The Power of the Armored Company/Team in Urban Combat:

Dealer Company, 4th Battalion, 64th Armor in Sadr City

by COL Mark R. McClellan

This article sets out to show the power of the armored combined-arms company/team in the urban fight using Sadr City's Operation Gold Wall – executed by 3rd Brigade Combat Team, 4th Infantry Division (3/4BCT) – in Spring 2008.

Operations in and around Sadr City in 2008 can be used to better understand the challenges that future maneuver units will face fighting in urban environments. The fighting in Sadr City was in a free-fire combat zone, with the U.S. military using dismounted, motorized and armored forces to gain and hold urban terrain. They were contested by Sadrist militia members, who were intent on maintaining control of their lines of communication into and out of the urban enclave and on holding key terrain within the city. The combat was fierce, with long-duration engagements between the two sides.

Tactical lessons-learned by U.S. forces during the fight in Sadr City can still be applied in future fights.

This article will look through the lens of the Delta Company "Dealers" of 4th Battalion, 64th Armored Regiment (D/4-64) to show how it tackled the problem of executing sustained defensive combat operations in the dense urban environment of Sadr City, Baghdad, Iraq. D/4-64 was one of four companies that had a part in building a concrete wall on Route Gold across Sadr City during that operation. All these companies had to figure out how to secure dismounted infantry in a free-fire enemy area for long durations. This article will look at how D/4-64 accomplished the mission.

Dealer Company's experiences in Sadr City reinforced the following urban-warfare lessons that will be discussed in this article:

- Sustain long-term combat power by using the minimum amount of combat power necessary to accomplish the mission;
- Maintain 360-degree security at all times; and
- Use the power of armored vehicles.

Background

Dealer Company deployed in October 2007 for a 15-month tour in Iraq. Initially the company was assigned to Southwest Rashid in western Baghdad. During the 2008 Sadrist uprising in Iraq, enemy attacks against the coalition headquarters in the Baghdad International Zone (Green Zone) intensified. These attacks originated in Sadr City. U.S. forces in Baghdad responded by sending armored companies to northeast Baghdad from across the city.

In mid- March 2008, without warning, D/4-64 was informed by its battalion headquarters that it had six hours to move from western Baghdad to northeastern Baghdad during the Spring 2008 Sadrist uprising. Dealer Company headquarters, two tank platoons and one mechanized-infantry platoon moved from western Baghdad to northeast Baghdad near Sadr City.

A major enemy operation during the Sadrist uprising was to deploy rail-launched rockets in Sadr City and fire them at the Green Zone. In response to these rocket attacks, coalition forces seized the southwest section of Sadr City to force the rocket bases farther north. This would deny terrain to the Sadrist elements, increasing the range to the Green Zone and reducing the effectiveness of their rocket attacks.

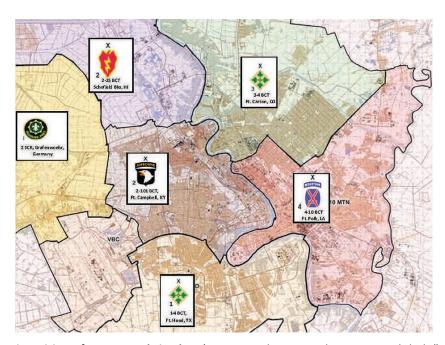


Figure 1. Disposition of maneuver brigades. (Source: Multi-National Division-Baghdad, "Fort Hood Community Leaders' [videoteleconferce] April 25, 2008, used in David E. Johnson, M. Wade Markel and Brian Shannon's monograph **The 2008 Battle of Sadr City: Reimagining Urban Combat**. Santa Monica, CA: RAND, 2013.)

When D/4-64 arrived in eastern Baghdad, it was initially attached to 4th Brigade, 10th Mountain Division, for a "four-day" mission. Dealer Company ended up spending more than two months in Sadr City, first with 4th Brigade, 10th Mountain Division, and then with 3/4BCT.

For the first three weeks, the company conducted blocking positions along the southern border of Sadr City to support U.S. and Iraqi Army efforts to seize the southwest portion of Sadr City up to Route Gold. This operation was called Stryker Denial and lasted from March 26 to mid-April (see Figure 2). Route Gold ran across Sadr City and was the limit of advance for the coalition attack. The route bisected across Sadr City's lower third.

