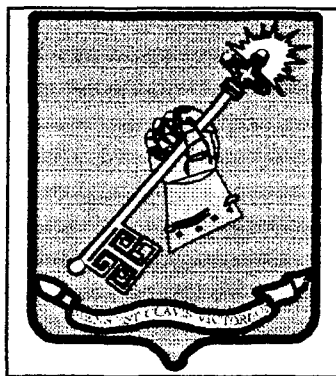


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**GOING DOWN TOWN:
THE NEED FOR PRECISION MOUT**

**A Monograph
by**

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Infantry**



**School of Advanced Military Studies
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ABSTRACT

GOING DOWNTOWN: THE NEED FOR PRECISION MOUT by MAJ Charles A. Preysler, USA, 51 pages.

This paper examines the question whether the U.S. Army should subdivide MOUT doctrine into two parts, precision MOUT and Combat In Built-Up Areas (CIBUA)? Current MOUT doctrine attempts to avoid fighting in cities. This doctrine evolved from the WWII experience and focuses on heavy forces conducting MOUT in high intensity war. There is very little in MOUT doctrine that addresses Operations Other Than War (OOTW) on the low intensity side of the spectrum of conflict. The missing piece for OOTW in urban terrain is "**Precision**" MOUT. This approach incorporates the fact that civilians will always be present during military operations conducted in their cities.

The two major reasons why the U.S. will inevitably commit forces to conduct Military Operations in Urban Terrain (MOUT) are the explosive expansion in the size and number of urban areas throughout the world and the continuing U.S. engagement around the world as the remaining superpower. Urban population data suggest a trend of constant growth to continue in the future. Cities not only encroach on open maneuver space, but invariably seem to occupy positions that require their seizure for religious, political, or economic reasons. The strategic importance of cities is growing. Cities contain the centers of political power, hubs of transportation, hubs of telecommunications and centers for logistic support. History illustrates that urban battles are the most demanding, costly and complicated of military operations. There are three reasons why it is so difficult: the cost in time, manpower, and resources; the density of the terrain; and the presence of noncombatants in the battle space.

Why does current MOUT doctrine need to change? The U.S. Army is smaller and will rely less on forward deployed forces. The U.S. will remain engaged around the world, positioned to resolve conflicts that are no longer defined by the strategy of containment. Adding complexity to the problem is the influence exerted by the mass media on American public opinion and the demands to minimize collateral damage and casualties. A corollary to this phenomenon is the desire to limit the post conflict cost. This does not suggest the U.S. should discard the traditional view of urban warfare. There is still a need to have a doctrine for high intensity urban warfare. Nevertheless, the U.S. needs a new approach on urban warfare. The new approach must link MOUT and OOTW. The proposed approach is Precision MOUT.

Precision MOUT is defined as the restricted and disciplined use of force in military operation other than war on urban terrain. Discipline fire is the hallmark of precision MOUT. Precision MOUT is more than fires it is a mind set or attitude for conducting disciplined operations in close proximity to civilians. Precision MOUT objectives are still to defeat the enemy while limiting noncombatant casualties and excessive collateral damage. Precision MOUT allows for a measured response, disciplined in its application to specific operations conducted in an urban setting. This study concludes there is a need for developing a more flexible, coherent and complete MOUT doctrine that incorporates the high intensity and OOTW.

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INTRODUCTION

There are two major reasons why the U.S. will inevitably commit forces to conduct Military Operations in Urban Terrain (MOUT). The first is the explosive expansion in the size and number of urban areas throughout the world. The second is the continuing U.S. engagement around the world as the remaining superpower. Current U.S. Army MOUT doctrine attempts to avoid fighting in cities. History illustrates the reasons most military experts want to avoid MOUT. MOUT is the toughest and most complex battlefield a military force will fight on. This rises the question, is U.S. doctrine up to the unavoidable and difficult challenge of conducting MOUT? Current MOUT doctrine evolved from the WWII experience and focuses on heavy forces conducting MOUT in high intensity war. However, there is very little in MOUT doctrine that addresses Operations Other Than War (OOTW) on the low intensity side of the spectrum of conflict. There is even less doctrine for surgical MOUT. Surgical MOUT is typically a highly classified operation conducted by elite Special Operations Forces (SOF). This still leaves a missing piece of MOUT doctrine for conventional forces conducting OOTW.

The missing piece for OOTW in urban terrain is "**Precision**" MOUT. Currently the term precision MOUT is a non-doctrinal descriptive term, for conditions of the battlefield. This paper examines the question whether the U.S. Army should subdivide MOUT doctrine into two parts, precision MOUT and Combat In Built-Up Areas (CIBUA)? This study does not discuss surgical MOUT operations. These operations are well beyond the capabilities of a standard Army unit and the scope of this study. There are two major reasons MOUT is important to future conflict, one is the effect of urbanization and the second is the strategic setting.

Army doctrine emphasizes the avoidance of fighting in built-up areas. However,

the facts suggest that avoiding built-up areas is no longer practical. "The world's growing human population, coupled with its migration to the cities, is resulting in a rapidly expanding urban sprawl manifested worldwide."¹ Urban population data suggest a trend of constant growth to continue in the future. "Some estimates forecast that 75% of the world will live in urban areas by the year 2000."² The growth in size of urban areas is greatest in developing countries. The infusion of technology creates greater growth in the size of urban areas of developing countries, exceeding the size of urban growth of industrial nations.³ This world wide urbanization makes it urgent for the U.S. Army to study urban warfare.

Traditional battlegrounds and ground lines of communication are disappearing, overcome by the expanding urban complexes especially in Western Europe and mainland Asia. Large conurbations like Rhein-Main in Germany are a serious obstacle to maneuver and eat away at open maneuver space. The ability to conduct wide sweeping maneuvers around these complexes is steadily decreasing. Bypassing and isolating these urban complexes is no longer easily executed. The only option left open is to attack through the city. The results of attacking through a city are a loss of tempo and a tremendous expenditure of assets. Cities not only encroach on open maneuver space, but invariably seem to occupy positions that require their seizure for religious, political, or economic reasons.⁴

The strategic importance of cities is growing. "History has shown that a basic imperative has been the capturing of capitals and other key strategic cities."⁵ Cities contain the centers of political power, hubs of transportation, hubs of telecommunications and centers for logistic support. They are often the central repositories for industrial and cultural assets of a nation.⁶ In nations where the overwhelming majority of the industry

and trade are urban-based, the control of these centers is the key to controlling the nation itself. When the U.S. commits its military force to attack urban areas, the capture of the city is often the central piece of the campaign. Consequently Military Operations on Urban Terrain (MOUT) are more likely and thus more important to U.S. military leaders.

The effects of urbanization are not the only reasons MOUT is becoming more important. The changing world order forces the U.S. to deal with new realities in the world. The Cold War is over, leaving the U.S. as the one remaining superpower. As such, the U.S. is developing a new military strategy to exert its leadership role in the post-Cold War period. U.S. Army doctrine supports this new strategy by moving from forward defense to force projection doctrine. This doctrinal concept, and recent changes in the international security environment, presupposes the increasing chance of conflict with regional threats.⁷ It is clear that the U.S. military forces will remain engaged in regional conflicts around the world. Most of these regional conflicts will take place on the lower intensity end of the spectrum in what Army doctrine categorizes as Operations Other Than War (OOTW).

OOTW covers a wide breadth of operations from peacetime competition, through conflict and up to general war. Potential conflicts against the armed forces of one or more Third World nations can take on many different forms and levels of intensities. Army doctrine in FM 100-5 clearly identifies the requirement for the military to operate across the full spectrum. This implies that Army doctrine has to be flexible to be of utility.

The Army must be capable of *full-dimensional operations*. This means employing all means available to accomplish any given mission and at the least cost - across the full range of possible operations in war and in operations other than war.⁸

Future opponents will realize the futility of direct confrontation with the superior forces of the U.S., especially when operating in open terrain. This will force them to rely on the strength inherent in the defense afforded by built-up areas. Also, the poorer the nation, the less likely it is to field, maneuver, and sustain forces beyond logistic centers located within cities. The U.S. has to come to grips with these asymmetric forces in urban areas. The mass migration to the cities creates conditions of poverty and despair that is an ideal breeding ground for the dissatisfied to turn to violence. Conducting regular MOUT may increase guerrilla activity and escalate conflict. Inappropriate MOUT doctrine, may result in creating a vast urban guerrilla or urban terrorist faction. This can result in a protracted conflict that mires down U.S. efforts. The lack of progress could erode the U.S. public will and can eventually lead to a U.S. withdraw or defeat. Urban terrorism is a growing threat to the U.S.

The urban terrorist phenomenon has serious implications for the U.S. Urban terrorism is posing an increasing threat to U.S. interest. During the late 1960's, revolutionaries were beginning to switch their attention from the countryside to the cities. By the early 1970's this shift was confirmed and visible throughout the world.⁹ Today, this trend towards urban insurgency continues. Military operations against urban terrorists requires a precise execution. The majority of these operations are left for SOF because conventional forces do not have the training nor the doctrine to execute with the required precision.

