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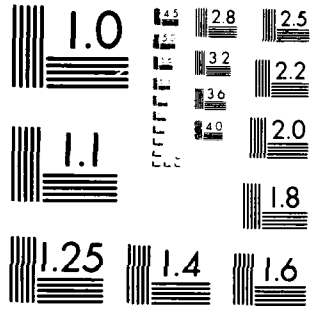
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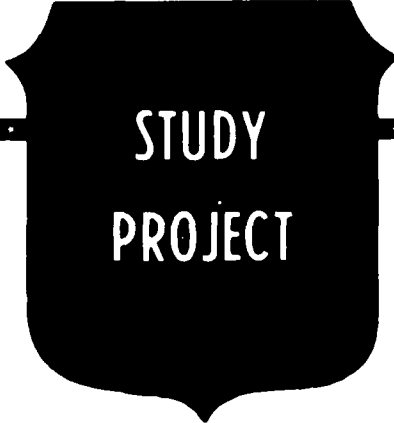
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MOUT: THE QUIET IMPERATIVE

BY

MR. JOHN J. MAHAN

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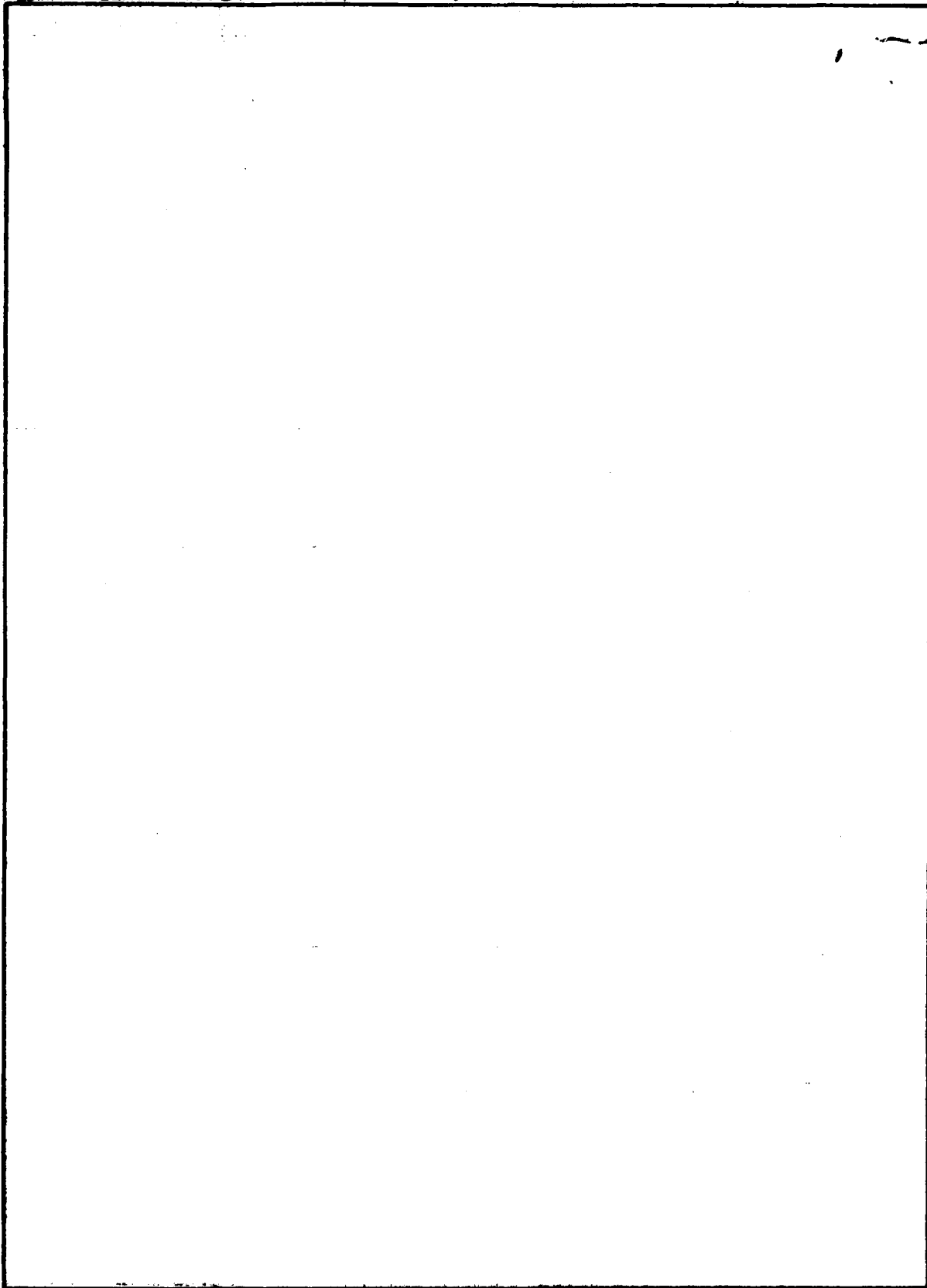
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
	AD-A130118	
4. TITLE (and Subtitle)	5. TYPE OF REPORT & PERIOD COVERED	
MOUT: The Quiet Imperative	Study Project	
	6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s)	8. CONTRACT OR GRANT NUMBER(s)	
Mr. John J. Mahan		
9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
US Army War College Carlisle Barracks, PA 17013		
11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE	
Same	20 May 1983	
	13. NUMBER OF PAGES	
	29	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report)	
	UNCLAS	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)		
Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		
Should the US Army become involved in combat anywhere in the world--but more particularly in Europe--it would not be prepared for the inevitable operations on urbanized terrain. This study inventories the existing literature on MOUT, examines the motivation for emphasis on MOUT in general and specifically within both CENTAG and NORTHAG and relates the possibility of MOUT to both AirLand Battle doctrine and Soviet doctrine. It concludes by making a plea for greater emphasis on MOUT throughout the Army but specifically on the development of urban training complexes.		

