

## Facing Up to the Urban Fight

# Armor's Role In Future U.S. MOUT Doctrine

by Captain J. P. Klug

Over the past ten years, there has been a trend towards conflicts involving MOUT battlefield conditions.<sup>1</sup> U.S. forces fought on urban terrain to capture the Panamanian dictator Manuel Noriega.<sup>2</sup> Our forces also paid a heavy price for fighting in the urban sprawl of Mogadishu during Operation Restore Hope.<sup>3</sup> And the Russian Army sustained heavy casualties in two campaigns to destroy rebel Chechens in the city of Grozny.<sup>4</sup> Because of these developments, MOUT is receiving renewed command emphasis.

Another reason for this command emphasis is the rapid growth of urban areas worldwide. The United Nations estimates that the population of urban areas in developing countries increases by 150,000 people every day and this increase may exacerbate ethnic and poverty-related tensions.<sup>5</sup> Urban areas are also the economic and political centers of the world and will probably continue to increase in importance as the world urbanizes.<sup>6</sup> Consequently, cities may often be a military objective as well as the center of gravity for both our allies and opponents.

Because of the increasing importance of urban areas and the number of recent conflicts involving urban combat, our military needs to be able to fight and win on a MOUT battlefield. To meet this challenge, the Armor Center is currently rewriting armor offensive and defensive MOUT doctrine. This article will examine the direction of U.S. MOUT doctrine, explore the direction of the Armor branch's niche in this doctrine, and show the need for Armor forces to train more in this area.

### Evaluation of MOUT Doctrine

Recent conflicts pointed out that U.S. MOUT doctrine and training at all levels are inadequate. The most recent, painful, and poignant example was the U.S. involvement in Somalia. The Department of Defense chose to take a close look at how its forces operate in MOUT conditions, especially in light of Operation Restore Hope. Four agencies and authors have completed documents that merit mention:

- The 1996 *Joint Strategy Review Report* stated that all military services must accept the likelihood of operating on urban terrain as routine. This report also stated that as urban areas increase in size and number, our adversaries would attempt to use these areas to negate our current advantages in equipment capabilities and training proficiency.<sup>7</sup> Thus, armor may have to work closely with infantry in urban areas. This necessitates that we must dedicate more training time and effort to this area. Similarly, armor units need to train for MOUT conditions, as we have not emphasized training of this type since the Korean War.

- *Joint Vision 2010, 1996* pointed out that the advantages of new technologies would have a smaller impact in cities,<sup>8</sup> due largely to degraded communications in urban terrain. Urban fighting also precludes dispersion of forces; instead, there is a need for mass in urban fighting, and this nullifies one of the primary advantages that new equipment, such as the M1A2 digital system, is attempting to exploit. We cannot rely on the next generation of equipment to be decisive in MOUT battles. In other words, urban combat will probably remain a deadly struggle of hand grenades, entrenching tools, and 120mm door-knockers for the foreseeable future.

- The 1997 *National Defense Panel* reviewed the two previous documents and identified several aspects of future urban operations that will require more preparation. First, the inherent defensive advantages cities provide impact our ability to project power and mount military operations. This fact may result in our adversaries moving the fight to urban areas in order to negate our strengths. Because of this potential situation, we cannot avoid preparing for urban combat situations as



**On the Cover:** Two vehicles negotiate the narrow streets of the Fort Knox urban training site as part of the Platform Performance Demonstration.

we have in the past. Second, we will have to operate and organize differently to seize and control urban terrain. In other words, we cannot task organize our units for a fight in a city the same way as we do for a fight on the Northern European Plain. Third, we must prepare now to conduct urban control, urban defense, eviction operations, and urban targeting and strike.<sup>9</sup>

- A 1998 RAND Corporation study, *Marching Under Darkening Skies: The American Military and the Impending Urban Operations Threat*, identified several areas of urban combat that the U.S. military community needs to address. First, there is a lack of joint MOUT doctrine, and this deficiency makes any single service MOUT doctrine a work in progress.<sup>10</sup> Another problem is that the Army's *FM 90-10, Military Operations on Urbanized Terrain*, was completed in 1979 and needs updating. Third, there is a lack of doctrine in the way we deal with noncombatants.<sup>11</sup> The emphasis on training for offensive MOUT combat, as opposed to a more balanced approach, is yet another problem.<sup>12</sup> Next, current MOUT

