From Siege to Surgical:  
The Evolution of Urban Combat  
from World War II to the Present  
and Its Effect on Current Doctrine  

by  

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FROM SIEGE TO SURGICAL: THE EVOLUTION OF URBAN COMBAT FROM WORLD WAR II TO THE PRESENT AND ITS EFFECT ON CURRENT DOCTRINE

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

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ABSTRACT

FROM SIEGE TO SURGICAL: THE EVOLUTION OF URBAN COMBAT FROM WORLD WAR II TO THE PRESENT AND ITS EFFECT ON CURRENT DOCTRINE, by MAJ William T. James, Jr., USA, 126 pages.

This study investigates what effect the evolution of urban combat from World War II to the present has had on current urban combat doctrine. Urban combat operations have played a pivotal role in the conflicts of the twentieth century, and will continue to be a crucial part of future U.S. power projection operations. It is imperative that lessons learned from previous urban combat operations be studied for applicability to current urban combat doctrine.

The study analyzes the urban battles of Aachen, Manila, Seoul, Hue, JUST CAUSE, and Mogadishu to identify salient lessons for conducting successful offensive urban combat operations, then reviews current U.S. Army urban combat doctrine. The study then evaluates current doctrine using identified salient lessons to determine their effect. The study finds that the primary impacts of previous urban combat operations on current doctrine are that doctrine now embraces the idea of varied conditions for urban combat and validates the concept of fighting as a combined arms team in a built-up area. The study further finds that FM 90-10, Military Operations on Urban Terrain is obsolete, and that key procurement decisions have left U.S. forces without critical weapons that have proven decisive in urban combat.
ACKNOWLEDGMENTS

There are many to which I owe a tremendous debt of gratitude. I would like to express endless thanks to my wife Heather and to my children Eden and Will. Their unconditional love and sacrifice has sustained me. It is their home, most of all, that I defend.

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Above all, my deepest respect and thanks in memory of Specialist James M. Cavaco, Sergeant James C. Joyce, Private First Class Richard W. Kowalewski, Sergeant Dominick M. Pilla, Sergeant Lorenzo M. Ruiz, and Corporal James E. Smith. All members of Company B, 3d Battalion, 75th Ranger Regiment, and all killed in action on 03 October 1993 in the streets of Mogadishu, Somalia. Sua Sponte.

"Whom shall I send? And who will go for us? And I said "Here am I. Send Me!"

Isaiah 6:8
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CHAPTER 1
INTRODUCTION

Background

Projections are that the world's population will reach 8.34 billion people in 2025.\(^1\) Worldwide, the number of urban citizens has increased from 737 million in 1950 to 2.5 billion in 1993.\(^2\) Additionally, there appears to be a significant population migration both outward from established city cores and inward from rural areas to suburban areas between the two. Simply stated, tremendous population growth and migration to suburban areas equal more urban terrain.

Problem Statement

Current United States (U.S.) Army doctrine is based on the operational concept of force projection. Units based in the continental United States (CONUS) deploy in response to a crisis or augment forward-deployed forces that are already engaged. Future power projection operations conducted by the armed forces of the U.S. will include unavoidable urban combat.

Crucial to the success of this doctrine is the ability to execute entry operations and rapidly introduce force into a lodgment. The ideal lodgment is an airfield or seaport. The problem is that the most likely scenario requires a forced entry operation, and the majority of the world's air and seaports capable of accepting all U.S. strategic aircraft and sea lift vessels are part of complex urban terrain. Therefore, to gain the lodgment required to execute force projection operations, U.S. forces will have to fight in the urban
terrain of the airport or seaport and then fight in or through the city containing the airport or seaport.

**Research Questions**

The primary question to be answered is simple. How has the evolution of urban combat since World War II influenced the current doctrine of the U.S. Army?

Several secondary questions also exist that must be answered prior to answering the primary question. Are there any useful examples of urban combat that were not combined arms operations? Are there any examples of weapons systems that were essential in urban combat? Are there any particular forms of maneuver or tactics that proved decisive in urban combat? Has current doctrine incorporated historical lessons for the urban fight? What role do special operations forces (SOF) play in urban combat?

**Significance**

Urban combat has played a huge part in combat operations in the twentieth century. Now due to the explosive urban population growth and resulting urbanization of developing countries, it will play an even bigger role. Urban combat is the most likely condition in which U.S. forces will operate in the future. Tremendous resources and lives have been consumed in the urban fighting of the twentieth century. As a result, countless lessons have been learned on how to fight and win the urban battle. This study is intended to achieve two goals. One is to determine how the lessons learned during the evolution of urban combat have shaped the Army's current doctrine. The second is to evaluate its current doctrine based on these lessons learned to determine if it is relevant.
Underlying Assumptions

I have made two underlying assumptions. The first assumption is that rules of engagement for urban combat will continue to require commanders to take all possible steps to prevent collateral damage and to use minimum force to accomplish assigned missions. This will severely limit the options available for dealing with a well-fortified, determined enemy in urban terrain. The second assumption is that the U.S. will continue to provide some or all of the post-conflict resources to rebuild infrastructure that is damaged or destroyed during urban combat operations.

Terminology

Advanced MOUT Techniques (AMT) are defined as "the tactics, techniques, and procedures employed by Rangers to execute METL tasks in urban terrain across the spectrum of conflict from high intensity MOUT to more restrictive conditions requiring precision MOUT applications. The individual and collective skills include marksmanship, breaching, selected target engagement, and dynamic assault techniques in addition to more conventional tactics, techniques, and procedures (TTP) emphasizing firepower. It consists of a combination of standard Army TTP and equipment and special TTP and equipment peculiar to [special operations forces]SOF."\(^4\)

A built-up area is defined as "a concentration of structures, facilities, and people that forms the economic and cultural focus for the surrounding area."\(^5\)

Combat Power is defined as "the total means of destructive and/or disruptive force which a military unit/formation can apply against the opponent at a given time. A combination of the effects of maneuver, firepower, protection, and leadership."\(^6\)
Close Quarters Combat (CQC) is defined as "special techniques for clearing rooms and buildings during more politically sensitive operations when restrictive rules of engagement are in place to limit collateral damage and casualties to noncombatants. These techniques cause increased risk to the assault force to clear buildings methodically, rather than using overwhelming firepower to neutralize the inhabitants."7

Combined arms is defined as "the synchronized or simultaneous application of several arms such as infantry, armor, artillery, engineers, air defense, and aviation to achieve an effect on the enemy that is greater than if each arm was used against the enemy in sequence."8

Doctrine is "the statement of how America's Army, as part of a joint team, intends to conduct war and operations other than war."9

A lodgment is defined as "a designated area or hostile or potentially hostile territory that, when seized and held, ensures the continuous landing (buildup) of troops and material and provides sufficient maneuver space for buildup of combat power to resolve the crisis rapidly and decisively."10

Military Operations on Urban Terrain (MOUT) are defined as "military actions planned and conducted on a terrain complex where manmade construction impacts on the tactical options available to commanders."11 The term's "urban combat" and MOUT are synonymous.

Special Operations Forces (SOF) are defined as "those active and reserve component forces of the Military Services designated by the Secretary of Defense and
specifically organized, trained, and equipped to conduct and support special operations.\textsuperscript{12}

**Limitations**

The thesis is limited to the study of U.S. forces in offensive urban combat operations from World War II through the present. Also, research is limited to unclassified units, sources of information, tactics, techniques, and procedures.

**Methodology**

The thesis uses a historical analysis method. Current doctrine is evaluated to determine if the lessons learned from past urban combat operations have been incorporated, discounted, or rejected. An analysis is then made on whether or not current doctrine is viable for conducting urban combat operations.

**Thesis Outline**

Chapter 1 is an introduction that provides a proposed scenario for future urban combat, the thesis topic, key definitions, underlying assumptions, the primary question to be answered, secondary questions to be answered in support of the primary question, and the methodology to be used in answering the questions.

Chapters 2, 3, and 4 contain separate analysis' of the following urban battles: The Battle of Aachen (World War II, October 1944), The Battle of Manila (World War II, February 1945), The Battle of Seoul (Korean War, September 1950), and The Battle of Hue (Vietnam War, Tet 1968). I will use the secondary questions stated above to evaluate these battles for factors and lessons that supported successful urban combat operations.
Chapter 5 will analyze urban combat during contingency operations. Actions studied include The Battle for *La Comandancia* (19-20 December 1989) and the seizure of the Colon DENI Station (23-24 December 1989) during Operation JUST CAUSE. In addition, a detailed analysis of the Battle of Mogadishu (3-4 October 1993) during Operation UNOSOM II is included. Again, I will use the secondary questions stated above to evaluate these battles for factors and lessons that supported successful urban combat operations.

Chapter 6 will be a literature review of what is considered to be the state of the art in urban combat doctrine. This review is limited to field manuals from the 5 (engineer), 6 (field artillery), 7 (infantry), 17 (armor), 71 (combined arms), 90 (how to fight), and 100 (operational) series. The review also includes special operations forces training circulars specific to the 75th Ranger Regiment and Special Forces Operational Detachment-A Teams.

In chapter 7, I will identify and then use the factors and lessons from the past that supported successful urban combat operations to analyze the doctrinal state of the art. This will then allow me to answer my proposed research question: "How has the evolution of urban combat since World War II influenced the current doctrine of the U.S. Army?"

Chapter 8 will conclude the thesis and provide recommendations on how to correct any shortcomings discovered.


3 Ibid., 2. "Over 160,000 people migrate to developing world cities each day ... [and] by the turn of the century 264 of the world's 414 million cities will be located in the developed world."


7 RTC 350-1-2, 1-2 to 1-3.

8 FM 101-5-1, 1-32.


10 FM 101-5-1, 1-93.


12 FM 101-5-1, 1-142.
CHAPTER 2

URBAN COMBAT IN WORLD WAR II

The Battle of Aachen, European Theater, October 1944

There are two factors that proved decisive in the Battle of Aachen. First was the unconstrained use of supporting fires to isolate strong points and allow the enemy to be attacked in detail. Second was fighting as a combined arms team. The incredible destructive power of tank main guns, antitank guns, and direct fire artillery provided the means with which dismounted Infantry could gain a foothold in strong, reinforced defensive positions and kill the enemy. U.S. forces would not have succeeded without this firepower.

On 10 October 1944, the Commanding General of the United States VII Corps issued the following ultimatum to the defenders of Aachen:

The city of Aachen [the ultimatum stated in part] is now completely surrounded by American Forces. If the city is not promptly and completely surrendered unconditionally, the American Army Ground and Air Forces will proceed ruthlessly with air and artillery bombardment to reduce it to submission.¹

Colonel Leyherr, the military commander of Aachen at the time, was compelled to refuse the ultimatum.² This sealed the fate of the ancient city and for the next twelve days, a desperate and brutal fight raged to decide the issue.

The battle of Aachen was fought for both military and political reasons. From the Allied military viewpoint, the city controlled the access to the road network in the Aachen Gap. Control of Aachen would permit a direct advance to the Ruhr industrial complex and then on to Berlin. Furthermore, control of the city itself was vital to penetration of the second most heavily fortified portion of the West Wall.³
From the German military perspective, Hitler was relying on the defense of what he believed was the impenetrable West Wall to gain valuable time he needed to counterattack and cut off the Allied spearheads. This would result in a stable front with the Allied forces contained for the short term.

Politically, the city of Aachen was significant to both the United States and the Germans. The capture of a German city would be a tremendous boost to Allied home-front morale. Conversely, the Allied capture of Aachen would strike at the will of the German people. "Aachen was a symbol of Germanic greatness and played an important role in National Socialist mythology." Hitler placed great significance in this perception of Aachen as an imperial city. Much of the social ideology of the Third Reich was founded on these myths.

A terrain analysis of Aachen reveals the many challenges faced by an attacker. First, the city was predominately made up of thick stone structures with cellars. Throughout its history, space in Aachen was at a premium so buildings had been constructed with adjoining walls. Narrow streets severely canalized formations which inhibited maneuver.

Additionally, extensive damage had been done to the city prior to 10 October. Since the beginning of the war, Aachen had been targeted by the Allied air campaign. There was tremendous damage to the infrastructure of the city; estimates are that over three million square meters of debris covered the inner city. This debris, made up of rubble, shattered glass, shell pocked streets, and partially collapsed buildings, would limit mobility of wheeled vehicles. These factors forced tactical combat operations to be fought at the platoon and squad level.
On 12 October, command of the defense of Aachen passed to Colonel Gerhard Wilck, a lackluster officer whose qualifications were that he had been fortunate enough to survive duty on the Russian front. The garrison of the inner defense was an unlikely mix of approximately 5,000 men from different units. One such unit was the remnant of Colonel Wilck's division, the 246th Volksgrenadier Division, originally made up of newly recruited men, airmen who no longer had planes to fly or maintain, and sailors without ships. With one exception, the remaining defenders were groupings of old men with similar physical ailments. The exception was the presence of elite storm troopers from the 1st SS Battalion commanded by Major Rink.

The German's only other assets within the inner defenses were five Mark IV tanks, nineteen 105-millimeter howitzers, eight 75-millimeter pieces, and six 150-millimeter guns. Aside from these assets, there was nothing else available to defend Aachen's inner city.

Generally speaking, the German defense of the city core took the form of interconnected strong points inside the ancient stone buildings. They reinforced their positions within buildings to create pillboxes and blockhouses that could place murderous fires down the narrow streets. The Germans also used Panzerfaust antitank weapons forward in support. Even though primarily manned by ailing old men, boys, and what amounted to rear echelon soldiers, "Fortress Aachen" would prove a tough nut to crack.

The mission to reduce Aachen's inner defense fell squarely on the shoulders of Colonel John Seitz's 26th Infantry Regiment of the 1st Infantry Division. He tasked his 2d Battalion under the command of Lieutenant Colonel Derrill M. Daniel to execute the main attack along the Aachen-Cologne rail line. He also ordered Lieutenant Colonel
John T. Corely to lead his 3d Battalion in a supporting attack northwest toward the factory complex between Aachen and Haaren and then west to secure the key terrain along the Lousberg hill mass.

Lieutenant Colonel Daniel understood his orders to mean the reduction of the city could require the complete destruction of the city. In fact, there was no requirement to limit collateral damage nor were there any restrictions placed on the employment of direct fires, indirect fires, or close air support. Simply stated, commanders were unconstrained in the use of available combat power to bring Aachen to its knees.

The desired end state of the battle of Aachen with regard to terrain was complete control of the city. This would allow unimpeded access for Allied forces to attack into the heart of Germany's Ruhr industrial complex. It would also serve to help unhinge the West Wall defense.

Regarding the enemy, the desired end state was not the destruction of the force. The Allied focus was clearly on the city's capture. The German forces in Aachen could have quietly slipped away without firing a shot, and there would not have been a pursuit.

In accordance with his orders, Lieutenant Colonel Daniel's plan for 2d Battalion, 26th Infantry Regiment's attack to seize the city core was very simple and focused on direct action:

Use artillery and mortar fires across our front to isolate the sector . . . use direct fire from tanks, tank destroyers, and machineguns to pin down the defenders and chase them into cellars; and then to move in with bayonets and hand grenades to destroy or capture the defenders. He supported his intent to use firepower in his task organization for combat.
Each of his three rifle companies was given three tanks or tank destroyers, two 57-millimeter antitank guns, two additional bazooka teams, one flame thrower, and two heavy machineguns. Company commanders further attached these assets to their platoons. The result was a non doctrinal augmentation of rifle platoons and squads with non organic firepower to overcome the unique advantage of the urban defender. In addition, a 155-millimeter self-propelled gun was attached to both the 2d and 3d Battalions. This was to become a tremendous asset for the battalion commanders to influence the battle.

All of this available firepower coupled with the commander's clearly understood intent to use it liberally created a mindset of destruction. The 2d Battalion, 26th Infantry Regiment's battle cry, "KNOCK 'EM ALL DOWN," epitomized this concept. "The soldiers were quick to realize that the defenders could hardly deliver accurate fire with buildings falling about their ears." The presence of noncombatants in the city was well known to U.S. commanders, yet there were no constraints placed on the use of fires. In fact, Lieutenant Colonel Daniel was primarily concerned with the evacuation of the civilians to prevent the German soldiers from posing as civilians and escaping to cause further havoc in the rear.

Massive amounts of indirect artillery and mortar fires were used to support maneuver by isolating a strong point. Commanders were able to maneuver very close to these supporting fires by placing them parallel to the front of their maneuver formations. Additionally, delay fuses were used to allow rounds to penetrate upper floors and increase weapons' effects.
Moving through buildings by blasting through adjoining walls with demolitions, the infantry would gain positions to initially suppress any possible German antitank positions.

Under the cover of infantry and fire support, tanks or tank destroyers, restricted to moving on the streets, would move up just short of an intersecting side street. They would then ease up to an oblique firing position and mercilessly pound known and suspected positions to drive the enemy into the cellars.

Dismounted infantry would then position additional heavy weapons to augment this punishing base of fire. Once the enemy position had crumbled, the infantry moved in and cleared the position. However, even after this punishment, the defenders were determined to hold, resulting in savage fighting. Rifles, pistols, knives, flame throwers, grenades, bayonets, and even bare hands were used with equal effectiveness.

The grimmest example of this type of fight took place at the Hotel Quellenhof. Paratroopers of the 1st SS Battalion had been forced into the cellar of the hotel by a massive bombardment of artillery and direct fire. A platoon under the command of Second Lieutenant William D. Ratchford seized the hotel lobby and began a hand grenade exchange with the enemy barricaded in the cellar. When the enemy ran out of grenades, they threw bottles. The platoon then brought up machineguns to fire into the basement along with the grenades. Bullets, ricochets, blast concussion, fragmentation, and fiery debris transformed the confined stone cellar into a raging cauldron. The hardened paratroopers briefly endured this horror but finally surrendered. On the floor of the cellar they left twenty-five dead.14
In addition to conventional indirect fire missions, artillery was also employed forward in the direct fire role to support maneuver. Harassed by a bypassed enemy position in a church steeple, Company G, 2d Battalion, 26th Infantry fired numerous tank and tank destroyer rounds into the position with no avail. Frustrated by this impediment to his advance, Lieutenant Colonel Daniel decided to employ his attached 155-millimeter gun "and blasted the tower apart with one shot."\(^{15}\)

The 3d Battalion also used its 155-millimeter gun to great advantage. When 3d Battalion, 26th Infantry encountered a large air raid bunker at the end of the Lousberg Strasse, Lieutenant Colonel Corley decided that he would use firepower to minimize casualties. He brought up his 155-millimeter gun, and it literally crushed the defenses around the bunker. Rounds from the 155-millimeter battered the bunker repeatedly. Through all of this, Lieutenant Colonel Corley was unaware that he was shattering Colonel Wilck's command post, and as a result, shattering his personal resolve to continue the defense.