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USAWC MILITARY STUDIES PROGRAM

MOUT: THE QUIET IMPERATIVE

INDIVIDUAL STUDY PROJECT

by

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Carlisle Barracks, Pennsylvania 17013
20 May 1983

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distribution unlimited.

ABSTRACT

AUTHOR: Mr. John J. Mahan

TITLE: MOUT: The Quiet Imperative

FORMAT: Individual Study Project

DATE: 20 May 1983 PAGES: 29 CLASSIFICATION: Unclassified

Should the US Army become involved in combat anywhere in the world--but more particularly in Europe--it would not be prepared for the inevitable operations on urban terrain. Yet, many advantages would be offered the defender by their use. This study investigates the use of urban areas in relation to Soviet airborne assault and operational maneuver group operations, the US Army AirLand Battle doctrine and the III Corps. In each instance the ability to fight in or from built-up areas is critical to the success of the defense of Europe. Nonetheless, the Army is unprepared in terms of training and weapons and, most important, is peculiarly disinterested in the entire subject.



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WHERE WE STAND WITH MOUT

With the close of military operation in Vietnam in the early 1970s, the attention of the US defense establishment was turned once again to Western Europe and to the threat posed there by Warsaw Pact forces. While by no means the most important, one area which began to receive attention was the changed terrain of Western Europe and its potential impact upon combat operations. It had been recognized as an important factor in any future combat in Europe¹--perhaps as a result of the difficult fighting which took place in Hue during the 1968 Tet offensive--but little was done during the mid-1970s to deal with this growing phenomenon.

By 1977, an ad hoc study group, tasked by the Army Science Board, conducted an exhaustive study of how new technologies might contribute to the effective conduct of Military Operations in Built-up Areas (MOBA).² This report seems to have coincided with a renewed interest in this particular area resulting in some thoughtful efforts both within the Army and in academic circles. One would be overstating the case, however, to say that this interest was more than moderate and, at best, demonstrated only sporadically. In its efforts to establish tactics for fighting in urban areas, the Army has done reasonably well. It tipped its hat to the growing importance of the subject by devoting 11 pages of its 1976 capstone manual on operations to MOBA.³ The fact that the most recent edition of FM 100-5 contains only one page⁴ should not be criticized inasmuch as the Army has recently published two separate volumes on Military Operations on Urbanized Terrain (MOUT)⁵--MOUT being the currently preferred term in lieu of MOBA. Videotape films have also been prepared and distributed which describe the

tactics to be used in urban warfare, an excellent use of a new training aid media in an area that otherwise receives little attention.

While the Army has done much in the "how to fight" area, it is not nearly so clear that sufficient attention has been given MOUT in other quarters. Doctrinal issues, for example, have hardly been touched. Many questions remain to be addressed. When and how should urban areas be used? What type and under what specific circumstances? What command arrangements should exist in a combined arms operation in which a platoon of tanks is in support of a company of infantry? How are the Bradley Fighting Vehicles to be used in urban areas while the infantrymen are dismounted? What is the role of the helicopter in urban combat? This is just a scratching of the surface of doctrinal questions which should be addressed. It is also questionable whether there is adequate training, whether adequate thought has been given to the adaptation of new weapons, equipment, and munitions to the requirements of MOUT and, perhaps most importantly, whether the career soldier has come to an acceptance of the importance of MOUT. A brief review of these areas should help our understanding of how the Army, in general, views MOUT.

To begin with the last point that suggests that, in general, the Army professional is not as concerned with MOUT as perhaps he should be, only circumstantial evidence can be used as it would be impossible to survey the entire Army. One of the best means for measuring concern and interest is to review the literature on a subject. For this particular subject, it stands to reason that if such interest and concern existed throughout the Army, there would be numerous articles appearing in the professional journals of the Army's senior schools--US Army Command and General Staff College and the US Army War College--the Association of the United States

Army, and the combat arms branches. A search for articles dealing in any way with MOUT over the 5-year period 1978 thru 1982 revealed the following: the Army Command and General Staff College, Military Review, two articles;⁶ the Army War College, Parameters, no items; the Association of the United States Army, Army, two articles;⁷ the Infantry Branch, Infantry, five articles;⁸ the Armor Branch, Armor, two articles;⁹ and the Artillery Branch, Field Artillery Journal, two articles.¹⁰ The review of the articles further discloses that one deals, in part, with a training facility at the 9th Infantry Division headquarters at Ft. Lewis, Washington and one with Soviet MOUT operations. Three articles were written by individuals either with, or recently departed from, the Berlin Brigade where MOUT preparations and training are a way of life. Thus, in 260 issues of professional journals for which the subject of MOUT is relevant, a total of 13 articles were published of which two do not address the subject except indirectly, and three are no-doubt a result of direct and daily exposure to the subject by the authors. This can hardly be said to demonstrate great interest and thought in the subject. Clearly, there seems to be a disconnect between those who generate doctrine and tactics and those who would use it.

