

Battle Analysis

The Battle for Hue: Employment of Armor in a Combined/Joint Urban Operation

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Part 1 of 2 (strategic situation, battlespace, prelude to combat and the battle)

Increased global urbanization presents the Army with the reality that combat in cities against a near-peer or peer adversary will be the norm.¹ Armor stands ready to assume any future urban-combat mission, as it has played a pivotal role in successful urban operations (UO) since the first employment of tanks in battle in 1916.²

The Battle for Hue illustrated Armor's ability to transition from fighting in open, rural country to supporting a large-scale combined/joint UO. Tanks were "absolutely necessary in clearing the enemy from Hue by the 1st Marines," said BG Foster C. "Frosty" LaHue, who commanded the Marine Corps' Task Force (TF) X-Ray in Hue.³

The lessons-learned from this battle 53 years ago are relevant to the readiness of today's mounted formations for future UOs.

Strategic situation

GEN William C. Westmoreland, commander of U.S. forces in South Vietnam, in a speech to Congress Nov. 21, 1967, said, "I am absolutely certain that, whereas, in 1965 that the enemy was winning, today he is certainly losing."

The Tet Offensive of 1968 proved him mistaken.⁴ North Vietnam planned a large-scale offensive to end the war in its favor by attacking population centers, intending to incite a general uprising of the South Vietnamese people, defeat the Army of the Republic of (South) Vietnam (ARVN) in the field and force the United States to withdraw its forces.⁵

Battlespace

Hue, the capital of Thua Thien province, was South Vietnam's third-largest city. Built in the early 19th Century, the Vietnamese revered Hue as a religious and cultural center, with neither side conducting operations in the city.⁶ Hue was in the I Corps Tactical Zone (CTZ) 60 miles south of the demilitarized zone separating North and South Vietnam.⁷

The city lies on a bend of the Song Huong, or Perfume River, which runs from the hills to the west to the South China Sea, which is 11 kilometers northeast of Hue. A railroad, a Navy supply point and Highway 1 converged at Hue. The 25-kilometer Ah Shau valley between the Laos border and Hue was part of the Ho Chi Minh trail over which supplies flowed to North Vietnamese Army (NVA) and Viet Cong (VC) forces.⁸

The Old City, better known as The Citadel, is north of the Perfume River. Its buildings were mostly stone structures. Surrounding The Citadel was a 75-foot-wide moat and stone walls 20 feet wide and 25 to 30 feet high. The Imperial Palace, surrounded by another moat, was in the southeastern section of The Citadel. The 1st ARVN Infantry Division's headquarters was in the northeastern corner of The Citadel, and the Tay Loc Airfield was in the center.

The New City was south of the river. Public buildings and the homes of private citizens were mostly modern European and American in design. The U.S. Military Assistance Command Vietnam (MACV) compound – housing 200 U.S. Army, U.S. Marine Corps and Australian advisers to 1st ARVN Infantry Division – was close to the river.

Other key targets were a military radio relay station, the provincial capital building, the jail, a hospital, Hue University, the U.S. consulate and the U.S. Navy's landing craft utility ramp.⁹

Prelude to combat

While South Vietnamese civilians prepared for the Tet holiday, enemy soldiers in civilian clothing easily slipped undetected into major urban areas. A key element of the Communist plan was a series of diversionary attacks on

small rural outposts intended to draw American forces away from urban areas.¹⁰ During these attacks, American armored units blocked infiltration routes, while South Vietnamese armor remained in or close to population centers.¹¹