At 211205 October 1944, Colonel Wilck surrendered the city of Aachen. The carnage and destruction was staggering. The fighting to encircle the city alone cost the U.S. 30th Infantry Division over 3,000 casualties.\(^{16}\) In the fight to seize the inner city, the 26th Infantry Regiment suffered 498 casualties.

The city itself was wrecked and lay in ruins. Its infrastructure razed and its very core smashed, an unidentified American observer summed up the condition of the ancient imperial city:

"The city is as dead as a Roman ruin, but unlike a ruin it has none of the grace of gradual decay . . . burst sewers, broken gas mains, and dead animals have raised an almost overpowering smell in many parts of the city. The streets are
paved with shattered glass, telephone, electric light and trolley cable are dangling and netted together everywhere, and in many places wrecked cars, trucks, armored vehicles, and guns litter the streets.\textsuperscript{17}

The Battle of Manila, Pacific Theater, February 1945

Nothing can ever detract from the extraordinary efforts of the indomitable infantrymen of XIV Corps\textsuperscript{18} in their savage and personal fight. However, it was the application of massed fire support that proved decisive in the battle of Manila. Time and time again it was the relentless pounding of the Japanese positions by heavy weapons that allowed dismounted advance and seizure of strong points.

The Battle of Manila was unavoidable. Manila was the key to Luzon, and Luzon was the key to the entire Philippine archipelago. The capture of Philippine bases would allow Allied forces to strike at the Japanese lines of communication to the south.

Also, General MacArthur was vehement in his belief that the liberation of the Philippines was a national obligation and a political necessity.\textsuperscript{19} He was intensely driven by what he perceived as a loss of national prestige and honor if the U.S. did not re-take the Philippines as soon as possible.

Within the context of 1945, Manila is best depicted as a modern city with a colonial past. At the core of the city was the ancient walled fortress of Intramuros and the government buildings. A stone wall forty feet wide at the base encircled the fortress, sixteen feet high, and twenty feet across at the top. Within this wall were stone buildings from the days of Spanish rule.

Built up around Intramuros were the modern structures of the New Police Station, City Hall, and the General Post Office. Primarily constructed of heavily reinforced concrete to withstand earthquakes, these buildings were transformed into near
impenetrable strong points that defended the eastern approach to Intramuros. To the north of Intramuros was the Pasig River and to the west was Manila Bay. South of the walled fortress was the University of the Philippines and the Philippine General Hospital. Both of these were complex sets of heavily reinforced concrete structures.

Continuing outward from the core was the urban sprawl of a modern city. Residential areas with various types of construction, slum areas that were ramshackle and highly inflammable, and industrial areas with manufacturing and warehouse buildings. The only natural obstacle within the city core was the Pasig River. The Pasig River was a primary concern to the 37th Infantry Division in the plan to reduce Intramuros:

The Pasig River from Manila Bay to a point near the Malacanan Palace was confined to its banks by concrete sea walls, the one on the south side being too high to be scaled from Infantry assault boats, nor [is] there any point of access for amphibious tractors.²⁰

The Japanese commander never envisioned a strong defense of the city. In fact, General Yamashita's intent was to leave only a small force in the city to destroy the bridges over the Pasig and Marikina Rivers to delay an Allied advance on the Shimbu Group east of the metropolitan area. In a perplexing and unilateral series of decisions and troop reinforcements, the Japanese Navy established a strong defense of Manila and were prepared to defend the city to the last man. Thus the conditions were set for a battle of tremendous destruction and terrible carnage.

The Manila Naval Defense Force under the command of Admiral Iwabuchi was resolute in its commitment to hold until the bitter end. The crux of the Japanese defense was the walled city of Intramuros. Around that, the government buildings were reinforced and transformed into unassailable bastions that guarded the approaches.
Elsewhere, they fortified existing structures and employed every conceivable form of tactical wire obstacles, conventional and improvised mines, and expedient blockades to form intimidating positions and canalized killing grounds. From these positions they would hinder the advance of an attacker by fighting until they themselves were killed in place.

Even more daunting was the use of heavy weapons. Japanese ordnance troops modified heavy weapons stripped from sunken ships and scrapped aircraft for ground use. Positions had 20-millimeter antiaircraft canons, 25-millimeter machine canons, 40-millimeter antiaircraft guns, and uncounted numbers of heavy machineguns with which to cover the streets of Manila. In addition, there were hundreds of mortars available to provide intense, responsive fire support to the defenders.

From the U.S. perspective, the mission was to seize Manila with its infrastructure intact. In addition, "Large numbers of civilians, both white and native, were known to be in the area south of the Pasig River, and particularly in the walled city, and of course it was desired to spare them if possible." This led to the initial restriction of supporting fires. Artillery, mortars, and air strikes could only be employed against observed enemy gun positions. This restriction remained in effect until the 10th of February when it was determined that the cost of sparing Manila's infrastructure was too high. In three days of fighting (7-10 February) without supporting fires, the 148th Infantry Regiment had suffered over 500 casualties and the 129th had suffered 285. The restrictions on artillery were lifted, but air support limitations remained in effect.
The desired end state of the operation regarding terrain was the capture of the city. The desired end state regarding the enemy was to kill, capture, or cause the withdrawal of Japanese forces in the city.

U.S. forces fought mainly as combined arms teams, and there were no significant non doctrinal formations on the battlefield.

The best way to examine the fight for the city core is to focus on four related engagements: The New Police Station complex, City Hall, The General Post Office, and Intramuros itself.

The first is the fight for the New Police Station and surrounding buildings. The area in question was only 200 yards wide by 400 yards long but had to be secured in order to assault Intramuros. On 13 February, a relentless pounding of the position by 155-millimeter direct fire artillery, 76-millimeter tank destroyers, and 105-millimeter self propelled guns had no effect on the Japanese defenders who continued to pour a murderous fire into the assaulting troops. The assault was repulsed.

On the 14th, Company A, 754th Tank Battalion reinforced the 129th Infantry. With the tanks providing protection, the men of Company B advanced and gained a foothold in the first floor, and a platoon of Company C gained access to the basement of the New Police station. The fighting was ferocious and raged from room to room. Every step was contested and in one room alone the 129th Infantry destroyed three fortified machinegun positions. The fighting ended when the Japanese on the second floor rained grenades on the hemmed in men of the 129th Infantry through precut holes in the floor. With stairwells destroyed or too heavily barricaded to assault, the men of the 129th Infantry were forced to withdraw from this maelstrom.
Aside from some reconnaissance in force missions, no progress was made on the 15th or 16th however, the direct fire battering of the building by tanks, tank destroyers, self-propelled guns, and artillery continued unabated.

On 17 February, 1st Battalion, 148th Infantry Regiment relieved the 129th Infantry in place. It began its attack at 181015 February with a massive preparation of the complex using tanks and tank destroyers. The 1st Battalion, 145th Infantry cleared two adjoining buildings (the shoe factory and Santa Teresita College) and gained a foothold in the New Police Station, only to be forced to withdraw by solid resistance inside the building and supporting enemy fire from the San Pablo Church.

The 1/145th attacked again on the nineteenth. Again, tanks with 73-millimeter guns, tanks with 105-millimeter guns, tank destroyers with 76-millimeter guns, and almost an entire 105-millimeter artillery battalion bludgeoned the objective with direct fire. Again, a foothold was gained and again it proved untenable. Finally, on the twentieth of February, supporting fires pulverized what remained of the New police station until it was barely standing. The men of C Company assaulted and, after hand to hand fighting, secured what was left.

The eight-day fight for 6,000 square yards cost the 37th Infantry Division 105 casualties and three medium tanks destroyed. In addition, the 6,000 square yards had been laid to waste.

The fight for City Hall was equally brutal. On February twentieth, the 3d Battalion of the 145th Infantry Regiment attacked. Using a 155-millimeter howitzer, Company I blasted a breach in the eastern wall of the building. The fight surged back and forth all day until approximately 1840 when under the cover of heavy machineguns,
a platoon rushed the open ground and entered through the breached wall. The Japanese
then detonated a series of mines that rocked the entire building and started a blazing fire.
The heat was unbearable and the platoon was forced to withdraw immediately. As the
fighting ceased on 20 February, casualties had reduced the company’s fighting strength to
eighty men. Of note, two company commanders were killed in this one day’s action.\textsuperscript{24}

Not much different happened on the twenty first. Tanks, tank destroyers, and
155-millimeter howitzers knocked down the outer walls of the east wing, and Company I
assaulted, and gained a foothold but were again repulsed by determined resistance.

On the February twenty second, 3d Battalion, 145th Infantry pulled out all the
stops. An intense direct fire bombardment by tanks, tank destroyers, and 155-millimeter
howitzers coupled with the indirect fires of 105-millimeter howitzers, 4.2-inch mortars,
and 81-millimeter mortars completed the destruction of the east wing and crushed the
upper floors. Then, the entire 3d Battalion of the 145th Infantry Regiment assaulted the
City Hall.\textsuperscript{25} By the sheer weight of brute force, all but twenty of the enemy were
vanquished. Behind a stout defense in the basement, the remaining twenty Japanese
soldiers prepared to kill as many of the attackers as they could before being killed where
they stood. However, the 3d Battalion, 145th Infantry would not submit to this wholesale
slaughter. Using whatever was available, they cut holes in the first floor, employed
flame-throwers, and ended the fight. The 3d Battalion, 145th Infantry quickly cleared
away rubble and set up heavy machineguns to be used in the next mission, the assault on
Intramuros.
Concurrent with the fight for City Hall was the struggle to seize the General Post Office. In retrospect, it was the most heavily fortified and staunchly defended strong point in the entire Japanese defense. The position had been so well prepared that:

The Post Office was practically impervious to direct artillery, tank, and tank destroyer fire. The interior was so compartmented by strong partitions that even a 155-millimeter shell going directly through a window did relatively little damage inside.\(^\text{26}\)

From 20 to 23 February, the General post Office was subjected to an unrelenting siege by every weapon that could be brought to bear. In concert with this punishment, elements of the 145th Infantry attempted numerous assaults, only to be driven back. Finally on 22 February, the defenders had been decimated so badly that a foothold was secured in the second story. The men of 145th Infantry then fought some of the most intense close combat of the entire war and drove the remaining defenders into the basement. After fighting unsuccessfully to clear the basement, the 145th used flame-throwers and poured burning oil through holes in the first floor to annihilate the enemy.\(^\text{27}\) The smoldering debris that once processed the mail for Manila was now in Allied hands.

From the beginning, the reduction of Intramuros was based on the violent application of overwhelming firepower to smash the Japanese defenses. The request to use air power against Intramuros was denied by General MacArthur. He stated that:

The use of air on a part of a city occupied by a friendly and Allied population is unthinkable. The inaccuracy of this type of bombardment would result beyond question in the death of thousands of innocent civilians. It is not believed moreover that this would appreciably lower our own casualty rate although it would unquestionably hasten the conclusion of the operations. For these reasons I do not approve the use of air bombardment on the Intramuros district.\(^\text{28}\)
General MacArthur was detached from the reality of the fighting in the streets of Manila. The commander of the 37th Infantry Division correctly used common sense and applied assets that were not prohibited. For seven consecutive days, every weapon system from light machineguns and mortars to the mammoth eight-inch and 240-millimeter howitzers of XIV Corps Artillery poured fire into the ancient fortress. This preliminary preparation culminated in a massive one hour preparation prior to the assault on 23 February (table 1 illustrates the number of artillery rounds by type that were used to batter the fortress during this in a one hour preparation). In addition to the figures shown in table 1, 4.2-inch mortars fired over 3,750 rounds of high explosive and smoke rounds.29

<table>
<thead>
<tr>
<th>Weapon Systems</th>
<th>High Explosive Rounds Fired</th>
<th>Armor Piercing Rounds Fired</th>
<th>Smoke/White Phosphorus Rounds Fired</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-millimeter Tank Guns</td>
<td>450</td>
<td>150</td>
<td>0</td>
</tr>
<tr>
<td>76-millimeter Tank Destroyer Guns</td>
<td>450</td>
<td>150</td>
<td>0</td>
</tr>
<tr>
<td>105-millimeter Howitzers</td>
<td>4,753</td>
<td>0</td>
<td>93</td>
</tr>
<tr>
<td>155-millimeter Howitzers</td>
<td>1,723</td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td>240-millimeter Howitzers</td>
<td>39</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8-inch Howitzers</td>
<td>72</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>7,487</td>
<td>300</td>
<td>116</td>
</tr>
</tbody>
</table>


This one-hour preparation breached walls, created assault ramps of rubble, and created the conditions for the rudimentary foothold from which the torrent could expand and clear the city. Attacking columns of the 145th and 129th Infantry Regiments raced
through the breached walls and rapidly gained ground with few casualties. Reeling from the merciless pounding and rapid advance, the Japanese released over 3,000 civilians into the streets forward of their attackers to gain a respite. The advance was effectively halted for several hours while units evacuated the non-combatants. Units then resumed the advance and subdued the Japanese in all areas but two: Fort Santiago and the Aquarium. At Fort Santiago, the men of Company L, 3d Battalion, 129th Infantry were faced with pockets of Japanese fighting to the death in the remnants of buildings. One by one, these pockets were isolated, suppressed, and finally reduced. "In a few instances, engineers poured gasoline or oil into holes and dungeons and then ignited it." Within these flames, resistance in Fort Santiago perished.

The Aquarium was subdued through a happenstance of luck. An unprotected tunnel was discovered that allowed men of Company C, 1st Battalion, 145th Infantry to break into the inner portion of the defensive position and reduce it in approximately ninety minutes. With the exception of some minor actions, the fight for Intramuros was over.

The Battle of Manila was a pyrrhic victory for General MacArthur, and the cost was overwhelming. From 3 February to 3 March, XIV Corps suffered 6,575 casualties of which 3,000 were from the 37th Infantry Division alone. Greater than that, the city that General MacArthur tried to save from destruction resembled the surface of the moon. The majority of the infrastructure was permanently destroyed. One third of the bridges were gone. Power plants were smashed. Water systems ruptured, and the streets were impassable. Scores of residential areas lay in ashes, manufacturing hubs were in ruins, and the government center had been eradicated. Those buildings that remained standing
were in peril of collapse, and the ancient walled fortress of Intramuros which had stood unconquered for three hundred and fifty five years was demolished beyond recognition. But even more telling was the fact that despite the restriction of fires over 100,000 Filipinos lost their lives in the battle.32

Three very important lessons can be drawn from these battles. First, fighting as combined arms teams proved decisive. Second, the use of massive firepower to subdue an enemy defending an urban area was indispensable. Third, although there were attempts to limit or prevent both, the collateral damage and numerous civilian casualties resulting from urban combat were generally accepted during World War II as the cost of fighting the war.


2 Ibid., 307.

3 Ibid., 29.


5 Ibid., 28.

6 MacDonald, 308.

7 Whiting, 35. The German Army had formed units of men with like ailments to streamline their medical care.

8 MacDonald, 308.

9 Derrill M. Daniel, Capture of Aachen, Germany, 10-21 October 1944 (Fort Leavenworth, KS: Command and General Staff College, 1947), 4. [Combined Arms Research Library Report N-2253.17]

10 Ibid., 5.
The fighting around the city was equally brutal. An excellent example is the Battle for Crucifix Hill, 8 October 1944, in which CPT Bobbie E. Brown, Co C, 18th Infantry Regiment, 1st Infantry Division earned the Medal of Honor.

Four Medals of Honor were awarded to men of the 145th Infantry Regiment alone. The official citations illustrate the primal savagery of combat in Manila.


Ibid., 45.

Smith, 264.

Ibid., 282.


Ibid., 13.

Smith, 285.

Windom, 13.

Smith, 294.
29 Ibid., 296.
30 Ibid., 298.
31 Ibid., 307.
32 Ibid.
CHAPTER 3

URBAN COMBAT IN THE KOREAN WAR

The Battle of Seoul, September 1950

The employment of overwhelming firepower in decentralized small unit actions by combined arms teams proved the decisive factor in the battle to seize the city core of Seoul. In the words of Private First Class Win Scott, Company C, 5th Marines, "Thank God we had tanks with us. Without them, we'd still be fighting there."¹

The Battle of Seoul was fought as part of the Inchon-Seoul Campaign in September of 1950. Code named Operation CHROMITE, the campaign's purpose was to cut the North Korean Peoples Army (NKPA) lines of communication, relieve pressure on the Pusan Perimeter, and reestablish the Republic of Korea (ROK) Government in the capitol city of Seoul. To that end, General MacArthur adamantly stated that the recapture of Seoul was critical:

By seizing Seoul, I would completely paralyze the enemy's [NKPA] supply system-coming and going. This in turn will paralyze the fighting power of the troops that now face Walker [Eighth Army]. Without munitions and food they will soon be helpless and disorganized, and can be easily overpowered by our smaller but well supplied forces.²

Seoul was critical to the NKPA for the same primary reason. The force in control of Seoul controlled the hub of transportation and supply south of the Imjin River.

The general layout of Seoul and the varied types of construction, as they existed in 1950, were similar in many ways to both Aachen and Manila discussed in chapter 2.

The city sits in a mountain-rimmed basin, the site having been chosen 100 years before Columbus discovered the New World. Old-fashioned and somewhat shabby, Seoul ... was a city of contrasts; modern office buildings over-looked

27
500 year-old palaces with their manicured lawns and gardens. Broad boulevards connected the ancient with the modern.³

Even before the battle for the city core was joined on 24 September 1950

a great deal of damage had already been done to the city's infrastructure. "The city was dirty. There were animals running wild and junk everywhere."⁴ Both the NKPA and the United Nations Forces caused the damage. Much of the damage was caused by preparatory aerial bombardment by Navy Corsairs and the subsequent combustion of inflammable structures.⁵ A portion of the remaining damage resulted from the NKPA use of trolley cars, streetcar rails, and sections of deliberately demolished structures to construct barricades and fighting positions.⁶

The environmental conditions in Seoul during September of 1950 were harsh. Burning buildings filled the air with choking dust and acrid smoke. Even worse, the intense heat from the flames added to the late summer heat of the day to make conditions almost unendurable.⁷ Add the presence of decaying animal carcasses, the putrid smell of raw sewage from burst lines, and the specter of human corpses and you have a snapshot of the battlefield. Despite all of this, the men of X Corps grimly pressed the fight.