**USIPECT Table<sup>26</sup>**

Understand	Mission Analysis and IPB for MOUT fighting Analyzing how to set the conditions for mission success
Shape	Deployment of forces in the proper sequence Movement and maneuver of combat arms Establishment of intelligence, surveillance, and reconnaissance elements Establishment of refugee camps Creation and build-up of a logistical base
Isolate	Isolating the city externally Isolating enemy combat forces inside the city from mutual support, non-combatant support, communications support, psychological support, reinforcements, and counterattack Essentially fixing the enemy forces to allow their defeat in detail
Penetrate	Seizing control of critical locations Shattering the enemy's defense
Exploit	The exploitation phase after a successful engagement with emphasis on maintaining momentum, gaining control of city facilities, and gaining control of urban key terrain
Consolidate	Protecting gains and establishing security Reducing pockets of resistance Repairing damaged infrastructure Facilitation of humanitarian relief Reestablishment of local government
Transition	The transfer of routine control and responsibility to another organization with the preferred endstate of local government autonomy

doctrine focuses on urban patterns not likely to be encountered in the Third World cities, which are very likely to be the battlefields of the near future.<sup>13</sup> A final problem is the lack of an armor companion manual to *FM 90-10-1, An Infantryman's Guide to Combat in Built-up Areas*.<sup>14</sup>

These four documents clearly point out that MOUT will very likely be a part of future U.S. deployments. These documents also clearly show the need for further thought on how to conduct future military operations in urbanized terrain. The potential violence of urban combat, however, begs the question of how to employ our current equipment in cities in the near term. The answers for both the near and long term must start with doctrine.

### DOD MOUT Doctrine

Although all services are involved in developing their capabilities to fight on a MOUT battlefield, the Joint Chiefs of Staff made the U.S. Marine Corps the main proponent for MOUT training and fighting. The JCS assigned this task to the Marine Corps, because analysts expect that 85 percent of the world's population will live in coastal cities by 2020.<sup>15</sup> Coastal cities are, by definition, located on the littoral and this area is clearly the realm of the Marine Corps. To this end, the Marine Corps has been in the process of developing and refining MOUT doctrine for some time. They have significantly improved their MOUT training and doctrine, and the Corps will continue to create and refine doctrine in this area. The Army is benefiting from the Marines' efforts as they share information and lessons learned. Once Army doctrine is completed, this diffusion of knowledge should continue and both services will benefit from the other's efforts.

As world instability grows and the likelihood of joint operations continues to increase, we should know how to work with the Marines and what their capabilities and limitations are. A plausible future scenario is an Army medium weight brigade augmenting a Marine Expeditionary Unit already in theater and possibly fighting for an urban center. This example may be a very common occurrence, and will require both services to be familiar with the other's *modus operandi* —

clearly a clarion call for us to understand the Corps.

### Marine MOUT Doctrine

The Marine Corps emphasis on MOUT comes from the highest levels. The 31st Commandant of the Marine Corps, General Charles C. Krulak, stressed the importance of MOUT in his article "The Strategic Corporal: Leadership in the Three Block War." In this article, he envisioned three types of operations within future MOUT. The three types of operations, or "blocks" as he referred to them, are humanitarian assistance, peacekeeping operations, and combat.<sup>16</sup> Thus, U.S. forces could be battling in a part of a city, feeding refugees in another, and separating belligerents in a third. Further complicating this mission is the potential for two or three types of operations occurring simultaneously. There is also the potential for rapid reversion from one type of operation to other types, for example if U.S. forces were conducting humanitarian aid in a secured area, and enemy infantry infiltrated and attacked.

