An Nasiriyah, TF 2-69 AR was attached to the 1st BCT, presumably for the duration of the war. On 31 March 2003, however, TF 2-69 AR was detached from the 1st BCT and returned to the control of the 3d BCT. Between these two attachments, all logistics continuity for the TF was lost as all of our requisitions were under the supporting FSB's unit identification code. During the first attachment to the 1st BCT, this was not critical, as we had not ordered any supplies since the war began. When we returned to the 3d BCT, the TF lost 7 days worth of requisitions, all of which were under 3d FSB's unit identification code (UIC). The impacts of this were clear as we ran critically low on class II, III (P), V, and IX that we ordered while attached to the 1st BCT that was not delivered to the 203d FSB.

*Recommendation:* Order class II, III (P), V, and IX directly against the TF UIC vice the FSB UIC, allowing TF cross-attachment without interruption of TF CSS.

**Observation 7: Communication and situational awareness over extended distances.**

*Discussion:* When TF 2-69 began its attack into northwest Baghdad, the field trains were held west of the Euphrates River for 8 days. During this time, the TF was over 120km from the BSA, and there was no direct communications between the TF and the field trains except during LRP once a day. The TF S4 and HHC commander relied on experience and logistics estimates to meet TF requirements, but this lacked precision and caused delays in meeting requirements. Additionally, the field trains lacked any situational awareness regarding the TF attack.

*Recommendation:* Resource the combat trains and field trains with Force XXI battle command brigade and below (FBCB2) or Blue Force Tracker to maximize the situational awareness of both command posts and give each a reliable long-distance communications platform via text messages. This allows company teams to submit logistics requirements via FBCB2 vice FM, as well as increase the responsiveness of all CSS elements within the TF.

**Observation 8: Haul assets for TF rollers.**

*Discussion:* The M916 5-ton tractor with a low-bed trailer is not off-road capable on anything other than a hard surface road. Consistently, the low-bed truck would get mired in sand even without a roller on the trailer, and it significantly slowed our movement when the field trains moved cross-country due to the continuous recovery requirement. Because of its terrible mobil-



*"TF 2-69 Armor limped into Baghdad due to extremely limited class IX resupply during the war. Upon occupation of forward operating base Panther, the TF rolling slant (number of combat vehicles that could shoot, move, and communicate even with limitations) was 29 of 30 tanks and 13 of 14 Bradley Fighting Vehicles (BFV). However, the actual slant (per 10 standards) was 0 of 30 tanks and 7 of 14 BFVs. These two slants illustrate how incredibly tough the M1 tank and M2 BFV are as combat systems."*

ity when uploaded with a roller (having gotten so mired that we could not recover the trailer), I had to abandon the TF roller within 24 hours of attacking into Iraq, costing the TF a critical capability.

*Recommendation:* Replace the low-bed trailer with a cross-country capable trailer or eliminate rollers from the MTOE because the battalion is not resourced to haul them.

**Observation 9: Command and control of HEMTTs in support platoon.**

*Discussion:* Combat operations required exceptional flexibility and responsiveness from every member of the TF, to include the M977 and M978 operators from support platoon. The platoon has only seven radios and is not configured for dynamic operations. Coordination requires face-to-face discussion or using hand and arm signals, and is anything but responsive. On numerous occasions, the combat trains' ability to respond quickly was significantly impaired because there was no FM communications between the vehicles.

*Recommendation:* Resource the support platoon with vehicle-mounted radios for the platoon leader, platoon sergeant, squad leaders, and team leaders (11 radios total), and handheld radios for all support platoon vehicles to allow responsive employment of the platoon.

**Subject: MTOE**

**Observation 1: Support platoon command and control.**

*Discussion:* The support platoon currently has one M998 and seven RT-1523Es authorized, two of which are vehicle mounted in the M998, and the remaining five are manpack configuration. During this operation, the support platoon leader had an M1025 with a mounted .50 cal, and the support platoon sergeant had an M998. This greatly increased the command and control of the platoon during movement and allowed them to split operations between the combat trains and the field trains. With additional communications between vehicles, the platoon would have been exceptionally responsive during execution of combat operations.

*Recommendations:* Add one M1025 with a .50 cal and gunner for the support platoon leader (dual-net capable vehicle); retain the M998 for the support platoon sergeant (single-net capable

vehicle); add eight additional single net capable systems for the four squad leaders and four team leaders; and use integrated communications or portable radio communications for vehicle-to-vehicle communications across the platoon.

### **Observation 2: Haul capacity.**

*Discussion:* See above in CSS operations.

*Recommendation:* Add at least four HEMTT trailers to the MTOE for a tank battalion. Ideal number is six trailers — two per squad that support a company team.

### **Observation 3: Crew-served weapons and platforms for HEMTTs.**

*Discussion:* Two M977 .50-cal ring mounts arrived prior to line of departure into Iraq, and these proved exceptionally useful in deterring attacks on TF 2-69 AR CSS assets. During combat operations, all M977 and M978 truck commanders were exposed through the hatch on their HEMTTs to increase their fields of fire and ability to scan. Mounting a .50 cal machine gun provided that exposed soldier with a more lethal and effective weapon to employ if attacked and served as an excellent deterrent. Two additional HEMTTs had crew-served machine guns (one M240B and one M249) and these also proved highly valuable in contact.

*Recommendation:* Mount .50-cal machine guns, with ring mounts, on all M977s in support platoon (12 total) plus one .50 cal on the support platoon leader's M1025; and arm M978s with M249 or M240B machine guns (six M249s and seven M240Bs) to provide overwhelming firepower, if attacked.

### **Observation 4: Transportation for the S4 noncommissioned officer in charge (NCOIC).**

*Discussion:* The TF S4 NCOIC is assigned to the field trains to coordinate and supervise supply ordering and distribution. Under the new MTOE, he is no longer authorized an M998 and must rely on the S1 NCOIC for transportation. During execution of operations, this impacted the field trains, as the S4 NCOIC could not operate independently in the BSA, or more importantly, between the BSA and the DSA to ensure TF requirements were met.

*Recommendation:* Add one M998 to the MTOE for the S4 NCOIC with single-net capability to allow independent operation to coordinate required supplies.

### **Observation 5: Communications for key maintenance personnel.**

*Discussion:* Per the FY 03 MTOE, the battalion maintenance sergeant is not authorized a radio system, nor are the 10-ton or 5-ton wreckers. Without radios, these key personnel are limited in their ability to operate independently, and recovery and maintenance operations are overly centralized to ensure communications coverage.

*Recommendation:* Add three single net radio systems to the maintenance platoon MTOE to allow independent recovery operations and facilitate managing and delivering class IX throughout the TF.

### **Observation 6: Dedicated command and control (C2) platform for the FTCP.**

*Discussion:* The FTCP is a key element of TF logistics execution. It serves as the hub where all requirements from across the

TF are collected, subsequently requested, and then distributed as available. The MTOE does not resource this operation with any C2 platform, and there is no capability without a dedicated command post vehicle to mount and monitor FBCB2, unless one is allocated to the FTCP.

*Recommendation:* Add a dedicated C2 vehicle to the MTOE for the FTCP. Recommended platform is an M577 (FM and FBCB2 capable.)

### **Observation 7: Acquisition and target identification for .50-cal gunners.**

*Discussion:* Tracer burnout for a .50-cal machine gun is 1800 meters — well beyond the range at which a gunner can identify and classify a target. A similar problem exists for M240B gunners with a tracer burnout of 900 meters. The MTOE for HHC authorizes 34 M22 binoculars, of which 20 belong to the scout platoon. To ensure correct target acquisition and identification at long ranges, every M240B and .50-cal gunner should have a pair of binoculars available.

*Recommendation:* Beyond the scout and mortar platoons, add sufficient M22 binoculars to the MTOE to have one per .50-cal and M240B machine gun throughout the HHC.

### **Observation 8: FBCB2 distribution and quantities.**

*Discussion:* See CSS operations above.

*Recommendation:* One FBCB2 to the combat trains command post; and one FBCB2 to the FTCP.

### **Observation 9: Bulk potable water for HHC, TF 2-69 AR.**

*Discussion:* See above in class I.

*Recommendation:* Add one additional (four total) M149A1 water trailer tank to the MTOE for a tank battalion HHC.

### **Observation 10: M9 pistol as primary weapon.**

*Discussion:* With the exception of tank crewmen, every soldier assigned an M9 pistol also had an M16 rifle or M4 carbine for this war. During numerous firefights and engagements, this proved crucial to the success of our TF and the survivability of our soldiers. The M9 is a good backup weapon for close quarters but is not sufficient on the asymmetrical battlefield. On numerous occasions, tactical operations centers, combat trains, and field trains personnel were engaged by small-arms fire and were able to return accurate and lethal fire with their rifles. Had these personnel been armed with only an M9, their lives would have been at significant risk during this contact.

*Recommendation:* Add sufficient M16 rifles or M4 carbines to the MTOE to arm all M9-carrying personnel, minus eight M1A1 crewmen, with an M16 or M4 to sustain the effective lethality demonstrated during Operation Iraqi Freedom.



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# Blue Force Tracking — Combat Proven

by Captain James Conatser and Captain Thane St. Clair

*“The single most successful C2 system fielded for Operation Iraqi Freedom was the Force XXI Battle Command Brigade and Below-Blue Force Tracking (FBCB2-BFT) system. It is important to mention that the FBCB2 system used during this operation was not fielded to facilitate division command and control, but rather to facilitate tracking of friendly forces at echelons above division. Even so, BFT gave commanders situational understanding that was unprecedented in any other conflict in history.”*

— 3d Infantry Division (Mech)  
Operation Iraqi Freedom After Action Report

Force XXI Battle Command Brigade and Below (FBCB2) is a digital command and control (C2) system for brigade and below platform application. FBCB2 is part of a larger Army post-Desert Storm initiative to digitize C2 across the force, known as the Army Battle Command System (ABCS).

FBCB2-BFT is a satellite-based version of the terrestrial based FBCB2-enhanced positioning location and reporting system (EPLRS). FBCB2-BFT was quickly developed, tested, and fielded to Operation Enduring Freedom and Operation Iraqi Freedom units to satisfy the U.S. Army Central Command (CENTCOM) commander’s operational needs statement for friendly forces’ situational awareness (SA) in preparation for operational plan (OPLAN) 1003V in the fall and winter of 2002.

In the 6 months prior to 21 March 2003 (G-Day), the Army undertook an enormous effort to develop, procure, and field FBCB2-BFT to the U.S. Army, the U.S. Marine Corps, and Brit-

ish forces identified to potentially deploy to both Kuwait and Afghanistan. This effort included the rapid development of the system, diversion of previously produced FBCB2 systems designated for fielding to III Corps units, and accelerated production of systems to fulfill the huge operational requirement.

Standard FBCB2 hardware and software would be used, but an entirely new satellite transceiver and communications network had to be developed, tested, produced, distributed, and installed. The training plans for units deploying had to be modified based on time available. Finally, the installation of systems in vehicles and the actual training of soldiers had to occur; all of this would be in direct competition with what the designated units already had to accomplish within their deployment timelines.

The 2d Brigade Combat Team (BCT), 3d Infantry Division (ID) was deployed to Kuwait in September and October 2002 for Operation Desert Spring (formerly Intrinsic Action) and was the first unit to receive FBCB2-BFT. What followed was an unprecedented fielding of FBCB2-BFT systems on Army prepositioned stocks (APS) and unit platforms in theater, as well as on unit platforms at home station. This resulted in simultaneous installation of more than 1,000 systems on three continents, spanning six countries, including 20 states within the United States, and involving more than a dozen Army, joint, and coalition units. Throughout this process, over 4,000 soldiers were trained. The system was provided to the 3d ID (M); 1st Armored Division; 101st Air Assault; 82d Airborne; 2d Light Cavalry Regiment; 3d Armored Cavalry Regiment; 173d Airborne Brigade; 3d Brigade, 4th ID (M); 75th Exploitation Task Force; 11th Aviation Brigade; 12th

Aviation Brigade; 1st Marine Expeditionary Force (MEF); and the 1st United Kingdom Armoured Division, as well as selected V Corps and Coalition Forces Land Component Command (CFLCC) platforms and command posts. (Figure 1) Installation and training sites ranged from the comfort and convenience of unit motor pools and staging areas in the Continental United States and Germany, to the austere conditions of company-level forward operating bases found along Afghanistan's border with Pakistan.

To incorporate this new capability into the receiving units, the TRADOC System Manager (TSM) XXI provided briefings to senior commanders and staffs, developed and distributed an FBCB2 user's tactics, techniques, and procedures (TTP) pocket guide, and provided over-the-shoulder training to units at home station and in theater. These key leader briefings and TTP handbooks contributed to understanding the system's capabilities and limitations, which became very useful on the road to Baghdad.

New equipment training consisted of three courses; an abbreviated Operator's New Equipment Training (OPNET) course with 8 hours classroom instruction; a Digital Master Trainer's Course (DMTC) with 11 days of classroom instruction; and a Unit-Level Maintainer's Course (ULMC) with 3 days of classroom training.

#### The Difference Between FBCB2-EPLRS and FBCB2-BFT

Currently, Army units are using two FBCB2 baselines: the original EPLRS radio-based FBCB2 (FBCB2-EPLRS) found in III Corps units (4th Infantry Division and 1st Cavalry Division) and Stryker Brigade Combat Teams (SBCTs), and the recently developed satellite communication (SATCOM)-based FBCB2-BFT.

The two baselines are not fielded to the same density. An FBCB2-EPLRS-equipped division has approximately 2,600 systems, whereas an SBCT has approximately 700 systems, practically one on every platform. Therefore, the Blue Force common operational picture (COP) is very complete. In comparison, an FBCB2-BFT-equipped heavy division during Operation Iraqi Freedom had approximately 150 systems. The FBCB2-BFT equipped division distribution only provided systems to key-leader platforms down to company level, primarily in maneuver units. Additionally, select C2 nodes ranging from maneuver battalion command posts to the CFLCC's Headquarters and the early entry command post (EECP), were also equipped. Thus, the Blue COP in these units, although useful, is less comprehensive than in Force XXI units.

In FBCB2-EPLRS-equipped units, radio-based communications rely on a denser fielding of systems and good dispersion of platforms throughout the area of operations to maintain network integrity. Wide dispersion and line-of-sight limitations between vehicles affects the terrestrial-based radio network and the effectiveness of SA and C2. FBCB2-BFT literally breaks the line-of-sight barrier with its satellite link; distance, dispersion, and line-of-sight between vehicles is not a problem.

FBCB2-EPLRS is accredited to process both unclassified and secret information. It can be operated in either an "unclassified" or a "secret" mode using individual or unit password access. This capability is required to connect to the secret-high ABCS. Thus, FBCB2-EPLRS is interoperable with the tactical operations center (TOC) ABCS systems. Currently, FBCB2-BFT is not accredited for secret information, because of the commercial satellite link and therefore, it is not currently interoperable with the TOC ABCS systems. However, it does provide a one-way feed of Blue locations to the Army-level Global Command and Control System-Army (GCCS-A) through a "trusted guard,"

### OEF/OIF BFT Fielding

Over 1200 BFT/FBCB2 installs completed in 6 countries and over 20 states covering OIF Joint and Coalition Ground and Aviation Platforms

UNITS	BFT PACKAGES		TOTALS
	GROUND	AVIATION	
JTF180	176	41	217
V CORPS	29	8	37
3D ID	150	6	156
1ST MEF	200	0	200
101ST AAD	68	88	156
1ST AD	153	15	168
3D ACR	47	10	57
4TH ID	43	0	43
UK	47	0	47
75TH FA	18	0	18
173D ABN	90	0	90
<b>TOTAL</b>	<b>1,021</b>	<b>168</b>	<b>1,189</b>

Figure 1

which populates the COP and disseminates the blue picture back down through TOC systems to brigade level. The information passed over SATCOM is encrypted and considered by some to be "secure." However, it has not been "Type 1" communications security certified and, therefore, is not authorized to process secret information. This shortcoming has been identified as being critical and solutions are being researched to correct this deficiency.

FBCB2-EPLRS allows the user to determine how often his platform location is reported to other systems. Users can set both time and distance triggers for sending position reports. The time setting ranges from 10 seconds to one hour, while distance can be set from every 50 to 2,500 meters. For FBCB2-BFT, this update rate is set at 5 minutes and 800 meters for ground platforms, and every minute or 2,300 meters for air platforms. A server collects these platform-position reports and transmits a network-wide message, with position updates, every 5 minutes for ground and every minute for air.

Both systems give leaders the ability to see and manage reported enemy situational awareness (RED SA); however, correlated enemy SA via the TOC all-source analysis system is not possible with FBCB2-BFT due to the lack of ABCS interoperability.

While there are some differences between the two versions of FBCB2, many of the capabilities are identical. Some of the most valuable tools found in both systems are the navigational and map tools. Both systems use global positioning systems (GPS) for platform location, which updates continuously in real-time. Both systems have the same mapping capability to load a variety of military map or imagery backgrounds with underlying digital terrain elevation data (DTED). Maps on both systems are scalable and possess the zoom-in/zoom-out capability. Both versions have the ability to create, save, analyze, and send routes to other platforms. Both systems have point-to-point and circular line-of-sight terrain analysis tools. Lastly, both systems can be locally or remotely challenged and destroyed, if compromised, by erasing the computer hard drive.

#### System Performance During OEF/OIF

*"I fought in combat with a very good digital battle command system that had some minor problems. Based on my experience,*

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*I am convinced that digital battle command is the key to success in current and future conflicts. ... We need to embrace digital battle command and recognize its importance in twenty-first century warfighting”*

— LTC John W. Charlton, Commander,  
Task Force 1-15 Infantry, 3ID(M)

*“You are focused [With FBCB2-BFT]. You have just reduced layers of friction, and the fog of war is why units lose. This is simultaneous, real-time synchronization. It reduces the friction of war about a hundredfold.”*

— CPT Stewart James, Commander,  
A Company, 2d Battalion, 69th Armor

FBCB2-BFT provided Operation Enduring Freedom and Operation Iraqi Freedom commanders and units a remarkable capability that greatly enhanced their combat effectiveness — abilities to navigate under limited visibility conditions, to move rapidly over great distances and synchronize their movement, and to communicate both vertically and horizontally over extended distances. While after action report comments continue to flow from the field, leaders and other users have consistently praised the system for the capabilities it provided them during combat.

Commander’s initial confidence in the system varied. This is understandable, given that on the eve of going to war, with the ultimate responsibility for the lives of soldiers on their shoulders, commanders were issued yet another new piece of equipment. It was difficult to embrace a new system and discard tried-and-true practices with which they and their units were familiar and confident. In some cases, units were forced to accept, and came to rely on, FBCB2-BFT when traditional equipment and accepted practices proved insufficient during the campaign.

During Operations Enduring Freedom and Iraqi Freedom, the level of FBCB2-BFT’s effectiveness and individual unit “digital learning curves” varied after receiving the system. Units that quickly embraced the new technology and placed command emphasis on its training and employment, benefited early on in the campaign. Others that either received the capability at the last minute or did not quickly embrace it, were forced to adjust during the conflict.

The most lauded capability was the blue SA. The blue SA picture provided to commanders and command posts significantly enhanced battle and unit tracking, and greatly reduced frequency modulation/tactical satellite radio traffic. This gave unit leaders more confidence when making tactical decisions and more time to focus on fighting the enemy. Despite the 5-minute icon update latency, commanders were better able to track the execution of their intent and synchronize the movement of their forces with FBCB2-BFT. Commanders and units at every level viewed the exact same blue picture throughout the entire war in near real time. This is the first time since the Napoleonic Era that commanders were able to “see” their forces on the battlefield.

Map and navigational features provided by FBCB2-BFT helped units move and maneuver from the Kuwaiti border to Baghdad in record time. Many BFT users stated that they stowed their paper maps (13 different map sets from one 3ID account) in the bustle rack of their vehicle shortly after line of departure. Operations Iraqi Freedom units were provided numerous digital maps, covering the entire country of Iraq at multiple scales. These in-

cluded 5-meter controlled-image base imagery, 1:50K and 1:250K military maps, and digital terrain elevation data maps — all changeable with a touch of a button.

Armed with these digital maps and the presence of a GPS-generated “own” icon, FBCB2-BFT users could navigate and maneuver their forces without having to stop and switch map sheets and replace graphics, which are also computer generated and scalable with the map background. Many soldiers claim that if it were not for FBCB2-BFT, they could not have navigated through the almost-zero visibility conditions caused by dust storms early in the campaign. Other soldiers have commented on its effectiveness in urban terrain while conducting missions, such as the “Thunder Runs,” into Baghdad.