The one major obstacle that affected the seizure of Seoul was the Han River. The river runs generally northwest to southeast and obstructs all approaches to Seoul from the west and south. The X Corps attacked Seoul along the Inchon-Seoul highway which runs northeast from Inchon, through Yongdungpo, and into Seoul. Thus United Nations lines of communication had to cross the river to maintain support for operations in the city.
Not a single bridge was intact. With every mile gained, the logistics system stretched from Inchon closer to an eventual breaking point. The Han River only made it worse.

The NKPA plan of defense of the city focused primarily on establishing defensive strong points to hold the decisive hills that overwatched the approaches into the city. This would allow reinforcements to reach the city. Savage fighting took place all around the city as X Corps and the NKPA grappled for control of these decisive hills. The battle for the city changed on the twenty fifth of September:

It appears that after the seizure of South Mountain by the 32d Infantry and the reduction of the hill defenses at the western edge of the city by the 5th Marines during the 25th, the [NKPA] commander in Seoul decided the city was doomed and began the withdrawal of certain units that evening while leaving others to fight desperate delaying actions.

The primary unit that withdrew was the NKPA 18th Division. In order to cover this withdrawal, the NKPA Commander directed furious counterattacks against every force advancing into Seoul. These counterattacks met marine units that were themselves attacking to prevent the escape of withdrawing NKPA forces that had been reported to be "fleeing." These meeting engagements lasted until daylight and resulted in tremendous losses for the NKPA. In one engagement alone, the U.S. Marine Corps existing record for machinegun ammunition fired in a single engagement was broken.

Those NKPA forces that were left then manned prepared defensive positions to continue the delay. As the situation changed the NKPA magnified the constraints imposed by the city core to fight a determined delaying action. This would hinder the advance of UN forces and allow the bulk of NKPA forces to escape capture or destruction. The NKPA commander attempted to attrit the UN force. This would
support his delay effort by burdening the already stressed UN logistics system with more wounded soldiers and damaged equipment.

These "delaying actions" became known as the "Battle of the Barricades." The NKPA built barricades on virtually every street intersection in the heart of Seoul. These barricades varied in construction, but were generally made of an eight-foot high wall of rice or fiber bags filled with dirt. They were reinforced with debris, streetcar rails, rocks, vehicle hulks, or any other material that would block an approaching enemy. These barricades were tied in to the buildings at each end from which antitank guns and machineguns could place direct fire on an attacker. "Stone walls and buildings were turned in to small forts which gave protecting fire for the barricade defenders." Finally, belts of antitank mines were placed in front of the barricades to reinforce the defense.

The primary weakness of this barricade plan of defense was that the positions were isolated strong points and offered no mutual support. "Thus the Americans were able to reduce the each barricade independently with no fear that the enemy could develop a coordinated counter-attack or pose any threat to possession of the city."

The desired end state for UN forces with regard to the city was its seizure. General MacArthur clearly placed a deadline on General Almond, Commanding General of X Corps for the capture of the city by 25 September. With regard to the enemy force occupying the city, the desired end state was the destruction of the force in their defensive positions or as they attempted to withdraw from the city.

The U.S. forces fought as combined arms battalion task forces and company teams supported by indirect fire and close air support. The units were primarily infantry
formations augmented by engineers and armor. The formations and tactics on the battlefield were in accordance with the doctrine of the time.

The battle for the city core was primarily a series of small unit actions to breach the barricades and kill or capture NKPA forces remaining in the city. The fighting to destroy these barricades followed a general pattern. When a barricade was encountered, close air would be directed to engage the position with rockets and guns. This was followed with indirect fires to suppress enemy positions while engineers moved forward and detonated antitank mines. Supporting tanks would then move forward, blast enemy positions with main gun and coaxial machineguns, and physically breach the barricade. Infantry following the tanks would then rush forward, kill or capture enemy soldiers, breach walls through adjoining buildings, and overwatch the move of the unit forward. The process of breaking a barricade averaged an hour. Units fighting as combined arms teams succeeded.

Conversely, attempts to operate as a single arm met with failure. An illustration of this is the 26 September debacle of Company C, 32d Infantry Regiment near the Seoul racetrack. Advancing unsupported, the company moved for more than an hour without contact. A rifle platoon was then placed forward as a reconnaissance force. After advancing an additional 250 yards, the lead platoon was suddenly inundated by a withering enemy fire that killed six men instantly and wounded many others. Volumes of accurate enemy fire prevented attempts to organize a hasty defense. The platoon was being slaughtered. Lieutenant James O. Mortrude, the platoon leader, ran through a 25-yard maelstrom of fire to reach three tanks from an adjacent sector that had moved up to
assist. Exposed to enemy fire, he used the exterior phone on the rear of the lead tank to communicate with the buttoned up tankers. He then directed main gun rounds onto the enemy position behind an embankment to cover the evacuation of his shattered platoon.24

Likewise, on 27 September Company D, 7th Marine Regiment (an infantry rifle company) moved unsupported to effect a link up with the 5th Marine Regiment. As the vanguard passed the Arch of Independence at approximately 0830, a fusillade of enemy fire engulfed the lead element of the company and killed the platoon leader. The company had stumbled right into the middle of the 25th NKPA Brigade's final defensive line and the fighting quickly spread along the flanks of the company. The fighting raged well into the afternoon, but the marines of Company D were unable to overcome the enemy. CPT Richard R. Breen pulled his men into a defensive perimeter and found that the enemy had encircled his company. Two aircraft dropped ammunition, rations, and some medical supplies to help the beleaguered unit. Company D fought hard through the night to hold its position. In the morning, a combined arms column of infantry, tanks, and engineers broke through and relieved the company.25 Again, operations by a single arm met with failure.

Many veterans of the battle for Seoul felt that overcoming the NKPA barricades, despite their lack of mutual support, entailed some of the costliest fighting of the war.26 Lieutenant Robert L. Strickland, a U.S. Army cameraman, described the effects of close combat in such a confined area:

There were more mortar shells, more antitank stuff, and more small-arms fire . . . . I have seen a lot of men get hit in this war and in World War II, but I think I have never seen so many get hit so fast in such a small area.27
Some of the bitterest fighting for the city core took place after General MacArthur declared the city had been liberated on 26 September. Many Marines referred to this period as "Almond's Mopping Up." Staff Sergeant Lee Bergee, Company E, 1st Marines voiced a common sentiment:

I remember one day during "Almond's mopping up" when our battalion gained exactly 1,200 yards. At each barricade we had to annihilate the enemy, then reorganize, evacuate casualties, and wearily go on to the next.

Flame-throwing tanks also played a significant role in the fighting when positions supporting the barricades proved impervious to main gun rounds. Flame-throwing tanks would move up, supported by infantry and artillery suppression, and incinerate the opposition.

The cost in lives was not limited to combatants. Thousands of civilians were caught in the middle and suffered tremendous losses. Reginald Thompson, an eyewitness to the fighting as a reporter for London's Daily Telegraph, wrote "Few people can have suffered so terrible a liberation." Private First Class Win Scott, Company C, 5th Marines described the problem of noncombatants in the fight for the city core:

The city was full of civilians. Some of them might have been armed. We didn't trust anyone. We couldn't. Civilians were a big problem. Suddenly, in trying to get away from a firefight in their neighborhood, hundreds of women and children would mob into our area, blocking us off.

The civilians also helped when they could. Many times, after a section of the city had been secured, they came out to help carry or care for the wounded Marines.

The threat to noncombatants was not only from collateral effects of the battle, but from reprisals by the combatants themselves. There were numerous documented
incidents of atrocities committed by the NKPA and ROK forces. When Marines of Company E, 1st Marine Regiment retook the Seoul Railroad Station they found "... the still warm [stacked] bodies of women and children-hostages massacred by the North Korean secret police."34

ROK forces were just as ruthless. Chaplain Glyn Jones, 1st Battalion, 1st Marines encountered 100 civilians carrying shovels being led by a South Korean officer and guarded by a detail of ROK soldiers. The group included old men, pregnant women, and children. When stopped by Chaplain Jones, the ROK officer stated that these people were to be shot for collaboration with the NKPA. Indicating a U.S. Marine heavy machinegun crew overwatching the exchange, the gallant chaplain explained to the ROK officer that he would remain in position until the battalion commander could arrive. Given no other choice, the ROK officer and his captives remained with the chaplain until the battalion commander arrived. The commander quickly took charge and the group was spared.35

The fighting to reduce the barricades and secure the city core caused tremendous collateral damage. Unfortunately, not all of the damage was incidental or unintended. There were many incidents of larceny and malicious destruction. One rather bizarre episode involved the looting of a brewery and the subsequent robbery of a bank by Staff Sergeant Chester Bair and crew, Heavy Tank Company, 32d Infantry:

Not far from the railroad station, we discovered a brewery. After dumping the water from our five-gallon cans, we filled them with beer. Next we drove [the tank] around to a neighborhood bank. We blew open the front door. The vault was also locked. After driving up the stairs, we fired an armor piercing shell into the vault door. Found nothing but some papers we couldn’t read. The perfect bank robbery, but the robbers left without any valuables.36
As discussed, units employed the combined firepower of close air support, artillery, mortars, tank main guns, machineguns, flame throwers, antitank weapons, demolitions, and small arms to reduce the barricades. After the fight for a barricade was done "... a twisted, burning section of Seoul, along with many dead bodies, was left behind." Seoul was wrecked. Even after accounting for damage done during the NKPA assault on the city in June, observers still described the destruction as "worse even than Tokyo or Yokohama in 1945."  

The cost to both sides was high. In four days of fighting for the heart of the city (25-28 September) the 1st Marine Division reported 103 killed in action, 18 died of wounds, and 589 wounded in action for a total of 710 casualties. Enemy casualties were estimated at 4,284 dead or wounded.  

Three important points can be drawn from the "battle of the barricades." First, the weakness of the NKPA defensive effort in the city core was that the barricades, although individually formidable, offered no mutual support. The X Corps was able to destroy the barricades in detail without ever having to contend with a coordinated effort or counter attack by the enemy. Second, U.S. units fought as combined arms teams; employing the overwhelming firepower of supporting artillery and close air. Thirdly, at the time, the collateral damage and loss of noncombatant lives from the battle was generally accepted as the cost of winning.


3 Knox, 288.

4 Ibid., 293.

5 Ibid., 288.

6 Ibid., 289.

7 Ibid., 298.


9 The fighting to seize the hills around Seoul is an excellent study of Infantry small unit combat. There are many accounts of intrepid action under fire described in U.S. Marine Operations in Korea 1950-1953, Volume II The Inchon-Seoul Operation.


11 Ibid., 533.

12 Ibid., 532.


14 Ibid., 534.

15 Ibid., 531.

16 Ibid., 534.


18 Ibid., 536.


20 MacArthur, 350.
Goulden, 226. General MacArthur placed such significance on September twenty fifth because it was exactly three months after the NKPA invaded the South.

MacArthur, 354.

Alexander, 216.

Stanton, 106-107 (LT Mortrude was awarded the Silver Star for bravery during this action)

Heinl, 243-244.

Knox, 292-293.


General Almond's September twenty sixth declaration that the city was liberated was a political statement. Some of the worst fighting took place after the twenty sixth and was referred to as a mopping up operation. Additionally, Almond was not well thought of by the Marines (Stanton, 113)

Knox, 299.

Appleman, 535.

Heinl, 242.

Knox, 291.

Ibid., 293.

Ibid., 299.

Ibid., 294-295.

Knox, 301.

Alexander, 216.

Goulden, 230.

40 Alexander, 218.
CHAPTER 4

URBAN COMBAT IN THE VIETNAM WAR

The Battle of Hue (Tet Offensive), February 1968

Despite limited artillery and close air support, United States forces fighting as combined arms teams employing the maneuver and firepower of infantry, armor, and heavy weapons carriers were able to defeat a professional North Vietnamese enemy force entrenched in a well-prepared urban defense of Hue.

In late 1966 and early 1967, the North Vietnamese political leadership began to consider a new strategy. The U.S. and its ARVN allies had won battle after battle with the Viet Cong (VC) and North Vietnamese Army (NVA), and communist strength was quickly being attrited. The continued bombing campaign was also beginning to wear down the resolve of the North Vietnamese people. In addition, the relative stability of South Vietnamese President Nguyen Van Thieu's regime was quickly diminishing any hope of an uprising in the south to overthrow the Saigon government. The new strategy would have to be bold, ambitious, and set the conditions that would ultimately lead to ending the war.

In its simplest form, the North Vietnamese Tet Offensive of 1968 was designed to spark a general uprising of the South Vietnamese people to overthrow the Saigon government. Conceptually broad, the offensive consisted of three phases. Phase one was a series of large-scale battles initiated by the NVA to draw U.S. forces and the Army of the Republic of Vietnam (ARVN) forces away from the population centers. In essence, phase one was a huge deception effort to fix Allied combat power in the
outlying areas. The battles of Khe Sahn, Dak To, and Loc Nibn achieved this purpose by drawing combat units, resources, and media attention to specific areas while assault units infiltrated toward their targets for phase two.

Phase two of the plan was the nationwide assault by NVA and VC forces to seize the symbols of government in the major population centers. Units were to avoid decisive engagement with ARVN and U.S. forces and focus on the rapid seizure of radio stations, police stations, political infrastructure, and administrative buildings. Once the key objectives had been secured in a city, political cadres would then proclaim the fall of the Saigon government and offer amnesty to ARVN troops. While assault units prepared defenses to hold the cities, political cadres would further coordinate the revolution of the people against the Saigon government. The North Vietnamese Politburo surmised that the loss of the ARVN and the collapse of the Saigon government would cause the U.S. to withdraw from Vietnam.

Phase two hinged on two key assumptions. The first was that mass desertions by individuals and even whole units to join the communist effort would render the ARVN ineffective. Of tremendous importance, the second assumption was that Allied firepower would not be used in cities full of noncombatants. This would allow the attacking forces to hold what they had seized. Neither assumption proved valid.

Phase three called for the NVA units involved in the fixing battles of phase one to move from their bases, link up with forces holding the cities, consolidate all gains from the offensive and eliminate any remaining resistance. This would end the war and validate the fundamental communist concept of a people's revolution.
Primarily for political reasons, capturing the city of Hue was vital to the success of the Tet offensive. Hue was sacred to the Vietnamese people, both north and south.\(^\text{10}\)

[Hue] was the cultural center of Vietnam, a place of learning, a remembrance of the traditions and values of the past. Hue was known for the Citadel, with its great walls and old imperial buildings... In the Buddhist myth, Hue was the lotus flower growing from the mud; it was the serenity and beauty of a city at peace in a nation at war.\(^\text{11}\)

Hue was also the seat of government in the Thua Thien Province.\(^\text{12}\) More importantly, Hue had been the imperial capital from which the emperors ruled when Vietnam was one country.\(^\text{13}\) It represented the best of Vietnam, and its seizure would significantly bolster the VC claim that the Saigon government was no longer in control.

Militarily, the City of Hue was vital to the flow of resources from Da Nang to Allied units along the demilitarized zone (DMZ). Both Highway 1 and a strategic rail line crossed the Perfume River in Hue.\(^\text{14}\) Hue was also the disembarkation point for supply boats moving along the Perfume River to the sea.\(^\text{15}\)

The city of Hue is literally an archipelago defined by the Perfume River and its elaborate network of canals and tributaries.\(^\text{16}\) This established the limited bridges as key terrain. The force controlling the bridges controlled access into and out of sections of the city. Therefore, an attacking force could isolate a particular section of Hue by seizing the bridges leading into that section. Conversely, a defender would want to control the bridges to allow movement of reinforcements into a particular section of the city.

Although there were several major North Vietnamese assault objectives south of the Perfume River, the decisive terrain to be seized in Hue was the Citadel located north of the river. Built in the early 1800s by the emperor Gia Long, the Citadel was an
impenetrable medieval fortress based on the Imperial City in Peking. The Citadel was protected by sixteen-foot high earth-filled walls that varied in thickness from sixty to over two hundred feet. Interior walls sectioned the Citadel into smaller enclaves further compartmentalizing the ancient fortress. Within these massive walls, buildings were constructed of masonry and later of hardened concrete. "Each . . . was a potential pillbox or bunker that could be fortified to withstand direct assault by even the most heavily equipped modern infantry." Interspersed with these stout buildings was a complex maze of "wartime shantytowns" that could be easily ignited and spread fire quickly. The Citadel's defenses also included significant water obstacles. A medieval moat obstructed the north, southwest, and northeast approaches to the Citadel and the Perfume River obstructed the southeast approach.

At the start of the Tet offensive, Hue was pristine and the war had left Hue's infrastructure untouched.

[Hue] was known for its lush gardens and flowing moats, its beautiful red-gold-and-blue palaces with their intricate stonework. And there was the south side, with the University, the French-style province capitol building, the country club, Cercle Sportif, with its wide green lawns stretching down the river, verandas, and 1930s furnishings. Hue was tree-lined streets, the gonging of Buddhist bells, the delicate French-Vietnamese architecture, the beautiful schoolgirls with their flowing ao dai dresses and silky black hair.

Peaceful and untouched by the ravages of the war, Hue was an extremely sought after posting; so much so that South Vietnamese Officers were known to pay substantial bribes for an assignment there. However, fate would soon intervene and the jewel of Vietnam's glorious past would endure twenty-six of the bloodiest and most destructive days of the entire war.
The weather proved to be a major factor in the battle to liberate Hue. Rain and fog coupled with consistently low ceilings limited the use of aerial observation, helicopter missions, and close air support. In addition, the brisk temperatures (45 to 55 degrees) were described as "nippingly cold" and sapped the strength of combatants.

