Baghdad, Kut, and An Najaf were scenes of concerted attacks by the Mahdi army throughout Iraq on 4 April 2004. On that afternoon, elements of the Mahdi army engaged multiple elements of 2d Battalion, 5th Cavalry Regiment (2-5 CAV), 1st Cavalry Division, nearly simultaneously throughout Sadr City in northern Baghdad. Twenty soldiers from Comanche Red Platoon, 2-5 CAV, had become isolated in the northern central portion of Sadr City, and available vehicle assets prohibited the unit’s exfiltration. Soldiers from C Troop, 2d Battalion, 37th Armor (Crusaders), attached to the 2d Armored Cavalry Regiment (ACR), conducted a hasty attack into Sadr City to relieve the isolated infantry platoon.

The Crusaders had been operating in Sadr City since October of 2003 when an ambush in the city killed and wounded a number of troopers from 2d Squadron, 2d Armored Cavalry Regiment (2/2 ACR). From October 2003 to April 2004, constant operations in Sadr City had familiarized the 2d Battalion, 37th Armor (2-37 AR) with the local terrain, which proved vital during the attack. The 2/2 ACR redeployed to Fort Polk, Louisiana, in March, and the Crusaders began to work for 2-5 CAV (Lancer), which had assumed responsibility for Sadr City. The Crusaders carried out two major combat operations to relieve Comanche Red, which led to a 3-kilometer fight out of Sadr City to evacuate the platoon and their casualties.
**Sadr City: The Armor Pure Assault in Urban Terrain**

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**Standard Form 298 (Rev. 8-98) Preprinted by ANSI Std Z39-18**
The Initial Attack by Crusader Blue Platoon

Crusader’s third platoon, with four M1A1 tanks, stood by as a quick reaction force (QRF), on order from the commander of 2-5 CAV, as a result of perceived higher tensions in Sadr City.

At approximately 1630 hours, following Lancer’s decisive contact throughout Sadr City, Lancer Main called Crusader X-ray and informed Crusader to ready the QRF immediately and send it northeast of routes DELTA and COPPER to relieve Comanche Red, which had suffered casualties and was isolated and in continued contact. Crusader Blue left its operations base at the Martyrs’ Monument within 10 minutes and proceeded northeast along route AEROS and then northwest along route FLORIDA to begin its attack northeast up DELTA to relieve Comanche Red. Crusader Blue turned northeast on DELTA and had initial contact just north of the district advisory council (DAC).

Crusader Blue fought for several minutes traveling northeast up DELTA toward route GOLD and received several rocket-propelled grenade (RPG) rounds from the buildings on the eastern side of DELTA, none of which hit the tanks. Small-arms fire was very intense however and came from both sides of the street. All four Crusader Blue tanks engaged the enemy on both sides of the road with coax, .50-caliber, and M240 loader’s machine guns, M4 carbines, and M9 pistols. Many of these attackers were dressed in Iraqi police uniforms, and third platoon substantially reduced the attackers’ numbers.

Blue 1 ordered the platoon to continue to fight north. After fighting past route GOLD, RPG and small-arms fire continued, and about 500 meters northeast of GOLD on DELTA, Crusader Blue suffered three casualties. Blue 2 decided to move off of DELTA to get to a position where he could assess the casualties. He turned southwest off of DELTA between route GOLD and the Sadr Bureau, then traveled southeast to route CHARLIE. Crusader Blue followed his move. Blue 1 ordered his platoon to follow his move back to route DELTA and continue the attack. At the same time, Crusader 5 informed Crusader Blue that they should move their casualties to a hasty casualty collection point (CCP) at the intersection of routes AEROS and COPPER. Blue 1 brought his tank back to DELTA and turned northeast, but the remainder of the platoon continued to the hasty CCP. Blue 1L informed Blue 1 that the other tanks in the platoon had not followed. Blue 1 immediately ordered the tanks to consolidate at the DAC and continue their attack.

The platoon’s other three tanks moved to the CCP to conduct casualty procedures. After the casualty exchange and receiving several hundred rounds of 7.62mm ammunition from Crusader White in an up-armored high mobility, multipurpose wheeled vehicle (HMMWV) platoon, the three Crusader Blue tanks returned to the DAC and consolidated with the unit. As the C Troop commander, I was at Camp Cuervo, battalion headquarters, during this operation and immediately returned to the Martyrs’ Monument to ready the three remaining tanks to join Crusader Blue to form a larger element with which to conduct a subsequent company attack.