The fact that FBCB2-BFT reduced fratricide is also a common theme in feedback from the users in combat units. Anti-fratricide has never been a component of FBCB2, especially in the context of such a thin fielding and the 5-minute latency of platform positions. However, due to the increased SA of commanders and their staffs, a reduction in the numbers of blue-on-blue incidents appears to have been a secondary effect. It was also used in the clearance of indirect fires and to facilitate link-ups between units, which did occur between the 3d Infantry Division and 1st Marine Division in An Nasiriyah and Baghdad.

Despite many complaints about satellite bandwidth limitations, the C2 and email-like messaging capabilities were still touted as “heros of the battle” in many instances. This was particularly true for the Combined Joint Task Force 180 forces that were located at fixed sites spread across great distances in the rugged terrain of Afghanistan. Operating under extremely poor line-of-sight conditions, FBCB2-BFT provided units with an extremely reliable back-up communications mechanism and a means to keep routine administrative and logistics traffic off the very limited tactical satellite voice frequency. The messaging capability did the same for units in the Iraqi theater on the road to Baghdad. These units passed critical C2 information, fragmentary orders, and overlays over great distances with great success. This is especially important considering that maneuver and logistics elements were separated, at times, by hundreds of kilometers.

One of the chief complaints from FBCB2-BFT users is that the system was fielded too thinly among their units. The primary reason for this thin fielding was the limited availability of hardware and time. The Army was forced to develop the “thin” distribution plan based on approximately 1,000 systems already available in the timeframe allocated.

### **The Future of FBCB2-EPLRS and FBCB2-BFT**

*“Perhaps the greatest limitation of BFT was its limited distribution.”*

— 3 ID (M) Operation Iraqi Freedom After Action Report

Prior to the war in Iraq, FBCB2-EPLRS was projected for upgrades in capability and user functionality. Since the onset of Operations Enduring Freedom and Iraqi Freedom and the development of FBCB2-BFT, the program has drastically expanded, reaching units that were never projected for digitization or that were not scheduled for fielding until years from now. User feedback from Force XXI units, the SBCTs, and Operations Enduring Freedom and Iraqi Freedom units continue to assist in guiding FBCB2 combat and material developers to improve the system.

Several issues and ideas have been generated from soldiers who used the existing system in battle. Among these issues to be considered for development for future implementation are: increased bandwidth or lifting the 576-byte message size limitation; adding a print capability for maps, overlays, messages, and orders; enhanced overlay construction tools; increased drag-and-drop style functionality; enhanced email-like messaging capability; and a more user-friendly data base.

Operation Iraqi Freedom has also reinforced the need to fulfill a pre-existing requirement for a handheld material solution with the same functionality found in FBCB2-BFT for dismounted operations. There are a number of handheld prototypes under development; however, none yet have fulfilled the capabilities requirement.

Recent technological advances have allowed for reducing the size and weight of the handheld prototype and producing a product that does not excessively increase the weight of the individual soldier's load. The solution must have FBCB2 software to be truly interoperable with our platform-based FBCB2-BFT systems. Additionally, the requirement to bring SA and navigation tools to the pilots of rotary wing aircraft has been reinforced. A prototype that consists of a remote screen kneeboard connected to an FBCB2-BFT central processing unit is under development. Both prototypes should be provided in small quantities to select units later this year or in early 2004.

Software improvements for FBCB2 are scheduled for release in December 2003 and in February 2004. The first software improvement was originally designed to fix current software shortcomings found in the SBCTs, but has significantly expanded to incorporate user feedback as well as faults identified during Operation Iraqi Freedom.

Major improvements that will affect both FBCB2-EPLRS and FBCB2-BFT-equipped units are: L-Band/EPLRS two-way SA interoperability; hierarchical database for FBCB2-BFT units; and increased message size for C2 messages and overlays. This version of software will also be the baseline software tested in February and March 2004 to achieve a full-rate production decision for FBCB2.

*"The bottom line is that digitization across the breadth of the Army is necessary to maintain information superiority and achieve information dominance over our potential adversaries. Capabilities, such as FBCB2-BFT and similar technologically advanced war fighting systems, saved lives in our most recent conflict and enabled mission success in record time."*

The second software improvement will include: an enhanced situational report/platform status functionality; automated "trigger-pull" engagement report that will generate SA; enhanced situational awareness capabilities such as the ability to report/modify battle damage assessment of icons to reflect a destroyed or disabled status; enhanced operation orders and overlay processing; L-Band to EPLRS C2 messaging capability; and interoperability with ABCS.

TSM XXI is leading an effort known as FBCB2 Course of Action (COA) 3.1.1 to expand the original fielding plan of FBCB2-BFT down to platoon leader and platoon sergeant levels in vir-

UNITS	3.1.1 FBCB2 FIELDING PLAN			TOTALS
	W/EPLRS	W/BFT SATCOM	AVN	
I CORPS	0	123	7	130
III CORPS	256	801	18	1,075
V CORPS	0	222	19	241
XVIII CORPS	0	216	33	249
1ST ID	0	946	22	968
1ST AD	0	946	22	968
1ST CD	2,478	0	50	2,528
2D ID	706	711	22	1,439
3D ID	748	198	22	968
4TH ID	2,478	0	50	2,528
10TH ID	0	401	35	436
25TH ID	1,412	288	35	1,735
82D ABN DIV	0	509	39	548
101ST AASLT	0	553	93	646
2D LCR	706	0	41	747
3D ACR	710	0	41	751
172D SIB	706	27	0	733
173D ABN BDE	0	90	0	90
56TH BDE 28ID	706	0	0	706
SOF	0	1,416	0	1,416
TOTAL	10,906	7,447	549	18,902
# Unresourced until Objective Force Fielding				

Figure 2

tually every division in the U.S. Army. This places approximately 1,000 FBCB2-BFT systems in a standard armor or mechanized division and approximately 500 in light infantry divisions. COA 3.1.1 also allocates approximately 1,400 systems to Special Forces, civil affairs, psychological operations, and Ranger battalions. (Figure 2.) Fielding Plan 3.1.1 was approved by G3, Headquarters, Department of the Army (HQDA), April 2003 and resourced by G8, HQDA in the 2005-2009 POM.

The bottom line is that digitization across the breadth of the Army is necessary to maintain information superiority and achieve information dominance over our potential adversaries. Capabilities, such as FBCB2-BFT and similar technologically advanced war fighting systems, saved lives in our most recent conflict and enabled mission success in record time. Our path to victory lies with our leaders and the tactical competences of our soldiers and ability to leverage technology to fight and win decisively.



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CPT Thane St. Clair is an acquisition officer assigned to TSM XXI, Fort Knox, KY. He was deployed to Afghanistan from January through April 2003 to assist in fielding and training the FBCB2-BFT to CJTF 180 and 1st Brigade, 82d Airborne Division. He is currently in Afghanistan, where he is assisting in fielding and training the FBCB2-BFT to the 1st Brigade, 10th Mountain Division.





# 60 HOURS IN THE BREACH

by Captain Matthew W. Kennedy and First Lieutenant McKinley C. Wood

“CONTACT TANK!!” screamed the lead tank gunner of 3d Platoon, Alpha Company, as the Abrams M1A1 Main Battle Tank (MBT) crested the sand-capped intervisibility line. The contact report surged through the platoon internal radio net like a bolt of lightning. A few seconds later, the entire platoon transitioned from movement to maneuver as all four tanks formed a firing line. The enemy, two T-72s in a low sand dune, was only 1,000 meters away with their main guns trained on the platoon, seconds away from firing.

“FIRE!” ordered the platoon leader to his tank commanders. After the volley fire of the 120mm cannons, the kill light of the opposing force began to flash and the platoon continued their movement to the enemy’s main defensive belt.

This is how Task Force (TF) 2d Battalion, 69th Armored Regiment (2-69 Armor) spent the summer of 2002. For 6 months, the soldiers of TF 2-69 Armor endured sand storms with winds up to 35 knots, temperatures reaching 150 degrees, and long multiple integrated laser engagement system (MILES) battles with other U.S. units in an effort to master the Panther rules of combat:

- See the enemy before he sees you.
- Make contact with the smallest element possible.
- Fire distribution and control.

Unknown to the majority of the battalion’s soldiers, 5 months later their country would call on them to use the skills and lessons learned from the Kuwaiti desert to dispose of a brutal dictator and free a tortured people.

## See The Enemy Before He Sees You

On the morning of 5 April 2003, after nearly 15 days of continuous combat operations, Alpha Company received the order to establish Objective Montgomery — a blocking position east of a bridge northwest of Baghdad. The Panther TF set up several blocking positions during the course of the war and became the subject matter experts on the tactical task of block. To the soldiers of TF Panther, the mission of block meant they were not the main effort of the 3d Infantry Division attack into Baghdad.

At 0530 on 6 April, TF Panther began their movement to conduct a forward-passage-of-lines with 3d Squadron, 7th Cavalry Regiment (3/7 Cavalry) to establish the locking position that lay over 40 kilometers away.

Once TF 2-69 Armor passed the main body elements of the Spartan Brigade, 2d Brigade, 3d Infantry, the only friendly forces in front of TF 2-69 Armor along Highway 1 was a cavalry platoon of 3/7 Cavalry. As the lead company of TF Panther traveled Highway 1, evidence of previous battles was clearly visible in the destroyed armored personnel carriers (APCs), tanks, artillery, and other vehicles. Finally, the lead platoon, the same one that led the desert MILES battles the previous summer, made visual contact with the cavalry checkpoint. As TF Panther passed the checkpoint, the cavalry soldiers offered cheers and smiles to their brothers of TF 2-69 Armor as remnants of the Hamarabi Armored Division (Re-

publican Guard) and the Fayedeen Military Guerrilla Forces lay before them.

The lead element of TF Panther focuses on Panther rule of combat 1: win visual contact. To win first contact, everyone in the unit must understand where they are looking for the enemy. Assigning everyone a sector of the battlespace to conduct their scans accomplishes this requirement. Once the battlespace is completely covered by friendly optics, visual contact will be won.

First contact was won when the lead tank spotted a uniformed Republican Guard soldier walking out of a store with his weapon slung nonchalantly across his chest. The enemy soldier began walking toward friendly tanks. The lead tank’s tank commander shouted, “CONTACT TROOPS, LEFT,” and began to engage the enemy. As soon as the gunner opened fire with his M240 coaxial machine gun, enemy troops poured into the streets from the adjacent buildings. It was too late for the Iraqi soldiers. Since we won first contact, the enemy had to react to our advances; this gave us control of the battlefield. While the Bradley (M2A2) and Abrams (M1A1), traveling in column formation, continued to scan for Iraqi military targets, the TF commander ordered the air liaison officer (ALO) to coordinate for close air support (CAS).

## Make Contact With The Smallest Element Possible

As the TF pierced the defenses of the enemy, the Republican Guard soldiers focused on the lead elements of the TF. This

was not done by mistake, but rather by design. The second Panther rule of combat — make contact with the smallest element possible — allows the TF commander to maneuver his remaining combat units into position and destroy the enemy quickly and effectively. In the case of the attack to Objective Montgomery, the TF commander fixed the enemy with ground-based direct fire while he coordinated direct fire from the air, which was delivered by A-10 Thunderbolt IIs.



*“CONTACT TANK!!” screamed the gunner in the lead tank of the column. This drill was not just to announce a specific enemy force’s presence to the tank commander, it was broadcasted over the radio net because it serves a very important purpose. After someone gives the warning of an enemy in the area, the enemy’s location and disposition is then broadcasted over the radio net.*

David Leeson, DMN Photo Staff

**“CONTACT-72, LEFT SIDE! CONTACT P-C**

**RIGHT SIDE! TROOPS!”** The American tip of the spear began to pierce the ironclad front of the Iraqi Republican Guard at ranges no more than 500 meters. Because the area was saturated with Iraqi armor and troops, the lead elements of TF Panther began to empty their ready racks. Then, as if the heavens opened up and the angel of death appeared, A-10 Thunderbolt II aircraft swooped down on the Iraqi tanks that were as close as 250 meters from the flanks of TF Panther.

The Iraqi vehicles were too close to friendly forces for the A-10 pilots to destroy them with their Maverick antiarmor missiles, so they engaged every target with powerful 30mm cannons as close as 100 meters from the ground. Their daring and amazing bravery at this crucial point in the battle allowed the armored column to transfer ammunition so the task force could continue the attack to the next checkpoint. Iraqi mechanized infantry began to make their presence known to the American armored column. Rocket-propelled grenades (RPG-7) and small-arms fire began peppering the vehicles in the column. To a tank or Bradley, this is harassing fire, but to the high-mobility multipurpose wheeled vehicles (HMMWVs) and cargo trucks in the column, a direct hit would prove fatal.

**Fire Distribution and Control**

“CONTACT TANK!!” screamed the gunner in the lead tank of the column. This drill was not just to announce a specific enemy force’s presence to the tank commander, it was broadcasted over the ra-

dio net because it serves a very important purpose. After someone gives the warning of an enemy in the area, the enemy’s location and disposition is then broadcasted over the radio net. By sending these reports through radio channels, it allows the commander to decide where he wants his unit to fire and how much ammunition will be used to destroy the enemy. By controlling the direct fire of a small unit, such as a tank company, a tank company commander can mass his available fire to theoretically destroy an enemy three times his size.

We continued our attack to the northwest side of Baghdad using Highway 1. As we approached Objective Montgomery, enemy ammunition, fuel, and supply trucks were lined up on both sides of the road. The tree lines on the sides of the road were filled with enemy tanks, BMPs, MTLBs, ZSUs, and large surface-to-surface and surface-to-air missiles. Extreme discipline and care had to be exercised when engaging the vehicles. We wanted to engage enemy soldiers and disable vehicles, but did not want to blow up the fully stocked ammo trucks. It took precision shooting from our well-trained vehicle commanders and gunners to accomplish the mission. Once we arrived at Montgomery, we assumed the contact would lighten. We had no idea things were about to get worse.

On establishing our hasty battle positions, enemy troops began a counterattack, and once again, the fight was on. In the defense, the Panther rules of combat proved to be more crucial than in the of-

fense. When the TF was on the offense, the Panther rules of combat allowed us to move friendly units, strike the enemy, and protect soldiers traveling in lightly armored vehicles. In the defense, if the Panther rules of combat were not adhered to, the TF would have never seen the enemy until they attacked and would have ran out of ammunition before we could have effectively engaged the enemy. Enemy counterattacks that occurred while at Objective Montgomery that came from our flanks and from across the bridge, were successfully repulsed because they never mastered TF Panther’s rules of combat.

In all, TF Panther traveled more than 80 kilometers, the majority under intense enemy fire, for more than 60 continuous hours. Throughout the battle, the repeating cycle of the Panther rules of combat gave the TF the upper hand against larger numbers of Iraqi forces in an urban environment. This battle, along with the four other major battles that TF Panther spearheaded, gave truth to the courage of the soldiers assigned to this unit and others like it.



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*1LT McKinley Wood is the XO, A Company, 2d Battalion, 69th Armor (2-69), Fort Benning, GA. He received a B.S. from the U.S. Military Academy, West Point, NY. His military education includes the Armor Officer Basic Course and the Scout Platoon Leaders Course. He has served in various command and staff position, to include XO, A Company, 2-69 Armor, Fort Benning; and platoon leader, 3d Platoon, A Company, 2-69 Armor, Fort Benning.*

# 3d Squadron, 7th U.S. Cavalry Up Front:

by Major J.D. Keith

The campaign is over, the guns are quiet (for the most part), and the dreams of many cavalymen in the 3d Squadron, 7th U.S. Cavalry have turned toward home. Thoughts of seeing loved ones and newborn children, hanging out at the beach, or having hot wings and beer at Hooters immediately come to mind.

Of course, it is never that easy. As the squadron continues to conduct stability operations and support operations in Baghdad and prepares for redeployment back to Fort Stewart, Georgia, it is the opportune time to capture more significant reflections on the squadron's operational and logistics experiences as it executed one of the fastest, longest, and most demanding campaigns in recent history.

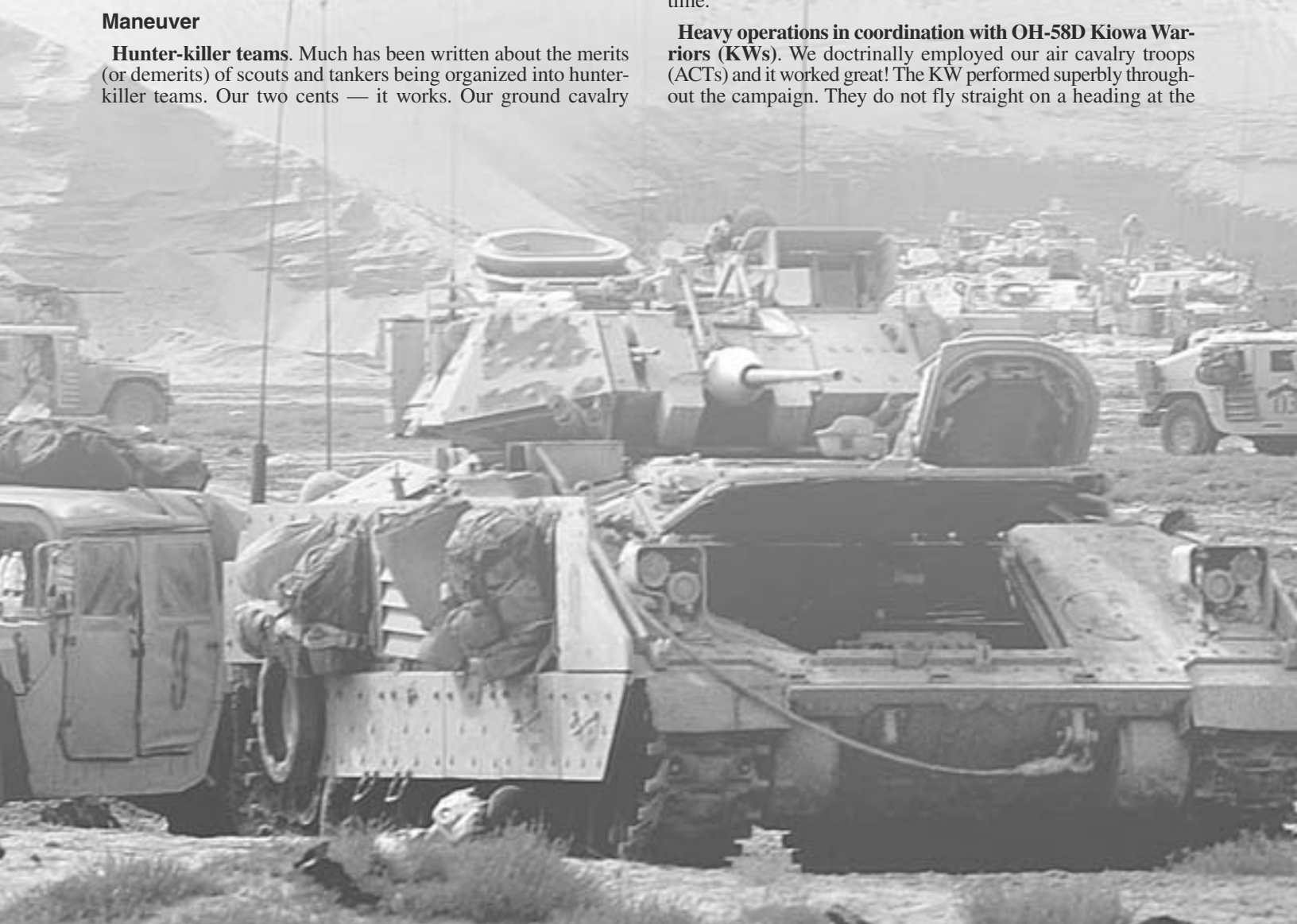
With minimal war stories and hopefully some thought-provoking comments, this article presents a few of the lessons learned by the squadron during this latest conflict that other divisional cavalry squadrons can capitalize on as they prepare to conduct reconnaissance and security operations around the world.

## Maneuver

**Hunter-killer teams.** Much has been written about the merits (or demerits) of scouts and tankers being organized into hunter-killer teams. Our two cents — it works. Our ground cavalry

troops (GCTs) trained hunter-killer teams and tactics at Fort Stewart, the National Training Center (NTC), and in Kuwait, then exercised them in the ultimate test — combat. The typical team consisted of three cavalry fighting vehicles (CFVs) and two tanks. As troop commanders made contact with enemy forces, they were rapidly able to bring overwhelming fires to bear within seconds of the initial contact versus trying to maneuver a tank platoon to the point of contact or to outflank the enemy. This gave the scout (platoon leader or platoon sergeant) the ability to rapidly kill the enemy he encountered with his CFV or tank fires, instead of becoming truly “decisively engaged” and losing the ability to maneuver and continue his mission. When in more static, squadron guard operations, due to the nature of the threat, we continued to work in hunter-killer teams with great effectiveness with each outpost having the firepower and flexibility to deal with any of the situations they encountered when defending against attacking Iraqi forces. Hunter-killer teams work — be flexible and train them during peacetime.