At the tactical level, the enemy scheme of maneuver focused on seizing the Citadel and required a stealthy approach followed by a violent assault to seize objectives in sequence (translated from the Republic of Vietnam Armed Forces Report on The Viet Cong Tet Offensive 1968):

**General Objective:** the Citadel as a whole.

**Key targets and firing priority:** the Mang Ca area and the airfield.

**The storming points:** the Chanh Tay gate, the An Hoa gate, the northern section of the Citadel, and the Mang Ca area.

**Next target:** Huong Tra district town.

**The artillery targets:** the ARVN artillery and armor positions in Tu Ha.

**Tactics:** advance as close to the Citadel as possible; in case detected assault using all available firepower.

**Infiltration methods:** cross the river to join at Cay Da Tru (or Tru banyan), use the banyan's pendant roots to climb up the Citadel wall and enter the Citadel; simultaneously use the underground drainage ducts to enter the Citadel, disregard the fighting outside.

With sappers already inside the city, the North Vietnamese attack on Hue began 310200 January 1968 with a mortar and rocket attack. In the next six hours, the 12th Sapper Battalion, 5th (Infantry) Regiment, and the 6th (Infantry) Regiment fought through intermittent but stubborn ARVN resistance and captured the center of the Citadel. They then reinforced their nearly impregnable positions and waited for phase three of the offensive.

In the Citadel, the enemy [NVA/VC] employed better city-fighting tactics [better than they did south of the river], improved the already formidable defenses, dug trenches, built roadblocks, and counter attacked to regain redoubts.
which were important to his defensive scheme. His forces within the Citadel mutually supported one another.\textsuperscript{31}

Despite the best attempts by the 1st Air Cavalry Division to isolate the city, the NVA were able to reinforce with nine additional battalions and maintain a continuous flow of supplies from the west.\textsuperscript{32}

The enemy plan of defense hinged on holding the Citadel. Individual strong points were constructed in the already impervious concrete and masonry buildings. The defenders then placed machineguns and B-40 rockets in these strong points. Supporting positions were then fortified in the upper stories and on the roofs of adjoining buildings. These supporting positions could provide covering fires with snipers and machineguns to protect the strong points that commanded the streets. Following a personal reconnaissance of Hue, Lieutenant Colonel Ernie Cheatham, commander of 2d Battalion, 5th Marine Regiment stated:

\begin{quote}
It looked like hundreds of solid bunkers had been stacked across the landscape, and [I] was certain each of the formidable masonry buildings was fully manned by tough, professional NVA infantry.\textsuperscript{33}
\end{quote}

Even more intimidating was the enemy's fortification of the Citadel's massive walls. Along the top and terraced sides of the walls, towers and ramparts were strengthened to supplement the tunnels and bunkers actually within the walls themselves. The walls were so well prepared and so dominated the battlefield that they were a separate objective by themselves.\textsuperscript{34}

One lesson learned by the VC and NVA forces early in the war was to fight in close with the Allies.\textsuperscript{35} By making it close quarters battles against Allied counterattacks,
the enemy could discourage or prevent the use of friendly artillery and close air support. The enemy also fought throughout the depth of the attacking Allies by hitting their flanks and rear and by conducting limited raids at night to harass and prevent their ability to rest and re-supply.  

Prior to 10 February, U.S. forces in concert with ARVN forces had defeated the 4th NVA Regiment and regained the suburbs south of the Perfume River. The 1st Air Cavalry Division continued to cordon off the western approaches to the city. In contrast, the 1st ARVN Airborne Task Force and four battalions of the 1st ARVN Division operating in the Citadel had been fought to a stalemate despite eleven days of brutal combat. It was finally decided on 10 February to employ a U.S. force within the walls of the Citadel.

The 1st Battalion, 5th Marines was given the task to clear Zone D (see figure 1) located in the southeast corner of the Citadel. The northern boundary was Mai Thuc Loan Street, which leads to the Dong Ba Gate through the eastern wall of the Citadel. The southern boundary was the southern wall of the Citadel including the Thuong Tu Gate. The eastern boundary was the eastern wall of the Citadel. The western boundary was the eastern wall of the Imperial Palace; a fortress within a fortress.

It was here in Zone D that the 1st Battalion, 5th Marines commanded by Major Robert Thompson would fight as they had never fought before. Despite being in contact with an enemy force at night in a freezing rain, the battalion was ordered to disengage, execute a nine kilometer foot march to the command post at Phu Loc, and prepare for combat operations in the city of Hue. Upon arrival, Major Thompson was given a vague
briefing on his new mission that offered no picture of the situation in Hue. In fact the commanding general of Task Force X-Ray asked Major Thompson to "let me know what's going on when you get there."\textsuperscript{40}

\begin{figure}[h]
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\includegraphics[width=\textwidth]{image.png}
\end{figure}

Luckily Major Len Wunderlich, the battalion operations officer, was able to get some advice and a situation update from Major Bob Kerlich, the assistant operations officer of 1st Marines. Kerlich told Wonderlich about the use of tanks, Ontos (multiple recoilless rifles mounted on carriers), 3.5-inch rocket launchers, and riot control agents by Marine units fighting house to house south of the river.\textsuperscript{41} This exchange of information would prove to be critical in the days to come.
The fighting in Zone D was like nothing the young Marines had ever seen or been trained for. They were experienced in fighting the small-scale ambush and hit and run actions of the jungle and rice patties; few if any had ever conducted urban operations. This did not mean that the Marines were filled with trepidation. In fact, the general feeling was that if the NVA were going to stand and fight in Hue then it was going to be a good chance to reap some vengeance for the months of fighting and receiving fire from shadows in the bush.

At 0800 on February thirteenth, 1st Battalion, 5th Marines moved up to a point where they were to pass through the forward lines of the ARVN and commence their attack. Unfortunately during the previous night, the ARVN had withdrawn from their forward positions and the enemy had advanced to re-occupy the ground. Approximately 200 yards from their intended line of departure, a hail of grenades and small arms fire showered the lead element of Company A, 1st Battalion, 5th Marines. Thus, the Marines began their fight for Zone D.

From 0815 until 1255 hours, 1st Battalion, 5th Marines fought as a single arm with only its organic assets and took 63 casualties. At 1330 reinforced by armor support, Company B, 1st Battalion, 5th Marines attacked and flanked enemy positions that pinned down Company C, 1st Battalion, 5th Marines, which caused the enemy to withdraw. At 1455, six hours and thirty minutes later, 1st Battalion, 5th Marines had captured 200 yards and occupied its originally intended line of departure.

The Marines took heavy casualties and went to school re-learning the lessons of the past. They rapidly deduced that unlike the jungle fighting they were accustomed to,
the employment of combined arms maneuver units was the key to urban victory. Infantry suppressed while tanks and mounted recoilless rifles blasted enemy positions. In his assessment following the battle, Colonel Stanley S. Hughes, Commander 1st Marines stated:

The nature of the terrain and the stubborn "hold at all cost" tactics of the enemy forces introduced a new concept of warfare to the Marines in Vietnam. It took each of the battalions a period of about 24 hours to adjust to these new tactics and determine the most effective method of attack in order to seize their objectives rapidly and with a minimum of friendly casualties. This regiment "re-discovered" the capability of the 3.5 rocket launcher, realizing the difference in bursting radius and penetrating power when compared with the LAAW [M72]. The M50 Ontos and M274 mounted 106 Recoilless Rifle was quickly found to be an effective direct fire weapon against strong buildings housing a determined enemy unit. Artillery was almost always employed in a "danger close" due to the nature of the fighting, and distances from front lines to target were often a hundred yards or less... A similar situation existed with close air support. 47

At the company and platoon level, tactics evolved around employing massed firepower instead of troops. Once a strongpoint was identified, dismounted infantry would take cover and fire small arms, machineguns, and 3.5-inch rockets to suppress adjacent enemy positions that provided mutual support. An M-48 tank would then move forward, fire three to four 90-millimeter high explosive (HE) main gun rounds with concrete piercing fuses into the strongpoint, and then move back. Suppressive fire from the dismounted Infantry would continue as an M50 Ontos would then move forward and fire a salvo using all six of its 106-millimeter Recoilless Rifles to smash the enemy position. Infantry would then move forward and the process would be repeated. This tactic proved to be lethal and extremely effective. 48

At the squad level, the Marines learned to hit hard and fast. They cleared rooms
with heavy volumes of fire and grenades. They also learned to blast holes in walls to assault adjoining buildings. Moving in the open streets and alleys was certain death as enemy heavy machineguns placed a withering fire on anything that moved. Ricochets and flying rock splinters from this fire were equally as deadly. 49

The other deadly reality of the individual soldier's fight was that the enemy was a professional soldier who knew the value of mutual support in the defense. Heavy weapons placed in bunkers built of rubble and sandbags against the rear walls of a masonry building could fire out the open doorways. In order to destroy the positions, Marines had to expose themselves in the doorways to fire at the bunkers while individual enemy positions fired at them from every floor and room of the building and adjoining buildings. 50 Michael Herr, a correspondent with the Marines in Hue, described the mind set up front: "On the worst days, no one expected to get through it alive . . . They all knew how bad it was, and the novelty of fighting in a city had become a nasty joke, everyone wanted to get wounded." 51

In a bizarre twist, supporting artillery was limited due to its position and relative gun target line. The majority of friendly artillery was positioned at firebases south of the city while the attacking forces advanced from the north. In order to support the Marines, the artillery had to fire "into the faces of the Infantry they were supporting." 52 Considering that artillery fires a flat trajectory, the probability of a round going over the target discouraged its initial use. Units adapted and would often pull back to a safe distance to allow the artillery to adjust on to target. They could then advance and close with the enemy. 53
Naval gunfire was also employed. Firing parallel to the axis of attack from positions in the South China Sea, twelve ships shooting a mix of 5-inch, 6-inch, and 8-inch guns fired over 4,000 rounds and pounded the massive Citadel walls.54

Heavy 4.2-inch mortars were used extensively and proved valuable in delivering riot control agents. The high angle rounds were perfect for penetrating the tile roofs of buildings so that the ordinance could then explode inside the upper floors. Captured enemy soldiers spoke of how the riot-control agents caused confusion and demoralized them.55

Close air support was limited due to poor weather conditions and the proximity of friendly forces to the target throughout most of the operation. Sorties were kept on station above the city, but could only be employed when breaks in the weather permitted the pilots to visually acquire targets.56 When they could be employed, the effects were devastating. On 22 February, four flights of close air support delivered a mix of 250-pound snakeye bombs and 500-pound napalm canisters on a stubborn enemy strongpoint in Zone D that allowed the Marines to advance and secure the objective with a minimum of casualties.57

The battle raged on and the toll was heavy. Despite the iron will and resolution to finish the job, 1st Battalion, 5th Marines was exhausted. Prior to entering Hue, they had been in constant combat for weeks. Then, without rest, they plunged into Hue and for eight straight days had endured the grinding agony of street fighting resulting in 347 casualties.58 By 20 February, there were few trained leaders left. Most of the officers and non-commissioned officers were either dead or wounded. Sadly, even the battalion
chaplain had been killed. In Company B alone, all four platoon commanders were corporals. Ammunition and rations were low or completely expended, and the unit was close to collapse. Despite it all, 1st Battalion, 5th Marines was reinforced with Company L, 3d Battalion, 5th Marines and fought on for another six days.

Hue was officially liberated on 26 February, but combat continued until the 28th as remnants of the enemy were rooted out and subdued. The damage to the city was staggering:

What was left in the path of war were scenes of sickening, almost irreparable destruction. The city was virtually reduced to rubble. Emaciated, haggard people wandered around, aimless and bewildered... The tall walls of the Citadel were torn in several places... Some 944 civilians were known killed and 784 wounded... Hardest hit and entirely destroyed were 2,815 structures in the Citadel.

In addition, all of the city's bridges had been damaged or destroyed and the South Vietnamese government's buildings and infrastructure were demolished.

The cost in human lives was astounding. The United States Marine Corps reported 147 killed in action and 857 wounded. The ARVN reported 384 killed and 1,800 wounded. The NVA/VC casualties were recorded as 5,113 killed and 89 captured. There is no record of the number of enemy wounded or died of injuries. Non-combatant deaths include some 3,000 suspected VC murder victims recovered from mass graves and another 2,000 still missing.

There are two grim points of irony to consider. Primarily, the 1st Battalion, 5th Marines relearned the lessons learned by the men of the same 5th Marine Regiment fighting the battle of the barricades in the streets of Seoul 1950. Secondly, in a cruel
twist of fate, many of the Marines who had survived the unbelievably savage face-to-face fighting of Hue were killed in action just weeks or months later on nameless trails or rice paddies by an unseen enemy.

Three important points should be learned from the Battle of Hue. First, despite limitations on employing artillery fire support, the maneuver and firepower of infantry, armor, and heavy weapons carriers working as a combined arms team defeated a determined and professional North Vietnamese enemy force entrenched in a well-prepared urban defense of Hue. Second, media reports overemphasized the collateral damage and the outcome that resulted in a shift of public opinion in the United States. Third, the South Vietnamese generally accepted collateral loss of noncombatant lives from the fighting as tragic but acceptable. What caused the greatest uproar were the incidents of political mass murders.

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2 Ibid., 164.

3 Ibid.

4 Ibid., 174.

5 Ibid., 175-176.

6 Ibid., 176.

7 Ibid.

8 Ibid.

9 Ibid., 177.

11 Ibid., 5.

12 Ibid., 4.

13 Ibid.

14 Ibid.

15 Ibid.


18 Palmer, 192.

19 Oberdorfer, 203.

20 Hammel, 30.

21 Ibid., 30.

22 Map of Hue, Hammel, vxi.

23 Nolan, 5.

24 Ibid., 4.


28 Ibid., 249.

29 Ibid.

30 Noland, xiii


32 Noland, 33.

33 Hammel, 140.

34 Hammel, 274.

35 Harold G. Moore and Joseph L. Galloway, *We were Soldiers Once... And Young* (New York: Random House, 1992), 230. In the epic battle of LZ ALBANY (Ia Drang Valley, 1965) the NVA learned that they could prevent the employment of devastating supporting artillery and close air by maintaining contact with U.S. forces within the minimum safe distances of the ordinance.


37 Hammel, 254.


39 See figure 1, Map of the Citadel.

40 Hammel, 256.

41 Hammel, 258.

42 Headquarters, 1st Marines (-) (Rein) *Combat Operations After Action Report (Operation HUE CITY)*, 79.

43 Hammel, 104.

44 Hammel, 266.

46 Hammel, 271.


48 Noland, 164.

49 Hammel, 268.

50 Hammel, 305.


52 Hammel, 274.


55 Ibid., 80.

56 Hammel, 275.


58 Noland, 184.

59 Ibid., 184.

60 Ibid., 190.


62 Noland, 216 (this does not account for those slightly wounded or who refused evacuation in order to stay with their comrades and fight).

63 Noland, 215.

55
64 Ibid., 217.


CHAPTER 5

URBAN COMBAT IN CONTINGENCY OPERATIONS

Operation JUST CAUSE, December 1989

Despite severe limitations on the use of indirect fires and close air support U.S. conventional and special operations forces were victorious in tactical urban combat during Operation JUST CAUSE by fighting as combined arms teams specifically tailored for assigned missions. Particularly in the fight for La Comandancia, the integration of mechanized infantry, light infantry, Rangers, armor, engineers, fire support, and other special operations forces generated the overwhelming combat power crucial to success in the urban fight.

In 1985, officials of the U.S. Government warned Panamanian dictator General Manuel Noriega that his exclusive hold on power and alleged involvement in the drug trade was contrary to U.S. policies and objectives in the region.¹

In June of 1987 Colonel Roberto Diaz-Herrera, a former high ranking Panamanian Defense Force (PDF) leader, implicated Noriega in the murders of General Omar Torrijos and of political opponent leader Hugo Spadafora and also accused him of fixing elections.² Following a series of violent civil clashes in which pro-Noriega police suppressed unarmed demonstrators, the United States Senate passed a resolution for Noriega to relinquish power. Economic and military assistance to Panama was subsequently terminated after the U.S. embassy was mobbed.³

Tension increased in February of 1988 when two separate U.S. Federal Grand Juries indited Noriega and several of his enforcers on drug trafficking charges. Noriega
responded by endorsing a policy of harassing U.S. citizens and interests in Panama. He also sought and received economic and military aid from Cuba, Nicaragua, and Libya.  

On 7 May 1989, the people of Panama elected Guillermo Endara, leader of the anti-Noriega party, as president. On 10 May, Noriega declared the election invalid and endorsed the physical assault of the winners. Following brutal beatings, opposition leaders went into hiding to avoid being murdered. Fearing reprisals against U.S. citizens, President George Bush ordered the execution of Operation NIMROD DANCER. The operation deployed over nineteen hundred troops to Panama to protect U.S. lives, property, and provoke Noriega.

On 1 October 1989, Major Moises Giroldi made it known to the U.S. that he wanted assistance in executing a coup to force General Noriega to retire. He and his co-conspirators would then assume the leadership of Panama. General Maxwell R. Thurman, Commander in Chief, of U.S. Southern Command (USCINCSO) did not trust Giroldi and felt that the coup was "ill-conceived, ill-motivated, and ill-led." On 3 October, the coup was executed and Giroldi seized Noriega. However, Giroldi refused to hand over Noriega for extradition to the United States to face the drug trafficking charges. The coup failed when the 6th and 7th Rifle Companies of the PDF entered the Comandancia where Noriega was being detained. Giroldi and his supporters were executed. The U.S. National Command Authority (NCA) learned two important points from the coup attempt. First, any coup staged by members of the PDF would most likely result in the perpetuation of corruption and repression founded by Noriega. Second, to
oust Noriega and install the legally elected civilian government of Panama, the PDF would have to be destroyed.\(^8\)

On 15 December 1989, the Panamanian National Assembly passed a resolution that a state of war existed between the United States and Panama. Noriega installed himself as the maximum leader of Panama and publicly boasted that the bodies of Panama's enemies would someday float down the Panama Canal and that he would exercise control over it.\(^9\)

On the evening of 16 December, four U.S. military officers were fired upon while attempting to escape a PDF checkpoint. Lieutenant Robert Paz was fatally wounded and two others were seriously wounded. In addition, a U.S. Naval Officer and his wife who witnessed the incident were detained at a Panamanian police station. During questioning, the officer was beaten, kicked in the groin, had a gun placed to his head, and his life threatened. His pregnant wife was forced to stand against a wall while being groped until she collapsed. They were later released.\(^10\)

On the afternoon of 17 December, President Bush was briefed on the incidents. Acting on the advice of the Chairman of the Joint Chiefs, the Secretary of Defense, and the Secretary of State, President Bush ordered the execution of operations plan (OPLAN) BLUE SPOON 1-90. The purpose of the operation was clearly defined:

The planners for BLUE SPOON, both on the Joint Staff and at SOUTHCOM, had wrestled with the question of its political objectives. The answers [were]: to safeguard the lives of nearly 30,000 U.S. citizens residing in Panama; to protect the integrity of the Panama Canal and 142 U.S. defense sites; to help the Panamanian opposition establish genuine democracy; to neutralize the PDF; and, to bring Noriega to justice.\(^11\)
At 18:25 (EST) December eighteenth, 1989 General Colin Powell, Chairman of the Joint Chiefs of Staff issued the execute order through the chain of command to Lieutenant General Carl Stiner, Commander XVIII Airborne Corps and Joint Task Force South (JTFSO). The order directed him to carry out the deliberate execution scenario of the OPLAN and it changed the name of the operation from BLUE SPOON to JUST CAUSE.12

The tactical plan for the deliberate execution scenario of BLUE SPOON was specified in JTFSO OPLAN 90-2. It called for near simultaneous operations by forces projected from the continental United States and forces already positioned in Panama. Strike operations would commence at H-Hour by five special operations task forces, subordinate to a Joint Special Operations Task Force (JSOTF) commanded by Major General Gary Luck. These JSOTF operations were an integral part of the overall plan and were designed to seize the initiative, prevent hostage situations, rapidly introduce combat power, and establish the conditions for success by conventional forces.