In his article, General Krulak also stressed the importance of the "Strategic Corporal," his term for the junior leader on the ground in urban environments. His point is that a lapse in good judgment by one of these junior leaders could have a

significant strategic impact, especially if the ubiquitous media is covering their actions live on television.<sup>17</sup> For example, if a Marine corporal shows favoritism towards a Serb in Kosovo and the media covers this, his favoritism will alienate Albanians. It may even bring censure from the world community. Thus, it is easy to see how a junior leader's actions can quickly have massive political repercussions. Because of the potential fallout, all services must continue to develop junior leaders that can succeed in such an environment. The Marine Corps prepares its junior leaders by emphasizing individual character, fostering lifelong professional development, and consistently empowering junior leaders to exercise initiative.<sup>18</sup>

Due to senior leader emphasis on MOUT, the Marine Corps responded with several improvements in MOUT doctrine and training. First, the Corps sought advice from those who have experience in these types of operations. The British Army has conducted extensive urban operations in Northern Ireland and has developed battle-tested MOUT doctrine. To take advantage of this experience, the Corps sent Marines to the British Army's Copehill Down MOUT training facility. Marines also received instruction from a variety of U.S. law en-

forcement agencies and fire departments, although law enforcement techniques cannot always be used in high-intensity conflict. The Marines who were trained by the British Army and U.S. law enforcement community returned to the Corps with a greater understanding of MOUT, and the Corps established the Marine Expeditionary Force MOUT Instructors Course located at Camp Pendleton. The course is two weeks of intensive MOUT training for squad and team leaders. The establishment of this school emphasizes the Marine Corps focus on MOUT and provides trained junior leaders who can improve MOUT training proficiency at the squad level.<sup>19</sup> As MOUT doctrine is improved and disseminated, the benefits of this school will continue to pay dividends.

The Marine Corps conducted "Operation Urban Warrior" as a MOUT litmus test. Two thousand Marines trained for two days on a closed 183-acre Navy hospital campus. The exercise included role players simulating both citizens of a third-world city and members of two feuding warrior bands. This exercise provided valuable individual tactical training as well as bringing out areas of MOUT doctrine that need more refinement. One large problem area was dealing with civilians during crowd control situations and during actual combat. This is clearly an area that needs to be addressed in future Army and Marine Corps doctrine.<sup>20</sup>

The Marine Corps is also examining how to integrate its organic close air support into MOUT operations. In the summer of 1999, the Marine Corps completed construction of its first urban bombing range. This range is 35 miles southeast of Marine Corps Air Station Yuma and is named "Yodaville," after the call sign of one of the Marine pilots responsible for its construction. In June, the Marines conducted a Limited Technical Assessment on this range, resulting in two initial conclusions: the TACP experienced difficulties in marking targets with lasers due to urban clutter, and inert practice bombs were inconsistently hitting laser-designated targets (two of eight targets were hit).<sup>21</sup> This clearly shows the need for more doctrinal development, training, and technological improvements in CAS.

## Future Publications

The Department of Defense is preparing a Joint Urban Handbook to provide joint force commanders, their staffs, and other interested parties with a primer on joint urban operation.<sup>22</sup> It will also act as an interim fix until the new *Joint Publica-*

*tion 3-06* is approved. *Joint Publication 3-06, Doctrine for Urban Operations* will be the overarching document that will drive MOUT doctrine and combat operations. The purpose for this document is to provide the doctrinal foundations for the conduct of joint and combined MOUT at the operational level. It will cover fundamentals, operational tasks, dealing with noncombatants, infrastructure considerations, and training considerations. It is scheduled for completion and distribution in May 2001.<sup>23</sup>

By having this document completed, DOD will have created the overarching doctrine that ties all of the military service's MOUT doctrines together. It may also delineate each service's role in MOUT as well.

Four upcoming Army manuals, however, will affect Armor's part of MOUT even more. There will be a new version of *FM 90-10, Military Operations on Urbanized Terrain*, which will cover the tenets of Army MOUT doctrine. This manual, combined with *Joint Pub. 3-06*, will lay the foundation for MOUT. *FM 90-10-1, A Guide To Combat In Built-up Areas*, will cover Armor's role in Army MOUT doctrine. *FM 90-10-X, MOUT MTP*, will provide the tasks, conditions, and standards for training.

These documents will provide the basis of how armor may be employed in urban areas; however, we must be cognizant of evolving tactics, techniques, and procedures within that doctrine. To this end, the Armor Center is producing a manual of TTPs to act as a starting point until units conduct more MOUT training exercises and make future refinements.<sup>24</sup>

## USIPECT Concept

Several MOUT concepts are currently under review. The most important and fundamental is how to conduct offensive operations. Formerly, there were four phases for offensive operations in MOUT: reconnoiter the objective, isolate the objective, secure a foothold, and clear the built-up area. USIPECT may replace these four phases.