**Heavy operations in coordination with OH-58D Kiowa Warriors (KWs).** We doctrinally employed our air cavalry troops (ACTs) and it worked great! The KW performed superbly throughout the campaign. They do not fly straight on a heading at the



# Operation Iraqi Freedom Lessons Learned

same altitude, or hover in one area long enough to be engaged. On a number of occasions, the KWs took ground fire and received damage, but it was mostly cosmetic. The troop tactics, techniques and procedures (TTPs) that we trained and exercised at home station, the Joint Readiness Training Center, the NTC, and during train-up in Kuwait, enabled the crews to execute their missions and survive.

The squadron must be resourced to operate two forward arming and refueling points (FARPs) in addition to providing cold gas in the squadron support area (SSA) to fully support offensive operations. Through extraordinary means, we were able to do this and it paid great dividends as our FARPs maneuvered across the battlefield to be in position to “go hot” as required to support continuous air operations. Finally, higher headquarters need to understand and be more cognizant of how cavalry units employ their organic aviation assets in cross forward line of own troops (FLOT) operations to allow them to operate freely within their capabilities based on the commander’s recommendation to accomplish specific missions.

**OH-58D Kiowa Warrior operations in built-up areas.** During the campaign, our ACTs conducted numerous operations in built-up areas, encountering heavy small-arms fire on several oc-

casions. Several of the aircraft received damage; but none were lost to enemy fire. To mitigate risk while still accomplishing the mission at the squadron level, we actually evaluated the need for KW support for each of these types of missions. If KWs must be used around contested urban terrain, we recommend that they be used during hours of limited visibility, thereby greatly increasing the aircraft’s survivability.

## Intelligence

During combat, the divisional cavalry squadron typically operates under the direct control of the commanding general and his assistant division commander for maneuver. When employed doctrinally, the squadron area of operations (AO) greatly exceeds that of a normal brigade combat team (BCT) — often more if working across the division front — therefore, it is logical to assume that the squadron should be equipped similar to a BCT because it needs an analysis control team. Without this asset, the squadron gathers intelligence, but is severely hamstrung in receiving intelligence since it does not have robustness in the S2 shop or digital links for the analysis control team to tap so they can send information laterally, or receive information and analysis from higher. Adding an analysis control team will greatly assist the commander and his staff as they develop the intelligence picture



of the battlefield. Not only will this help discover and develop the situation in the squadron AO during operations, but will help gain a clearer picture of the proposed AO during the planning process. Currently, the squadron must either go back to division (often physically) and piggyback on a nearby BCT to gather necessary planning information, or fight the good fight with division to have an analysis control team from a BCT assigned.

## Fires

**The howitzer battery and squadron mortars.** A howitzer battery is an integral part of a regimental cavalry squadron's modification table of organization and equipment (MTOE) for a reason, and it needs to be added to the division cavalry's MTOE.

Responsive, large caliber cannon fires are a must for successful cavalry operations. The division's answer to this shortcoming was to attach a six-gun Paladin battery to the squadron and — to put it simple — we maneuvered like a mortar platoon on steroids. Over the course of the campaign, our howitzer battery fired over 600 rounds of 155mm high-explosive (HE) rounds, dual-purpose improved conventional munitions (DPICM), and search and destroy armor (SADARM), and definitely contributed to the squadron's success in every engagement against Iraqi forces. If the howitzer battery cannot be added to the squadron MTOE, then the division should create a habitual relationship between an existing howitzer battery within division artillery, and with the squadron in garrison, field training, and combat. This will require the howitzer battery to attend the squadron's training meetings, field problems, and other exercises so that it becomes completely integrated into the squadron. Since the squadron has only six M1064 120mm mortars organic to the unit (two per GCT by MTOE), we chose to form them into a six-gun mortar platoon in garrison to maximize training and provide limited massed indirect fires to the main effort to facilitate maneuver. To do this, we also added a fire direction center (FDC) M577 and an M998, and crewed both vehicles out of hide. During Operation Iraqi Freedom and based on our mission analysis, we decided to break the platoon back down into two three-gun sections and attach them to two of the GCTs. We found this technique highly beneficial not only to MOS-specific training, but it added increased fire support flexibility to the squadron since the mortars could operate as a six-gun platoon or break down into three- or even two-gun sections, depending on the mission. This also allowed us to use the mortarmen in a dismount mode during stability operations and support operations since they were already a trained platoon with an established chain of command. Any fire support the squadron can get is good — do not change

the MTOE reference mortars unless it is to assign them as a platoon under headquarters and headquarters troop. The howitzer battery will be a great combat multiplier as it allows the squadron to truly "DESTROY" enemy forces with indirect fires (SADARM and DPICM) and to help shape the squadron's fight.

**Enlisted tactical air controller (ETAC) integration and resourcing.** The U.S. Air Force's ETAC is the true battlefield hero. In today's joint fighting environment, the ability of the ETAC to unleash hell on an enemy force is unchallenged. The divisional cavalry squadron should be resourced with three ETAC teams, each in an armored vehicle (increase the current MTOE from one to three M113A3s). Distribution is one per GCT. Proper employment of the ETAC is a true combat multiplier, whose use in combat saves countless friendly lives. Also, the employment of close air support via the ETAC needs to be aggressively trained in garrison. Leaders from troop to squadron level need to fully understand the capabilities that the ETAC brings to the battlefield and the constraints under which it operates.

## Mobility/Counter mobility/Survivability

Adding a combat engineer company to the squadron is always a battlefield multiplier. In the case of Operation Iraqi Freedom, our attached engineer company's performance was absolutely superb. Without using mines and with limited class IV barrier materiel, they quickly constructed temporary counter mobility obstacles by moving wreckage around the battlefield or emplacing berms along high-speed avenues of approach to hinder enemy movement. They also provided quality bridge and route assessments along our lines of communication, allowing the scouts to focus on gaining information and maintaining enemy contact. Finally, the engineers proved very effective in their secondary role as infantrymen, manning key dismount avenues of approach and fighting from open-hatched M113s to keep enemy dismounted infantry and paramilitary forces away from the M3s and M1s, especially in urban terrain.

Adding an engineer company to the squadron cannot be underestimated, their input and assistance in terrain analysis during mission analysis and execution was vital. The squadron does need support from higher, and conducts its mission analysis to determine which engineer vehicles are required to support combat operations — it may be more effective to leave armored vehicle launch bridges (AVLBs) or armored combat equipment (ACE) behind in a consolidated unit package due to maintenance and speed, especially during offensive operations.

Replace the squadron's M998 HMMWVs with M1114s (M1025/26 at the least). The squadron's recent experience fighting an asymmetrical threat, in addition to our experiences at the NTC, simply reinforce the need to replace the vast majority of the squadron's M998s with up-armored HMMWVs capable of mounting crew served weap-



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*"We doctrinally employed our air cavalry troops (ACTs) and it worked great! The KW performed superbly throughout the campaign. They do not fly straight on a heading at the same altitude, or hover in one area long enough to be engaged."*

ons. This change not only increases protection to the vehicle's occupants but also allows the squadron to provide security to its own high value assets, especially when on the move. During Operation Iraqi Freedom, the squadron used a direct support linebacker platoon to provide security to the FARPs and the squadron support area (SSA). If left to only organic assets (as done during NTC rotations), the squadron was forced to take a scout platoon from one of the GCTs to provide this vital security support. Authorizing M114s in place of M998s allows the squadron to provide greatly increased security to rear area elements in the event of contact with enemy forces, and also allows a greater distribution of mobile crew served weapons with night vision devices.

### **Air Defense**

The squadron used a linebacker platoon as direct support throughout most of the campaign. During one portion, we had a battery. Based on threat analysis, we chose to use the air defenders in a ground support mode, marrying them up with our two FARPS. We used the combat trains to provide much needed mechanized combat power to these high value assets, without which we could not accomplish mission. This also enabled us to keep combat power forward with the GCTs instead of pulling reconnaissance forces from them to protect our combat service support assets. When operating with a battery, adding the battery commander and his M2A2 to the tactical operations center (TOC) greatly enhanced the TOC's defenses because the tactical actions center was not collocated. The linebacker-equipped air defenders performed superbly in ground support and are a definite value added to the squadron during any and all operations.

### **Logistics**

**Forward area support company (FASCO)/forward area support team (FAST).** One major problem during division cavalry operations is logistics support. There is very little, if any, writ-

ten doctrinal guidelines, and there is no dedicated logistics support element, such as a brigade's forward support battalion (FSB), to support a squadron the size of a mini-brigade. While the squadron operates under the aviation brigade in garrison and receives aviation intermediate maintenance (AVIM) support from the aviation support battalion (ASB), the ASB is not equipped in any way, shape, or form, to support the squadron's substantial ground combat and support fleet. On the other hand, while the division's main support battalion (MSB) has the capability to support the squadron's ground components, it does not have the AVIM.

Another significant support obstacle is that the squadron almost always works directly for the division commander as a separate maneuver element, typically well forward in the division's battlespace, significantly increasing the distances it must travel to get logistics support — far beyond what a maneuver brigade must travel to get support from its habitual FSB. The squadron, in conjunction with the division, fought to rectify this logistics situation while still deployed to Bosnia as Stabilization Forces (SFOR) 9.

While preparing for NTC rotation 02-07, the division created a FAST out-of-hide from elements of the MSB and ASB. The team had an organic maintenance support team equipped with one M88A1, one M978 wrecker, direct support electrical test set (DSETS), GRM-122 (single-channel ground and airborne radio subsystem [SINGARS] radio test set), and assorted other maintenance vehicles. An additional support package with eight 5,000-gallon fuel tankers, two reverse osmosis water purification systems, two front-line ambulances, two palletized load systems, one forklift, three heavy-equipment transports, three 5-ton cargo trucks, and command and control vehicles were assembled to provide the remainder of support. We tested the concept during NTC 02-07 when the squadron deployed and operated under the control of the 52d Mechanized Division, which was the first de-

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ployment of the entire squadron since Operations Desert Shield/Storm.

During redeployment, the FAST, as a separate, distinct unit, was unfortunately allowed to slip into obscurity. On receiving notification to prepare to deploy in support of Operation Enduring Freedom, the FAST (or FASCO as we viewed it) again received increased emphasis from the squadron. The FASCO was formed and supported the squadron throughout the deployment, reception, staging, onward movement, and integration (RSOI), combat operations, and redeployment. A senior first lieutenant commanded the FASCO and a master sergeant served as the non-commissioned office in charge.

From January through the end of April, the FASCO supplied the squadron with over 320,000 gallons of JP8; 345,000 meals ready to eat; 230,000 gallons of bottled water; 175,000 gallons of bulk water; 80,000 short tons of ammunition; repair parts in excess of \$14 million; 115,000 gallons of packaged petroleum products; and completed 305 direct support job orders. It remains an essential part of the squadron's ability to conduct operations successfully. We emphatically recommend the following:

- Establishing FASCO as an MTOE-authorized unit under the MSB. This requires transferring personnel and equipment from the MSB to the new MTOE unit, and transferring limited personnel and equipment from the ASB to the new FASCO.
- The FASCO provides direct support to the squadron 100 percent of the time, in garrison, training, and combat.
- The relationship between the FASCO and the squadron is the same as that of a direct support artillery battalion to its habitual brigade combat team.

- A major, either ordnance or quartermaster, should command the FASCO. The position should be a branch qualifying position and considered the equivalent of a support operations officer.

- The FASCO commander's rater will be the squadron commander, his intermediate rater should be the MSB commander, and the senior rater will be the division support command commander.

Permanently establishing the squadron FASCO is absolutely essential to successful squadron operations in support of the division. We tested this theory at the NTC, validated it in combat during an attack that stretched over 700km, and then continued to support the squadron during stability operations, support operations, and redeployment. Bouncing the squadron's support from one FSB to another, or relying on the MSB, does not work. Institute the FASCO now — this is an absolute must!

**Squadron maintenance operations.** Establish the squadron maintenance platoon just like an armor or mechanized battalion MTOE unit. Although many future (and maybe a couple of past) GCT commanders will grind their teeth, the full-time consolidation of the GCT maintenance teams on MTOE will greatly facilitate maintenance operations in garrison and field/combat operations. This will help the squadron maintenance sergeant ensure that all the squadron's mechanics receive the training they need to fully support their unit's wartime needs (it isn't just about turning wrenches).

The current divisional cavalry squadron MTOE gives the squadron five M88A1 recovery vehicles, one fewer than an armor/mechanized battalion, yet we have 68 combat vehicles (41 M3s and 27 M1s) organic to the squadron, versus 44 in the armor/

*"The squadron's recent experience fighting an asymmetrical threat, in addition to our experiences at the NTC simply reinforce the need to replace the vast majority of the squadron's M998s with up-armored HMMWVs capable of mounting crew served weapons. This change not only increases protection to the vehicle's occupants but also allows the squadron to provide security to its own high value assets, especially when on the move."*



mechanized battalion. This equates to 35 percent more combat vehicles. Add the doctrinal time and space distances that the squadron operates over that of an armor/mechanized battalion and this shortcoming of recovery assets speaks for itself. In addition, the squadron typically does not have an FSB to fall back on for additional recovery support. Division cavalry squadrons need to be authorized at least two more M88A1s to facilitate squadron operations. Finally, we need to put to bed the old “built-up prescribed load list (PLL) and tool truck versus deployability” issue. Change the squadron’s MTOE to replace all troop PLL and tool trucks with M1079 vans. They are practically ready-made PLL/tool trucks that can be quickly reconfigured internally to provide a clean, organized, and safe environment for work and storing PLL/tools. They also come with built-in electrical wiring that enables use of the unit-level logistics system computer inside the truck.

## Command and Control

**The tactical actions center (TAC).** When formed, the squadron TAC should have three Bradley-series vehicles (M3/BFIST). Currently it has two — the commander’s and the S3’s. The squadron fire support officer (FSO) should be equipped with a BFIST; he currently has his M577 in the TOC and an M998 HMMWV. If the FSO is given a BFIST, we then recommend putting the ETAC with his communications package in the back of the BFIST — this may be a little crowded, but worth investigating. Given the distances covered by the squadron, this will allow for fires deconfliction as far forward as possible, especially when distances prevent the advanced field artillery targeting and direction system from operating and everything is executed over frequency-modulated (FM) or tactical satellite radios. If the ETAC needs to see outside the vehicle, he can always open the hatch of the BFIST. Keep the ETAC HMMWV if possible — just as a backup.

**Communications.** The division cavalry squadron needs a more robust long distance communications package. The MTOE should be changed to replace the current M998 retransmission (RETRANS) vehicle with armored vehicles, such as an M1114 or M113A3, to provide increased protection and firepower to an element that typically is required to operate alone on the battlefield. The squadron had the opportunity to draw additional M113s during the operation and did exactly that — with great results. When not used for RETRANS, the M113s (with .50-cal machine guns) provided outstanding security support to the squadron TOC and combat trains (both elements without much firepower). When employed as RETRANS, having two like vehicles (M113/M114) with the capability to traverse challenging terrain, and outfitted with .50-cal machine guns or MK-19s, the RETRANS team can provide its own security when none is available. If the squadron S6 is similarly equipped with an armored vehicle, he can perform emergency RETRANS and provide additional security to the squadron TOC.

The squadron also had the unique opportunity to use the Force XXI battle command brigade and below (FBCB2) — blue force tracker in combat. The system we used was satellite based instead of enhanced positioning location and reporting system (EPLRS) based. Although we did not have any experience with the EPLRS-based system, the satellite generally worked great. The ability to maintain situational awareness and send free text messages was vital to the squadron’s overall success, especially when we were forced to operate beyond FM communications range within the squadron. FBCB2 should be more evenly distributed across the squadron than ours were during Operation Iraqi Freedom — we had only five systems in the squadron, providing zero redundancy. Troop commanders, the squadron commander, and

the squadron XO at the TOC were the only recipients of this outstanding system. Although every vehicle does not need FBCB2, we do recommend the following based on the cavalry squadron’s doctrinal missions and our experiences with the system:

- 11 per GCT — two scout platoon, two tank platoon, one troop commander, one troop XO, and one troop command post.
- One per ACT — mounted in troop commander’s HMMWV.
- Two per aviation unit maintenance troop — mounted in HMMWV (FARP command and control vehicle).
- Five per squadron TAC/TOC — squadron commander/S3 M3, S3 577, S2 577, and FSO 577.
- Two per squadron combat trains command post — S4 577 and HMMWV.
- Six in headquarters and headquarters troop (HHT) — squadron maintenance officer, senior maintenance sergeant, support platoon leader, HHT commander, HHT first sergeant, and HHT maintenance sergeant.

This arrangement brings the grand total to 50 systems across the entire squadron. This not only increases overall friendly situational awareness and the ability to navigate the battlefield, but provides a secondary or tertiary means to disseminate graphics, fragmentary orders, and important reports across the width and breadth of the unit.

Finally, MTOE does not adequately equip the squadron with UHF/VHF communications. Reliable UHF/VHF communications within the ground elements of the squadron could have greatly increased the squadron’s ability to fully use the KWs’ communications systems. This would have allowed the squadron commander, TOC, and GCT commanders to maintain redundant communications with the KWs and take greater advantage of their ability to maneuver freely across the squadron’s battlespace. Putting this capability into the FARP command and control vehicles will also allow the pilots a more reliable and capable means of communicating with FARP NCOICs, which is vital when maintaining KW coverage on the battlefield. To accomplish this, we recommend that the MTOE be changed to authorize 16 AN/VRC-103 multi-channel radio systems that operate in UHF/VHF and FM frequencies.

Hopefully these comments and recommendations will find support across the armor/cavalry community and work their way into unit MTOEs and standard operating procedures.



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# TANKS AND “SHOCK AND AWE”

by Captain Jay D. Pellerin

When I first heard the term “shock and awe” that was used to describe the initial bombing of Baghdad aimed at destroying Saddam Hussein’s regime during the first days of Operation Iraqi Freedom, I admit to initially being slightly incensed. The first thing that came to mind as I watched the explosions on the television news was, “here we go again.” I remember thinking about Kosovo and NATO’s “air war.” It had peeved me then to think that the news agencies and, subsequently, the public would be overemphasizing airpower.

Of course, we know the outcome of that operation, and all of it without a single ground unit. I believed Iraq was different. Instead of coercing a government to come to an agreement, Iraqi Freedom meant regime change and possibly urban warfare. I recall hearing, “the size of California” more than once, in regards to controlling the territory of Iraq.

The term “shock and awe” took my memory back to a welcome packet I received from my former National Guard unit. Inside the packet was a piece of paper with a drawing of a tank, and under the tank were three words — “shock, overwhelm, and destroy.” Tanks are fine examples of applying shock and awe, I

decided. After searching through a bookstore and online, I quite by accident ran across a link to what I first believed was an article, but is in fact a book titled, *Shock and Awe: Achieving Rapid Dominance*.<sup>1</sup> The book was published in December 1996, nearly 7 years before Iraqi Freedom, which intrigued me.

What is this book about? The authors wanted to “explore alternative concepts for structuring mission capability packages around which future U.S. military forces might be configured.” What does this have to do with anything that might be considered shock and awe? It has to do with the latter part of the title — achieving rapid dominance.

Rapid dominance is really a theory about a new way to use the military. Instead of the slow buildup of heavy forces, which the authors term the “decisive force,” such as occurred in Operations Desert Shield/Storm, the U.S. military could use a regime of shock and awe to basically intimidate the enemy into submission.

This idea is not new, but the various types of shock and awe and how today’s military forces might apply them is quite intriguing. It appears that based partly on various news coverage of this concept and the odd (and largely inaccurate) antiwar online hysterics about this new policy, and to paraphrase, “that promotes nuking

countries to get our way,” that the ideas in this book do form some basis for current operations in Iraq and possibly national defense as a whole.

This article discusses the idea of shock and awe and how the main battle tank remains relevant — first, as a part of the rapid dominance concept, and secondly, the forms of shock and awe that it best fits. This, coupled with current events, will show that rapid dominance by shock and awe can work, and that tanks contribute to its success.

## Rapid Dominance

In its base form, rapid dominance is merely a reaction to tough times. With the end of the Cold War (yes, it apparently still haunts the military), there is no consensus on how we should fight. Related to that is the ever-shrinking defense budget. However, with information and other technologies being developed by the free enterprise system, perhaps there will be a positive run over, or available technologies with military application that the Department of Defense can buy off the shelf at a reasonable price.

Tied in with all of this is the fact (based again on 1996 events) that the U.S. military remains deployed worldwide, with no foreseeable decrease in its operating tempo. The decisive force concept is too

*"The decisive force concept is too slow and too expensive. What the rapid dominance concept seeks to do is to promote a revolutionary change in the way wars are fought, in addition to doing it quickly and cheaply. Rapid dominance is the long-sought strategic goal of affecting the will, understanding, and perception of an adversary. In short, destroy his will to resist before, during, and after the battle."*

slow and too expensive. What the rapid dominance concept seeks to do is to promote a revolutionary change in the way wars are fought, in addition to doing it quickly and cheaply. Rapid dominance is the long-sought strategic goal of affecting the will, understanding, and perception of an adversary. In short, destroy his will to resist before, during, and after the battle.