Task Force (TF) GREEN consisted of U.S. Army Special Mission Units (SMU) that would execute a pre-planned hostage rescue mission to free an American citizen and remain poised to execute further missions. TF BLACK consisted of U.S. Army Special Forces personnel tasked to secure members of the duly elected government.

TF RED consisted of U.S. Army Rangers split into TF RED-ROMEO and TF RED-TANGO that would execute two combat parachute assaults. The mission of TF RED-ROMEO was to seize Rio Hato airfield and destroy the 6th Rifle Company and 7th Rifle Company.13 The mission of TF RED-TANGO was to seize Torrijos-Tocumen
Airport and destroy the 2d Rifle Company to allow the introduction of follow on forces into theater.14

TF BLUE consisted of Navy Special Warfare Units positioned to resolve any emerging hostage situations. TF WHITE, also made up of Navy Special Warfare Units, was tasked to conduct maritime operations in Panama City, Colon, and Balboa Harbors.15

In addition, three conventional task forces attacked at H-Hour. TF BAYONET consisted of the 193d Infantry Brigade and was tasked to seize key PDF targets in Panama City to include La Comandancia. TF ATLANTIC consisted of the 7th Infantry Division (Light) and elements of the 82d Airborne Division and was responsible for seizing key locations in the Canal Zone from Colon to Panama City. TF SEMPER FI consisted of U.S. Marines and was tasked to secure the approaches to Howard Air Force Base and the Bridge of the Americas. The fourth conventional task force, TF PACIFIC, was made up of paratroopers from the 82d Airborne Division who would parachute at H+00:45 to relieve TF RED-TANGO and execute follow on missions. Those missions were the destruction of PDF forces at Panama Viejo, Fort Cimarron, and Tinajitas.

The missions assigned to all nine task forces required movement through or actual combat within complex urban terrain. Many of the targets, especially the barracks of PDF companies, were fortified.

The PDF was made up of well trained, well-armed, and capably lead professional soldiers. Ironically, between 1982 and 1987 the United States provided over $105 million dollars to outfit the PDF as well as providing its soldiers training in small unit tactics and leadership at the School of the Americas.16 Individually, PDF soldiers were
heavily indoctrinated by their leaders that loyalty to their country and giving their lives in its defense was the highest calling. The combat forces of the PDF facing the U.S. intervention consisted of approximately four thousand soldiers manning two infantry battalions, five light infantry companies, one cavalry squadron, and two public order companies.  

The PDF also had four hundred naval personnel and five hundred air force personnel. The PDF was armed with state-of-the-art U.S. and Soviet weapons to include twenty-eight armored cars. The PDF Navy consisted of two patrol boats, two coast guard cutters, and thirteen small launches. The PDF Air Force was equipped with four armed reconnaissance aircraft, several unarmed helicopters, eight troop carriers, and eight light aircraft.

Additionally, eighteen Dignity Battalions (DIGBATS) augmented the professional forces of Panama. Formed by Noriega as a "Home Guard," the DIGBATS were a paramilitary force of armed civilians primarily composed of thugs and criminals who were motivated by the promise of free meals and the status of carrying a weapon. Despite their lack of training and poor leadership, the DIGBATS used the constraints imposed by urban terrain to resist U.S. forces and inflict casualties well after most PDF units had been destroyed or captured. The DIGBATS were also responsible for widespread looting, arson, and the willful destruction of property belonging to those people who opposed Noriega and his government.

Tactical combat actions were primarily fought in the major urban areas of Panama. Other than the seizure of the outlying Rio Hato Airfield, no significant combat took place in the rugged interior of the country. Two excellent examples of urban
combat at the tactical level during Operation JUST CAUSE are TF GATOR’s battle for

La Comandancia in Panama City and Company B, 3d Battalion, 504th Parachute Infantry

Regiment’s fight for the military police (DENI) Headquarters in Colon.

The Battle for La Comandancia, 19-20 December 1989

The seizure of La Comandancia was a decisive point for the entire operation.

La Comandancia was the nerve center of the PDF. The highly centralized PDF did little without explicit orders from headquarters, and though JUST CAUSE planners would plot strikes against dozens of PDF garrisons throughout the country, there would be many they could not reach on D-Day. Capturing La Comandancia would be the key to immobilizing resistance in outlying provinces. It was target number one, dubbed "Bravo One."21

La Comandancia was the national headquarters of the PDF. It was a compound in downtown Panama City surrounded by a ten-foot wall and contained fifteen buildings built around a main building, which housed the offices and command center of the PDF. The buildings themselves were constructed of steel-reinforced concrete.22 To reach La Comandancia U.S. units would have to maneuver through the poor residential district of Chorillo.

La Comandancia also garrisoned approximately 300 hand picked, well-trained, and dedicated PDF soldiers who were unquestioningly loyal to Noriega.23 These die-hard soldiers were equipped with an arsenal of small arms, crew served weapons, armored cars, and towed antiaircraft guns.

The job of taking La Comandancia was given to TF GATOR. Subordinate to TF BAYONET, TF GATOR was a combined arms battalion task force built around the headquarters of 4th Battalion, 6th Infantry Regiment. It was made up of two M113-
equipped mechanized infantry companies, one airborne infantry company, an M551 Sheridan tank platoon, a Marine Corps Light Armored Vehicle (LAV) platoon, an engineer platoon, two military police platoons, and a psychological operations (PSYOPS) loud-speaker team. In addition, Lieutenant General Carl Stiner, the JTF commander, directed that Company C, 3rd Battalion, 75th Ranger Regiment would be prepared to assist TF GATOR in clearing the compound.

The plan of attack was relatively simple. The mechanized infantry companies would isolate the compound by seizing key terrain controlling the routes in and out of the compound. The airborne infantry company would follow in trucks, dismount, and occupy assault positions along the wall. PSYOPS loudspeaker teams would broadcast an offer of safe conduct to any PDF soldier who would lay down his arms. On order, the supporting fires of AC-130 gunships, attack helicopters, Sheridan tanks, and LAVs would hammer the compound to soften the defense and convince the PDF to surrender. If they did not, supporting fires would suppress PDF positions while engineers executed an explosive breach of the protective wall. The airborne company would then assault and clear the buildings of the compound.

TF GATOR encountered stiff resistance shortly after crossing their line of departure. Alerted to the invasion, PDF and DIGBAT forces augmented the already stout defense of the compound. They choked the narrow streets of Chorillo with formidable barricades and placed teams in the high rise apartment buildings surrounding the compound to overwatch approaches, provide early warning, and attrit U.S. forces before they reached the compound wall.\textsuperscript{24} Despite a heavy volume of direct fire, the
mechanized infantry companies used their M113 Armored Personnel Carriers (APC) to physically push through the barricades. Although designed for mobile war on the plains of Europe, the M113 proved to be an effective asset in the urban fighting. Augmented with sandbags, it provided its occupants with protection from small arms fire and its mounted .50 caliber machinegun was effective in suppressing fortified enemy positions.  

To bolster their attempt to delay advancing U.S. forces, PDF and DIGBAT forces deliberately set fire to the ramshackle dwellings of downtown Panama City.

Two hours after the attack began, the area where Noriega's headquarters are located was bathed in a bright orange glow... Flames forty and fifty feet high were visible from two miles away and bright orange and black smoke illuminated the city.

The fire quickly spread and the resulting heat was so intense that the camouflage cloth strips used on the helmets of some soldiers spontaneously burst into flames. Media coverage of the attack stated that the fires were the result of U.S. firepower. Later, Panamanian eyewitness, to include clergy, stated that it was PDF and DIGBATS who were responsible.

Despite the raging inferno around them, TF GATOR continued to occupy its blocking positions. Under fire from snipers in the surrounding high rise buildings, second platoon, D/4-6 Infantry breached the compound and entered at southeastern corner. Twenty-one of twenty-six men in the platoon were then wounded by unknown indirect fire. Soldiers on the ground claim it was fire from the AC-130 gunship tasked to suppress the compound. Lieutenant Colonel Reed, commander of TF GATOR and the
AC-130 pilots contend that it was not the AC-130 but mortars that caused the casualties.29

Added to this, the airborne company waiting along the wall to assault was taking casualties from PDF snipers and grenades raining down from above them. Captain Tim Flynn, commander of Company C, 1st Battalion, 508th Infantry (Airborne) radioed Lieutenant Colonel Reed. He reported that the engineers had blown the breach and that his unit was ready to assault. The answer was to hold in place, and the company continued to take casualties.

Other problems hampered the mission. Team Armor, comprised of the Sheridan tank platoon and the USMC LAV platoon, was located in support by fire positions on Ancon Hill. Although in position, the Sheridan tanks were unable to fire. Engineers had failed to clear fields of fire, the Sheridans had no night-acquisition and fire control system, and the smoke and fires around the targets prevented positive identification of enemy to engage.30 Private First Class Marcus A. Davis, a Sheridan crewman stated "We didn't fire because we couldn't see the Comandancia clearly, and we didn't want to cause collateral damage."31 Team Armor would have to wait until dawn to fire.

Direct and indirect fires continued to pound the compound throughout the night. At 0700 December twentieth, TF GATOR consolidated and assessed the situation. The cordon of the compound was intact, medics were treating and evacuating the wounded, and engineers were clearing fields of fire for Team Armor to safely engage their targets. As the day wore on, resistance slowly slackened to sporadic small arms fire. With pressure from General Stiner to complete the mission, Lieutenant Colonel Reed
requested the attachment of Company C, 3rd Battalion, 75th Ranger Regiment to TF GATOR. The Rangers would clear Carcel Modelo Prison and the main building. This would then allow Company C, 1st Battalion, 508th Infantry (Airborne) to follow and clear the remaining buildings of the compound.

Having completed their initial mission of a combat parachute assault and subsequent seizure of the main terminal at Torijios-Tocumen Airport, the Rangers were aboard two helicopters bound for Howard Air Force Base when the order came down. Prior to the re-write of OPLAN BLUE SPOON, the Ranger Company had been tasked to do the assault. Numerous rehearsals on detailed mock-ups of the compound had been conducted, and the Rangers were fully prepared to execute. The company arrived downtown, and Captain Al Dochnal, the commander, briefed his platoon leaders on the minor situational changes to include the planned fire support preparation of the objective.

Lieutenant Colonel Reed determined the Rangers were his only feasible option to clear the prison, the main building, and allow his other forces to complete his mission.\textsuperscript{32} "That was a mission [for] which C/3/75 had trained specifically for more than a year, and it was clear that they were better prepared for that tough mission than probably any company in the Army at that time."\textsuperscript{33}

At approximately 1500, the final assault began. Sheridan tanks pounded the ten-inch thick reinforced concrete walls of the main building with thirteen 152-millimeter high explosive rounds from their main guns. The USMC LAVs added hundreds of 25-millimeter rounds to suppress suspected sniper locations in the compound. Attack helicopters were to then launch Hellfire missiles and 2.75-inch rockets for the final blow.
Unfortunately, there was a glitch: the helicopters were late. The Rangers and men of the airborne company waited anxiously for the helicopters to arrive. They were frustrated because the delay of the helicopters prevented them from capitalizing on the shock of the Sheridan main gun rounds to support their assault. Finally at approximately 1545, two Apache helicopters arrived on station and fired their ordinance. The Hellfire missiles were extremely accurate, and one flew though a double door exploding within the building causing a tremendous blast. Unfortunately, two of the 2.75-inch rockets missed their targets and slammed into surrounding buildings. One soldier from the Ranger Regiment and one soldier from the airborne company were slightly wounded.\(^{34}\)

The Ranger assault commenced at approximately 1550 and proceeded as planned. The Rangers efficiently cleared the prison and the gymnasium across the street from the selected breach point of the main building. The Rangers then blasted the doors off the main building and poured in. The speed, precision, and violence of the Ranger assault quickly subdued what resistance was left. The majority of the PDF had fled leaving their weapons. The airborne company also quickly cleared their assigned buildings. In one hour and ten minutes the compound was cleared. At approximately 1700, the battle for *La Comandancia* was over.

Surveying the damage to the building, the Rangers were surprised at how little the massive bombardment had done.

Dochnal noted that the damage to the building was minimal despite the repeated blasts from the Specters, Sheridans, and Apaches. 'The PDF could have had a company in there, and they would not have been hurt.' There was some damage to the top floor of the building, but the bottom floor remained intact.\(^{35}\)
Although it remained sound as a tactical defensive position, La Comandancia was battered and smoldering and its days as a national military command post were over.

The Battle for the Colon DENI Station

Innovative leadership, precise application of devastating firepower, and the rapid maneuver of a dismounted assault force combined to generate the overwhelming combat power that proved decisive in seizing the fortified Colon DENI station during Operation JUST CAUSE.

On December twenty first, 1989 Company B, 3d Battalion, 504th Parachute Infantry Regiment was given the mission to seize the Colon DENI Station. Prior to this, the company had executed an air assault to secure the PDF logistics depot at Cerro Tigre as part of a battalion operation on D-Day.

For the DENI mission, the company was attached to 4th Battalion, 17th Infantry, 7th Infantry Division (Light). The intelligence portion of the operations order given to Captain Charles B. Dyer, the company commander, portrayed a very grim situational template of the enemy position. It was estimated that forty to fifty DIGBAT members and armed criminals had fortified the building as a base from which they could continue to loot the free zone of Colon. The area around the station was classified as hostile. Previously, forces in the area had shot down a special operations helicopter.

The objective itself was a half-moon shaped building with the DENI station at the south end. The remainder of the building curved to the west and housed offices of the Panama Canal Commission (PCC). The building was three stories high and constructed of concrete and cinderblock but was not reinforced with steel. The southern approach to
the DENI station was a series of small storage buildings and large sea-land containers which provided cover and concealment up to approximately fifteen meters from the station. To the west was a strip of wooded area leading to a large pier that extended into the Panama Canal. To the east was the primary avenue of approach enemy forces could attempt reinforcement of or attempt egress from the building. To the north were the tightly packed slums of Colon.

Captain Dyer developed his plan of attack after conducting a personal reconnaissance from atop a building that allowed him to see the objective area. Based on the intelligence estimate, he requested and received operational control (OPCON) of a three-gun 105-millimeter howitzer section. He felt the firepower of the howitzers employed in direct fire at short range would overwhelm the enemy's defense long enough for his men to achieve a foothold then rapidly advance to clear the building. His other alternative was to attack unsupported and possibly take a lot of unnecessary casualties. He was also given OPCON of a Military Police (MP) platoon to secure the howitzers along the route from their assault position to the support by fire position.

The plan of attack was simple and to the point. It would be conducted at night to ensure concealment and units would infiltrate using stealth to achieve tactical surprise. A rifle platoon that had been attached from 4th Battalion, 17th Infantry would establish a blocking position on the eastern avenue of approach to isolate the objective. Another rifle platoon would infiltrate north through the maze of shipping containers and establish a support by fire position from which they could suppress the southern face of the building and cover the howitzers if required. The assault force, comprised of the
company command post and the remaining two rifle platoons, would infiltrate along a covered route to the west and occupy an assault position approximately thirty meters from the breach point.

The howitzers would move up secured by the MP platoon, occupy a hasty position and, on order, fire eighteen 105-millimeter high explosive rounds into the building's south wall at a range of approximately fifteen meters. Captain Dyer and the Battery commander of the artillery had done significant planning to mitigate risk. A detailed analysis was conducted on the effects of blast and fragmentation that would result from the direct fires. Based on the construction of the building it was determined that the kinetic energy of the rounds would carry them through the outer wall. The subsequent blast and fragmentation would then be contained by the interior walls and localized in the DENI station. The fragmentation would simply have insufficient kinetic energy to penetrate further. In addition, the interior supporting structure would be weakened and partially collapse the DENI station making it untenable for further defense by the enemy.

Once the howitzer fires were complete the support by fire platoon would reinitiate suppressive fires and the howitzers would withdraw. Simultaneously, the assault element would attack the western flank of the building by moving perpendicular to the suppressive fires. They would then move up the exterior stairwells and clear from the top floor of the building down to the ground level. Clearing efforts would be focused on the PCC portion of the building. Once this was complete, what remained of the DENI station would be cleared.
The operation commenced at 2300 on 23 December. All units were able to infiltrate undetected and complete tactical surprise was achieved. The howitzers fired as planned and the effect was devastating:

The roar of the first round was deafening, so loud that it didn't register as a sound. I couldn't hear anything but instead experienced a sensation like being smashed on the head with a baseball bat. The sensation started at my head and reverberated all the way down to my toes, ending in an uncontrollable shudder. It was impossible to distinguish between the cannon firing and the rounds impacting on the building, since the two explosions were so close. Shock waves followed the blasts... and chunks of concrete rained down on us. The enemy AK-47 fire that shot back from the building was quickly silenced by the cannons.\textsuperscript{37}

The assault force exploited the shock of the cannon fire and rapidly cleared the building. The objective was secure at approximately 0400 24 December. The portion of the building containing the DENI station had collapsed, but the PCC portion of the building was intact and sustained little if any collateral damage. Furthermore, no friendly casualties were sustained. Reports from Navy SEAL snipers who observed the attack stated that several of the building's occupants fled north once the howitzers commenced firing.\textsuperscript{38} Several prisoners were taken to include two dazed DIGBAT members who were found hiding in an adjacent building.