This is not to say that there are no good reasons for this demonstrated lack of interest. While those cloistered away to concern themselves exclusively with doctrine and tactics have demonstrably shown their appreciation for the importance of MOUT, even though it came largely during the development of a new Army combat doctrine, the remainder of the Army has been overwhelmed by the problems and new developments which have come in recent years. More recent developments including AirLand Battle (which has only recently begun to be aired in an effort to come to understand the new doctrine), Division 86, force modernization and the regimental system

promise to continue to suppress the importance of MOUT in the consciousness of the Army's professional soldiers.

Once the manner of fighting has been prescribed and learned, it is then necessary to train and practice. There has been some movement in this area, but not much. The Army Science Board Report recognized the need for including MOUT tactics in the Army Training Evaluation Programs (ARTEPs) 7-15, infantry battalion, and 7-45, combined arms.¹¹ This evaluation has been included in the ARTEPs in recent years. However, lack of facilities forces most units to resort to such measures as laying engineer tape to represent exterior and interior building walls, hardly a realistic representation. One of the conclusions reached by the Army Science Boards ad hoc group was that the lack of "field training facilities poses the greatest problem in MOBA training."¹² Today, there exists the facility at Ft. Lewis and the recently built facility at Ft. Bragg, NC, in CONUS, and the West German urban training area at Hammelburg. Historically, the Regensburg facility at Ft. Lewis has been "overbooked," making it difficult for even 9th Infantry Division units to gain its use.¹³ With German and allied units dependent upon the Hammelburg area for MOUT training, there cannot be much opportunity for training in Europe, either. In all cases, there is no opportunity for realistic combined arms training. At the Ft. Lewis facility, trucks are commonly used in the combined arms ARTEP in lieu of tracked vehicles.

Even for those units able to gain use of these facilities, they simulate only a part of the type urban terrain in which one can expect to have to fight if war in Europe or most other parts of the world were to occur. They best simulate the villages which would be the most common urban terrain encountered.¹⁴ The manner of fighting in large cities where a vertical dimension is added both by high buildings and underground sewers,

conduits and passageways will require still different facilities. Today, the best that can be done are terrain walks through cities with knowledgeable leaders pointing the way in the terrain study. Brigade, division and corps commanders who must make the decision whether to enter a city and fight for it are better served in that they can work from maps and sand table type simulations to rehearse their decision-making processes. Clearly, there are many shortcomings in our training regime to prepare us to fight on urban terrain.

Besides attitudes toward and training in MOUT, there are also weapons and equipment difficulties. Attitudes in the weapons development community encountered by the Army Science Board in 1977 "showed a curious lack of enthusiasm for MOBA-oriented equipment."¹⁵ Over the years, emphasis has been upon the development of weapons systems to counter the Warsaw Pact armor threat, and rightly so. But even if the major monies must continue to go into tank-killing systems, it is shortsighted to fail to adapt them to the possibility that they may have to be used in urban areas. For safety reasons, antitank missile, artillery and tank gun rounds do not arm themselves until they are a considerable distance from the firing weapon--commonly 30 to 65 meters distance. Many situations in urban areas will call for effect at less than half those distances.

Of course, most tank gun rounds are now kinetic energy rounds and antitank missile rounds have the shaped charge, neither of which is very effective against a wall or bunker. Artillery rounds, on the other hand, are mostly antipersonnel types and would have little effect unless they could be placed in a direct fire situation. The most effective offensive weapon in an urban environment is the combat engineer vehicle with its 165-mm main gun and obstacle clearing round. Unfortunately, there are not many such vehicles on the battlefield and the engineer battalion commanders

are not likely to be willing to risk sending them into a city to help dig out an enemy force armed with antitank weapons. The only weapon in service to specifically support urban combat is the M67 90-mm recoilless rifle which remains in service with the 9th Infantry Division and the Berlin Brigade.¹⁶ Only two weapon systems are under development--a badly needed wall breaching weapon, called the Rifleman's Assault Weapon, and the Special Hard-Target Assault Weapon--LAW, which produces spawling on the interior of the target wall.¹⁷ The importance of such weapons in urban combat had to be relearned at Hue in 1968.¹⁸ Interestingly, some of the most effective weapons for denuding a building or fortification and to break up an assault down a street are air defense artillery. Both the Lebanese and the Syrians used such weapons to great effect in the battle for Beirut.¹⁹ Among the weapons used by the Lebanese was the M42 Duster. When the Vice Chief of Staff of the Army was briefed on its use in 1979, he asked, "How many do we still have in the system?" After the number was mentioned, he responded, "Well, let's keep them."²⁰ Other older weapons which would prove effective are the old rocket launchers and 106-mm recoilless rifles. The usefulness of both types is somewhat limited, of course, by its back blast and the need for a minimum area from which to fire. While a serious handicap, these weapons would be more useful than most currently in inventory, as the Marine Corps found out at Hue.

WHY IS MOUT IMPORTANT?

While the above would indicate that some important steps have been taken in terms of preparing the Army for MOUT, it is clear there is much to be done. Each of the three areas discussed above--attitudes, training, and weapons--is important to being able to fight MOUT, and shortcomings in any of the three probably have a synergistic deleterious effect on the other

two. The most important place to begin if the Army's ability to conduct MOUT is to be improved is with attitude, because a change in that will lead to change in the others. Unfortunately, the attitude encountered by the Army Science Board has probably changed little today. The panel stated that while

most of the higher level Army people with whom we talked in the course of the program review are convinced that city fighting will be inevitable in any likely contingency--and most importantly in a conventional confrontation in Europe--the Army as a whole seems not to regard it as a really serious problem.²¹

"So, what of it?" one might ask. "Why must we burden ourselves with this in addition to all the rest we have to put up with?"

