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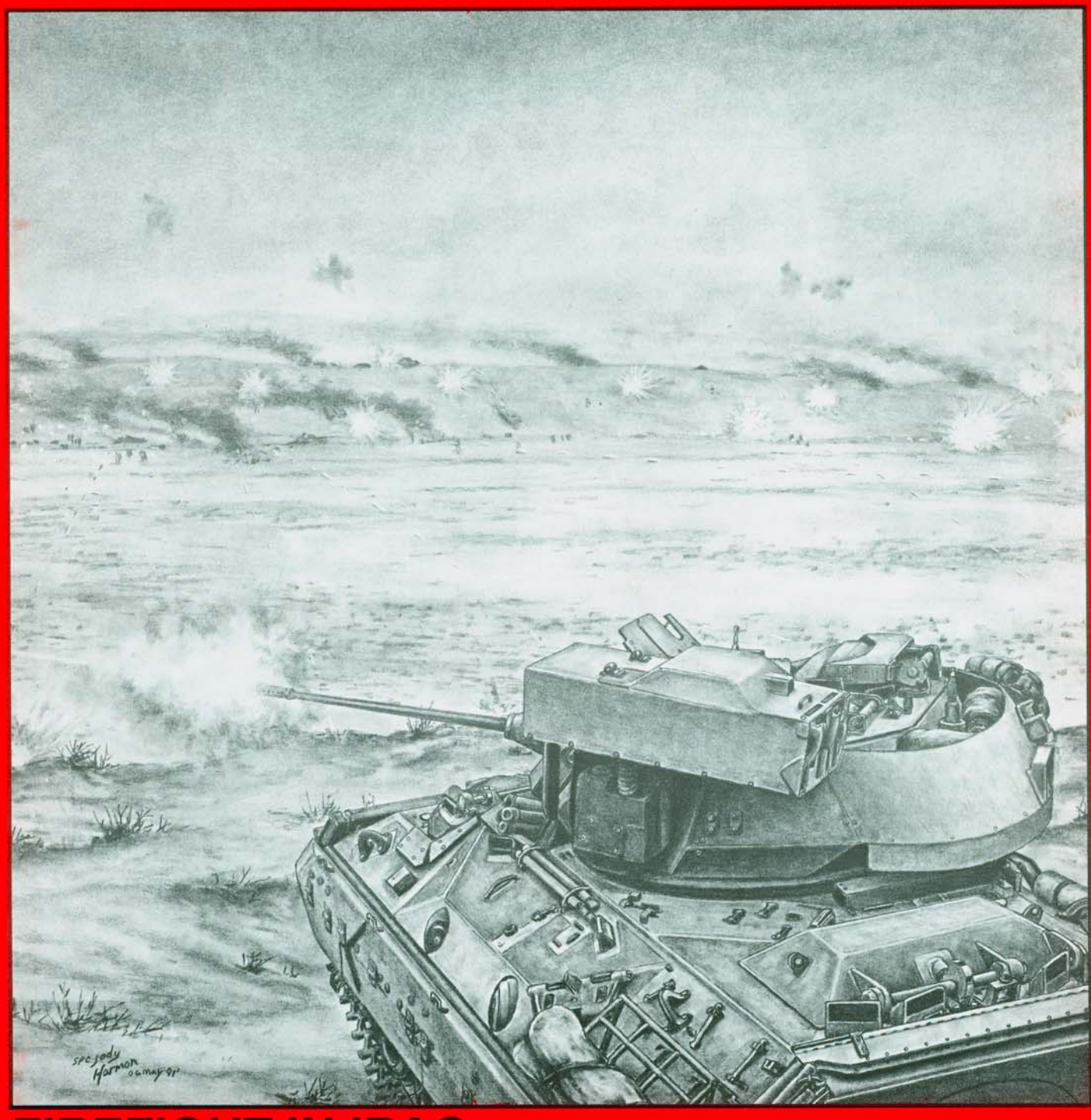

FIREFIGHT IN IRAQ: *Ghost Troop's Battle at the 73 Easting, Page 7*

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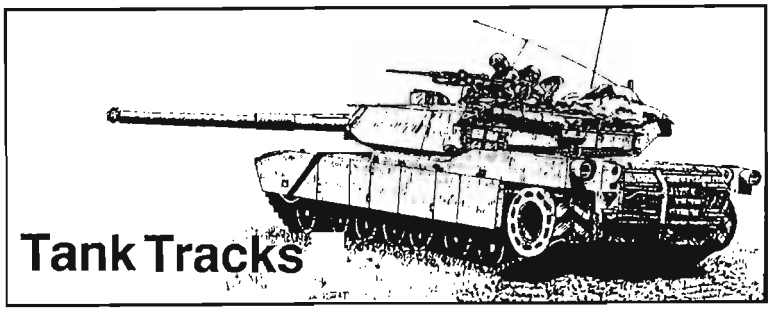

Tank Tracks

The combat portion of Operation DESERT STORM has been over for more than a quarter of a year already, but ENDEX is not yet within sight. It is evident now that the shooting war may prove to have been the easiest part of our deployment to the Persian Gulf region. The problems of keeping the peace, protecting regional inhabitants from further atrocities, and redeployment are now removed from the front pages of newpapers.

Nevertheless, the war against Iraq may prove to generate more written words per hour of combat than any other conflict in history. Until now, the media wrote most of those words, but now, accounts are starting to come forth from the participants themselves. (See page 7 for the account of "Ghost Troop," and page 13 for the 1-4 Cavalry's story.)

The recent annual Armor Conference sparked record attendance, in large part, I think, because many of the senior commanders of DESERT STORM were here to tell their stories and to shed some light on what was great about the operation and what was not so great. The structured presentations gave way to free-flow discussion, which could have continued for days. Soldiers redeploying to Fort Knox during the conference reminded us that while we gather lessons in a pseudo-academic state of mind, the mission is not yet complete.

Many things became clear during the structured presentations and in the countless off-line discussions between individuals at the social events. Most of the equipment performed better than expected; some of it clearly earned epithets. But the common thread, the overwhelming opinion was that our soldiers performed magnificently. This will be the one great lesson learned, that well-led American soldiers, highly trained and given proper equipment, can accomplish any mission anywhere in the world. It seems to me that this is a lesson we already knew.

I encourage all participants of Operation DESERT STORM to find some time to write for *ARMOR*, while your experiences are still fresh. We would like to see all points of view, from the HET driver to the cupola, from the gunner's seat to the TOC, from sergeants to the generals. We are interested in deployment issues, organization, tactics, maintenance, communications, equipment, first-person accounts, unit narrations, and analysis. Don't wait 10 years to write your book. Send us an article today.

— PJC

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May-June 1991, Vol. C No. 3

Features

Departments

LETTERS

A New Tradition

Dear Sir:

The outgoing commander of the 9th Motorized Division was presented with a single red rose and a spray of baby's breath during the division change of command on March 1, 1991. This was the beginning of a new Cavalry tradition at Fort Lewis, Washington.

The commander, Major General Chuck Armstrong, an erstwhile infantryman, commented during a retirement ceremony the previous day that a retiring soldier received a red rose because he was an Armor officer. General Armstrong was corrected by the undersigned during the 9th Division change of command when it was explained that the rose had a great symbolism for the Cavalry; for "The red of the rose stands for the glory, the spirit, the grit and determination, the valor and the gallantry that one always associates with the Cavalry; and the soft, fragile, delicate blossoms of the spray of baby's breath stand for the nobility of character, the loyalty, the dignity, the virtue, the courage and the sacrifice of the Cavalry trooper."

General Armstrong earned the right to receive the rose and join the ranks of the legion of Cavalrymen who have ridden the road to the fabled Fiddler's Green, for he commanded the largest light Cavalry division in the history of our Army, the 9th Motorized Division (Light Cavalry). Its successor is the 199th Motorized Brigade (Light Cavalry) that was organized as the 100th Mechanized Cavalry troop, 100th Division, during World War II. It's great to welcome a historic Cavalry unit back into our ranks.

THOMAS H. TAIT
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Ft. Leavenworth, Kan.

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Refining CSS for Scouts

Dear Sir:

Captain Timothy Flanagan's "Combat Service Support in the Task Force Scout Platoon" (ARMOR, January-February 1991) was right on target. He brings up several good points and cuts to the heart of what bad logistics can do to the TF scout platoon. Having been responsible for keeping the scouts in the fight over two NTC rotations (once as a support platoon leader, once as a TF S4) I'd like to pass on a few more comments.

The use of LOGPACS specifically for the scouts is the only option. The scouts need priority of resupply during the reconnaissance/counterreconnaissance phase of the battle, or the TF will have no eyes. But I disagree with CPT Flanagan's use of the HHC first sergeant as the individual responsible for scout resupply. Obviously, this is personality driven. But the firepower that the HHC first sergeant carries with that diamond he wears is not to be underestimated. The HHC first sergeant can perform a more vital service for the task force by energizing line company supply sergeants, as well as his own assets, and ensuring that the myriad details of logistics for the rest of the task force are worked out at the lowest level. Our solution was to leave the HHC first sergeant in the field trains and task the HHC XO with resupply of both the scouts and mortars. This way, the resupply of the scouts was conducted on their terms — this is the way it has to be. The HHC XO would resupply the mortars on his way to or from the scouts. The S4 gets his situation report after the conduct of the resupply, and the HHC XO is on his way back to the field trains. This system also works well if the battalion is employing an ad hoc counterreconnaissance force built around the scouts.

To keep a scout "package" of Classes III and V uploaded at the CTCP proved very successful in our experiences. Two fuel HEMTTs and an ammunition truck kept with the CTCP can refuel and rearm a scout platoon in five minutes or less. All that's required is a grid for the HEMTTs to drive to. Simple. But the HHC XO can also bring a TPU with the daily LOGPAC to keep the scouts moving. If the HHC XO doesn't have a truck, then he needs a HMMWV with a trailer in order to carry everything the scouts would need. Nowhere else in the task force is it more important to have a "push" logistics system than it is with the scouts.

Also, to put the S2 in the scout logistics reporting chain doesn't work. When things get hot and heavy, logistics for the scouts is the last thing on the S2's mind. Perhaps a better solution is to keep a logistics representative at the TOC (the battalion senior supply sergeant is a strong possibility). This way, there is a designated link from the scouts (via the scout or O&I net) to the S4. The logistics rep would simply monitor the reports and relay to the S4 on the A/L net. To equip the scouts with an OE-254/RC-292 antenna can be effective in allowing them to report on the A/L net. The scouts should have a designated "window" of report times for them and them alone. Our experience was that the A/L net unclogs itself between 2100 and 0300. During this window, traffic on the A/L net can be minimized to allow the scouts access. This allows them some flexibility. To mandate that the scouts submit reports along with the rest of the battalion on an SOP schedule does not work.

CPT Flanagan's plan for medical support is also well stated. Another option for evacuation available to the S4/scout platoon leader is to task the nearest line company to provide medical evacuation for the scouts. The number of VINSON devices available would determine who in the tasked line company monitors the scout net for an evac call. Either the line company XO detailed to evac the scouts, or the medics themselves. The medical platoon leader would then send an ambulance from the CTCP to replace the line company ambulance that was dispatched. Obviously, this requires tight coordination and rehearsal. In all cases, aeromedical evacuation for the scouts should be planned. If aeromedical support is limited, then priority should go to the scouts.

All logistics for the scouts needs to be planned in depth. The depth starts with making the scouts as self-sufficient as time, training, and space allow. There are limits to how far this can go. But if we fail even to address the impact of logistics, then we open ourselves up for failure.

MICHAEL P. GILROY
CPT, QM
Office of the Quartermaster General
Fort Lee, Va.

They Also Served...

Dear Sir:

Your January-February 1991 chart of Armor-Cavalry units serving in Operation DESERT SHIELD was very helpful, but incomplete. Both Troop A and Troop B of the 2d Squadron, 1st Cavalry took part under their own guidons in the operation as attachments to 1/7 Cav with the 1st Cavalry Division.

Since 2/1 was on the inactivation block with the rest of the 2d Armored Division, and 1/7's second ground troop was in the Mississippi National Guard, III Corps attached the two Blackhawk ground troops to the 1st Cavalry Division. As a result, 1/7 deployed with three ground and two air probably the heaviest division cavalry squadron in the operation.

PETER D. WELLS
COL, Armor
Burke, Va.

Tank Combat Award Overdue

Dear Sir:

Well, 50 years of armored combat and the spearhead of the combined arms total force still doesn't have a combat award. In recognition of the dynamic mission accomplishment that was done by our tankers in DESERT STORM, I think it's about time. They broke the back of the Republican Guards and the effort should be forever recognized.

But, you know tankers are used to being "treated rough" and take it all in stride. So how about a tank gunnery qualification patch for Tank Table XX fired in the Kuwaiti Theater of Operations?

MSG JOHN BITTAY
Oakdale, Pa.

Another Call for Branch Badges

Dear Sir:

The creation of a series of expert and combat badges for combat arms soldiers (in addition to 11-series infantry) is long overdue. Armor crewmen, artillerymen (air/field), aviators, green berets, combat engineers, and scouts should be recognized.

I am an M1A1 tank platoon leader in DESERT STORM. Clearly, my main concern is not what should be pinned above my breast pocket. My top priority is preparing for war; nevertheless, as my men and I await the order to roll north, I cannot ignore the fact that many soldiers are being overlooked.

Continued on Page 47

MG Thomas C. Foley
Commanding General
U.S. Army Armor Center

Conference Capped a Triumphant Year

The 1991 Armor Conference provided us an excellent opportunity to review one of the most dramatic years in recent history, a year in which we are celebrating the victory of the forces of freedom both in Europe, where the end of the Cold War was dramatically demonstrated by the unification of Germany; and in the desert of Southwest Asia, where the aggression and oppression of Saddam Hussein ended in crushing defeat. It was fitting that, at the Home of Armor, we reviewed the successes of the recent past, discussed lessons learned, and charted the path for the future of the Total Armor Force.

The highlight of the Armor Conference was the address, "Armor and the Future Army: The Challenges of Change and Continuity," presented by the Chief of Staff, General Carl E. Vuono, which is included in this edition of ARMOR. I encourage you to review his remarks and reconsider the "Six Imperatives" in light of our recent experience in Operations DESERT SHIELD and DESERT STORM.

We were extremely fortunate to share the insights of DESERT STORM commanders during a series of presentations, which began with a videotaped message from LTG Franks, commander of VII Corps, in Southwest Asia, and an overview of VII Corps operations. MG Funk, MG Griffith, MG Tilelli, BG Frazar, COL(P) Holder, and LTCs Goedkoop, Craddock, and Stewart detailed the operations of their units, providing us accounts of the skill, determination, and courage of the soldiers who demonstrated to the world the true meaning of firepower, maneuver, and shock effect. Clearly the past and present leadership of the Army developed the doctrine, training, organizations, leaders, and materiel required to achieve victory in the first battle of DESERT STORM. The challenge for current and future Armor leaders is to continue the evolution of the Armor Force in a changing world, as it prepares to win the first battle of the next war.

GEN John W. Foss, commander of the U.S. Army Training and Doctrine Command, delivered our keynote address. He reminded us that we have entered an era of fiscal restraint, and that the downsizing of the Armed Forces, the declining resources available to us to conduct essential training, and the presence of forces capable of opposing the vital interests of the United States are realities. Our challenge is to continue to develop the doctrine, training strategies, devices, and simulations that will allow us to maintain the training edge over our potential adversaries in light of these realities.

As guest speaker for the Armor Association Banquet, GEN Crosbie E. Saint, CINC USAREUR and Seventh Army, discussed the many key contributions of USAREUR soldiers to DESERT SHIELD and DESERT STORM. Dr. Lewis Sorley addressed our assembly during a stand-to breakfast. GEN Edwin H. Burba, CINC Forces Command, detailed the need for more lethality in our light forces. He also spoke out strongly for the integration of reserve components in the total force. Reserve component units must train to the same standard as active units; they will play a greater

role in the Army as we downsize. MG Peter McVey briefed us on the systems the Army is developing to meet the challenges of the future and enable us to execute AirLand operations. We engaged in excellent exchanges of information in a series of meetings for brigade and regimental commanders, master gunners, and the Honorary Colonels of the Regiments. Participants in the 1991 Armor Conference received copies of the coordinating draft of the Armor 2000 study Branch Operation Concept for their review. The presentations of the directorates of the Armor Center and the equipment displays provided our guests an opportunity to review the progress we are making at Fort Knox to prepare the Armor Force to continue as the spearpoint of the combined arms team.

The 1991 Armor Conference allowed us to review our recent experiences and, in light of this review, clearly see the five challenges facing the Armor Force:

- We must sustain a decisive tank and cavalry force.
- We must organize, equip, and train a rapidly deployable light armor force.
- We must fully integrate the reserve components into the armor force.
- We must modernize the total armor force to maintain the edge over potential threats.
- We must maintain the quality of our superb armor leaders and soldiers.

This is an exciting time for Armor and the Army. In the next decade and the next century, Armor will become an even more diverse and challenging branch of our profession. The Iraqi T72 tank recently added to the collection of the Patton Museum stands as a physical reminder of the accomplishments of the period between the 1990 and 1991 Armor Conferences. The record attendance at the conference, both of active and retired armor leaders and the representation of the Marine Corps in our retreat ceremony, honoring DESERT STORM warriors demonstrates the vitality and, I believe, resurgence of the true spirit of mounted combat. I am sure we will meet the five challenges of armor as we have met all our past challenges. The Armor Force has proved to the world a fact we have always known to be true: All of the elements of the DESERT STORM campaign were synchronized to defeat the enemy. He suffered a punishing air campaign, was cut off from his supply and support, lost his morale, was deserted by his leaders, but he did not surrender until Armor, Cavalry, and Mechanized Infantry closed with him and threatened his destruction.

Forge the Thunderbolt!

The Driver's Seat

Command Sergeant Major Responsibilities and Duties

by CSM Jake Fryer, Command Sergeant Major, U.S. Army Armor Center

A capable command sergeant major's supporting and carrying out the commander's intent at the key places in battle add credibility to the operation; it also gives soldiers a combat role model they can aspire to, because few, if any, will ever be commissioned. They must have an enlisted combat leader to look up to and follow.

Many CSMs are line soldiers with years of combat unit experience and ability to lead and influence small unit actions. We should continue to use this expertise and not relegate the CSM to solely routine rear area "things" – duties. Stories abound, and the most remembered and respected CSMs in the eyes of soldiers were the ones that were forward with the operations. The war in Asia is an example – many senior CSMs or retired CSMs are talked about today because they were among the few that were out with the troops during the fighting operations. Today, the CSMs who can help tank crews, TCE a tank, run a calibration range, conduct a passage of lines and operate an armored vehicle forward, are highly respected by troops.

What do we expect the CSM to do? With warfighting as the thrust of our intent, the following are some activities the CSM should do:

- Get on a tank with the TCE on a moving range and be able to assess the crew and the TCE's ability to perform to the standard of FM 17-12 and present methods to correct problems.

- Inspect, check, and teach tank defensive positions and fire plans.

- Coordinate, assist, detail, and oversee engineer work to prepare obstacles and fighting positions for the defense.

- Observe, check, inspect, teach, and understand correct calibration exercises.

- TCE a tank crew down tactical tables, conduct the AAR, and provide methods to correct the crew's faults.

- Know how to correct weapon malfunctions and know maintenance of weapons.

- Help, advise, and assist tank unit breaching of obstacles and minefields.

- Conduct a passage of lines.
- Know the threat.

- Know the situation and be able to assist the commander.

- Know the tactical operation and the commander's intent, and be at the critical point of execution to assist the commanders.

- Be able to influence the situation and cause actions based on doctrine and the commander's intent.

- Know how to maintain armored vehicles in the field.

- Be an instructor, mentor, daddy, and point of expertise for company officers in the field.

- Be involved in all areas that support the training for and conduct of battle.
- Run a program to assist the commander in developing junior officers in combat skills.

- Run a program to develop enlisted leaders in combat support of the task force.
- Influence and understand the combat support of the task force.

- Influence, guide, advise, check, design, etc.; special combat-related training and activities, such as EFMB, EIB, EIA, TCPC, individual weapons qualifications, crew served weapons firing, crew/squad/platoon/company/maneuvers and evaluations, and TCGST.

- Be able to evaluate and assist training maneuver platoons and companies to ARTEP standards.

- Be able to check, assist, teach, and coordinate on troop leading procedures before the battle.

- Know how to train and evaluate tank crews in firing, maintenance of the turret and the vehicle, recovery, troubleshooting, camouflage, tactical movements, and fighting positions.

- Be able to move the task force to a new area and set up to defend.

- Serve as resident expert for the commander to teach tactics, doctrine, battle techniques, survivability, chemical operations, night operations, etc.

- Demonstrate ability to fire and handle tank weapons and other task force weapons.

- Serve as a role model for enlisted combat leaders.

- Stay in the company areas and act as another set of eyes for the commander in preparation, movement, assessment, and possible actions that impact on the outcome of the battle.
- Be present to assist the commander and staff; develop the commander's intent – present the OPORD, and be available to assist commanders in developing actions to meet their mission. Be a part of the OPORD brief to talk about low level actions and key actions that bear on the operation from the enlisted perspective.

- Be track mounted and radio equipped to operate independent of the commander; move to critical points during the fight.

- Be the acknowledged combat expert and a valuable member of the staff. Be involved in all combat-related activities.

- Be a platoon trainer and evaluator during ARTEPs.

- Be where troops are.

- Establish rapport with company commanders, platoon leaders, and other commanders to be able to influence their actions; allow them to call upon the CSM's expertise, and seek their guidance and counsel on fighting issues.

- Keep current on soldier welfare and soldier safety issues during battle operations.

- Influence feeding, fueling, and rearming the force.

- Develop an NCO CSS support line to resupply and support the force.

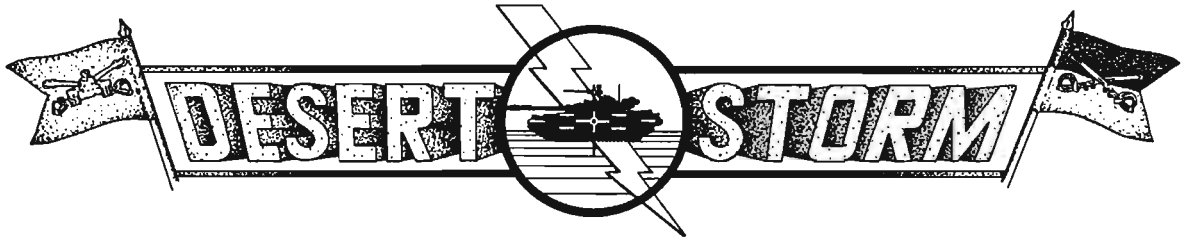
- Take actions and make decisions to continue the operation or react to the situation in the absence of the task force commander.

- Be able to demonstrate combat skills to soldiers.

- Know doctrine for small armor units from sections to task force.

The possibilities are endless for the CSM to influence the course of events in a battalion or task force.

Forge the Thunderbolt!



Ghost Troop's Battle at the 73 Easting

By Vince Crawley

(Reprinted from Stars and Stripes)

Specialist Patrick Bledsoe heard an explosion echoing through the distance, and he was afraid. This was two days after the cease-fire, so probably the explosion was the sound of soldiers blowing up another dead Iraqi tank somewhere nearby. Still, Bledsoe went off to sit in the desert by himself for awhile, and when he came back, no one asked him why he'd gone. They didn't have to.

"A certain part of you just dies," said 1LT Keith Garwick. "Somebody trying to kill you so desperately, for so many hours, and coming so close. We just couldn't understand it. I still don't understand it. Those guys were insane. They wouldn't stop," Garwick said of the Iraqi Army's Republican Guard, which hurtled wave after wave of tanks at him. Ghost Troop's gunners would blow up the oncoming vehicles, only to watch the enemy soldiers jump out and start firing automatic rifles uselessly at the American armored vehicles. "They kept dying and dying and dying," said 25-year-old Garwick, a West Point graduate and cavalry platoon leader from Fresno, Calif. "They never quit... they never quit."

The Americans who fought there are calling it the Battle of the 73 Easting, a line on a map in a nameless part of Iraq.

The 150-man troop comes from Bamberg, Germany, and is part of the 2d Armored Cavalry Regiment, whose job was to sneak into southern Iraq and spearhead the VII Corps in its search and destroy mission against the Republican Guard. Upon finding them, the cavalry regiment was supposed to pull aside and let the heavy armored divisions roll in and annihilate the elite Iraqi forces. And that's pretty much the way it happened, except for the six hours that Ghost Troop spent fighting the Guard's Tawakalna Division on the 73 Easting.

"If the rest of their army had fought as hard as the Tawakalna fought, we would have been in trouble," Garwick said.

PFC Jason E. Kick was driving a Bradley fighting vehicle on Tuesday morning, Feb. 26. The sky was still dark from an overnight rain storm. Kick, 18, from Pembroke, Ga., had dropped out of high school and joined the Army not long after turning 17. The "young buck" of the troop, he kept quiet and was making rank fast. He'd gotten his GED diploma in basic training and was talking about going to college. He carried a small tape recorder and was narrating his impressions of the war into it. He wanted to send the tape home to his mom afterward. He was also carrying his lucky cigarette lighter, the one he had with him when the Bradley shot 1,000 at Grafenwoehr last year.

Ghost Troop had crept into Iraq from Saudi Arabia more than 12 hours before the ground war officially began. The cavalry soldiers drove due north for a couple of days, then began swinging to the right. By that Tuesday, they were driving due east.