Rapid dominance has the ability to achieve this goal by using the necessary levels of shock and awe. Important to achieving shock and awe is integrating strategy, technology, and innovation. It is important to note that rapid dominance requires both physical and psychological effects. The rapid dominance force must also contain knowledge, rapidity, control of the environment, and brilliance.

So where does the main battle tank fit in? The traditional military aims to destroy, defeat, or neutralize the enemy's military capability, and this remains a fundamental concept. The tank is already well suited for this role, in addition to providing a real physical threat that can be seen and heard. In this way, the tank fulfills both the physical and the psychological effects needed to affect the enemy's will to fight. By violently applying the tank's capabilities, further psycho-



David Leeson, DMN Photo Staff

logical effects can be garnered. In other words, knowing a tank is coming can be scary. Seeing tanks destroy a fellow mechanized infantry company is paralyzing. This gives tanks the ability to dominate the enemy's will. Tanks can also be rapid during all phases of an operation. Although the tank is noted as being difficult to move and maintain, various places around the world maintain tanks and other equipment ready for combat. Just fly in crews and this heavy weapons system can be on the attack in a matter of hours. It is also tactically fast and well suited for maneuver warfare, although some have criticized its logistics tail. Along with the intended paralysis caused by psychological dominance, the tank's ability to physically occupy terrain aids in rapid dominance's need to control the battlefield environment at all levels.

When compared to the decisive force model, it is easily seen how the tank traditionally operated in that environment. Massive amounts of force were used, with psychological and other effects providing an ancillary role. The primary destructive means were based on force-on-force and attrition, with a margin for error. The problems with this model is the time required to assemble overwhelming force, and an enemy that may not actively use its technological or traditional military as the United States does. It focuses primarily on destroying military targets, especially armored vehicles. On a tactical level tank, operations remain the same. The point is that the tank, in supporting the objective of controlling the adversary's will to fight, also fulfills some of the technological requirements of a rapid dominance model. The force size where tanks have to fight a numerically superior enemy has been a part of U.S. military strategy since the days of the Cold War. Because the tank has been designed for this role, in conjunction with other forces, it is able to also maintain lower casualties that rapid dominance also requires, since the model lacks the standard buffer of larger number of forces in theater.



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While seeking knowledge of the environment and the enemy, tank forces and other armored vehicles have been used effectively in the reconnaissance role. Even with the logistics tail, the tank can be maintained and operated for long periods of time, which provides rapidity. In controlling the environment further, the tank has often been used in a counterreconnaissance role, and by its very presence, can often deceive the enemy as to what kind of force it is immediately facing.

In institutionalizing brilliance, the armor community is well equipped to learn and execute new tactics, techniques, and procedures to make the tank more capable. As for empowering individual elements, the combined arms in which tanks fight and train under, provide a flexible platform that can tailor tanks to fit the operation at any specific place and time.

As discussed, rapid dominance depends on the application of appropriate levels of shock and awe. Shock and awe are the means by which to intimidate and compel the enemy into accepting our strategic and political goals. Although, there are roughly nine forms of shock and awe, this article addresses only those forms best

fitted for the tank. These forms are largely historical in description and often take their names from particular events. There are roughly five forms in which I see tanks performing: overwhelming force, Blitzkrieg, Haitian, Roman Legions, and the Royal Canadian Mounted Police.

#### **Overwhelming Force**

To a large extent, we are all familiar with overwhelming force and the decisive force concept as discussed earlier. How it fits within rapid dominance largely has to do with applying the force across a broader spectrum of leverage points to impose shock and awe. Here, the tank continues in its traditional role, but does not have to completely destroy the enemy to be victorious. Instead of continuing to fight, the enemy is sufficiently cowed into surrendering, fleeing, or in other words, defeated.

#### **Blitzkrieg**

The Blitzkrieg form probably provides the best way to use tanks. In Blitzkrieg, an enemy's line is penetrated and mass is achieved in a narrow salient. An enemy that is dependent on maintaining his lines to protect his otherwise vulnerable sup-

port assets and command and control nodes, basically panics when faced with large numbers of tanks when he has little or ineffective antitank capability. On a tactical level, this is synonymous with conducting a breach and providing a point of penetration in which the majority of forces attack through and not just to the rear of the immediate defensive line. Just to reiterate, you can see how the tank's real and physical destructive power allows it to achieve a psychological effect.

#### **Haitian**

The Haitian form is based on a show of force against the French during the 1800s in Haiti. In today's terms, it would involve parading the same tanks over and over again to provide the illusion of a larger force. This form of deception also works for making nonmission capable tanks seem mission capable, whether due to maintenance or the lack of training. It is important to note that many communist countries have done this, and some, such as North Korea, still do (that is if you believe their equipment is nonmission capable or their tankers are not trained). A better example of an operational setting was in 1991: if Iraq's military caused the U.S. and its allies not to attack because on paper its army was the 4th largest in the world, then shock and awe would have been achieved by the Iraqis through psychological means.

*Continued on Page 40*

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# Field Trains and LOGPACs in an Armor Task Force

by Captain Mike Sullivan and Master Sergeant Tom Pailliotet

*The commander checked his watch again. "Damn, where is the first sergeant with our logistics package (LOGPAC)? We LD in about 5 hours and we need supplies," thought the commander. Gazing around at his near-empty tanks, he wondered what could be keeping the LOGPAC. A distant explosion answered his question. "Black 6, this is Black 7, we are under fire! I say again, LOGPAC is under fire! Dismounts with RPGs just hit two fuelers. Look out! There's a BMP! We need..." Black 6 listened for an agonizing minute to the silence coming over the company net wondering what went wrong and how he could complete his mission without being resupplied.*

"Logistics," the word sends cold chills down the backs of most tankers and infantrymen. "Combat service support (CSS) doesn't concern me, I'm a combat arms guy. Only CSS guys deal with that problem." How many times has this quote come back to haunt your platoon or company? How many missions have been delayed because of inadequate logistics planning? At the Combat Maneuver Training Center (CMTC), logistics challenges are faced every day by blue force (BLUFOR) units fighting in the box. To help future company commanders, first sergeant (1SGs), support platoon leaders, and platoon ser-

geants, this article addresses LOGPAC planning, security, and execution at the battalion/team level. The goal is to present usable products to prevent your next mission from being delayed because of that difficult, but vital, word — "logistics."

Although no single field manual exists that covers how to run a headquarters and headquarters company (HHC) in a mechanized or armor battalion, U.S. Army Field Manual (FM) 71-123, *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, Chapter 8, covers the CSS area at battalion and company levels.<sup>1</sup> Section II addresses the roles of the battalion CSS players. Specifically, page 20 outlines the HHC commander's role:

- Field trains officer in charge (OIC).
- Coordinates support of the task force (TF) in the battalion support area (BSA).
- Serves as liaison officer to the brigade rear command post (CP).
- Acts as battalion task force logistics problemsolver.
- Coordinates the flow of information between the combat trains CP and the field trains sections through communications with the S4.

- Directs the company team supply sergeants in the formation of LOGPACs.
- Makes decisions effecting CSS operations in the absence of the XO.

The support platoon puts together the logistics plan as outlined by the S4, and the HHC commander prompts the logistics execution. The lifeblood of the battalion, FM 71-123, describes the support platoon's role: "The support platoon has a headquarters section, a decontamination section, a transportation section, a mess section, and company Classes III and V supply squads. Although the support platoon leader works for the S4, he is under the supervision of the HHC commander in the field trains. The platoon leader is assisted by the support platoon sergeant, who is also the truck master of the transportation section."<sup>2</sup>

The support platoon serves as primary movers, getting food, fuel, ammunition, and repair parts, and transports personnel to the companies. Without this vital link in the logistics chain, company- and platoon-level CSS would cease to exist. FM 71-123 explains that, "The most efficient resupply of forward TF is accomplished by the LOGPAC, a method in which resupply elements are formed on the basis of logistics requirements of the unit. LOGPACs are organized in the field trains by



the company supply sergeant under supervision of the HHC commander and the support platoon leader.”<sup>3</sup>

When asked how a unit runs their LOGPAC, the standard answer is usually, “by SOP, of course!” Unit SOPs vary, but FM 71-123 gives good guidance on what a standard LOGPAC should consist of:

- Unit supply truck. This vehicle contains the supply class I requirements based on the ration cycle. The supply truck tows a water trailer and carries full water cans for direct exchange. In addition, the truck carries any class II supplies requested by the unit, incoming mail, and other items required by the unit. The truck may also carry replacement personnel.

- Petroleum, oils, and lubricant (POL) trucks. Bulk fuel and packaged POL products are transported by these vehicles.

- Ammunition trucks. These vehicles contain a mix of ammunition for the weapons systems of the company team. Unit SOP establishes a standard load; reports and projected demand may require changes to this standard load.<sup>4</sup>

Although the S4 is the task force CSS planner, experiences both as an HHC commander and an observer controller at the CMTC shows the S4 normally gets caught up in the military decisionmaking process (MDMP) and battalion orders process, prohibiting his direct involvement in battalion LOGPAC operations. A method to overcome the S4’s involvement in the MDMP is for the HHC commander and 1SG to run the battalion LOGPACs.

*Hurricane 6 (HHC commander) emerged from the field trains command post (FTCP) after checking with the combat trains command post (CTCP) for any changes to the*

*afternoon’s LOGPAC. The S4 was still at the battalion tactical operations center (TOC) putting the finishing touches on the logistics paragraph of the battalion operations order (OPORD). The line companies called in no changes.*

*The support platoon leader, Atlas 6, was moving around the field trains supervising, monitoring, and talking to his soldiers as they went through their preparations for LOGPAC. Everyone knew tomorrow’s mission involved an armored advance against possible heavy enemy defenses. The tankers and infantrymen up front needed all the fuel and ammunition they could get and these soldiers were determined to get it to them.*

Throughout the day, all members of the field trains comply with a set battle rhythm. Normally, LOGPAC returns late at night. Starting with the established brigade support area stand-to times, the members of HHC prepare to support the battalion:

**0500:** Green 2 (sensitive items report) sent to the battalion TOC.

**0530-0630:** Stand-to. All defensive fighting positions manned and 100 percent of personnel ready to defend.

**0630:** FTCP shift 1 assumed FTCP duties.

**0700:** Established daily priorities of work based on guidance from the commander and 1SG.

**0700-0730:** LOGPAC meeting.

At the LOGPAC meeting, the commander and 1SG discuss issues for the daily LOGPAC with key players. All company supply sergeants, support platoon leaders (to include section leaders), the dining facility (DFAC) platoon sergeant, senior

*“The support platoon serves as primary movers, getting food, fuel, ammunition, and repair parts, and transports personnel to the companies. Without this vital link in the logistics chain, company- and platoon-level CSS would cease to exist. FM 71-123 explains that, “The most efficient resupply of forward TF is accomplished by the LOGPAC, a method in which resupply elements are formed on the basis of logistics requirements of the unit.”*

maintenance sergeant, HHC XO, and other key players for LOGPAC attend. The focus of the meeting is to go over routes and logistics release point (LRP) locations, and address any problems the company supply sergeants are experiencing. Maintenance issues and materiel flow must be discussed as well. Finally, the support platoon leader reconfirms the timeline for LOGPAC with all key players, ensuring everyone knows when to line up for the LOGPAC brief.

After the LOGPAC meeting ends, each section heads back to their respective area and begins to prepare. Support platoon members conduct daily preventive maintenance checks and services (PMCS) on their vehicles with the assistance of the field trains maintenance team. The prescribed load list (PLL) clerk drops his PLL disk with the forward support battalion (FSB) and picks up parts. The parts are separated by company and placed in a central location for the company supply sergeants to pick them up. Complying with established stand-to times, support platoon members begin to prepare:

**0730-1200:** 100 percent PMCS of all vehicles; report deadlines to motor sergeant.

**0730-1300:** Support platoon and supply sergeants resupply and upload vehicles.

**1200:** DFAC meal breaks ready for pick up and uploaded by supply sergeants.

**1300:** Supply sergeants refill water trailers at FSB water point.

According to FM 71-123, the company supply sergeant is the link between battalion- and company-level logistics.<sup>5</sup> The supply sergeant is the company’s representative in the battalion field trains. He assembles the standardized LOGPAC and moves it forward to the battalion LRP. The supply sergeant follows the 1SG to the company resupply point and assists in the resupply operation. He is responsible for:

- Requisitioning classes II, IV, VII, and some classes VIII and IX supply items.

- Coordinating with the support platoon leader for supply classes I, III, and V.

- Maintaining individual supply records/clothing records.

- Picking up personnel replacements at the TF field trains and preparing them for linkup with the ISG.

- Receiving and evacuating killed in action to the graves-registration point in the BSA.

- Returning the LOGPAC, with enemy prisoners of war, damaged vehicles, and so forth, to the BSA for further disposition.<sup>6</sup>

Obviously, the company supply sergeant is the key player in the field trains. He coordinates within the battalion field trains with elements of the BSA to get parts, supplies, replacement personnel, and vehicles.

*Hurricane 6 and 7 watched with pride as the supply sergeants finished loading their vehicles with DFAC meal breaks and then topped off the water trailers. During the last battalion field exercise, the HHC commander and ISG fought hard to get the company supply sergeants to participate in a field trains exercise. Although the battalion was running a standard gunnery, Hurricane 6 was able to get some land for his field trains to set up and operate. After much debate between commanders, the battalion S3 ruled in favor of the HHC commander and had all company supply sergeants in the field trains. Although painful at first, the results in training had obviously paid off. Since hitting the ground, the company supply sergeants were seamlessly integrated into the field trains and maximized every minute they had to prepare to support their companies. Using a LOGPAC checklist, each company supply sergeant ensured he did not miss any of the numerous steps in preparing his company for battle.*

*Members of the DFAC once again had made their break times. Pallets with pre-made metal signs indicated where each company and section break was to be picked up. Supply sergeants only had to pull their 5-tons around and upload chow. The DFAC checklist ensured the right amounts of food, flatware, sugar, cups, condiments, and fresh fruit went out to the troops. Company headcounts were verified through the FTCP. Each supply sergeant went through the checklist and returned it to the DFAC platoon sergeant. Now, with his soldiers free from prepar-*

*ing the evening hot meal, the platoon sergeant had his soldiers continue to prepare the DFAC trucks in case of a mass casualty drill or a nuclear, biological, or chemical attack. The HHC commander designated members of the DFAC and support platoon as the battalion decontamination teams. His thought process behind this decision was two-fold: any chemical strike on the forward companies would not affect the BSA; and the number of personnel and vehicles associated with both sections gave them the greatest freedom of mobility to respond to any request for decontamination.*

Prior to entering their areas of operation, the S4, battalion command sergeant major, HHC commander, support platoon leaders, and all company ISGs met to discuss LOGPAC operations. Based on a map reconnaissance, four LRPs were established. The intent was to avoid dropping off and picking up LOGPAC at the same location. Consisting of soft-skinned vehicles with limited defensive capabilities, the support platoon sergeant and HHC ISG knew that speed and unpredictability were their best allies. Once on the ground, company ISGs, escorted by a section of combat vehicles, reconned the preplanned LRP sites and reported to the S4. Based on their refinements, the four LRP sites were on the battalion CSS graphics. Preparations continued:

**1300-1330:** Vehicle line up.

Under the guidance of the support platoon sergeant, the vehicles of the convoy were lined up based on the company or-

der established during the morning LOGPAC meeting. The order of movement was Bravo Company, Alpha Company, and then Charlie Company. HHC supply, which would resupply the unit maintenance collection point, CTCP, scouts, mortars, and the TOC, would trail. The company supply sergeants linked up with their respective support platoon teams. Each company section prepared to move with the company support section ready for LOGPAC, the company supply sergeant in his 5-ton leads, followed by two fuelers, and trailed by the ammunition cargo heavy-expanded mobility tactical truck (HEMTT).

Based on unit SOP, each company had designated markings (day and night) on the front of the supply sergeant's 5-ton. This assisted in linking up the support platoon fuelers and ammunition HEMTTs with the supply sergeants. It also helped the company ISGs recognize their support section during link up at the LRP.

**1330-1400:** LOGPAC OPORD at FTCP.

Once lined up in the correct order, the support platoon leader gave his LOGPAC OPORD/briefing. Unit techniques differ, but some basic information should be given to the members of the departing LOGPAC:

- Enemy intelligence updates — from both the BSA S2 and battalion S2 sections.
- Route.
- Speeds.
- Break down plan.



*“Each company section prepared to move with the company support section ready for LOGPAC, the company supply sergeant in his 5-ton leads, followed by two fuelers, and trailed by the ammunition cargo heavy-expanded mobility tactical truck.”*

- Actions on contact.
- Actions at LRP.
- Actions on returning to LRP.
- Communications and signals (critical since most support vehicles do not have radios).

Hurricane 6 and 7 rolled by watching Atlas 6 give his brief. The two were headed out to recon the route for the LOGPAC and link up with the remaining ISGs at LRP 3. As they departed, they heard the FTCP put out over the administrative and logistics net that the LRP meeting would be conducted at LRP 3, time 1530 hours. As they departed, the HHC XO, now in charge of the field trains, gave them a salute and thumbs up from the FTCP.



“Coordination within the BSA by both the HHC XO and support platoon leader is critical each morning. Knowing when the other battalions in the BSA plan to leave for LOGPAC will help eliminate long lines of vehicles attempting to depart at the same time.”

#### 1400: LOGPAC start point.

Coordination within the BSA by both the HHC XO and support platoon leader is critical each morning. Knowing when the other battalions in the BSA plan to leave for LOGPAC will help eliminate long lines of vehicles attempting to depart at the same time. The support platoon leader leads the convoy and reports the number of vehicles and personnel to the FTCP.

Atlas 6: “Hurricane Base, this is Atlas 6, over.”

Hurricane Base: “Atlas 6, Hurricane Base (FTCP).”

Atlas 6: “Roger, LOGPAC departing BSA, time now 1400. Eighteen vehicles

and forty personnel are en route to LRP 3, over.”

Hurricane Base: “This is Hurricane Base, roger, out.”

The support platoon leader led his convoy through the gate of the BSA and received periodic updates from Hurricane 7 regarding his route condition. Looking in his rearview mirror, he could see a gunner manning the ring mount of the Bravo Company supply 5-ton. Behind the 5-ton, he knew his support platoon cargo and fueler HEMTTs had .50-caliber machine guns and Mk-19s manned. Although a painful process in garrison, installing and training his soldiers to use the ring mounts, he now thanked heaven for the amount of

firepower his convoy could bring to bear if engaged. Sixteen of his vehicles were either equipped with ring-mounted .50-caliber machine guns or Mk-19 40-mm automatic grenade launchers.

In the rear of the convoy, the support platoon sergeant kept giving updates to the platoon leader as they cleared checkpoints and chokepoints. Communications between the two was vital since they alone controlled the route and rate of march of this massive convoy of supplies. Then Hurricane 6 called:

Hurricane 6: “Atlas 6, Hurricane 6.”

Atlas 6: “Atlas 6.”

Hurricane 6: “Roger. We have arrived at LRP 3. Route looks clear. Hurricane 7 is

on the ground for LRP meeting. Call us when you are 5 minutes out, over.”

Atlas 6: “This is Atlas 6, will comply, over.”

Hurricane 6: “Thanks. Hurricane 6 out.”

“Things seem to be going well,” the support platoon leader thought to himself. He sure missed the pure adrenaline rush of crashing around in his M1A1 tank, but there was something deeply satisfying about knowing that his support platoon was well trained. They had never missed a hit time or dropped a mission and they weren’t about to now.

“WHAM!!!” A rocket-propelled grenade (RPG) streaked over Atlas 6’s HMMWV.

Atlas 6: “Contact left, contact left!!!!” Atlas 6 caught a glimpse of movement in some trees to his left. Through blurred vision, he saw another two-man RPG team maneuver to take a shot when suddenly, BAM-BAM-BAM! Fifty-caliber rounds started pouring into the tree line. Bright explosions also started ripping through the trees as the Mk-19 high-explosive dual-purpose rounds began tearing up the ground.

The RPG team disappeared in a flash of blood, metal, sand, and trees.

The initial RPG round alerted the entire convoy. Gunners in their ring mounts scanned their respective sectors of fires. Any suspected movement brought a barrage of metal and explosives. Accelerating to get out of the kill zone, the entire convoy sped up to the speed briefed during the LOGPAC briefing. Scattered shots from nervous gunners continued to sweep the tree line.

Atlas 7: “Atlas 6, Atlas 7.”