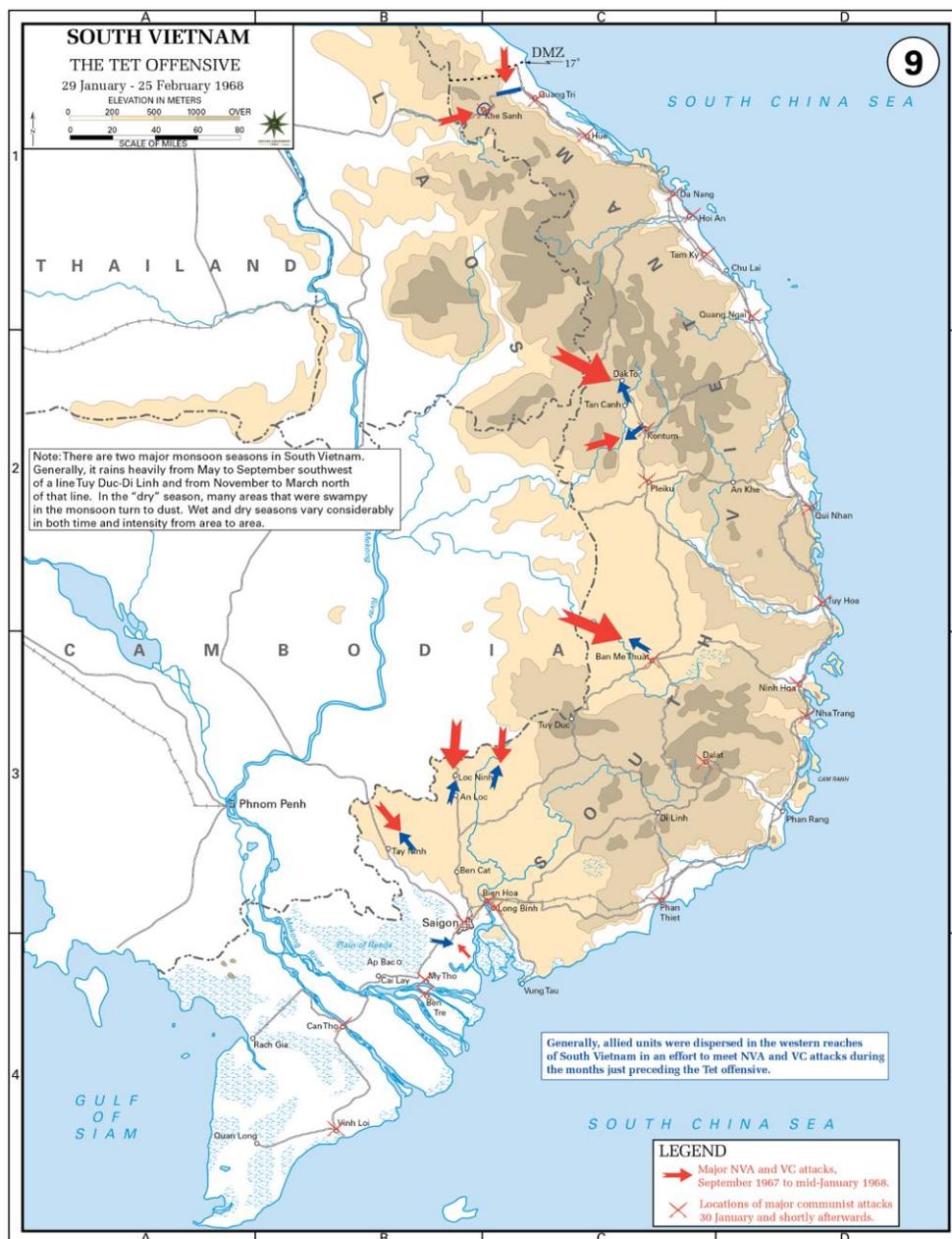


Figure 1. The Tet Offensive. (Map courtesy of the U.S. Military Academy Department of History)

Although the Tet holiday truce was in effect, American forces remained alert to sporadic indirect fire or occasional ambushes but did not expect a Communist large-scale general offensive throughout South Vietnam.

American forces: Prior to the enemy attack, 3rd Marine Division was moving from Quang Nam and Thua Thien Province to Quang Tri. TF X-Ray assumed responsibility for the Phu Bai area of operations, including Hue, Jan. 15. The TF consisted of 1st Marine Regiment, with its 1st and 2nd Battalions, and 5th Marine Regiment, with its 1st Battalion.

The initial TF order of battle included Company A (-) (M-48A3 90mm “gun tanks” and M67A3 “flame tanks”); an antitank company (-) (M-50 Ontos (Greek for “thing”)) of 1st Marine Tank Battalion; and a small detachment from the Navy Support Activity operating the utility landing craft (LCU) boat ramp.

Republic of (South) Vietnam (RVN) forces: Most of the RVN forces were on leave celebrating Tet with their families. The only forces in the city at the time of the attack were the headquarters of 1st ARVN Infantry Division, its 36-soldier reconnaissance platoon, a quick-reaction force and the elite 240-soldier Black Panther Company (Hac Bao).¹²

BG Ngo Quang Truong, well respected by his American counterparts, commanded ARVN forces in The Citadel. Although the division was battle-tested, its three regiments were spread out throughout I CTZ.

The 7th Armored Cavalry Squadron headquarters and a troop of M-41 Bulldog light tanks occupied the Tam Thai Cavalry Camp. Two kilometers to the southwest, there was an engineer battalion.¹³ BG Truong increased the readiness of his forces not on leave. His decision to have the Black Panthers Company guard the Tay Loc Airfield would prove prescient.