"We expect contact at any time," Kick told his mother in a slow drawl, speaking into the recorder. It was a little after 8 a.m. "*The units that were in Kuwait, that the Marines have driven out, are headed directly our way. And reinforcements, instead of going back into Kuwait, are also headed our way. So, uh, we're gonna hit a lot of shooting.*"

At around 8:30 a.m., the sun broke out for a moment. Ghost Troop scouts spotted an Iraqi vehicle in the distance. There were 20 enemy soldiers packed into the personnel carrier. They all got out as if to surrender, but three suddenly ran back to the vehicle, and others fired rifles. Ghost troopers said later that there might have been some overkill when they blew apart the vehicle, but they wanted to make sure the three Iraqis couldn't get a chance to send any radio messages to their of-

There was another explosion, showering sparks across the front of the Bradley. "It was just like somebody hit us with a sledgehammer," Bledsoe said.

ficers. They apparently didn't. There was a lot of blood.

"All I can say," Kick told his tape recorder, "Is better them than me. That sounds cruel, but it's true." It had been Ghost Troop's first kill of the war.

The debris turned out to be from the Tawakalna Division, and intelligence people said that the regiment would probably meet up with the front line of the Iraqi division near the 73 grid line, about 13 miles farther east.

By 1 p.m., the fog and clouds had gone. Instead, a ferocious wind raged in from the south, creating a blizzard of sand. Iraqi vehicles and infantry were scattered here and there. Ghost Troop killed several more personnel carriers and, at around 3:30 p.m., three enemy tanks. An hour later they reached the 73 Easting.

Off on their right, Eagle, Iron, and Killer Troops already were fighting against dug-in Iraqi soldiers. "I had a feeling," said Ghost Troop commander, CPT Joseph Sartiano, 29, from San Francisco. "Everybody else was making contact. So I kicked all my scouts back, and put my tanks up front."

A cavalry troop is half tanks and half Bradleys. Normally, the Bradleys drive up front, and the tanks hang back a little, ready to defend them. Instead, Sartiano lined up the whole troop along the 73 Easting.

Garwick, the Bradley platoon leader, was in position at 4:42 p.m. Most of the troop, he said, was behind a small hill and ridge, overlooking a wide, shallow valley that the Arabs call a wadi. Enemy vehicles and infantrymen were all over the place, dug in on the other side of the wadi.

"We've pulled up on line now," Kick said into his tape recorder. *"We're engaged in a pretty decent firefight right now... we're shooting again. I can see where we're shooting at, but I can't see a victor (a vehicle)... This is chaos here... "This is total chaos."*

Battle commands flooded the radios, adding to the confusion. *"I can see smoke on the horizon,"* Kick said into his tape recorder. *"That means we killed something. What it is, I don't know... White One, he's the platoon leader. You can hear it in his voice. He's all shook up. Time, 4:54... this is coax firing. Time is 5:10 p.m. We're still in contact... There's a few PCs here and there, mostly infantry. I just spotted the biggest damn explosion at about 12 o'clock. I don't know what the hell it was..."*

Garwick's platoon alone had already killed nine personnel carriers. The enemy had started shooting back at them at about 5 p.m. Artillery began falling around the Bradleys.

"A tremendous volume of small arms fire and shrapnel hit the berm to my front," peppering his Bradley and another, Garwick said. Iraqi infantrymen ran forward and were mowed down. The enemy gunfire increased, and airburst artillery began exploding over their heads. Two Bradleys in Garwick's platoon were positioned over his right shoulder. At 5:40 p.m., he saw three tank rounds hit the ridge in front of him, each shot closer to the Bradleys on his right. The last shot hit.

"One just got one of our guys," Kick shouted.

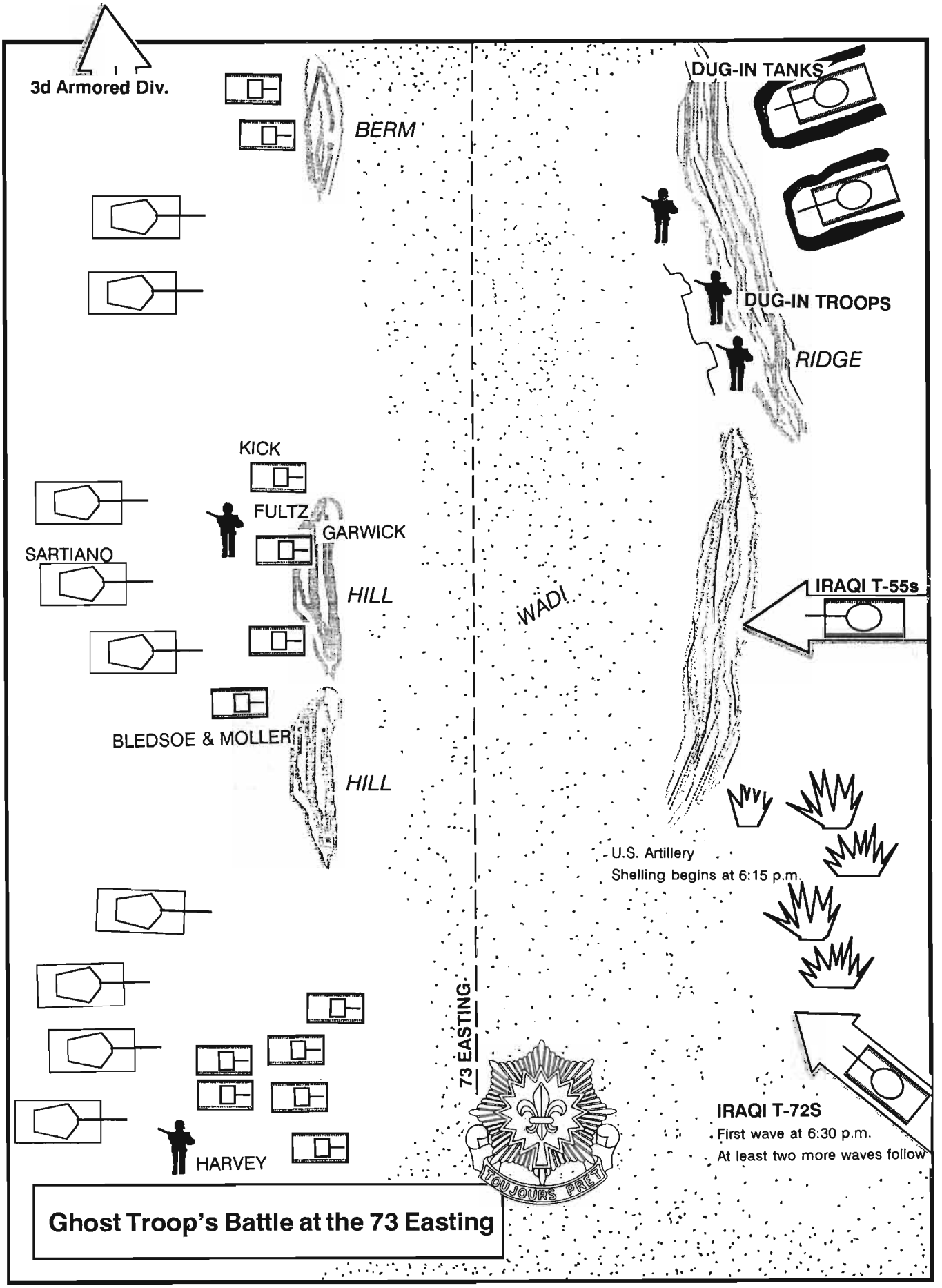
SPC Patrick Bledsoe, 20, from Oxnard, Calif., was driving Bradley G-16. All he saw was shooting. "We were in a little wadi," he said, but the top of the vehicle looked out over the valley. "We were kind of skylined..."

The Bradley's gunner was 23-year-old SGT Nels A. Moller. The coaxial machine gun was jammed, and the track commander, another sergeant, was trying to fix it when he looked up and saw Iraqi infantrymen running toward them. He asked Moller, "You got troops to the front?"

Suddenly, there was an explosion. From his seat at the gun sights, down inside the Bradley turret, Moller couldn't see the area right outside the fighting vehicle. "What was that?" he asked, hearing the explosion.

According to Bledsoe, that was the last thing Moller said. There was another explosion, showering sparks across the front of the Bradley. "It was just like somebody hit us with a sledgehammer," Bledsoe said.

He jumped out and ran behind the Bradley. Moller was dead. The other sergeant was slightly wounded. Friendly tanks were shooting over Bledsoe's head, and enemy fire was hitting the berm in front of him. He jumped down just as there was yet another explosion. PFC Jeff Pike, 21, of Binghamton, N.Y., was driving Sartiano's tank. It was never confirmed, but he be-lieves the last explosion was Sartiano's gunner shooting a T-55, the tank that killed Moller.



Ghost Troop's Battle at the 73 Easting

Bledsoe tried to get away. "I low-crawled up the the other track, and knocked on the back door, but they didn't hear me. I went up and knocked on the driver's hatch. The driver opened it. I said, 'We got hit. We got hit. I think Moller's dead'." His own track, G-16, "was just smoking."

At 5:47, Kick spoke into his tape recorder. *"It was one-six that got hit." A few minutes later, he continued, his voice steadier. "The gunner of one-six, SGT Moller, is dead. The TC and observer are on one-five right now. SGT Moller... SGT Moller was killed... time about 5:49."*

He paused a moment, then added, *"Can't let this... can't let this affect us or get us down at all. Or we're gonna die. And he wouldn't want that. He don't want that... But I'm scared."*

1LT Garwick told his men to keep fighting. Artillery, tanks, and machine guns were firing all around them on the hill. More were destroyed. More fired.

"This is chaos," Kick reported at 6:04 p.m. *"Total chaos... got nine dead victors to our front. Enemy victors. And got more coming."*

The sandstorm had worsened. Garwick could see only about 50 yards. But the thermal sights cut through some of the murk. With those, he could see more than half a mile. Two more enemy tanks were coming.

Kick watched them get shot three minutes later. *"Boom. Hit. Hit and kill. He hit it. That's revenge for SGT Moller. You sonufabitching Iraqis. God, I hate them. SGT Moller was a good guy. We killed them. That's four Iraqi PCs killed for this track alone."*

Garwick's scouts told him that 12 more tanks were coming. Possibly as many as 25. Iraqis down in the valley would just leap from their personnel carriers and run at Garwick's platoon, firing rifles. Getting killed.

All Kick could see was rounds going downrange.

It went on like this – total chaos – for nearly four more hours. At one point, SPC Chris Harvey looked out from the back of his personnel carrier.

"All I saw were things burning," said the 24-year-old artillery observer form Virginia Beach, Va. "For 360 degrees. Nothing but action."

Garwick called for the Air Force, but the planes were diverted to another mission two minutes before they got to Ghost Troop. Instead, he held back the tanks by calling in artillery and rockets, pounding each wave as it appeared on the far ridge. The Bamberg squadron's executive officer watched from a vantage point a short distance away. It looked, he said, like Armageddon.

One of Garwick's biggest problems was that the radios were so frantically busy that he couldn't call through. Several times, he had to jump out of his Bradley and crawl over to the artillery observers to tell them in person where he needed them to shoot.

On one of these occasions, at about 8:30 p.m., he had crawled halfway to the artillery observer's vehicle when a round of airburst went off just on the other side of a nearby Bradley. He and the artilleryman, Sgt. Larry C. Fultz, sought cover under Garwick's Bradley.

Another wave of tanks was coming in.

"We just sat there crying, just shaken, until we could get back out from underneath the Bradley," Garwick said. "The air bursts were coming right on top, ricocheting around us. We were in a corner of hell. I don't know how we made it out of there. I don't."

Days later, in a quiet tent in free Kuwait, an officer from the regiment tried to explain what had happened to Ghost Troop.

The Republican Guard's Tawakalna Division had gotten tangled up with the 12th Iraqi Armored Division, and both enemy units were trying to retreat through the same narrow piece of terrain, said MAJ Steven L. Campbell, 35, the regiment's intelligence officer. The Iraqi path of retreat, a shallow valley between two ridgelines, led straight into Ghost Troop.

Campbell theorized that the Republican Guard might have fought so fiercely because they were desperately trying to escape.

"Those guys wanted to get out of there, and those guys are supposed to be the best fighters. In my mind, they weren't trying to break the defenses (the line Ghost Troop was holding). The way the terrain was, they had to go through here to get by."

The soldiers in Ghost weren't the only ones fighting that night. At least half of the regiment's troops and tank companies were on line at one point or another. But most of them were fighting against dug-in soldiers. None of them faced the wave-after-wave onslaught that was aimed at Ghost.

More than once, artillery saved Ghost Troop. Helicopters helped kill tanks. And, near the end, when the troop was desperately short on ammunition, a tank company, Hawk, came in to relieve them. In its 100 hours of combat, the regiment destroyed 100 tanks, about 50 personnel carriers, and more than

30 wheeled vehicles, plus some anti-aircraft artillery systems, Campbell said.

He estimated that 85 to 90 percent of those vehicles were killed in the battle at the 73 Easting, but no one had yet counted the vehicles in Ghost's sector.

The equivalent of an Iraqi brigade was destroyed that night, the first ground defeat of the Republican Guards, Campbell said. Within 36 hours, most of the others were gone.

The morning after the battle, someone made a wooden cross and stuck it in the sand, and a chaplain came to say a few words about Moller. A colonel spoke, too.

Everyone from Ghost Troop was there, worn-out men with sunken eyes, their faces covered with dirt and gunpowder. It was the first time in two months that they had all been together in one place, instead of spread out over the desert, in training, or combat formations. Several hugged each other, glad to see their friends alive, then gathered in a semi-circle, took off their helmets, and listened to the chaplain and the colonel.

Then they were told to get ready for the next battle. It never came. Instead, a cease-fire was called, and the cavalrymen had time to sit among themselves and try to understand what had happened.

They said SGT Nels Moller died with his hands on the trigger of the Bradley gun, looking for enemy to shoot. His TOW missile launcher, the Bradley's main antitank defense, wasn't working, and Moller knew it before he entered the battle. Reason enough to stay out, but he didn't.

"He died like a soldier," said one of Ghost's artillery officers, 2LT Joe Deskevich, 23, of Rockville, Md. "He didn't run, and he didn't die for nothing."

He came from Paul, Idaho. Sartiano, the troop commander, decided he will take leave and visit the dead sergeant's parents.

The morning after the battle, Kick and another soldier stood in front of their shrapnel-scarred Bradley and talked about Moller.

"He was about the only sergeant," Kick said, still with a bitterness in his voice, "who'd sit down and listen to your problems and treat you like a human being, instead of a private."

That night, before the cease-fire was called, the scouts took more prisoners and had to stay up guarding them. Bledsoe, who'd been Moller's driver, said that he and the others had stayed awake by talking about Moller.

"We talked about it for three hours," Bledsoe said. "We decided that when he went up on that hill, he wasn't worried about it. He said, 'If they get me, that's just another bullet that was gonna hit somebody else'."

In Bamberg, the cavalrymen live in a place called Warner Barracks 2, and when they get back, they want to give it a new name – Moller Barracks – if the Army will let them. No one, however, really knew what to call the battle they had just lived through. The officers were all calling it the 73 Easting, because they were the ones looking at the maps. SSG Waylan Lundquist, a 29-year-old tanker from Aurora, Mich., suggested the Battle of the Tawakalna. Another man thought it should be Moller Ridge. And none of them could judge how important it had been. They didn't know how hard anyone else had fought in the 100-hour war. They still don't. It might take months or years before the people who write history books will decide whether Ghost Troop is worth a page or not. "At the time," said Garwick, the platoon leader, "none of us understood what was happening."

All they knew was that they'd had a tough night, one they found hard to describe in language that can be printed in newspapers. It had snowballed into chaos before anyone really knew what was happening.

The chaos was relative, though, and all battles are chaotic to the men fighting them. "All I did," Sartiano said, "was manage the violence." At his level on the battlefield, one rung up from Garwick, two up from most of the others, he had felt in control. It had, after all, been a decisive victory. Captured prisoners confirmed that the Tawakalna had been caught completely by surprise. And Sartiano, like the others, was proud of it.

One morning Garwick gathered his men around to talk to them and admitted that he still wasn't sure what had happened. "All I know is that a squadron's supposed to be able to take a brigade. A troop's supposed to be able to take a battalion. A fire team, a company. Our fire team took out a brigade."

He paused a moment, and the words seemed to be sinking into him as much as in the others. "That really was above and beyond the call of duty."

Garwick, it seemed, had been changed the most. He'd been spoiling for a fight and got more than he expected. "That morning I was so excited to have killed a Republican Guard," said the 25-year-old lieutenant. "And at the end of the battle, if I never saw another Republican Guard in my life, I'd be happy." Or perhaps he's not so

changed. He still wants to get married as soon as he gets back – his fiancee is a former classmate from West Point, now a military intelligence officer at Fort Polk, La. And he jokes about how his platoon will fail its next gunnery at Grafenwoehr – the first target will pop up, and Ghost Troop will instantly blast 40 rounds into it.

The night after the cease-fire, when his men rolled into free Kuwait, he stood beside his Bradley and watched the eastern sky. Ghost Troop was camped in a quarry that had been turned into a Republican Guard stronghold, a city-sized maze of 20-foot ridges transforming the flat desert into a miniature mountain range.

Orange flames from the burning Kuwaiti oil fields glowed in the east – someone had counted 57 fires – and a little to the south of that, a nearly full moon was rising.

"I couldn't wait to see combat. What a fool I was." The killing, he said, became almost too easy, and that seemed also to make him uncomfortable. He questioned his future, now that he's finished living what he thinks might be the most important night of his life. But what bothered him most was another question that really doesn't have an answer – he wanted to know why.

"Why did they fight?" he asked slowly, and repeated it. "Why did they fight?"

He looked again at the sky. Sometimes, he said, he spins around the turret of his Bradley and aims it toward the moon. He switches on the thermal sights and target magnifiers and gazes for a time at another desert on another world, a quarter of a million miles away.

M1A1, Bradley, Defied the Critics

The following excerpts are from The Jayhawk, the VII Corps newspaper. The author is Sergeant Major Martin L. Shupe of VII Corps PAO.

Probably no armored vehicle has seen more controversy than the Bradley... Skeptics claimed it burned when hit, its weapons wouldn't kill enemy armor, and it couldn't swim.

Cavalry troopers from the 4th Sqdn., 7th Cavalry, 3rd AD proved critics wrong on two of those charges during Operation Desert Storm.

During an intense battle that left two of their comrades dead, two of A Troop's platoons took on a battalion of Iraqi Republican Guard armor. After the battle, they praised the vehicle and claimed it saved many of their lives.

"When we took hits, damage was compartmentalized," said 1LT Daniel J.W. King, whose platoon took several tank main gun hits. "The fire suppression systems worked," he said of the Bradley's Halon extinguishers. "It's an awesome weapon when you have to go toe-to-toe with enemy armor."

"The Bradley is better than I thought it was," said SFC Ivery Baker, platoon sergeant in A Troop and a 12-year cavalry veteran. He said he saw several take hits without catching fire or blowing up. "The personnel had flash burns and shrapnel. One was totally uninjured," he said. Baker's platoon lost two of six Bradleys. Balancing that was the destruction his unit caused the enemy. "Our main guns blew up every BMP they fired at, and our TOW missiles destroyed every tank they hit. We had 10 out of 11 hits with the TOW," SFC Baker said.

SGT Ronald S. Jones had a Bradley shot out from under him, but still praised the machine. "We used HE from the 25-mm gun at a BMP until it went up in flames. We saw two more and fired 10 to 15 rounds at each and killed them," he said. Later, they fired at a tank, thinking it was another BMP, and when the rounds obviously didn't do any damage, they then fired a TOW missile that blew up the tank.

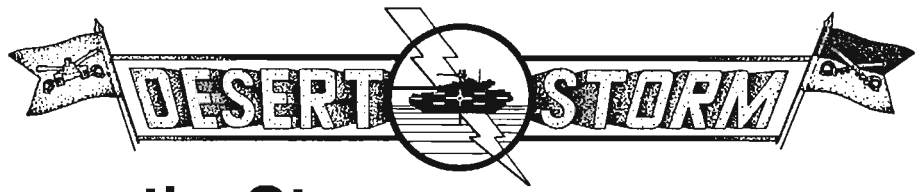
The concensus was that the Bradley was a great infantry fighting vehicle, but too large for scouting. Complaints also centered on the coax machine guns: all 18 of A Troop's machine guns jammed.

M1A1s Held Their Boresight Over 200 Miles of Desert

"The M1 has been great," said SFC James Williams of C Co., 4th Bn., 37th Armor, 1st ID. "With daily maintenance, cleaning air filters and fuel filters, it hasn't failed us yet." SFC Williams' unit had just covered 200 miles of desert to engage the Republican Guards. "We got on them so fast, they weren't expecting us. We caught them with their pants down," he said.

SSG John Sawyer, master gunner of C Co., 3d Bn., 35th Armor, praised the tank's main gun. "All the gunner has to do is keep his sight on the target, and the cannon follows his line of sight. Look around you and you can see how effective our weapons are," he added, pointing to dozens of destroyed Iraqi vehicles.

CPT Henry Kievenaar, CO of D Co., 1st Bn., 35th Armor, said his M1s rolled over 200 miles in five days through all extremes of weather. "The M1 hit deadly accurate for five days after we boresighted. All of our 14 tanks made it... I would take an M1A1 over a T-72M1 any day."



Riders on the Storm

A narrative history of the 1-4 Cav's campaign in Iraq and Kuwait - 24 January - March 1991

by 1-4 CAV Operations Staff

G-Day, 24 Feb 91

For Operation DESERT STORM, the division's mission was to destroy lead elements of the Iraqi 26th Inf Div, establish a breachhead, pass the 1st UK Armored Division, and on order continue the attack (Figure 1). The division placed its cavalry squadron under the operational control (OPCON) of 1st Brigade for the operation's initial phase.

At 0420 hrs, we began our zone reconnaissance north of PL Vermont, which was the border between Iraq and Saudi Arabia. First Brigade arrayed 1-4 CAV on the left, TF 2-34 in the center, and TF 5-16 on the right. On our left flank, 3/2 ACR assigned us a liaison officer, CPT Delgado. The squadron collocated the field trains with the 101st SPT Bn.

We moved forward in zone and remained tied in with TF 2-34. The scout weapons team (SWTs) reconnoitered forward and maintained contact with our flank units. By 1000 hours, we sat along PL Plum with no enemy contact. At that time, the Forward Area Support Team (FAST) began refuel operations under the control of the command sergeant major and the HHT commander. This operation took little more than an hour.

During refuel operations, CW3 Winters' SWT flew over the Iraqi positions to our front. This single act caused several Iraqis to surrender. By 1030 hrs, B Troop had taken 21 prisoners. The B Troop first sergeant consolidated the prisoners at the refuel site. The command sergeant major, HHT commander, and flight operations personnel assisted in the evacuation of this group of prisoners, which included several officers. At the same time, CPT Tovsen's SWT, who relieved CW3 Winters' SWT, engaged and destroyed an AML scout car.

Due to the lack of any significant resistance, MG Rhame ordered the division to continue the attack at 1500 hrs. An intense artillery barrage began at 1430, TF 2-34 and 5-16 began breaching operations at 1500 hrs. The squadron consolidated near Attack Position Dragoon, in preparation for our passage through the breach.

At 1530, 1st Brigade ordered the squadron to follow 1-34 AR through the breach, clear OBJ 15K and secure PL Colorado. A and B Troops passed through the breach at 1630, and began to collect several enemy prisoners of war (EPWs). The Iraqis surrendered as soon as we approached their positions. A Troop received some indirect fire at the breach site, but continued to drive north.

During the squadron's movement forward, we did not search all of the bunkers, fearing booby traps. The squadron placed a higher priority on controlling the friendly forward line of troops and preventing fratricide between friendly flank units.

The squadron was along PL Colorado by 1730, then tied in with 1-34 AR on the right. We could not tie in to any 1st Brigade unit on our left, due to the brigade commander's desire not to move TF 5-16 during darkness. TF 5-16 would attack OBJ 12K the following morning.