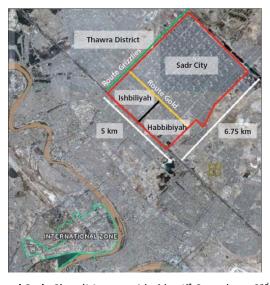


Figure 2. The Green Zone and Sadr City. (Map provided by 1st Squadron, 2nd Stryker Cavalry Regiment, used in Johnson, Markel and Shannon's **The 2008 Battle of Sadr City: Reimagining Urban Combat**. Santa Monica, CA: RAND, 2013)

In mid-April 2008, D/4-64 was directed to move to Joint Security Station (JSS) Sadr City and was attached to 1st Battalion, 2nd Stryker Cavalry Regiment (1-2 SCR, part of 3/4BCT) for Operation Gold Wall. JSS Sadr City was located with the southern portion of Sadr City. Our company's mission was to assist in building a concrete wall across Sadr City, which would prevent Sadrist militia members from being able to travel into southwestern Sadr City and eliminating their ability to launch rockets that could hit the Green Zone. The wall also cut off the Sadrists from their revenue-generating activities in southwest Sadr City.

1-2 SCR was the land-owning unit in charge of Sadr City based out of JSS Sadr City. They executed the wall-construction mission with 1st Battalion, 68th Armored Battalion (1-68 AR), a battalion organic to 3/4BCT. On April 15, 2008, Charlie Company, 1-68 (C/1-68) began constructing the wall from the southeast corner of Sadr City. From mid-April until May 15, D/4-64 rotated 13 hours on and 13 hours off (trading off the battlespace initially with C/1-68), building a wall constructed out of T-walls (12-foot-tall cement barriers) along Route Gold.

Fighting along Route Gold during the wall-build phase was intense. It occurred in a dense urban environment. Enemy fighters had freedom of movement northeast of Route Gold and could use the urban terrain to get close to the wall-erection site. The dense terrain provided U.S. forces on Route Gold with very little standoff. To counter the lack of standoff, coalition forces countered with a mix of armored vehicles and infantry platoons.

Initially 1-2 SCR attempted to use Stryker wheeled armored vehicles to accomplish the wall build, but they were not survivable enough. The 1-2 SCR realized they needed to use the D/4-64 M1 Abrams tanks and M2 Bradleys with infantry squads to build the wall. This provided the protection, firepower and manpower required to accomplish the task.

Construction of the wall was a 24-hour-a-day operation. D/4-64 would conduct 13 hours of wall construction and then pass the responsibility over to C/1-68 Armor (another armor company in the brigade), who would then pass over responsibility back to D/4-64. This 13-hour rotation continued until the wall was complete. (During the early phases of the wall build, B/1-14 and the 1-2 SCR scout platoon also erected parts of the wall, but their light Stryker vehicles were not heavy enough. Also, another tank company, C/1-6 Infantry, replaced C/1-68 Armor in early May).

During the entire wall-build operation, the units were under direct and indirect fire from Sadrist insurgents. During 13 hours of emplacement, the hope was to emplace 100 T-walls. During some rotations, though, the company emplaced less than 10 T-walls due to the intensity of enemy attacks and improvised explosive devices (IEDs).

Along with tank and infantry platoons, engineer units provided route clearance, operated the crane and supported erection equipment. The 1-2 SCR and 3/4BCT logistics units delivered the T-walls to the site from a staging area. In addition, tactical psychological-operations (PSYOPS) units delivered messages to the people to stay clear of the wall-build site. (This was combined with previous statements to the populace to leave the area.)

Splitting combat power for long-term defense of the wall-build site

The main effort during the wall build was the infantry squad on the ground, attaching and detaching concrete T-walls from a crane. Delta Company used a security perimeter to protect the infantry Soldiers as they executed this task. This combined-arms security perimeter enabled D/4-64 to provide security for dismounted infantry for upward of 13 hours at a time while progressing 100-150 meters along Route Gold. During this 13-hour-plus period, the security element was under fire from Sadrist militia members, who used rifle fire, sniper fire, rocket-propelled grenades (RPGs), grenades and IEDs to attempt to defeat or inflict casualties on the wall-build effort.



Figure 3. Infantry Soldiers emplace a section of T-wall.

So how do we execute the mission while still preserving time for maintenance and regenerating combat power? The easy answer would have been just to use the entire company to execute the mission. But we didn't know how long the mission would last. We also didn't know if this was the only mission we would be directed to execute.