Despite convincing evidence that urban warfare is unavoidable, the U.S. Army is not devoting the urgent attention required to this unavoidable realm of warfare. Current Army doctrine is written for classic maneuver warfare and still recommends that maneuvering forces avoid or bypass cities. Most commanders and military professionals

do not want to fight in villages, towns, or cities because they present a difficult obstacle to maneuver. What they must realize is, "there are significant differences between urban warfare and classic maneuver warfare that every military leader must comprehend and to which he must be able to immediately adjust."¹⁰ To be effective and to save lives, military leaders at all levels must understand this urban operation.¹¹ Current doctrine adequately addresses the tactics for fighting a high-intensity urban battle, reminiscent of Stalingrad in WWII. LTG Desobry, a veteran of many urban fights during WWII, nicely summed up current Army MOUT doctrine. "Banging away with everything at hand the closer the range the better. Don't hesitate to use every available weapon system. The more violence you throw at the enemy the better your chances of winning quickly."¹² Winning quickly at the smallest cost in American lives is a hallmark of the U.S. Army operations. An evaluation of the cost and complexity of urban warfare shows why this tradition is so hard to follow.

THE COST OF DOING MOUT

History illustrates that urban battles are the most demanding, costly and complicated of military operations. There are three reasons why MOUT is so difficult: the cost in time, manpower, and resources; the density of the terrain; and the presence of noncombatants in the battle space.

There is a high expenditures of time, manpower and material when attacking or defending in a city. The consumption of time and tempo, are especially prevalent for the attacking forces. There are no short cuts that speed up the attack of a city. A few well-placed snipers can delay a sizable force and can inflict a grossly disproportionate toll on

the attackers. Attacking a city is a slow, methodical, and painful process. History shows that only two things help shorten the duration of urban combat, surprise and effective isolation of the enemy. Surprise and isolation are not simple tasks with forces spread throughout the city and the surrounding area. The nature of the environment makes decentralized execution a necessity. This creates a strain on the logistics system trying to support small decentralized units. Further magnifying the logistical problems in a city is the higher consumption of all classes of supply especially ammunition in MOUT. Resupply of forces in MOUT is more difficult. Logistics is not the only thing strained by MOUT. Urban combat over an extended period wears down soldier effectiveness. Illness and nonbattle injuries tend to increase. Cities create unusual health problems like: respiratory problems caused by dust, food poisoning from eating contaminated food, wounds caused by glass, nails, stones and wood fragments. There is also an increase in the psychological strain of soldiers in MOUT fighting. This increase in psychological casualties is due to the potential danger at every corner. Cities can form an instant dense fortification that restricts seeing and concentrating forces on the battlefield.

Urban terrain is a dense environment. Unlike the deserts, forests, and jungles that confront the commander with a limited variety of fairly uniform, recurring terrain features, the urban battlefield is an ever-changing mix of natural and manmade features.¹³ Traditionally, high ground is considered key terrain and therefore, an important objective. In MOUT, airfields, ports, subways, bridges, hospitals, and other key infrastructure facilities become more crucial. Urban terrain is considered an obstacle to movement and maneuver. This is especially true if rubble causes restricted and canalized routes inside the city. Urban terrain adds a third dimension to combat by providing cover and concealment for an enemy creating potential danger every foot of the way. There is degradation of

communications that further exacerbates the difficulty with decentralized command and control. Navigation in a city presents a challenge especially when using standard military maps at 1:50:000 scale. Other constraints, when operating in urban areas are: fire hazards, limited line of sight, magnetic disorientation from power lines, masking, and radar degradation. There is a reduction in weapons effectiveness which is caused by the ineffectiveness of ammunition against buildings. Weapon systems are affected by the reduced ranges for engagements and the difficulty in target acquisitions caused by smoke and dust. Most antitank weapons designed for open terrain have an overpressure danger when fired from a room. General DePuy summed up the conditions of urban terrain by drawing a partial analogy to the jungle of Vietnam.

"The visibility is poor--the terrain compartments are small and require an excessive amount of troops operating under junior leaders--the enemy is hard to find--it's difficult to contain him--it's hard to mount a counterattack--there is no high ground."¹⁴

The one significant difference between the jungle environment and MOUT is the large number of civilians present in a city.

The continuous presence of noncombatants makes MOUT operations much more difficult. In the battle for Manila, "one perfectly executed attack was stopped in its tracks by masses of noncombatants fleeing the battle."¹⁵ The population of a city maybe hostile creating a serious security problem. Even if the population is friendly they may simply get in the way of military operations. If an operation is conducted poorly the population of a city may become alienated and hostile during or immediately following the operation. Often the neglect of the post conflict phase of MOUT leads to more suffering than the conflict itself. Post-conflict civilians requirements are normally massive. They compete for military resources, especially in medical support. The problem of adequate support

stems from a doctrinal mismatch that bases support on the size of the force and not on expected civilian requirements. Efforts to restore food, water, and electricity, as well as fire, police, and sanitation services require the intense work of specially qualified personnel. In today's modern city, vital services like computer, telephone, TV, and radio must also be added. Briefly surveying recent urban operations illustrates some of the identified complexities of MOUT.

Of particular interest to this study is the MOUT experience of American military forces. The U.S. MOUT experience is not as epic as the Soviet-German experience in the battles for Stalingrad or Berlin. Yet the U.S. has a growing level of experience with MOUT. The historical examples are drawn from a cross section of battles in cities involving the U.S. from WWII to Operation Just Cause in Panama. These examples illustrate the evolving trends and the application of U.S. MOUT doctrine. The first example is the battle for Aachen in WWII. This urban battle is an example of no restrictions and the use of massive firepower to crush the defenders in the city. The next battle is Hue during the North Vietnamese Tet Offensive in 1968. The battle of Hue shows the attempt to constrain the use of firepower to save the historical city and its people. The final historical study is the U.S. invasion of Panama in 1989 called Operation Just Cause. Operation Just Cause provides a recent example of the current trend in MOUT. This trend restricts use of force, requiring precision fires to minimize collateral damage and casualties. All three battles illustrate the difficulty in conducting MOUT and the need to have forces ready to execute MOUT as expertly as possible.

HISTORY

I - THE BATTLE OF AACHEN (UNCONSTRAINED FIREPOWER)

Aachen is an ancient imperial city located in western Germany along the Belgium border. Aachen is considered the birth place of Charlemagne. Due to its history, the city held much importance for the National Socialist Nazi party ideology. Also, the city was a part of the much vaunted Siegfried line in Germany. The Siegfried Line consisted of a system of pillboxes and antitank obstacles and minefields that ran from Holland to Switzerland. The city of Aachen sat astride the connection of two bands of the defensive line. Beyond Aachen lay open a broad plain leading to the city of Cologne and the Rhine River. The population of Aachen declined after five years of war from 162,000 to 25,000 prior to the battle. After the D-day landings the Allied armies pushed rapidly across France toward Germany on a broad front. The American First Army commanded by General Hodges advanced toward the German border and the city of Aachen. This was the first city on German soil in the path of the American forces. As such, the Allies expected a fierce battle for control of the city.

Elements of the First Army were a part of the overall Allied pursuit of the retreating German Army. The Allies saw a need for an operational pause at the Siegfried line to concentrate widely dispersed units and to fix logistics problems. After the pause, the Allied forces believed they could dash to the Rhine and soon end the war. The first step toward the Rhine for the First Army lay through Aachen. Hodge's planned to isolate and bypass the city using elements of two corps. The XIX Corps attacked north of the city on October 2, followed by the VII Corps attacking south of the city on October 5. "The Germans defended with a mixed force of 5,000 men, five tanks, six 150mm and nineteen 105mm howitzers and eight 75mm AT guns."¹⁶ To prevent encirclement the

Germans launched several counterattacks during this period to prevent the city from being encircled.

As a result the Germans initially prevented U.S. forces from closing the circle. On 10 October the U.S. forces issued an ultimatum to the Germans to surrender within 24 hours. The Germans did not reply to the ultimatum. On October 11, a massive air and artillery bombardment began. "Five thousand shells weighing 169 tons were expended on the first day alone. Extensive shelling and bombing characterized the remainder of the battle."¹⁷ This intense fire destroyed most of the city.

Though the U.S. completed the encirclement of Aachen by October 16 continued Germans counterattacks delay the U.S. attack into the inner city. On October 18, the 3d Armored Division attached a reinforcing task force to the 26th Infantry Regiment for the final assault on the inner city. The main assault force consisted of two infantry battalions, reinforced with armor. These forces advanced in a two-pronged attack toward the west. The northern battalion began to clear the main strongpoints dominating hills within the city. The southern battalion cut the city in half by attacking along the railway axis. The goal of these objectives was to simplify the task of isolating and mopping up enemy resistance. Nevertheless, the battle was slow, being fought from building to building.