Several weeks later, General Thurman directed that an informal commander's inquiry be conducted to determine if the use of the howitzers had violated the rules of engagement. The inquiry found no violations had been committed.\textsuperscript{39}
Lessons learned from Operation JUST CAUSE

Operation JUST CAUSE was the first time that U.S. forces had conducted urban combat since the Vietnam War. Although units had conducted extensive rehearsals and preparation, a tremendous amount of professional and personal adaptation was necessary to overcome the challenges the urban fighting presented. The U.S. Army Center for Lessons Learned (CALL) gathered after action reviews, combat reports, and personal journals and compiled an excellent three-volume report titled Report 90-9 Operation JUST CAUSE Lessons Learned. All of the following points are from that report and capture the salient individual and collective urban combat lessons learned from the operation:

1. The shock effect and firepower of the M55A1 Sheridan were critical in MOUT fighting and in smashing through roadblocks.
2. The M55A1 and M113 were both effective for firepower demonstrations and in support of assaults. The 152-millimeter rounds of the M55A1 were perfect for creating entry holes in walls and buildings.
3. Danger close is the norm for fire support in MOUT operations.
4. Howitzers were effective as a firepower demonstration weapon in direct fire against buildings and roadblocks.
5. The 90-millimeter recoilless rifle is effective in MOUT. Its accuracy, short arming distance, ability to punch holes in concrete, and ability to suppress using flechette rounds make it a lethal multi-purpose weapon. The AT4 does not replicate these capabilities and is not effective in MOUT.
6. Noncombatants will be present in all contingency areas. Units will fight in close proximity of civilians.
7. Limit use of tracer ammunition to prevent fires.
8. Employ concussion grenades instead of fragmentation grades for room clearing.
10. Armored vehicles were critical in moving forces, re-supply, and evacuation of casualties under fire during urban combat.
TF RANGER Raid, 3 October 1993, Mogadishu, Somalia

Three years after the PDF was subdued in the streets of Panama the United States deployed combat forces in another contingency operation, this time in support of the United Nations Mission in Somalia (UNSOM II). On 3-4 October 1993 the men of Task Force (TF) RANGER waged a ferocious battle of survival in the Streets of Mogadishu.

Although the fundamental mission was a success, contingency missions to extract a trapped force were repeatedly repulsed due to the lack of a responsive armor force and the absence of precision indirect fire support available to TF RANGER on 3-4 October 1993. Five U.S. soldiers, wounded in action, bled to death or died of shock in the streets of Mogadishu before the armored force needed to reach them could be assembled and deployed.

Prior to 5 June 1993, United Nations efforts ended the famine in Somalia and had attempted to build a coalition government from the numerous warring clans that had brought about the original crisis. Unfortunately, the militia known as the Somali National Alliance (SNA), lead by Mohamed Farrah Aidid, felt that they should rule Somalia alone. The SNA, primarily composed of the Habr Gidr clan, based this claim on their defeat of longtime dictator Mohammed Siad Barre in 1991.41

On 5 June 1993, the SNA ambushed a UN convoy of Pakistani soldiers returning from an inspection of an authorized weapons storage site. The SNA showed no mercy killing twenty-four and wounding forty-four others. Even more appalling was that some of the dead had been skinned.42 In addition to the Pakistani casualties, four western journalists covering the ambush were killed by an angry Somali mob. As a result of the
ambush, the UN Security Council passed resolution 837 that directed the apprehension of Mohamed Farrah Aidid. ⁴³

On 12 June 1993, the UN attacked the home of Abdi Hassan Awale where a meeting of Habr Gidr clan elders was being held. Seventeen helicopters, mostly gunships, fired mini-guns, cannons, and missiles into the structure. Many of the clan's leaders who had been responsible for the 5 June ambush were killed. However, many of the moderate leaders who desired peace were also killed. In the end, the attack served to galvanize the Somali people against the UN and the United States. John Drysdale, an Englishman who had worked in Somalia for many years summed it up best:

> The Somalis were like a school of fish in a tank who swam most of the time in random directions until something disturbed them. Then they would snap instantly into formation, all facing the same direction. This [12 June] helicopter attack looked like that kind of a disturbance. ⁴⁴

Thus, the "bewilderingly complex web of interlocking family and kin" ⁴⁵ that was the Somali people focused on the UN and the United States as the common enemy. The 12 June attack on the Habr Gidr leaders reinforced Aidid's status, vilified the UN and United States, and all but ended efforts for a peaceful resolution to the crisis.

TF RANGER deployed to Somalia beginning 26 August 1993. Prior to 19 August General Colin Powell had resisted the call for U.S. forces to deploy and capture Aidid. It was clear that Aidid had a tremendous advantage in eluding capture. The population of Mogadishu was sympathetic, intelligence was sketchy at best, and it was unclear if Aidid's capture would solve the problem. ⁴⁶ However, the killing of four U.S. soldiers by a command detonated mine on ⁸ August and the wounding of seven soldiers by a second
mine on 19 August changed Powell's mind. He advised the President who then
authorized the execute order for TF RANGER to deploy and capture Aidid.

TF RANGER was a joint special operations task force (JSOTF) commanded by
Major General William F. Garrison. It consisted of a headquarters element and staff
from the United States Special Operations Command (USSOCOM), elements of 3d
Battalion, 75th Ranger Regiment, elements of 160th Special Operations Aviation
Regiment, and other special operations forces from USSOCOM. TF RANGER planned
to accomplish its mission in three phases. Phase 1 efforts would establish the JSOTF in
Mogadishu. Phase 2 efforts would focus on locating and apprehending Aidid. Phase 3
operations would destroy the remaining command structure of the SNA.

The enemy facing TF RANGER defied an easy understanding. The city of
Mogadishu was ruled by bands of armed men loosely grouped in militias. These militias
were formed along clan lines and operated independently. Their weapons were of U.S.
and Soviet design and included small arms, light and heavy machineguns, antitank
missiles, and rocket propelled grenades. Militia members were men, women, and
children of all ages. Previous years of fighting between the clans in the city had provided
a great deal of experience in urban combat and many of the militiamen were adept in the
art of ambush in the narrow streets.47

The line between combatants and noncombatants was blurred. Women and
children would often advance forward of armed men. The armed men would then fire
their weapons from under the arms or between the legs of this human shield. Although
primarily concerned with fighting each other for control of Somalia, it is widely held that
the 12 June attack on the Habr Gidr clan caused the militias to set aside their differences and focus on fighting the UN forces.

From 30 August to 21 September 1993 TF RANGER conducted five air assault raids in which several key members of the SNA command structure were captured along with numerous other lesser members of the Habr Gidr clan. These operations placed great pressure on Aidid and his fellow clan leaders. An unnamed Habr Gidr leader cooperating with the U.S. stated, "He [Aidid] is very tense. The situation is very tense."48 As a result, Aidid contacted former President Jimmy Carter to intercede on his behalf and request talks with the U.S. Carter spoke with President Clinton who directed the State Department to resume efforts to broker a peaceful settlement. Working through third party nations, the U.S. proposed an immediate cease-fire, that Aidid step down pending an international inquiry, and that talks on rebuilding a coalition government resume in November.49

Despite this effort at a peaceful solution, TF RANGER received no change to its mission. On the afternoon of 3 October 1993, a sixth raid was launched. It was a daylight raid based on intelligence confirming the time and location for a meeting between two of Aidid's top lieutenants. It was an excellent opportunity to further cripple the clan's leadership and weaken Aidid's ability to resist.

The plan for the raid was very similar to the previous five raids. An assault force aboard helicopters would land atop the building containing the two clansmen to be captured. The assault force would then storm the building and quickly defeat any resistance by using the speed and precision of close quarters combat (CQC) drills.
Simultaneously, a blocking force aboard additional helicopters would insert by fast-rope to four key positions. They would then isolate the target to prevent enemy reinforcement of the building or enemy escape from the area. Once the captives were secure, a ground convoy would be ordered forward to link up at the target. The assault force, blocking force, and the captured clan leaders would then extract by ground convoy back to the base of operations at the International Airport.

Two other elements would be standing by to respond if required. The first was a combat search and rescue (CSAR) team aboard an MH-60 Blackhawk helicopter prepared to respond to a downed aircraft contingency. Although not specifically briefed on the raid, the second element was the quick reaction force (QRF) from 2d Battalion, 14th Infantry whose mission was to assist any UN forces in trouble.

The raid commenced at 1530 on 3 October 1993 with the lift off of the air assault force. The insertion went as planned, and the two targeted clan leaders were quickly captured and subdued. The blocking positions were taking heavy fire, and one Ranger seriously injured in a fall during the fast rope insertion required immediate evacuation. The injured Ranger, Private First Class Todd Blackburn, was placed aboard a high mobility multi-wheeled vehicle (HMMWV) to be evacuated back to the Ranger base.

At approximately 1610, an RPG struck the MH-60 piloted by Chief Warrant Officer Shawn Wolcott. The explosion cracked the tail boom and destroyed the tail rotor. Billowing smoke, the helicopter began to spin wildly over the heads of a blocking position and crashed in an alley. Lieutenant Tom DiTomasso, the senior leader at that location, left half of his force to hold the blocking position and led the remaining eight
men at a dead run toward the crash site. The Ranger's greatest fear was that the Somalis would reach the crash site before they did. Prior to this raid, the Somalis shot down a Blackhawk from the 10th Mountain Division QRF on 25 September. The crew was killed by an angry mob and their bodies had been mutilated. The Rangers were determined that this would not happen to their comrades. The Rangers arrived just as the crew of an OH-6 helicopter that had landed in the alley was attempting to load two critically wounded members of Wolcott's crew. The Rangers secured the crash site, relieved that they had beaten the Somalis to it. The helicopter took off leaving the Rangers in control of the site.

The CSAR team arrived and quickly fast-roped into the alley where the crippled aircraft had crashed. It took eight minutes from the time Wolcott's aircraft crashed until the CSAR team was on station. Fifteen men swiftly descended and reinforced the Rangers defending the crash site. Just as the last two men were half way down the rope, an RPG exploded close to the left side of the helicopter. The pilot, Chief Warrant Officer Dan Jollata displayed tremendous calm under fire and held the pitching aircraft steady while the two rescue men completed their insertion. Then with great skill he piloted the crippled helicopter back and crash-landed it at the airfield.

The CSAR team quickly accounted for personnel who had been aboard. Two had been evacuated on the OH-6 and both pilots were dead. The body of Chief Warrant Officer Donavan "Bull" Briley had been pulled from the wreckage but Wolcott's body was hopelessly pinned inside under the flight console. The other two passengers, crew chief Sergeant Ray Dowdy and medic Sergeant James McMahon, had both been injured.
in the crash. The CSAR team tied in with the Rangers and waited for extraction by the
ground convoy. The streets were too narrow for anything but an OH-6 to land, and the
ground fire was too intense to risk multiple lifts. The enemy fire increased and CSAR
team leader Sergeant Scott Fales was wounded. The ordeal at crash site one was just
beginning.

At 1620 October, approximately ten minutes after Wolcott's aircraft crashed, an
RPG struck a second Blackhawk piloted by Chief Warrant Officer Michael Durant.
Initially, the Blackhawk remained stable despite massive damage to its tail rotor gearbox
and Durant's skill enabled him to fly it towards the airfield. Moments later, the gearbox,
tail rotor, and a three-foot section of the tail disintegrated. Fighting the incredible torque,
Durant and his copilot, Chief Warrant Officer Ray Frank, managed to gain some control
and lessen the impact of their crash. Keeping the helicopter upright, they crashed onto
some tin buildings with the shock absorbers of the wheels lessening the impact. Even so,
all four of the crewmembers sustained fractured arms, legs, or were knocked
unconscious.

With the CSAR team already committed to crash site one, there was no way to
immediately reinforce crash site two. The crash of two helicopters had been determined
as highly unlikely, therefore only one CSAR team was fielded. Chief Warrant Officer
Mike Goffena maintained his MH-60 in a tight orbit around the crash site as his crew
chiefs poured a withering fire from the door mounted miniguns into the mob of Somalis
trying to reach the second crash site. With the situation becoming desperate, the two
snipers aboard Goffena's aircraft requested permission to jump down to the crash site and
defend the crew. With no other choice available, the air mission commander approved
Sergeant First Class Randall Shugart and Master Sergeant Gary Gordon's request.

Goffena hovered over a small clearing and the two jumped about five feet to the ground.

The two men quickly organized the crash sites defense. Wave after wave of
Somalis attacked the crash site only to be repulsed by the deadly fire of the defenders.
Ammunition quickly ran low, and Gordon was killed. Finally, sheer numbers overcame
the defenders. Only Michael Durant was left alive and was taken captive by the
Somalis.

Almost from the start of the raid the streets of Mogadishu resembled a hornets
nest that had just had a stick poked into it. As soon as the helicopters landed on the
roof of the target building mobs of Somali militiamen poured into the streets and
established formidable barricades. They covered them with heavy weapons and RPGs.
Activity was not limited to barricades. Messages spread throughout the city and armed
men, women, and children began swarming as the area was quickly being isolated.

Against the advice of military professionals, Secretary of Defense Les Aspin had
denied the earlier requests for armored vehicles and AC-130 Gunships by the TF
RANGER commander. He felt that the presence of the armor and air support would
undermine the political attempts to end the crisis. Thus the three separate attempts
made by ground convoys to reach the crash sites between 1610 and 1900 were
unsupported. All of these convoys were made up of light skinned trucks reinforced
with sandbags and HMMWVs with added ballistic KEVLAR panels for protection. All
three attempts resulted in heavy casualties and seriously damaged or
destroyed vehicles. None of the three attempts were able to withstand the volume of fire at the barricades and were unable to break through.

Finally at 2330 October, a relief column comprised of four Pakistani tanks (US-made M48 Pershings) and thirty-two Malaysian armored personnel carriers (German-made Condors) carrying soldiers from the QRF and the Rangers (many who were already wounded) departed for the crash sites. Probably the most defining fact of the operation was brought to light when Lieutenant Colonel Bill David, the QRF commander, told the Malaysian soldiers that "their vehicles were needed but their men were not."55

The armor column moved forward despite the problems of having soldiers from three different nations thrown together and advancing under murderous fire. The column split in two at a designated checkpoint; one element went to crash site one and the other went to crash site two. The vehicles were able to run the gauntlet of fire and protect the recovery force en-route. Element one reached crash site one at 0150 on 4 October. Element two reached crash site two at about the same time, but tragically, all were dead and Durant was missing. They destroyed the aircraft with thermite grenades and left after a heart-rending search of the surrounding area turned up nothing. Enroute back to the airport, they rescued the survivors of two APCs that had become lost and then were ambushed. One APC had been destroyed by RPG fire and the second had been immobilized when an RPG hit its engine.

At crash site one it took approximately three and one-half hours to free Wolcott's body from the wreckage. They loaded the dead on top and the wounded inside. Without enough room inside the APCs, some of the Rangers had to run the half mile out to
National Boulevard in what became known as the "Mogadishu Marathon". Amazingly, despite the incredible amount of fire they took only one man was wounded on the way out. At 0545, the final vehicle rolled into the Pakistani sports stadium. The battle that had begun over fourteen hours prior was over.

The story was immediately in the forefront of the media. Images of the corpses of American servicemen being dragged through the streets outraged the American public. In the orgy of criticism and demand for placing blame, the fact that the raid accomplished the assigned task of capturing the two designated clan leaders was lost. In a handwritten note to the President and Les Aspin through Congressman Murtha, General Garrison assumed full responsibility for the raid and summed up the operation:

Tactics, techniques and procedures were appropriate for the mission/target. . . . Reaction forces were planned for contingencies [CSAR and QRF] . . . Loss of Helo was supportable. Pilot pinned in wreckage presented problem. 2d Helo crash required response from the 10th MTN QRF. The area of the crash was such that the SNA were there nearly immediately so we were unsuccessful in reaching the crash site in time. Rangers on 1st crash site were not pinned down. They could have fought their way out. Our creed would not allow us to leave the body of the pilot pinned in the wreckage. Armor reaction force would have helped but casualty figures may or may not have been different. The type of men in this task force simply would not be denied in their mission of getting to their fallen comrades. The mission was a success. Targeted individuals were captured and extracted from the target.57

Even so, four days later President Clinton ordered the complete withdrawal of U.S. forces from Somalia by 31 March 1994. The political fallout from the Battle of Mogadishu ended the career of Major General Garrison and led to the resignation of Secretary Les Aspin. It also ended any chances the UN had to restore peace in Somalia. Anarchy, chaos, and bloodshed would resume.
Although the mission was a success, the cost was high. Eighteen members of TF RANGER were killed and seventy three others had been wounded. Two Blackhawks were destroyed and another three were badly damaged. Many of the trucks and HMMWVs were damaged beyond repair and two of the Malaysian APCs had been destroyed. On the Somali side, credible sources not aligned with any of the clans place the number of dead at 500. Estimates of wounded run somewhere between five hundred and one thousand.

The Battle of Mogadishu was the biggest firefight involving U.S. forces since the Vietnam War. In testimony to the U.S. Senate, General Garrison stated that "if his men had put anymore ammunition into the city, [they] would have sunk it." But it was not the weapons or tactics that distinguished the fight from others. It was the valor and indomitable warrior spirit of the men who fought. However, this single company sized operation drew a tremendous amount of political visibility as well as scrutiny. Decorations awarded to members of TF RANGER included Bronze Star Medals with "V" devices, Silver Stars, Distinguished Service Crosses, a Navy Cross, an Air Force Cross, and two Medals of Honor. The Valorous Unit Citation was also awarded to the subordinate units of TF RANGER. No other single combat action of this size in the history of the United States of America has ever produced the number of valorous citations awarded for gallantry in action.


2 Ibid., 6.
3 Ibid.

4 Ibid.

5 Ibid., 10-11.

6 Ibid., 15.

7 Ibid., 16.


9 Cole, 27.

10 Ibid.

11 Ibid., 29.

12 Ibid., 32.


14 2d Battalion, 75th Ranger Regiment, AORG-SB, Summary of Ground Action at Torrijos/Toucumen (TT2), Ground Action in Panama during Operation JUST CAUSE (20-21 DEC) (Fort Lewis, WA: Dated 6 December 1990), 1.