Crusader Attacks

On arrival at Martyrs’ Monument, I mounted my tank with my crew and proceeded to the DAC using the same route as Crusader Blue. A section of two tanks from Crusader Red also arrived, bringing the company’s strength to seven tanks. Both ra-
We came under intense small-arms contact 300 meters north of the DAC from both sides of the road, just as Crusader Blue had experienced earlier. We fired coax and .50-caliber to kill and suppress the enemy and continued to move. Two to three hundred meters south of route GOLD, we received RPG fire, and small-arms fire began to accurately hit our tanks. Red 1G returned fire with 120mm high explosive antitank (HEAT) rounds at RPG positions on the southeast side of DELTA, 500 meters to our front.

The hydraulic servo valve (Delta P) went out on my tank and I was forced to fight in emergency mode, which meant stopping to stabilize the main gun and coax machine gun for the gunner. Given the constricted terrain and better position for command and control at the front, I was not willing to send another tank to assume the lead of the left file. After we passed GOLD, fire intensified with the company receiving more than a dozen RPGs, none of which hit. All of them seemed to hit short and did not traverse our turrets well there. Blue 1 also went open hatch and gave the order to attack northeast up route DELTA. We attacked immediately.

The company attack from the DAC to Comanche Red’s location in a section of buildings northwest of DELTA, I coordinated with Comanche Red 1 on the battalion command net for our arrival and he updated me on the situation. We coordinated nonstandard casualty evacuation, which would be done on our tank turrets, and prepared his platoon for our arrival. We continued the attack to Comanche Red’s position under intense fire. The sun had started to go down when we began the Meredi market attack fighting and it was very near end evening nautical twilight (EENT) when we arrived at Comanche Red’s location. The fight through the market near the Al Thawra Iraqi police station was brutal and very close to a great number of barriers and burning barricades.

The company attack from the DAC to Comanche Red’s location was four kilometers and it took us over an hour and a half to fight. My primary concern was to preserve my force and remain focused on killing the enemy and clearing the route for any additional casualty evacuation or recovery efforts. Comanche Red 1 confirmed that none of his four wounded were urgent. Additionally, DELTA had very poor practicability with dozens of burning roadblocks and roadblocks consisting of large metal objects such as air conditioners and refrigerators. These obstructions caused us to set multiple SBFs along the route to allow either Red 1 or me to maneuver on the obstacle and attempt to reduce it with our tracks. The roads and alleyways that ran perpendicular to DELTA all had to be cleared by gunners before the column could advance because we identified early that the primary RPG threat was to the flanks.

On arriving at Comanche Red’s location, I set far side security with four tanks and two of my tanks provided center sector and
rear security. Fire at this location remained intense for several
minutes. The enemy assailed us from windows and rooftops.
Our most effective weapons were carbines and loader’s M240
machine guns in the center and to the south. I dismounted and
ran down the alleyway where Comanche Red Platoon was de-
fending.

I assessed the situation and informed Comanche Red 1 to ac-
count for his men and equipment, and I would load the casual-
ties onto my tank and lead the way out. My tank was also in clos-
est proximity to the alleyway where they had established a pla-
toon defense. Contact remained constant and intense to the north-
est. After I dismounted my tank to coordinate with Comanche
Red, Blue 1 reapportioned our defense, relocating Blue 4 to cov-
er an exposed alley across the street on DELTA from the alley-
way in which Comanche Red was defending. Blue 4 killed many
enemies in this alley that had been firing down the alley at Co-
manche Red and me.

Gunnerson the forward four tanks killed at least 15 enemy sol-
diers, all at ranges under 100 meters. Blue 1 and I engaged at-
tackers in the south with carbines as close as 20 to 30 meters,
while the infantry platoon readied to load on our tanks. Duke 6
arrived with his tank and distributed ammo to our tanks as we
were going black on both 7.62mm and .50-caliber ammo. I re-
mained on the ground and went back to the infantry platoon and
supervised as casualties were loaded onto my tank. Comanche
Red had three HMMWVs; one had been destroyed and burnt to
its frame.

The enemy continued to attack from the north as we were sta-
tionary. They attacked three times using cars or vans, all of
which were destroyed and their occupants killed. The enemy at-
temtended drive-by shootings with their lights off, but they did not
drive quickly and were easy targets for coax engagements. Ci-
vilian cars blocked Comanche Red’s path from the alleyway.
They had to use their HMMWVs to push these cars out of the
alleyway, which took a long time. It took us about 30 minutes at
this location to develop and brief the plan, conduct casualty evac-
uation, and clear the alleyway to get the HMMWVs. We were
in contact with the enemy the entire time.