Atlas 6: “Atlas 6, go.”

Atlas 7: “This is Atlas 7. We are through the ambush. No vehicles have stopped so we are good here, over.”

“Thank God,” Atlas 6 thought: “Roger Atlas 7. Looks like all the time at the live fire ranges paid off. Let’s get to the LRP site. Atlas 6 out.”

**1530:** 30 minutes prior to LRP, company ISGs execute LRP meeting.

About 30 minutes before the scheduled arrival of LOGPAC (1600 hours), the company ISGs arrived for the LRP meeting. Placing their M113s in a hasty defensive position, each dismounted to attend the meeting while their drivers took over the .50-cal machine gun. The battalion command sergeant major, Hurricane 6, and Hurricane 7 were discussing the upcoming mission while their drivers pulled security with M4s. Only Hurricane 7’s driv-

er was still in the HMMWV, listening for the call from Atlas 6.

At the LRP meeting, Hurricane 7 discussed the location of the return LRP, the return time, and the make up of the incoming LOGPAC (order of movement). He then reminded them to collect the 5988Es, Equipment Inspection and Maintenance Worksheets, from their company crews and send them back with their company supply sergeants. The battalion command sergeant major's policy was clear: no crew made it to the company chow line without first turning in completed (dirty) 5988Es to the company maintenance team chief. Company ISGs would supervise each crew going through their maintenance sections to turn in 5988Es, refuel, then to chow. Just like the old cavalry, the horses had to be taken care of first.

"Gentlemen, just a reminder that you each have two fuelers tonight to speed up your refueling. All fuelers have a full load of packaged products (class III-P). Drop off location is at LRP 1 at 1900 hours, giving you 3 hours to complete LOGPAC. Mortar, scout, and TOC breaks will be delivered to the unit maintenance collection point. Again, send back your 5988Es tonight so we can get needed parts. The order of LOGPAC is Bravo, Alpha, Charlie, and then HHC. Look for your respective markers. Once I get the 5-minute warning, mount your M113s, line up on the road, and move out with your LOGPAC. We don't want to be sitting targets. See you at LRP 1."

Atlas 6: "Hurricane 7, this is Atlas 6, over."

Hurricane 7: "Atlas 6, this is Hurricane 7 Delta, over."

Atlas 6: "Roger Hurricane 7 Delta. We are 5 minutes out. I say again, 5 minutes out, over."

Hurricane 7: "Hurricane 7 Delta, roger."

Hurricane 7: "ISG, Atlas 6 just called. He's 5 minutes out, Top!"

With the incoming report from Atlas 6, the company ISGs remounted their M113s and pulled onto the road facing in the same direction the LOGPAC would be moving. About 3 minutes later, Atlas 6 came racing up in his HMMWV and pulled next to Hurricane 6. The distant rumble of the battalion daily resupply convoy turned into a roar. Bravo 7 saw his company's marker on the first 5-ton in the convoy and pulled out in front of it. He moved out with his company LOGPAC in tow. Each respective ISG did the same. The HHC supply convoy pulled over and let the support platoon sergeant pass. He took the lead and took the HHC sup-

ply convoy over to the unit maintenance collection point where they would deliver their respective breaks and top off the stand-by fuelers as well.

#### 1600: LOGPAC at LRP.

Atlas 6 gave his report of the enemy dismounted ambush to Hurricane 6. He called it in to the S2 at the TOC. Hurricane 7 went with the battalion command sergeant major to the unit maintenance collection point to check on the soldiers who worked so hard to get the battalion's vehicles up for the fight. Hurricane 6 and Atlas 6 headed to the battalion TOC to get an update on the upcoming fight.

At 1830 hours, Atlas 6, Hurricane 6, and Hurricane 7 pulled into LRP 1. Atlas 7 was about 5 minutes out. Atlas 6 took charge and positioned the returning vehicles in a hasty perimeter. Gunners were in the ring mounts and drivers were dismounted, pulling security. As each ISG returned with his LOGPAC, he was integrated into the perimeter, increasing the defensive strength of the LOGPAC. Charlie Company's ISG called around 1900 hours.

#### 1900: LOGPAC return at LRP.

Comanche 7: "Atlas 6, Comanche 7, over."

Hurricane 6: "This is Hurricane 6, he monitors over."

Comanche 7: "Roger, I am departing my assembly area time now. Running late. Going to be about 15 mikes until I return, over."

Hurricane 6: "Roger, we'll wait but you need to hurry over."

Comanche 7: "Comanche 7, will comply."

"We are becoming targets sitting here. Let me call the mortars and have them lay on AE 4008," thought Hurricane 6. Once the LRP sites were set, Hurricane 6 sat down with the battalion fire support officer and planned targets to help him defend his LRP sites. In this case, Hurricane 6 wanted the mortar tubes pre-laid with illum ready to fire in case of an attack.

Time crept by slowly and the LOGPAC waited. The tension increased with every noise as drivers, sweating under their Kevlar, scanned for any movement. Gunners scanned the area with night vision goggles looking for targets.

Small arms fire erupted from the southern side of the perimeter. Hurricane 6 immediately called for illum. In the distance, bursting illumination rounds shortly followed the sound of mortar firing. Sup-

port platoon soldiers saw a four-man enemy team moving around the perimeter of the vehicles. Squad leaders fired their M203 rounds with modified parachute flares to mark enemy positions. Fifty-caliber machine guns, Mk-19s, and M4s all engaged at once, bringing enemy soldiers down quickly. As the mortar illumination drifted to earth, casting eerie shadows over the area, the firing stopped and soldiers continued to look for targets.

Hurricane 6: "Assassin 6, this is Hurricane 6, over."

Assassin 6: "Assassin 6."

Hurricane 6: "Roger, I've got contact vicinity LRP 1 with enemy dismounts. Could you give me hand so I can pull my LOGPAC out, over?"

Assassin 6: "This is Assassin 6, roger. I'll send Assassin 7 back with a tank section to cover your withdraw, over."

Hurricane 6: "Thanks Assassin 6. Break. Hammer 7, Hurricane 6. Repeat illum mission on AE 4008, over."

Hammer Base: "This is Hammer Base, roger out."

Mortar rounds continued to illuminate the area. In the distance, the sound of heavy tracked vehicles approached. Assassin 7 arrived with a tank section. Quickly, the M1A1s used their thermal sights to scan the wood line.

Assassin White 8: "Hurricane 6, this is Assassin White 8, your push, over."

Hurricane 6: "Assassin White 8, Hurricane 6."

Assassin White 8: "Roger Hurricane 6. We have negative contact in the surrounding wood line. We'll continue to scan while you pull out, over."

Hurricane 6: "Assassin White 8, Hurricane 6, thanks. Out."

Comanche 7 arrived with the last part of the LOGPAC. Rapidly, Atlas 6 got everyone remounted and departed toward the BSA.

Atlas 7: "Hurricane 6, this is Atlas 7; we are clear of LRP 1, en route back to Hurricane Base, over."

Hurricane 6: "This is Hurricane 6, roger. Break. Assassin 7, we are clear of LRP 1. Thanks for the assist. Hammer Base, good shooting with the illum rounds. This is Hurricane 6, out."

#### 2200: LOGPAC arrives back at BSA.

The convoy back to the BSA was long and tiring, but uneventful. Once in the perimeter of the BSA, the long night was not yet complete. Supply sergeants headed toward the trash point to empty 5 tons



of respective company trash. The logistics status reports collected by the company supply sergeants were consolidated at the FTCP then forwarded to the FSB. The 5988Es went to the maintenance section and were entered into the unit level logistics system. The LOGPAC checklists were completed by each supply sergeant and turned into the FTCP. Atlas 6 called ahead to the FSB fuel platoon to push back his bulk refueling times. Around 2230 hours, his fuelers inched up near the large FSB fuelers to replenish near-empty tanks. By the time all vehicles were back in their camouflaged positions, it was nearly midnight.

Hurricane 6 and 7 stood in the darkness near the FTCP, watching ground guides put the vehicles back for the night. The battalion was at 100 percent on supplies and ready for attack. The night FTCP shift was ready to monitor the battle. Knowing another busy day would start in a mere 5 hours, only the night shift and perimeter security remained awake.

Hopefully, future company commanders, 1SGs, support platoon leaders, and platoon sergeants will find this article useful. See you on the high ground!

*Editor's note:* The authors included helpful checklists with this article. Due to space constraints, *ARMOR* cannot print these checklists, but agrees that they may be of great help "in improving unit logistics battles." Please visit our website at [www.knox.army.mil/armormag/downloads2.htm](http://www.knox.army.mil/armormag/downloads2.htm) to download these checklists.



## Notes

<sup>1</sup>U.S. Army Field Manual, 71-123, *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, U.S. Government Printing Office, Washington, D.C., 30 September 1992, Chapter 8, Section II, p. 20.

<sup>2</sup>Ibid., p. 22.

<sup>3</sup>Ibid., p. 28.

<sup>4</sup>Ibid.

<sup>5</sup>Ibid.

<sup>6</sup>Ibid., p. 52.

## Shock and Awe from Page 34

### The Roman Legions

The Roman Legions form might also be called "ultimate retribution." Romans made little distinction between the enemy's military and society; however, the idea of tanks rolling over civilians is too repugnant. Furthermore, the Romans were perceived as being invincible. If America's military power is perceived as invincible, then the loss of a few tanks will not enter the equation, as it is certain even the Romans had casualties. The public sees tanks as being invincible, and despite the bravado shown by certain Iraqi officials near destroyed American tanks, they would not be anywhere near one otherwise.

The big difference between this form of shock and awe and the others is that the enemy or nation in question knows that it will lose, and even if the operation is limited, its military will be destroyed. Whether for personal security or to ensure its neighbors do not take advantage of its sudden weakness, heads of regimes cannot afford to lose their militaries. The United States has many sea and air assets to use to conduct reprisals. The closest tank may come from the U.S. Marine Corps, but U.S. Army tanks are a sign of American resolve and commitment, which we failed to achieve in Somalia. To the point, tanks on the ground mean those who challenge the might of the United States face that might at their own peril.

### The Royal Canadian Mounted Police

The last form refers to the unofficial motto of the Royal Canadian Mounted Police, "never send a man where you can send a bullet." This refers obviously to standoff capability and more so, because this will do it. More attune to airpower, tanks nonetheless may find themselves in places where they have standoff and can effectively destroy the enemy with impunity. However, this form is extremely limited for tanks when standoff is being considered beyond the tactical level.

From what we have seen in Iraq, the United States defeated a country the size of California within a matter of weeks. This fact is not important — the way in which it was done is important. Much to the alarm of some former general officers, the war kicked off with one Marine Expeditionary Force and one Infantry Division (Mechanized), apparently using the Blitzkrieg form of shock and awe, while airpower used another form of shock and awe to decapitate Saddam Hussein's regime. Some thought there needed to be more troops on the ground or that we absolutely had to have that northern front coming out of Turkey. Recent events have proven that the U.S. military can achieve rapid dominance by using heavy units — 3d Infantry Division tanks rapidly attacked north.

Despite sand storms and a long logistics tail, U.S. forces remained flexible

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and ultimately victorious with low casualties and an enemy that could not and would not fight.

In light of U.S.-Syrian relations, we must determine if "ultimate retribution" will be the next step, and if this rapid dominance achievement was purely luck and/or an incredibly incompetent foe. In any case, deficiencies normally cited regarding tanks in a decisive force role do not impact sufficiently in their role as part of rapid dominance — in fact, they contribute to the success of new military policy.



## Notes

<sup>1</sup>Harlan K. Ullman and James P. Wade, *Shock and Awe: Achieving Rapid Dominance*, National Defense University Press Book, December 1996.

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# REVIEWS

**Military Strategy: Principles, Practices, and Historical Perspectives** by John M. Collins, Brassey's, Inc., Washington, D.C., 2002, 333 pp., \$32.95 (softcover).

This is not a book to curl up with by the fire-side for a relaxing evening read. But for anyone looking for an authoritative treatise on national military strategy and how it is developed, it is difficult to imagine a more informative text. With authority based on years of experience as a military planner and strategic specialist, Collins has produced a thoroughly researched and well-presented study.

With text fully supported by specific historical examples, Collins logically follows the step-by-step development of a national military strategy. In Part I, "The Framework of Military Strategy," he focuses on national security interests, threats, objectives, and policies. He explains how nations (and coalitions) are part of a complex hierarchy with national strategies at the pinnacle and military tactics at the base. Thus, the start of developing military strategies lies in the identification of national security interests, a broad expression of wants and needs. These may seek to expand a state's jurisdiction, maintain the status quo, or merely preserve independence and territorial integrity, and the nation's fundamental way of life. From these objectives, government officials develop, and chiefs of state approve, national strategies designed to achieve these national objectives.

After this first step, Collins posits that there are five following steps in the development of national military strategy. Step two is an appraisal of the opposition, an identification of the nature, imminence, and intensity of apparent perils. The intelligence community must first estimate the capabilities of the opposition and then try to divine the intent of those opponents. The result is at best an estimate based on facts available. Step three is to prioritize short-, mid-, and long-term objectives that last from a few weeks to a decade or more. These goals should be as specific as possible. Step four is to formulate strategies. Here options are examined within policy guidance, based on facts available and assumptions carefully scrutinized. Plans are tailored to meet specific needs. In step five, national security and military strategists, in collaboration with logisticians and budget specialists, compare resource requirements with present and projected capabilities. Thus, they determine the feasibility of strategic and tactical plans. As part of this step, trade-offs between ends and means are addressed. The final step is reconciliation of differences in ends and means, developing alternatives if the risks are seen as unacceptable.

In Part II, "Fundamentals of Military Strategy," the author discusses the employment of building blocks to achieve politico-military objectives. Strategists develop a range of innovative options designed to solve particular problems under given conditions, then selecting a course of action they believe most likely would elicit desired responses from friends, enemies, and fence-straddlers. In discussing these fundamentals, Collins breaks them out into sev-

eral categories, each addressed separately: deterrence, warfighting, military preparedness, and arms control.

Part III, "Specialized Military Strategies," is divided into 10 chapters that separately address the full range of strategies available to a country. These include, for example, counterproliferation strategies, biological and chemical warfare strategies, traditional forces and strategies, sociopolitical terrorism, and coalition warfare strategies. The factors associated with each and the impact of their implementation are presented in detail.

Next, in Part IV, "Strategic Trailblazers," Collins offers examples of innovative strategic thinkers, citing Sun Tzu, Clausewitz, and Herman Kahn as strategic theoreticians; Cyrus the Great, Napoleon Bonaparte, and George C. Marshall as strategic practitioners; and André Beaufre, Sergei Gorshkov, Billy Mitchell, and Mao Zedong as creative practitioners. He notes that, while some were only theoreticians, some practitioners, and some both, all were problemsolvers. To be successful, a military strategist must have intelligence, intellectual activism, analytical acumen, a broad knowledge base, tenacity, and a degree of salesmanship. Bringing his discussion into modern focus, the author discusses important factors that must be included in a modern strategic education system: intellectual freedom, unregimented regimens, prolific contacts, and continuity. These he applies to a look at the National War College.

Collins' final section, Part V, "Applied Strategies" uses the modern case study of U.S., UN, and NATO involvement in the Balkans. He applies factors discussed in his previous chapters, methodically comparing competitive security interests, objectives, force postures, policy options, and interactions of the parties involved. He summarizes strategic successes and shortcomings, then offers a checklist that might help national security decisionmakers determine whether military intervention in future foreign disputes is appropriate.

There probably exists no better text presenting both the broad factors and the detailed development of a national military strategy. This book in itself is a minicourse. If one would delve into the reasons this, or any, country takes the military action it does, this study is an excellent place to start.

BG PHILIP L. BOLTÉ  
USA, Retired

**Alamein** by Jon Latimer, Harvard University Press, 2002, 319 pp., \$27.95.

For World War II veterans or aficionados who are interested in the North Africa campaign between the Allies and Axis, this is the bible. The author begins with a regional political history starting in 1900, giving the reader knowledge of why North Africa was important to victory in the contest, and continuing through 20 chapters, ending with, "The End of the Beginning" — the Allies would never lose another battle after Alamein.

This is a complete blow-by-blow, detailed, scholarly manuscript of personalities of major players, detailed strategies and background information of the reasons for battle orders, detailed movements of Axis and Allied units involved in battles, and analysis of defeats and advances. There is so much information that the reader will become overwhelmed with facts — personal quotes on battles, armor facts, sortie information, materiel flow, logistics problems, and ship dispatch and sinkings; the book reads as a medical text would in directing a major operation. The index, appendix, notes, and bibliography were 80 additional pages. A difficult read, but once absorbed, the reader will know the subject matter.

I would recommend this book, not to the squeamish, but to those analytical minds wanting facts on this subject.

LOUIS GORENC  
Westland, MI

**War of Words, Abraham Lincoln & the Civil War Press** by Harry J. Maihafer, Brassey's, Inc., Washington, D.C., 2001, 296 pp., with notes, bibliography, and index, \$18.95 (paper), or 320 pp., \$27.50 (cloth).

Abraham Lincoln was often viewed by many of his contemporaries as a crude, unsophisticated bumpkin. Even by the end of the American Civil War, with his great victory at hand, many still did not appreciate Lincoln's greatness until after his death and historians were able to piece together the story of his presidency.

Maihafer has contributed further to that appreciation in his work, *War of Words, Abraham Lincoln & the Civil War Press*. Maihafer, a retired U.S. Army colonel and author of several other volumes of military and political history, relates Lincoln's shrewd handling of the press during the war in this well-researched and written book. In an age where we are used to and perhaps jaded by political spin, readers may be surprised to learn that modern politicians had nothing on Lincoln when it came to manipulating the media to control or influence how he, his administration, and events were portrayed in the press.

Lincoln was an ambitious and astute politician, who understood the importance of "court-ing" reporters and editors to get his views reported as accurately and as favorably as possible to win election. After his election to the presidency, Lincoln continued this courtship to win and sustain the public support necessary to win the war. He did this, as Maihafer argues in his introduction, "in a way that would appeal to his friends and not overly antagonize his enemies." Lincoln's handling of powerful and temperamental editors, like the *New York Tribune's* Horace Greeley and the *New York Herald's* James Gordon Bennett, was masterful yet fair, despite their fickleness and sometimes outright hostility. He appealed to editors' and reporters' egos through flattery and employment as his personal confidants.

Lincoln used his office in ways that would certainly raise eyebrows today, but was normal business in the 19th century, offering Bennett the ministerial post to France at one point, to try and influence favorable press from that Democratic editor. To ensure accurate reporting of his words, Lincoln provided copies of his speeches to reporters and editors, and at times, actually edited the newspaper copy before it went to press. Yet, Maihafer argues that while Lincoln's efforts sometimes bordered on deviousness, they were undertaken to promote the Union war effort and never undercut the basic integrity of "Honest Abe."

Readers who are looking for more insight into the military history of the Civil War may be disappointed. While Maihafer relates some of the battle history and offers insight into the personalities of the leaders on both sides, this is primarily a political history about how Lincoln used the power of the press to influence public opinion here and abroad in support of the Union war effort. In that respect, Maihafer has been highly successful in telling an interesting story that adds to our understanding of Lincoln's greatness as a wartime commander in chief.

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LTC, Armor, Retired

**Nerve Center: Inside the White House Situation Room** by Michael K. Bohn, Brassey's, Inc., Washington, D.C., 2003, 239 pp., \$24.95 (hardcover).

It is 0100 hours. A message is handed to you, which reads, "Explosions reported in the vicinity of regional government offices." Communications systems begin blaring, people demand answers, deadlines begin piling up, and to top it off, you are only in the middle of a 12-hour shift. Karbala, Kosovo, Kabul, or Kuwait — you could be pulling your shift in any number of world locations. Those who have worked in a tactical operations center know of the challenges faced by White House Situation Room Duty Officers.

In *Nerve Center: Inside the White House Situation Room*, Bohn quickly establishes that the movie and television portrayals of the Situation Room are mythical. So much so, that administrations continually strive to downplay meetings conducted in their conference rooms. In fact, recent administrations, specifically that of George W. Bush, have put to use a video teleconferencing system to reduce the media exposure of meetings of the President's principal deputies.

*Nerve Center* is presented in the same manner as Tom Clancy's nonfiction works, such as *Armored CAV*, *Airborne*, and *Marine*. It begins with an anecdotal introduction followed by an evolution from origin to present day operations. Continuing, Bohn details the capabilities and limitations of the Situation Room. He concludes with a fictional account of the Situation Room embroiled in a future crisis.

At its basic level, the Situation Room is the President's alert center. Born out of the 1961

Bay of Pigs failure, the Situation Room was created out of a determined need for the President's staff to have a communications facility within the White House to receive, sort, and distribute intelligence reports from the State Department, the Pentagon, and the CIA. Moreover, President Kennedy wanted his national security advisor to be a personal presidential advisor, unlike previous administrations. Therefore, the national security advisor required access to the same information in near instantaneous fashion as the President's cabinet secretaries. What has evolved is an all-in-one alert center, communications hub, and meeting place that culminates intelligence for the President and his national security staff.