Communist forces (NVA/VC): Allied intelligence in early October 1967 detected the NVA’s 4th and 6th Regiments, two sapper battalions and local VC forces in Thua Thien Province, but there was no discernable enemy activity. The well-equipped enemy assembled a force equivalent to 14 infantry battalions, a 122mm rocket battalion, two 82mm mortar companies, two 75mm recoilless rifle companies and two 12.7 heavy machinegun companies.¹⁴

Both NVA regiments and support units, only a day’s march from Hue, avoided an ARVN airborne TF operating in the area. Forces from the siege at Khe Sanh and the Quang Tri region also moved undetected toward Hue.¹⁵



Figures 2a and 2b. Left, The Citadel, and right, the New City of Hue.

Battle

The enemy, appreciating the value of armor in the city, struck its first big blow when a five-man sapper team destroyed 11 antiquated M41 tanks at Tam Thai.¹⁶ The Communist forces executed the main attack Jan. 31: the 6th NVA Regiment’s objectives in The Citadel were the headquarters compound of 1st ARVN Infantry Division, Tay Loc Airfield and the Imperial Palace.

The 4th NVA Regiment was responsible for the New City south: its objectives were the MACV compound, the provincial-capital building, the prison, radio stations, the Imperial Museum, the homes of South Vietnamese government officials, RVN sympathizers and American civilians and military personnel.¹⁷

In the early hours, a four-man VC sapper team wearing ARVN uniforms killed the guards and opened the west gate of The Citadel to NVA soldiers, who opened the other gates of the Old City. NVA and VC soldiers, supported by mortar and rocket fire, rushed the New City and rounded up and interrogated governmental officials, suspected collaborators, Catholic clergy and foreign civilians.

The enemy captured 90 percent of The Citadel, including the Imperial Palace and most of the New City, except the MACV compound and the boat ramp.

By 4 a.m., the Black Panther Company temporarily blocked 6th NVA Regiment's assault on Tay Loc Airfield. Reinforced by the division staff, the Black Panther Company recaptured the medical company's billets.¹⁸

The 802nd Battalion attacked 1st ARVN Infantry Division headquarters. BG Truong, determined to hold his headquarters and maintain command-and-control of his subordinate forces, recalled the airfield's defenders. He ordered 3rd Regiment, two airborne battalions and elements of 7th Armored Cavalry Squadron, mounted on M41 light tanks and M113 armored personnel carriers, to fight their way into The Citadel.

The task force received heavy small-arms and automatic-weapons fire while nearing the city. After fighting their way through the resistance, they reached the headquarters by late afternoon.

Shortly before the fight, the ARVN had received light anti-tank weapons from Marines returning from an exercise near the demilitarized zone. A Marine Corps adviser later said, "When we got back to Hue, we held several classes on how to best use them. There is no doubt in my mind that their effective use on that first day saved BG Truong's headquarters."