Most importantly, of course, is that the face of the world is changing. Urbanization is one of the most significant sociological changes occurring around the world. Throughout much of the less developed countries, there is a general pattern of movement from rural areas to small towns and villages and from the latter to the largest city, most often the nation's capital. In Western Europe, urbanization continues to occur at a rate of one to two percent each year.

To be even more specific, some 85 percent of West Germans now live in urbanized areas, and this is projected to increase to over 90 percent by 1988.²² Containing this population are 49 cities of 100,000 or more (four over 1,000,000), 235 towns and villages of 3,000 to 100,000 and, most common, some 21,000 built-up areas with fewer than 3,000.²³ As a result, by 1985 approximately 15 percent of the Federal Republic's land area will be urbanized, and that figure will double by the end of the century.²⁴ For the brigade commander, this translates into an average of 25 towns and villages in his 12 by 25 kilometer sector.²⁵ Conversely, the Warsaw Pact division commander in breakthrough attack formation will have to contend at

any one time with roughly 10 to 15 towns and villages, the number varying with the Soviet division frontage which could be from 8 to 12 kilometers.

Almost as important as the fact of urbanization is the pattern of development. Prevalent in the western part of the Federal Republic is a pattern of conurbation which will result in regional wall-to-wall cities. The Rhur-Dutch Randstad area will form a 300 kilometer "urban wall" which would have frustrated the von Schlieffen plan of World War I.²⁶ The pattern is also evident in the Hamburg-Bremen, Hannover, and Rhine-Main areas. It has been said that whereas it once would take 4 to 6 hours for a mechanized force to bypass Frankfurt, it would now take 4 to 6 days and, in the future, it will be impossible. The more common pattern encountered throughout most of the Federal Republic is the strip area which connects the towns and villages with thin lines of residences, commercial establishments, and light industry. This development is most often "concentrated in natural corridors of movement, the same corridors in which military operations are most likely to occur."²⁷

What all of this is intended to suggest is that wherever US Army forces may be sent in the world, whether for combat operations, military advisory assistance, or peacekeeping, they are likely to have to operate in and around villages, towns, and cities. One need only to watch the world's "hotspots"--Lebanon, El Salvador, Afghanistan--to see that at least portions of the combat in these countries are occurring in towns and cities. In the instance of conventional combat in Europe, the term most often used by authoritative sources is, "inevitable."²⁸ Precisely how much of the total combat would occur in built-up areas is impossible to forecast, because it will be so dependent upon tactics employed by each side. It is frequently pointed out, however, that in World War II, 40 percent of the combat operations in which the allied forces were involved in Europe was in

urban areas.²⁹ The hope is, of course, that this will be a different kind of war in which the Warsaw Pact forces are contained at or near the inter-German border before NATO forces have to fall back into the more densely urbanized areas of central and western Germany. One estimate that anticipates that "combat in urbanized areas will consume about 60 percent of our efforts"³⁰ evidently takes a more sanguine view.

Some "hard noses" will say that when the platoon and squad leaders and the individual soldier has to learn MOUT techniques, he will, even if it is the hard way. The difficulty with accepting that point of view is that it is an attrition-type solution, and we cannot afford that. In an interview with the company and battalion commanders at Hue, the main point made was that "this is not a subject for OJT." General Cheatum, USMC, further remarked that, "if the VC had made one smart move, they would have had our ass, hat and cufflinks."³¹ Clearly, it is not something one would want to go into unprepared, nor can the United States afford to pay the cost of having to depend upon local innovation.

NEW FACTORS IN THE MOUT EQUATION

Hopefully, having made the case for the probability that any future combat involving US forces will in some manner involve MOUT, and that there is therefore an imperative to prepare for MOUT, I would like now to turn to some considerations that are either new or too little discussed in their relationship to MOUT. While literature on MOUT obviously does not abound, there is a bases, most of which was used to support the earlier portions of this study and are annotated in the endnotes. There are, however, considerations which would seem to argue for an increased need for attention in the area of MOUT which have not been addressed in the literature insofar as

I can determine. In passing, much of the thought devoted to the more commonly treated areas will also be touched upon.

Soviet Doctrine--Desant and OMGs

The Soviets possess eight airborne divisions and some five naval infantry brigades which are planned for use in tactical, operational or strategic parachute assault--desant--operations. The most likely targets consist of airbases, seaports, nuclear storage sites and delivery means, bridgeheads, airlanding and river crossing areas, and key terrain features which will provide security for and/or facilitate the advance of Warsaw Pact ground forces.³² It is notable that most of these potential targets are often related to urban areas. Certainly seaports are. Airbases are generally adjacent to or in urban complexes as are bridgeheads, especially those crossing the Rhine. The importance to the Soviet attack of capturing and securing bridges over the Rhine River has often been stressed. Should the allied forces be driven back beyond the Rhine, it would be extremely difficult for the Warsaw Pact to force a crossing without holding some of the bridges.

A more recent, but perhaps more important, development in Soviet doctrine is the Operational Maneuver Group (OMG). While this doctrine is still under development, it has evidently been integrated into Soviet planning based upon open literature.³³ This concept places forces at the disposal of front and Army commanders--a force as large as a reinforced division for the Army commander and, perhaps, as large as an Army for the front commander.³⁴ The role of the OMG is to serve as a large raiding force in the defender's rear areas. It is expected that when an OMG is to be used, it will move close behind first echelon forces until a gap or weak point in the defense is identified. At that point, the OMG will drive

toward objectives in the defender's rear, avoiding decisive engagements, but nevertheless disrupting the continuity of operations of the defender. Through rapid, deep exploitation, they would first seek to collapse NATO's defensive system quickly from its depths and then strive to seize key political and economic centers in NATO's rear thereby reducing the utility of continued resistance.³⁵ Again, the targets are based largely on urban areas.