Bohn undoubtedly presents an insider's perspective of the Situation Room. As a former director of the Situation Room under President Reagan, he was intricately involved in its day-to-day operations. Although a retired naval intelligence officer, he does not limit his perspective to a military view. Bohn readily includes the perceptions of White House civilians (both permanent and presidential staff) and State Department, CIA, DIA, and NSA duty officers.

*Nerve Center* joins the growing ranks of recent current events literature. A strong delineation, however, is its historical, rather than journalistic, focus. It achieves professional value from its primary source documentation. Gathering sources from interviews, public documents, presidential papers, press releases, speeches, journal, newspaper, and internet articles, *Nerve Center* is very well documented for a relatively short book. Impressively, Bohn conducted over 60 personal interviews, to include two former Presidents, six national security advisors, and six situation room directors. Bohn went to all extents to complete this book.

Although not in the normal genre of interest in the armor community, it is an interesting book nonetheless. *Nerve Center's* appeal comes from its Tom Clancy-like approach. It chronicles a 'behind-the-scene' actor of U.S. security policy that has taken on a mystique all its own. While Hollywood created the myth, Bohn clarifies the legend.

1LT JOHN P.J. DEROSA  
1-77 AR BN  
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**Afghan Wars, Battles in a Hostile Land, 1939 to Present**, Edgar O'Ballance, Brassey's, 1993 and 2002, 277 pp., \$18.95 (paperback).

Initially published in 1993, then updated and republished in 2002, the book minimally accomplishes its limited intent to provide a historical outline of military conflict in Afghanistan. Progressing chronologically, the author concentrates on the political origins and ramifications of the First Anglo-Afghan War (1839-1842), the Second Anglo-Afghan War (1878-1881), the Third Anglo-Afghan War (1919), the 10-year Soviet military involvement (1979-1989), and the resulting civil war and rise of the Taliban which followed the Soviet military withdrawal. Principally oriented toward politi-

cal cause and effects relative to Afghanistan's history of armed conflict, there is only superficial information regarding military doctrine and tactics employed during the conflicts.

Although the author has extensive military and journalistic credentials, and he cites personal visits to Afghanistan, Iran, and Pakistan to further bolster his bona fides, the results of his visits were otherwise not footnoted in the text. Within the book's bibliography there are only two references dated 1990 or later. A reference to Czar Nicholas II on page 31 cites his visit to Afghanistan at a date well before that of his birth. It may be assumed that the author meant to cite Czar Nicholas, Nicholas II's grandfather, but the mistake left doubts as to the overall journalistic and editorial accuracy. The book contains no photographs and the 12 bare-bones maps are of negligible value, since they show limited political features and no geographic features or military symbols, and do very little to support or enhance the text.

The book's recurring theme does establish the political caution that Afghan political and military factions are inherently ideologically diverse, and tend toward instability. Alliances among the many political and tribal factions are more often opportunity based than not, and tend to be very temporary. The book's summarized conclusion is that Afghanistan cannot yet be regarded as a modern nation state. If political objectives are to be achieved through military means, then those objectives had best be both very specific and very limited.

Although the book satisfied its stated goal to provide a historical outline of Afghanistan's modern military history, there is very little of value for the student of military history, or for those who may be trying to gain insight of successful military doctrine and tactics as may apply to current military operations in Afghanistan.

RICHARD A. LAWSON  
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**Asymmetrical Warfare: Today's Challenge to U.S. Military Power** by Roger W. Barnett, Brassey's, Inc., Washington, D.C., 2003, 176 pp., notes, bibliography, index, \$39.95 (cloth), \$24.95 (paperback).

The author, a professor emeritus at the U.S. Naval War College, presents an illuminating argument that in light of the terrorist attacks against the United States, it needs to create a system of purging the constraints that dictate traditional military responses. The challenge, the author maintains, is that United States policymakers and the military take the initiative and prevent or defend against an enemy's ability to engage in asymmetrical warfare. He defines this nature of warfare as "taking the calculated risk to exploit an adversary's inability or unwillingness to prevent, or defend against certain actions." Conversely, a military situation where the weak using unconventional warfare is capable of defeating the strong.

The author analyzes a number of current asymmetrical scenarios, such as an adversary's use

of weapons of mass destruction. The argument presented is that the United States is deterred in dealing with asymmetrical warfare by a number of traditional constraints, such as operational, meaning reservations regarding the effect on the use of force and the relationship between ways, means, and risks. On organizational constraints, the problems a democracy has and its ideological relationship with international organizations are discussed. Regarding legal constraints, the book deals with the complexity of arms control, balance of power, and international law.

Finally contested is the moral aspect, such as the traditional American way against the use of force to resolve disagreements. These constraints, he maintains, need to be selectively disposed. The problem today, Barnett argues, is that U.S. national policymakers are in a dilemma because they struggle between conventional power projection that relies on massive firepower and maneuver warfare — an operational principle of the U.S. military during the 20th century — and at the same time, the military is tasked to act as peacekeepers, operating under the constraint of pacifism. He predicts that without changes in the rules of 20th-century symmetrical warfare and adjustments to the challenges of the 21st century, the country may face what he calls a “paralysis” that would increase risks and lead to the application of additional military power.

The author chastises U.S. policymakers for deliberate actions that allowed constraints to handicap the terms of military engagement, concluding by suggesting, “Constraints on the use of force should be reviewed in a holistic way.” Barnett advocates the military be given an opportunity to determine unnecessary constraints and be provided with the opportunity to deal with asymmetrical initiatives.

The concept of asymmetric warfare is not new. Consider the military philosophy of the ancient Chinese, Sun Tzu and his “art of war,” and Sir B.H. Liddell Hart’s “indirect approach” of the 20th century. Though much has been written on the subject, the most interesting portion of the book is how the author emphasizes the constraints that affect the necessary responses to deal effectively with asymmetrical vulnerability. At times the book lacks clarity, however, it is worth considering, especially for advanced military studies.

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Department of History  
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**Gettysburg: A Testing of Courage** by Noah Andre Trudeau, HarperCollins Publishers, New York, 2002, 720 pp., \$34.95 (hardcover), \$18.95 (paperback).

Noah Andre Trudeau’s *Gettysburg: A Testing of Courage* should remain the standard single-volume work on this most decisive and heavily researched of Civil War battles for the foreseeable future. Trudeau’s eloquent narrative effectively covers the campaign from its inception, and successfully integrates the stra-

tegic, tactical, and individual perspectives by synthesizing the vast amount of literature produced on the battle over the past 30 years.

Two particular aspects of this work make it particularly valuable. The first is the integration of the massive amount of literature produced on the battle over the previous three decades. Such literature has, as Trudeau notes, resulted in many revisions to the Gettysburg story as “[m]any cherished tales were found to fables, while other, long-overlooked acts of heroism and courage were revealed.” As an example, those readers expecting another glorification of Colonel Joshua Chamberlain at Little Round Top will find his ‘pivotal’ role reassessed. The second is Trudeau’s battlefield descriptions; the writing in *Gettysburg* captures the sights, sounds, and emotions of commanders, soldiers, and civilians as this bloody battle ebbed and flowed over the 3 days in June 1863. The fear felt by the participants is palpable, but so too is the bravery and determination. Trudeau’s stated goal was to produce a work that provides “a comprehensive narrative of one of the most unforgettable sagas in United States history.” To his credit, Trudeau has succeeded brilliantly, and future single-volume works on this battle should be judged by the quality of this work.

MAJ BENJAMIN TUCK  
Fairfax, VA

**Waging Ancient War: Limits on Preemptive Force** by Dr. Robert Worley, U.S. Army War College Special Report, published by the Strategic Studies Institute, 122 Forbes Avenue, Carlisle, PA, February 2003, 48 pp.

Dr. Worley’s national security career has included positions at RAND and the Potomac Institute for Policy Studies. This small pamphlet helps readers shape their ideas on strategy in the post-September 11th world. He reaches into Roman military history to articulate two types of warfare the legions encountered. *Bellum* is a strategy designed to defeat a standing army, and *Guerra* dealt with specialized tactics of marauding tribesmen. Worley’s pamphlet attempts to find a U.S. role in the realm of the *Guerra* strategy, and he argues that this type of fluid war requires the mobilization of all aspects of American national power (military, economic, and diplomatic).

The pamphlet analyzes three aspects of the global war on terror. The first is waging war against those organizations that employ terror to advance their agenda. The second is to wage war against states that enable terror groups to operate. Third, is to wage direct war against terror groups that pose a direct threat to the United States. The author argues that a narrower definition of our adversary is required and that declaring war on terrorism is too disorienting. He argues that we should declare war on specific aggressors in precise and specific language. Al Qaeda always operates in an environment of chaos and that its mission is the restoration of a lost Caliphate created in

their image. Worley identifies the threat using al Qaeda as an example and proceeds to discuss the application of deterrence, compellence, coercion, and preemption on transnational terrorism.

Worley identifies four attainable objectives derived from the Roman *Guerra* strategy: reducing the probability of destructive attacks; reducing the severity of attacks; preventing the conflict from becoming a wider war on Islam; and mitigating the effects of successful attacks through crisis management. Worley’s pamphlet helps align current strategic thinking and how to best protect America from transnational and state-sponsored terrorism.

LCDR YOUSSEF ABOUL-ENEIN  
MSC, USN

*Editor’s Note: LCDR Aboul-Enein is a Middle East Foreign Area Officer serving in the Pentagon.*

**Chariots of the Desert: The Story of the Israeli Armoured Corps** by David Eshel, Brassey’s Defence Publishers Ltd., London, 1989, 202 pp., \$24.95 (hardback).

In *Chariots of the Desert: The Story of the Israeli Armoured Corps*, veteran Israeli Defense Force (IDF) officer David Eshel provides the reader with an understanding of the transformation of the IDF’s armored forces in both equipment and tactics from infant nation to regional power. Using supporting maps and photos, he guides the reader through over 30 years of Israeli mobile warfare beginning with the 1948 War of Independence and ending with the 1982 Invasion of Southern Lebanon. He piques the readers interests by initially providing a general understanding of the early beginnings of the IDF, which started as irregular Jewish forces whose tactics in British Palestine prior to the 1930s focused primarily on the defense of Jewish settlements and supply convoy escort. In the mid-1930s, these forces moved beyond a primarily defensive role and transitioned to the offense in the form of special night squads (SNS) that seized the initiative by executing raids on Arab positions at night. Additionally, the Israelis were modifying and arming available vehicles to provide some measure of protection for their settlement resupply convoys. The employment of the SNS was the springboard for Israeli military doctrine that focused on maintaining initiative in the offense. The early vehicle developments and challenges contributed significantly to promoting unconventional military thought both in the IDF’s armored tactics and equipment developments.

As the British began to withdraw in the late 1940s, the Israelis found themselves with their backs against the Mediterranean, with better equipped Arab forces closing in on the other three sides. Facing a British enforced arms embargo, Eshel describes the innovative techniques that the Israelis employed to obtain tanks from outside sources, as well as developing a makeshift capability from the vast stocks of British equipment that was being destroyed as they withdrew. Given the success

of their makeshift mobile forces against better-equipped Arab armies during the 1948-1949 War of Independence, the Israelis worked to train and equip a flexible mobile armored force that could use firepower and maneuver to defeat the threats that surrounded the infant state.

Using maps and pictures throughout the book, Eshel demonstrates how that firepower, maneuver, and flexibility during The Sinai Campaign of 1956 could once again defeat better-equipped Arab forces. The Egyptians defended well forward in the Sinai, against the advice of their German advisory team, led by General Farmbacher who had served with Rommel's Afrika Corps. Farmbacher recommended a mobile defense that would allow Israeli forces to expand into the Sinai, extend their supply lines, and then finish the Egyptians off at natural engagement areas into which they would be canalized and destroyed by massed armored counterattacks. Instead, the Egyptians fought the plan and not the enemy. A constant theme that Eshel demonstrates is that during more than 30 years of mobile armored conflict, the Israelis were able to rout better-equipped Arab forces that lacked flexible leadership.

The successes of the Israeli armored forces in the Sinai solidified an armor-based doctrine that was built primarily on the proficiency of their crews in destroying enemy forces at range and then quickly maneuvering against the remaining forces once superiority was attained. The successes afforded the leadership of the Israeli armored forces greater prestige on the General Staff. This elevated status significantly benefited the development of armored doctrine and equipment upgrades, and developments that Eshel vividly describes with maps and pictures that cover operations up through Operation 'Peace for Galilee' where the Merkava earned its spurs during its foray into Lebanon during the early 1980s.

I highly recommend this book to any *ARMOR* reader interested in mobile warfare history, but especially for combat arms officers at the field grade and general officer level involved in transformation developments. While the challenges facing the Israelis have generally been of a regional nature, the lessons brought out by Eshel on the transformation of the IDF to meet developing threats are relevant to the transformation that we are now undertaking. The Israelis are a regional land power, they have an army that depends on a small core of professional soldiers, and they rely heavily on reservists who can be mobilized at a moment's notice in the event of crisis. Additionally, over the years, they have rapidly modified existing technologies and tactics to counter and defeat the evolving threats that their enemies present.

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**An American Soldier: The Wars of General Maxwell Taylor** by John M. Taylor, Presidio Press, 2001, 496 pp., \$22.95, paperback.

On 20 April 1987, the information circulated among the soldiers of the 101st Airborne Division

(Air Assault) that General Maxwell Taylor was dead. The division went into mourning, holding ceremonies of remembrance, and dispatching an honor guard to the funeral at Arlington National Cemetery. GEN Taylor had been the Screaming Eagles' first battlefield commander, and over 40 years later, his influence on the division would not be forgotten in the time of his final rest.

Two years after GEN Taylor's death, a well-received biography appeared, *General Maxwell Taylor: The Sword and the Pen*, written by one of his sons, the noted, award-winning historian John M. Taylor. This time it is in paperback with a new title. It is presented in a logical, straightforward chronological manner.

While GEN Taylor may best be remembered now by viewers of *Band of Brothers* as the division commander of the 101st in World War II, his career encompassed many more challenges and facets. Commissioned in the Field Artillery from West Point in 1922, Taylor was a masterful linguist, learning Spanish, French, and Japanese, among others. Possessing a cool, detached personality and a keen intellect, Taylor graduated from the Command and General Staff School in 1935. Of his class of 119, 62 eventually became general officers. He befriended COL "Vinegar Joe" Stillwell during a late 1930s tour as assistant military attaché to Japan. While there, he prepared an influential report on Japanese tactical doctrine that was used well into the coming war. Stillwell attempted to bring Taylor to China-Burma-India in the early part of World War II, but was prevented from doing so by GEN Marshall. In 1939, still only a captain at age 38, his career prospects seemed bleak. But, in 1940 he was selected to attend the Army War College.

The book ably and excitingly documents Taylor's exploits during World War II, first with the 82d Airborne Division in Sicily and Italy. On 14 March 1944, due to MG William C. Lee's heart attack, Taylor took command of the 101st Airborne Division in England, after being selected for the post by Eisenhower. Taylor would go on to lead the 101st through some of the U.S. Army's most famous campaigns of the war in Normandy and Operation Market Garden. He missed much of the division's fighting in encircled Bastogne, as he has been sent on temporary duty to the United States. He returned in time for the latter stages of the Ardennes campaign and subsequently led the division through the remainder of the European campaign, culminating in the seizure of Berchtesgaden.

The biography goes on to document Taylor's years as Superintendent of Cadets at West Point, Chief of Staff of the U.S. European Command, and then a return to the Far East as commander of the U.S. 8th Army during the closing stages of the Korean War. One of his quotes, derived from this experience, deserves to be repeated, "Expensive and complicated gadgets of infrequent use should not be allowed to absorb resources needed to support the most flexible weapon in our arsenal, the infantry soldier."

The last half of the book concerns Taylor's tour as Army chief of staff, his clash with the

Eisenhower Administration over defense policy, reemergence as a military advisor to President Kennedy, and subsequent tour as Chairman of the Joint Chiefs of Staff in the early 1960s. It continues with Taylor's controversial service to the Johnson Administration as the U.S. Ambassador to South Vietnam and subsequently as a military advisor. The biography concludes with a chapter on Taylor's retirement activities, death, and a brief summation of the general's life.

The book contains chapter notes, an index, three appendices consisting of addresses delivered by GEN Taylor, and two sections of well-chosen photographs. It contains one notable weakness; there are no maps to assist the reader as he follows Taylor's adventures and travels throughout the world. This does not take away from the overall value of the book. It is a labor of love, a sympathetic and engaging biography of an Army leader involved in the thick of the crucible of the nation's conflicts in the middle of the 20th century. It does not duck the turbulent issues surrounding Taylor's involvement in the Vietnam War and is fair-handed, but one should not look for an unbiased opinion from the author. I recommend this book to Army leaders. This is an important biography of one of the most influential and controversial American soldiers of the 20th century.

JIM DI CROCCO III  
MAJ, IN, USAR  
Grafenwoehr, Germany

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## LETTERS from Page 3

FM 23-10 clearly states that in a mechanized infantry battalion, each 2-man sniper team is assigned directly to an infantry squad of a company. This makes perfect sense given the range, speed, and weaponry of mechanized forces. Snipers are more than just good shots. They are an intelligence asset and are experts at stealthy movement and field craft. They can most effectively contribute within their effective range at the company level, especially in support of dismounted operations.

Mechanized battalion scouts operate at much greater ranges and are much more mobile. If battalion scouts are specifically establishing dismounted listening and observation posts, task organizing the company snipers is an option. However, I suggest that leaving the snipers to support the company outposts is a more likely and effective alternative.

Again, CPT Morrow is totally correct that snipers are underused and often forgotten. My concern is mainly with the appropriate echelon and I suggest that the doctrinal employment at company level will be more effective. At least give it a try and report back if it does not work.

The utility of the .50-cal rifle for use by battalion scouts should be explored and assessed as a separate and distinct issue.

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



# Reinstating the Combat Tanker Badge

by Captain Shawn Monien

*Sergeant Johnny Graves served as an armor crewman with 11th Armored Cavalry Regiment in the Republic of Vietnam. His unit conducted operations primarily in the area between the Cambodian border and Saigon, an area where some of the most severe fighting during the years 1967 and 1968 took place. He was awarded the Silver Star and two Bronze Stars for valor during the Viet Cong's Tet Offensive in early February 1968.*

*Prior to reporting for duty at Fort Knox, Kentucky (following his combat tour in Vietnam), Johnny went on a much-deserved leave at his home in Oshkosh, Wisconsin. His parents and fiancée met him at the train station. While on the way to the family house, Johnny's father commented that Johnny must have had a plush assignment in Vietnam because he had not been awarded the Combat Infantryman Badge. Mr. Graves' felt that infantrymen were the only soldiers who really saw combat and were, therefore, the only men who could be called soldiers. The fact that tankers had no combat badge proved that they never really were engaged in combat. His father's comments were the first of many similar remarks Johnny was to hear from the veterans in Oshkosh. Each time Johnny was forced to endure the resulting humiliation because he did not know why there was not a combat badge for armor.*

*Even after Johnny embarked on his duties at Fort Knox, he relived again and again the humiliation he had felt when asked why he had not been in the fighting in Vietnam. Apparently, his decorations for valor meant less to Americans than a combat badge.<sup>1</sup>*

The debate over the Combat Armor Badge (CAB) and the Expert Armor Badge (EAB) has raged for decades. The issue has been brought forward during the tenure of every Army Chief of Staff since World War I. There is however a new twist to the ongoing debate — there is no need to adopt new badges — we need to simply *reinstate* the armor badges.

My journey through the 85-year history of the CAB/EAB debate starts at the Patton Museum at Fort Knox, Kentucky. As curator Charles Lemons leads me up the stairway to one of the museum's storage rooms, I am a bit nervous and a bit excited. Does he actually have what my armor and cavalry comrades and I are seeking, or will it be yet another dead-end in our journey?

Charles opens the closet and starts handing me shadow boxes to set on the table. The first two hold personal items of General George S. Patton. This sends shivers up my spine since I am within inches of items that he carried in his pocket throughout World War I, the creation of the Tank Corps, and World War II. I then come back to reality and realize that this is not why I am here. The third shadow box is laid in front of me and my heart starts to race a little faster. Charles points to it and says, "There it is." In front of me lays the original Combat Tanker Badge from World War I — the World Wars Tank Corps Badge. My journey and quest has ended, now it was time to recount the history of the previous 85 years.