To address this, Dealer Company split itself into two elements to generate combat power to execute the wall-build missions. Splitting up the company/team enabled D/4-64 to execute operations and sustainment simultaneously while also preserving armored combat power for future missions. Both elements possessed similar combat power; the primary differences were in personnel and vehicles. (See Figure 4 for a breakdown of each wall-build element.) This also preserved combat power in case our higher headquarters needed to surge on the mission or execute other missions.

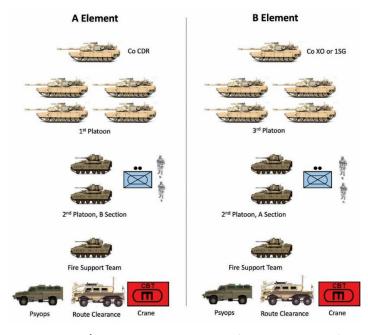


Figure 4. D/4-64 wall-build elements. (Graphic by author)

Each element was led by either the company commander or the company executive officer in a headquarters tank. Our company first sergeant was also in the tank when our executive officer led the element. Each element had a tank platoon, a mechanized-infantry section and one to two squads of infantry. Each element shared the same fire-support team Bradley, whose personnel rotated. A route-clearance team with a vehicle, a PSYOPS team with a vehicle and an Army engineer crane would attach to the wall-build element before each mission. The crane was operated by 821st Horizontal Engineer Company.

For the tanks, each element could refit and conduct maintenance on their vehicles before their next rotation. Same for the Bradley crews. The dismounted infantry soldiers would generally be out on missions more frequently.

Due to casualties and the environmental leave policy for Operation Iraqi Freedom, around 15 percent of our company was unavailable. Out of a company strength of about 100 personnel, we usually had 85 on hand to execute missions. We used headquarters and maintenance personnel to fill these roles in our tank crews and our infantry squads. Our nuclear-biological-chemical specialist filled a tank-loader position for many missions. We had maintenance personnel as tank loaders as well.

In addition to the ground elements, significant support came from brigade unmanned aerial systems (UAS), attack aviation and close-air-support (CAS) aircraft. Special Operations Forces (SOF) sniper teams also worked alongside the wall-build elements to suppress Sadrist elements. Direct-support artillery provided precision munition fires as well.

Armored and mechanized forces must always include requirements for conducting maintenance when evaluating the amount of combat power required for a mission. Armored and mechanized company-command teams must ensure that units they might be attached to understand this, especially if those units are light or motorized maneuver units or non-maneuver units.

Achieving 360-degree security

So how do we protect and enable the infantry squad on the ground emplacing the barriers? The infantry squad could not be exposed, as they were under constant observation and threat from small-arms and RPG fire. How do we use the armored vehicles to surround and protect the infantry squad?

To protect the infantry on the ground, we created a three-level perimeter. The intent was to achieve 360-degree security with the dismounted infantry Soldiers as the centerpiece. They were the first level of the perimeter. The second level was the Bradley Fighting Vehicles. The third level was the tanks. The route-clearance element focused on clearing the route. We used a dismounted observation post (OP) to provide oversight of the whole wall-build site. We tied the perimeter together with interlocking sectors of fire.

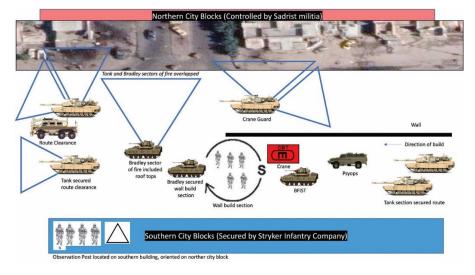


Figure 5. Visual representation of the security at the wall-build site. (Graphic by author)

Following is a breakdown of each element of the security perimeter:

- Priority was the dismounted infantry squad. A Bradley provided security directly to that squad.
 The infantry squad could also use the Bradley as a bunker during enemy contact. A medic was also located with this Bradley.
- Stryker infantry Soldiers from 1-2 SCR secured the southern city blocks before the wallemplacement mission began after they attacked to secure Route Gold.
- The D/4-64 infantry platoon emplaced an OP on the rooftop of a southern building near the wall-build site. They provided observation plus rifle and machine fires as needed. As the wall-build mission entered the Ishbiliya district of Sadr City, D/4-64 stopped using the OP, as it became too dangerous.
- A tank section provided security for the route from the wall-build site to the turn-off route that
 went south from Route Gold. That security location varied depending on where the wall-build
 team was along Route Gold.
- A tank provided security on the direct-north side of the wall to protect the crane and the dismounted infantry. The company executive officer or I usually manned this position, as it provided good observation of the wall progress and site security. My tank's sectors of fire were northern and eastern approaches to the wall-build site.
- The other Bradley's sectors of fire were the northern city block and rooftops.
- There were two western tanks. The northwestern tank's sector of fire was down alleyways. It would position itself differently each time to ensure it could cover approaches from the many alleys on the northern city blocks. One of the western tanks was also required to secure the route-clearance vehicle, a Husky mine-resistant, ambush-protected vehicle.
- The other tank in that section's sector of fire was directly down Route Gold. It supported the route-clearance vehicles as the element moved down the street. It also used canister rounds to attempt to defeat enemy IEDs along the route.
- Route clearance, provided by 237th Engineer Company, was the most forward vehicle in the element as it moved along Route Gold.
- The company fire-support team in the Bradley fire-support team (BFiST) vehicle provided more security along the route and called for artillery, attack aviation and CAS fires.
- PSYOPS continuously communicated a message to ensure that noncombatants stayed off Route Gold

For a month, dismounted infantry Soldiers emplaced T-wall 24 hours a day. The wall-build element moved slowly, sometimes emplacing less than 10 T-wall sections in a 13-hour period. Sadrist militia members flocked to the T-wall construction site to attempt to stop the wall's construction. The enemy used explosively formed projectile IEDs, machinegun fire, sniper fire, RPGs, anti-armor grenades and even Molotov cocktails to attempt to defeat the wall-build elements.

The wall-build elements could have been sitting ducks. Due to combined arms, though, they weren't. This mission would not have succeeded without the armored combined-arms team that executed it. Dismounted infantry Soldiers on their own were not survivable enough and didn't have enough firepower. Armored vehicles alone could not maneuver the T-wall into place or provide observation. Armored vehicles also couldn't secure the significant number of city blocks seized by 1-2 SCR. Tanks and Bradleys did not have the acuity of the route-clearance elements.

However, the BFiST connected the element with the supporting brigade UAS, attack aviation, CAS, cannon and rocket fires. Our OP provided observation of dead space and other avenues of approach that the armored vehicles could not observe. All these elements came together to provide security for the dismounted infantry Soldier on the ground installing T-wall.

Power of armored vehicles in urban environment

In Sadr City, the Abrams tanks and Bradley Fighting Vehicles were key to the success of the wall-build mission. While the Stryker infantry vehicles were excellent in enabling infantry squads to seize a

significant portion of Sadr City below Route Gold, the motorized vehicles were not survivable enough to maintain the static positions the wall-build mission required. The tanks and Bradleys could remain stationary for long periods, sometimes up to 18 hours, on Route Gold and protect the infantry squads as they executed the wall-build mission.

The power of the Abrams tank. In our positions, the Abrams tank provided near-360-degree sectors of fire with the three machineguns and 120mm main gun. Our M1A1 tanks were equipped with the Tank Urban Survival Kit, which provided upgraded thermal sites for the .50-caliber machinegun and a thermal viewer for the tank driver, a remote site on the loader's M240 machinegun, reactive armor on the vehicle skirts and a V-shaped hull to reduce the impact of buried explosives. The tank's main gun delivered 120mm rounds that cracked and exposed building façades. The tank also shot canister rounds down Route Gold, defeating explosively formed projectiles. Its three machineguns (a .50-caliber M2 and two 7.62mm M240s) were lethal down alleyways and in windows.

The tank also provided protection to dismounted infantry by its size and mass. The tank in the "crane guard" position moved with the infantry squad and provided the squad cover as it executed T-wall emplacement. The enemy on Route Gold even tried to use a Molotov cocktail to light Tank D66 on fire while it was on crane guard. The crane-guard position sometimes had limited stand-off from the northern city blocks. The Molotov cocktail did not have much effect on the tank, but it did demonstrate the effectiveness of the driver's thermal viewer, as he was able to identify the individual throwing it.

Also, the tank was used to recover friendly vehicles. In one instance, Tank D14 recovered a Stryker vehicle from Route Gold. D14 fired its smoke grenades to conceal dismounted recovery operations, allowing U.S. personnel to hook the Abrams tank up to the Stryker vehicle.

On Route Gold, D/4-64 Abrams tanks were engaged by enemy machineguns, .50-caliber sniper weapons and explosively formed projectile IEDs, traditional and anti-armor RPGs and anti-armor grenades.