15 Cole, 21.

16 Kenneth J. Jones, The Enemy Within, Casting out Panama's Demon (Cali, Columbia: Focus Publications, 1990), 82.

17 Cole, 37.

18 Ibid., 82

19 Ibid.

20 Ibid., 83.

22 Ibid., 140.

23 Ibid.


26 Flanagan, 103.

27 Ibid.

28 Baker, Donalley, and Roth, 141.

29 Ibid., 153. The cause of the casualties remains in dispute.


31 Ibid.

32 Interview with Colonel Francis H. Kearney. Colonel (then Major) Kearney was the operations officer of 3rd Ranger Battalion and was the on site liaison between TF GATOR and the Ranger Company.

33 Flanagan, 107-108.

34 Baker, Donelly, and Roth, 157 and Interview with Colonel Kearney. The wounded Ranger was Captain Craig Nixon, Assistant Operations Officer of 3rd Ranger Battalion. Three years later, Nixon would win the Silver Star for gallantry in action during the 3 October 93 battle in Mogadishu, Somalia.

35 Baker, Donelly, and Roth, 158.

36 Interview with Major Charles B. Dyer, former commander, B/3-504th P.I.R.

38 Interview with Major Dyer.

39 Ibid.

40 U. S. Army Center For Lessons Learned Bulletin Number 90-9, Volumes I-III. *Operation Just Cause Lessons Learned*, III-5.


42 Bowden, analysis chapter, pg 2.


44 Bowden, analysis chapter, pg 5.

45 Ibid., 2.

46 Ibid., 7.

47 Ibid., 2.

48 Ibid., 8.

49 Ibid.


51 Gordon and Shugart were posthumously awarded the Medal of Honor.

52 Bowden, chapter 1, pg 6.

53 Delong and Tuckey, xviii.

54 Ibid., xi-xii.

55 Bowden, chapter 25, pg. 2.

56 Delong and Tuckey, 94.
57 Personal note written by Major General Garrison as published in *Blackhawk Down!* (Bowden).

58 Bowden, background, pg. 1.

59 Ibid., 2.

60 Ibid., 3.

61 Delong and Tuckey, 100.
Field Manual 100-5, Operations

With the end of the cold war and the dawn of an era of ambiguous threats, the U.S. Army published the 1993 version of FM 100-5, Operations. This new operational doctrine shifted concepts from airland battle, fought by forward deployed land and air forces to defeat the Warsaw Pact, to one of force projection in which joint forces are deployed primarily from bases in the continental United States (CONUS) to respond to an emerging crisis.¹

Force projection requires airfields and seaports to facilitate the introduction of deploying forces. The majority of the world's airfields and seaports exist within complex urban terrain, particularly those that have the capability to receive all types of U.S. aircraft. Couple this with the likelihood that the U.S. will have to seize these airfields and seaports and one can see that urban combat operations are unavoidable. "Opposed operations require a lethal and survivable forcible entry capability with forces prepared to fight immediately upon entry."²

Although urban combat is the most likely scenario in force projection doctrine, FM 100-5 only briefly addresses urban operations:

Urban operation present unique and complex challenges to Army forces. Urban operations can occur in any of the geographical environments. They can constrain technological advantages; they impact on battle tempo; they force units to fight in small, decentralized elements; they also create difficult moral dilemmas due to the proximity of large numbers of civilians. Commanders must
enforce discipline in their operations to minimize unnecessary collateral damage and civilian casualties. FM 90-10 discusses fighting on urbanized terrain.\(^3\)

**Field Manual 90-10, Military Operations on Urban Terrain**

Written over nineteen years ago, Field Manual (FM) 90-10 is the U.S. Army's source document for the planning and execution of tactical combined arms operations to seize an urban area. It contains detailed models for urban operations and emphatically stresses that fighting as a combined arms team is critical to success. These models contain many of the lessons learned from urban combat in World War II, Korea, and Vietnam.

Mobility, shock action, and massed firepower are required to secure a foothold and rupture established defenses. During a penetration or envelopment, assault forces are task organized with armor, infantry, and engineers to rupture the defense effectively. Overwatching direct fires, along with indirect suppression and obscuration, help the attacker secure a foothold in the built-up area.\(^4\)

FM 90-10 was last updated in 1979 as part of the U.S. Army's 90 series "How to Fight" field manuals. Its purpose was to:

supplement the basic how to fight manuals describing urban terrain and the application of tactical principles at all echelons from division to fire team. The manual treats organization and weapons as they exist, telling commanders what the new requirements are, the nature of the threat, and how they can respond effectively. It provides the basic doctrine, tactics, techniques, and procedures of employment for command of the combined arms team during offensive and defensive operations in an urban environment.\(^5\)

The U.S. Army's operational doctrine at the time FM 90-10 was written was the air-land battle concept contained in chapter 8 of the 1976 version of FM 100-5, *Operations*. Further defined in 1982, AirLand Battle embodied the Cold War mindset of fluid maneuver battle fought by forward-deployed air and land forces on the continent of
Europe against the Warsaw Pact countries. Urban areas were viewed as an obstacle to this fluid maneuver warfare and were to be avoided at all costs.

Opportunities for wide sweeps around built-up areas are decreasing rapidly. These manmade elements of urban sprawl must be viewed as terrain and as obstacles to maneuver.

Today the primary shortcomings of FM 90-10 are that it is based on obsolete operational doctrinal concepts designed to defeat the Warsaw Pact in Europe and does not reflect current capabilities of forces and available equipment. In addition, the Combined Arms Center has failed to publish any updates or changes reflecting lessons learned from urban combat operations since the change of doctrine from air-land battle to force projection. Also, the Combined Arms Center has failed to publish any changes or updates reflecting changes in enemy forces. FM 90-10 still reflects doctrinal templates of a Warsaw Pact enemy in the urban attack and defense.

Field Manual 90-10-1, *An Infantryman's Guide to Combat in Built-Up Areas*

FM 90-10-1 does not contain a single reference in its entire text to FM 90-10 as either a source document or even a relevant document. This includes the preface, introduction, and surprisingly even the reference appendix. FM 90-10-1 was updated in 1993, with change one published in 1995. This FM fills the vast gaps found in FM 90-10 and is the best doctrinal source for urban combat operations currently available. Written by the infantry school, the introductory paragraph summarizes why this supplemental manual was needed:

The increased population and accelerated growth of cities have made the problems of combat in built-up areas an urgent requirement for the US Army. This type of combat cannot be avoided. The make up and distribution of smaller built-up areas as part of an urban complex make the isolation of enemy fires
occupying one or more of these smaller enclaves increasingly difficult. MOUT is expected to be the future battlefield in Europe and Asia with brigade-and higher-level commanders focusing on these operations. This manual provides the infantry battalion commander and his subordinates a current doctrinal source for tactics, techniques, and procedures for fighting in built-up areas. Of tremendous importance, FM 90-10-1 breaks new ground and provides a realistic perspective on urban combat by establishing three conditions under which combat in built-up areas takes place:

**Surgical MOUT** is defined as:

High-risk operations in an urban environment that require near-surgical precision including special purpose raids, small precision strikes, or small scale seizure or recovery of personnel or equipment. These operations are usually conducted by special mission units and may involve cooperation by other US or host nation forces or police. Though regular units may not be involved in the actual surgical operation, they may support it by isolating the area or providing security or crowd control.

**Precision MOUT** is defined as:

Combat actions in an urban area against an enemy force that is thoroughly mixed with noncombatants and when political considerations require ROE [rules of engagement] that are significantly more restrictive than high intensity MOUT. Infantry units of all types must routinely expect to operate in precision MOUT conditions. Although some combat may be quite violent for short periods, it is marked by a conscious acceptance of US forces of the need to focus and restrain the combat power used. The commander may bring overwhelming force to bear, but only on specific portions of the urban area occupied by the enemy. The political situation may demand different TTP [tactics, techniques, and procedures] tighter ROE, and strict accountability for individual and unit actions.

**High intensity MOUT** is defined as:

Combat actions against an organized determined enemy occupying prepared positions or conducting planned attacks. Requires the coordinated application of the full combat power of the joint combined arms team to seize, clear, or defend urban terrain, by the use of whatever force is necessary. The changing world situation may have made high intensity MOUT less likely but it represents the high end of the urban combat spectrum. It is the most stressful of urban combat and can be casualty intensive for both sides. Generally, if a room
or building is occupied by an alerted enemy force that is determined to resist, and if most or all noncombatants are cleared, overwhelming firepower is employed to avoid friendly casualties. Even though the full[y] integrated firepower of the joint combined arms team is brought to bear on the enemy, commanders must still make attempts to limit unnecessary destruction and casualties among noncombatants.¹⁰

FM 90-10-1 is a user-friendly and well-written manual that contains detailed information on how to fight in built-up areas. The common thread of the manual is the paramount importance it places on fighting as a combined arms team. The FM outlines the lessons learned from past urban combat on the use of armor, engineers, and artillery in both the indirect and direct fire roles to support infantry maneuver. Likewise, it stresses the importance of infantry support to the other combat arms as they maneuver.¹¹

The manual also provides tremendous information on individual skills, small unit operations, staff operations, and planning considerations for urban fighting. Chapter five, *Fundamental Combat Skills*, covers movement, entry techniques, firing positions, navigation, and camouflage. Chapter two, *Urban Analysis*, provides modern examples of built-up areas, techniques for terrain and unique weather analysis, and a threat evaluation and integration process that discusses both current and projected threat capabilities.

Chapters three and four contain extensive information for offensive and defensive operations in built-up areas that includes illustrative models for a battalion task force, a company team, and platoons that are attacking or defending. At the heart of all of these illustrative models is the generation of combat power by combined arms units to either overcome the advantages of an enemy in an urban defense or to smash an enemy's urban attack.
Appendix G, *Military Operations In Urban Terrain (MOUT) Under Restrictive Conditions*, provides an invaluable tool for staff officers and commanders at all levels to analyze operations under the most likely scenario: precision MOUT conditions. Sample rules of engagement, suggested use of combat support and combat service support assets, the influence of civilians on friendly and enemy operations, command and control challenges, and issues on how to do an intelligence preparation of the battlefield are all provided. Additionally, the use of precision guided weapons launched from fixed wing and rotary wing aircraft and employment of the AC-130 gunship are discussed in detail.

An extremely useful discussion of weapons effects and employment is contained in chapter eight. Exhaustive data is listed detailing the capabilities, penetration, destruction, and effects of small arms, demolitions, machineguns, antitank missiles, recoilless rifles, Bradley fighting vehicle weapons, tank weapons, flame weapons, hand grenades, mortars, artillery, naval gunfire, combat engineer vehicle weapons, and fixed and rotary wing air delivered munitions.

Field Manual 7-8, *Infantry Rifle Platoon and Squad*

FM 7-8 "provides the doctrine, tactics, techniques, and procedures on how infantry rifle platoons and squads fight." MOUT is only mentioned in battle drill 6, *Enter a building/Clear a room*. The following note is provided with the generic situation under which the battle drill is to be executed:

The discussion that follows assumes that the infantry squad is supported only by the platoon's organic weapons. The preferred method of entering a building is to use a tank main gun round; direct fire artillery round; or TOW, Dragon, or Hellfire missile clear the first room. Additionally, some MOUT situations may require precise application of firepower . . . Rules of engagement (ROE) can prohibit the use of certain weapons . . . The use of hand grenades and
suppressive fire to enter rooms may be prohibited to preclude noncombatant casualties ... FM 90-10 and FM 90-10-1 provide additional techniques for platoons and squads in MOUT. 13

Field Manual 71-123, Tactics and Techniques for Combined
Arms Heavy Forces: Armor Brigade, Battalion Task Force, and Company Team

The primary doctrinal source for heavy armor operations in built-up areas is the section entitled Light/Heavy Forces Attacking in MOUT found in Appendix B, Integration of Heavy, Light, and Special Operations Forces, of FM 71-123. The section states that "The MOUT fight is predominately an infantry fight" 14 but is very specific on how the combined arms team conducts urban operations:

**Infantry has the following tasks:**
- Assault enemy positions.
- Provide local security to tanks to protect against enemy antitank weapons.

Specific infantry units (one squad per tank section) should be dedicated to provide protection.
- Locate enemy targets for tanks.

**Tanks have the following tasks:**
- Supress or destroy enemy positions for infantry.
- Breach walls for infantry and reduce obstacles with cannon fire.
- Protect infantry from enemy tanks.
- Protect the flanks of infantry.
- Provide some protection to infantry from enemy small arms and fragmentation.

**Engineers have the following tasks:**
- Sappers support dismounted infantry. 15

FM 71-123 further details the specific vulnerabilities of tanks in urban combat:

Because they are restricted primarily to the streets, they lack maneuverability inside built-up areas. There is 10.8 meters of dead space around the tank into which it cannot fire its weapons. This makes the tank vulnerable to enemy infantry firing antitank weapons from cellars and drains. The back deck prevents the gun tube from depressing even more. There is also weapons dead space overhead, which makes the tank vulnerable to enemy fires from upper floors of buildings. To traverse the turret, the tank crew must ensure the gun tube is clear of buildings and other obstructions. The result of these vulnerabilities is that tanks are dependent on infantry for all-around protection. 16
Field Manual 17-18, *Light Armor Operations*

FM 17-18 does not provide general armor doctrine, rather it is specifically written for the employment of armor units equipped with the M8 Light Tank. The M8 was designed to replace the M551A1 (TTS) Armored Reconnaissance Airborne Assault Vehicle.

FM 17-18 is a well-written manual that discusses the employment of light armor units as an integral part of a combined arms team. Designated missions for the light armor force include operations in built-up areas to reduce strong points, bunkers, and roadblocks, and execute close assaults with light infantry. Additionally, this manual states that light armor forces provide the critical firepower and protection necessary to generate combat power during opposed entry missions in support of force projection operations:

The light armor unit may be required to execute opposed entry operations and provide immediate direct fire support for initial entry light forces. Entry into contingency theaters may require opposed entry by air... elements of the light armor force will be capable of insertion by LVAD [low-velocity air drop] or air-landing. Light armor increases the contingency forces mobile, protected lethality immediately upon deployment. It provides accurate, destructive fires that the operational commander can use to shape the battlefield, defeat the enemy, or fill the gap until other armored forces arrive.

Unfortunately, the US Army no longer has any light armor forces. In 1996, the decision was made to cancel the M8 Light Tank procurement. The result was that in late 1997, the M551A1 was phased out of service without a replacement. Therefore, the US Army now lacks the capability to airdrop or rapidly off load an air-landed armored vehicle to support an opposed entry operation. The decision to eliminate the light
arnored vehicle contradicts the fact, as discussed in FM 100-5, that the most likely opposed entry operations will be the seizure of airfields within urban terrain to allow the introduction of forces to expand the lodgment.


In FM 17-15, very little is devoted to the discussion of tank platoon operations in the urban environment. It is written for the basic tank platoon and is not vehicle specific. The purpose of the manual is:

[to] describe how the tank platoon fights. It focuses on the principles of platoon operations and the tactics, techniques, and procedures (TTP) the platoon uses to exploit its combat power and minimize its vulnerabilities while conducting move, attack, and defend operations. ¹⁹

Tank platoon operations in the urban environment are briefly mentioned three times. The first is in Appendix B, *Light/Heavy Operations*:

Restrictive terrain (such as built-up areas . . . ) increases the vulnerability of armor units. In such terrain, it is more advantageous for tanks to take a supporting role in the forward movement of the infantry. Armor provides close in direct fire support against hard and soft targets that could slow the infantry's advance. Regardless of terrain, infantry and armor units fight as part of a combined arms team to maximize their respective capabilities and minimize their limitations. ²⁰

The second mention is in Appendix E, *Operations Other Than War*. A brief two sentence sample situation, supported by two illustrations, is provided that portrays tanks in overwatch of dismounted infantry movement in an urban area and tanks moving with dismounted infantry in an urban area. ²¹ The third mention is the listing of FM 90-10 and FM 90-10-1 as reference publications.
Tactics, techniques, and procedures for cannon artillery in urban combat are limited to a four-paragraph section of Appendix F, *Special Operations*, in FM 6-50. There is no discussion of combined arms operations, and although briefly mentioned, there is no guidance for the employment of the cannons in the direct fire support role that has proved so crucial to the success of past urban combat operations. The crux of the section simply states:

The massive growth of urbanized areas and man-made changes to the landscape significantly affect the conduct of future battles. Avoidance of these areas during periods of conflict is no longer possible. Therefore, FA commanders at all levels must be aware of the unique advantages and disadvantages associated with operations conducted in and around cities, towns, villages, and similar built-up areas. The special artillery technique of direct fire may be used more frequently on urbanized terrain than elsewhere. Within the built-up area, high angle fires are most effective in attacking the defiladed areas between buildings.²²

As for the mission to employ cannons in direct fire, Appendix I, *Killer Junior* of FM 6-50 discusses using standard high explosive rounds with non-standard time fuse settings to engage ground targets with direct fire in self defense. There is no mention anywhere in the manual, other than the one sentence in the excerpt above, of direct fire in the offensive role.

*Field Manual 6-71, Tactics, Techniques and Procedures for Fire Support for the Combined Arms Commander*

FM 6-71 is designed to help combined arms brigade and battalion commanders and staffs synchronize fires with a scheme of maneuver and "clarify the art of applying
fires at the right time and place on the battlefield." There is no mention of fire support for urban combat operations in FM 6-71.

Field Manual 6-20-50, *Tactics, Techniques and Procedures for Fire Support for Brigade Operations (Light)*

In the MOUT section of Annex L, *Environmental and Terrain Considerations for Fire Support*, FM 6-20-50 provides a detailed discussion of fire support considerations in an urban environment. It is primarily focused on the capabilities and limitations of indirect fires and the positioning, C2, and movement of units. Two sentences are provided on direct fire: "Consider employing artillery in the direct fire mode to destroy fortifications. A 105-millimeter weapon firing HEP-T is very effective in MOUT." 

Field Manual 5-100, *Engineer Operations*

FM 5-100 does not specifically address engineer support of combined arms teams in urban combat. It "defines the engineer role within Army operations and provides broad principles for engineer employment throughout the theater of operations." FM 5-100 defers to supporting engineer manuals to outline techniques for supporting combined arms teams within the five engineer roles: mobility, counter-mobility, survivability, general engineering, and topographic engineering.