You heard me correctly, I just said, "Combat Tanker Badge." The history of this badge is sketchy at best, and trying to chase down a paper trail half-a-century later is even more complicated since the Tank Corps was abolished as a result of the National

Defense Act of 1920. The following is a 1949 account from the Honorable William C. Bray (World War I tank veteran) and at the time a 7th District Congressman from Indiana. His narrative of a letter he received from the War Department will add some clarity to the badge's history:

*"United States tankmen of 1918 who served in the organized American fighting Tank Corps are entitled to wear the "Combat Tanker Badge" according to the announcement from the Department of the Army, Quartermaster General's Office, Washington D.C., 1948. National Commander Clyde D. Burger, Marion Station, Pennsylvania, of the World Wars Tank Corps Association has received notification [that] tankmen of the Heavy Mark I tank and small Whippet tanks are entitled to the "Combat Tanker Decoration."*

Armor tricolors are carried out in the original design. The large Mark I tank is carried out in yellow background, lettering of, "WORLD WARS TANK CORPS," in blue and outlines of red, representing red for artillery, blue for infantry, and yellow for cavalry. The original Tank Corps was to supplement those three branches of the Army, in fast moving advance, through enemy lines, which was the Hindenberg Line, proving their success in 1918.

Retired Lieutenant General Floyd D. Franks and Retired Sergeant Frank C. Thomas, both of Washington D.C., presented the badge request to the War Department. Both manned tanks in the First Brigade at St. Mihiel, France in 1918. The World Wars Tank Corps Association was founded in France in 1918 following the St. Mihiel tank battle, the first time American tankers faced enemy fire.<sup>2</sup>

The Quartermaster General assumed responsibility for Army awards in 1924 and handed the function back to the Army and the Institute of Heraldry in August of 1960. At present, the two functions are trying to research the authorization documentation from 1948 that establishes the Tank Corps Badge for the World War Tanker or "Tankerine" veterans. Perhaps the proper documentation and correspondences will never be found to substantiate the validity of the World War I badge. One thing can be assured — at least our World War I tank veterans, on hearing the news of 1948, finally realized their dream of an authorized Combat Tanker Badge — and passed on to Fiddler's Green in honor.

## A Chronological History

The debate over the institution of a Combat Armor Badge was revived during the Korean War with an article in the February-March 1953 issue of the *Tankerine* titled, "Why Not A Combat Tankers Badge?" In this article, a group of World War I and World War II tank veterans propose a standard to govern the awarding of what they called the "Combat Tanker's Badge" and the "Expert Tanker's Badge."

### 1953 — The *Tankerine* "Why Not A Combat Tankers Badge?"

"The following suggestions for a combat tanker award for the officers and men of the United States Military Armor (Tankers) for which no decoration presently distinguishes them, has been offered from a group of the 'Original Tankers of 1918,' men who

served with General George S. Patton, Jr., General Crittenger, and other Armor leaders in World War II, and those of the Korean affair:

### Combat Tankers Badge

#### Eligibility Requirements:

- (1) An individual must be an armored officer or enlisted man, or a warrant officer with an Armor MOS who, subsequent to 6 December 1941, has satisfactorily performed duty while assigned or attached as a member of an armored unit of regimental or smaller size during any period such unit was engaged in active ground combat. Awards of this badge will not be made to the members of headquarters companies of units larger in size than regiments. Battle participation credit alone is not sufficient; the unit must have been in active ground combat with the enemy during the period.
- (2) Any officer whose basic branch is other than armor who, under appropriate orders, has commanded an armored unit of regimental or smaller size for at least 30 consecutive days is deemed to have been detailed in Armor and is eligible for the award of 'Combat Tankers Badge,' not withstanding absence of written orders detailing him in Armor, provided all other requirements for such award have been met. Orders directing the individual to assume command will be confirmed in writing at the earliest practicable date.
- (3) One combat tankers badge is authorized to be awarded to each individual for each separate war in which the requirements prescribed herein have been met.

#### Description:

- (1) First award: a polished silver tank on a triangular red, yellow, and blue background one inch in height in front of an oxidized oak wreath inclosing the wreath to be two inches in width. The word 'COMBAT' to be inscribed in silver on a yellow scroll below the triangle.
- (2) Second award: same as (1) above with one Silver Star centered at the top of the Badge on the point of the triangle.
- (3) Third award: same as (1) above with two silver stars centered at the ends of the oak wreath.
- (4) Fourth award: same as (1) above with three silver stars, one star centered at the top of the badge on the point of the triangle, and two silver stars centered at the ends of the oak wreath.

### Expert Tank Badge

#### Eligibility Requirements:

An individual must be an armor officer or enlisted man, or a warrant officer with Armor MOS who has satisfactorily completed the proficiency test prescribed by Army regulations while assigned to an Armored unit of regimental or smaller size.

#### Who May Award:

Commanding officers of armored and infantry regiments, separate tank battalions, and separate tank companies.

#### Description:

A polished silver tank on a triangular, red, yellow, and blue background, one inch in height, with the word 'EXPERT' inscribed in silver on a yellow scroll below the triangle.

ORIGINAL TANKMEN, who served in the First American Expeditionary in France and Germany in 1918, shall be awarded [in addition to the Tank Corps Badge] the above 'COMBAT TANKERS BADGE.'

Indiana Congressman William A. Bray, and a member of the World Wars Tank Corps Association, a combat tank veteran of

World War II and Korea, while sponsoring a measure before Congress to establish the tank badges for veterans, which is being sponsored by the World Wars Tank Corps."<sup>3</sup>

### 1952 — *ARMOR*, Letter to the Editor "Armor Combat Badge"

"Dear Sir:

The Infantry has its Combat Infantry Badge, the medics have their Combat Medics Badge, the Artillery has a proposed Combat Artillery Badge, and what does Armor have? I can answer this as well as any armor man can also answer it, nothing.

The tank companies and the tank battalions are all either integral parts of the infantry regiments or attached to the infantry divisions. With this close association with the infantry it is only natural that Armor is working in a close support role. Also, we often find ourselves leading task forces that move many meters behind enemy lines. When the tanker returns from these missions, he finds that his infantry teammates, who haven't already received their Combat Infantry Badges, are lined up and have it presented to them.

What does the tanker get? Nothing for him because he can't qualify for the Combat Infantry Badge, and Armor has nothing to give him.

I firmly believe that a distinctive badge for Armor is a must. It would be a definite boost to the morale of all tankers in Korea. Also, it would show our brothers in arms that Armor also has its distinctive badge.

I think you are the people to start the ball rolling and am counting on you to keep it rolling."<sup>4</sup> — Lieutenant William Q. Johnson, Tank Co., 32d Infantry Regiment, Korea

### 1952 — *ARMOR*, Letter to the Editor "Combat Recognition for Armor"

"Dear Sir:

While in Korea, this organization was employed in close support of infantry units. In almost every case, infantrymen and tankers shared equal hardships and danger. As we look at the situation, all elements of a tank-infantry team should be on an equal status.

The infantryman has his Combat badge to show for the effort he has expended, while the tanker, who was right up there with the foot soldier, has nothing. The men of this battalion keep asking, "Why?" and this is probably the same in any other armored unit. We cannot supply them with the answer.

The demand for recognition as combat tankers is so great that B Company has submitted a suggested design for a Combat Tanker's Badge. The drawing is by Corporal Pryor C. Mixon, Jr.

We are forwarding the drawing to you in the hope that you may be able to supply us with an answer. Or you may be able to give some publicity to the fact that of the three combat arms of the U.S. Army, Infantry, Armor, and Artillery, only the infantryman has a distinctive insignia to show he has been in combat.

Any aid that you may be able to give us in our crusade for recognition as 'Combat Tankers' will be greatly appreciated."<sup>5</sup> Sincerely yours, Lieutenant Colonel Victor B. Fox, 70th Tank Battalion, Korea

### 1953 — *ARMOR*, Letter to the Editor "Combat Tanker's Badge"

"Dear Sir:

I write this letter to you in the hopes that you can supply the information I desire. Since my arrival in Korea, I have been as-

signed to a tank battalion and most of my combat time has been as a tankerman.

The infantry has a combat badge to show their recognition of being an infantry soldier in combat. Has the armor branch adopted anything similar to the infantry? I have heard various stories from armor men and some say that we have what is known as a combat tankerman's badge. Is there any authorization for such an award?

Hoping that you can answer my questions or direct me to the proper source for this information. — Corporal Ronald Schneider, 7th Recon. Co., 7th Div., Korea

*Editor's Note: \*A check with the Pentagon reveals that there is no authorization for the wearing of a Combat Tankerman's badge at the present time. If we hear anything to the contrary we will be only too happy to report it to you.\**<sup>6</sup>

### 1964 — *ARMOR* Reconnoitering Section "Combat Tankerman's Badge"

"For some time the question of establishing a Tankerman's Badge similar to the Infantryman's Badge has been under formal discussion by armor types throughout the Army. In recent months, this discussion has been more pronounced and, with this in mind, the U.S. Armor Association at its annual meeting held at Fort Knox passed a resolution that would request the Department of the Army to award a tankerman's badge.

Why is there not a Tankerman's Badge? We have never seen a satisfactory answer to this question. Surely, there can be no argument about the precedent, for we have an Infantryman's Badge, the Medical Badge, the Parachutist's Badge in three categories, the Army Aviator's Badge in three categories, the Glider Badge, and the Diver's Badge in four categories. In addition, there is the Ranger Tab as a distinctive identification. These badges are awarded according to regulations in recognition of hazards and hardships, for special qualifications, or for completion of certain courses of training.

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*"Surely, there can be no argument about the precedent, for we have an Infantryman's Badge, the Medical Badge, the Parachutist's Badge in three categories, the Army Aviator's Badge in three categories, the Glider Badge, and the Diver's Badge in four categories. In addition, there is the Ranger Tab as a distinctive identification. These badges are awarded according to regulations in recognition of hazards and hardships, for special qualifications, or for completion of certain courses of training."*

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*ARMOR* does not want to detract from the skills and courage of the Infantryman, or the Parachutist, or the Medical Aidman, or the Aviator, or the Diver because they wear a distinctive badge, but is not the tankerman in the same category as these fellow soldiers and should he not also be allowed to display his skill as they do? We received a letter from Lieutenant Colonel John F. Hooks, Fort Hood, sometime ago and we quote in part: "We in Armor have a proud and glorious heritage. In the early days the cavalryman was distinctive in his dress, and I'm sure that tankermen of World War I had some distinctive marking or clothing. During World War II, the tankerman had the privilege of a distinctive head gear (cap, garrison, with high crown) worn on the left side...Times have changed; and now, unless he belongs to an armored division, he has no mark of distinction other than the branch insignia he may wear.

The infantryman proudly and justly wears the Combat Infantryman Badge, a badge that indicates that an individual has served in combat against an armed enemy. Those who have not been in combat may compete for the Expert Infantryman's Badge and

they too may be justly proud to wear it, because the skills are many and they must master them all before they have the privilege of wearing the Expert Infantryman's Badge."

We feel the time is at hand for the establishment of a Tankerman's Badge to be awarded under the same conditions as the stalwart foot soldier wears his."<sup>7</sup> — Editor

### 1966 — *ARMOR*, Letter to the Editor

"Dear Sir:

The infantryman has the Expert Infantryman's Badge and the Combat Infantryman's Badge. The medical corpsman is authorized the Combat Medic Badge, and a recent addition, the Expert Medical Badge. DA has finally authorized a well-deserved set of crewman wings for those who share the hazards of flying the Army's aircraft. Drivers may earn the Expert Driver's Badge by showing their proficiency at the wheel. Proficiency with individual and crew served weapons, while no longer holding a monetary incentive, is shown by marksmanship medals. Skill with a wrench and screwdriver deserves the Mechanics Badge.

What's wrong with the Combat Arm of Decision? Are our men not entitled some way of showing that in fact they, too, were there? What about the tankerman who excels in peacetime or combat?

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*"While we do not advocate making the uniform look like a Christmas tree or a Boy Scout merit badge sash, the awarding of a distinctive badge for excellence in peacetime and combat would lend much to the performance of and esprit of tankermen."*

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While we do not advocate making the uniform look like a Christmas tree or a Boy Scout merit badge sash, the awarding of a distinctive badge for excellence in peacetime and combat would lend much to the performance of and esprit of tankermen. Some attempts have been made within certain units to rectify this situation by initiating awards for performance on TCPC. We feel that this, and a combat badge, is a question worthy of consideration by OUR branch. For the Officers and Men of D Company, 16th Armor, 173d Airborne Brigade (Separate), 1st Lieutenant John T. Wells, Vietnam

*\*Editor's Note: In 1964 the U.S. Armor Association sent a resolution, favoring the adoption of a tankerman's badge, to the Department of the Army for its consideration. This resolution was not favorably considered at that time. As far as the Editor knows, no effort has been made since that time for the establishment of a Tankerman's Badge.\**<sup>8</sup>

### 1981 — *ARMOR*, Driver's Seat, CSM John Gillis "An Armored Badge Is Needed"

"On 03 June 1981, the following proposal for an Armored Force Badge and a Combat Armored Force Badge was approved by MG Louis C. Wagner, Jr., Commanding General, U.S. Army Armor Center and Fort Knox:

*'This proposal addresses the need of establishing an Armored Force Badge and a Combat Armored Force Badge to be worn on the uniform of members of ground units of the Armored and Cavalry forces. ... The Combat Armored Force Badge would greatly enhance the pride and motivation of Armor and Cavalry soldiers who will be called upon to provide the major part of the combat power on the modern battlefield.'*

In forwarding the proposal to the Commanding General of the Training and Doctrine Command, MG Wagner stated in his letter:



*'The leadership of Cavalry and Armor from at least 1833 has seen the need and sought approval for a distinctive insignia/badge. The evolution of Armor as the dominant force on the battlefield; historical recognition, worldwide, of 'heroes of Armor', such as Generals Chaffee, Patton, and Abrams; and the importance of the Armored Force in future planning of the U.S. Army with the Abrams Tank, Cavalry Fighting Vehicle, and Division 86, continue to state this need for a distinctive badge. In fact, it is more than a need, it is conclusive evidence of a requirement.'*<sup>9</sup> — CSM, USAARMC & Fort Knox

**1991 — ARMOR, Letter to the Editor  
"War Revives Armor Badge Issue"**

"Dear Sir:

The resounding victory in the recent Gulf War validated to friend and foe alike the soundness of our Combined Arms Doctrine. More important, the necessity of heavy armor to that doctrine was clearly demonstrated. One might even go so far as to say that Armor was the keystone to the ground war victory. Accepting this fact as true, one question pops to mind: why is the importance of Armor, as a decisive combat element, not recognized with a combat qualification badge?

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*"Accepting this fact as true, one question pops to mind: why is the importance of Armor, as a decisive combat element, not recognized with a combat qualification badge?"*

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The argument over establishing a Combat Tanker's Badge has raged for several decades within the Army. The supremacy of the Combat Infantryman's Badge has been jealously maintained. The fact remains that we are a 'combined arms' Army. Why then do we continue to ignore the combat achievements of every branch except the Infantry?

The composition of American forces in the Kuwaiti Theater of Operations was based on heavy tank units: 1st Armored Division, 2d Armored Division (Forward), 3d Armored Division, 1st Cavalry Division, 2nd Cavalry Regiment, and the 3rd Cavalry Regiment. Why should the accomplishments of so many tankers not be recognized with a combat badge? And what about the tankers in the mechanized infantry divisions, such as the 24th and 1st Infantry? Why should the Bradley crew who rode next to them receive a Combat Infantryman's Badge, while they receive nothing? A combat patch is not enough. Tank crews deserve recognition with their own distinctive badge.

The criteria for the award should be very simple. If a soldier served on a tank in direct fire combat, he should be eligible for the reward, regardless of his MOS. Consequently, the turret mechanic pressed into service as a loader or gunner would be eligible for the badge.

The massive armor advances of Desert Storm are the first of their kind since the Allied sweeps through North Africa and Europe in World War II. If there was ever a time to adopt a Combat Tanker's Badge, it is NOW. The justification for it lies in the burned-out hulks of hundreds of Iraqi tanks and the thousands of tank tracks that criss-cross the Iraqi Desert. We must strike while the iron is hot and before the memory fades."<sup>10</sup> — Ronald J. Bashista, 1LT, Armor, Erlangen, West Germany

**1991 — U.S. Senator Mitch McConnell's Speech  
to the United States Senate**

"Dear Secretary Stone:

This afternoon I introduced legislation providing for the establishment and award of an Armor Combat Tank Badge. I am enclosing a copy of my bill for your viewing.

The war to liberate Kuwait reaffirmed the necessity of armor forces on the world's battlefields. Engaged in the largest tank assault since World War II, U.S. and allied troops soundly defeated Saddam Hussein's war machine. Over 1,000 U.S. tanks and armor crews contributed to this impressive victory.

While the idea of an Armor Combat Tank badge is not new, I think that it is clear its time has come. For several years, Armor Division Associations in Kentucky — and nationwide — have expressed their hopes for the creation of such a badge. Our armor soldiers are a special breed of warriors, and I am certain this badge will provide them with the recognition they so rightly deserve.

I hope that you will lend your support to my bill, and will join me in thanking all our armor soldiers."<sup>11</sup> — Mitch McConnell, U.S. Senator

**13 September 1995 — Letter from GEN Reimer  
to Senator Mitch McConnell**

"Dear Senator McConnell,

Thank you for your August 10 letter concerning establishment of a Combat Armor Badge.

The Combat Infantryman Badge (CIB) was established by the War Department on October 27, 1943. This award has provided special recognition of the unique role of the Army infantryman, the only soldier whose daily mission is to close with and destroy the enemy and to seize and hold terrain. There are basically three requirements for award of the CIB: the soldier must be an infantryman satisfactorily performing infantry duties, be assigned to an infantry unit during such time the unit is engaged in active ground combat, and actively participate in such ground combat. Additionally, since December 1989, Special Forces soldiers may be eligible for the CIB.

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*"This award has provided special recognition of the unique role of the Army infantryman, the only soldier whose daily mission is to close with and destroy the enemy and to seize and hold terrain."*

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The prestigious recognition given to the infantryman has been frequently reviewed and always protected. Since the establishment of the Combat and Expert Infantryman Badges in 1943, numerous proposals have been submitted to create insignia, badges, ribbons, medals, or other devices to acknowledge specific branches or elements of the Army, to include the Armor branch. With the exception of the Combat Medical Badge and the Expert Field Medical Badge, comparable badges have not been adopted. The Army has consistently declined to take any action that might detract from or lessen the prestige of the Combat Infantryman Badge, Combat Medical Badge, and Expert Infantryman and Medical Badges.

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*"The Army recognizes that the award of badges helps to promote esprit de corps, provides incentives to greater effort, and fosters morale and self esteem."*

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Soldiers of arms and services, other than infantry and medical, who attain a high level of technical skill and proficiency in a particular field, i.e., armor, signal, transportation, artillery, and engineer are eligible for appropriate decorations in recognition of their achievements and services in those fields. There are also

tabs, insignias, and other badges, which denote particular combat-related skills common to all soldiers and participation in a combat environment.

The Army recognizes that the award of badges helps to promote esprit de corps, provides incentives to greater effort, and fosters morale and self-esteem. However, Army policy has been very restrictive regarding the adoption of new badges. The objective of this policy is to protect the prestige and meaningfulness of existing badges and preclude uniform clutter. The current hierarchy of awards and decorations that can be used to recognize soldiers is considered adequate to reward soldiers at a level indicative of the performance rendered.

For the above reasons, the Army has neither created, nor does it support the creation of a special badge to recognize soldiers of the Armor branch or other branches. This policy in no way denigrates the invaluable and important contribution of soldiers involved in the armor field throughout the Army's history.

[Personal Comments handwritten by General Reimer at the bottom of the letter to Senator McConnell]: *Sincerely appreciate your interest. This is an issue that has been reviewed many times since I've been in Army. Results are always the same: CIB is special and we need to leave it that way. I am convinced this continues to be the case.*<sup>12</sup>

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*"Sincerely appreciate your interest. This is an issue that has been reviewed many times since I've been in Army. Results are always the same: CIB is special and we need to leave it that way. I am convinced this continues to be the case."*  
— General Dennis Reimer

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### 2001 — *ARMOR*, "Armor Soldiers in the Gulf Deserved Combat Badges, Too"

"Dear Sir:

I was extremely excited when I read the headline of the "Commander's Hatch" in the September-October issue — "The Combat Armor Badge." I thought to myself, finally an armor leader willing to stand up for the branch and the soldiers who represent the branch. I was devastated by MG Bell's stance.

He mentioned two points:

It will cause divisiveness. Has this happened in the Infantry Branch between what he called the 'haves and have-nots'? I think it has not. It has only added to the esprit de corps of that fine branch.

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*"It will cause divisiveness. Has this happened in the Infantry Branch between what he called the 'haves and have-nots'? I think it has not. It has only added to the esprit de corps of that fine branch."*

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Impact on the Army overall? The German Wehrmacht had a combat badge for all its branches; this seemed to work well for them, and I agree any soldier should be eligible for a combat-type badge.