After we accounted for all friendly personnel and equipment,
we continued to attack northeast up DELTA to turn southeast
down SILVER to return with casualties to Camp War Eagle.
Route SILVER is very narrow, so I ordered the company to
close to a file and follow. I attacked with Blue 2, Red 1, and Red
4 behind me. Two of the 2-5 CA V HMMWVs followed the four
lead tanks. Blue 4, the third 2-5 CA V HMMWV, and then Cru-
sic 6G was in the rear. Contact on SILVER was as intense as
it was on DELTA. On the northeast (left, given direction of at-
tack) of SILVER is a canal with generally open fields of fire.

"API was penetrating too far and there was too much of a risk of killing innocents. HEAT causes a
great deal more structural damage, but dissipates after one or two rooms, killing everybody at the
point of impact. We need to think of collateral damage more in terms of innocent civilians being killed,
rather than reconstructing buildings used by the enemy. Using 120mm HEAT has more of a decisive
tactical advantage and limits unnecessary deaths."
To the southwest (right) there are a row of houses and shops. We had heavy contact at the intermittent shops, but little from the houses.

B Troop, 2-37 AR (Battlecat) had set a defensive position at the intersection of routes SILVER and AEROS, which was to our front, so we could only engage with coax once we were fairly close to their position. Carbine engagements from tank commanders’ hatches on the right side of the tank turrets proved most effective. The first five tanks and two HMMWVs fought all the way to Camp War Eagle using this method.

The infantry fought amazingly with multiple tires shot out on their HMMWVs. It was a great help to have the infantry on the turrets; they easily and effectively engaged the enemy. The last HMMWV broke down and Crusader 6G pushed the HMMWV with his tank at speeds of about five miles per hour for two kilometers to Camp War Eagle. About two-thirds of this distance was along SILVER where contact persisted. Crusader 6G engaged enemy on roofs and in alleyways with his M9, M16, M203, and .50 caliber, while commanding the tank and instructing the driver on how to safely push the HMMWV. Blue 4 returned to provide security to Crusader 6G and Duke 6 followed our march element to provide rear security.

When we arrived at Camp War Eagle, we downloaded the casualties from Comanche Red and entered Camp War Eagle to refuel and rearm. We also received some equipment that White 1 had brought to us, including more night-vision devices and a .50-caliber machine gun to replace the one that had been destroyed during the fight. I proceeded to the tactical operations center and debriefed Lancer 6 as my men refueled and rearmed. I then conducted adjacent unit coordination with Comanche Blue Platoon for a subsequent mission to move in and secure the Al Thawra Iraqi police station. This would begin the sixth day of constant intense night defenses of Iraqi police stations in Sadr City.

The Power of Experience

The company attack, relief of Comanche Red, and attack to Camp War Eagle lasted over three hours. We were in constant contact the entire time. There were many salient lessons learned from this attack:

**Reconnaissance by fire is very effective against strong dismounted opposition in urban terrain.** The Mahdi army fought very courageously and demonstrated good tactical patience waiting to engage until we were within effective range of their weapons systems. However, the Mahdi army was not disciplined once engagements began. They rarely waited for flank shots with their RPGs, electing instead to fire at our oblique fronts so that they still had time to escape. Their positions offered little or no mutual support and they had a tendency to break contact or relocate when we conducted recon by fire. This was especially critical at the Meredi market where both main gun and coax machine gun fire flushed many of the enemy out of the cover and concealment they took in the dense market stands. The enemy usually tried to exfiltrate away down alleyways, but often had to run from positions of concealment to these exfiltration routes, so it was easy for us to anticipate where to kill the enemy. Tanks in second positions of the combat column could cover these exfiltration routes as lead tanks flushed these enemy elements out of concealment and cover.

During military operations in urban terrain (MOUT), tank units without infantry support need to fight open hatch. Naturally, there are terrain considerations in Iraq that would affect this, but even when surrounded by buildings three or four stories tall, it proves to be most effective, as you can fire rifles and carbines out of your turret hatches without exposing the loader and tank commander. The enemy fought primarily from ground level. We killed a number of enemy on rooftops, but constant fire from our coax machine guns and .50-caliber machine guns kept them from putting together cohesive attacks from two- and three-story building rooftops. Reflexive fire from loaders and tank commanders with carbines accounted for a substantial number of enemy casualties on rooftops at ranges under 50 meters. During this and subsequent battles, the enemy fired almost constantly from the hip. They all fired on automatic and did not appear to aim their shots. Our loaders and commanders were exposed from the shoulders up, but could deliver very accurate fires at close range and showed the discipline to do so.