After dark, the A Troop CP captured roughly 80 EPWs, numerous weapons, and assorted equipment. The squadron captured an additional 34 prisoners, and destroyed four trucks, an AML, and three AT guns (105mm). Total number of enemy

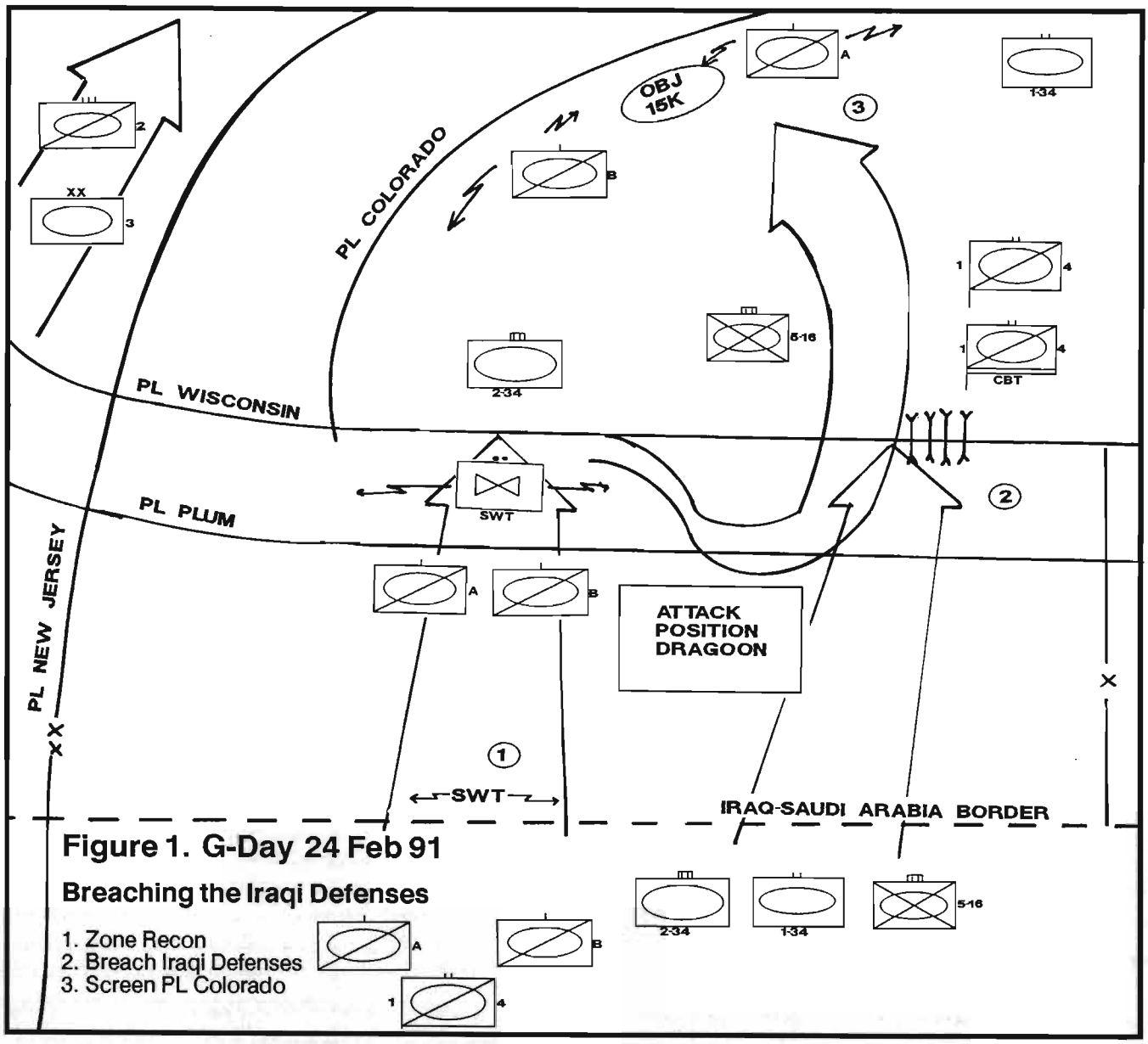


Figure 1. G-Day 24 Feb 91

Breaching the Iraqi Defenses

1. Zone Recon
2. Breach Iraqi Defenses
3. Screen PL Colorado

killed is unknown. Total distance covered was 35 km. We rearmed/refueled that night.

COMMENTS: DPICM on the battlefield posed severe problems for dismounts and wheeled vehicles. This made refuel/rearm operations extremely hazardous, especially at night. The bomblets injured personnel and destroyed tires. SWT teams were invaluable for reconnaissance operations and maintaining contact on our flanks. The Global Positioning System greatly enhanced navigation.

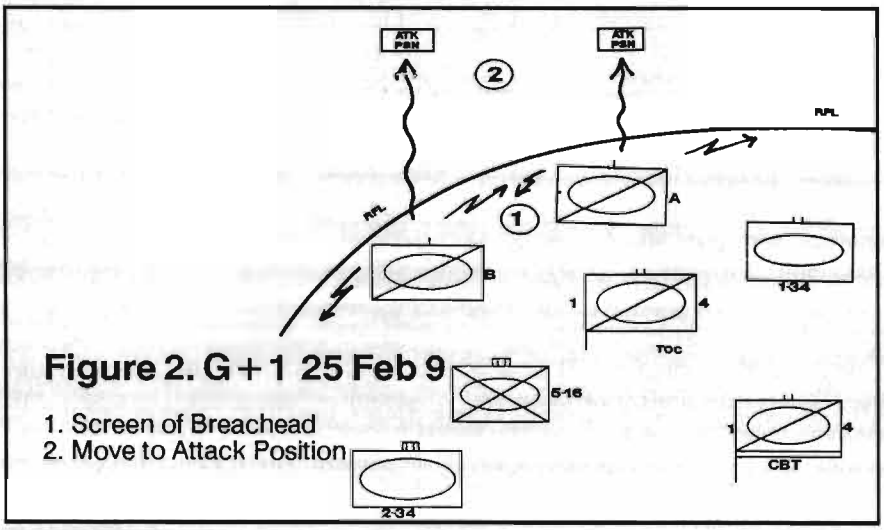


Figure 2. G+1 25 Feb 9

1. Screen of Breachead
2. Move to Attack Position

G+1, 25 Feb 91 — Cloudy/Overcast

First Brigade ordered the squadron to move our screen line NE to screen the Corps Restrictive Fire Line (RFL) no later than 0900 (Figure 2). TF 5-16 seized OBJ 12K at 0800. We tied into 1-34 AR to our right and TF 5-16 to our left. While the division passed the 1st UK Armored Division and an artillery brigade forward, we maintained the screen and destroyed the enemy equipment abandoned in the area. The B Troop engineers destroyed several bunkers and ammunition stockpiles on OBJ 15K.

At 1500, the division ordered the squadron to prepare for Contingency Plan (COP) Jeremiah II. 1-4 CAV came under division control and occupied attack positions A and B along PL New Jersey at 1900. At 2000 the squadron commander briefed COP Jeremiah II, which required the squadron to conduct a zone recon forward of the division, as it moved to contact. During that evening, refuel/rearm actions were reduced due to the extremely hazardous conditions posed by DPICM and CBU bomblets.

Total distance traveled was 10 km. The field trains remained with 101st SPT Bn — 25 to 30 kms distant. The squadron XO, in conjunction with the S-4 and HHT commander, decided to continue the FAST concept. This was a fortuitous decision, given events to come.

COMMENTS: 1:250,000 overlays allow too much margin for error among units from different divisions. 1:250,000 maps must be accompanied by a list of points that define boundaries. 1:100,000 maps would be better.

G+2, 26 Feb 91, Cloudy/Rainy

During the night, the 1st UK Armored Division to our south had significant enemy contact. In order to give the 1st UK maneuver room and prevent fratricide, the division's zone was cut half of its width (brigade-size zone). 3d AD was to our north, with 4-7 CAV as the flank unit.

The squadron departed from its attack positions at 0315 to occupy PL Omaha before the division's LD time of 0500. The squadron led the division's movement in zone (Figure 3). We encountered no initial enemy resistance, only scattered pockets of enemy, who gave themselves up as we approached. The troops disarmed and passed several EPWs to the rear. A Troop encountered a series of enemy bunkers and trench networks that the Iraqis abandoned. Visibility was very limited (500-600m).

By 1000 hours, we closed on the rear of 2 ACR along PL Abilene. 2d ACR was conducting an attack east of PL Abilene from north to south against what they believed were elements of the Republican Guards Tawakalna Division. During the zone recon, A-25 encountered and destroyed an abandoned T-62 and a ZSU-23-4.

At 1400, the squadron commander met with the CG, who gave the directive to contact 2d ACR and coordinate the night forward passage of the division. MAJ Burdan, the S-3, coordinated the passage. Additionally, we established and maintained contact with 4-7 CAV of the 3d AD. The passage began at 2130. The squadron's mission was to pass the division's combat elements, then screen the division's north flank during the attack to OBJ Norfolk. Total distance traveled was 120 km.

COMMENTS: CPT Morrison, HHT commander, directed two critical refuel operations. He timed these to minimize disruptions of the squadron's momentum or the division's movement. All units completed refueling within one hour. The squadron finished the day's action with full fuel tanks, prepared to continue the advance forward. At 1700, CPT Morrison returned to field trains vic PT7709 to refuel the M978s. He began a hazardous night movement with 1SG Colangelo and five M978s to link up with the combat trains. Total distance: 60 km, with an uncertain enemy situation. The division and 2d ACR demonstrated remarkable discipline during the forward passage of lines. Poor visibility kept the squadron from fully utilizing the air scouts. We had rain and fog in the morning and a dust storm in the afternoon.

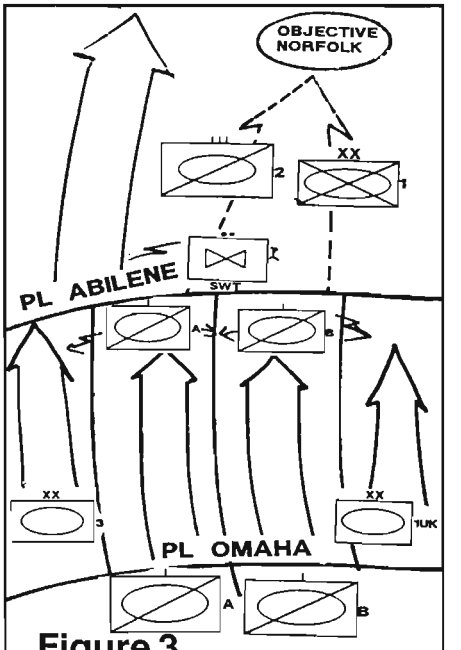


Figure 3.

Division Movement to Contact G+2 26 Feb 91
1. Zone Recon
2. Screen PL Abilene
3. Flank Screen

G+3, 27 Feb 91, Cloudy/Ground Fog

We started moving to the division's northern flank at 0130. The squadron positioned fuel forward to top off the tanks before our movement east to OBJ Norfolk. The division stopped at OBJ Norfolk.

The squadron set at the 70-85 north-south grid line.

The squadron commander in HQ66, the S-3 in HQ63, the FSO and ALO in HQ34 went forward at approximately 0400 to inspect the screen line in preparation for continued operations (See Figure 4). B Troop reported engaging and destroying a T-55 to its front.

As the command group approached the screen line, HQ63 spotted a T-72 at close range in turret defilade, with turret traversing. Upon backing up, HQ63 acquired the T-72 and an additional tank, a T-55, as well as numerous dismounts. Keeping the tanks under observation, the command group requested assistance from a B Troop tank. After maneuvering to the T-72's right flank, the B Troop M1A1 destroyed the tank. HQ63 destroyed the T-55 with 25mm through the turret and hull. Upon destroying the tanks, the numerous dismounts in the area took cover. The command group displaced, as B Troop acquired additional T-72 tanks in the same vicinity. B Troop commander sent 2LT Lowndes with two M3A2s and two M1A1s to search out and destroy the tanks. B Troop reported spotting a red and green star cluster, followed five minutes later by artillery fire on their positions. The troop went to MOPP 4 and tested for the presence of any chemical agents. Artillery also landed near the combat trains and FAST. The area had not been cleared by 2d ACR.

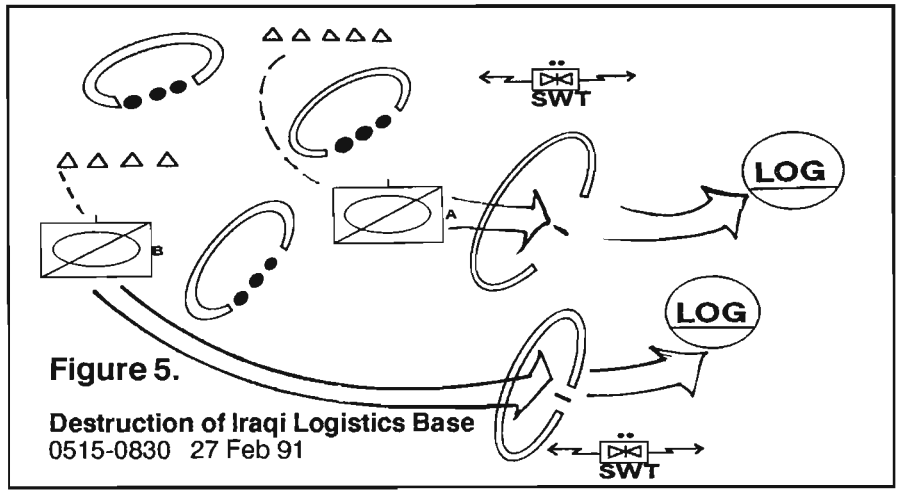


Figure 5.

Destruction of Iraqi Logistics Base
0515-0830 27 Feb 91

While in MOPP 4, 2LT Lowndes' sections maneuvered and engaged five tanks. SSG Robinson killed two tanks with TOWs, and SGT Marbach killed three tanks at point blank range with his tank's main gun. Upon completion of this engagement, B Troop's test for chemical agents was negative. B Troop commander gave the "all clear."

At 0515, the squadron commander pulled the screen line back because of contact with the T-72s in prepared positions. The squadron commander and S-3 decided to attack the positions once all the squadron's forces were set (Figure 5). At 0615, the squadron attacked the enemy position, with A and B Troops on line. First Platoon, A Troop was the first with contact, and destroyed two T-72 tanks with TOWs. As A Troop continued the attack, an Iraqi captain moved out of his bunker and surrendered his men. First Platoon, A Troop disarmed the soldiers and moved them south. Second and 3rd Platoons, A Troop, continued the attack to the east, destroying an apparent 2S1 battery and several towed artillery pieces. B Troop encountered dug-in tanks, BMPs, trucks, and numerous bunkers.

By 0715, the squadron had reached its limit of advance, as A and B Troops continued to destroy enemy vehicles in the area. The command group went back into the area where the troops had encountered the tanks earlier in the morning. Both the T-72 and the T-55 were destroyed. HQ63 noticed another T-72 in hull defilade with an Iraqi in the turret. When the enemy dropped down inside the tank, HQ66 destroyed the tank with a TOW at 150m.

The squadron commander called off the attack at 0830 hours after it appeared all enemy elements in the area were destroyed. For two hours the squadron had methodically moved and destroyed 11 tanks, artillery pieces, fuel, and cargo trucks. We refueled our tanks while waiting for the division to resume the attack. The brigade commanders and CG discussed in detail their fuel status and expected rates of advance before halting for resupply.

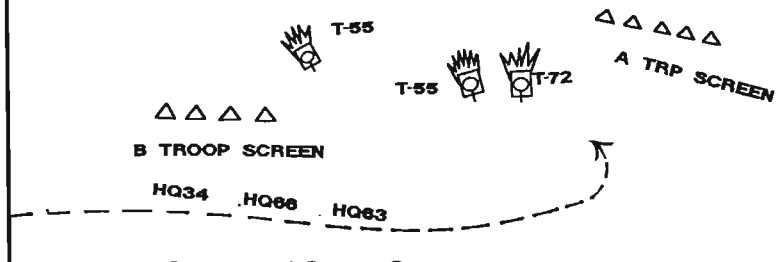


Figure 4. Command Group Contact

G+3 0330-0430 27 Feb 91

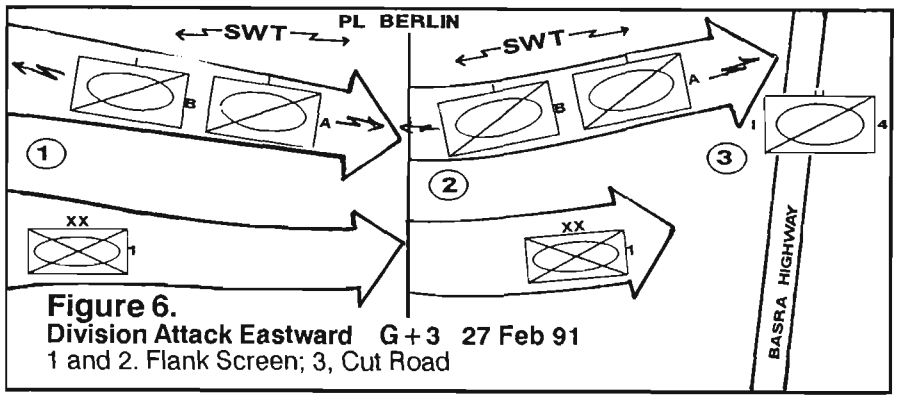


Figure 6.
Division Attack Eastward G+3 27 Feb 91
1 and 2. Flank Screen; 3, Cut Road

At 0930, the squadron resumed the moving flank screen (Figure 6). A Troop led the screen, followed by B Troop. During the extremely fast-paced move, A Troop destroyed 23 tanks, 25 APCs, and numerous bunkers, many of which appeared abandoned. Additionally, A Troop disarmed and pushed south more than 100 EPWs.

The squadron arrived at PL Berlin at 1230, where it conducted refuel operations. HQ 66 then noted vehicle movement on a ridgeline 500m from the squadron. The S-3 ordered B Troop to send a team to investigate. 2LT Karns led the scouts and tankers from B Troop and destroyed one BMP, one BTR, and a rocket launcher that were attempting to flee the area.

At approximately 1300, the combat trains passed through what appeared to be an unoccupied defensive position. Seven enemy soldiers surrendered to CPT Harmon and the combat trains. The EPWs indicated that there were more Iraqi soldiers in the surrounding bunkers too injured to walk. CPT Stokes and the maintenance section used the AMV to clear the immediate vicinity, while LT Butler and Dr. Hanson, with escorts, proceeded to the wounded in the bunkers and treated their wounds. The combat trains stopped, passing ground ambulances from 4-5 FA, which evacuated the wounded. The trains continued forward at 1430 to establish contact with the squadron ground elements.

At 1330, the CG ordered the division to continue the attack NE of PL Berlin to prevent the Iraqi Army from retreating from Kuwait City north to Iraq. The brigades' objectives were to the northeast along the main Basra-Kuwait City highway. The squadron would continue to screen the division's north flank, north of 2d Brigade.

The attack continued at 1430. SWTs reconnoitered forward and to our flanks. Mr. Perkins' SWT engaged and destroyed several armored vehicles while supporting the squadron's moving flank screen. The squadron passed a heavily fortified, but unoccupied, defensive position. The position had reinforced (concrete) berms, trenches, and bunkers. The squadron lost contact with division, but relayed through 2d Bde our position and objective coordinates. At 1500 hrs, the TOC, led by the squadron executive officer, MAJ Wimbish, which was moving with 2d Brigade, departed into hostile territory to link up with A and B Troops. Enroute it bypassed numerous fortified areas, captured three enemy tanks, and disarmed 93 Iraqi soldiers.

Upon approaching our objective at 1630, the squadron commander directed B Troop to establish a screen line west, and A Troop east of the Basra-Kuwait City highway (Figure 7). A SWT under CPT Peters, scouted ahead of A Troop and reported personnel and vehicles moving northward as well as what appeared to be a bunker by the road. As A Troop approached the road, it observed several vehicles and many personnel moving north along the main road. The squadron commander ordered A Troop to secure the road 10kms south of the Kuwait-Iraq border and cut the line of communications. Upon receipt of the order, CPT Pope ordered 1st Platoon to lead, followed by 2d, 3rd, mortars, and trains.

At approximately 1700, 1st Platoon reported contact with numerous enemy dismounts, tanks, and APCs along the highway (Figure 8). The Iraqis appeared to have stopped before continuing north. Unlike the previous vehicles, the enemy either manned or attempted to man their equipment.

As the enemy spotted 1st Platoon, several vehicles attempted to move north. One T-55 attempted to traverse on A14, which immediately

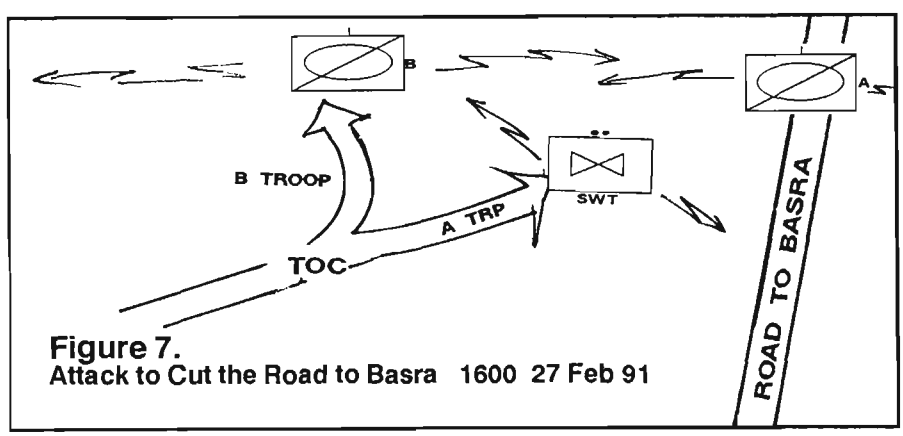


Figure 7.
Attack to Cut the Road to Basra 1600 27 Feb 91

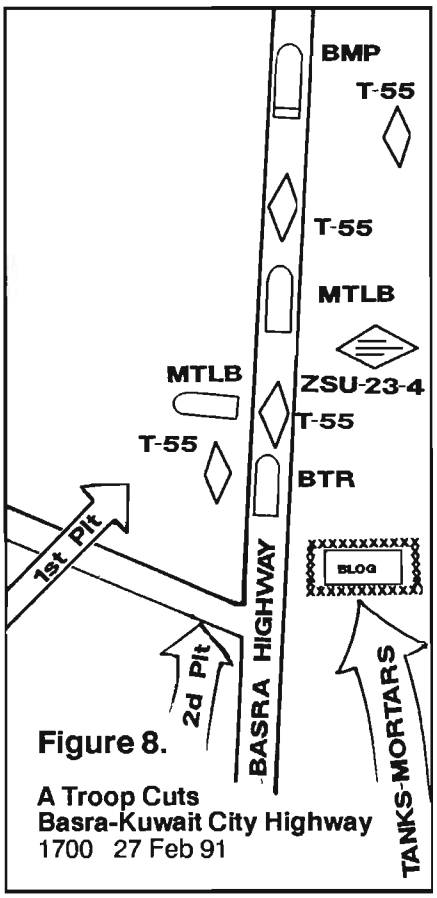


Figure 8.

A Troop Cuts Basra-Kuwait City Highway
1700 27 Feb 91

destroyed the Iraqi tank. Farther north, A15 destroyed the lead BMP, effectively blocking the road. With the road now blocked, CPT Pope instructed 1st and 2d Platoons to move northeast across the road, destroying all enemy vehicles in their path.

As 1st and 2d Platoons continued to engage vehicles, each platoon began to gather a greater number of EPWs. The A Troop commander ordered 2d Platoon to establish an EPW collection point vicinity of his M3A2. At approximately 1830 hrs, elements of all platoons began to deliver EPWs to the collection point. During this time, all elements were still engaging vehicles and equipment. Eventually, A Troop collected about 450 EPWs. By this time, night arrived, and the situation became even more confusing. With the majority of enemy vehicles destroyed, the commander ordered a section from each of 1st and 2d Platoons to move north and establish security northeast of the troop area.

As the scope of the task facing A Troop became too great, the squadron commander ordered B Troop to abandon its screen line and move to assist A Troop. The squadron proceeded to set up a hasty defensive position, preparing for either a possible enemy counterattack from the north or a large armored force attempting to break out to the north. Both A and B Troop's temporary EPW holding areas continued to grow. The TOC informed 2d Brigade of our position, situation, and enemy assessment.

We were informed that the VII Corps commander halted the division's attack due to the presence of the 1st UK Armored Division to the south. Once the division halted, 1-4 Cav was not only the sole controller of this key highway, but also the easternmost unit in VII Corps.

The squadron commander directed the S3 to request an infantry company, tank company, and artillery be positioned forward to support our defense. However, the corps commander's orders precluded 2d Brigade from assisting us until the next morning. Therefore, the squadron set up an all-around defense with A Troop on the east side, command group in the center, and B Troop on the west side of the highway for the night. The combat trains and FAST, with flight operations, remained 10 kilometers to the southwest. The squadron commander ordered the aid station to move forward and to set up to treat injured EPWs.

During the night, the HHT commander brought the FAST and combat trains forward, linking them up with A and B Troops. During movement, the combat trains received and evaded direct and indirect fires. Enroute, CPT Morrison and CPL Hall captured eight Iraqi soldiers. In addition, CPL Hall later singlehandedly captured 20 heavily armed Iraqi soldiers.

With the combat trains in position, maintenance, support, and HQ personnel began to secure the area and take additional prisoners walking up the highway. The combat trains assumed control of the EPW site in order to allow A and B Troops the manpower to better secure the squadron's perimeter.

The medical platoon immediately set up the aid station to treat the wounded EPWs, and summoned the Jump Aid Station from the TOC. MAJ Hansen, CW3 Harston, and 2LT Butler worked diligently to treat more than 200 Iraqi casualties. Fortunately, an Iraqi and a Kuwaiti doctor provided much needed assistance. Working throughout the night, this team of professionals saved many lives. Little water or food was available because of the extremely tenuous supply line.

The TOC remained alone 10 km to the west in order to maintain communications with 2d Brigade and division, while the sounds of escaping Iraqi armored columns filled the night.

The field trains remained far to the rear. During its movement, three vehicles hit mines, causing some damage to vehicles, but no casualties. Secondary explosions in the distance kept the soldiers alert through the night. Total distance travelled by the squadron was 150 kilometers.

COMMENTS: The ground troops and command group moved through the area, destroying vehicles and personnel with precision. The darkness, more than 1,000 dismounted Iraqi EPWs, and secondary explosions kept the squadron

alert all night. Discipline and mission focus prevailed; we sustained no friendly deaths or injuries. Squadron engineers and soldiers from the combat trains and field trains handled EPWs in an exemplary manner. Squadron medical personnel and the squadron chaplain treated EPWs as if they were their own. FLT OPS, FARP personnel and the support platoon worked all night, repositioning units for future operations. TOC personnel remained calm and in control, while maintaining the vital communications link to the division. Air troops worked all night preparing the aircraft for an early morning launch.

It became obvious upon examining the EPWs that the Iraqis themselves mistreated many of their own countrymen. Some were old men of 50 or 60; others, boys of 13 or 14 years of age, pulled from the streets of Basra and pressed into the service. They had been students, artists, writers, and teachers.