The U.S. relied on superior firepower to seal off an area. Then they used direct fire from tanks, tank destroyers, and artillery pieces to drive the Germans into the cellars, where they could be finished off by grenades. The shock effect of the superior firepower especially the 155mm guns, had a psychological effect on the defenders allowing the U.S. forces to capture the inner city. It also created extensive rubble which impeded movement and provided the German defenders with excellent defensive positions. Glass and other litter punctured tires forcing medics to rely on tracked vehicles for evacuation of

wounded.

An important lesson learned was the necessity to clear each cellar and sewers before continuing the advance. Blocking the sewers prevented Germans from infiltrating into the U.S. rear areas. Assaulting platoons received either tanks or 155mm guns to provide supporting fires against strongpoints. The tanks moved down cleared side streets for protection. They emerged only to fire and then to move to cover or forward down a newly cleared street. Infantry avoided using the streets by blasting "mouseholes" in building walls with explosives. This allowed the infantry to move from building to building without exposing themselves to the deadly fires encountered on the streets.

The direct fire of a 155mm gun into the main German command post finally convinced them to surrender the city on October 21. There were 3,473 Germans prisoners captured within the city. American casualties in the final attack included 498 killed and wounded among the two assault battalions. LTC Daniel, one of the battalion commanders, attributed the success of the operation to, "the slow thorough methods employed and the constant stress laid upon the use of all available firepower [which] paid off in extremely low casualties for a tough grueling battle."¹⁸ The intense and unrestricted firepower virtually destroyed the city of Aachen.

U.S. doctrine considered the attack of a city the same as attacking a fortified area. Aachen confirmed the doctrine of overwhelming firepower in the attack of a city/fortified area. Still, the reduction of the city was costly in time and manpower. The American's desire to prevent this city from becoming a national rally point for the Germans, required the isolation of the city from the start. The failure to isolate the city provided the Germans the opportunity to reinforce the city which caused the battle to drag on. The American's use of massive firepower to secure the city also destroyed it. During

the Vietnam conflict the U.S. repeats the massive destruction of Aachen. U.S. attempts to limit the destruction of the historical city of Hue by constraining the use of firepower.

II - THE BATTLE OF HUE (PARTIALLY CONSTRAINED MOUT)

The Battle of Hue was the most extensive city battle of the Tet offensive.¹⁹ Hue was the third largest city in South Vietnam, the former imperial capital of a united Vietnam, and the capital of Thua Thien province. There were three main sections of the city. In the south side was the business, the governmental section, and included the U.S. Military Assistance Command - Vietnam (MACV) compound. The perfume River divided second major section of the city, the Citadel, from the south side. The Citadel, was a two square mile area enclosed by a moat and a 20-30 foot high wall made of stone 20 feet thick. The 1st Army Vietnam (ARVN) Division Headquarters (HQ) was located on the northeast corner of the Citadel. In the south end of the citadel, was the old Vietnamese emperor's imperial palace and in the center a usable airfield. The final section of the city was a triangular shaped residential and market area east of the Citadel called Gia Hoi. The population of the city was approximately 140,000 before the battle commenced. Hue was a spiritual and cultural center for the Vietnamese. Hue was important militarily because it served as a major Line Of Communication (LOC).

The battle for Hue began with the North Vietnamese Army/Vietcong (NVA/VC) surprise attack on January 31, 1968 as part of the Tet Offensive. The NVA/VC attacking forces comprised two regiments and two sapper battalions for a total of 6,000 men.²⁰ The NVA forces quickly secured the entire city with two notable exceptions, the 1st ARVN Division HQ in the northeast corner of the Citadel and the MACV compound on the south side of the Perfume River. The elite Black Panther company of 1st ARVN Division, held

out against two NVA battalions defending a foothold around their HQ. Meanwhile, the American advisory team to the 1st ARVN Division held on to the MACV compound on the south side.

The Hue area was the responsibility of the USMC Task Force (TF) X-RAY, located eight miles south at Phi Bai.²¹ Due to poor intelligence the TF X-RAY only sent one company to relieve the pressure on the MACV compound. The initial company linked up with four USMC tanks on the way to the MACV compound, but were eventually stopped short by an enemy ambush. TF X-RAY dispatched a second Marine company from Phu Bai to help the beleaguered relief force. Together the two companies fought their way into the MACV compound. Still unaware of the true scope of the NVA attack the Marines attempted to cross the Perfume River to reach the ARVN HQ. As they entered the Citadel, they were heavily engaged and forced to withdraw back to the south side. Eventually, three ARVN mechanized battalions and an Armored Cavalry squadron fought their way in from the north to relieve the pressure on the 1st ARVN Division. The NVA successfully destroyed the bridges across the canals and rivers to isolate the city from the ground and in effect severed Highway 1 the major Allied LOC.²² The use of the Perfume River and its accessibility to the South China Sea aided in bringing reinforcements and supplies in to the Allied forces. Reinforcements flowed in as the true scope of the enemy attack became apparent. Eventually eleven ARVN and 3 USMC battalions were committed to the retaking of the city.²³ The NVA/VC forces also swelled during the height of the fighting to 16 battalion equivalents.

The U.S. and ARVN forces launched their counterattacks from the two secured enclave in side the city's defenses. The NVA defenses were structured to repel attacks from outside the city and not from within the city.²⁴ Still, the fight for retaking the city

was a long tough battle. "Used to jungle fighting nothing in their Vietnam experience had prepared them for war in an urban setting."²⁵ The doctrine used by the American forces, is best summed up below,

One Marine battalion commander explained... how he got to be an instant expert on city fighting: he learned about it on his way from Phu Bai compound into Hue with his battalion. He had the doctrine document under his jeep seat when he got there. He was the duty expert on how to fight in cities. His battalion had never been trained to fight in cities.²⁶

The enemy defended in all the major buildings including: the university, the Treasury, the Post Office, the hospital, a large sports club called "Cercle Sportif" and the fortress-like city hall. "They (NVA) were operating in a defenders paradise."²⁷ The fighting assumed a house to house, room to room character reminiscent of the urban battles fought in WWII. "The (U.S.) tactics used at this stage were poor."²⁸ The Marines fought a tough urban battle from February 3 to the 10th just to clear the eleven blocks of the south side. To the north, the ARVN forces to include elite airborne and Ranger units made no headway clearing the NVA/VC from inside the Citadel.

The 1st ARVN Division commander requested U.S. help to clear the Citadel. On February 13, the Marines assaulted across the river and began clearing the Citadel. The South Vietnamese Corps Commander imposed restrictions on the use of fire support in an attempt to save Vietnam's most historic city. These restrictions were eventually lifted, except around the imperial palace area. This was a welcome change from the former Rules Of Engagement (ROE) which restricted the use of bombing and shelling inside the Citadel.²⁹ Despite the relaxing of ROE, airpower played a small role because the weather was overcast for most of the battle. The Marines relied most on their direct fire weapons. Steadily, the Marines combined the effects of these weapons and what

they learned about urban fighting, to overcome the enemy resistance.

On February 21, the 1st Cavalry Division and 1st Brigade of the 101st Airborne Division conducted an air assault to interdict and isolate the NVA/VC forces on the western outskirts of Hue. This operation eliminated one of the supporting NVA regimental HQ and effectively cut the major resupply and reinforcement avenues for the enemy forces defending in the Citadel.³⁰ The final major action took place on February 24, with the ARVN forces clearing the Imperial palace. This was a politically expedient move to have the ARVN Black Panther company make the final assault on the palace. The battle for Hue ended the next day with the clearing of Gia Hoi. An ARVN Ranger task force commanded by a native of the area, cleared the Gia Hoi district against light resistance.

The 25 day battle left 116,000 homeless and eighty percent of the city in ruins. U.S. forces incurred: 216 Killed In Action (KIA), and 1,364 Wounded In Action (WIA). ARVN forces suffered: 384 KIA and 1,830 WIA. Enemy casualties estimated from capture documents at 5,000 with 1,042 NVA KIA, several times that number WIA and 89 captured. These casualty figures suggest the intensity of urban fighting.

The wounded rate during the urban warfare of Hue was three times higher than during the high intensity battle for Okinawa and six-fold the wounded rate during normal Marine operations at the peak of the Vietnam Conflict.³¹

An estimated 5,800 civilian casualties stemmed from VC massacres of pro-U.S./ARVN citizens or by collateral damage from the fighting. After the battle an experienced war reporter Robert Shaplen wrote as he toured the remains of the city, "nothing I saw during the Korean War, or in the Vietnam War so far, has been as terrible, in terms of destruction and despair, as what I saw in Hue."³² The casualties suffered in the recapture of the cities and towns captured in the Tet Offensive by friendly forces were seen as a

Pyrrhic price. That price was summed up by a U.S. commander, who said, "We had to destroy the town to save it."³³

The real victor of Hue is hard to determine. The U.S./ARVN forces controlled the city, but the psychological affect of the Tet offensive was devastating to U.S. public support. The will of the American people began a steady erosion that ultimately lead to the final withdrawal of U.S. forces from Vietnam.