Field Manual 5-101, *Mobility*

Mobility is defined as the ability of the force commander to maneuver tactical units into advantageous positions over the enemy. Engineers support offensive operations by executing drills to breach enemy obstacles, assault, and destroy enemy fortifications. In the *Urban Area Environments* section of chapter 9, *Mobility Support*
in Special Situations, FM 5-101 provides an overview of how engineer units execute
countermines and counter obstacle operations in support of a combined arms team attack
to seize an urban area. Largely featured in the discussion is the use of the M-728 Combat
Engineer Vehicle (CEV). The CEV is the epitome of an engineer support vehicle for
MOUT operations. It is an armored vehicle that provides protection for its crew and is
equipped with a 165-millimeter demolition gun for reducing obstacles and fortifications
and bulldozer blade for pushing aside rubble, obstacles, and filling craters.28

Unfortunately, the CEV has been phased out of the Army inventory and its replacement,
the Grizzly, does not have a demolitions gun and is primarily designed as an earthmover
with protection for its operator.

Field Manual 5-71-2, Armored Task Force Engineer Combat Operations and Field
Manual 5-7-30, Brigade Engineer and Engineer Company Combat
Operations (Airborne, Air Assault, and Light)

Both FM 5-71-2 and FM 5-7-30 contain checklists of additional considerations for
MOUT operations and provide guidance in the form of the following statement:

Operations in a MOUT environment are planned, coordinated, and
executed in the same fashion as an operation in any other type of environment.
Urbanized terrain does not change the nature of the operation, but rather it causes
the [company commander (FM 5-71-2) [Brigade Engineer (FM 5-7-30)] to plan,
coordinate, and execute using additional considerations.29

FM 100-25, Doctrine for Army Special Operations Forces
(SF, Rangers, CA, PSYOP, ARSOA)

Special operations forces (SOF) operations in urban terrain take place within the
mission profile of direct action. Direct action is defined as:

short duration strikes and other small scale offensive actions . . . They are
designed to inflict damage on, seize or destroy a specified target or to destroy,
capture, or recover designated personnel or materiel.30
SOF direct action missions are normally time-sensitive and designed to achieve a specific strategic or operational objective. They are also normally low-visibility operations conducted in politically sensitive areas. As a result, surprise, precision, and speed are the required tactics, techniques, and procedures of SOF forces conducting DA missions in urban terrain.

Training Circular 31-29, Special Forces Operational Techniques

TC 31-29 provides the information and guidance on tactics, techniques, and procedures for Special Forces operational detachments-alpha ("A" Team) operations. Chapter 6, Combat Operations in an Urban Environment, provides tactics, techniques, and procedures for Special Forces "A" Teams in MOUT. The chapter borrows heavily from FM 90-10-1 for individual movement and survival skills, but primarily focuses on counter-terrorist assault tactics on urban terrain. The manual refers to FM 90-10-1 for Special Forces A Team operations within a combined arms team fighting in MOUT.

Ranger Training Circular 350-1-2, Advanced MOUT Training

RTC 350-1-2 contains the training, tactics, techniques, and procedures used by the 75th Ranger Regiment during MOUT. The primary focus is to maintain maximum proficiency in precision MOUT, but the Ranger Regiment maintains the ability to fight as part of a combined arms team in high intensity MOUT. RTC 350-1-2 "combines standard Army TTP and equipment with the TTP and equipment specially developed and peculiar to Special Operations Forces (SOF)." The Ranger Regiment has developed this SOP based on its mission to execute

Any Special Operations missions requiring a competent, highly disciplined, and lethal force to ensure the precise application of combat power, in
a politically sensitive environment... day or night, all-weather via land, sea, or air. These missions include Rapid Response and Deployment, Airfield Seizures, ... Forcible Entry. Deep-Penetration, Special Operations Raids (Destroy or Recover), Urban Combat and Conventional Missions as Required.34

With regard to surgical MOUT: "Rangers, though not tasked with surgical MOUT, operate in the band between precision MOUT and surgical MOUT and may employ many techniques and equipment common to surgical MOUT."35 The Ranger Regiment also places a great deal of emphasis on the unarmed aspect of urban combat. Rangers are extensively trained in combatives. Combatives includes hand to hand fighting, bayonet fighting, use of expedient weapons, and submission/physical restraint holds. Combatives techniques are extremely effective in MOUT to physically subdue and dominate prisoners or non-compliant noncombatants with non-lethal force.36

The purpose of the 90 series field manuals is to provide the over-arching doctrine for combined arms operations in specific environments. This then enables the combat arms to produce branch manuals that coherently reflect common terms, procedures, and ensure interoperability between members of a combined arms team. Clearly, doctrinal manuals produced by the individual combat arms branches are not integrated. This can be directly attributed to the fact that the Combined Arms Center has neglected FM 90-10 for nineteen years, although the Combat Training Centers and the Center for Army Lessons Learned have published numerous reports and papers on urban combat.


2 Ibid., 3-1.

3 Ibid., 14-4.

5 Ibid., ii.

6 Ibid., i.


9 Ibid., 1-2.

10 Ibid., 1-1 to 1-2.

11 Ibid., 3-9 to 3-16.


13 Ibid., 4-22.


15 Ibid., B-8.

16 Ibid., B-6.


18 Ibid., 1-2 to 1-3.


20 Ibid., B-1.
21 Ibid., E-12 to E-13.


26 Ibid., 1-9.

27 Ibid., 1-9.


31 Ibid., 3-11.


33 RTC 350-1-2, i.

34 75th Ranger Regiment, Command Briefing (Fort Benning, GA: 18 January 1998), Slide 2.
35 RTC 350-1-2, 1-2.

36 Ibid., 1-5.
CHAPTER 7
ANALYSIS

The tactics, techniques, and procedures for conducting urban combat operations have changed very little since World War II. Combined arms teams win in urban combat. However, the evolutionary path of urban combat can be defined in terms of changes in perceptions of the conditions and purposes for engaging in urban combat.

The battle of Aachen in 1944 was a high intensity MOUT operation in which the complete destruction of the city was an acceptable end state for the operation. Yet four months later in the same war, the battle of Manila was a precision MOUT operation because of the need to capture objectives with infrastructure intact and without killing noncombatant inhabitants. This line of reasoning would extend to the battle of Seoul five years later, to the battle of Hue twenty three years later, and the battle for La Comandancia forty four years later.

Currently social, economic, and political factors all but prevent the wholesale destruction of built-up areas as a result of combat operations. Socially, collateral damage leaves innocent people dead or at best destitute. Economically, collateral damage usually means diverting resources from an already strained system to rebuild. Politically, world opinion is negatively influenced by media coverage of a city lying in ruins and littered with corpses of noncombatants. In today's world if you combine the three, then any legitimacy the operation once had will quickly disappear and paint a liberator as a heavy-handed conqueror.
How has the evolution of urban combat since World War II influenced the current doctrine of the United States Army?

Classification of MOUT Conditions

The most important influence the evolution of urban combat from World War II to the present has had on current doctrine is the acknowledgment that urban combat is situational and takes place within three realistic conditions: high intensity, precision, and surgical. The definitions of these three conditions are derived from the lessons learned during past urban combat operations.

The battle of Aachen, the battle of the barricades in Seoul and the seizure of the Colon DENI Station epitomize high intensity MOUT operations. In Aachen, Lieutenant Colonel Daniel was virtually unconstrained in the use of combat power to subdue the city with some self-imposed measures to safeguard the lives of noncombatants. During the battle of the barricades in the streets of Seoul, small unit commanders were unconcerned with collateral damage and employed the combat power they felt was required to win. At the Colon DENI Station, Captain (Now Major) Dyer was able to employ devastating combat power against a heavily fortified objective because it was isolated and there was no threat of causing collateral noncombatant casualties.

The battles for Manila, La Comandancia, and Hue were clearly precision MOUT operations. Commanders were expressly told to limit damage to the infrastructure of Manila and to safeguard noncombatants. Likewise, the use of firepower at La Comandancia was employed to achieve shock and suppression but under strict control to prevent wholesale destruction of the buildings and surrounding area. In Hue, the use of
firepower within the Citadel was unconstrained with the exception of the Imperial Palace. Using artillery or direct fire explosive rounds on the Palace was strictly forbidden, therefore it had to be taken at great cost in personnel.

The raids conducted by TF RANGER in Mogadishu were surgical MOUT operations. Special operations forces conducted strategic, high-risk, special purpose raids in denied urban terrain to seize personnel. The 3 October 1993 raid is also a textbook example of how quickly MOUT operations can transition from one condition to another, in this case from surgical to high intensity.

Combined Arms in Urban Combat

The second influence the evolution of urban combat from World War II to the present has had on current doctrine has been the validation of fighting as combined arms teams. FM 90-10-1 and other field manuals have captured the historical lesson that units fighting as combined arms teams generally succeed in urban combat, and that single arm attempts to subdue an urban defender generally fail. The maneuver, protection, and firepower of the combined arms team generated the combat power required to overcome the tremendous advantages of an urban defender. Single arm efforts failed because they did not generate sufficient combat power. The primary cause was the lack of protection and firepower available to a single arm.

The current doctrinal model for the seizure of an urban objective by a combined arms team incorporates historical lessons. Mechanized infantry use their inherent firepower and protection to secure key locations that isolate the point of attack. Indirect fire and close air support are delivered to suppress enemy positions that can interdict the
approach of the main body. Dismounted infantry gain positions from which they can
directly suppress enemy positions. Under this suppression, engineers reduce obstacles to
tank mobility and tanks move forward using their inherent protection to fire main gun
rounds. These rounds destroy enemy fortifications and create breach points for the
infantry. Tanks then use coaxial machine guns to augment infantry direct fire
suppression. Dismounted infantry maneuver under the protection of this suppression to
seize a foothold and systematically clear the objective.

This model is applicable primarily to high intensity and precision MOUT
operations. The model is also applicable to surgical MOUT with modifications based on
the political sensitivity of the mission.

Other Findings

Although they do not answer the primary research question, analysis of the
American urban combat experience from World War II to the present reveals several
salient points.

Shortcomings of Current doctrine

The 1993 version of FM 90-10-1, An Infantryman's Guide to Urban Combat with
change 1 (1995), is the de facto source for U.S. Army MOUT doctrine. The current
version of FM 90-10, Military Operations On Urban Terrain, is obsolete and in need of a
complete rewrite. Thus the separate combat arms have updated their branch specific
manuals to fill the gaps. Although they reflect many historical lessons and refer to FM
90-10-1 for additional guidance, these branch manuals lack the considerable coordinating

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instructions and common procedures for urban combat in force projection operations that
would be provided by a relevant and up-to-date FM 90-10.

Doctrinal imperatives and procurement failures

Serious disconnects exist between doctrinally assigned missions in built-up areas
and the procurement of weapons systems. Decisions not to procure new weapons or to
phase out current weapons systems without replacement have left the U.S. Army without
many of the weapons that have proven decisive in urban combat. The U.S. Army no
longer has a rapidly deployable light armored vehicle, an armored engineer vehicle,
direct fire gun shields on towed howitzers, recoilless rifles, or shoulder launched high
explosive "bunker-buster" munitions.¹ The shoulder-launched munitions available today
are high explosive ant-tank weapons that are not effective against fortifications.

A force projection operation in response to a crisis will require a lodgment. The
optimal lodgment is an airport, seaport, or a combination of both. The majority of the
world's airports and seaports that possess the capability to accept U.S. strategic lift
aircraft and vessels exist within, and are themselves, urban terrain. It is very likely that
lodgments will have to be taken by force. FM 100-5, Operations, clearly states that
opposed-entry forces must be lethal, survivable, and prepared to fight upon entry.²

Therefore, the most likely force projection scenario for the U.S. Army will begin with a
forced entry mission by a combined arms unit from XVIII Corps, augmented by special
operations forces. They will rapidly deploy by strategic aircraft and seize the urban
infrastructure of an airport and the key urban terrain surrounding the airport which can
influence the introduction of additional forces. These additional forces will then have to
fight through the built-up area the airport exists within to then seize the urban infrastructure of a seaport and the key urban terrain surrounding it. Then the main body force and the logistics required to conduct decisive combat operations can deploy from the continental United States into theater.

Use of SOF Assets to Augment the Conventional Combined Arms Team

The 75th Ranger Regiment maintains an extremely high level of proficiency in close-quarters combat techniques and primarily train on their mission essential tasks in precision MOUT conditions. They are the force of choice for the seizure of airfields and other objectives in urban areas that must be taken intact for immediate use.

When an enemy defends areas or structures of historic, religious, cultural, or political sensitivity, Ranger and other designated special operations units provide the combined arms team the means to secure them. Integrated with and supported by the combined arms team, SOF elements can secure these key sites with little or no physical damage. Care must be taken, however, not to assign missions to SOF elements that a conventional force can accomplish.

Media Coverage of Urban Combat

The people of the United States do not take the commitment of their armed forces lightly. They charge the government to commit forces only after due consideration of the range of options and likely outcomes. Moreover, the people expect the military to accomplish its missions in compliance with national values. The American people expect decisive victory and abhor unnecessary casualties. They prefer quick resolution of conflicts and reserve the right to reconsider their support should any of these conditions not be met. They demand timely and accurate information on the conduct of military operations.

The media coverage of urban combat can significantly influence public opinion.
Despite the fact that the Viet Cong were destroyed as a fighting force during the Tet Offensive, the reports of the brutal fighting in Hue influenced U.S. public opinion that the Vietnam War could not be won. Likewise, Americans were angered by inaccurate media reports that collateral damage from US weapons caused the fires that consumed a portion of Panama City. Also, despite the fact that the raid mission was a complete success, the real time media coverage of the brutal TF RANGER fire fight in Mogadishu enraged the people of the US and caused a complete reversal of national policy.

Coverage of urban combat is a prime target of print and broadcast media. This coupled with the real time capability of the modern media will place urban combat at the forefront of the news. This will test the resolve of the American people who will be influenced on a daily basis by images of destroyed buildings in flames, fleeing noncombatants, and wounded U.S. soldiers in the middle of it all. The publicized brutality and harshness of urban combat will pose a challenge to national leadership and require continuous justification for involvement.

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1 Conventional units no longer have recoilless rifles. The 75th Ranger Regiment and other special operations forces are equipped with the 84-millimeter Carl Gustav Recoilless Rifle capable of firing high explosive, high explosive antitank, illumination, and smoke rounds.


3 75th Ranger Regiment, AORG-CO, RTC 350-1-2 Advanced MOUT Training (Fort Benning, GA: Dated 18 July 1997), i.

4 The National Command Authority selected the 75th Ranger Regiment to conduct all three of the U.S. forced entry operations conducted since World War II (Point Salines, Grenada; Torrijos-Tocumen, Panama; Rio Hato, Panama). All three operations required initial parachute assaults followed by rapid airland off load of troops and
combat vehicles. All three operations were required to seize airfields intact to allow the introduction of conventional forces for subsequent seizure of operational level objectives.

5FM 100-5, 1-2 to 1-3.
CHAPTER 8
CONCLUSION

U.S. forces will conduct urban combat operations in the near future. As in the past, bypass will always be the first course of action, but unfortunately, in today's urbanized world, bypass of one built-up area takes you right into another. Another reality of future conflict is that the U.S. will increase its technological edge and achieve the capability to target and engage an enemy anywhere on the maneuver battlefield. Once this point is reached, built-up areas will be the only place an enemy has left to hide.

For now, the challenge we face is not how to conduct urban combat operations, but how overcome obsolete doctrine and get all the components of the combined arms team in synch.

The first step is to update FM 90-10, Military Operations On Urban Terrain. Nineteen years without a single update, despite two changes in operational doctrine, is unacceptable. The second step is to revise branch series field manuals to reflect the common procedures and techniques that would exist in an updated version of FM 90-10.

In April of 1945, the 781st Tank Battalion published a combat observations paper titled Tank-Infantry Assault of a Town. The report was part of a program designed by Supreme Headquarters Allied Forces Europe to capture "combat lessons" learned in the European Theater during World War II. The purpose of the report was "to illustrate principles and technique[s] of tank-infantry coordination in the taking of a defended town." The report details how a battalion task force of infantry, tanks, towed tank destroyer guns, flame-throwing tanks, engineers, and artillery methodically isolate,
suppress, and reduce the town. The tactics, techniques, and procedures described in this 1945 report have proven to be relevant since. What has changed is the way we think about urban combat. We have traveled the path from siege warfare intended to raze a city to the precision removal of an enemy using infrastructure and non-combatants as part of his defensive scheme.

Recommended Topics for Further Study

Throughout the urban combat experience of U.S. forces, primary leaders were killed or wounded early in the battle, yet lower ranking enlisted soldiers assumed command and continued the mission until they themselves became casualties or accomplished the mission. What, if any, are the unique factors that can explain the ability of the American soldier to do this in an urban fight?

Can a combined arms team conduct a forced entry operation to seize a lodgment in defended urban terrain without an air deliverable light armored gun system?

Have the current weapons systems fielded by the U.S. Army become so specialized to the point that they are no longer effective in urban combat?

Should the U.S. Army establish an urban combat training center? If so, what is the optimal design and organization?

How do the four overarching operational concepts of Joint Vision 2010 affect urban combat operations, or do they make urban combat unlikely?

What current or perceived future technology can be leveraged to increase the combat power of a combined arms team in urban combat?
Conclusion

We can not wish away the problem. Urban combat is a reality for future U.S. combat operations and one undeniable fact is that urban combat is just as brutal today as it was fifty-three years ago. It is the paragon of close combat. Regardless of how much dominant maneuver or precision engagement is employed, the urban fight is waged street to street, house to house, room to room, and in many cases hand to hand.

The urban warrior fights the physical conditions as well as the enemy. He must overcome the fear that death waits at every turn. He must endure the cacophony of noise and the internal organ crushing overpressure from repetitive demolition blasts. He must fight an enemy who fires at him from a thousand mouse holes and cracks spread throughout a three dimensional maze.

Once he finds the enemy, the urban warrior must maneuver through burning buildings that are choked with rubble, debris, and the corpses of men and animals alike. Then, choking on the dust and smoke, he must surge forward through a doorway, exposed and vulnerable, and subdue the enemy any way he can. And when all else fails, sometimes that means beating him to death with bare hands. Once that colossal task is done, he provides first aid to the wounded, takes ammunition from the dead, reloads his weapons, and starts again.

Given all of this, we owe it to the U.S. soldier on the ground to have the best doctrine, equipment, and leadership possible. Anything less would be criminal.

2 Ibid., 1.
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