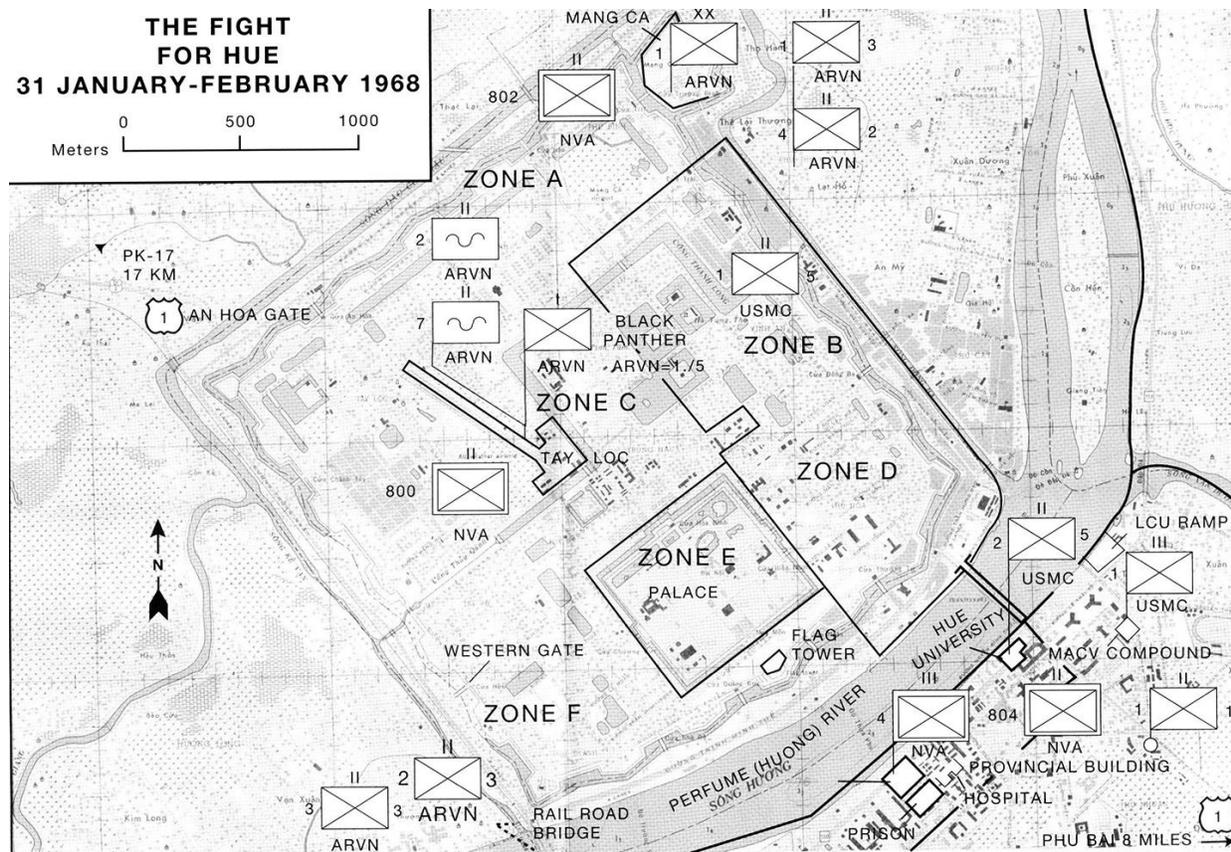


Figure 3. Initial dispositions of troops for the Battle of Hue. (Map from *U.S. Marines in Vietnam: 1968* by Jack Shulimson, Leonard A. Blasiol, Charles R. Smith and David A. Dawson; public domain)

MACV headquarters in Saigon grossly underestimated the strength and the objectives of the Communist forces, believing the enemy was conducting local attacks rather than large-scale combat operations throughout South Vietnam. GEN Westmoreland cabled GEN Earle Wheeler, chairman of the U.S. Joint Chiefs of Staff, that "the enemy has approximately three companies in the Hue Citadel, and the Marines have sent a battalion to clear them out."

It took at least 72 hours before the Allies comprehended the magnitude of the Communist offensive in Hue.¹⁹ Neither LTG Robert Cushman, III Marine Amphibious Force (III MAF) commander, nor LTG Hong Xuan Lam, commander of ARVN forces in I CTZ, had a clear understanding of the situation. However, they concluded that more forces were necessary to clear Hue.

Unfortunately, BG LaHue was unaware the enemy had occupied the entire city, so he dispatched only an infantry company in trucks and four tanks to clear out the enemy.²⁰ This weak response gave the NVA/VC more time to prepare their defenses, which resulted in more friendly casualties as the battle progressed.

Since arriving in Vietnam in 1965, American forces had fought mostly on rural terrain, conducting convoy security, search and destroy, and pacification operations. They had no training in clearing an entrenched enemy from a city where yards rather than miles were measures of success. As late as 1993, doctrine maintained that armor units should avoid defended cities.²¹

Therefore the Battle of Hue was a “come as you are” operation for the untrained Marines. LTC Ernest C. Cheatham Jr., commander of 2nd Battalion, 5th Marines, after receiving the mission to go to Hue, fortuitously found a cache of doctrinal manuals in 5th Marine Regiment’s headquarters. After reading the manuals entitled **Combat in Built-Up Areas** and **Attack on Fortified Positions**, he understood the best way to fight in Hue was to “gas the enemy, blow things up and then clear out the ruins.”²²

Further complicating Cheatham’s situation was a lack of maps; his formation operated with only three maps found in an abandoned Texaco station.

Company A, 1st Battalion, 1st Marines, was the first unit to arrive. Its mission was the relief of the MACV compound.²³ The enemy ambushed the Marines coming into the city. The 3rd Marine Division committed a provisional tank platoon of two M48A3 90mm gun tanks and two M67A2 flame tanks. The Navy transported them to Hue on LCUs to the boat ramp in the New City.²⁴

The command group of 1st Battalion, 5th Marines, led by LTC Marcus J. Gravel, and Company G augmented Company A, 1st Battalion, 1st Marines.²⁵ This small Marine Corps infantry TF’s armor consisted of the tank platoon, two M42 Dusters with twin 40mm anti-aircraft guns and a few surviving M41 tanks from ARVN’s 7th Armored Cavalry Squadron. The TF relieved the defenders of the MACV compound at 3:15 p.m.²⁶

Reminiscent of scenes from World War II with infantry riding on tanks, M48A3 tanks transported Marines into the MACV compound.²⁷ The seriously wounded had to be transported to the landing zone (LZ) about a mile from the compound, necessitating house-to-house fighting. Not wanting to risk more casualties, Gravel directed a tank to “walk” its way to the LZ, destroying everything in its path.²⁸ The Army’s 498th Air Ambulance Company provided medical-evacuation (medevac) support to the Marines in Hue and the Army elements west of Hue.