The 25 day struggle for Hue was the longest and bloodiest ground action of the Tet Offensive. Because of the commitment to battle of large numbers of U.S. Marines, the picturesque setting and the extensive destruction of the historic city, the military action was well publicized in the United States and made a substantial impact on public opinion at the time.³⁴

The NVA commanders later claimed they intended to only hold the city seven days. They never envisioned withstanding assaults by American and ARVN forces for the actual three weeks they controlled Hue. Micheal Herr a war correspondent best captured the feeling of those who fought in battle of Hue, "On the worst days, no one expected to get through it alive". . . " They all knew how bad it was, the novelty of fighting in a city had become a nasty joke."³⁵

One enduring aspect of American military culture is the use of superior firepower. The idea of saving soldiers' lives by spending bullets is hard to change. As the biting commentary after the battle for Hue would suggest, "The thousands of civilians who died in Hue, were killed by the most hysterical use of American firepower ever seen." ³⁶ The Operations conducted in the 1989 invasion of Panama highlights the trend of minimizing collateral damage and the use of precise firepower what was largely an operation in an urban environment.

III - OPERATION JUST CAUSE - PANAMA (MIMIMUM CASUALTIES AND COLLATERAL DAMAGE)

The situation in Panama was growing more tense due to Panamanian strongman, Manuel Noriega, fomenting anti-American sentiment throughout Panama. The U.S. indicted Noriega on drug-related charges in February 1988. Immediately afterwards, the U.S. began planning for the Panama contingency. Planning included a series of orders that addressed the defense of the Old Canal Zone, noncombatant evacuation, neutralization of the Panamanian Defense Forces (PDF), and Civil Military Operations (CMO).³⁷ Tensions increased with the May 1989 election declared void by Noriega and the subsequent beating up of the opposition party leaders by Noriega Dignity Battalions (DIGBAT's)³⁸. The U.S. response was to increase troop strength at its forward deployed bases throughout Panama.³⁹ In October 1989 there was an unsuccessful coup attempt, the second against the Noriega regime. Planning intensified, resulting in a revised Operations Plan (OPLAN) 90-2. The plan detailed the requirement to neutralize 27 PDF objectives simultaneously. The planners deemed this necessary after the demonstrated ability of the PDF to rapidly reinforce key sites in Panama City during the abortive October coup attempt. On 15 December 1989, the National assembly of Panama declared that a state of war existed with the U.S. and adopted measures to confront foreign aggression. On 16 December 1989, members of the PDF killed a U.S. Marine lieutenant and assaulted and abused another U.S. officer and his wife.⁴⁰ This was the trigger that launched the U.S. invasion of Panama with the campaign objectives to:

- A. Protect U.S. lives and key sites and facilities.
- B. Capture and deliver Noriega to competent authority.
- C. Neutralize PDF forces.
- D. Neutralize PDF command and control.
- E. Support establishment of a U.S.-recognized government in Panama.
- F. Restructure the PDF.⁴¹

The mission concept was for a *coup de Main* by simultaneously attacking multiple targets to overwhelm the Panamanian forces and prevent further needless struggle. This complex plan made for a lots of "moving parts" with most of the combat centered in the cities of Panama. The U.S. force consisted of 23,000 men organized into several Task Forces (TF) combining heavy-light, and conventional with special operations forces. The bulk of the combat force consisted of elements of two divisions: the 82d Airborne Division (Abn Div), and the 7th Infantry Division Light (Inf Div (LT)). Also, providing significant combat power was the 193d Infantry Brigade Light (Inf Bde LT) with a mechanized battalion from the 5th Infantry Division (Mechanized). There were numerous SOF forces and other support units operating throughout the conflict.⁴²

One of the first objectives was to secure Tocumen PDF Airport/Torrijos International Airport and Rio Hato and neutralizing the three PDF companies. This task was given to elements of the 75th Ranger Regiment which conducted an airborne assault. Rangers went in weapons tight meaning a soldier could not fire unless fired upon. This was necessary as several hundred foreign travelers were caught in the airport as the Rangers assaulted their objectives. The Rangers had to deal with resistance from entrenched PDF forces, Brazilian airline passengers, and a hostage situation as they secured the airport.

The 82d Abn Div conducted a follow-on parachute assault on Torrijos airport 45 minutes after the Rangers. After assembling they immediately conducted three battalion size air assaults to seize, isolate, and neutralize PDF forces at Panama Viejo, Tinajitas and Fort Cimarron. This would deny PDF reinforcement of Panama City. While these operations were still ongoing, the battalion at Panama Viejo received orders to go down town Panama City to the Marriott Hotel and rescue civilians trapped by the PDF. A total

of 29 American civilians were secured and evacuated by armor convoy to safety.

The mission of the 193d Inf Bde (L), the force stationed in Panama, was to isolate and clear the Commandancia, (the center of Noriega's power and headquarters for the PDF). Other missions assigned to the 193d Inf Bde (L) included, seizing and securing the PDF barracks at FT Amador and protecting U.S. housing area at FT Amador. The brigade consisted of one airborne, one light infantry, and mechanized infantry battalion with Sheridan tanks. The precision and ROE used by these forces is recounted by the Sheridan tank commander,

ROE were very precise the task force commander had to approve Sheridan main gun fire because Team Armor would be firing over, and in close proximity to friendly forces. Crews must avoid fratricide at all cost and keep damage to non-military areas to a minimum. ...In accordance with "measured response" criteria, PDF refusal was met by Sheridan firing one or two rounds into each structure to neutralize enemy positions.⁴³

The PDF barracks at Fort Amador was surrounded by an American housing area. Two infantry companies air assaulted into a hot landing zone on the Fort's golf course. A Psychological warfare (PSYOPs) team began broadcasting surrender appeals but they were refused. U.S. forces conducted a firepower demonstration into the empty mess hall to convince the PDF to give up. Some PDF gave up while others continued to resist. The remaining resistance ended with an assault on the remaining PDF held buildings. The soldiers used discipline, precision, and force only when necessary to prevent any of the surrounding Americans in the housing area from being hurt.⁴⁴

A brigade from the 7th Inf Div (LT) secured Panama City, which contains 1.2 million people. This brigade fought in 21 separate engagements against snipers and squad size elements of both the PDF and the DIGBATs units while clearing and securing the city. Additionally, the brigade was responsible for security and isolation of the

American, Cuban, Libyan, and Nicaraguan Embassies as well as the new Panama government headquarters and offices.

A follow on brigade from the 7th Inf Div (LT) took over the responsibility for the city and began stability operations. The primary brigade's objectives included neutralizing any remaining PDF, securing key facilities protecting U.S. lives and property and restoring order. The infantry was not accustomed to mop-up operations, and personnel trained in peacekeeping and civilian action were in short supply.⁴⁵ Police-type actions, population control, enforcement of martial law, urban patrolling, and an array of civil and humanitarian actions were skills that should have received more attention in training. Although a threat to US forces still existed, sniping and contact in Panama City was now sporadic. The U.S. tightened up ROE allowing fire only if hostile intent and imminent danger were present.

TF Atlantic, attacked nine H-hour targets spread over a 1,800 square kilometer area. The main targets were to secure and neutralize the PDF Naval Infantry Company at Coco Solo and the 8th PDF Company at FT Espinar. Simultaneously, TF Atlantic isolated and secured the port city of Colon, protected the Madden Dam, and other U.S. installations and property on the Atlantic side.⁴⁶ The proximity of U.S. housing to the PDF companies sharing the installation created a situation requiring precise execution. Commander of TF Atlantic, COL Moore, explained the impact of casualties,

If one American dies, then you have already screwed the pooch. If we damage their houses or killed or injured an American then everything else we did in the entire task force was for naught.⁴⁷

TF Atlantic shifted its emphasis to securing the city of Colon. An amphibious assault with three rifle companies landed and cleared the Duty Free Zone and the eastern part of the city. Additionally, two companies advanced through sporadic sniper fire from

the south. The ROE allowed the shooting of anyone armed, but U.S. soldiers were reluctant to shoot unless they felt they were in danger. This was part of the overall attitude of the soldiers to keep destruction to a minimum. TF Atlantic had to make an attitude adjustment when they began stability operations. The intent of these operations were to restore law and order and to support of the new government. This required soldiers to secure the water processing plants, electricity, radio stations and food stores, and establishing control of the city streets through 24 hour patrols. These missions were not expected and not adequately trained prior to the invasion.

Operation Just Cause was overall a success, but the operation had its share of mistakes and the inevitable human price. The casualties for the invasion were: 23 U.S. soldiers, and 3 American civilian KIAs; and 324 U.S. soldiers WIAs. The PDF suffered, 314 KIAs and approximately 112 WIAs. A total of 202 Panamanian civilians were wounded and ten thousands left homeless.⁴⁸ For the complexity and scale of the operations the casualties were remarkably low, but the failure of the U.S. to protect civilians tarnished the triumph. Edward Luttwak, a prominent strategist offered the following analysis.