This nightmare of every commander--to have a substantial enemy force creating havoc behind him and possibly encircling him--is only the beginning of troubles. Whether it is sea or airborne assault force or an OMG, or perhaps two or more linking-up, the force must be found, fixed, and destroyed. Otherwise, the continued disruption to command and control and logistical support will degrade NATO's capability to fight very quickly.

The easy answer is to let the West German Territorial Army take care of these Pact forces which have reached the rear areas. Security of the rear areas is their job, after all. Except for the six brigades of the Territorial Army, this is a lightly armed force which will not contend well with the heavy, mobile forces of an OMG or even the airborne assault forces with their BMDs and assault guns. It is, in fact, probable that substantial reserves would have to pursue such a force.

Assuming the best, i.e., that NATO can find and cut-off this force and defenses have stabilized the situation at the FEBA, the desant and/or OMG forces have only one logical place to go. As suggested earlier, many of their targets are either in or adjacent to built-up areas. They could attempt to breakout and return to the battle area, but that is not their role. By remaining in the rear they continue to pose a serious threat, and their very presence would probably cause extreme disruptions. It is probable, therefore, that they would withdraw into the outskirts of towns or

cities and organize the defense around strong points.³⁶ In this situation, the greatest threat, especially to an armor heavy OMG, would be from the air. Even then, the presence of civilians as well as use of buildings for cover might provide adequate protection. In the cities and towns, they might find sufficient POL and food to prepare for further operations or to continue to defend until help arrived. In any case, it would be an unhappy task to have to try to dig out such a force.

There is one further area which deserves attention in terms of enemy forces in NATO's rear area. FM 90-10 suggest that Combat Service Support (CSS) units are finding it increasingly desirable to locate in urban areas.³⁷ It also suggests that CSS units are "high priority" targets for the Soviet/Warsaw Pact.³⁸ It has been suggested that CSS units would be well structured to defend their particular urban areas if necessary. Their limited manpower and light weapons make MOUT one of the most effective type combat operations the CSS units could conduct. CSS units are also organized as squads and platoons, and MOUT is a small unit activity. Despite the suitability of CSS units for MOUT, there has been little training for such units. In addition CSS ARTEPs and exercises are based upon field and not urban operations.³⁹ Quite clearly, there is a growing requirement identified here. One method of OMG operations is to send out tactical raiding units.⁴⁰ Certainly, division and corps support commands would be excellent targets for these raiding parties.

AirLand Battle

Just as the Soviet Army is implementing probably the most revolutionary doctrinal change since the advent of nuclear weapons,⁴¹ the United States Army is moving toward a new operational concept which some would consider just as revolutionary as that of the Soviets. Put simply, this

new AirLand Battle doctrine suggests that the superior forces of the attacking enemy can be defeated by wresting the initiative from them and keeping them "off balance" thereafter through retention of the initiative.

Perhaps the aspect of AirLand Battle which has been most frequently discussed is the "deep battle." The purpose of the deep battle is to disrupt enemy forces in the rear--a functional mirror image of the Soviet operational maneuver group. The importance of "timely and well-executed deep actions against enemy forces not yet in contact" is deemed "necessary for effective operations" by the new doctrine.⁴² Such action is designed to disrupt the flow of follow-on attacking forces into the Main Battle Area (MBA), thereby creating "windows of opportunity" in the MBA, i.e., periods of favorable friendly force ratios so the defender can take the initiative by going on the offensive. If attacking follow-on forces reach the main battle area according to doctrine, the "correlation of forces" makes it unlikely that the initiative can be won by the defense. To the contrary, Warsaw Pact force ratios will rise and NATO forces will most probably be overwhelmed.

On the defense, the new doctrine states that the deep battle is to begin before the attacker reaches the main battle area. Principal strike assets will be air and artillery interdiction.⁴³ Unconventional forces and nuclear strikes are also available for use as are, almost as an afterthought, maneuver forces.⁴⁴ For miscellaneous reasons, each of these assets has limitations in the deep battle, especially early-on in a European conflict. Nuclear weapons can be ruled out early for political reasons. Artillery is limited by its range and unconventional forces by their limited numbers. While some battlefield air interdiction might be available, more probably most air assets will be involved in the fight for air superiority during the early days of the conflict.

This leads one to believe that the deep attack will have to be prosecuted primarily by maneuver forces. Such forces are not likely to be small units. Divisions are slated to fight the second echelon regiments in the deep battle and corps the second echelon divisions.⁴⁵ Consequently, one could imagine minimum brigade-sized units in such a role.

It is readily apparent that there is a strong synergistic effect between the deep battle and the battle in the MBA. Should the Soviet/Warsaw Pact forces make an early and strong penetration, especially in the form of an OMG (and OMG exploitation operations are doctrinally scheduled for the first one to two days of combat), any force designated and withheld for the deep battle may have to be used, in addition to the reserve, to counter the penetration. Without the deep battle, Pact follow-on forces reach the MBA and the ratio of Pact to US forces begins to increase, probably followed by further penetrations, etc. The deep battle is, therefore, dependent upon the blunting of the first echelon attacks in the MBA, and vice versa.