The squadron was lucky that we cut the road to Basra during a period of limited visibility. We were 30 kilometers in front of our division, with an Iraqi division 12 kilometers to the north. Hill 466 was a SCUD site (located beside the airfield), and enemy personnel found on the hill had a commanding view of the squadron's positions.

G+4, 28 Feb 91

The division placed the squadron under the operational control of 2d Brigade at 0600. We captured about 1,400 EPWs and 700-900 weapons and demolitions. We air evacuated 15 injured Iraqis. We could not get additional rations, water, or blankets for the EPWs, but we gave them what we could. It was announced that a cease-fire would go into effect at 0800, later changed to 0723. Second Brigade linked up on the ground with A Troop at about 0900 hrs (Figure 9). One infantry company, 2-16, was to help guard POWs. Engineer ACEs built a POW berm. We pushed out the screen in accordance with the 2d Brigade plan and consolidated. There were no squadron casualties. We hit three mines, placed enemy KIAs in body bags, and continued to police up enemy weapons for destruction. Final count was 2,098 EPWs, 1,400 weapons, munitions, and many destroyed vehicles.

COMMENTS: Because of the large quantity of unexploded munitions on the ground, no movement was allowed after sunset.

G+5, 01 Mar 91

At 0240 the squadron commander received an urgent call from the CG to move into Iraq and secure the Safwan Airfield (QU550370) for the upcoming cease-fire negotiations. Our mission was reconnaissance; we were not to get decisively engaged (Figure 10). The squadron went to REDCON 1. We were instructed to delay our LD until 0615 and received an Apache Company OPCON. Our plan was to move two ground troops abreast, preceded by air recce to the objective, which was 10 kilometers north of the Iraqi-Kuwaiti border. The AH-64s were in a holding area at the TOC, with the company commander monitoring the squadron command net from within the squadron TOC itself. The squadron commander moved with B Troop, S-3 with A Troop. A SWT flew in front of each troop under squadron control. They provided the squadron with an initial picture of enemy units. The squadron crossed the Line of Departure at 0615 hrs, and within one hour, had already bypassed or crossed numerous vacated bunkers and trenches. We observed and reported numerous T-72s, T-55s, MTLBs, AMXs, and ZSU-23-4s in the area surrounding the airfield and made face-to-face contact with

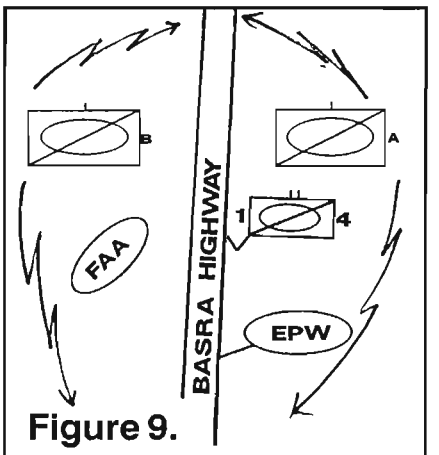


Figure 9.
360-Degree Defense on Basra-Kuwait City Highway
G+4 28 Feb 91

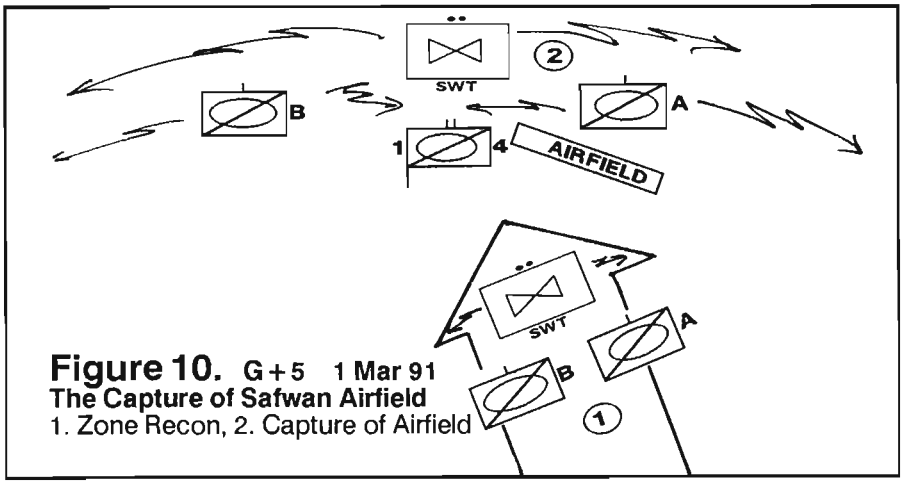


Figure 10. G+5 1 Mar 91
The Capture of Safwan Airfield
1. Zone Recon, 2. Capture of Airfield

Iraqi units in the area. The squadron commander moved to the point of contact and approached their defensive position. The enemy had an armored brigade in prepared positions, with three battalions abreast and one in depth defending north of the objective. The squadron commander then ordered B Troop to abandon its assigned OPs and move to the line of contact.

Additionally, the squadron commander dismounted his M3 and confronted several Iraqis. At approximately 0900 hrs, an Iraqi colonel arrived in A Troop's sector. CPT Pope dismounted his vehicle and began to explain to the Iraqi colonel that he must move his unit out of the area. The colonel refused to move his force without instructions from his higher HQ. The Iraqi officer asked CPT Pope if he knew that he was in Iraq. CPT Pope replied that, yes, he knew that he was in Iraq, and that his unit was there to secure the site for cease-fire negotiations. The Iraqis had assumed the talks were to be held in Kuwait City. Additionally, the colonel seemed offended that the American soldiers were giving his people food and responded by directing his men to prepare food and hot tea for A Troop. The A Troop soldiers drank the tea while the colonel departed to confer with his superiors.

At approximately 1020, the colonel returned and stated he still did not have orders to leave the area. CPT Pope told the colonel that in order to prevent a confrontation, he must leave the area now. At roughly the same time, a flight of A-10s flew overhead, and CPT Pope told the Iraqi that the aircraft would attack if he did not leave.

At this point, the squadron commander arrived and reiterated to the Iraqi colonel that he must leave the area. The colonel finally relented and ordered his unit to leave the area

In a separate incident, the S3, MAJ Burdan, was approached by an Iraqi captain and a major and asked if he knew that the squadron was in Iraq. They seemed totally surprised at our sudden appearance. The S-3 smiled and replied yes. He told them they needed to leave the area and then asked them what unit they were from. The major smiled this time and replied "Iraqi Army!" He refused to identify his unit. The Iraqis then drove away in a state of consternation.

Meanwhile, in the B Troop sector, CPT Bills put together a small contingent of armored vehicles, three Bradleys and two tanks, which moved in an inverted "V" toward the Iraqi defense. 1LT Danussi, the XO, led the contingent toward a gathering of Iraqi soldiers. Once the formation came to a stop, CPT Bills dismounted and approached the Iraqi officers and soldiers. The major then sent for his battalion commander, a lieutenant colonel, who spoke broken English. His first comment to CPT Bills was "Why are you in Iraq? Are you lost?" CPT Bills replied that he was here to secure the cease-fire negotiations site and that the Iraqis must leave the area in order for the talks to begin. The Iraqi officer refused to leave without instructions from higher. The enlisted soldiers were told to leave, leaving 15-20 officers surrounding CPT Bills. He started to hand out MREs. One was offered to the battalion commander but he refused to accept it, saying "Saddam feeds me well!" CPT Bills then returned to his screen line. A short time later, CPT Bills returned to meet again with the Iraqi commander. This time, the battalion commander was angry and asked "Why are you Americans here?" The troop XO moved forward and established contact with an Iraqi armor battalion in their vicinity. As in the other sector, the Iraqis had to be persuaded to leave their positions and head north. The Iraqi officer said they would leave in 30 minutes. CPT Bills was escorted back to his vehicle by the major and another soldier. He was dressed in a camouflage uniform, black leather jacket, scarf, beret, and AK-47. On schedule, 30 minutes later, the Iraqi battalion began to pull out. By 1200

Squadron Battle Damage Assessment

	HHT	A	B	C	D	Total
Trucks	3	21	39	3	0	66
Bunkers	0	70	21	0	0	91
APC	6	40	10	3	7	66
Tanks	5	35	18	0	7	65
Arty	0	11	2	0	2	15
AAA	0	5	0	2	0	15
Radars	0	0	1	0	0	1
Rocket L	0	0	1	0	0	1
POWs						3010
KIA						Numerous

Diesel fuel consumed from 22-28 Feb 91 = 25,900 gallons

Total combat flight hours:

123.9	OH-58
75.4	AH-1
14.6	UH-1

The sign tells the story.

hrs, most of the Iraqis in the squadron sector were on the road moving north toward Basra. After the squadron had secured the airfield, the CG ordered 2d Brigade to move to the airfield and join in its defense. The squadron was then placed OPCON to 2d Brigade. Sectors were adjusted and 2d Brigade assumed responsibility to prepare the site for peace talks. CPT Morrison worked all night to clear the runway and assist corps in setting up the negotiations site. We learned that night that the peace talks had been delayed 24 hours.

COMMENTS: We continued to assist the division and corps in preparation for the cease-fire negotiations. The squadron's performance in accomplishing this difficult mission was magnificent. Air/ground coordination was superb. Good order and discipline enabled us to move a Republican Guard armored brigade out of its prepared positions without bloodshed.

DESERT STORM

Two Scouts Under Fire Helped Injured Buddies During Night Battle

by Captain Michael Gollaher, VII Corps PAO

As night closed in on February 26, a rugged battle awaited a group of scouts from the 4th Battalion, 32nd Armor.

First Lieutenant James Barker's Bradley, HQ-21, moved into position on a screen line to the north front of the battalion. Joining HQ-21 were HQ-24 and HQ-26, commanded by SSG Christopher Stephens. To their right rear flank were elements of Task Force 5-5 Cav scouts. The night was overcast and pitch black.

The 4-32 scout platoon had been in position about five minutes when a T-72 came into view on a nearby berm. With his night vision goggles, 1LT Barker could see the Iraqi tank and some dismounted infantrymen as they headed toward Stephens' track. The tank was part of the Republican Guards' Tawakalna Division, and the Bradleys were no match for its 125-mm main gun.

Stephens spotted the tank, reported it, and fired two TOW missiles. The first missed, but the second knocked off one of the T-72's roadwheels. The gunners on HQ-21 and HQ-24 then opened fire on the dismounts with their 25-mm, and Barker fired a TOW, which streaked toward the target and popped the turret off in an explosive fireball. The sky lit up as secondary explosions began to engulf the doomed T-72.

What happened next isn't exactly clear. Platoon Sergeant Dennis McMasters, in HQ-21, said he saw Stephens' track taking fire from an unseen position. The incoming rounds caused some of the Bradley's ammunition to cook off. DeMasters tried to raise Stephens on the radio, but no one answered.

PFC Frank "Ranger Bob" Bradish was in the open hatch of HQ-26, reloading TOWs, when the track took incoming rounds. The blasts severely injured Bradish's right hand, Stephens suffered shrapnel wounds of his head and legs, and PFC Adrian Stokes, Bradish's fellow observer on the track, suffered severe abdominal and groin injuries, but was still alive. SGT Donald Goodwin was struck in the chest, but was conscious. PFC John McClure was the only member of the crew who did not have life-threatening wounds.

McClure and Bradish kept their heads, as if they were seasoned combat veterans. Bradish reported, saying he was OK, but Stokes was "hurt bad." He tried to pull Stokes from the vehicle. Goodwin was able to climb out of the disabled track. McClure assessed the situation, pulled some flares from the ammo box in the turret, and secured the radio. He passed these to Bradish, who also grabbed his M-16 with grenade launcher, and prepared to defend his friends. While McClure tended to the wounded, Bradish called the lieutenant's track, reporting they were hit and needed a medic. He cursed at the flares because he couldn't open them with

his injured hand. He managed to open them with his teeth instead, then sent them up to mark their position. Bradish then told McClure that he was worried about his own hand wound, but urged him to continue treating Stokes and Goodwin. As McClure treated his friends, Bradish heard enemy forces approaching.

Meanwhile, 1LT Barker radioed battalion to send some tanks and an ambulance track to their location. He saw an enemy infantry squad heading directly toward Bradish and McClure, so he called in mortars on their position and watched as the rounds dispersed the attacking enemy dismounts. He then headed for the stricken Bradley, where he linked up with Bradish.

Within 20 minutes, SFC Craig Kendall's M1 platoon from Charlie Company arrived with two ambulance tracks. SGT Sergio Nino, a HQ Company medic, assessed the casualties. He went first to Stephens. "Is he gone?" asked DeMasters.

"I'm afraid so," SGT Nino replied.

Inside HQ-21, Stokes had gone into shock. SGT Nino and medic Michael Gindra redressed Stokes' wounds and tried to start an intravenous infusion, but it was no use; Stokes had lost too much blood.

Only after his friends were treated and ready to evacuate did Bradish mention that he needed help. "Ranger Bob" was injured much worse than he'd let on. He had lost portions of his right hand, suffered a painful groin injury, and had taken a round through both upper thighs.

The medics wondered how he had run around, popping flares, radioing for help, tending the wounded, and trying to set up perimeter security. Holding up his injured hand, Bradish quipped, "They thought they got me, but I fooled them... I shoot left-handed."

Bradish received the Purple Heart and McClure was awarded the Silver Star for actions under fire.

Lucky Scouts Dodge "Big Bullets" That Ripped Their Bradley

by Tony Wunderlich, VII Corps PAO

SABOT rounds rip armor and destroy tanks and tank crews, unless the crew gets lucky. Some scouts of 3rd Plt., 4th Squadron, 7th Cavalry Regiment, needed every ounce of luck they could muster on Feb. 26, when two of the deadly rounds ripped through a Bradley Fighting Vehicle during the ground war.

As these scouts engaged the Tawakalna Division of the Iraqi Republican Guard, Bradley 36, commanded by SGT Roland Jones, was disabled by enemy fire, prompting a rescue mission by the Bradley team in 31. After the 31 team, led by 2LT Michael J. Vassalotti, retrieved the crew from 36, an Iraqi tank unloaded two SABOTs on 31. Both rounds penetrated the Bradley's armor. But in a stroke of tremendous luck, the rounds did not hit the scouts inside. A flash burn was the most serious injury.

Recounting the event, Vassalotti started at the beginning. "Our mission was to execute recon on 3d Armored Division's right flank with a one-kilometer sector between 3rd AD and the 2nd ACR," said the 23-year-old 3rd Platoon leader.

"An additional mission was to maintain contact between them, specifically between 4/34 Armor Centurion on our left. SGT Jones, my 36 Bradley commander, called in contact with enemy infantry troops and, right after that, with a BMP.

"SFC Ivery Baker, my platoon sergeant, reported troops to the front also, so I immediately reported to my commander that we had sighted one BMP. That quickly became two when the Bravo section platoon sergeant called in another. Then, Sergeant Jones called in a third.

"By the time I called in the first, one was in flames because SGT Baker had given the fire command," Vassalotti said. He added that before he could finish calling in contact with the second and third enemy vehicle, all three had been destroyed.

Vassalotti said 36 had gone forward and taken up a firing position. "We moved up with them on line and continued to engage the enemy. We moved south, out of the way of 2nd Platoon, which came through us to start firing and, in the process, we went blank on ammunition. We had to reload.

"Second Platoon took the heat off us while we pulled back and around them to the right and began reloading," Vassalotti said.

SGT Jones picked up the narrative: "LT 'V' came over the net and said we had to move south about 800 meters. As we were shifting, my loader was reloading a TOW missile. When we took up position, we engaged another BMP and a tank. We were getting low on ammo, so I told my driver to pivot so we could reload. I realized we were still up front so we started backing up. It sounded like we lost a track, so I told him to stop. As soon as we stopped, we took a round in the transmission. Later, we found out it was from a 12.7-mm machine gun.

"We lost all power. I called for help and then evacuated the track.

"When 31 arrived, my track took another round. We're not sure if it was from an RPG round or a SAGGER. My driver took some shrapnel from that. We got evacuated into 31. On the way back to the troop trains to get my driver to the medics, we were engaged by a T-72 tank and took two sabot rounds.

"When the first round hit, I was scared. When the second one hit, that terrified me. After the first round, I thought I could keep running, but after the second round, I knew they had a bead on us. I was waiting for a third round, but it never came. One of the tracks in 2nd Platoon – Lieutenant King's track, I believe – took out the tank that was firing at us. That saved my life and the lives of the other guys in my crew."

SFC Baker, platoon sergeant for 3rd Platoon, said the scouts stood their ground despite the hairy situation. "Maintaining contact is what a scout's supposed to do," he said. "With ground fire, rounds coming in all over, and vehicles getting hit, we maintained contact with the enemy."

One crew member had plenty to say, as well, about the sparks of fear generated by the heavy-duty rounds.

"I was scared to death. I could see pretty much what was going on everywhere; it was scary," said PFC Richard Legendre, a 21-year-old ammo loader. "I saw two of our three vehicles that got hit, and I was worried that my buddies weren't going to make it."

Legendre, though, maintained his footing. He did his job. "I'm a loader, so I just started breaking ammo apart, knowing we were going to need it." Finally, he felt the burden of the battle lifting from his shoulders. "I was relieved to hear artillery. It was constant bombardment, continuous for minutes on end. There's no way the Iraqis could've survived that. I knew it would go this fast."

"Shooting Blind Men In the Dark..."

by Bill Armstrong, VII Corps PAO

A combination of better training, troop discipline, and an overwhelming technological advantage moved the soldiers of 3rd Armored Division's Co. A, 4th Battalion, 18th Infantry Regiment swiftly through Iraqi trench lines in the allied ground offensive. And when the smoke cleared, the mechanized infantry soldiers of Alpha Co. discovered some shocking facts about their "elite Republican Guard" opponents.

SFC Marvin Rutherford, a platoon sergeant with Alpha Co., was among the first in his company to encounter enemy forces. Two pairs of Bradley Fighting Vehicles bounded forward, protecting each other during the advance through Iraq, toward Kuwait, in the early hours of the morning on Feb. 27.

"We saw a missile coming toward us, " Rutherford said. "At first, we thought it was a flare coming down, but it kept coming closer and closer."

The flare turned out to be an antitank missile. Rutherford's gunner, SPC Donald Barker, shot the missile down 200 meters shy of its destination.

For Rutherford and his men, the fight was just beginning. "We didn't know what we had gotten into. They had tanks in the trench lines and they were hard to see. Again, my gunner got on them and we started whipping HE (high explosive), TOWs, and AP on them." The battle proved to Rutherford and his men that a Bradley could kill both T-62 tanks and thinner-skinned armored vehicles.

Not far from Rutherford's platoon, CPT Charles Forshee engaged an Iraqi tank while backing up his own Bradley. The Alpha Co. commander's crew then killed a T-62 tank, in addition to two armored personnel carriers, by firing their TOWs and 25-mm main gun.

Forshee looks back on the battle as one of no contest. "We killed stuff that was blind to us," he said. "Shooting blind men in the dark."

SPC Barker attributes the victory, in part, to superior vision capabilities. "We had such an advantage over them with our thermal sights, it seemed like they couldn't even see us," the 22-year-old gunner said.

And with first light came mass surrender. The Iraqi troops wanted no misconception of their intent. "They carried large white sheets or sleeping mats or anything that was white, and just walk en masse," said SFC Michael Jones, another Alpha Co. platoon sergeant. As the enemy prisoners of war came closer to the victors, the U.S. troops began to question some of the things they had heard about their "elite" opponent. "They were scared, really scared," said SPC James Singleton, an infantry soldier. "One group looked like they had been digging through garbage cans because they had pieces of our food here and pieces of it there. The guys that we took looked like they had been planning their escape for quite a while."

Starvation and a lack of adequate clothing were common among the captured Iraqis, according to PFC James Barnette. "Most of the EPWs we picked up didn't have shoes. They had blisters on their feet the size of their thumbs. One of them

told our first sergeant it had been two or three days since he had food or water, and there's little to nothing of them there. It's like grabbing somebody who's been starved to death." MAJ Robert Leonhard, who was in charge of the battalion's combat training, felt some pity toward the Iraqi soldiers, who had been immersed in combat with his men just a few hours before.

"We could see in their eyes despair. The immediate response was fear, either fear of the unknown or fear that they were going to be executed," Leonhard said.

"Our soldiers were very careful, obviously, but very compassionate at the same time."

Not one soldier of Alpha Co. was killed during the battle. The men in their Bradleys were able to kill three T-62s, three PT-76 amphibious light tanks, and nine armored personnel carriers, despite several pockets of resistance.

SSG Thomas Gregory, an Alpha Co. squad leader, admits that Iraqi troops may have had the advantage of being combat veterans going into the fight. But he points out, "They have never met a force with such technology that rolls them up like that."

Gregory adds that tough training gave his squad the edge in battle. "We found them with their pants down. All of their equipment was stocked, but it wasn't loaded. "

On March 4, as the soldiers of Alpha Co. stood in formation on a barren, sandy plain in central Kuwait, MG Paul E. Funk pinned the Bronze Star for valor on the chest of Forshee, the company commander.

But he made it clear to the formation that every soldier standing there could be considered a hero.

Contract haulers on the Tapline Road carry ammo west in preparation for the assault.

PUMPED UP...

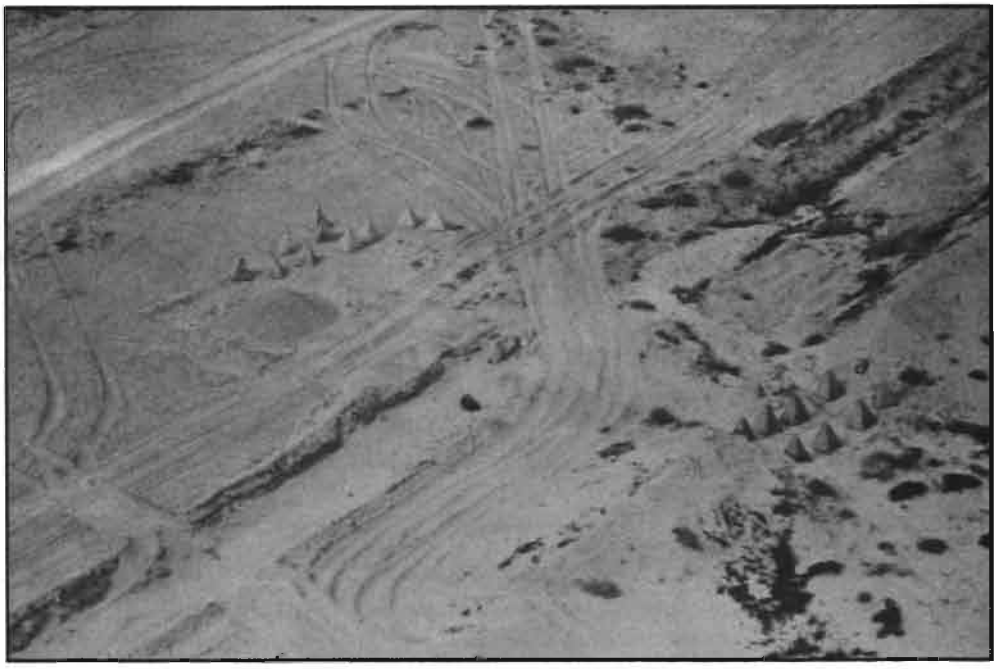
Tank and Bradley crews in the last days before the attack make final adjustments to their weapons, check commo, and prepare to saddle up for the dusty ride north.

Armor in its element - The 3d Armored Division masses in the desert prior to its assault into Iraq.

READY TO ROLL

M1A1 tanks of the 3d AD begin to roll across the desert in the 100-hour war.

Photo: SFC Gall Thueson



What They Faced...

These Iraqi obstacles were typical of those along the Saudi-Kuwaiti border. The "dragons' teeth" on either side of the wide antitank ditch protected a crossing point used by the Iraqis. An access road runs parallel to the ditch, and behind that, several lines of wire obstacles stretch across the desert at the top of the photo, probably straddling a minefield.

DESERT STORM

SPLATTERED!

After the A
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Page 13),
after ragi

At hundreds of locations in the featureless desert, the
tions were little more than half-dug graves for fighting
and crews that had been abandoned by their leaders t
vehicles were almost new: the T-72 track at far right ha
spots of the track -- the road wheels were barely worn
several hundred kilometers of use. The illumination de
some T-72 turrets, was intended to spoof antitank mis

ied air and ground assault, the desert was
of black hulks. Dug-in Iraqi tanks and ar-
cles, some charred beyond identification,
flat, brilliant landscape. A helicopter tour
urned-out hulls, tanks without turrets,
their turrets upside down in place (see
nd others that had settled on their bellies
g heat softened their steel suspension parts (above right). On-scene observers talked about sabot shots that penetrated sand berms to kill, or passed through both sides of a turret, or plowed through the tank, driving the powerpacks out the rear of the hull. In some cases, killing shots set off immediate secondary explosions; in other cases, gunners who had scored direct turret hits didn't know it - they followed sabot shots with HEAT to make sure.

shaped Iraqi fighting posi-
ehicles that never fought
starve and die. Many of the
wear only on the high
nd odometers showed only
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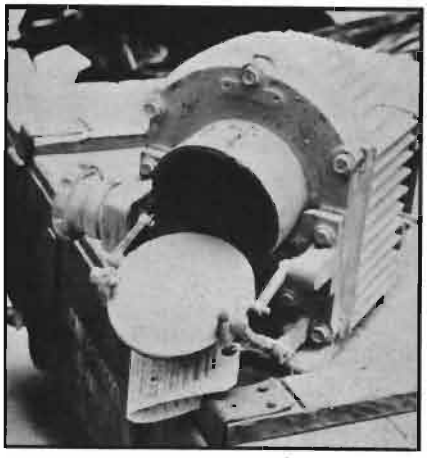
es, such as the TOW.