Using French-language maps, medevac pilots faced significant navigation problems. Medevac missions flew Marine and Army casualties to the Navy hospital ships USS *Repose* and USS *Sanctuary*.²⁹

Company A, 1st Battalion, 1st Marines, stayed in the city to guard the MACV compound, while the rest of the TF proceeded to The Citadel. The M48A3 tanks and M42 Dusters, since they were too heavy to cross the bridge into The Citadel, provided direct-fire support to the infantrymen attempting to assault The Citadel.³⁰

The ARVN tankers’ refusal to lead the assault across the Nguyen Hoang Bridge was disastrous for the Marine infantrymen. In defense of the ARVN tankers, it was unlikely that the lightly armored M41 tanks could have survived a frontal daylight assault against well-prepared enemy positions.

Although able to get two platoons across the bridge, a hail of enemy fire forced the Marines to withdraw. This effort cost the assaulting Marines nearly one third of their force in dead or wounded. By 8 p.m., both sides stopped fighting and consolidated their positions to prepare for the following day’s combat.³¹

LTGs Cushman and Lam established objectives for their respective forces: the ARVN was responsible for The Citadel, and the U.S. Marines would clear the New City and sever enemy lines of communication to the west. Due to the historical and cultural significance of The Citadel, restrictive rules of engagement precluded indirect and close-air-support (CAS) fires into The Citadel; supporting fires in the New City were unrestricted. However, marginal weather conditions throughout the operation limited CAS from fixed-wing aircraft.³²

On Feb. 1, ARVN forces achieved a measure of success while initiating operations to clear The Citadel. The 2nd and 7th ARVN battalions and the Black Panther Company – supported by 7th Armored Cavalry Squadron – recaptured the airfield. The 1st Battalion of 3rd ARVN Regiment secured the 1st ARVN Infantry Division command post. However, the 2nd and 3rd Battalions, who were without armor support, failed to enter The Citadel.

At 7 a.m. Feb 2, the composite 1st Battalion, 1st Marines, launched a two-company assault to regain the provincial capital and the prison that was two blocks west of the MACV compound. Another objective was to secure the LCU boat ramp.

Elements of 4th NVA Regiment prevented the lead elements of the Marines from moving more than a block from the compound. An M48A3 took a direct hit from a 57mm recoilless rifle, disabling it and injuring the crew; the tank was later repaired and the crew replaced.³³

The shorthanded Marines – unable to isolate the city – failed to stem the tide of enemy soldiers entering the city. With GEN Westmoreland's concurrence, III MAF ordered 1st Cavalry Division commander MG John J. Tolson III to deploy his 3rd Brigade into blocking positions to the west of the city. Later in the operation, TF X-Ray assumed operational control of 1st Brigade, 101st Airborne Division (Airmobile). The 3rd Brigade, 1st Cavalry Division (Airmobile), participated in the operation but remained subordinate to the division headquarters. Worsening weather conditions limited airmobile operations; consequently the enemy continued to move troops and supplies into the city.³⁴



Figure 4. A Soldier from 5th Battalion, 7th Armored Cavalry, in action at Thon La Chu Feb. 9, 1968. (U.S. Army photo)

Armor played an important role in securing the hospital, the prison and the provincial capital. Company G, 2/5 Marines – supported by fire from a M48A3; M50 Ontos with their 106mm recoilless rifles; and mortars – secured the main hospital building by 4:30 p.m. Feb. 5. On the following day, Company G secured the rest of the hospital complex and then attacked the prison with its infantry, supported by recoilless fire from the antitank company.

Company H encountered strong resistance as it pushed on to the provincial capital; the narrow streets and alleys further slowed the attacks. Two tanks moved up to support the attack – one suffered a catastrophic hit from enemy rocket-propelled grenade fire, which penetrated the turret and injured three tankers. The vehicle burned for the rest of day after the 90mm ammunition cooked off.

After five hours of room-to-room fighting, the Marines recaptured the provincial capital. Its capture was more than symbolic; it had been the command post of 4th NVA Regiment. After its capture, most enemy resistance in

southern Hue melted away.³⁵ Heavy fighting continued in The Citadel; poor weather and darkness allowed the NVA to evade 1st Cavalry Division's screen and move fresh troops into The Citadel.

On the night of Feb. 6 and into the following morning, the NVA launched a brutal attack against 2nd Battalion, 4th ARVN Regiment. Using motorized junks, BG Truong redeployed 3rd ARVN Regiment to The Citadel.

ARVN forces in The Citadel by the end of Feb. 7 included two armored-cavalry squadrons, 3rd ARVN Infantry Regiment, a battalion of 4th ARVN Infantry Regiment, the Black Panther Company and a company from 1st ARVN Regiment.