USIPECT is an acronym for the following essential elements of a successful offensive MOUT operation: Understand, Shape, Isolate, Penetrate, Exploit, Consolidate, and Transition (see the table below). It's also important to note that the steps of USIPECT may be conducted simultaneously if the situation permits.<sup>25</sup>

## Medium Brigades in MOUT

The medium weight brigades will be lethal combat formations that have the

capability to replace or augment initial light forces on a force projection mission. For this type of mission, the medium brigades will be in theater within 96 hours of the initial deployment of combat forces. These brigades will be capable of fighting in all forms of natural and man-made terrain in order to accomplish their mission. In the area of urban terrain, I see them used in three possible scenarios. First, they may have to defend an urban center of gravity from a hostile force. Second, they may have to attack a rogue government's forces located in an urban area and reestablish a previous legitimate government. Third, they may have to isolate a large urban area and then wait for additional forces to move into theater and conduct offensive operations. Moreover, the medium brigades may conduct operations on one or more of the three levels of war within these three scenarios. To be successful in these situations, the medium brigades will be well versed in operating in urban areas, as they will be for all three levels of war and on all forms of terrain. In order to train the first two medium brigades for urban operations, the U.S. Army is constructing three MOUT sites. Two of these sites will be built on Fort Lewis and one will be built in the Yakima Training Area.<sup>27</sup>

## Unmanned Aerial and Ground Vehicles in MOUT

Unmanned aerial vehicles, or UAVs, are beginning to have a large impact on military operations across the world. They may also play a vital role in future MOUT operations. UAVs could do this in several ways.

First, they are able to conduct detailed reconnaissance operations with no danger to human life while supplying real-time information. Reconnaissance is one of the most important and potentially decisive factors in MOUT combat.<sup>28</sup> The use of UAV information allows attacking forces to avoid potential danger areas, adds to general force protection, and allows superior use of the tenets of Army operations. Unit staffs may also be able to use these products to conduct a more comprehensive and effective MDMP.

Second, UAVs are able to act as forward observers, either by visual means for regular indirect munitions or, in the very near future, by laser designation for precision guided munitions.<sup>29</sup> UAVs could also aid close air support by identifying enemy air defense assets and presenting the pilots a clear picture of what is happening on the ground. Similarly, unmanned ground vehicles may be able

to accomplish the UAV's missions in MOUT as they are developed.

### The Air Force's MOUT Role

The Air Force has also begun to refine its doctrine for support of MOUT combat. The week following the 1999 Marine "Operation Urban Warrior," the Air Force conducted a conference aimed at exploring the role of aircraft in urban battles.<sup>30</sup> Precision guided munitions, or PGMs, had a tremendous impact on the Gulf War, including inside Baghdad. These weapons will continue to have an impact on future operations due to their more precise control. In MOUT conditions, this control may enable CAS to destroy enemy strongpoints while reducing collateral damage and danger to ground troops. PGMs may also make combat in and refurbishment of cities less difficult as they create less rubble, fewer flying fragments, and fewer fires that make MOUT fighting and urban repair difficult. However, all agencies involved in close air support must look at the Russian close air support problems in Grozny. PGM technology may need further refinement so aircraft can maintain a safe standoff distance while retaining weapons systems' accuracy.

### MOUT Combat Support and Combat Service Support Issues

"MOUT situations present a succession of mixed civil engineering and close combat problems," which are both engineer branch specialties.<sup>31</sup> Consequently, combat engineers will play a vital role in MOUT. They are equipped and trained to deal with obstacles of all kinds. Furthermore, urban aggressors may extensively use obstacles and tie them into the existing built-up areas. Engineer support is especially important for clearing CASEVAC routes and helicopter landing zones.<sup>32</sup> Engineer demolition skills could also be employed to open new entrances into buildings and, if necessary, to completely destroy buildings.<sup>33</sup> Construction engineers are also important to urban SASO as they can rebuild infrastructure. Additionally, engineers' knowledge of civil engineering (such as electrical, water, and transportation infrastructure) is invaluable in planning MOUT offensive operations, defensive operations, and SASO.