This article is based on remarks by General Vuono at the Armor Conference 8 May 1991.

Armor and the Future Army: The Challenges of Change and Continuity

by General Carl E. Vuono, Chief of Staff of the Army

Today America's Armored Forces – along with the rest of the Army – stand triumphant. The shattered remains of Iraqi tank divisions sent a clear message to both our friends and our foes – our systems work, they survive, and they are lethal. We demonstrated to a watching world what we have known for a long time – our soldiers and equipment are the best in the world – our Army is trained and ready, and America's armor stands at the cutting edge of our nation's defenses.

As we celebrate this great success, let us not forget that every soldier, every civilian, and every family shares in DESERT STORM. This was a Total Army victory – Active, Reserve, and National Guard. DESERT STORM could only have been fought and won by an Army that is trained and ready to respond anywhere in the world. Remember also that this same Army has triumphed in three wars in the past 18 months alone – the Cold War, which we won without firing a shot, Operation JUST CAUSE, and now, DESERT STORM.

But even in the midst of this unprecedented victory, we must now turn again to the task of shaping the Army for the future. Therefore, I want to spend a few minutes discussing the challenges the Army and our Armor Force will face in shaping the Army for the future. I want to stress the parallel themes of change and continuity – change in the environment, in our strategy, and in our forces, but continuity of purpose, responsibility, and capability as we move forward in a quest for a new world order. I want to begin by looking at DESERT STORM in the context of our changing national military strategy – a change that will significantly affect how we must shape the Army for the challenges of tomorrow.

Changes

The strategy has its roots in three fundamental factors. The first of these – and the most important – is the unambiguous success of our strategy of containment and the collapse of the Soviet empire. The second is the challenge of a world in a state of revolutionary change – a world alive with unprecedented opportunities but also rife with instability and violence fueled by the accelerating spread of sophisticated weapons. The final factor is, of course, the precipitous decline in resources our nation is willing to devote to national defense. Together, these factors define the evolving nature of the international system in the post-Cold War era.

August 2, 1990, was a pivotal moment in our history, defining the end of one era and the dawn of another. It was on that day that the legions of Saddam Hussein launched their brutal aggression against Kuwait, threatening the very fabric of the international system. It was also on that same day, on the other side of the world, that President Bush announced a new national military strategy for the United States. This strategy would have profound implications for the Army because it defines what the Army must be able to accomplish in the years ahead and sets the standard against which we must measure our progress.

The new military strategy rests on the time-honored principles of deterrence and collective security. At the same time, in recognition of the changing environment, the strategy places new emphasis on three additional concepts – each of which is of central importance to the armor community and must be understood by all Army leaders if we are to maintain a trained and

ready Army in a time of great global uncertainty.

First, as an element of our nation's forward presence, the Army will maintain powerful forces – including armored divisions – stationed in Europe and the Pacific to anchor stability and to provide a credible capability to influence events in those critical regions. Commensurate with the declining Soviet threat, however, we can and will reduce our forces in Europe to a level appropriate to the challenges we confront.

The heart of our new military strategy lies in the second element – the projection of power – swiftly and massively – to trouble spots around the world. To meet this power projection requirement, we must have a force of five fully-structured active divisions – including armor, mechanized infantry, light, airborne, air assault, and special operations units – that are coiled in readiness to deploy immediately and to fight and win. From this powerful grouping, we will tailor the package that is appropriate to the threat that we confront.

Powerful projection also requires that the Army have the capacity to reinforce our committed forces. A critical element of this capability will be our Active Component divisions rounded-out by maneuver brigades from the National Guard. For more protracted or larger-scale conflicts in Europe or elsewhere, the Army will rely on its remaining reinforcement units – our National Guard combat divisions.

The final aspect of the strategy is the requirement to reconstitute the force. Reconstitution – put simply – means the generation of additional forces from units that are either not fully manned or must be mobilized from scratch as we did during World War II. In this regard, we are examining the concept of cadre divisions as one means of quickly fielding more forces.

That is the essence of our new strategy – a strategy in which the United States Army and its Armor Forces will be at the very center. It is a strategy that recognizes that most potential adversaries have invested their resources primarily in their land forces – forces that alone can seize or defend territory. Only powerful land forces – including modernized, trained and ready Armored Forces – can deter, dissuade or defeat these enemy armies should the need arise.

Desert Storm

Seldom has a national strategy been more quickly tested by fire. For, even as the President was announcing the strategy, the Iraqi Army stood victorious in Kuwait and was poised like a dagger at the throat of the entire world. With virtually no American forces forward deployed in the region, the United States faced the monumental challenge of projecting credible, capable combat power from the United States and Europe.

Beginning with the arrival of the first Abrams tanks in those early, uncertain days of the crisis, the United States and our coalition partners methodically built a mighty force that could withstand the power of the Iraqi Army. This same force – which included over 60 percent of our armor battalions and cavalry squadrons – would ultimately drive Saddam Hussein from Kuwait.

Those who would contemplate challenging the United States would

do well to remember the images of the fourth largest tank army in the world crushed and burning in the wake of the most overwhelming onslaught of military power in the history of our nation. The 100 hours of the ground offensive clearly demonstrated what power projections is all about.

DESERT STORM was a triumph for our strategy and for the Total Army – a winning team of Active, Reserve, and National Guard. It was a victory for the American soldier – men and women who are courageous in war, compassionate in peace, and committed to the defense of our nation. It was a victory for the armor leaders – from the platoon leader to the corps level – who honed their units into the polished, razor-sharp formations that slashed through the vaunted Iraqi Army. Finally, it was a triumph for the Army throughout the world – soldiers, units, and leaders manning the ramparts of freedom from the DMZ in Korea to the Panama Canal to the North German Plain. Every soldier, every civilian, and every family of America's Army share in this victory.

Challenges

We cannot afford to rest on our laurels, however, as we look ahead to a future we can only dimly see. We face many challenges that we must attack with the same resolution we displayed during DESERT STORM. The Army must continue our disciplined evolution into the force the nation will need to fulfill

our strategy in the 1990s and beyond.

In the years ahead, we will shape an Army of 20 divisions – Active and Reserve – that will be the smallest since the eve of World War II. However, this is the force that we must shape to preserve training, readiness, and, above all, quality – the essence of the force that fought and won in DESERT STORM.

By the mid-1990s, we will have a force that is perilously small for a nation with the global interests of the United States – a force that is at an irreducible minimum. Yet, I believe that if we are imaginative, determined, and responsible, the result will be an Army that has the characteristics necessary to fulfill our strategic responsibilities.

It will be an Army that is versatile in its ability to satisfy the wide range of requirements in multiple theaters with force packages appropriate to the threats our nation will face. For the Armor Force, this means that your weapons and doctrine and your thinking must be applicable to diverse environments and threats, and you must be able to fight in a variety of force packages. Versatility also means that you must retain the ability displayed during DESERT STORM that caused an Iraqi general to label American soldiers as heroes – the ability to shift from being destroyers to being deliverers when called upon to render humanitarian relief.

It will be an Army that is deployable in its ability to project power rapidly and massively throughout the world. This presents a particular challenge to the Armor Force. You must find ways to improve your ability to deploy rapidly. More sealift and airlift and prepositioning are only partial answers. We need to design our weapons so they are more easily deployed, and we must train for deployment. We cannot be content with rotations to the combat training centers or an occasional "Reforger"-type exercise. Deployability must become a mindset in the entire force.

It will be an Army that is expansible – able to grow rapidly to meet a resurgence of Soviet adventurism or the rise of violence wherever it threatens our interests around the globe. This requirement means that you must ensure that the Active and Reserve forces are trained to common standards so that integration during mobilization can be effected quickly. The Reserve components have been essential to our readiness in the past and will continue to be a key element in the future.

Finally, it will be an Army that is lethal and can fight and win on any battlefield at any time. The violence unleashed during DESERT STORM only foreshadows our future capabilities. But you must recognize that lethality is not simply bigger, faster, or more modern weapons. Lethality also comes from the ability to generate combat power – the combination of leadership, protection, maneuver, and firepower – in synchronization, so that the effect is devastating.

Versatile, deployable, expansible, and lethal – that is the Army the nation needs and the Army that we must build. Your challenge is to forge the armored component of such an Army – an Army trained and ready to meet the military strategy of our nation.

Continuity

In the midst of these massive changes in the environment, in our strategy, and in our forces, we must retain steel threads of continuity – continuity of purpose, continuity of commitment, and continuity of capability that will preserve the fundamentals of the force as we move into a future we can only dimly see.

These vital threads of continuity have their clearest expression in the vision of the Army of the future – a vision that each of us as leaders must share. It is a vision of a trained and ready Army, today and tomorrow, that can fulfill its strategic mandate anytime, anywhere. We can achieve such a force, and we will undergird continuity, if we are unyielding in our adherence to the Army's six fundamental imperatives – principles that are now firmly embedded in the Army at all levels.

They are of singular importance to the Army and to our soldiers. As I discuss each of them, I ask that you consider the impact of these imperatives on your units and how you can implement them as the foundation of the Armor Force we will need in the future.

The first imperative – first listed and first in importance – reminds us that we must maintain the quality of the force throughout the total Army. We have achieved levels of quality unprecedented in our nation's history. The soldiers, sergeants, and officers are the best America has to offer. The quality of the Armor Force had benefitted from the matchup of these quality personnel with quality equipment and doctrine. This must remain the standard for the future.

Your challenge is to ensure that our soldiers continue to have a training environment that is unsurpassed in its ability to teach and motivate. You are key to bringing out the quality inherent in our young soldiers. We also must recognize that the entire quality of life is important to the readiness of the force. We

cannot forget that the family is part of that environment. We are a married Army today – far different from the Army I entered as a lieutenant over 30 years ago. Perhaps at no time in our recent past has the role of the family been more important to the Army's success – whether it be in routine garrison activities, rotations to the combat training centers, or mobilization for war. Our goal must be to provide our soldiers, civilians, and family members with a quality of life equal to that of the citizens they defend.

Second, we must maintain an effective warfighting doctrine. At no time in our history has doctrine demonstrated its importance so decisively. AirLand Battle is now part of the lore of America. It was manifest in the images of armored cavalrymen spearheading the assault deep into Iraq; of tens of thousands of Iraqi prisoners plodding south past the burned-out remnants of a once-proud army; and of Abrams tanks and Bradleys racing north to seal the fate of the Iraqi Army.

We must now ensure that our doctrine continues to evolve so that AirLand Battle-Future will be as effective on the battlefields of tomorrow as AirLand Battle was today. We must look to the special demands that our new strategy places on the capability of our forces. Our doctrine must now include not only the classical principles for combat, but also encompass the entire range of military operations from peacetime engagement to major war. While you can take pride in Operation DESERT STORM, your challenge for the future is to develop the tactics, techniques, and procedures that will bring AirLand Battle-Future to life for soldiers in the Armored Force.

Third, we must maintain the right mix of forces – armored, mechanized, light, and special operations – within our active and reserve components – that provide us the necessary versatility in implementing our national strategy. Our experience in the last 18 months vividly demonstrates the vital importance of combined arms.

I liken this imperative to a kit bag from which we can draw out the right forces we need for the job - whether it is a minor regional contingency such as JUST CAUSE, which was predominantly light forces support by elements of Mech and Armor, or major regional contingency such as DESERT STORM that required the largest commitment of U.S. Armored Forces since World War II. We must have forces whose capabilities range across the entire spectrum of conflict while we retain also the ability to tailor forces that can operate competently in joint and combined operations.

Fourth, we must continue to train to tough, realistic standards – standards that are uncompromising in application and uniform across the entire force. The payoff for our investment in training was manifest in the destruction of a powerful army and in the low casualties our forces suffered. Indeed, it is no exaggeration to say that the fate of the Iraqi Army was decided years ago in our combat training centers.

One young armor captain underscored the value of such training when he stated emphatically that, "It was hard sometimes to remember we were really at war, because the drills and maneuvers were exactly the same as we had used at the NTC." We cannot afford to abandon this key to the confidence and success of America's soldiers. You must concentrate on the fundamental skills – such as gunnery, maintenance, and individual proficiency. We must continue to train soldiers,

units, and leaders – this is the highest priority of the army in the field.

Fifth, we must continue to modernize both our Active and Reserve component forces. In the sands of the Arabian Desert, we vividly witnessed the life and death difference that modernization makes. Thanks to American industry, new equipment was fielded rapidly, and older equipment modified quickly and expertly. And it did wonders for the confidence of our soldiers. During Christmas, I visited with a unit of the 1st Cavalry Division that had been upgraded with the M1A1. The soldiers could not say enough about how much better it was than the older version – whether it be firepower, accuracy, or chemical protection.

As dramatic as the performance of the Abrams was, however, we cannot afford to become complacent. We must ensure that we stay on the cutting edge of technology. We must maintain the same battlefield advantage into the next century that let our tanks see and kill targets at over 3000 meters; the edge that put sabot rounds through the defensive berm, through the front glacis, and through the engine block of a T72 before exiting the rear of the tank.

The experience of one Iraqi tank battalion commander summed up the importance of technology when he described the impact such an advantage has on morale. He said that his first knowledge that the Americans were nearby came when the turret blew off the tank next to his – in a sandstorm with only 150 meters of visibility. By the time a

second tank beside him blew up, he decided it was time for his battalion to abandon its tanks and surrender. So he gathered his men together, raised a white flag, and waited.

Today, the Armored Systems Modernization Program is key to developing the Armored Force for the Army of the 21st century that is second to none on the battlefield. It is vital to our future capabilities. This program symbolized the forward-looking approach that takes the changing environment into account. A common platform for our armored vehicles will enhance our effectiveness in every area, from maintenance to maneuver.

We must aggressively explore new technologies in the areas of composite and other types of armor, countermeasures, and firepower. Additionally, we must continue to pursue the Armored Gun System in the near term, so that we can provide our contingency forces with air-droppable armored firepower. We must never be guilty of sending our quality soldiers – entrusted to us by the American people – into battle with outdated and overmatched technology. We should never have to say that a single life was lost because our soldiers were ill-trained or ill-equipped – either now or in the future.

Finally, we must continue to develop leaders – officers and sergeants – who are competent in the art of war, responsible for their soldiers, and committed to the defense of the nation.

Our leader development program must continue to meet the demands of our new strategy, and we must remember that the leaders we develop today will be our most enduring legacy to future generations of Americans – especially to those who will serve the nation in our ranks. I want to stress that our experience in the Gulf underscores the importance of sending our leaders to school. Combat experience should reinforce – not replace – leader education.

These are the imperatives. For the Armor community, these imperatives must be far more than catchy phrases pasted on a bulletin board. They are the essence of your professional purpose. Your challenge now is to apply these imperatives without compromise and without equivocation. For they are the road map for shaping the Army that the nation will require in the tumultuous times ahead.

It falls to you to ensure that the Armored Force remains at the peak of readiness during the critical years as the Army becomes smaller. We cannot assume that we will accomplish the reshaping of the Army quietly, without crises that will demand the use of force in some manner. Nor can we assume that threats will come with any warning.

Conclusion

There is a story that illustrates the importance of the imperatives and goes to the heart of the meaning of "Trained and Ready."

Chapter one begins in June, 1950, with elements of the U.S. Army serving on occupation duty in Japan. Nobody expected a war – and nobody wanted one. Nonetheless, on 25 June, the armies of Kim Il Sung invaded South Korea.

As the spearhead of the United Nations' response to North Korea's naked act of aggression, Task Force Smith was scraped together from our occupation forces and dispatched to stem the onslaught. The task force had courageous men, but it was ill-prepared, undermanned, and ill-equipped – abandoned by a nation that had lost its vision of a trained and ready Army. As a result, thousands of Americans died, and our forces were nearly defeated by the Army of a backward and impoverished nation.

In chapter two, our story now leaps ahead more than 40 years and half a world away. The soldiers of America's Army were again walking point in an international coalition. This time, they were trained to a razor's edge, led by sergeants and officers of unparalleled ability, and equipped with the finest weapons our nation could produce. Eight American Army divisions – spearheaded by cavalry and armor units – slashed deep into enemy territory, and waded into the heart of the Republican Guards. They destroyed division after enemy division and thousands of Iraqi tanks, until no organized resistance was left. All of this was accomplished at the cost of fewer than 100 soldiers.

Chapter three remains to be written, and you are the authors. You will determine what the Army of the future and the Armor Force will be like. You have a sacred obligation to the nation and the soldiers of the past – to all the Task Force Smiths that have gone before, and to all the soldiers who have laid down their lives. You bear the heritage of the cavalrymen who guarded the western frontier and the tankers who were the hope of the Western Front. Your lineage is steeped in battles from Normandy Beachhead to the Bulge; from Korea to Vietnam. You must never permit our Army and its Armored Forces to be anything but trained and ready, or our soldiers to be lead by anyone but dedicated professionals who are competent, responsible, and committed. It is a task which you cannot and will not fail.

Light Cavalry in a Peacekeeping Role

by First Lieutenant Erick A. Reinstedt

"As currently demonstrated in SWA, the end of fighting may signal the start of very tough missions. This platoon's experience in the peacekeeping role following JUST CAUSE highlights important lessons." — Ed.

I am a platoon leader in A Troop, 2-9 Cavalry, the only ground cavalry troop in the 7th Infantry Division (Light). On a two-month deployment in Panama, we caught the last days of Operation JUST CAUSE, but we spent most of our time in Operation PROMOTE LIBERTY. PROMOTE LIBERTY was the follow-on to Operation JUST CAUSE and focused on stabilization of the country and aid to the new government. During PROMOTE LIBERTY, we had a significant peacekeeping (PK) role.

Our experiences in Panama taught us many lessons that we, as a platoon, feel would be generic to light cavalry in a PK role. This article is about lessons learned, important skills needed, and significant leadership challenges we faced. Hopefully, these lessons should provide thought points for other junior leaders, officers, and NCOs. Should some of these points hit home, then units need to determine which of these areas their people, especially junior leaders, have already been schooled/trained in, and then fill in the gaps with their own training. Certainly, as Armor branch restructures itself to keep pace with the changing world situation and changing Army, this type of mission will become more and more common for its members.

Deployment/Duties in Country

At the time of our deployment, our troop at Fort Ord was structured with three platoons and a headquarters section. Each platoon had six HMMWVs with a .50 cal./TOW mix. We deployed as a troop, separated from the aviation and headquarters troops, which make up the rest of the squadron. Airlift restrictions (lack of airplanes) limited us to taking only three vehicles per platoon and a small headquarters slice. We left our .50s and TOWs at Fort Ord, taking only our M60s because we didn't want to appear overly aggressive.

Panama was cooling down, and apparently headquarters felt that the introduction of such weapons systems might send the wrong signal. The lesson learned is don't expect to go in country with all of your assets. External restrictions, especially in a high visibility and politically volatile situation, such as an intervention, may dictate you enter a zone already severely reduced in combat effectiveness.

Once in country, we were attached to different infantry battalions and brigades. For the most part, they made maximum use of our mobility. With our self-sustainability, ability to *move ourselves* quickly to remote areas, and our ability to cover large operational zones, commanders quickly realized what an excellent economy of force unit a light cavalry troop can be in this type of mission.

Throughout the deployment, the threat consisted primarily of criminal activity in the villages and towns, and suspected guerilla activity in the interior. While there was always that threat of a guerilla strike, policing criminals and dealing with everyday problems of the people was by far the largest reality. We always had guerrillas in the

back of our minds, but they rarely surfaced when military forces were present. At all times we talked to the people – who were very friendly and receptive – trying to glean information. Our work was made difficult by the fact that we worked in conjunction with the Panamanian Police. The people do not trust them, and when they were in our vehicles, the people would not give us any information.

Our types of missions covered a wide spectrum, as did the type of terrain in which we found ourselves working. One day, we would be conducting mounted and dismounted patrols through city streets, the next day mounted and dismounted patrols through countryside, mountainous terrain, or double- and triple-canopy jungle.

The first two weeks focused on security missions north of Panama City, patrolling suburbs and barrios to control the criminal element that had gained strength and weapons in the absence of authority following the invasion. We also spent time looking for and raiding weapons caches, questioning the people for information on Noriega's men or drugs, enforcing curfew, and pursuing leads. While these first two weeks mainly found us in the city and the barrios, at one point our platoon of three vehicles found itself on a mountain road, with jungle too thick to turn around, looking for 30-40 guys spotted earlier with AK-47s. The troop was spread very thin. For the close quarters (village and jungle) in which we found ourselves during the first two weeks, the M60 was probably the best weapon.

The last five weeks took us out of the city and into the interior. We were working out of Rio Hato, once the home of Noriega's elite, the Macho de Monte. Our basic troop mission was security of Cocle Province (60x90 km), and as part of this, we were tasked with reconning the entire province. As with the first two weeks, each platoon worked independently, conducting three-vehicle patrols. Often out of commo range, the platoons were basically autonomous. We worked as a troop only when more strength was necessary to conduct a raid on a suspected weapons cache, or to pursue information regarding armed men. Our missions in Cocle took us on long patrols over poor roads and rough terrain. Here, the .50 cal. would have been best, along with the TOW day and night sights (we did take the TOW night sight from Ord, and used it hand-held).

We often worked deep in the interior, where there were only Indian natives. Just as often, we worked in the various villages and towns closer to the Interamerican Highway, which crossed the province near the coast. In these villages and towns lived the more wealthy Panamanians, and often there were some who spoke English.

Any Spanish-speaking capability we had was invaluable, as were any medical personnel we had with us who could help the people in the interior where doctors were non-existent. When the word went out there was a medic present, it was not uncommon to see lines of women with children waiting hours to be seen.

In summary, we spent the seven weeks of field time performing a wide scope of missions. Each person and vehicle performed approximately 3,500 miles of patrols, throughout savannah, mountain, swamp, jungle, plain, and urban terrain.

Lessons Learned and Areas Deserving Special Emphasis:

A PK mission will not be a free-fire, multiple-target environment as a European heavy threat scenario might be. In Panama, the conduct of operations was affected by strict Rules of Engagement (ROE) placed on the occupying American force. Our possible encounters almost always included innocent civilian presence on the battlefield. Any threat would be wearing civilian clothes and be difficult to distinguish from the general populace. We had to designate marksmen on each vehicle to ensure controlled fire.

"Our possible encounters almost always included innocent civilian presence on the battlefield. Any threat would be wearing civilian clothes and be difficult to distinguish from the general populace."

When on a patrol or roadblock, the senior person was required to decide when the lock-and-load, warning-shot, and fire-to-kill criteria were met as laid out in the ROE. Often, this would be a sergeant vehicle commander or patrol leader. Without positive control over the element, it would be easy for a tense situation to escalate beyond control.

Due to the number of civilians, the heavy use of suppressive fire was impossible, and recon by fire was not an option. Selective and highly accurate fire was the only choice. Also, because of the number of civilians and because of the distance we were working from our parent elements, artillery support was non-existent. At times, we had close air support on a one-and-a-half-hour string, but even then, total loss of commo when deep in the interior made that a non-entity. Only once did we actually have an AC-130 on station above us, and a general had to approve its use.

In field problems, movement is rarely restricted, and platoons can

maneuver abreast almost at will. In Panama, movement was restricted to the roads. Almost all of the property bordering the roads is fenced, and because we were there to "win their hearts and minds," we wouldn't go maneuvering through their farms. Once engaged, this restriction would go out the window, but up to that point, it is one worth noting. It is known that one of the essentials in low-intensity conflict is domination of key roads and cities. That knowledge, coupled with being restricted to tight roads due to consideration for private property, led to predictable routes and limited maneuverability on our part – prime ambush situations. Training in action drills, fighting from the march, hasty target designation, and dismounting fire teams would be helpful here.

In Panama, recon ops were slow and thorough. Always on our own, there was never the need to move quickly to clear an area for units behind us. The missions were usually to move to a previously unpatrolled area and to see what was there, what the people's attitudes were like, etc. Against the small elements that were suspected to be in the area, a very slow and detailed recon was essential. Often, this would include driving up every little dirt road, dismounting along river beds to look for signs of camps, and stopping and talking to many people, etc.

An example of this detail was a mission near La Chorrera. There, we, along with a battalion-sized mix of light and mech infantry, spent three days searching a 15-by-20-km area for six men with AK-47s who had fired on an infantry patrol. The enemy wore civilian clothes, and we suspected that they often used the riverbeds when they moved. It took constant mounted and dismounted patrolling, to include screening, to cover our portion of the area.

Due to the number of civilians walking or driving on the roads, we had to conduct most of our patrols in service drive, making it easier to hide from us or ambush us.

Skills

As cavalry, we were often the first into an area, and many times the only unit to ever be in the area. This meant that we were expected to have and to perform all types of skills to adequately clear and gather intelligence on an area, to pursue suspected or known enemy or criminals, and to follow up leads on weapons caches, drugs, etc.

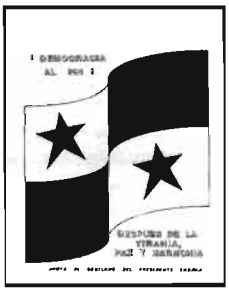
We constantly used MOUT skills in Panama. Units *must* receive MOUT training. Contrary to the "MOUT School" training we had exposure to at Fort Ord (which, in a nutshell, says, clear every room with a frag grenade and blow holes in roofs and walls for entry), the MOUT training we receive needs to be taught from a peacekeeping perspective. There needs to be civilian decoys in some of the rooms, and entry and room clearing techniques need to be tailored to minimize damage and innocent casualties. Nine out of ten times, you'll be chasing ghosts, and the house or building will be filled with women and children and no weapons or drugs.