I cannot describe to you the feelings I had trying to answer the questions of my young soldiers in 4-64 Armor after they witnessed our mortars receiving their CIBs: 'Sir, they didn't even fire a shot. ... "We were in front of them;" etc. I believe our mortar men deserved this award, I also think our 19Ds, 19Ks, and medics also deserved a badge.

At a time when the services are facing retention and recruiting concerns, I would think another bonus in terms of a much-deserved award would only help morale. I know morale is down in the Armor force; I still talk to the many friends I have on active duty, and they are not happy.

I also wonder if his stance would be different if he had been in the Gulf. I hope he becomes a leader in this issue for our well-deserved Armor veterans."<sup>13</sup> — Todd A. Mayer, Cincinnati, Ohio

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*"The CIB was designed to enhance morale and the prestige of the 'Queen of Battle.' Then Secretary of War Henry Stinson said, 'It is high time we recognize in a personal way the skill and heroism of the American infantry.'"*

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### Understanding the Debate

The key to understanding the history of the Combat and Expert Armor Badge debate is to examine the evolution and emergence of a few badges and medals since the inception of the Air Medal in World War II. The Air Medal has been deemed by many to be the catalyst for the conception of the CIB, Expert Infantry Badge (EIB), Combat Medical Badge, and Expert Field Medical Badge (EFMB).

**Air Medal.** Secretary of War Lewis Stimson, in a 09 March 1942 letter to the Director, Bureau of Budget, proposed to establish an Air Medal. Secretary Stimson's request was two-fold: he was concerned about the morale of pilots and flight crews in combat operations, and he did not want to belittle the prestige of the Distinguished Flying Cross. Stimson states, "The Distinguished Flying Cross is available only for heroism or extraordinary achievement while participating in aerial flight...it is desired not to cheapen the Distinguished Flying Cross by awarding it for achievement not bordering on the heroic. It is, however, important to reward personnel for meritorious service."

Herein lies the foundation for the emergence of the CIB. After the official authorization of the Air Medal, arguments were made on behalf of establishing a distinctive badge or award to recognize the suffering and sacrifices of the infantryman. An interesting account of the birth of the CIB can be found in U.S. Army Regulation (AR) 600-8-22, *Military Awards*.<sup>14</sup>

**Combat Infantryman Badge.** AR 600-8-22, *Military Awards*, describes, in detail, the Combat Infantryman Badge's inception:

*"a. History.*

(1) The Combat Infantryman Badge (CIB) was established by the War Department on 27 October 1943. Lieutenant General Lesley J. McNair, then the Army Ground Forces commanding general, was instrumental in its creation. He originally recommended that it be called the 'fighter badge.' The CIB was designed to enhance morale and the prestige of the 'Queen of Battle.' Then Secretary of War Henry Stinson said, 'It is high time we recognize in a personal way the skill and heroism of the American infantry.'

(2) Originally, the Regimental Commander was the lowest level at which the CIB could be approved and its award was retroactive to 7 December 1941. There was a separate provision for badge holders to receive a \$10 per month pay stipend, which was rescinded in 1948. Several factors led to the creation of the CIB, some of the most prominent factors are as follows:

(a) The need for large numbers of well-trained infantry to bring about a successful conclusion to the war and the already critical shortage of infantrymen.

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*"Of all soldiers, it was recognized that the infantryman continuously operated under the worst conditions and performed a mission which was not assigned to any other soldier or unit."*

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(b) Of all soldiers, it was recognized that the infantryman continuously operated under the worst conditions and performed a mission which was not assigned to any other soldier or unit.

(c) The infantry, a small portion of the total Armed Forces, was suffering the most casualties while receiving the least public recognition.

(d) General Marshall's well known affinity for the ground forces soldier and, in particular, the infantryman. All these factors led to establishing the CIB, an award that would provide special recognition of the unique role of the Army infantryman, the only soldier whose daily mission is to close with and destroy the enemy and to seize and hold terrain. The badge was intended as an inducement for individuals to join the infantry while serving as a morale booster for infantrymen serving in every theater.

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*"In developing the CIB, the War Department did not dismiss out of hand or ignore the contributions of other branches. Their vital contributions to the overall war effort were certainly noted, but it was decided that other awards and decorations were sufficient to recognize their contributions."*

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(3) In developing the CIB, the War Department did not dismiss out of hand or ignore the contributions of other branches. Their vital contributions to the overall war effort were certainly noted, but it was decided that other awards and decorations were sufficient to recognize their contributions. From the beginning, Army leaders have taken care to retain the badge for the unique purpose for which it was established and to prevent the adoption of any other badge, which would lower its prestige. At the close of World War II, our largest war in which the armor and artillery played key roles in the ground campaigns, a review was conducted of the CIB criteria with consideration being given to creating either additional badges or authorizing the badge to cavalry and armor units. The review noted that any change in policy would detract from the prestige of the badge.

*b. Intent.*

(1) There are basically three requirements for award of the CIB. The soldier must be an infantryman satisfactorily performing infantry duties, must be assigned to an infantry unit during such time as the unit is engaged in active ground combat, and must actively participate in such ground combat. Campaign or battle credit alone is not sufficient for award of the CIB.

(2) The definition or requirement to be 'engaged in active ground combat' has generated much dialogue over the years as to the original intent of the CIB.

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*"The definition or requirement to be 'engaged in active ground combat' has generated much dialogue over the years as to the original intent of the CIB."*

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(a) The 1943 War Department Circular required infantrymen to demonstrate 'satisfactory performance of duty in ac-

tion against the enemy.' The operative words 'in action' connoted actual combat.

(b) A War Department determination in October 1944 specified that 'action against the enemy' for purposes of award of the CIB was to be interpreted as 'ground combat against enemy ground forces.'

(c) In 1948, the regulation governing badges stipulated that 'battle participation credit is not sufficient; the unit must have been in contact with the enemy.' This clearly indicated that an exchange of hostile fire or equivalent personal exposure was the intent of the Army leadership.

(d) In 1963 and 1965, HQDA messages to the senior Army commander in the Southeast Asia theater of operations authorized award of the CIB to otherwise qualified personnel 'provided they are personally present and under fire.' U.S. Army Vietnam regulations went so far as to require documentation of the type and intensity of enemy fire encountered by the soldier. The intended requirement to be 'personally present and under fire' has not changed."<sup>15</sup>

**Combat Medical Badge.** Paragraph 8-7, Army Regulation 600-8-22, *Military Awards*, also describes the Combat Medical Badge:

*"a. History.*

(1) Originally established as the Medical Badge, the Combat Medical Badge (CMB) was created by the War Department on 1 March 1945. It could be awarded to officers, warrant officers, and enlisted men of the Medical Department assigned or attached to the medical detachment of infantry regiments, infantry battalions, and elements thereof designated as infantry in tables of organization or tables of organization and equipment. Its evolution stemmed from a requirement to recognize medical aid-men who shared the same hazards and hardships of ground combat on a daily basis with the infantry soldier. Though established almost a year and a half after the CIB, it could be awarded retroactively to 7 December 1941 to fully qualified personnel.

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*"[The Combat Medical Badge's] evolution stemmed from a requirement to recognize medical aid-men who shared the same hazards and hardships of ground combat on a daily basis with the infantry soldier."*

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(2) Like the CIB, the Regimental Commander was the lowest level at which the CMB could be approved and it also carried with it a separate provision for enlisted badge holders to receive a \$10 per month pay stipend.

(3) The CMB was awarded to medical department personnel assigned or attached to infantry units of Allied Forces when duties performed were identical to those performed by medical personnel assigned or attached to U.S. Forces.

(4) The CMB could also be awarded to U.S. Navy and U.S. Air Force medical personnel provided they met all the requirements of Army medics.

(5) Effective 20 December 1989, special forces personnel possessing Military Occupational Specialty 18D (Special Operations Medical Sergeant) became qualified for award of the CMB provided they were otherwise qualified.

(6) In 1991, the Chief of Staff, Army authorized a limited expansion of CMB eligibility, to include medical personnel assigned or attached to armor and ground cavalry units provided they meet all other qualifying criteria. This expansion was ret-

reactive to 17 January 1991 to cover the period of Operation DES-ERT STORM.

*b. Intent.*

(1) The CMB was created as a ‘companion’ badge to the CIB with criteria for its award intended to parallel that of the CIB. It was designed to provide recognition to the field medic who accompanies the infantryman into battle and shares with him the experiences unique to the infantry in combat. There was never any intention to award the CMB to all medical personnel who serve in a combat zone or imminent danger area, that is, a division-level medical company supporting a maneuver brigade.

(2) As with the CIB, the infantry unit to which the medical personnel are assigned or attached must engage the enemy in active ground combat. Since inception, the intent of the Department of the Army regarding this requirement has been that medical personnel must be personally present and under fire in order to be eligible for the awarding of the badge. So stringent was this requirement during the Vietnam era that recommending officials were required to document the place (in six digit coordinates), time, type, and intensity of fire to which the proposed recipient was exposed. This fact naturally precludes the awarding of the badge to those medical personnel who accompany infantry units into a potential engagement area, but do not come under enemy fire.

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*“As with the CIB, the infantry unit to which the medical personnel are assigned or attached must engage the enemy in active ground combat.”*

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(3) Over the years, there has been some confusion concerning the phrase “in direct support of an infantry unit.” The CMB is intended for, and awarded to, those medical personnel who accompany the infantryman into combat. The Army has never approved of deviations from this purpose and its restrictive criteria. During the World War II era, battalion and regiment level medical detachments and companies provided medical support for combat infantry units. These medical personnel and units were termed direct support. This concept lasted until Vietnam. Today, medical personnel are assigned as organic personnel to infantry companies and are regarded as participants as opposed to being categorized as those providing direct medical support. For example, medical personnel serving in division-level medical companies, ground ambulance and medical clearing companies, mobile-Army surgical hospital (MASH), combat-support hospital (CSH), field hospitals, and aero-medical evacuation units are not eligible for the CMB. The sole criterion, which qualifies medical personnel for award of the CMB, is to be assigned or attached to an infantry unit engaged in active ground combat. Medical personnel, other than those medics organic to infantry units, may qualify only if they serve as medical personnel accompanying infantrymen. Conceivably, this could occur if an infantry unit lost all its medics and, as a temporary or permanent mea-

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*“So stringent was this requirement during the Vietnam era that recommending officials were required to document the place (in six digit coordinates), time, type, and intensity of fire to which the proposed recipient was exposed.”*

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sure, medical personnel were attached to an infantry unit, but remained assigned to a hospital or other non-infantry unit.”<sup>16</sup>

**Bronze Star.** The CIB was heavily supported by the War Department in World War II to help compensate the “infantryman”

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*“The fact that the ground troops, infantry in particular, lead miserable lives of extreme discomfort and are the ones who must close in personal combat with the enemy, makes the maintenance of their morale of great importance. The award of the Air Medal has had an adverse reaction on the ground troops, particularly the Infantry Riflemen who are now suffering the heaviest losses, air or ground, in the Army, and enduring the greatest hardships.”*

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for fighting, living, and enduring harsh battlefield conditions. The CIB was meant to be a “morale booster,” a token to let the ground fighter know that their efforts did not go unnoticed. During the war, General George C. Marshall campaigned for the approval of yet another decoration to honor wartime sacrifices. His efforts are described in a Bronze Star information circular:

*“5. Background:*

a. General George C. Marshall, in a memorandum to President Roosevelt dated February 3, 1944, wrote: ‘The fact that the ground troops, infantry in particular, lead miserable lives of extreme discomfort and are the ones who must close in personal combat with the enemy, makes the maintenance of their morale of great importance. The award of the Air Medal has had an adverse reaction on the ground troops, particularly the Infantry Riflemen who are now suffering the heaviest losses, air or ground, in the Army, and enduring the greatest hardships.’ The Air Medal had been adopted two years earlier to raise airmen’s morale.

b. President Roosevelt authorized the Bronze Star Medal by Executive Order 9419, dated 4 February 1944, retroactive to 7 December 1941. This authorization was announced in War Department Bulletin No. 3, dated 10 February 1944. The Executive Order was amended by President Kennedy, per Executive Order 11046, dated 24 August 1962, to expand the authorization to include those serving with friendly forces.

c. As a result of a study conducted in 1947, the policy was implemented that authorized the retroactive award of the Bronze Star Medal to soldiers who had received the Combat Infantryman Badge or the Combat Medical Badge during World War II. The basis for doing this was that the badges were awarded only to soldiers who had borne the hardships, which resulted in General Marshall’s support of the Bronze Star Medal. Both badges required a recommendation by the commander and a citation in orders.”<sup>17</sup>

### **The Disparity Syndrome**

A trend of disparity has continued to develop in the adopting U.S. Army badges since the inception of the CIB, CMB, EIB and EFMB. “Disparity,” or its root word, “disparate” is defined by Webster’s dictionary as, “One of two or more things so unequal or unlike that they cannot be compared with each other.” Since 1943, when the CIB and EIB were instituted, approximately 39 distinctive badges, tabs, and identification badges have been adopted by the U.S. Army — some have since been rescinded, such as nuclear and glider. Of these, as General Reimer states, “. . . tabs, insignias, and other badges, which denote particular combat-related skills common to all soldiers and participation in a combat environment,” Armor and Cavalry Officers, 19K and 19D scouts and tankers (not forgetting a large portion of artillery, engineer, air defense, and other supporting branches), may qualify for a very small percentage based on MOS restrictions and the mission essential task lists of Armor and Cavalry units. Integrating MOSs and units into our “combined arms team” amplify these small percentages.

This situation continues to be the case in Operation Iraqi Freedom where CIB ceremonies are being held for infantry soldiers

who are attached to Armor units while their “brothers in combat arms” watch on. Consider this — a scout platoon is out in front of the task force in up-armored or soft-skinned HMMWVs and taking heavy enemy fire as they provide the eyes and ears for their comrades who are following in M1A1s and Bradleys. Under current regulations, the only one eligible for a combat badge would be the 11-series soldiers in the task force.

Sadly, this scenario is not an isolated incident, and it is not restricted to recent combat operations. This has happened time and time again. Esprit de corps alone will not rectify the potential effect on morale for the armored force. It is true that the sometime cavalier armored force retains its traditions in the form of spurs, Stetsons, and tanker boots, but these symbols do not address the issue of recognition in peacetime and at war.

A closer examination of AR 600-8-22, Chapters 7-21 and 22, shows us that there are two more recognitions given in addition to the CIB and CMB in the form of the Combat Infantry Streamer and the Combat Medical Streamer. The Combat Infantry Streamer criteria states (medical streamer criteria is identical): “When 65 percent or more of the TOE strength of a separate infantry or ranger platoon, infantry or ranger company, battalion or brigade has been awarded the Combat Infantryman Badge (CIB) during military operations against an opposing foreign force in war, or in any military action where the CIB is authorized, the unit will be awarded a Combat Infantry Streamer. The streamer is authorized to be awarded to a unit for each separate war or military operation in which the requirements prescribed herein have been met. Each additional award will be represented by a star embroidered on the streamer.”<sup>18</sup>

The accolades do not end with the CIB and CMB combat streamers. If one looks further in Chapters 7-26 and 7-27, AR 600-8-22, it provides for additional expert infantry and medical streamers for over 65 percent of the units achieving either the CIB/CMB or the EIB/EFMB during war or a testing period.

## Final Thoughts

Did my journey end at the Patton Museum when I held the original tanker badge? I feel in some way that I have touched the generation of World War I tankers that fought so hard to get a tanker badge for their World War II comrades and all tankers to follow. Holding that small metallic symbol made me realize that as an armored force, we are not only at the crossroads of an Army-wide transformation, but we are also at the beginning of another opportunity to finally take a stand and do what is right for the great tankers and cavalymen we follow and emulate in method and practice; what is right for the veterans, active and retired, who have “laid it on the line” in the combined arms battles of the 20th and 21st centuries; and finally, what is right for the force to enhance our morale and esprit de corps to lead the Army into the next generation.

There will always be doubters that question the parameters of adopting a distinctive armor badge for war and peacetime — questions that will no doubt address if armor veterans will retroactively receive the CAB for their combat time. My answer is, “yes.” The Army has had no issues of denigrating the value of an award by issuing it after the fact. The tears of the World War II Sherman tanker, the Korean War Chaffee tanker, the Vietnam War M113 or M48 tanker, the Panama Invasion Sheridan tanker, the Desert Storm M1A1 or M2 Bradley tanker, and the Operation Iraq Freedom M1A2 or M3 Bradley tanker being awarded a Combat Armor Badge alongside infantry comrades will be real.

Should we limit combat and expert badges to only armor, infantry, and medical corps? The answer from every leader and

soldier in today’s combined arms family” should be a resounding, “no.” Will it cheapen current and future badges by allowing all Army branches to recognize their soldiers? No! We, as a military, rely on each other more than ever. As a result of our recent military endeavors, we know from the common soldier to the most senior commander that the 71-Lima personnel administrative clerk, the 92-Yankee supply sergeant, the 11-Bravo, 19-Kilo, and 19-Delta combat soldier can all be combat multipliers on the contemporary operating environment battlefield of today. The bottom line is we risk our lives to wear this uniform. We should break the mindset and let everyone put on their uniform in the morning and get that warm feeling of seeing a distinctive insignia or strive to be the next person to sew it on.

I do want to enforce my support for all soldiers awarded the CIB, the CMB, the EIB, and the EFMB and thank them for their sacrifices, some ultimate, and congratulate others on earning their badges. My purpose is to draw attention to decades of disparity, rather than attack those who have rightly earned recognition.

In closing, I pause to remember an infantryman hero in my life, my grandfather, Private First Class Gilbert Monien. My journey to find the “truth” about the tanker badge helped me discover his CIB and Bronze Star. I think that he and his World War II “combined arms comrades” are smiling down on us. Thanks Grandpa.



## Notes

<sup>1</sup>CPT Ronald M. Cross, “Why Not A Combat Badge For Armor?” *ARMOR*, May-June 1969, pp. 22-23.

<sup>2</sup>Honorable William G. Bray, 7th District Indiana Congressman, 1949 Personal Letter, Patton Museum Archives.

<sup>3</sup>World Wars Tank Corps Association, “Why Not A Combat Tankers Badge,” *Tankerine*, February-March 1953.

<sup>4</sup>LT William Q. Johnson, “Armor Combat Badge,” Letter to the Editor, *ARMOR*, January-February 1952, p.2.

<sup>5</sup>LTC Victor B. Fox, “Combat Recognition For Armor,” Letter to the Editor, *ARMOR*, July-August 1952, p. 2.

<sup>6</sup>CPL Ronald Schneider, “Combat Tanker’s Badge,” Letter to the Editor, *ARMOR*, November-December 1953, p. 2.

<sup>7</sup>Editorial, Reconnoitering Section, “Combat Tanker’s Badge,” *ARMOR*, July-August 1964, p. 43.

<sup>8</sup>1LT John T. Wells, Letter to The Editor, *ARMOR*, November-December 1966, pp. 2-3.

<sup>9</sup>CSM John W. Gillis, “An Armored Force Badge Is Needed,” *Driver’s Seat*, *ARMOR*, September-October 1981, pp. 9-10.

<sup>10</sup>1LT Ronald J. Bashista, “War Revives Armor Badge Issue,” Letter to the Editor, *ARMOR*, July-August 1991, pp. 5, 49.

<sup>11</sup>Senator Mitch McConnell, Congressional Record-Senate S7899, Speech to United States Senate, Secretary, Department of the Army, The Pentagon, Washington, D.C., 17 June 1991.

<sup>12</sup>General Dennis J. Reimer, U.S. Army Chief of Staff, Personal Letter to Senator Mitch McConnell, 13 September 1995, Patton Museum Archives.

<sup>13</sup>Todd A. Mayer, “Armor Soldiers in the Gulf Deserved Combat Badges Too,” Letter to the Editor, *ARMOR*, January-February 2001, p. 50.

<sup>14</sup>Headquarters, Department of the Army, U.S. Army Regulation 600-8-22, *Military Awards*, U.S. Government Printing Office, Washington D.C., 25 February 1995.

<sup>15</sup>*Ibid.*, pp. 50-52.

<sup>16</sup>*Ibid.*, pp. 52-53.

<sup>17</sup>Online Research, <<http://usmilitary.about.com/library/milinfo/armedal/blbsm.htm>> 2003.

<sup>18</sup>AR 600-8-22, *Military Awards*, pp. 46-47.

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# Combat Tanker Badge 1918



CAB 1953



EAB 1953



CAB 1986



EAB 1986

## History of Proposed Badges From 1952 to Present



CAB 1991



EAB 1991



CAB 1952



CAB 1989

### Author's Proposed Badges

CAB



EAB



Vietnam CAB 1966



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