The power of the M2 Bradley Fighting Vehicle. The Bradley Fighting Vehicle was also a significant asset. The Bradley is a much less sustainment-intensive vehicle compared to the Abrams tank. Its diesel engine is much more fuel efficient and requires much less maintenance than the tank. Our Bradley vehicles had a much higher operational readiness rate than the tanks for our two months in Sadr City.

The Bradley is also highly mobile. It is more compact than the Abrams and can turn a sharp angle more quickly. Its electric turret turns extremely quickly, covering a 360-degree sector of fire much quicker than the tank. The Bradley has a 25mm gun and a 7.62 mm machinegun in its turret. The Bradley's 25mm main gun can elevate much higher than the tank's main gun or machineguns. (On Route Gold, our Bradley sectors of fire included close-in rooftops and the top floors of buildings.) The Bradley ammunition type was very useful in an urban environment. The Bradley's 25mm gun could deliver high-explosive rounds that could assist in clearing rooms of enemy personnel. After Tank D66 had the Molotov cocktail thrown on it, the infantry-platoon sergeant was able to engage the individual who threw the cocktail. The Bradley cleared the entire room the enemy was in with 25mm high-explosive rounds. Lastly, the Bradley provides a mobile bunker for the infantry squad.

Future implications

In Sadr City, our mission was overwatched and supported by a squadron and brigade structure, including reconnaissance (through unmanned aerial vehicles and supporting SOF and logistics.

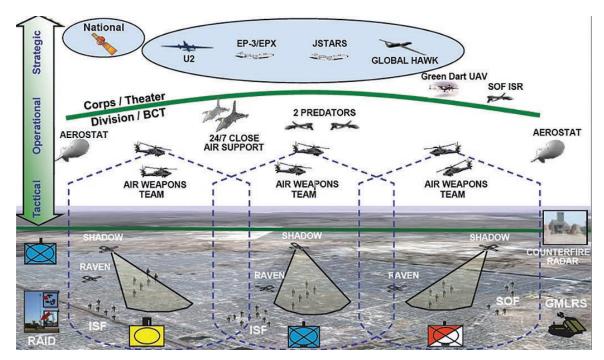


Figure 6. The combined-arms team. Other assets included other government agencies, signal-intelligence elements, Deployable Ground Station, sniper teams, SOF intelligence, surveillance and reconnaissance, and Phased Array Radar Pods on CAS.

While on Route Gold, we were the main effort for the squadron and brigade we were under. This enabled us to focus on the close fight to protect our infantry. In future urban battlefields, companies and platoons are expected to be as protected and lethal with much less support. Future armored combined-arms company/teams will still have to remain in the fight in dense urban environments for days and weeks at a time. There won't be enough higher-level battlefield-enabling assets to spread across brigade units fighting in that environment, as whole brigades will be spread throughout the urban environment. Future company-level leaders must incorporate combined-arms integrated 360-degree security in the urban fight to survive and win.

These units must also be prepared to establish outposts within the urban areas to conduct maintenance and combat-power-regeneration activities. In Sadr City, the JSS and the combat outpost provided secured locations to execute refit operations. This came with a cost to secure these sites. Without combat outposts, maneuver units may have to give up terrain to move to areas outside urban areas to conduct refit.

The Army is working to develop the technology to provide UAS and drone technology controlled at the company level. This will enable company commanders to expand their security umbrellas, increasing their stand-off with enemy elements. Until then, using dismounted OPs in advantageous positions and infantry to secure dead space and difficult terrain – along with overlapping fields of fire and placing most survivable vehicles in positions to dominate the enemy – is how to stay in the urban fight and win.

For more on the Spring 2008 Operations in Sadr City, see John Spencer's article on the Sadr City mission at https://mwi.usma.edu/stealing-enemys-urban-advantage-battle-sadr-city/. Also see the RAND publication, *The 2008 Battle of Sadr City: Reimagining Urban Combat*.

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Acronym Quick-Scan and unit abbreviations

1-2 SCR – 1st Battalion, 2nd Stryker Cavalry Regiment

1-68 AR – 1st Battalion, 68th Armored Battalion

3/4 BCT – 3rd Brigade Combat Team, 4th Infantry Division

C/1-68 – Charlie Company, 1-68

D/4-64 – Delta Company, 4th Battalion, 64th Armored Regiment

BCT – brigade combat team

CAS – close-air-support

IED – improvised explosive device

JSS – Joint Security Station

OP – observation post

RPG – rocket-propelled grenade

UAS – unmanned aerial system