Dismounted patrolling skills also proved critical. To properly clear an area, look for caches, or pursue suspects required dismounted patrols for many kilometers into a jungle, up a riverbed, or through city streets, slums, or villages. Junior

leaders need to receive a lot of exposure to dismounted patrolling. Against small groups of dismounted guerrillas or criminals who know the area, it is impossible not to dismount and still execute your mission effectively. Should you be able to get your hands on squad radios (PRC-126s), they could be very useful. Also, work on SOPs for quick dismounting. You may have to leave a vehicle and chase someone through streets without having had time to discuss it. You need to know where your buddy and vehicles will be.

A side note along the lines of dismounting is vehicular crewing. Our TO&E only gives us three-man crews. In Panama, four-man crews proved a must! You have got to be able to leave a gunner and driver with the vehicles as they follow the route of the dismounted patrol. This means to have a dismounted patrol of more than one man, there needs to be at least two people from each vehicle available. For the present, stacking crews might be the answer. For the future, the TO&E needs to be revised.

Each crew should be capable of performing maintenance well above operator level, and of improvising temporary solutions to problems. At times, being able to do so enabled



Posters played a part in winning hearts and minds.

us to return to base when otherwise we would have been stuck out overnight in a possibly hostile area, awaiting a mechanic's arrival. We were also able to assist the mechanic who was trying to support a whole troop's vehicles with limited resources. In peacetime, drivers should have maximum exposure to their vehicles while maintenance is being performed on them at all levels.

Also, due to the extensive distance we operated from our troop and its medic, a *strong* grasp of first aid by every man was imperative. Medics were hours away, and MEDEVAC was at times impossible due to zero commo. I recommend that every soldier take the Combat Lifesaver Course, and refresh the skills on a regular basis. Do not neglect terrain and weather-specific problems for areas to which you could potentially deploy. For us, in Panama, it was dehydration, infection, potable water, etc.

Every NCO and junior officer needs to be able to call in a helicopter for a MEDEVAC or to assist in a search. The ability to talk to and direct close air support, to include AC-130, should also be common to each NCO and junior officer.

Commo needs to be second nature to everyone. Be it trouble-shooting the radios, or improvising to regain commo, it needs to be a skill well learned. The terrain and distance of missions meant that a platoon often had trouble talking with base, or any command element.

Creativity was always useful, and often necessary to improvise and overcome the lack of resources available. For example, we found that the mine detectors not only served to help locate weapons caches, but also served to show the people that we were serious and that it was better to just tell us where the weapons were buried.

Also, for the missions we performed across Cocle Province, basic skills are still very important. The ability to quickly recon and classify a route was at times essential due to the length of some routes. Lack of a close parent/support unit meant that a firm grasp of engineer skills, to include demolition, was necessary.

While the skills mentioned above should be common to all, we felt it worth mentioning the special emphasis we found they needed in the PK role.

Leadership Challenges

Certain leadership challenges proved formidable. First, as I mentioned earlier, tight command, control, and discipline is essential. In a highly regulated, tense environment, with many civilians around, positive control is a must. Lack of it can only result in needless casualties and violations of the ROE.

A second challenge was the difficulty in finding the correct posture. As a leader, you had to juxtapose readiness, alertness, and preparedness with the fact that we were there to win the hearts and minds of the people. This is difficult when you intimidate them by rolling into their town with full camo paint, kevlar, flak vest, and weapons leveled. The signal it sent was that we were afraid of the people and didn't trust them. What they needed was to forget about the militant terror image they had been haunted with for so long, and begin rebuilding their nation. As a leader, finding the medium ground between safety of your men and developing a low-key, working, trusting relationship with the people was always a challenge.

The third major leadership challenge, and by far the most difficult, was to keep up the intensity of the men. Constantly being pumped up for a mission, only to find you were chasing ghosts, wore down the alertness and intensity of the men as the weeks went by. It was very easy to slip into complacency. Leaders must be strong, hard, and honest. Do not put forth false hype whenever possible, and avoid the "boy who cried wolf" syndrome. Again, this was by far the hardest job as a leader down there, fighting the complacency from weeks without contact. You must always remember that, when the enemy finally decides to hit, *he* will be at 100 percent, fully alert, and in a place of his choosing. Carelessness on your part *will cost lives.* Every NCO and officer heading into this type of conflict has got to be aware that he will face this problem!

Wrap-up

Preparing a platoon for a PK role begins in the schools. Armor officers and all NCOs going to a light

unit need to be schooled in low-intensity conflict and PK scenarios, problems, and skills. Units must then take articles such as this one, from people who were there, and fill in the gaps. The ultimate responsibility is with the unit, though branch schools need to stay on top of the latest experiences and ensure their teaching covers the lessons learned. These types of missions will only become more common. Junior leaders must receive early these points and potential problems to ponder, so they have plenty of time to prepare themselves and their units for this type of deployment.

Leaders have got to be put into highly stressful training environments. Work with restrictive ROE and deal with the command and control problems that result. Operate with no indirect fire support, limited mobility, and less than ideal tactical conditions. Leaders need to be forewarned that, due to the number of civilians and subsequent number of your own people hovering around for fear of an incident, they will be micromanaged from the highest levels.

Units need to train with MILES laser systems and civilian decoys; train for highly restricted, precision marksmanship; train alternatives to indirect fire. Train to fight from the march, and to conduct detailed recon where the objective is only a one- or two-man OPFOR. Train those skills that will be predominant emphasized in a PK role, to include MOUT, and dismounted patrolling. So much of the heart of preparing and training for this type of mission lies in the creativity of the unit.

One final point worth noting. Your men may resent the ROE. The ROE in Panama was restrictive, but it served to make us aware of the danger to innocent civilians. After a week in country, we came to get to know the people, and to realize what super people they are. We really got to like and respect them, and we would have felt very bad had any of them been killed by lack of discipline or preparedness on our part. On the other hand, to lose one of our men due to inaction or restrictions would not be easy to live with. It is a fine line you will tread in this type of mission.

Overall, the best advice we can give you is to be flexible. If you are employed the way we were, you will not be expected to perform strictly "cavalry" missions. Your firepower, mobility, and self-sustainability will have your parent unit using you in many varied *economy of force* missions. The PK mission we took part in as a light cavalry troop/platoon epitomized the fact that a 19D must be the jack of all trades.

This article is the product of platoon AARs covering the entire deployment, and, hopefully, it will provide some junior leaders, NCOs, and officers, some points of thought and some possible options to prepare for this type of role.

To prepare for a PK role, NCOs and junior officers in armor/cavalry need to have exposure to the following ideas, and should be offered training options in preparing for the mission.

- Extensive ROE will restrict a unit's ability to perform.
- The threat will be few, far between, and will probably look the same as the general populace.
- Heavy fire, and indirect fire, may be either nonexistent or heavily restricted.
- You may have to deploy with few of your major combat assets.
- Often politics will outweigh your ability to fight your platoon.
- Maneuver will be severely restricted, and predictable to the enemy.
- Operations will often be very slow, and very detailed.
- Interaction with the populace will be a must.
- Tactical maneuver may be sacrificed for safety.
- The extensive presence of innocent civilians will cause most of your operations and actions to be carefully planned, executed with tight command and control, and often performed at more risk to your life than normal.
- MOUT is a must, with civilian decoys.
- Four-man crews are a must.
- Every soldier must be fluent in combat first aid!
- Drivers/crews should be able to perform maintenance above operator level, and to improvise.
- Every NCO/junior officer should be able to communicate quickly and effectively with air assets.
- Commo, and commo improvising/fixing, must be second nature.
- The basic cavalry skills, with an emphasis on reconnaissance and engineer skills, are still essential.
- Be aware that significant leadership challenges will face you, primarily the need for tight discipline, the balancing of safety of men versus appearance to the populace, and the need to keep the level of alertness up among the men.

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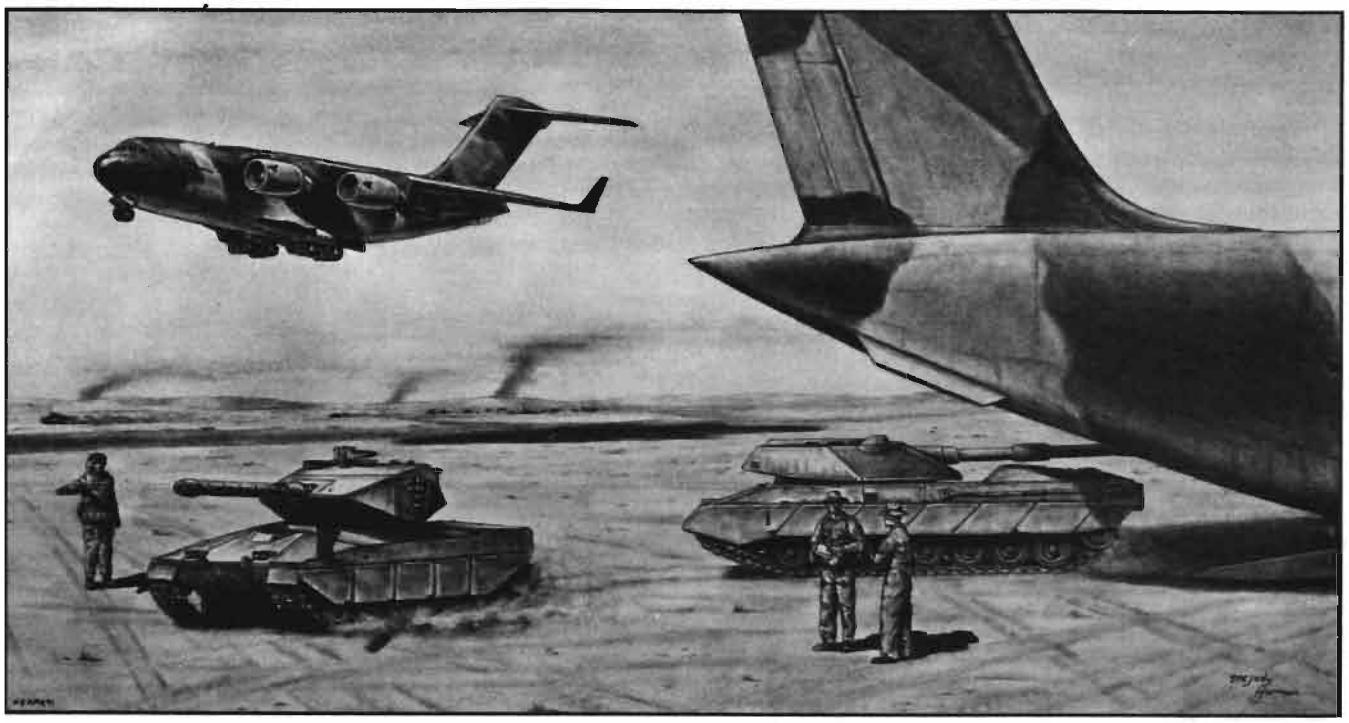


Future Heavy Forces: The Need For Better Air Deployability

by Captain Cole Milstead

The Army must re-evaluate plans for future heavy fighting systems. The best way to assure fielding of Armored System Modernization Program (ASMP) weapons is to reduce their size to fit into the contingency business. A "leap-ahead" in heavy force air deployability will give future planners a broader range of strategic, operational, and tactical options. Air-deployable heavy battalions will permit rapid force projection to reinforce light Army divisions and Marine elements. Even in light-intensity conflict, deploying heavy forces will dramatically shift the balance of combat power, as illustrated recently in Panama.

Some believe Operation JUST CAUSE showed that a light tank is sufficient to augment light forces. Certainly, we need an Armored Gun System (AGS) to replace the Sheridan in scenarios requiring forced entry airdrop capability. We should not be lulled, though, into thinking AGS makes light divisions competitive with enemy armor. With a 105-mm gun, AGS does not penetrate modern enemy tanks. With light armor, AGS will not survive long on a higher intensity battlefield.

To defeat heavier forces, light divisions would need many AGS battalions to compensate for low system survivability and limited combat effectiveness. This would require extensive new force structure per light division or contingency corps. Instead, picture a future balanced task force that can deploy using the C-17 sorties required to move two AGS battalions. Given this capability, all ten ground maneuver battalions and three field artillery battalions of the 24th Infantry (Mech) could air-deploy using 400 C-17 sorties. That is only two-thirds of the sorties required to deploy the 82nd Airborne.

Admittedly, those 400 sorties exclude some battalion equipment and other support assets of a heavy division. But if the contingency is in the Persian Gulf, we can preposition this other equipment in a host country or on prepositioned ships. The resultant force will provide a more credible defense against enemy armor until other heavy divisions can deploy by sea. POMCUS stocks in NATO provide additional justification for improving heavy weapon deployability. Congress may want to reduce future POMCUS stocks to save additional funds.

More deployable heavy weapons may allow us to preposition trucks and other less costly division equip-

ment. POMCUS stores of expensive tanks and other fighting systems can be substantially reduced if heavy weapons are more air-deployable.

Weapons that do remain in POMCUS can serve as a source of forward-deployed equipment for other contingencies. The shorter distance between Europe and the Middle East will reduce sortie turnaround time, making it easier to air deploy multiple heavy brigades with lightened armored systems. Some argue that at some point, instead of decreasing the size of threat-driven weapons, we must increase the number of air-deployment assets. We should. But a C-17 costs more than an entire battalion of M1A1s. In the current budget atmosphere, we are unlikely to convince anyone to buy more aircraft just because we decide to build larger armor systems.

The threat dictates the armor required to stop a given "bullet." It does not dictate that we buy bigger weapons with more area to be armored. Nor does it require that every weapon withstand a tank's main gun round, an ATGM, or top-attack munitions. For years, we have used tactics to evade such threats. We also need to get smart and use technology to build smaller weapons that survive by being harder to detect and hit.

A second argument often heard is that only a fraction of the heavy force will ever air deploy. Sea deployment will move the bulk of heavy forces to a contingency area. Therefore, why not build huge howitzers and future infantry fighting vehicles with tank-like armor protection as the ASMP proposes?

Comparison of C-17 Sorties Required to Deploy A Notional Current and ASMP Balanced Task Force

Current:

Number & Type of Systems	System Weight	C-17 Sorties Required
1 Combat Engineer Vehicle (CEV)	57.5 tons	1
28 M1A1 or M1A2 Tanks	65-70 tons	28
26 M2A1 or M2A2 IFVs	25-33 tons	*9-13
8 M109A6 SP Howitzers	30 tons	4
4 FA Ammo Spt Vehicles	Loaded 29 tons	2
12 M901A1 ITV	13 tons	**0
6 M3A1 or M3A2 CFVs	25-33 tons	*2-3
6 Pedestal-Mtd Stinger HMMWVs	4.5 tons	**0
		46-51 Sorties

*Smaller figure is for A1 models
**Assumes that all are deployed on same C-17s carrying tanks

Armored System Modernization Program:

Number & Type of Systems	System Weight	C-17 Sorties Required
1 Combat Mobility Vehicle (CMV)	50 tons	1
28 Block III Tanks	55 tons	28
26 FIFVs	50 tons	26
8 AFAS	50 tons	8
4 FARV-A	40-50 tons	2-4
6 LOSAT	30 tons	3
10 FSV	7.5 tons	*0
6 Pedestal-Mtd Stinger HMMWVs	4.5 tons	*0
		68-70 Sorties**

*Assumes that all are deployed on same C-17s carrying tanks
**A 33-52 % increase over sorties needed for current task force.

Table 1

The primary counter-argument against sealifting all heavy forces is response time. If Iraq had continued its attack into Saudi Arabia, light forces, AGS, and airpower could not have held for three weeks until heavy forces arrived on fast sealift assets. We need the capability to rapidly move substantial heavy armor to suddenly erupting contingencies.

Therefore, to maintain force commonality, all heavy forces must be designed to the most demanding deployment option. Otherwise, we need another specialized division requiring extensive development costs for limited procurement of unique heavy weapons. A few weapon differences in a contingency heavy division may be acceptable. But we cannot revisit the proliferation of weapons and force structure reversal with the elimination of the motorized division.

Once heavy forces arrive in theater by air or sea, the potential for intratheater transport will always exist, given the capabilities of the C-17 and the needs of the theater commander to rapidly shift combat power. Making the entire heavy force smaller enhances this capability. If it makes sense to air deploy heavy battalions to augment light forces, then what weapons

should shrink to make this an achievable option? Tanks are a natural choice for weight reduction because they have the most available to lose. The ASMP proposes a 55-ton Block 3 tank, reversing the "bigger is better" trend. This restores the combat capability to deploy two tanks on a C-5. One tank can also be carried aboard a C-17 with weight left over for other heavy or light forces.

Because tanks have always been the biggest air deployment challenge, it is curious to see that ASMP proposes a whole new generation of deployment problems. If the future infantry fighting vehicle (FIFV) and armored field artillery system (AFAS) grow to tank-like proportions, the advantage in making tanks smaller and procuring the C-17 airlifter will be totally eliminated. A future balanced task force with supporting artillery will require nearly 50 percent more C-17 sorties if ASMP is implemented! (See Table 1.)

To improve heavy force deployability, the FIFV, AFAS, LOSAT (Line of Sight Antitank Vehicle), and FARV-A (Future Ammo Resupply Vehicle) must grow smaller, rather than larger. If current systems weigh about 30 tons, composite technology and smaller modern drivetrains will make 25-ton weapons feasible while still upgrading ammunition payload and armor protection. This weight permits three vehicles to load aboard a C-17. It also allows both the 55-ton Block III tank and a 25-ton medium weapon to fit aboard the same C-17.

Table 2 shows the air deployment gains achieved with a 55-ton tank and a 25-ton medium family of weapons. This force alternative is the best one for the bulk of our heavy divisions. It provides a high degree of combat capability with greatly improved potential for intratheater transport, or transport from an adjacent theater.

CONUS-based battalions in a contingency corps heavy division or separate brigade need to pare down even further to make it realistic to air deploy multiple battalions. Because cavalry and scout organizations need a new, smaller, future scout vehicle (FSV) anyway, the same chassis, with more armor and firepower, can serve as a contingency-oriented FIFV carrying a fire team instead of a squad. A Soviet BMD weighs about 8 tons using conventional armor, and it is designed to carry seven soldiers. A similarly-sized wheeled or tracked composite U.S. FIFV carrying only five troops could weigh 10 tons, providing substantially more armor protection, defeating perhaps 30-mm AP rounds frontally.

Then, we reduce the weight of our 55-ton tank by 7.5 tons, to transport the lighter FIFV or FSV on the same C-17 carrying a tank and a medium armored vehicle. The contingency tank will be a stripped down variation of the 55-ton main battle tank. Frontal modular armor, and side-skirt armor can sea deploy or be prepositioned to minimize air deployment sorties. Lighter weight reactive armor can be used frontally and on top to defeat ATGMs and top-attack munitions until modular heavier armor arrives and is installed.

The combined use of a lighter variant tank and a smaller FSV-based FIFV reduces the C-17 sorties to deploy a contingency task force to just 29! The savings of seven C-17s over the proposed base TOE may not sound significant. It quickly adds up, though, if the contingency requires air deployment of numerous heavy battalions. The saved sorties become the primary billpayer, allowing other battalion equipment to air deploy.

Up to 11 more C-17 sorties can transport battalion or brigade FSB support equipment without surpassing 40 total sorties for each task force. The contingency heavy battalion's tanks and FIFVs will be

Example of Non-Contingency Combined Arms Battalion Task Force

Number & Type of Systems	System Weight	C-17 Sorties Required
1 CMV	50 tons	1
28 Block III Tanks	55 tons	28
26 FIFV	25 tons	*0
8 AFAS	25 tons	3
4 FARV-A	25 tons	**1
6 LOSAT	25 tons	2
10 FSV	7.5 tons	***1
6 Pedestal-Mtd Stinger HMMWVs	4.5 tons	***0
		36 C-17 Sorties

*Each FIFV is loaded on a C-17 carrying a single tank
**One of the four FARV-As and two AFAS are loaded on one C-17
***All HMMWVs and two FSVs are loaded on 2 C-17s each carrying a single tank.

Table 2

Proposed Contingency Combined Arms Battalion Task Force Versus Two Armored Gun System Battalions

Number & Type of Systems	System Weight	C-17 Sorties Required
1 CMV	50 tons	1
28 Block III Tanks	47.5 tons	28
44 FIFVs	10 tons	*0
8 AFAS	25 tons	*0
4 FARV-A	25 tons	*0
6 LOSAT	25 tons	*0
6 Pedestal-Mtd Stinger HMMWVs	4.5 tons	*0
10 Future Scout Vehicles	7.5 tons	*0
		29 C-17 Sorties

*All vehicles carried on 29 C-17s carrying either a tank or CMV. See Table 4 for load plan.

Two Armored Gun System Battalions (58 AGS each):		
116 Armored Gun System	19 tons	29 C-17 Sorties

Table 3a

Austere Battalion Task Force Support Package

Number and Type of Vehicles	Vehicle Weight	# of C-17s
11 HEMTT PLS w/ PLS trailer	partially loaded 40 tons	11
11 M577 Cmd APCs/M113 Ambulances	12 tons	*0
11 Five-ton trucks w/ trailer	partially loaded 17 tons	*0
22 HMMWVs	loaded 3.5-4.5 tons	*0
		11 Sorties

*One APC, 5-ton truck, and two HMMWVs are loaded on each C-17 w/one HEMTT PLS truck

Table 3b

only marginally less combat effective than the weapons in the proposed base TOE given the defensive, "buy-time" nature of the initial mission.

In the defense, use of hull-down positions can exploit the Block III tank's overhead gun design, reducing the impact of lighter frontal armor. Flanks will be less frequently exposed, precluding the immediate need for side skirts. The tank's 140-mm main gun will defeat any enemy armor. The reduced tank weight will enhance fuel consumption, making it easier initially to sustain the battalion.

The Block III tank may be fielded before technology is able to achieve a 55-ton tank. There is also a chance that the Block III tank will be based on an Abrams chassis. In either case, developers should strive to field as light a tank as possible. Modular armor will let us reduce tanks to 55 tons when lighter advanced armor or other technologies become available.

The contingency FIFV can be fielded with current technology. A small fire-team FIFV is more analogous to the dismounted infantryman. The substantially reduced silhouette is the biggest survivability benefit. If vehicles are hit and armor is overmatched, only half the squad is injured. Available mounted firepower doubles with two vehicles per squad instead of one. Individual squads gain a mounted overwatch capability. Maneuverability and concealment in confining terrain and built-up areas is also enhanced.

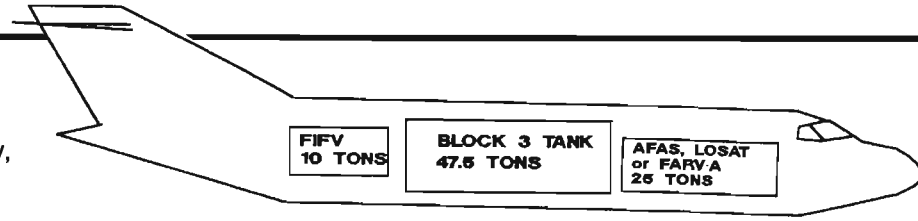
Admittedly, command and control of the squad is more complicated. Modern low-power communications equipment should solve that problem. On the positive side, fire team leaders will gain additional leadership and maneuver experience due to the additional responsibility of commanding a FIFV. Each platoon will have six FIFVs for the three squads, and one FIFV for the platoon headquarters. Large numbers of contingency FIFVs, based on equally numerous FSVs, reduce development and procurement costs and better justify unit PLL lines. A move to combined arms battalions may better distribute the maintenance of vehicles over a contingency division's ten battalions. Such a notional battalion is shown in Table 3a and 3b.

With a better idea of how a contingency task force appears and deploys, let us examine how it fights as part of a heavy-light mix. Envision a scenario in which U.S. forces deploy to the Persian Gulf to combat a large invading armored force. Army Rangers, an airborne brigade, and V-22 Osprey-mounted Marines arrive first to augment the invaded nation's division-sized force defending a port/airhead. A heavy-light brigade with two battalions of airborne infantry and one heavy combined arms battalion task force air lands, using 50 C-17 sorties (Table 4).

The combined force assumes the mission of securing and expanding

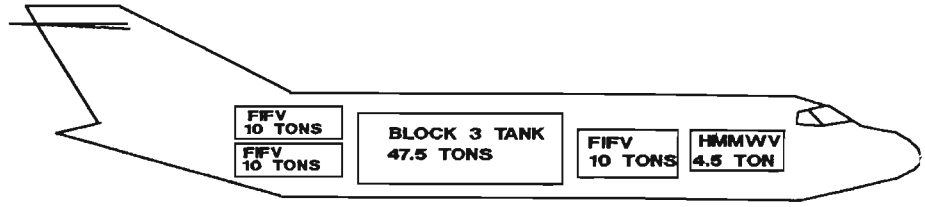
Eighteen C-17s

82.5 tons without infantry,
86 tons with 28 light inf.