Smoke support is an important asset for high-intensity combat in urban terrain. Most of the casualties that occur in urban combat are from movement through large danger areas, such as a square, or from moving from building to building. In either of these situations, obscuration of

soldier movement can provide additional protection. This obscuring smoke may come from smoke grenades, smoke pots, indirect smoke munitions, or from smoke platoons. Smoke vehicles can screen infantry and armor as they move through larger areas. They could also be used defensively to screen maneuvering units or for casualty evacuation, especially given the close proximity of the wounded to the enemy. Overall, every effort should be made to have smoke assets available, supplied, and incorporated into all urban operations.

Two other vital support areas are casualty evacuation and vehicle recovery. These operations will most likely be under enemy direct fire. Consequently, extracting casualties or equipment out of the danger area will require smoke and suppressive fires. Wounded soldiers need to be evacuated as quickly as possible, but the congestion of urban terrain will make rapid evacuation an even greater challenge. Units must establish medical facilities within the city as well as the normal casualty collection points. Similarly, damaged vehicles should be moved to a maintenance collection point in a previously cleared park, vacant lot, side street, or suitable building. At this point, a maintenance team could repair the vehicle or move the vehicle further to the rear only if absolutely necessary. Additionally, a security team must be present to protect the maintenance team and to protect medical assets from stay-behind or infiltrating forces.

MOUT combat presents a great logistical challenge. First, each urban area is unique in some way, and this makes logistical operations in each urban area different.<sup>34</sup> Anticipation and improvisation are the most important two CSS characteristics in supporting MOUT and are inherently challenging to perform successfully.<sup>35</sup> Urban combat necessitates massive expenditures of ammunition and this makes accurate anticipation of class V needs essential.<sup>36</sup> Similarly, MOUT demands large volumes of food and water due to the great physical demands of house-to-house fighting. Logistical support of military forces in urban terrain also necessitates constant improvisation. First, the danger involved in refueling and rearming operations in urban areas demand creative means of transporting and off-loading supplies. Similarly, logistical areas will take careful planning, reconnaissance, and security forces. Pre-packaging loads of supplies while outside the urban area is another example of possible improvisation. Similarly, using available containers to keep soldiers sup-

plied with water, using caches, frontline soldiers taking supplies from evacuated soldiers, foraging within the ROE, and using helicopters to move supplies to secure areas within the city are all examples of MOUT logistical improvisation.<sup>37</sup>

### Fort Knox MOUT Site

The Mounted Urban Combat Training Site, or MUCTS, at Fort Knox is an excellent example of the growing emphasis on MOUT combat training. It is a 26-acre training facility centered on a mock-up small town. Ample pyrotechnic devices within the town replicate collateral damage and battlefield effects. An observer/controller support package and a dedicated OPFOR add to the training experience of the MUCTS. Three perceived problems with the MUCTS are the expense of training, the difficulties of vehicle transportation, and the limitation that two platoons can train on the site. First, money should be allocated for this type of training, as the next conflict may be fought in this difficult environment. A partial solution to the expense problem may be for Fort Knox to maintain vehicles for training and sign them out to the training unit. This would eliminate the difficulties of transporting vehicles. Similarly, any problems with the number of platoons that can train can be rectified with some creativity. For example, an armor battalion could train with an infantry battalion from the 101st Airborne Air Assault Division from Fort Campbell in various Fort Knox training areas and rotate platoons through the MUCTS. Another possibility is combining SIM-NET, CCTT, and other Fort Knox training facilities with MUCTS training.

### Summary

The U.S. military recognizes that future military operations on urbanized terrain are almost certain to occur given current world political and demographic trends. In order to be successful on the urban battlefield of tomorrow, the Department of Defense is reevaluating and rewriting MOUT doctrine. The Marine Corps has led the way in this process. The Army has learned much from the Marine Corps and is working with the Corps to complete its own doctrinal reevaluation. Similarly, the Armor branch is working to clarify its own niche in MOUT doctrine. This is where the importance of Armor leaders comes to the fore. The more we know about MOUT, the direction of MOUT doctrine, and evolving MOUT TTPs, the more we can prepare ourselves and our soldiers to fight and win on the urban battlefield. Furthermore, we must recog-



nize that this type of fighting may be necessary to succeed in future conflicts. Therefore, we need to be ready for MOUT conditions with effective doctrine and trained units.