Where Just Cause was far from satisfactory was in the details of its execution. One can always second guess specific tactical moves, but that is not the issue. The extensive destruction of civilian housing seen by TV viewers around the world was not caused by specific tactical errors. It resulted rather from an entire style of fighting that is based on abundant firepower in place of tactical skill - a style that might be suitable for large-scale conventional war but which was utterly inappropriate in Panama. The political cost of the invasion were undoubtedly increased by the casual use of field artillery against targets with crowded civilian apartment blocks immediately behind them; by the liberal firing of machine-guns in the general direction of any sign of resistance; and by manifestly frivolous use of weapons of all kinds, from the totally unnecessary bombardment carried out by ultra-sophisticated F-117 stealth attack aircraft, to the shooting out of the street lights around the Papal Nunciature. This grossly excessive use of firepower was partly the result of questionable command

decision, but mostly it reflected the state of training.⁴⁹

Is this a state of training or a doctrine issue? The ROE required precision fire used only when absolutely necessary, particularly from the AC 130 Spectre gunship. The Rangers used precision fires as they were heading toward their objectives at the airport, but in the assault of the Commandancia it was weapons free.⁵⁰ The principle of minimizing casualties while clearing rooms called for new TTPs. One example is the use of stun grenades mandated by the ROE, with the specific intent of limiting Panamanian casualties. This decision made Americans uneasy since they did not routinely train with stun grenades. One officer said of the fighting, "the principle of minimizing casualties is tricky: you must shock the enemy and take him down before he can react, while hoping not to kill too many."⁵¹

These three examples of U.S. MOUT highlight the terrible cost and complexity of urban warfare. Further, they illustrate the changing environment for conducting MOUT. Unconstrained firepower and massive destruction characterizes the fighting in Aachen. The battle of Hue sees a shift to minimize collateral damage by placing restrictions on the use of force. In Just Cause there is a new mindset evolving that demands minimizing collateral damage and casualties of all combatants and noncombatants. One key thread running through all these battle is the necessity to have solid doctrine and to train soldiers in that doctrine. "Like most doctrinal information it is useless unless it is trained."⁵²

This emerging perspective of minimizing casualties and collateral damage coupled with the trends in urbanization, and the unavoidable arduous nature of MOUT, demands the U.S. urgently train for MOUT. "The urbanization of our future battlefield, along with a sound analysis of our training needs under FM 25-100, demands that we train our units to mission readiness in urban terrain."⁵³ FM 25-100 Training the Force,

the keystone manual for Army training lays out the system for determining how and on what the Army is going to train. Training is designed to accomplish the following ideas:

The Army must be trained and ready in peacetime to *deter* war, to *fight* and *control* wars that do start, and to *terminate* wars on terms favorable to U.S. and allied interest. . . prepare for an instantaneous transition from peace to war. . . We train the way we intend to fight because our historical experiences amply show the direct correlation between realistic training and success on the battlefield.⁵⁴

The Army cannot train on all the myriad of tasks it potentially may be called upon to execute. The system to decide what each unit must focus on is called Battle-focused Training. Battle-focused training programs are based on wartime requirements. Mission Essential Tasks List (METL) is formed from war plans and external directives. The commander gives guidance on likely future missions to determine training priorities.

The U.S. must be cognizant of the unique requirements of urban warfare. This recognition should motivate the U.S. Army to develop new doctrine, training, equipment, and potentially new organizational structures for MOUT. The first step to properly prepare for MOUT is to develop appropriate doctrine. The doctrine for MOUT should link theory with practice and be the condensed expression of the Army's approach to MOUT. Generally, sound doctrine is:

- 1) Authoritative but not directive
- 2) A guide to action
- 3) Flexible in execution
- 4) Culturally and historically dependant
- 5) Adaptable to new battlefield and other realities
- 6) Visionary in that it anticipates future conflicts⁵⁵

If doctrine is inadequate or inappropriate then units will train on the wrong tasks or use

poor tactics. What does current U.S. MOUT doctrine say about urban operations?

DOCTRINE

I - FM 100-5 OPERATIONS

FM 100-5, Operations, the Army's keystone doctrine, has evolved from the 1973 version that focused exclusively toward fighting the Soviets. The latest 1993 version of Army doctrine shifted its focus to, force projection and OOTW. This doctrine defines how the Army intends to conduct operations in war and OOTW. Doctrine provides authoritative guidance and must be relevant and adaptable to the conditions to be effective. FM 100-5 discusses MOUT in a single paragraph in the chapter titled, The environment of Combat.

Urban operations present unique and complex challenges to the 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 as 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.⁵⁶

This is especially true in the case where the military is conducting an OOTW operation.

OOTW is a complex operation, which requires disciplined, and versatile forces to respond to different situations. Forces may have to transition rapidly from OOTW to wartime operations. The reverse is also true, at the end of combat operations, certain forces will transition to OOTW. Military forces usually the only ones who can conduct refugee control, to reestablish civil order, public services, provide health assistance and other post-conflict activities or stability operations. The stability operations may not always be peaceful actions. "Determined opponents may resort to fighting or other

aggressive acts in an attempt to defeat our purposes and promote theirs."⁵⁷ The efforts in OOTW, must be proportional and effective to the task at hand. This is more difficult since actions of relatively small units can have operational and strategic impact. This requires that, "Commanders must enforce discipline in their operations to minimize unnecessary collateral damage and civilian casualties."⁵⁸ Commanders must be, able to shift focus, tailor forces, and move from one role or mission to another rapidly and efficiently. Army forces must operate effectively in the full range of military operations.

II - FM 90-10 MOUT

The Army has two publications that provide guidance during operations in an urban environment. The two manuals should support the AirLand Battle doctrine and specifically the MOUT concepts in FM 100-5. The first manual is, FM 90-10 Military Operations In Urban Terrain (MOUT). FM90-10 published in 1979, supports the 1976 Active Defense doctrine with heavy force operations. Its thrust is high-intensity war, exclusively for European conflict with a Soviet threat of conventional maneuver warfare. It is firepower oriented. Offensive and defensive operations are like open maneuver warfare with fire and maneuver used to seize terrain. FM 90-10 views MOUT from two perspectives. The first, from the brigade commanders and higher echelons, focused on urban sprawl. The second, is from the battalion commander and his subordinates, focusing on a homogeneous piece of terrain. FM 90-10 defines MOUT as follows,

Military operations on Urbanized Terrain include all military actions that are planned and conducted on a terrain complex where manmade construction impacts on the tactical options available to the commander.⁵⁹

"These manmade elements of urban sprawl must be viewed as terrain and as obstacles to

maneuver."⁶⁰ Viewing urban areas as an obstacle is a part of the classic maneuver warfare doctrine of the Cold War paradigm. All the tactics focus on attacking and defending against Soviet tactics in Central Europe. Indeed, the only examples describing urban terrain are from the Federal Republic of Germany (FRG). FM 90-10 ignores other urban areas. The manual says that with minor modification the Central European aspects of urbanization apply to other urban areas around the world.

FM 90-10 emphasizes U.S. forces should conduct urban operations only when absolutely necessary. A commander in the offensive, should attempt to isolate and bypass built-up areas to neutralize the defender's advantage. Attack only when necessary and seek to retain momentum. Consider built-up areas as obstacles to avenues of advance (maneuver warfare). The defender should use the obstacle potential of built-up areas to slow, block, and canalize the enemy as he attacks. MOUT requires mobility, shock action, and massed firepower.

FM 90-10 identifies some of the critical conditions for conducting MOUT. The large urban areas usually contain major wealth and power centers whose possession or control can give one side an advantage over the other. "The denial or capture of these centers may yield decisive psychological advantages that frequently determined the success or failure of the larger conflict."⁶¹ The decision to fight in an urban complex may cause massive damage and destruction. A commander can expect constraints used to minimize collateral damage. He can also expect the presence of civilians to not only hamper but, restrict his options in combat operations. Further, the problem of providing for essential services to civilians is a tremendous drain on military resources and manpower. A hostile population presents a security problem for the military force operating in the city. "Success may well be measured by how we accomplish our mission

while minimizing destruction of buildings and alienation of the population."⁶²

Basic doctrine does not change when conducting MOUT. What MOUT does to basic doctrine is to simply add the element of urban sprawl. "Commanders at brigade and higher must treat the elements of urban sprawl as terrain and know how this terrain affects the tactical options, the capabilities of their units and weapons."⁶³ FM 90-10 does say that urban characteristics will have a decisive influence on planning and execution of operations. Commanders must be flexible and prepared to fight on terrain constantly being modified by man. The tactics for conducting MOUT is in a Tactics, Techniques and Procedures (TTP) manual FM 90-10-, which focuses primarily on the infantryman.

III - FM 90-10-1 AN INFANTRYMAN'S GUIDE TO COMBAT IN BUILT-UP AREAS

The second MOUT publication is the recently updated FM 90-10-1, An Infantryman's Guide to Urban Combat. This is an excellent manual that attempts to bridge the gaps between 90-10 and the conditions of the present environment. However, this manual is a Tactics, Techniques, and Procedures, (TTP) manual for infantrymen and not an umbrella doctrine for all branches nor for all types of conflict. The manual is written for the battalion commander and his subordinates. It contains the "how to," of MOUT. This manual's focus is on combat in a built-up area against a uniformed enemy who may or may not be separated from the civilian population.⁶⁴ In the preface, there are three facts stated, 1) civilians will be intermingled with the enemy, 2) MOUT cannot be avoided, and 3) urban warfare is the future battlefield. These assertions clearly suggest the need for urgent attention for MOUT requirements.