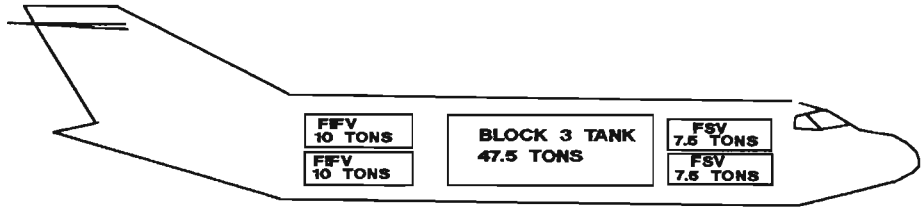
Eight C-17s

82 tons without infantry,
86 tons with 32 light inf



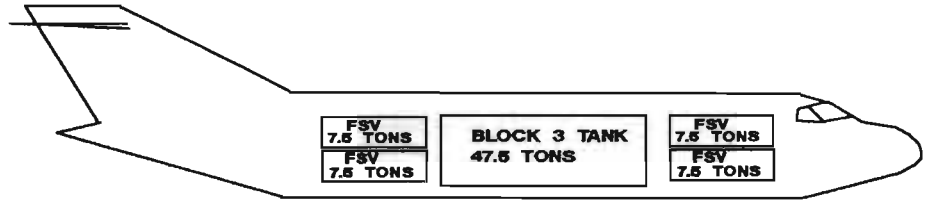
One C-17

82.5 tons without infantry,
86 tons with 28 light inf.



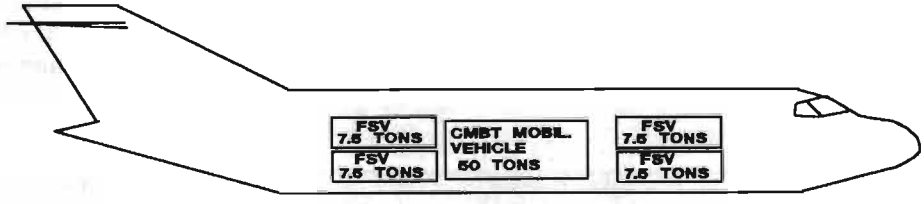
One C-17

77.5 tons without infantry,
81.5 tons with 32 light inf.



One C-17

80 tons without infantry
84 tons with 32 light inf.



Eleven C-17s

77 tons without infantry
81 tons with 32 light inf.

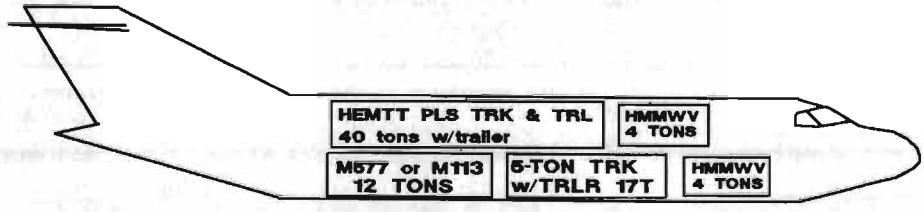


Table 4.

Load Plans for Deployment of a Heavy/Light Brigade Task Force

NOTE: Vehicle crewmembers are also included in weights. Light battalion support vehicles and other personnel are deployed on 10 other C-17 sorties. See Table 3b for description of heavy support package shown above.

the port/airhead to keep it outside artillery range. The contingency corps' aviation brigade and ATACMS assets also air deploy and begin attacking enemy armor at a distance, aided by carrier-based BAI support. Another heavy-light brigade, and a pure heavy brigade airland just as three enemy divisions at about 60 percent strength approach the port/airhead.

Our forces and allies in the fight defend during the day and conduct limited counterattacks at night against the larger armor force. Air deployment of supplies, supporting COSCOM, and CS forces continues unabated, thanks to adequate combat power on the ground. Heavy battalion palletized load system (PLS) trucks use the airhead as the supply point for class III and V needs. Prerigged PLS pallets with combat-configured loads, slide off MAC aircraft ready for front-line units.

The rest of the Marine Expeditionary Brigade and some heavy division support equipment arrive aboard prepositioning ships. This provides the logistical base, support structure, and adequate additional heavy forces to maintain the defense of the port/airhead, while concurrently beginning more offensive operations. With our allies and Army light forces, Marines assume the defensive mission against the enemy attackers, now at less than 50 percent strength.

Heavy Army elements (five battalions) from the heavy-light force break out of the encircled port/airhead and move to block two fresh enemy divisions approaching nearby oilfields. Three FIFV-equipped infantry companies from five heavy battalions supporting an air assault division 200 kilometers away, are sling-loaded by CH-47 to help reinforce the oil fields.

Blackhawks lift light hunter-killer teams into the dunes around the oil fields to engage enemy armor using AAWS-M. Other UH-60s, overwatched by heavy battalions, dispense Volcano minefields along the enemy's axis of advance. Air Force BAI, Longbow Apaches, and ATACMS fires reduce the divisions to 50 percent strength before the first ground maneuver element engages the enemy.

A tank-heavy battalion with supporting artillery deploys from Europe loaded on 45 C-17s. It lands on a remote austere airfield well beyond the five enemy divisions. Navy and Air Force fighters provide supporting air cover. The battalion decimates the enemy's supply trains as it maneuvers back to rejoin its own supply lines and put the weak remnants of the attacking enemy divisions in a vise grip back at the port/airhead.

Fast sealift ships begin to arrive and offload additional heavy forces. After sufficient forces are combat ready, a major armor spearhead is launched to destroy enemy forces and drive them back into their own country.

All ten ground maneuver battalions, three artillery battalions, and austere support forces from the proposed contingency heavy division could deploy using 400 C-17 sorties. In contrast, the same number of sorties would transport only seven task forces equipped with current weapons. Finally, just five ASMP heavy battalion task forces could deploy with the same 400 sorties.

If prepositioning is not possible in the Middle East, or if the contingency is elsewhere, the best option may be to attach heavy battalions to a light division until other heavy division organizations deploy by sea. Light division aviation, air defense, military intelligence, signal, chemical, and military police forces should be able to temporarily support a heavy-light division mix. Some heavy division engineer augmentation will be essential. Air deployment of one Combat Mobility Vehicle (CMV) or several Armored Combat Earthmovers per heavy battalion may be sufficient initially to support the force.

Light division CSS organizations can temporarily support heavy force needs if they receive COSCOM or heavy forward support battalion (FSB) augmentation. To minimize heavy FSB sorties, only medical, fuel, and ammunition resupply organizations are immediately essential. Lighter weapons reduce augmentation requirements. For instance, ASMP tank-sized FIFVs and AFASs would require twice as many supporting fuel trucks.

Highly accurate future heavy weapons, coupled with smart munitions, will decrease initial ammunition consumption. This particularly applies to the field artillery, which historically consumes the most ammunition on the battlefield. The concentrated use of smart munitions

by initially deployed artillery forces will be highly effective in a target-rich environment. This allows expenditure of fewer rounds to achieve the same effect. Forces will transition to more conventional rounds when the logistical infrastructure is intact.

These ideas are open to debate. What is clear, is that the Armored Systems Modernization Program is on the wrong track. It is a force that fails to get to future wars "firstest with the mostest."

We must revise the ASMP and make heavy battalions more air deployable to build support for the already reduced C-17 program. The decision to buy 90 fewer C-17s is indefensible. If we do not buy enough C-17s, the aging C-141 fleet may need a service life extension to support light force deployment. Congress will show more inclination to fund necessary airlift capability if it sees we are not just paying lip-service to the need to deploy heavy forces by air.

Up until now, we have yet to explore fully the "air" in AirLand Battle (ALB) doctrine. The ALB-Future Concept places even greater emphasis on a non-linear battlefield, stressing maneuver force agility and long range fires. We must be capable of deploying heavy maneuver and fire support forces by air to a non-linear theater, and around that theater once there. The combined capabilities of the C-17 and a more agile heavy force offer that possibility.

Members of other combat arms often express dismay that Army Aviation's priority continues to increase. The reason for that emphasis is planners count on Army aircraft being with the first to fight in conflicts ranging from high to low intensity. They task Aviation for such contingencies, not simply because aircraft are highly combat effective, but because they can either self-deploy or fit aboard airlifters using fewer sorties.

The heavy force has an opportunity to make up some of its lost ground. It, too, can become a deployable combat force, ready to support national interests anytime, anywhere.

Captain Cole Milstead enlisted as a combat engineer, attended the USMA Preparatory School, and graduated from West Point in 1980. He was commissioned in Infantry, graduated from flight school as a UH-1H pilot in 1981, and joined Aviation Branch in 1983. He served with 3d AD as HHC XO and aviation battalion support platoon leader. Afterward, at the Aviation Center, he served as a combat developer and commanded an ATC company. He subsequently served in the Sinai with the Multinational Force and Observers. Currently, he is acting chief, Concepts Branch, Directorate of Combat Developments, Ft. Rucker, Ala.

TANKER!

Tanker, watching in the night
Ready to begin the fight
With your flaming fists of steel
Pushing forward, set to kill

Let the tyrant shrink and cower
Seeing your most noble power
Rush into his land of fear.

"Sabot" till the way is clear.
"HEAT" the ridgeline, spray the hollow.
Punch the way that others follow.

Track where others would not dare!
Boldly rumble anywhere!

Never do you tread alone:
Human soul with flesh and bone
That break and bleed make up the light
Which shines within your metal might.

Let your own light be your Savior
Whose defeat of evil gave your
Life new meaning, strength new goal.

Help Him make His World whole!

— Chaplain (CPT) Patrick J. Dolan
Fort Monmouth, N.J.

SOUM:

The Safety-of-Use Message Network

Attacking Problems in a Flawed System

by the Directorate of Total Armor Force Readiness

Picture this scenario: You are the maintenance officer for the 1st Battalion, 10th Armor, 23d Armored Division. You observe one of your maintenance teams as it lifts the powerpack from a C Company M1A1 Abrams. As the M88A1 Recovery Vehicle begins to back the powerpack away from the tank, the sling holding the engine suddenly fails. The powerpack drops like a boulder, glancing off of the rear of the tank as it crashes to the ground, breaking into dozens of pieces. As the dust begins to settle, you first notice the smashed engine lying on the ground near a crushed grille door and the badly scarred back end of the tank. Then beyond, you notice the C Team Chief grimacing as he clasps his hands over his eye. Beside him, the hull mechanic, SGT Jones, is standing hunched over, holding his arm. All you can think is, what a mess!

Several days later, the investigating officer appears at your office. He begins, "Captain, I've got some bad news for you. My preliminary findings indicate that the equipment loss will amount to approximately $320,000 worth of damage to government equipment. The engine was a complete loss, and the back of the tank and grille doors were pretty badly damaged.

"I haven't been able to determine the medical costs yet, though. Fortunately, SGT Jones just broke his collar bone from that pipe that broke off, so his medical expenses won't be that bad. SFC Wilson, however, is a different story. That sheared bolt that hit him may cause him to lose his eye. The doctors aren't sure yet what the outcome will be, or if there's any disability involved. The bottom line is that you are responsible for two seriously injured two soldiers and will be responsible for repaying a lot of medical bills and equipment damage."

Your only feeble response is, "Why me?"

After a few minutes of explanation, it all became terribly clear. Approximately three months earlier, an urgent safety-of-use message (SOUM) had been issued, forbidding the use of a type of engine sling. As you virtually never emptied your distribution box at battalion headquarters, the message that your logistics representative put there had apparently collected dust for several weeks, along with everything else. Consequently, this vital safety information never reached the men who needed it, your mechanics. And it was your fault.

Not a very pretty picture, is it? With the way that some individuals and units track SOUMs though, this is certainly not an improbable scenario. Fortunately, nothing as serious as this example has occurred yet.

Many people in the safety community acknowledge that the SOUM network has major problems. A real example of the magnitude of this problem was exaggerated in the earlier scenario. TACOM issued an urgent SOUM on the M1 engine sling in October of 1990. Personnel from the Directorate of Total Armor Force Readiness at Fort Knox surveyed armor battalions worldwide and discovered that only 17 percent of the surveyed battalion maintenance leaders had received the message five weeks after it was released. Several surveys combined revealed that it takes approximately six weeks before 50 percent of armor battalions get SOUM to the user level. Clearly this is unacceptable, and is a major accident waiting to happen.

Several problems exist with the SOUM system today. Those problems exist from the top all the way to the bottom. Fortunately, Army Materiel Command (AMC), the Army Safety Center and many other commands recognize that there are SOUM weaknesses. A comprehensive solution may not be immediately forthcoming. An understanding of the problem will hopefully help users see some of the subtleties of the situation, so that they may better attack the problem in the interim.

At its simplest level, there are three fundamental problems with the SOUM network: format, dissemination, and tracking. Each of these three areas further contain several contributing factors.

The area that will require regulatory change over time is format. To see through the fog created by poor format can be an initial hurdle in solving the problem. Unfortunately, the format problem starts at the very beginning of the SOUM. Each of the subordinate commands of AMC numbers its SOUM differently. For example: TACOM 90-40, AMCCOM 40-90, and CECOM 40-90, could be in

reference respectively to: M1 tanks, 120-mm tank rounds, and VRC-89 SINCGARS radios. Therefore, it is very important to include the AMC subordinate command abbreviation and SOUM subject matter whenever discussing or transmitting information about a SOUM (e.g. TACOM 90-40, M1 Series Exhaust Duct Seal). This way, there is no confusion about which SOUM you are referring to, or its subject.

The next format problem will strike the reader in the very first paragraph. SOUM are worded so as to be kind, in that they say the reader "should" retransmit the message, and they "are requested" to acknowledge receipt. The fact is, there ought to be no flexibility on the dissemination of SOUM. For practical application purposes, the SOUM reader should substitute the kind words with the word, "will."

The last area that I classify as a format problem is created by a periodic lack of required coordination at the SOUM author level and above. Whenever a SOUM is generated, all systems that could possibly be affected are supposed to be evaluated to see if they should also be included in the SOUM. For example, a SOUM applying to the M1 tank may well also apply to the M60A3. Sometimes coordination fails, and a system that should have been included falls through the cracks and does not get included in the SOUM. For this reason, it is important for the user to carefully look at each SOUM and see if a system that the user has may have been inadvertently omitted from the SOUM.

The next major problem area is dissemination. This problem is frequently nothing more than a common sense problem by the individuals or agencies passing the SOUM.

The first component of this problem lies with SOUM addresses. In many instances, the only way that some SOUM will reach an installation is through an AIG at Logistics Assistance Offices (LAO) or Safety Offices. If this is the case, you need to do one or both of two steps. First, hound your LAO and safety representatives relentlessly to keep updated with the latest SOUM. Second, send a message or memorandum to the headquarters controlling the AIG, and ask to have your unit included as a specific addressee in the AIG. The thing to remember with this portion of the problem is that communications center personnel will only give a SOUM to agencies that are on the address list. Therefore, the solution is to become an addressee, or go to the addressees.

The second component of the dissemination problem may occur at any number of unit levels. The problem is that many recipients of SOUM may not know to whom to give them for action. The safest countermeasure to this problem is to officially designate one individual or office to clear all SOUM that come into the brigade or battalion, or whatever echelon in question. Whoever clears the SOUM must be familiar with a wide variety of systems to ensure that the SOUM are routed properly (e.g. the reviewer should not be dumbfounded when reading a SOUM for the M231 5.56mm Submachine Gun, but should realize the SOUM addresses the M2 Bradley's firing port weapon). The reviewer must still guarantee that the commander receives a copy of the SOUM, in addition to the action officer, so that the commander may track the issue and place any added emphasis that he wishes.

The last major problem area with SOUM is tracking. Current SOUM regulatory guidance requires users

The bottom line though, is that commanders must get SOUM so that: they know about the problem; they can place extra emphasis, or specific guidance; they can suspense compliance; and, they can ensure that the mission is accomplished.

of the identified equipment to respond within 15 calendar days regarding projected compliance with SOUM. There is, however, no procedure to ensure compliance within a unit.

The solution for the tracking problem has a two-pronged approach. The first prong includes what was discussed under dissemination, the command channels issue. SOUM must get into command channels. It does not matter whether this is done by direct address, or through information copies distributed by reviewers or action officers. The bottom line though, is that commanders must get SOUM so that: they know about the problem; they can place extra emphasis, or specific guidance; they can suspense compliance; and, they can ensure that the mission is accomplished.

The second part of the tracking solution pertains to unit level records keeping. File copies of the SOUM should be maintained at the reviewer level (to account for all incoming SOUM), and the action officer level (to account for SOUM specific to his equipment). Keep these records in case a future question arises about the SOUM, or a new piece of equipment arrives, which the SOUM covered.

Additionally, the unit should establish some sort of standard procedure to indicate that the steps of a SOUM have been applied to each and every vehicle or item of equip-

ment in question. Record procedural SOUM on a by-name roster. A couple of possibilities for equipment records include: 1) maintain a file folder on each piece of equipment and simply place a note or memo in the folder; 2) make a small pencil annotation in the remarks block of the DD Form 314 (Preventive Maintenance Schedule and Record). Include the AMC command issuing the SOUM and its number (i.e. TACOM 90-40). This way, when your new motor sergeant shows up nine months later and asks if you performed the steps in SOUM 90-40, you can pull the record and show him. Additionally, your SOUM file will allow you to cross reference to the exact SOUM for further details from your annotation on the DD 314.

The SOUM system, as with any bureaucratic network, has its pitfalls. Responsible agencies are researching the problems to try and work out lasting solutions. In the interim, it is up to commanders, leaders, and NCOs in the field to ensure that every soldier who needs to have SOUM information gets it. Anything less is a disservice to our soldiers and an accident waiting to happen. Some of the ideas presented here hopefully will help you work through any problems that you may have in getting and tracking SOUM. The bottom line is to get the SOUM expeditiously, get the word to your soldiers, and get the word to your soldiers, and get the SOUM by whatever means you can until a foolproof system is emplaced.

The Directorate of Total Armor Force Readiness surveys Active and Reserve component Armor/Cavalry units worldwide, to ensure that they receive urgent SOUM. If you are having any problems receiving any SOUM, or have suggestions for solving the problem, call DSN 464-TANK (24 hour recording), or DSN 464-7752/4847 (COM: 502-624-7752/4847).

Letters

Continued from Page 3

Badges for other branches would not dilute the worth of the infantry award; on the contrary, they would reinforce the Army's age-old concept of combined arms. The awards would surely boost morale.

Each branch could dictate requirements for the award of the badges. For instance, tracked vehicle crewmen (scouts and tankers) could be required to demonstrate expert gunnery, tactical, and individual skills. Soldiers would have an incentive to excel.

The design of these badges could be modeled after the EIB/CIB. The badge's field could vary with each branch.

Perhaps the role of the various direct and indirect fire branches has been secondary to that of the infantry in previous conflicts (a debatable point), yet it is clear that no one branch is superior (despite our Cavalry claims to the contrary) to any other. The infantry is only one part of the equation for victory. Branch politics and traditions of the service are not easy to comprehend from my place in the sand – alongside the infantry.

2LT RICARDO O. MORALES
3d ACR
Saudi Arabia

Tankers and Scouts Due Equal Recognition

Dear Sir:

I am writing this letter for publication in hopes of gathering support for a proposal I am making as a concerned officer and member of the Cavalry/Armor community. Knowing the widespread influence your publication has, I have high expectations that circulation of my recommendation will perhaps sway influential people to agree with me and my associates on whose behalf I am writing.

What I am strongly endorsing is an Expert/Combat Armor Badge in two classes: those awarded to tankers and those awarded to scouts.

I realize that this is no new issue in the Army and that Armor has been pushing for such an award for over a decade. I hope to list my own experiences as viable reasons for creating the award for all the hard working tankers and cav scouts in our Army today. I especially feel strongly about the timing of this endorsement immediately following the Perisan Gulf War, truly an Armor-dominated ground conflict. Let me state for the record that although there were thousands of hard working infantrymen who helped win the war, (a) they couldn't have done it by themselves, and (b) they already have the CIB and EIB as an award.

On that note, let me say that the Infantry has been awarding EIBs and CIBs for decades now to infantrymen who successfully accomplish all tasks needed to fulfill combat or combat-related tasks. What should also be known is that tankers and scouts perform many of those tasks just as successfully, i.e., land navigation, first aid, radio/telephone procedures, emplacing Claymore mines, etc., not to mention the many gunneries, NTC rotations (truly an armor-dominated training event), and REFORGERs participated in. In the aftermath of the recent war, making particular note of the huge, "miraculous" success of the ground conflict, it should be even more apparent that Armor needs its own qualification badges as symbols of the hard work, dedication, and effective service of its members, and also as an enhancement to esprit de corps. I do believe these are some of the major reasons Infantry has its own qualification badges.

As a scout platoon leader in the 1st Cav Division's cavalry squadron, I have been an eyewitness to the professionalism, devotion, and hard work of today's cavalry scouts, my unit being merely a representative of the whole. Also, as a former tank platoon leader, I can attest to the quality of today's tankers; but do not take my word for any of this, just review the war record of the ground units involved.

One thing I noticed in my unit, and specifically in my platoon, that prompted me to write this letter was the fact that I have five 11M infantrymen in my platoon assigned as observers and drivers. It is the same for the other two platoons. These men served valiantly and deserve their Combat Infantry Badges, but the rest of my platoon served just as heroically and are not eligible for any such award because they are 19D cavalry scouts. Also, the mortar section assigned to my troop will receive CIBs for each member, and, although they are deserving, it should be noted that they supported us from a doctrinally induced central position behind a screen line of cavalry scouts who

protected their flanks. These cav scouts are, today, not eligible for a Combat Armor Badge, therefore, the inequities are blatantly obvious.

Now, let me also say that the establishment of this award should be such that armored crewmen who served in war are eligible for a CAB, and the Armor Center will obviously have to establish criteria for the testing of future armor men and the awarding of EABs in peacetime. As a further note, I have discussed this issue with my fellow officers, scouts, and tankers, and not only are they in full agreement, but we have also discussed the badges' designs. We are not being precocious, just possessing a belief that the men who would wear the badge should have a hand in creating it. What we propose is the Tanker Badge as the Armor insignia on a yellow enamel background similar to the blue one of the Infantry. For cav scouts it would be a single saber on a red enamel background. As with the CIB, awards earned in combat would have a wreath around them.

As it should be, the Army will have the final word on this proposal, but as a loyal, dedicated officer who cares about the future of the Army, Armor, and my soldiers and comrades, I felt it necessary to push for this award. On behalf of all members of the Armor community, I feel that this would be a positive award and that the Army would be doing the right thing by its implementation.

JAMES M. BURTON
1LT, Armor
Trp B, 1-7 Cav
1st Cavalry Division

M1 Attack "Unwarranted"

Dear Sir:

Jeffrey S. Goldfarb's letter in the September-October 1990 issue (T-64 no "supertank") still disturbs me, even after reading the excellent rebuttals in the November-December 1990 issue. What bothers me is Mr. Goldfarb's unwarranted and vicious attack on the M1 tank.

Mr. Goldfarb seems to infer in his letter that the only reason we built the Abrams was to counter the T-72/64, which just isn't true. Yes, I heard all the same stories he did from the instructors at Ft. Knox about why it was so important to field the M1 to counter these vehicles, but the bottom line is that we needed a new system in the field to replace the aging M60 fleet. The Abrams has done this so well that we've had to rethink our warfighting doctrine in order to accommodate the increased capabilities of the system. We've gone from "active defense" to "AirLand Battle," which emphasizes offensive shock action using combined arms. We couldn't do this with the M60, or maybe we could have, but not very well.

Mr. Goldfarb also makes some assertions about the tremendous cost overruns and mechanical unreliability of the M1 with which I also take issue. I don't deny that the Abrams is expensive, but then again what state-of-the-art tank in the world isn't these days? The M1's cost compares very favorably with every other frontline Western tank deployed today, from the Leopard II to the Challenger. Additionally, calling the M1 a mechanical "dog" is totally without merit and irresponsible. Perhaps if Mr. Goldfarb had stayed in the Army long enough to learn how to keep the vehicle operational, he'd have a different opinion. I've been a platoon leader, executive officer, and commander of M1 units, and I've never seen the "dog" face of the M1 surface. Quite to the contrary, the vehicle is very easy to work on, and in my experience is extremely reliable. The only time I witnessed excessive down time with the system was at the NTC, and the way those tanks get used out there, it isn't surprising. But even then, the down time only involved one or two vehicles in the fleet and not a systemic problem across the board. The measure of a vehicle's OR rate has more to do with the maintenance procedures enforced by the owning unit than anything else.

Now, having said all that, I still feel the M1 could be an even better system than it is now. However, I make these recommendations with my head held high because I believe in this tank. A lot of what I'd like to see on the M1 is already programmed to be added, some of it isn't and may never be, but that doesn't change the confidence I have in this outstanding vehicle.

1. I'd like to see an AP grenade launcher on the vehicle for close-in defense, or maybe an AP grenade that can be launched from the M250 smoke launchers.

2. I'd like to see a gun tube position locator in the driver's compartment, so the driver always knows where the gun tube is relative to the front slope.

3. Under-armor APU!

4. I'd like to see the COAX stowage reduced on company commander's tanks and above so that a second radio mount could be installed under the first one. This would definitely help C^2 at company and battalion level.

5. Since we've gone to a HEAT/SABOT mix only, I'd like to see some sort of intermediate weapon between the COAX and the MAIN gun that the crew could use when it had a target too small for the main gun, but too big for the .50 or the COAX. If the range was great enough, the crew could also use the weapon to mark targets for aircraft with smoke rounds.

6. I'd like to see a final drive odometer, similar to what semis use, to help keep track of usage. DIPs get changed out a lot, and sometimes the mileage isn't carried over, which makes it difficult to properly record usage. A final drive odometer will always stay with the tank, and if we can develop a clear road wheel hub, I know we can do this.