## Notes

<sup>1</sup>MOUT is an acronym for Military Operations on Urbanized Terrain.

<sup>2</sup>Kevin J. Hammond and Frank Sherman, "Sheridans In Panama," *ARMOR*, March-April 1990.

<sup>3</sup>Charles P. Ferry, "Mogadishu, October 1993: A Company XO's Notes on Lessons Learned," *Infantry*, November-December 1994.

<sup>4</sup>Raymond C. Finch, III, "Why the Russian Military Failed in Chechnya," *Special Study Number 98-16*, Fort Leavenworth, Kansas: Foreign Military Studies Office, 1998.

<sup>5</sup>William G. Rosenau, *The Lessons of Modern Urban Warfare*, (Philadelphia: Foreign Policy Research Institute, 1997), pp. 373-374.

<sup>6</sup>Ibid., p. 375.

<sup>7</sup>Frank J. Abbott Deputy Chief of Staff for Doctrine, "Joint Urban Operations," MOUT Conference Briefing, 1999, p. 4.

<sup>8</sup>Ibid. p. 5.

<sup>9</sup>Ibid. p. 6.

<sup>10</sup>Russell Glenn, *Marching Under Darkening Skies: The American Military and the Impending Urban Operations Threat*, (Santa Monica: RAND, 1998), p. 11.

<sup>11</sup>Ibid., p. 9.

<sup>12</sup>Ibid., p. 13.

<sup>13</sup>Ibid., p. 9.

<sup>14</sup>Ibid., p. 7.

<sup>15</sup>Gen. Charles C. Krulak, "The Strategic Corporal: Leadership in the Three Block War," *Marines Magazine*, January 1999, p. 4.

<sup>16</sup>Robert F. Hahn II and Bonnie Jezior, "Urban Warfare and the Urban Warfighter of 2025," *Parameters*, Summer 1999, p. 74.

<sup>17</sup>Krulak, p. 5.

<sup>18</sup>Ibid., pp. 6-7.

<sup>19</sup>Glenn, pp. 13-14.

<sup>20</sup>Bill Donahue, "The Thin Red Subway Line," *The Metropolis Observed*, June 1999.

<sup>21</sup>"Corps Completes Urban Bombing Range," *Marine Corps Gazette*, September 1999.

<sup>22</sup>Abbott, p. 22.

<sup>23</sup>Ibid., pp. 16-17.

<sup>24</sup>Author's interviews with Armor Center MOUT Doctrine personnel.

<sup>25</sup>Abbott, p. 7.

<sup>26</sup>Ibid., pp. 8-15.

<sup>27</sup>The information in this paragraph is based on two sources. The first is a briefing by Major General B.B. Bell, Commanding General, U.S. Army Armor Center, to the Fort Knox Armor community, which I attended. The second source was a briefing by Major General James M. Dubik, who is the TRADOC official responsible for the Army's current transformation toward medium weight brigades. The three scenarios mentioned are the result of my personal analysis, and are not based on any official or unofficial sources.

<sup>28</sup>Hahn and Jezior, pp. 76-77.

**Kentucky's Newest Village** – The Fort Knox MOUT training area was scheduled to be formally opened at this year's Armor Conference.

<sup>29</sup>Ibid. p. 77.

<sup>30</sup>Donahue, p. 2.

<sup>31</sup>Jeb Stewart, "Thinking Through Force XXI," *Engineer*, August 1995, p. 2.

<sup>32</sup>Captain John C. DeJarnette, "Urban Combat Operations," *Call Newsletter No. 99-16*, p. 5.

<sup>33</sup>Stewart, p. 3.

<sup>34</sup>MAJ William Carter, "Logistical Operations on Urban Terrain," *CALL Newsletter No. 99-16*, p. 1.

<sup>35</sup>Ibid., p. 1.

<sup>36</sup>Ibid., p. 11.

<sup>37</sup>Ibid., pp. 7-11

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