The probability is great that United States forces will become engaged by enemy forces who are intermingled with the civilian

population. 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. MOUT is expected to be the future battlefield in Europe and Asia. The urban growth in all areas of the world has changed the face of the battlefield. It includes all man-made features (cities, towns, villages) as well as natural terrain. Combat in built-up areas focuses on fighting for and in those cities, towns, and villages.⁶⁵

The principals of U.S. AirLand Battle still apply to the expanding urban development that alters the terrain and affects military operations. "Only the terrain over which the combat operations will be conducted has changed."⁶⁶ This does not address the requirements for the increased employment of military forces in OOTW. MOUT takes on a new dimension due to the changes in the political arena, technological advances, and Army's role in maintaining world order. Part of this new dimension is due to the increased focus on OOTW. These new conditions affect how units will fight or accomplish their assigned missions. FM 90-10-1 only superficially recognizes the unique aspects of urban OOTW and future threats they pose. The doctrine for urban OOTW should cover such areas as: urban terrorist, population control, PSYOPs, Civil Affairs, Military Police support, public affairs, and civil disturbance that make it apparent that combat in built-up areas is unavoidable. Yet the doctrine and TTPs dealing with these issues are in other publications. These publications do not adequately address their application in a MOUT environment. The center of focus for OOTW is on dealing with civilians.

FM 90-10-1 says the U.S. Army conducts MOUT to defeat an enemy mingled with civilians. The conditions of combat call for tighter ROE and more restrictions on the use of combat power. FM 90-10-1 defines these conditions as either "surgical" or "precision" MOUT. According to FM 90-10-1, these are non-doctrinal terms that merely describe the conditions of MOUT. The purpose for defining the two conditions is to

provide clarity and focus for commanders conducting tactical planning for MOUT. The definition of surgical MOUT is, an operation usually conducted by joint special operations forces. FM 90-10-1 describes precision MOUT in the following way:

Precision MOUT - Conventional forces conduct these operations to defeat an enemy that is mixed with noncombatants. They conduct these operations carefully to limit non-combatant casualties and collateral damage. Precision MOUT requires strict accountability of individual and unit actions through strict ROE. It also requires specific tactics, techniques, and procedures for precise use of combat power (as in Operation Just Cause).⁶⁷

Regular Army units are more likely to operate under precision MOUT than under surgical MOUT. Historically, infantry is the main force used to separate the enemy from the local civilian populace although it is not officially part of doctrine. Unlike MOUT under regular conditions, precision MOUT requires significant alterations in the METT-T and political considerations. These alterations cause modifications to the way units fight. Precision MOUT conditions mean that, either there is a mixing of the enemy and the noncombatants or political considerations require that the ROE be more restrictive. As the ROE tightens, there is a requirement for stricter accountability of individual and unit. In precision MOUT operations not only does the ROE change, so does the TTP used.

IV - URBAN WARFARE HISTORY AND DOCTRINE

U.S. doctrine developed from WWII but did not have the same emphasis as the Soviet German experience on the Eastern Front. Though the U.S. experience 40% of combat in cities, it was not as traumatic as the Soviet-German experience. Paris and Rome were largely open cities. Still, there was enough experience gained to glean MOUT doctrine. Early MOUT doctrine regarded the attack of built-up areas as attacks on fortified positions. The major American experience in WWII reinforced this notion with

the battles of Aachen, Manila and Cologne.

The U.S. is no longer threatened by a massive Soviet army in Central Europe. With the end of the Cold War, a new view of warfighting must incorporate a broad spectrum of nebulous threats emerging in different parts of the world. Doctrine must recognize the changing conditions of the world in order for it to be of any value. FM 90-10-1, recognizes that MOUT is an urgent requirement for the U.S. Army. Yet, FM 90-10, which was last updated in 1979, is in need of immediate attention. All the examples cited in FM 90-10 are cities and towns in Germany. An operations officer of an infantry battalion in Just Cause pointed out the following:

I am not convinced that our current MOUT training is preparing us for the kind of city fighting we may do in the future. The training I had received both in a unit and later at the Command and General Staff College at Fort Leavenworth focused on a Stalingrad-type of city fight. But Stalingrad, by the time the Germans and the Russians began their epic battle there, was essentially deserted. It was a fight to the finish with no civilians, no ROE and no restrictions on the use of massed firepower. Our recent history has shown that what we are more likely to face in a city environment show a strong presence, patrol aggressively, and use the intelligence we gained to target specific buildings or groups of buildings for search and clear operations.⁶⁸

Currently the U.S. has a hollow and fragmented MOUT doctrine. The U.S. has at times attempted to study and develop doctrine for MOUT. The infrequent periodic evaluations have not changed U.S. MOUT doctrine since WWII.⁶⁹ This lack of progress has left an inconsistency between doctrine, organization, training emphasis, equipment and tactics. FM 90-10, the Army's main publication for MOUT doctrine is not in synch with the other doctrinal manuals. Also, there is little consistency in branch manuals for conducting urban operations. The challenge is to look at how all the pieces fit into MOUT doctrine as a whole. This doctrine must focus on the threat. Due to the nebulous threat, doctrine must be flexible, without becoming so broad as to be useless. Doctrine

should support the keystone doctrine in FM 100-5. The broadest doctrine for MOUT should be in FM 100-5. The framework for MOUT doctrine should be in FM 90-10 and the application of TTPs in FM 90-10-1 mainly for the infantryman and other branches in how-to-fight manuals. Commanders develop training tasks from this framework. The U.S. needs to examine how it is going to operate in urban terrain because the environment now faced by the Army has significantly changed.

V - THE INADEQUACY OF CURRENT MOUT DOCTRINE

Why does current MOUT doctrine need to change? The U.S. Army is smaller and will rely less on forward deployed forces. It must project power abroad to other nations. The U.S. must consider the interest of its allies as well as its own. The U.S. will remain engaged around the world, positioned to resolve conflicts that are no longer defined by the strategy of containment. Adding, complexity to the problem is the influence exerted by the mass media on American public opinion. The American public demands military operations that minimize collateral damage and casualties. A corollary to this phenomenon is the desire to limit the post conflict cost.

American public opinion and its subsequent impact on political will are all important in the employment of U.S. military forces. FM 100-5 states,

The national attitudes affect the nature and employment of U.S. armed forces. . . The people of the United States do not take the commitment of their armed forces lightly. . . moreover the people expect the military to accomplish its missions in compliance with national values. . . They expect victory and abhor unnecessary casualties. . . They reserve the right to reconsider their support.⁷⁰

The American public decides if military actions taken were appropriate. The mind set of the American public will not tolerate under most cases the gross loss of life nor massive collateral damage. The news media has extraordinary power to shape the U.S. public

opinion. The media also influences the response to a crisis by other nations.

There is a growing phenomenon of media affecting military operations. The informational element of national power is growing in importance. The influence of the press is instantaneous with satellites able to beam information globally in seconds. The media affects both sides of the conflict and is usually not neutral. Media coverage influences public opinion and public support, especially on the question of legitimacy and cost of military operations. It is faster than military channels and is difficult if not impossible for the military to control.

The ability to censor an open free press like the U.S. is not acceptable. TV is unforgiving and it does not have to show the truth to have and affect on public support for a military operation. The media shows instantly what is occurring and especially highlights a mistake like the inadvertent killing of noncombatants. The American public can more readily relate to a city than to a jungle rice paddy. The media allows Americans to witness deaths in U.S. cities as a part of the endless war on crime.

The extensive destruction of the historic city (Hue), the military action was well publicized in the United States and made a substantial impact on public opinion at the time.⁷¹

The only way to defuse some of the criticism is through displaying military competency. Military competency can result from a sound doctrine successfully adapted to the situation by well-trained troops. The doctrine and training must develop the TTPs that provide tactical success at the lowest cost in human lives.

Another element affecting the present MOUT environment is the interest and considerations of potential allies and the enemy. Despite the best of intentions by the U.S. , allies will remain apprehensive about the destruction to their cities and the killing of their citizens by a friendly foreign power. The Vietnamese Corps commander understood

this when he attempted to restrict the firepower used inside the Citadel.

In an attempt to preserve the history and beauty of Hue, general Lam and the Saigon government had persuaded the Marine command to restrict the use of supporting arms. This meant no bombing runs, no offshore Naval bombardment, no artillery prep fires.⁷²

The enemy's goal to either retain or win over the population is a vital concern to U.S. planners. If civilians are dying or losing their homes and livelihoods, they may move toward supporting the enemy. This is especially important to urban terrorist and insurgents who have no hope of directly challenging the U.S. because of the force ratio difference. However, history provides many examples where a small force in a city fought off a larger force for a long period. The U.S. advisors at the MACV compound and the Black Panther company held against the onslaught of more than six NVA/VC battalions. This feat, is a testimony to the inherent strength of the defense in a city. Future enemies will use the intrinsic strength of the defense in a city when overmatched by superior force.