Once battle is joined, Mahdi army elements demonstrated incredible commitment to recover their casualties and equipment. Once we inflicted casualties on the enemy, continuous coverage of the location where their soldiers were down proved...
key. Mahdi army soldiers would often try to assist their comrades and expose themselves to our fire when they tried to conduct casualty evacuation or recover weapons. This is specifically effective at night because the enemy often fought in squad-sized elements. If a crew only identified a few enemy troops, there were very likely more troops close by in cover or concealment.

**Mahdi army elements are inexperienced with the RPG.** There was a very high dud rate on our tanks and many of the near misses were duds as well. One RPG dud bent the lip of the turret ring on my tank, but that was all. Who knows whether they failed to properly arm the RPG or if it was just poor ammunition.

I saw three RPGs launched at my tank that initially appeared to be coming right at the front of the tank, but they all dropped short, one skipped under the tank, one exploded short, and one failed to explode as it skipped into our right track and deflected across the line of march of my right file of tanks.

**Mahdi army elements set many burning roadblocks that had to be destroyed immediately.** After contact, Mahdi army personnel continued to roll tires and combustible objects into roadblocks. Red 1’s gunner killed at least one enemy improving a roadblock just 400 meters north of the DAC at the outset of our company attack. Construction or maintenance of such roadblocks during combat operations in a hostile combat environment constitutes hostile enemy intent. After the initial fusillade of RPGs from behind the thermal concealment of roadblocks, I ordered my company to destroy any enemy who was building or reinforcing obstacles, whether or not they had observable weapons. Reconnaissance by fire at these locations is critical.

**Mahdi army elements are intimidated by 120mm main gun engagements.** As soon as we began destroying the enemy with 120mm main guns, the enemy broke and ran. These engagements were often at short ranges where the concussive effect of the cannon was lethal, even if the enemy was not directly hit by the rounds. This proved to be the case during the nights of continuous Iraqi police station defenses.

**120mm HEAT is better than .50-caliber for limiting collateral damage.** Commanders at all levels need to understand this. Tanks engaged snipers firing from windows with .50-calibers, and dust was flying from windows, six windows down from the point of impact. This was particularly true of tanks firing armor piercing incendiary (API).

We need .50-caliber ball with tracer. API was penetrating too far and there was too much of a risk of killing innocents. HEAT causes a great deal more structural damage, but dissipates after one or two rooms, killing everybody at the point of impact. We need to think of collateral damage more in terms of innocent civilians being killed, rather than reconstructing buildings used by the enemy. Using 120mm HEAT has more of a decisive tactical advantage and limits unnecessary deaths.

**All tanks require two radios.** Leaders need to be able to fight from any tank with dual-net capability. We have driven our tanks a fleet average of over 4,000 kilometers during this tour and maintenance is always intensive. The mileage requirements during a year of combat operations in Iraq are eight times the average annual mileage allotment. Tanks will be down for maintenance at a higher rate than usual. The decentralized nature of combat in urban terrain requires several units to operate on the...
battalion command net. Tanks need the ability to have one radio on the most relevant command net for combat action and one for internal coordination. This would not be expensive and would facilitate command and control.

Air ground integration (AGI) during company-level attacks is critical. Lancer Battalion (and particularly Lancer 3B) did a great job with AGI. Comanche Red was isolated, had casualties, and insufficient vehicles to exfiltrate. The intelligence received from the aero scouts on the battalion command net was essential for gauging whether we could remain force oriented in our attack northeast up DELTA. If it appeared that Comanche Red was in danger of being overrun, we would have to bypass very stiff resistance at great risk to relieve them immediately. Although Comanche Red was unable to move from its position, it was very defensible, and the aero scouts told me they did not appear to be in danger of being overrun, despite continued contact at very close quarters.

Communications net selection in MOUT must remain flexible. We fought the entire attack on the company command net. This was necessary as the compartmentalized terrain caused us to change formations frequently, making it impossible to keep platoons in set piece formations without fragmenting the attack’s tempo. Also, given the proximity of the enemy with RPGs, we all needed to hear crews calling out new threats, if we could not kill the enemy immediately. There was not time for relaying information from platoon net to company.