One could make the argument that the US commander would withhold his force designated for the deep battle from a decisive engagement and commit it to the deep battle at the appropriate moment, in any case. Before such a decision was reached, however, he must answer the question, to whom does the greater advantage accrue in this instance? The answer would seem to turn upon the answers to two further questions. Is the reserve force adequate to deal with the penetration? And, who is most dependent upon reinforcements arriving from its communication zone?

The answer to the first question is, probably, "no" if it is a strong penetration and/or involved an OMG. The old doctrine of active defense lost consistently and early in most war gaming simulations.⁴⁶ Granted that AirLand Battle requires fewer forces in the MBA, the American commander must still find a substantial deep battle force in addition to the covering

force, main force, rear area protection, and reserves.⁴⁷ And he has no further resources out of which to build this deep battle force. It is difficult to imagine that a corps reserve of one brigade, or even a division, could fix and defeat the quicker and more mobile Soviet division or Army that was avoiding decisive combat. As is so frequently the case in discussions about combat doctrine, the answer to the second question is scenario dependent. However, virtually all scenarios except the long build-up indicates that the US/NATO forces are the more dependent upon the arrival of reinforcements. In such circumstances, the US and NATO cannot afford to allow an enemy force to create havoc in its rear area. If an OMG were to get into the rear, it would demand attention.

To reiterate, the whole purpose of this discussion is to indicate that success in the deep battle is probably dependent upon success in the main battle area. At the same time, the commander must exercise economy of force in the MBA in order to build his deep battle force. After straying at length from the subject of this paper, it is now time to return. It is the contention of the author that the economy of force measures in the MBA requires that maximum advantage be taken of man-made as well as natural terrain features to splinter, fragment, disrupt and delay the attacking forces. The new doctrine certainly takes cognizance of this requirement.⁴⁸ It indicates that in the defense a continuum exists emphasizing a dynamic defense of maneuver and fire at one end and a static defense of fire and maneuver at the other. The former is oriented on the destruction of enemy forces while the latter retains terrain.⁴⁹ Commanders will be left with the choice of emphasizing one or the other, but one should not be emphasized at the exclusion of the other. Therein lies a danger against which every commander in this situation must guard. With predominantly heavy, mobile forces at his disposal, the temptation may be to overemphasize

maneuver and fire defense. To do so would be to forego one of his greatest force multipliers.

Urban areas, in themselves, offer advantages to the defender. It is well known that Warsaw Pact doctrine dictates that when on the attack urban areas are to be bypassed if at all possible. The danger to the attacker is that by entering a built-up area he slows his momentum thereby decreasing the shock effect of the attack. Nevertheless, once having moved from the march into attack formation, the frequency of the urban areas will, in itself, somewhat blunt the attack by splintering and fragmenting the attacking forces and canalizing them into the gaps between. In some instances, they will become for NATO more manageable, "bite-size" pieces which can be engaged by armored forces in the areas between the towns, villages and strip areas. One authority on tank warfare even suggests that in the confusion of combat, company size units of the attacker will become disoriented and lost in the unfamiliar terrain.⁵⁰

There are several ways that urban areas may be used by the defense depending upon their size and its relation to other terrain. A good example is the Fulda corridor in the area of the V US Corps. Historically this is a principal invasion route from east to west, and vice versa. Today there are two major east-west routes through the corridor, Autobahn E-4 and Route 40. Between the Autobahn on the north and Route 40 on the south, terrain is rugged and difficult for rapid cross country movement. It also contains many villages throughout. Use of the Autobahn would make attacking forces extremely vulnerable from the air and the flanks which are not easily protected because of terrain. This situation all but forces the attacker to use the Route 40 approach, a densely urbanized corridor which will continue to thicken in the future.⁵¹ The potential for the defense is

good even with the exercise of economy of force measures on the defense and a very heavy tank ratio favoring the Soviets.

According to the former commander of the Army's Combined Arms Concepts Agency, US forces must attempt to:

- "Control avenues of approach into, around, over and through urbanized areas."
- "Use dismounted infantry and obstacles in built-up areas to hinder the movement of enemy mechanized and armored forces."
- "Retain key transportation centers."
- "Deny the enemy control of strategic and political objectives."
- "Conceal our forces and support facilities in villages, town, and cities."⁵²

In support of these goals, the commander can choose to use the urban areas in the defense in any one, or a combination, of three ways.⁵³ One is to support maneuver forces. They can, for example, secure the flank of maneuver forces. On average, there is a village, town, or city every 3 to 4 kilometers in Germany.⁵⁴ At these ranges, the TOW antitank guided missile, and even artillery,⁵⁵ can be used to provide interlocking fire on one or both flanks of the maneuver force.

A second manner of using urban areas, especially one such as the Route 40 approach through Fulda, is by building a defense in depth through the corridor. The Germans made use of this in World War II in what has become known as "Operation Goodwood." In that action an overwhelmingly superior British armored force of 850 tanks with air support was stymied by a primarily infantry force (100 tanks) using villages to create a defense in depth. German 88-mm antitank guns within the villages served to keep the British armor out of the open spaces in-between.

The British have evidently not forgotten the lesson they learned from the Germans in 1944. In Exercise Spearpoint, part of Reforger 80, the 2nd Armored Division was on the attack against British infantry. The British established a Goodwood type defense to good effect.

Entrenched pockets of resistance in the towns . . . armed with long-range antitank weapons, initially exacted the attention of numerically superior forces and imposed very heavy casualties.⁵⁶

While the 2nd Armored Division eventually overcame the light forces, it is implied that if mobile forces had been available, a much more effective defense would have been the result. This seems to suggest the importance of combined arms operations in urban defense.