Accomplishing the strategic objectives after hostilities must remain a key element of the planning and execution of military operations. This is true for both war and OOTW. Americans measure the cost of a conflict in U.S. lives and in U.S. dollars. "The objective of the military in war is victory over the opposing military force at the least cost to American soldiers."⁷³ The trend for U.S. military involvement is to minimize collateral damage and casualties. The strongest reason besides the moral imperative of returning the warring nation back to normalcy is the lower cost to the U.S. The goal is to recapture the nation as a whole and to preserve its infrastructure to allow reestablishment of legitimate government as quickly as possible. U.S. military commanders find themselves in a quandary, with the duty to win at the lowest cost versus the potential to inflict mass

devastation upon a city and its inhabitants.

One study on MOUT concluded that if an attacker is subject to any major constraints, then the defender has a better chance to win. At a minimum the defender will prolong the battle and raise the cost for the attacker. These constraints include the following:

1. Limiting friendly, military casualties.
2. Minimizing civilian casualties and/or collateral damage to
 - a. Avoid alienation of local populace.
 - b. Reduce the risk of adverse world or domestic opinion.
 - c. Preserve facilities for future use.⁷⁴

These constraints mirror the current trends the U.S. military faces when it is committed into OOTW MOUT situations. Only when there is a general unlimited war does the attacker regain the advantage. The defender has an advantage in the limited conflict.

Current MOUT doctrine is insufficient and inadequate for application in future urban OOTW. MOUT doctrine has only one option, brute force. What about the less intense conflict that requires restricted use of violence? There is a lack of emphasis in doctrine for OOTW urban operation. Doctrine must allow for flexibility across the spectrum of conflict. This means that MOUT doctrine has to be able to fit wider variety of threats and conditions in a very disciplined and precise manner. The results of poor doctrine are manifested in the 1968 battle for Hue City where an untrained American unit paid an exorbitant price. MOUT doctrine must address the reality of today's conditions or it will become mere dogma.

RECOMMENDATION

I - The Need for Precision MOUT

The U.S. understands urban warfare in terms of conventional conflict, with its traditional and direct use of violence. However, there is a shift toward less violent form of conflict. This shift is a result of the changing national priorities, threat assessment, and the changing world environment. The U.S. now conducts operations while in peaceful competition. Examples of U.S. deployments into urban areas for OOTW roles include, Lebanon 1958 and 1983, Dominican Republic 1965, Grenada 1983, Panama 1989, Somalia 1993, Haiti 1994. This does not suggest the U.S. should discard the traditional view of urban warfare. There is still a need to have a doctrine for high intensity urban warfare. Nevertheless, the U.S. needs a new approach on urban warfare. The new approach must link MOUT and OOTW.

The new approach should consider MOUT as a blend of tactics, from population control to intense urban combat. This blend should fit into one doctrine. The term MOUT should remain the descriptive term for doctrine covering urban operations. However, the term MOUT expands to encompass unlimited combat in cities down to limited objectives of OOTW in an urban setting. The result is one unified and integrated MOUT doctrine.

In a 1987 White Paper on MOUT, defines the term, Combat in Built-Up Areas (CIBUA) as the portion of MOUT referring to fighting in streets and among buildings. CIBUA is further subdivided into combat in cities, combat in small towns, combat in villages, combat in strip areas. Following in this example, the revised MOUT doctrine would consist of CIBUA and "Precision" MOUT as the two basic subsets of MOUT.

CIBUA would describe urban operations in war. This is essentially the same as current MOUT doctrine. Precision MOUT would address OOTW in an urban environment. This proposed change will replace the current technique of using ROE to modify current MOUT doctrine when the U.S. has to conduct MOUT with restrictions.

ROE is a constant source of confusion and frustration when used to bridge the void in MOUT doctrine. Current MOUT doctrine states the proper technique for clearing a room is to toss in a grenade, then following in after the detonation firing on full automatic. ROE modifies this TTP by restricting the use of grenades and firing when entering a room. The soldier must still have a TTP to clear the room. Doctrine and not ROE should provide the guidance. FM 90-10-1 recognizes the need to have different TTPs when conducting precision MOUT.

When preparing for precision MOUT operations, the commander must realize that not only is the ROE changing but the TTP also. These changes will require that soldiers be given time to train for the specific operation.⁷⁵

It is dubious to think an enemy will give the U.S. time to train up. There is still the problem of finding the correct doctrine to guide this training? There is no dispute that ROE has an important role to play in operations. ROE should, "confine themselves to when force is allowable, and only then, to what extent it is to be used."⁷⁶ ROE is not a panacea for the lack of doctrine.

Doctrine should provide some answers to deal with these realities. The incorporation of precision MOUT into the overall MOUT doctrine offers options to the commander. "Commanders and leaders must develop effective tactics for all levels of urban conflict and combat, test those tactics and task organizations during training."⁷⁷ The worst thing is to have no doctrine that adequately covers the required tactics to

effectively handle the situation and end up as some forces in Panama did. "They found themselves in the awkward position of making up doctrine as they went along."⁷⁸

II - What is Precision MOUT?

I define precision MOUT as the restricted and disciplined use of force in military operation other than war on urban terrain. The term "precision" may create some problems for those who see the use of force as hard to control in the fog and chaos of war. However, it does describe the intent of the application of military forces in an urban environment. Discipline fire is the hallmark of precision MOUT. Precision MOUT is more than fires it is a mind set or attitude for conducting disciplined operations in close proximity to civilians. The idea is similar to a SWAT team. SWAT teams have a different mind set, different TTPs and training from other police officers. Yet, SWAT teams are a part of the overall justice system operating under the same doctrine as other police officers. Precision MOUT objectives are still to defeat the enemy while limiting noncombatant casualties and excessive collateral damage. This expanded role covers a myriad of missions and conditions. Precision MOUT requires significant alteration in planning and execution. These alterations include modifying the TTPs and limit the use of some weapon systems.

Much of the precision MOUT TTPs comes from the Special Operations community. "An initiative is underway to set standards whereby the techniques of experts, Rangers in the case of light infantry tactics becomes the standards for other units."⁷⁹ Rangers use Close Quarter Combat (CQB) and Advanced MOUT Techniques (AMT) as precision MOUT TTPs. The CQB and AMT techniques teach soldiers quick fire marksmanship and room clearing battledrills. Clearing rooms with conventional

battledrills may not be applicable in OOTW situations. Precision MOUT battledrills modify room clearing by incorporating the use of overwhelming force and discipline fires. Precision MOUT battledrill calls for a four man or fire team to clear without necessarily firing upon entering. The intent is to rapidly enter and dominate a room and the situation, firing only if there is a threat. Other TTPs for precision MOUT include: breaching doors and windows with a standard package of demolition techniques; the use of stun grenades instead of fragmentary grenades; it incorporates protective body armor and demolition blast shields (easily constructed pieces of plexiglass with hinges that allows it to fold up easily). Precision MOUT thoroughly integrates the use of snipers as the infantryman's answer to precision guided munitions. The precision MOUT TTPs dictate a standard set of commands and code words to help to ensure good command and control and fosters discipline execution. In training these TTPs soldiers are stressed mentally ensure reactions that are second nature, confidently performed and always under control. Precision MOUT saves ammunition, collateral damage, and lives on all sides. The Rangers in Operation Just Cause illustrates many of the TTPs considered as precision MOUT.

After tense minutes clearing a number of these buildings, one Ranger led a team into one of the last remaining barracks to be secured, only to find 180 unarmed PDF trainees huddled in one room. Somehow, in the dark of night and in the heat of the moment, that Ranger did not fire. He showed discipline and a mastery of even the most dangerous of situations.⁸⁰

These skills offer the flexibility to conduct both high intensity and OOTW MOUT. However, they do not completely replace the need for having CIBUA techniques.

Precision MOUT incorporates several OOTW tasks with the mind set of using the minimum essential force and the appropriate response. Precision MOUT includes how to

conduct: urban patrolling, the use of snipers and counter-snipers, running checkpoints, disarming personnel, and conducting a cordon and search from a small building to a large city. Precision MOUT includes fire power demonstrations by a combined team force. The Precision MOUT TTPs cover all branches to incorporate a combined arms approach. The other branches must help further in developing and training precision MOUT to make it more effective. The U.S. must take a unified approach to MOUT and should capitalize on the recent experience in OOTW in urban terrain.

CONCLUSION

The strategic environment has changed and with it U.S. security strategy. With the Cold War over, the U.S. is no longer restrained by the doctrine of containment. It is time for the U.S. to stop thinking solely about Central Europe and to look at other emerging threats around the world. The U.S. is committed to regional stability that is likely to pull it into several contingency operations, requiring the Army to project force and conduct OOTW missions. Another important change in the environment is the steady growth and the effects of urbanization. The explosion of population and subsequent migration to cities especially in the Third World is making urban warfare unavoidable. This expansion is a factor beyond U.S. control and presents an unavoidable challenge for U.S. armed forces.