The ARVN appeared formidable, but its weapons were old, and it had previously sustained heavy casualties. The well-armed NVA controlled more than half of The Citadel, preventing the ARVN from making any measurable progress, except for the Black Panther Company's retaking the airfield.³⁶

The Marines successfully secured the New City by Feb. 10. However, the battle in The Citadel had reached a stalemate. GEN Westmoreland sent 1st Brigade, 101st Airborne (Airmobile), into the fight, beginning with 1st Battalion, 327th Parachute Infantry Regiment.³⁷



Figure 5. U.S. Marines on tanks during Tet. (Photo courtesy of the National Archives, Photo 53248)

With most of southern Hue cleared, 1/5 Marines arrived in The Citadel in force on CH-46 helicopters Feb. 11. Company A, supported by five tanks from 1st Tank Battalion, crossed the river on LCUs. The tanks entered the Old City through a breach on the southern wall and secured 1st ARVN Infantry Division headquarters.³⁸ With the outcome of the fight in The Citadel in the balance, LTG Lam finally authorized CAS and artillery fires throughout The Citadel, except for the Imperial Palace.

The 1/5 Marines began offensive operations on the morning of Feb. 13. The initial scheme of maneuver was a fine example of developing combined-arms tactics, techniques and procedures on the fly with two tanks leading, two infantry companies abreast, followed by another in reserve, with the Ontos firing six-gun salvos of canister in direct support.

Unaware that the 1st ARVN Airborne TF had withdrawn to Saigon, the Marines collided with an equally large number of NVA soldiers, who reoccupied the residential area vacated by the withdrawing ARVN paratroopers. The Marines were in an untenable situation, fighting NVA soldiers occupying spiderholes and fortified positions in adjacent buildings. With heavy enemy fire covering its approach routes, the Marines failed to reach their line of departure.³⁹

The following day, the Marines attempted to suppress NVA defenses ahead of their advance with field-artillery fire and naval gunfire from destroyers and cruisers offshore as a rolling barrage ahead of the advance. The naval gunfire's relatively flat trajectory and the proximity of friendly troops to its targets limited its effectiveness. With a break in the weather, F-4 and F-8 fighter-bombers provided CAS. However, its effect was minimal. Because of this, the Marines became more reliant on armor and organic mortars when deteriorating weather precluded CAS and artillery fires. The NVA defenders held the upper hand for the next two days when the Marine and ARVN attack stalled.⁴⁰



Figure 6. A Marine scans the streets for snipers with an M48A3 Patton tank ready for heavy firepower in the Hue University area. (U.S. Marine Corps photo)

The Citadel's narrow streets and tight back alleys disrupted coordination between the M48A3s and the M50 Ontos when visual contact was lost or when buildings blocked line-of-sight radio communications. To simplify command-and-control between the M483s and the M50s, CPT Conwell W. Casey, commanding Company A, 1st Tank Battalion, became TF X-Ray's senior armor commander after gaining the two Ontos platoons from the battalion's antitank company.⁴¹



Figure 7. An M50 Ontos tank leads a convoy of commandeered vehicles during Tet. (U.S. Marine Corps archives)

This task organization of tank and antitank units failed to completely solve command-and-control issues. Infantry company commanders in 1/5 Marines had to send requests for armor support to the battalion command post, where the tank-platoon commander and the infantry-company commander developed target lists and ingress and egress routes.⁴²

Tank commanders showed uncommon bravery when they dismounted and went forward with the infantry to reconnoiter for targets. The scheme of maneuver was both simple and effective. The infantry provided close-in protection for the tanks and Ontos, while the armored vehicles engaged the target with overwatching .50-caliber and coaxial machinegun fire. When the tanks backed off, the riflemen surged forward through the breaches created by tank and Ontos fire and then employed riot-control agents to flush out the entrenched enemy.

Early in the fight, the tanks' high-explosive plastic round proved ineffective against the thick stone and masonry walls in The Citadel; when the tankers switched to high-explosive antitank ammunition, four or five rounds ruptured the thick stone walls. Although tanks and recoilless rifles were essential in reducing the enemy defenses, flying debris injured some infantrymen.

With the change in ammunition, the tanks' shock action and destructive firepower proved invaluable to the riflemen attacking the dug-in enemy. However, infantrymen had a love-hate relationship with armor; some considered them bullet magnets that increased their probability of being wounded, while another Marine later said, "If it had not been for the tanks, we could not have pushed through that section [the southeastern portion of The Citadel]. They [the NVA] seemed to have bunkers everywhere."⁴³

Using multiple rounds to create a single breach, the availability of large-caliber ammunition was challenging throughout the battle. The 1/5 and 2/5, lacking tank and recoilless rifle ammunition, at times had to hold up their advances. To conserve ammunition, tanks became battering rams when practical.⁴⁴

The situation worsened Feb. 17 when NVA mortar fire sank an LCU loaded with tank and recoilless rifle ammunition.⁴⁵

After Marine engineers constructed a pontoon bridge alongside the destroyed An Cu Bridge spanning the Perfume River Feb. 13, truck convoys began moving much-needed food and supplies to troops and civilians. Intercepted NVA transmissions on the night of Feb. 16 confirmed they were reinforcing Hue at night. The 1st Brigade, 101st Airborne Division (Airmobile), deployed to the west, and 3rd Brigade, 1st Cavalry Division (Airmobile), finally severed the enemy's lines of communication.