7. I think we need a MILES system that allows you to boresight the tank normally.

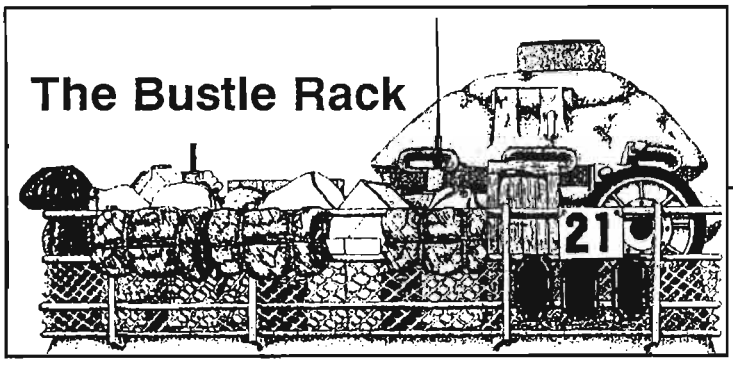
8. I think we need an external phone. I know this is in the works.

9. I think we need to put the azimuth indicator back in the gunner's station.

10. Kind of off the subject, but I think we need new coveralls. We missed the point when we developed tanker's NOMEX, because NOMEX loses its protective qualities when it gets greasy, oily, etc. We should take a look at what race car drivers are using right now, because I think it's in the right direction. Develop the flame retardant suit as an undergarment to a coverall system that can get dirty without degrading the system. If we do this, can we sew a pistol holster inside? It would sure makes things easier inside the tank!

Oops, I got carried away there. Let's hope everyone didn't fall asleep. Anyway, Mr. Goldfarb posed a question in his letter that he should not have asked. In response, all you have to do is take a look at history. The T-34 did as much to win WWII as any other vehicle. By the way, I didn't notice Israel as a world leader in tape recorders, computers, and cars, but they've fielded the MERKAVA, haven't they?

CPT THOMAS C. HOUSTON II
5th Signal Command
FRG



Anniston Army Depot Maintenance Repair Hotline

Anniston Army Depot has a Maintenance Repair Telephone Hotline for the M48, M60 and M1-series combat vehicles; the engine, transmission, and power train for these vehicles; for AVLBs, M88s, and M551s/M551A1s; as well as for land combat missile systems (to include the LANCE launcher/loader transporter). The hotline can also be used for problems relating to small arms, mortars, and recoilless rifles. This hotline can provide assistance to field units that are having difficulty in resolving equipment problems and is an additional source of information for the soldier, the field maintenance technician, and the logistics assistance officer. So, if you have a problem with any of the above identified items, try your supporting units, the AMC Logistics Assistance office, or give us a call, and we'll do our best to help you solve it! Our hotline number is: (205) 235-6582 or DSN 571-6582.

Saber Award Winners

LTG Dave Palmer, Superintendent of the United States Military Academy and the Academy's senior Armor officer, will present the Armor Association Cavalry sabers to West Point's top academic and military Armor graduates during graduation week exercises May 27-31.

Cadet Blake K. Puckett of Annapolis, Maryland, will be honored for achieving the highest cumulative grade point average of the 116 cadets branched into Armor this year. He entered his final semester with a 3.895 average.

Cadet Matthew D. Morton attained the highest cadet military rank, serving as a cadet battalion commander. The Bethel, Ohio, resident also had served as a battalion command sergeant major.

Battle Staff Noncommissioned Officer Course

A new course for staff NCOs began in January 1991 at the U.S. Army Sergeants Major Academy, Ft. Bliss, Texas. The first pilot has ended. The reaction from the first graduating class was overwhelmingly in favor of the new course.

The Battle Staff NCO Course was designed at the academy, and will integrate the current Operations and Intelligence and Personnel and Logistics courses. But, according to its developers, the course will be more than a simple meshing of the two existing courses; it is a completely new course, designed "to train battalion and brigade staff NCOs to serve as integral members of the battle staff and to manage the day-to-day operations of battalion command posts."

NCOs were already learning their specific duties in the existing course. What wasn't happening, according to SGM Phillip Cantrell, was an effort to train battle staff NCOs to function and fight as an effective team. SGM Cantrell helped develop the Battle Staff NCO Course.

Training will actually begin before the NCO arrives at the school, according to SGM Cantrell. "We are planning a six-week course which is far shorter than the ten-week Operations and Intelligence Course and two weeks longer than the Personnel and Logistics Course. With an overall reduction in course length, some of the material NCOs need to know will have to be completed by correspondence before their arrival."

SGM Cantrell said the proposed solution is to select students a minimum of four to eight months before course attendance and enroll them immediately in the Army Correspondence Course Program. After completing the required number of lessons, prospective students will receive a certificate, which they will present to an academy faculty advisor when they report to Fort Bliss for the resident phase of the course.

All the resident training will be performance oriented, based on the ARTEPs for heavy battalion, heavy brigade, and light infantry battalion. The underlying principles of the course are synchronization and "train as you fight."

The following is a schedule of class dates for the remainder of the FY:

Class #	Start Date	End Date
3-90	20 May	28 Jun
4-90	8 Jul	16 Aug
5-90	26 Aug	4 Oct

The Battle Staff NCO Course is geared to handle 160 students per class. If you have any questions on how to apply, you may call Armor Branch, commercial (202)325-9080 or DSN 221-9080.

Letterkenny Employees Support Desert Storm

Letterkenny Army Depot employees successfully tackled another special short-turnaround project in support of Desert Storm.

Depot employees assembled and prepared for shipment more than 800 replacement tracks for the M1A1 Abrams tank. The track, which was stored at New Cumberland Army Depot, Pa., is usually sent to Anniston Army Depot, Ala., for assembly. Anniston overhauls and repairs the M1A1. However, in the interest of

time, the track was brought to Letterkenny in Chambersburg, Pa.

Employees worked around the clock for two weeks just before the ground war broke out to get the track out on time. Letterkenny normally assembles tracks for howitzers and other tracked vehicles; however, normal production is about ten tracks per month.

The Draper Combat Leadership Award

The annual Draper Combat Leadership Award recognizes the outstanding armor or cavalry company or troop in each division, separate brigade, and armored cavalry regiment in the U.S. Army, to include Army Reserve and National Guard units. It is not a new award. The history of this prestigious program is the legacy of LTC Wickliffe P. Draper. In 1924, LTC Draper developed a plan to test and recognize combat leadership in small cavalry units. The first tests were held at Fort Riley, Kan., then the Cavalry School.

Since that start nearly 70 years ago, the award has evolved. In 1928, LTC Draper created a trust fund to ensure the permanence of the award, and the competition expanded from Fort Riley to posts throughout the United States. In 1939, cavalry regiments that had been mechanized began to compete for the award, thus ensuring its continued relevance in a modernized Army.

During World War II, the competition was suspended, but was resumed in 1946 under the title of the Armored Cavalry Leadership Award to reflect the new reality of the force. Since then, the competition has continued to evolve.

Today the Draper Combat Leadership Award, represented by the "Goodrich Riding Trophy," is awarded not on the results of a test, but on the overall performance of a unit. This was done for both practical and economical reasons. Economically, it is no longer necessary to allocate funds for a "Draper Test;" the results of all of a unit's field exercises are considered during the competition. Examining the functioning of a unit throughout the year gives a better evaluation of the true performance of a unit and its leaders than a one-time test.

All company-sized armor cavalry units assigned to divisions, separate brigades, armored cavalry regiments, or U.S. Army Reserve Readiness Regions are eligible for consideration for the award. Air cavalry troops and attack helicopter companies organic to armored and cavalry ground units are also eligible. The program is open to U.S. Army, Army Reserve, and National Guard units.

The Draper Award program also recognizes individuals for their demonstrated leadership in courses at Fort Knox, recognizing the outstanding leadership graduates in both ANCOC and AOBC for their contributions and efforts while students.

The point of contact for any questions regarding the Draper Award Program is Leadership Branch, USAARMC, Fort Knox, Ky. 40121, phone: DSN 464-4948/5450 or commercial (502) 624-4948/5450.

Elimination of MOS 19E

Effective 1 October 1991, MOS 19E will no longer be a valid active component MOS. Commanders need to make every effort to ensure that all 19Es transition to 19K before this date. There are two primary options available to accomplish this transition.

(1) M1 Tank Commander Certification Course (TC^3) at Fort Knox. If an MOS 19E soldier is scheduled to PCS, ensure that he contacts his career advisor in PERSCOM (DSN 221-9080) and gets scheduled for the course enroute to his new duty station. The course can also be taken in a TDY-and-return status, depending on the unit's available funds.

(2) Supervised on-the-job training (SOJT). SOJT packages are available from your installation learning center or from the M1 NETT Team (Commander, USAARMC, ATTN: ATZK-DPT-NET, Fort Knox, Ky. 40121 or DSN 464-1661/5504).

Many soldiers may have transitioned, but still require the appropriate administrative actions to be completed. A review at Fort Knox found a large number of 19Es who had been awarded MOS 19K, but the appropriate paperwork had not been submitted to PERSCOM.

Failure to convert soldiers to 19K before 1 October 1991 could have an adverse impact on their careers. During this era of force structure cuts, SERB, and QMP, we need to do everything possible to protect our quality soldiers.

Questions on 19K transition, to include the administrative requirements, should be referred to Mr. Henley or SGM Gray at Directorate of Total Armor Force Readiness (Commander, USAARMC, ATTN: ATZK-TFP, Fort Knox, Ky. 40121-5000 or DSN 464-3188/5155).

Armor Center Hotline

Have you ever had a question you needed to ask someone at the Armor Center, but didn't know who to call? Well, here's your answer, the Armor Center Hotline. Operated by the Directorate of Total Armor Force Readiness (DTAFR), the Hotline is a 24-hour service that can get you an answer. When you call the Hotline, you will be asked to leave your name, unit, a telephone number, and of course, your question or request. DTAFR will get back to you with a response within 72 hours and often it will be less than 24 hours. If the question isn't answerable within 72 hours, DTAFR will contact you with a status, then track the action to ensure you get a final answer.

Recently, the use of the Hotline has been declining, with most requests from Reserve Component units or recruiting offices asking for publications or publicity-type items. While DTAFR is happy to help fill these requests, the Hotline is also meant as your entry into the Armor Center for doctrinal, training, equipment, and safety issues. DTAFR will do everything it can to get your question answered, even if it means going to agencies outside the Armor Center. So, if you've got a question relating to Armor, call DSN 464-TANK or commercial (502)624-TANK and give the Hotline a try.

Seeks Oral Histories for D-Day Collection

The director of the Eisenhower Center is calling on all veterans of the Normandy invasion, in whatever capacity, to contribute their own taped oral history to the D-Day

collection at the Center, where they are attempting to preserve the record of the common soldier, sailor, or airman. For the 50th Anniversary, they plan to publish a book, "Voices of D-Day," based on the oral histories.

For details, write Stephen E. Ambrose, Director, The Eisenhower Center, University of New Orleans, New Orleans, La. 70148.

Keep Your CMIF Up To Date

The Career Management Information File (CMIF) is a tool used by career branches of the U.S. Total Army Personnel Command for making assignments and professional development decisions on staff sergeants, sergeants first class, and master sergeants. The file contains a copy of the Official Military Personnel File (OMPF), microfiche, Efficiency Reports, and DA Forms 2A and 2-1. The information in the CMIF is forwarded after being processed at the Enlisted Records and Evaluation Center at Fort Benjamin Harrison, with the exception of the OMPF, which is sent upon request. The Enlisted Preference Statement (DA 2635), previously kept in the CMIF, has been rescinded.

DA Forms 2A and 2-1, which are required attachments for many personnel actions, are used when making decisions about your assignments and schooling. When this information is not current, the difficulty in making the right decision at the right time increases. PSCs are required by AR 640-2-1, Para 3-3, to send copies whenever the forms are being remade or upon completion of a full audit.

The assignment information on file is accumulated from assignments made by TAPC, applications and requests received, letters written to or prepared within the branch, and general correspondence that has had an impact on your assignment status.

It must be emphasized that the CMIF is not used in any way by DA centralized selection boards for promotions, schools, or QMP.

Direct questions about the CMIF to MSG Galloway, Armor Branch, EPMD, TAPC, DSN 221-9080 or commercial (703) 325-9080.

Armor Branch Notes

The TC's Hatch

by COL Stephen E. Wilson
Chief, Armor Branch, OPMD

Operation Desert Storm – a campaign which will be forever synonymous with success and total victory – is, for all intents and purposes, over. The Army's contribution to this victory was made possible through the selfless and dedicated efforts of all of its soldiers, both active duty and reserve, and its civilians. Those who did not deploy, the majority of the Army, also performed magnificently and contributed substantially to the overall success of the campaign. From training RC units at the NTC and Fort Hood to training RT-12 soldiers, IMAs, and IRRs at Fort Knox; from those sent TDY to SWA from every post and MACOM, CONUS, and OCONUS, to those who were in professional development courses such as OAC, CGSC, AWC, etc.; from those who worked incredible hours in identifying and fixing shortcomings in both equipment and logistics to those who quickly formed NETTs to transition units to the M1A1 Abrams tank – everyone played a crucial role in making our eventual victory possible.

As our units redeploy from SWA, the Army must shift its attention to confront less violent challenges, such as the programmed reduction of the Army to 535,000 active duty soldiers by the mid-1990s. A challenge which all of us must face head-on is a perception voiced by both officers and noncommissioned officers that those without Desert Storm experience will be disadvantaged when they compete with their Desert Storm peers for schools, promotions, assignments, and retention. On 13 March 1991, MG Robert L. Ord, III, CG, PERSCOM, met with GEN Carl E. Vuono, CSA, to discuss this perception of "1st team, 2d team." GEN Vuono gave the following guidance.

- Future wars are likely to continue to be "come as you are" conflicts in which participation is a function of where one is assigned at the time of deployment. Those not deployed will not be penalized for something over which they have no control.

- Officers and NCOs will receive fair, impartial treatment in personnel actions based on all of their past performance and demonstrated potential.

- No personnel files will be marked to reflect Desert Storm experience and no one will be allowed to request officers and NCOs just because they have Desert Storm experience.

The CSA will ensure that his commanders understand his guidance. DA Selection Board members will receive appropriate instructions which stress that what counts is the total performance and demonstrated potential over one's entire career, regardless of SWA service. For example, if the Army resorts to RIFs to reduce the active force, Desert Storm experience/nonexperience will NOT be a criterion for retention/separation.

In sum, our leadership is committed to ensuring that personnel decisions are based on fair, equitable assessments of the whole person – one's performance and demonstrated potential over one's total career. The unsung heroes of Desert Storm – those who didn't deploy to SWA, but who were and are responsible for our Army's high state of readiness – will also be among our future battalion/brigade commanders and command sergeants major.

Desert Storm was a total team effort. Our success is a result of hard work and dedication which resulted in a stunningly swift and total victory. American soldiers – especially tankers and cavalrymen, regardless of where they serve – contributed to this victory. YOU ARE ALL WINNERS!

Reunions

- The 11th Armored Cavalry's Veterans of Vietnam and Cambodia will host its sixth reunion 2-4 August 1991 in Philadelphia, Pa. For more information, contact Pete Walter, 8 Tallowood Drive, Mt. Holly, N.J. 08060, telephone (609) 261-5629.

- The 11th Armored Division reunion will be held 14-18 August 1991 in San Antonio, Texas. For more information, contact Alfred Pfeiffer, 2328 Admiral St., Aliquippa, Pa. 15001.

- Blackhorse troopers who served with the 11th ACR and its detachments in the Republic of Vietnam, between August 1966 and August 1967 ONLY. interested in attending a reunion to mark the 25th anniversary of the Blackhorse Regiment's deployment to Vietnam should contact (CPT) Gil Perrey, (415) 477-9211; (1SG) Jim Embrey (502) 737-8671; or (CPT) Bill Abbey, (919) 766-5857 (evenings). This initial reunion is planned for 24-26 August 1991 in Alexandria, Va.

BOOKS

Light Forces and the Future of U.S. Military Strategy by Michael J. Mazarr. Brassey's, New York, 1990. 180 pages. $32.

Before August 2, 1990, the future of the U.S. Army seemed to lie in "contingency operations." As early as 1979, General "Shy" Meyer, then Chief of Staff, proposed the creation of a new type of motorized light division. The goal was to create a deployable, very lethal, and tactically mobile division. The 9th Infantry Division (Motorized) and the High Technology Test Bed organization at Fort Lewis, Washington, were to be the means of developing this force.

Then, in the mid-1980s, the new Chief of Staff, General Wickham, launched a new initiative, the Light Infantry Division. The new force was to be austere and deployable in a way no other American division was. Sacrificing tactical mobility and anti-armor lethality, the new LID was to be lifted by not more than 500 C-141 sorties.

While today only a single motorized brigade remains of General Meyer's bold new experiment, four active duty divisions and one National Guard division are organized under General Wickham's design. Don't be fooled by the title of Mr. Mazarr's book; his future does not lie with the LID of General Wickham.

Relying on open sources and interviews, Michael J. Mazarr follows the evolution of the light division concept from the tactically mobile and well-armed motorized division to the strategically deployable, but tactically immobile and inadequately armed, Light Infantry Division.

In addition to the historical evolution, Mazarr devotes four chapters to an analysis of the possible contingencies and the low-, mid-, and high-intensity conflict spectrum. He illustrates point by point the weaknesses inherent in the structure and equipment of the Light Infantry Division. The weaknesses of the Light Infantry Divisions extend across the spectrum of conflict and across all the capabilities necessary to a combat formation.

The Light Infantry Division, while admirably suited for rapid deployment, lacks tactical mobility, adequate anti-armor weaponry, medium-range indirect fire support, and even the minimum logistical support necessary for sustained combat. The Light Infantry Division is capable of extended operations only if supported by extensive corps-level assets. It is able to delay in a mid-intensity conflict only if on easily defended terrain. And its ability to operate even in a RACO mission in a high-intensity conflict against a Soviet-style force is at best minimal. Mazarr makes all these points and goes on to compare the non-American experience and the capabilities of the motorized division against this standard.

Perhaps the best argument for reading and absorbing Mazarr's book was in General Schwarzkopf's final briefing. While the forces of Central Command were still attempting to reach Saudi Arabia, and the light divisions were employed on forest fire watch, the best defense for our allies and our initial forces was the over-inflated reporting of the press. Will that be sufficient in the future?

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The Transformation of War, by Martin Van Creveld. The Free Press, New York. 1991. 254 pages.

Martin Van Creveld, as both historian and analyst, has contributed a great deal to the study of war. His earlier works on supply, command, and technology are classics of penetrating historical analysis. Unfortunately, his latest study, The Transformation of War, misses the mark. Creveld's thesis is simply that "contemporary strategic thought is fundamentally flawed." It is flawed because current strategic thought is dominated by the influence of the German military philosopher, Carl von Clausewitz. Clausewitz' On War was based upon his experience and study of the Napoleonic Wars. Creveld maintains that Clausewitz' interpretation of war between nation states is no longer adequate to explain modern warfare.

The author begins by attempting to demonstrate the failure of conventional armies since 1945. He then organizes his analysis around fundamental questions of for what purpose, by whom, and how wars are really fought. Clausewitz' dictum that "war is a continuation of politics" is discarded as Creveld stresses growing religious and ethnic reasons for war. He emphasizes the dominance of low-intensity warfare and claims that war between nation states is obsolete. He offers that "wars for territorial expansion are over." Clearly, the book was published before the Gulf War.

Creveld's real subject is not the transformation of society. His vision of the future is centered on the decline of the nation state and the rise of what is best described as tribalism. Even more disturbing is that by rejecting the Clausewitzian dictum that wars are fought for reasonable ends, we are left with a human lust for violence. We make war for war's sake. Creveld's view of the future is one we should commit ourselves to avoid.

With the decline of Communist ideology and the apparent rise of nationalism, there is no reason to assume that the European model of the nation state will not continue to monopolize the most important forms of warfare. I cannot recommend this book for everyone. The serious students of Clausewitz will find it thought provoking; the rest of us will find it simply depressing.

MICHAEL MATHENY
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The Forgotten Victor: General Sir Richard O'Connor, by John Baynes. Brassey's, 1990. 281 pages. $24.95.

O'Connor was the soldier's soldier. At his memorial service in 1981, Lieutenant General Sir George Collingwood spoke of him thus: "The chief facets of his character were, I think, great courage and determination, an impelling sense of duty, loyalty, extreme personal modesty, kindness and generosity, and a delightful sense of humor. I think the jokes he liked best were those against himself."

John Baynes has written a very readable account of the life of this undoubtedly great man. His early formative years include his almost incredible luck in surviving four years in the trenches during the First World War, a period that earned him a DSO and bar, and an MC. During the post-WWI years, he served in India and Palestine as the youngest major general of his day. Then, in WWII, he commanded XIII Corps in the Western Desert, the period of his career upon which his fame forever rested.

It was here that O'Connor's greatest qualities shone through. He drove the

Italian 10th Army from Cyrenaica, destroying it utterly, and he would have carried on to the gates of Tripoli had not Churchill and Wavell (then O'Connor's commander-in-chief) deemed intervention in Greece more important, a decision that military historians still argue over today. And then came tragedy, O'Connor's chance capture by the Germans after some poor map reading. The book covers his imprisonment in Italy and includes a fascinating chapter about his successive escape attempts and the life and mental outlook of senior officers enduring captivity (there cannot have been a more troublesome batch of 50+-year-olds in Europe!).

His eventual escape is followed by command of a corps in the crucial stages of the battle for Normandy. Captivity has taken its toll, though, and there is the taste of a lost edge. He falls out with Montgomery (over an American divisional commander under his command – Montgomery wants the general sacked, but O'Connor, ever loyal to his subordinates, fights the issue). Inevitably, Montgomery wins, and O'Connor sees the war out in India. Postwar, a rather sad period as adjutant general to the ever-triumphant Montgomery, results in another clash and retirement. By then, this brilliant soldier was weary, and the effects of nearly 30 years of very active service have taken their toll.

John Baynes does well to bring out the extraordinary phases in O'Connor's life. He also poses the great questions: What if O'Connor had taken Tripoli? What if he hadn't been captured? Baynes' liking for the man is obvious throughout the book. And why not? O'Connor's immense integrity shines through in his every action. This is what generals should be like, and those aspiring to such heights would do well to read this book. The rest of us mere mortals can but read and wonder.

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War By Other Means by Jeffrey Herf, The Free Press, New York, 1991. 357 pages. $27.95.

War By Other Means is a very detailed account of the last cold war battle, which was the deployment of intermediate range missiles by the superpowers in Europe during the late 1970s that culminated in the signing of the intermediate range nuclear force treaty in 1987. This work gives good insight into the use of military coercion and deterrence being interjected into the domestic political battlefield of West Germany. The strategy evolved around using the indirect approach to attack at what Clausewitz separately described as one of the strategic centers, which is neutralizing allies of your opponent.

The author describes how the Soviets deployed the SS-20s (a mobile missile with three nuclear warheads) with no ready response by NATO. The ploy was to develop a strategic nuclear arsenal that would only threaten the NATO alliance, and not the United States, thus forcing NATO to respond. This in turn would touch off a political maelstrom that would result in West Germany being severed and slowly "Finlandizing" the country under Soviet hegemony.

The book concentrates on the West Germans trying to muster the political courage to deploy the nuclear-tipped Pershing II and cruise missiles. It goes into excruciating detail about the intelligence framing the arguments both for and against the deployment of the weapons. This work shows how seemingly unrelated events in domestic policy, world events, and the history of Nazism that still haunts the German mindset had influence on the decision. It also relates how different institutions, such as the political parties, the church, and universities interact to form a national consensus. Mr. Herf does a good job in showing how the Soviets tried to influence the arguments and hide the fact that the SS-20 deployment of over 352 systems with 1,053 warheads was "no threat to Europe," while the much less capable American/NATO response would overturn the balance.

The battle shows how resilient democracy can be (even in the wake of 500,000 people demonstrating against the missile deployment). The NATO systems were deployed, and in 1987, Presidents Reagan and Gorbachev signed the INF Treaty, eliminating a whole class of weapon systems. The book shows that, although this cold war battle may not have been the decisive factor, it did have a direct influence on the Soviet Union loosening its grip on Eastern Europe. If the West Germans had left the NATO alliance and come under the Soviets' will, would they have taken the route they did?

The author, Jeffrey Herf, who teaches international relations and European politics at Emory University, knows his subject matter and has written another book, Reactionary Modernism, which also revolves around Germany. However, this book is not for everyone. It is not easy to read or easy to comprehend. It is very dry and reads like a doctoral dissertation (its bibliography and footnotes comprise more than 100 pages). The salient points of this work could be made in 30 pages. The subject of the book is very interesting for a professional military man, but this book may not be the vehicle to educate or even keep the average reader awake.

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Passage of Lines

Colonel Harrison H. D. Heiberg, a cavalryman since 1919, and a tanker since 1940, died April 20, 1991, at the age of 90. Graduated from the USMA in 1919 and commissioned a second lieutenant of cavalry, Heiberg served with the 1st, 6th, and 10th Cavalry Regiments and instructed Cavalry at VMI and USMA.

He was with the Detachment for Mechanized Cavalry Regiment at Fort Knox from 1932 to 1936 and was an Aide de Camp to BG Adna R. Chaffee in 1939. He later organized the 7th Reconnaissance and Support Squadron.

He served as G-3, III Armored Corps; and as G-3 Plans Chief, 1st U.S. Army Group during WWII. From 1948-1951, he served as president, Army Field Forces Board No. 2 at Fort Knox.

Colonel Heiberg was the featured speaker at the 50th Armor Force anniversary observance at Fort Knox on July 10, 1990.

24th ID Gives T-72 & BMP to Patton Museum

Photo by Dean Kleffman

Photos by MAJ Patrick J. Cooney

The 24th Infantry Division formally presented an Iraqi T-72 tank and BMP-1 to the Patton Museum and Fort Knox during the annual Armor Conference on May 8. The division captured the two vehicles in the Euphrates River valley during the Gulf War. In top photo, the tank is lifted off a railroad car at the Boatwright maintenance facility. Lower photos are of the presentation ceremony in front of the museum.

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