Urban warfare is undeniably the most complex and demanding environments for conducting military operations. Potential U.S. opponents see urban terrain as the great equalizer. Vastly less skilled and equipped opponents have their best chance of success against the U.S. military when they operate in a city. Even in defeat they can still inflict

significant cost on the U.S. Opponents in the future are not likely to forget the lessons of Desert Storm and the distinct advantage the U.S. enjoys while operating in the open terrain. The ability of an opponent to negate some of the U.S. military superiority by operating in a city presents an immediate concern to U.S. military forces.

The U.S. Army must recognize the new strategic environment in which it will conduct future military operations. Being prepared requires the appropriate MOUT doctrine is in place and is constantly trained. Doctrine is key as it provides a condensed expression of the basic approach to how the military thinks about conducting operations. Failure to update MOUT doctrine, the U.S. will pay a heavy cost. History has shown the cost of fighting in urban areas is consistently very high. Predicting the city where future battles will take place, is not as important as developing a flexible doctrine. One that is effective and applicable to various conditions found in urban warfare. MOUT doctrine must cover the full spectrum of conflict in urban terrain, from general war to OOTW. There are many other aspects that support doctrine like increased emphasis on MOUT training and developing new TTPs. Another important supporting issue is equipping the force with technology that can overcome the detriments of MOUT environment. Thinking through all the intricate issues involved in evolving MOUT doctrine is complicated. The best approach toward updating urban operations doctrine is to start with current MOUT doctrine.

Current MOUT doctrine is still applicable to Combat In Built-Up Areas (CIBUA) or the classic high intensity city battle like Aachen or Hue. The piece that is missing is Precision MOUT for lower intensity OOTW. This approach incorporates the fact that civilians will always be present during military operations conducted in their cities. As wars become more limited, modern press more intrusive, and governments more

concerned, it is in the best interest of the U.S. to minimize casualties, especially among noncombatants. Precision MOUT allows for a measured response, disciplined in its application to specific operations conducted in an urban setting.

Viewing MOUT from a broader perspective clearly precision is not just a condition of MOUT. It is instead an entire thought process that addresses the approach to operating in a specific MOUT environment. There is a different attitude the soldier must have, a different set of TTPs that require training and different equipment used to conduct precision MOUT. The precision approach gives the soldier a more flexible option than the classic technique of kicking down the door, tossing in the fragmentary grenade, and spraying the room with automatic fire. The U.S. Army is in effect doing precision MOUT in current operation but does not recognize it in doctrine. Instead the Army adjusts to conditions with modifications to ROE. This approach is shortsighted and does not recognize the nature of the combat environment. The present situation call for doctrine to evolve and not a ROE modification as the only way to adjust to new conditions. This study concludes there is a need for developing a more flexible, coherent and complete MOUT doctrine that incorporates the high intensity and OOTW.

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16. Monte M. Parrish, The Battle of Aachen, (Field Artillery Journal, FT Sill, OK, September-October 1976) P. 26
17. R.D. McLaurin, Paul A. Jureidini, David S. McDonald, Kurt J. Sellers, Modern Experience In City Combat, (U.S. Human Engineering Laboratory, Aberdeen Proving Ground, MA, March 1987) P. 52 (Hereafter, cited as McLaurin, Jureidini, McDonald, Sellers).

18. John R. Kennedy, Players or Spectators? Heavy Force Doctrine for MOUT, (Command and General Staff College SAMS Monograph, FT Leavenworth KS, 1st Term AY 89/90) P. 15. (Hereafter, cited as Kennedy).

19. Keith W. Nolan, Battle For Hue Tet, 1968, (Presidio Press Novato CA, 1983) P. xii. (Hereafter cited as Nolan). The most important of the Vietnamese holidays, *Tet*, began 29 January in 1968. The lunar new year season marks the beginning of spring. The Vietnamese stop work for three days to celebrate. The entire population participates. Vietcong announced a seven-day Tet truce to last from 0100, 27 January until 0100, 3 February. The Allied Tet cease-fire was to be only 36 hours, beginning at 1800 on the evening of 29 January. The precautionary measure taken by Brigadier General Ngo Quang Truong placing his staff on alert the night of the 31st saved the 1st ARVN Division from disaster.

20. Nolan P. 204 The European term "Sapper is normally associated with the combat engineer, however, the VC used of the word conveyed a different meaning. The VC sapper was a commando who carried out sabotage or terrorist attacks involving explosives; he was not an engineer. Hence the Hue City Sapper Battalion was not a battalion of engineers, but of undercover saboteurs.

21. Phu Bi was a large base for logistical support to I corps units. It was eight miles south of Hue along Hwy 1.

22. In all likelihood, either the Hue City Sapper Battalion or the 12th Sapper Battalion were responsible for dropping the bridges over the Phu Cam Canal and the Perfume River. Their failure to drop the bridge over the Phu Cam Canal on the first day was a costly mistake which allowed the Marines in Phu Bai to reinforce the MACV compound and thus maintain a foothold in the south side.

23. Company A, 1st Marines, and Company G, 5th Marines entered combat at Hue on January 31. Companies F and H, 5th Marines, arrived February 1 and 2. By February 4, the command group of COL Stanley S. Hughes's 1st Marines, the 2d Battalion of the 5th Marines, and Company B, 1st Marines were also present at Hue. South Vietnamese reinforcements on February 2 included the 9th ARVN Airborne Battalion from Quang Tri, and the 4th Battalion, 2d ARVN Regiment, from Dong Ha.

24. Nolan, P. 29

25. John Pimlott, Vietnam, The Decisive Battles, (MacMillan Publishing Company, New York, 1975) P.134. (Hereafter cited as Pimlott).

26. James W. O'Connell, Is the United States Prepared to Conduct Military Operations on Urbanized Terrain, (Naval War College, Newport R.I., May 1992) P. 22. (Hereafter cited as O'Connell).

27. Pimlott, P. 136.

28. Pimlott, P. 134.

29. Nolan, P. 69. NVA spotted in a pagoda wanted permission to mortar it. Hughes followed the ROE for Hue. His request was radioed to General LaHue's Task Force X-RAY in Phu Bai, relayed from there to General Robertson's 1st Marine Division staff at Da Nang, and then passed to General Cushman's III MAF staff. This two hour process cleared direct fire only into the Pagoda.

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31. C.G. Blood and M. E. Anderson, The Battle of Hue: Casualty and Disease Rates During Urban Warfare, (Naval Health Research Center, San Diego, CA, November 1993) P. 5.
32. Young, P. 217.
33. Young, P. 219.
34. Don Oberdorfer, Tet, (Doubleday & Company, New York, 1971) P. 209. (Hereafter cited as Oberdorfer).
35. Nolan, P. 113.
36. Young, P. 219.
37. Center for Army Lessons Learned (CALL), Operation Just Cause Lessons Learned, Volume I. Soldiers and Leadership, (US Army Combined Arms Command (CAC) FT. Leavenworth, KS October 1990) P. I-5. (Hereafter cited as CALL 90-9). The operation plan (OPLAN) for offensive operations became OPLAN BLUE SPOON. On 14 Mar 88, in-country U.S. forces were augmented by Military Police (MP) units and an aviation task force. In Jun 88, the Commander in Chief, United States Southern Task Force South (JTFSO) headquarters responsible for planning and executing joint operations in Panama. JTFSO began revision OPLAN BLUE SPOON that called for the deployment of U.S. troops to Panama.
38. Dignity Battalions were armed civilians formed by Noriega to augment the PDF forces.
39. CALL 90-9, P. I-5. Concurrent with ongoing contingency planning, Operation NIMROD DANCER was executed as an initiative to exercise U.S. freedom of movement rights. This operation called for reinforcing the forward deployed U.S. forces with a brigade headquarters and an infantry battalion task force from the 7th Inf Div (L), a mechanized infantry battalion from the 5th Div (M), and a U.S. Marine Corps Light Armored Infantry (LAI) Company. Augmentation continued with units rotating from both divisions under Operation NIMROD SUSTAIN. At the same time, military dependents began returning to the U.S. as part of Operation BLADE JEWEL.
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42. CALL 90-9, P. I-5.
43. Hammond, P. 12.

44. Thomas Donnelly, Mararet Roth, Caleb Baker, Operation Just Cause, The Storming of Panama, (Lexington Books, New York, 1991) P. 182. (Hereafter, cited as Donnelly-Roth-Baker).
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46. Donnelly-Roth-Baker, P. 235. Madden Dam is a hydroelectric plant critical to the operation of the canal. There were over 1000 U.S. citizens living on joint U.S. Panamanian military installations. Many of these civilians worked for the Panama Canal Commission.
47. Donnelly-Roth-Baker, P. 277 - 280.
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55. Kennedy, P.5.
56. FM 100-5, P. 14-4
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60. FM 90-10, P. 2-11
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