Fire-support coordination became a serious problem with American and ARVN units firing into the small confines of The Citadel. Fratricide and civilian casualties were frequent. BG Oscar E. Davis, one of 1st Cavalry Division's two assistant commanders, became the area's fire-support coordinator to lend order to chaos when he co-located his headquarters with 1st ARVN Infantry Division's headquarters.⁴⁶

The 1/5 Marines, positioned in the southeast of The Citadel, continued operations in that sector, while 1st Vietnamese Marine Regiment's three-battalion task force began to clear the southwestern section. The 1st ARVN Regiment's mission was to attack through the center of the city toward the Imperial Palace. The NVA, while attempting to reoccupy three buildings they previously abandoned, met overwhelming fire from 1/5 on the night of Feb. 23. The still-tenacious enemy withdrew to subsequent battle positions and fought steadfastly. However, the enemy had reached its culmination point.⁴⁷

The 3rd Infantry ARVN Regiment, with the Black Panther Company – supported by American armor – mounted a surprise attack Feb. 24, recapturing the Imperial Palace and replacing the VC flag with the South Vietnamese flag. The Battle for Hue was over when 4th Vietnamese Marine Battalion reduced the last NVA strongpoint in The Citadel's southwest corner. After 1st ARVN Infantry Division linked up with 1st Cavalry Division, the VC abandoned their positions and the NVA fled westward to their sanctuary in Laos.⁴⁸ Two days later the Allies secured the city.

Retired LTC Lee Kichen served in command and staff positions in armor, armored-cavalry and mechanized-infantry units in the United States and overseas. He also served on the Army staff and Training and Doctrine Command staff. LTC Kichen's military schooling includes Air War College (non-resident), Command and General Staff College, Armor Advanced Officer Course and Armor Officer Basic Course. He holds a bachelor's of arts degree in history from the University of Massachusetts-Amherst, a master's of social-sciences degree in sociology and political

science from Pacific Lutheran University and a master's of arts degree in counseling psychology from Chapman College. His awards and honors include the Legion of Merit (one oak-leaf cluster) and Meritorious Service Medal (two oak-leaf clusters).



Figure 8. 1st Cavalry Division helicopter resupply mission northwest of Hue Feb. 17, 1968. (U.S. Army photo)



Figure 9. Refugees pass an M48A3. (Photo originally published in *ARMOR*, May-June 1999)