The company executive officer listened to one net at our command post and determined what we needed to continue combat. This allowed me to take consolidated reports on company command regarding battle damage, as well as make class V requests without having to stop fighting. Crews cannot crowd this net. Tank crews fought and reported, but always cleared the net, just in case I had something critical. The tempo of close quarters urban fighting is too fast to relay traffic from wing tanks to platoon leaders/platoon sergeants and then to the commander or XO.

The battalion staff must constantly update maneuver commanders on the fluid friendly situation in urban terrain. Lancer Battalion’s staff gave us advanced warning of each of the three times we gained visual contact with friendly forces in Sadr City. Lancer 3B told me when a Bradley QRF would be visible in the vicinity of Route GOLD, which enabled me to warn my unit that we would have friendly vehicles and potential friendly fire. The loaders/platoon sergeants and then to the commander or XO.

Commanders must constantly update their crews on rules of engagement (ROE) as the fight develops. Many of the situations we faced demanded the subjective decision to fire or not to fire. There was a large volume of civilians in the battlespace as this combat zone was a densely populated urban area. It is not always intuitive when to shoot or not shoot, and commanders need to assume the responsibility of ordering which targets are engaged and which ones are not.

The commander must constantly update fire-control measures in urban terrain. Frequent formation changes, shaped by both the enemy and terrain, forced the commander to constantly reapporportion fires to facilitate security. Tanks at the front of the march column must concentrate on the front, but threats from alleyways meant tanks had to handoff as they passed alleyways to ensure the enemy did not use them to assail our flanks. In these concealed locations, the enemy detected us as we passed, but usually did not engage lead tanks. The enemy moved to attack after our forward element passed, meaning the trailing tanks took the brunt of flank attacks. The enemy remained focused on approaching tanks and failed to realize the threat imposed by tanks that had already passed. The loaders and tank commanders on tanks that had already passed by the enemy took the enemy by fire as the enemy exposed their flanks to these tanks.

Commanders and platoon leaders should lead from the front of attack formation even in file or column when fighting in urban terrain. Doctrine places leaders in the middle of the formation to facilitate command and control in most cases. But in urban terrain, where combat is all close quarters and only leader tanks have the ability to talk to higher headquarters, these tanks are the logical choices to lead from the front. This technique also inspires confidence in the men. It is especially the case during unplanned operations, such as quick reaction force missions during which subordinates may have a limited understanding of the situation as it evolves. During six task force attacks in An Najaf and Kufa in subsequent months, this also facilitated better adjacent unit coordination with sister companies and troops, as leader tanks with two radios could drop to the adjacent unit net or contact the adjacent unit on battalion command to establish that we had gained visual contact with them or audio contact of their fight.

Combat in urban terrain is very fast. Besides, the enemy gets to vote much quicker and it is not often possible to fight in accordance with the plan. A unit can accomplish any mission if everyone understands the task, purpose, and desired end state. Flexibility is the key to success. Commanders must cultivate a command climate where the most junior enlisted soldiers feel comfortable reporting on the company net. Given the tempo of the close quarters fight, commanders must also trust subordinates and empower them to act within the constraints of the commander’s intent even before reporting to the commander what actions the element is taking. A challenge for commanders and leaders in the urban armored fight is to develop innovative techniques and ensure that soldiers understand them. Commanders must explain the necessity for adaptation to subordinates so that they clearly understand how the commander wants to fight.

This article is dedicated to the heroic actions and memory of three Crusaders: Staff Sergeant Mike Mitchell, Specialist Nick Zimmer, and First Lieutenant Ken Ballard.

Captain John C. Moore is a student at the Russian Basic Course, Defense Language Institute. He received a B.A. from San Diego State University. His military education includes Armor Captains Career Course and Armor Officers Basic Course. He has served in various command and staff positions, to include commander, C Company, 2d Battalion, 37th Armor Regiment, 1st Brigade, 1st Amored Division (1AD), Germany; tank platoon leader, battalion adjutant, and mortar platoon leader, 1st Battalion, 12th Cavalry Regiment, Fort Hood, Texas and Bosnia; battalion maintenance officer, 2d Battalion, 72d Armor Regiment, Camp Casey, Korea; brigade S4, 1st Brigade, 1AD, Germany; and S3 Air, 2d Battalion, 37th Armor Regiment, 1st Brigade, 1AD, Friedberg, Germany.

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