The third manner of using the urban areas in defense is through the use of strong points for the purpose of retaining an important urban area. In this defense, strong infantry forces should be used with, ideally, a mobile reserve to lend fire support at critical points in the battle. Even if bypassed, or if occupied by the defense after lead elements of the attack have passed, it offers interesting possibilities. Of course it would have intelligence value and it could perhaps conduct limited raiding attacks. It would also deprive the enemy of freedom of maneuver, disrupt the momentum of the attack, and make difficult his combat and logistical support.⁵⁷

The strongpoint can also be used as the anvil in a "hammer and anvil" type operation. As suggested by a recognized authority on mechanized warfare, the strongpoint would serve to fix the attacker. Meanwhile the tank heavy hammer swings in a wide arc in the open area between villages to strike the attacker with the momentum attained in the arcing movement. In a series of blows of this type--though the anvil is not necessarily anchored on an urban area--the defender disrupts and destroys the attack.⁵⁸

The advantage to the defense of using urban terrain is too great to be denied. With some 25 towns and villages plus strip areas in his sector, each brigade commander should have ample opportunity to establish what would hopefully become a bewildering array of defensive tactics based on these urban areas. The specific use the brigade commander might make of any one or combination of urban areas would depend upon such factor as their proximity to one another, the terrain, the types of structures, etc., and the breadth of the imagination of he and his staff. This multifaceted use of urban areas to launch attacks and/or defend key areas should serve not only to confuse the attacking commander but also further splinter his forces into manageable sizes vulnerable to destruction by defending armor in the spaces between the towns and villages. Herein lies an opportunity to blunt a Soviet/Warsaw Pact attack, disaggregate his forces, and disrupt his timetable.

Returning to the synergistic effect between the deep battle and the battle in the main battle area, it was earlier pointed out that the principal strike assets for the deep battle are air and artillery interdiction. These type assets, including weapon systems resulting from new technologies, are intended for use in NATO's new "strike deep" strategy⁵⁹ as well as in AirLand Battle to disrupt Warsaw Pact follow-on forces. It was earlier suggested that air would be otherwise engaged in the early battle and that artillery has the range to produce only local impact. Hopefully, air assets would begin to be freed-up after two to three days for use in battlefield air interdiction. Their effectiveness in the deep battle role could be substantially enhanced by success in the MBA.

Soviet doctrine establishes the movement of forces into the battle area on a fairly rigid schedule. The purposes are to have fresh forces to continue the momentum of the attack, even if the first echelon is stymied,

and/or to exploit gaps and weaknesses in the defense. As suggested above, an effective defense in the main battle area will serve to reduce the momentum of the attack and canalize the attack into areas the defense wants it to go. Should the momentum be stalled for two or three days, build-ups of follow-on forces will begin to occur. Such a situation would present NATO aircraft and missiles, and possibly even artillery, with a very lucrative target array close behind the MBA. This build-up of Pact second echelon forces will, in part, alleviate the well recognized shortcoming of intelligence assets to "see deep."

There is an additional consideration which argues for the maximum use of the towns, villages and strip areas arrayed along the inter-German border. It has to do with Soviet/Warsaw Pact passive antitank measures. It is quite obvious that the US and NATO are heavily dependent upon the antitank guided missile to counter Soviet armored attacks. The Soviets recognize that this is the case and are taking measures against this NATO threat. One such measure is the addition of compound armor which offers high levels of protection against shaped charges as are used in antitank missiles.⁶⁰

This being the case, the probability of kill ratio for antitank guided missiles will be substantially depreciated. It will therefore be important to get your antitank missile launchers into positions which will provide them the most lucrative opportunities to destroy Soviet tanks. This would seem to be from a flank or rear shot inasmuch as the front turret and hull will probably have the compound armor added. Clearly, one of the better opportunities would seem to be from towns or villages as the Soviet/Warsaw Pact forces exercise their doctrine to bypass. Because of flank security forces, it may have to be a "shoot and scoot" type action. In this instance, the improved TOW vehicle would serve well in such a role.

The US III Corps

The United States, in recent years, has designated the III Corps as reinforcement for the Northern Army Group (NORTHAG) area of NATO's Central Region. Sites are being constructed for Prepositioning of Materiel Configured to Unit Sets (POMCUS) of the three armor heavy divisions which comprise III Corps. In the event of war in Europe, they would be called to join in the battle for the North German plain, an area that comprises the northern two-thirds of the NORTHAG area. Traditionally, this is thought of as excellent terrain for cross-country movement of mobile forces. More recent observations about the area indicate this is no longer the case. Perhaps the 1980 Reforger experience of the 2nd Armored Division serves to make the point best. In the Spearpoint Exercise of Reforger 80, General George Patton's old division returned to the scene of its exploits 35 years earlier. One of the brigade operations officers describes the area as follows:

The plain has been described as a table-top, an unimpeded route for massed armor. The Spearpoint experience of the 2nd Armored Division soldiers refute that preconception. Northern Germany is becoming increasingly urbanized and a network of villages and industrial areas permeate the sector and dominate the terrain. Rivers, canals, and lowlands impeded cross-country movements, road networks orient on the ever increasing number and size of villages. 'Combat in cities' must be the military modus operandi.⁶¹

The same officer goes on to state that, "Towns were and are key terrain."⁶²

That this is the case should not be surprising. The fact of the matter is that most of the NORTHAG area is more densely settled than is most of the area of the Central Army Group that has been discussed above. There are four NORTHAG corps sectors under the responsibility of the Dutch, German, British and Belgians (north to south). The German and British corps areas are most heavily urbanized with the Belgian sector not far behind. The northernmost sector, that of the Netherlands, include Hamburg

and Bremerhaven, the latter being one of the most important ports in NATO's logistic support operations and a logical Warsaw Pact target.