Notes

- ¹ *World Urbanization Prospects 2014*, United Nations Department of Economic and Social Affairs, cited in MAJ Ron Hernandez, *Lessons Worth Remembering: Combat in Urban Areas*, School of Advanced Military Studies monograph, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2016.
- ² Per email Feb. 3, 2021, Dr. Robert S. Cameron, Armor Branch historian, based at the U.S. Army Armor School, Fort Benning, GA.
- ³ After-action report (AAR) (declassified), BG Forest C. LaHue, commanding general, 1st Marine Division (Reinforced) Fleet Marine Forces (FMF), to MACV commander, April 14, 1968.
- ⁴ James Wilbanks, *The Battle of Hue in Vietnam: The Course of a Conflict*, U.S. Army Command and General Staff College Press, Fort Leavenworth, 2018.
- ⁵ Eric Hammel, *Fire in the Streets: The Battle for Hue, Tet 1968*, Havertown: Casemate Publishers, 2018, and Merle Pribbenow II, "General Vo Nguyen Giap and the Mysterious Evolution of the Plan for 1968 Tet Offensive," *Journal of Vietnamese Studies*, Vol 3, Issue 2, University of California, 2008.
- ⁶ Kendall D. Gott, *Breaking the Mold: Tanks in the City*, Combat Studies Institute Press, 2020. For the purpose of this article, "armor" includes Marine Corps M48A3 tanks; the M50 Ontos 106mm recoilless rifle track-mounted system; M42 Dusters from Battery D, 1st Battalion, 44th Artillery, carrying twin rapid-firing 40mm guns; M-67A2 flame tanks; and ARVN M41 Bulldog light tanks.
- ⁷ The term "corps tactical zone" represents an "area of responsibility" rather than a tactical headquarters which commanded two or more divisions. In Vietnam, an American field force was the equivalent of a tactical corps headquarters.
- ⁸ Richard D. Camp Jr., *Death in the Imperial City: U.S. Marines in the Battle for Hue*, Jan. 31-March 2, 1968, Quantico, VA: The History Division, Marine Corps University, 2018.
- ⁹ Gott and Camp.
- ¹⁰ Australian Army Training Team in Vietnam, "Victory at Hue," in Alec Wahlman, *Storming the City: U.S. Military Performance in Urban Warfare from World War II to Vietnam*, Dennison: University of Texas Press, 2015.
- ¹¹ GEN Donn A. Starry, *Mounted Combat in Vietnam*, New York: Bobbs and Merrill, 1980.
- ¹² The Hac Bao, an elite ranger company, was BG Troung's personal security element.
- ¹³ Camp.
- ¹⁴ Combat AAR, COL S.S. Hughes, commanding, Headquarters, 1st Marines (-), 20 Marines, March 20, 1968.
- ¹⁵ Ibid.
- ¹⁶ Mark Bowden, *Hue 1968: A Turning Point of the American War in Vietnam*, New York: Grove Press, 2017.
- ¹⁷ Camp.
- ¹⁸ Gott. According to Hammel, the Communists executed about 3,000 civilians. Also see Keith William Nolan, *Battle for Hue: Tet 1968*, Novato, CA: Presidio Press, 1996.
- ¹⁹ Starry.
- ²⁰ Wilbanks.
- ²¹ Headquarters Department of the Army, Field Manual (FM) 100-5, *Operations*, Washington, DC: Government Printing Office, 1993.
- ²² Hammel. One of the manuals Cheatham found was Army FM 31-50, *Combat in the Cities*, March 1964. The author of this article reviewed this manual and found several tank-related techniques for urban operations.
- ²³ Wilbanks.
- ²⁴ Camp.
- ²⁵ Gott.
- ²⁶ Gott and Wilbanks, "The Battle for Hue 1968," published in *Block by Block: The Challenges of Urban Operations*, William G. Robertson, general editor, and Lawrence Yates, managing editor, Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 2000.
- ²⁷ Camp and Oscar E. Gilbert, *Marine Corps Tank Battles in Vietnam*, Philadelphia, Casemate Publishers, 2007.
- ²⁸ Nolan.
- ²⁹ COL(R) Ben Knisley in an email dated Sept. 11, 2019. At the time, Knisley was a first lieutenant dust-off pilot with the Army's 498th Air Ambulance Company. Later in the operation, Knisley was shot down and declared missing in action for a few days.
- ³⁰ Camp.
- ³¹ Gott and Wilbanks, *The Battle of Hue in Vietnam: The Course of a Conflict*.
- ³² AAR from commanding general, 1st Marine Division (Reinforced) Fleet Marine Force.
- ³³ Gott.
- ³⁴ Gott and Camp. Company C, 227th Aviation Battalion, 1st Cavalry Division (Airmobile), lost nine aircraft on the first day of fighting.
- ³⁵ Camp.
- ³⁶ Gott.
- ³⁷ Camp.

³⁸ Edward J. O'Neill, "Street Lessons-Learned from the Battle for Hue for 21st Century Urban Warfare," Louisiana State University master's thesis, 2003; Gott and Camp.

³⁹ Erik Villard, *The United States Army in Vietnam Series: Staying the Course, October 1967 to September 1968*, Washington, DC: Center for Military History, 2017.

⁴⁰ Gott.

⁴¹ Gilbert.

⁴² Wahlman.

⁴³ Jack Shulimson, Leonard A. Blasiol, Charles A. Smith and David A. Dawson; *United States Marine Corps in Vietnam: The Defining Year 1968*, Washington, DC: Headquarters United States Marine Corps, 1997, in O'Neill.

⁴⁴ Kenneth W. Estes, *Marines Under Fire: The Marine Corps and the Armored Fighting Vehicle, 1916-2000*, Annapolis, MD: Naval Institute Press, 2000, and Gilbert.

⁴⁵ Camp.

⁴⁶ Wilbanks in *Block by Block*.

⁴⁷ Gott.

⁴⁸ Gott and Wilbanks in *Block by Block*.

Acronym Quick-Scan

AAR – after-action report

ARVN – Army of the Republic of (South) Vietnam

CAS – close air support

CTZ – corps tactical zone

FM – field manual

FMF – fleet Marine forces

LCU – landing craft, utility

LZ – landing zone

MACV – Military Assistance Command Vietnam

MAF – Marine amphibious force

Medevac – medical evacuation

NVA – North Vietnamese Army

RVN – Republic of (South) Vietnam

TF – task force

UO – urban operations

VC – Viet Cong