The conclusion one must reach is that, like V and VII US Corps, the III Corps is bound to become involved in MOUT operations, whatever missions might be assigned. Much of the earlier discussion under AirLand Battle applies to III Corps as well, even though it may be difficult to execute the new doctrine in all its particulars. Nevertheless, the same advantages that accrue to the defenders use of urban areas in CENTAG will have application in NORTEAG as well.

Unfortunately, the units that comprise III Corps have even less opportunity to train in and to think about MOUT than do those in CENTAG. The elements of the CENTAG Corps do have an opportunity to train on occasion at Hammelburg. They are also dealing daily with planning the defense of and operating in a sector about which they are at least aware of the urbanized terrain, whether or not they choose to take advantage of it. Visits to planned operating areas in Europe and terrain studies will help overcome these shortcomings to an extent. However, it may mean little if these units had to operate in Europe. Personnel turbulence, the likelihood of having to operate in areas other than those planned and, most importantly, the almost total lack of training will be severe handicaps to be overcome. As the situation exists today, they would have to pay a substantial penalty while foregoing some significant advantages.

CONCLUSIONS

The most common notions we hold of MOUT are either defending cities or trying to take them. As I hope I have shown here, there is much more to it than that. In fact, military operations on urban terrain may be somewhat of a misnomer. More appropriate would be military operations on and out of

urban terrain. While there will undoubtedly be considerable combat within urban areas, there will also be considerable opportunity for combat inaugurated out of towns and villages against bypassing Soviet/-Warsaw Pact forces. Should war in Europe ever reach the point where predominant combat matches most preconceived ideas of what MOUT is, we will be defending the large conurbations in the western portions of the Federal Republic with our backs to the Rhine River. Unfortunately, that is the scenario with which NATO would be confronted if it fails in the defense of the forward areas.

"Our conviction is that our inability to carry out conventional combat in the MOBA environment is a deficiency of the first order and one that demands a deliberate program response."⁶³ This conclusion of the ad hoc panel of the Army Science Board 6 years ago stands today based upon evidence the author is able to gather. Overall, there simply has been little or no movement in most of the areas which would indicate a capability greater than it was in the late 1970s.

The best fix has been in the area of tactics. Nonetheless, there is no doubt much still to be done. One professional interested in getting the "tankers" thinking more about the subject suggests that there is a significant place for combined arms operations in urban combat. Yet, he concludes that

the only place in which we may be lacking is in interest--the mutual desire of the armor and infantry communities to solve the urban combat problem together.⁶⁴

And, of course, interest is at the bottom of all matters such as this. Certainly the Soviet analyst tasked with reviewing US Army professional literature for doctrinal material--and I am sure there must be such an individual--cannot be very convinced that the American soldier is interested in the subject. The conclusions of his literature content analysis has no doubt been conveyed to Soviet/Warsaw Pact combat commanders.

Another area the Soviets no doubt watch closely is training. One observer suggests that

the single best indicator as to whether or not a national military force takes urban warfare seriously is the degree to which they appear willing to expend assets of time and material on training and training facilities.⁶⁵

This comment was made in the context of what the Soviets are doing, but it fits here very appropriately. In contrast to the US Army, the Soviet Army takes the subject very seriously despite its doctrine to bypass built-up areas. He does not want to have to fight there, but he is not fatalistic about it saying, "Well, if I have to I will, but I'm not going to concern myself with it until I have to." They have the facilities, including one two kilometers deep with the characteristics of a city, and they train hard at learning to fight in urban areas, to include combined arms tactics.⁶⁶

The Soviet approach to fighting in urban areas is based upon the motorized rifle battalion, but it will have tanks, air defense and engineer units, and artillery in a direct fire role, attached and under the command of the battalion commander. Whatever one might say about the rest, the Soviet Army is ready in terms of doctrine, tactics and training and is better prepared than his American counterpart.

While no one would contend that it is necessary to mirror image everything the Soviets are doing, some things are simply in our best interests. We can have the best doctrine possible given the constraints on resources and fail miserably because we have failed to follow-up with appropriate training and equipment.

While the intention of this paper is not to be prescriptive, there is one simple measure that would enhance US Army capabilities substantially. At this time, maneuver units in the active Army in CONUS periodically train at the National Training Center at Ft. Irwin. Exercises there are limited,

however, to the maneuver and fire end of the continuum discussed in the new FM 100-5. For a limited investment--measured perhaps in millions of dollars and at most in the tens of millions--a substantial urban training facility could be constructed to replicate typical urban terrain features in Europe. The exposure to such a facility would not only serve to train units in urban warfare, it would also sensitize the Army's professional corps to the need for greater attention to the subject and suggest to them that the senior Army leadership believes it is an important subject as well. This step alone could have far-reaching consequences which might alleviate several of the problem areas associated with MOUT.

There can be no doubt, should war come in Europe and remain at a conventional level for any length of time, virtually every US combat soldier, and probably many non-combat types, will be engaged in combat in, through or out of built-up areas. It would be unfortunate, indeed, if they have not had prior training in MOUT. However, that is the direction in which current indicators would seem to point.

ENDNOTES

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