



**THE  
LAND  
WARFARE  
PAPERS**

No. 8

OCTOBER 1991

**21st Century Doctrine  
and  
The Future of Maneuver**

**By Richard D. Hooker, Jr.**

A National Security Affairs Paper  
Published on Occasion by

**THE INSTITUTE OF  
LAND WARFARE**

ASSOCIATION OF THE  
UNITED STATES ARMY  
Arlington, Virginia

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#### 21st CENTURY DOCTRINE AND THE FUTURE OF MANEUVER

by

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## FOREWORD

Historically, smaller forces have prevailed against stronger opponents by moving faster and striking at weak points. Many of the techniques used to defeat powerful opposing forces were predicated on maneuver-based doctrine.

The Army currently incorporates many maneuver concepts in its AirLand Battle doctrine. Regardless of its name, the Army's warfighting doctrine for the balance of the century must continue to improve the quality of the force even as numbers of troops and systems decline.

This essay portrays an approach that instead of rekindling the maneuver-attrition debate of the 1970s, should encourage a fresh discussion of how the Army of Desert Storm can best fight future wars.

A handwritten signature in black ink, appearing to read 'J. N. Merritt', written over a horizontal line.

JACK N. MERRITT  
General, USA Ret.  
President

October 1991

# 21ST CENTURY DOCTRINE AND THE FUTURE OF MANEUVER

## Introduction

Armies, contrary to popular opinion, are always changing, and our Army is no exception. Today the United States Army is moving into an era where it must meet formidable strategic challenges with dramatically fewer resources. A smaller, leaner, professional Army can meet the challenge by embracing a warfighting doctrine which relies less on abundant resources and more on the intelligence, skill and courage of our superb soldiers and leaders. This paper calls for Army-wide adoption of a maneuver-based approach to battle and campaign as the first, best solution to the dilemma posed by a challenging strategic environment and declining means.<sup>1</sup>

Writing in *The National Interest* in 1986, the eminent political scientist Samuel Huntington argued that American performance in war reflected industrial and technological strengths, not commitment to military excellence.<sup>2</sup> America, so the argument goes, is unsuited culturally and historically for the kind of self-absorbed, introspective professionalism that is needed to achieve a cohesive, highly skilled, professional military force. Far better, Huntington concluded, to rely on American mass and technological supremacy with all its attendant waste and redundancy to crush our opponents.

By and large, the virtues of American civilization have not been the military virtues and this has been reflected in military American performance ... [o]ne should not be swept off one's feet by the romantic illusion that Americans can be taught to fight wars the way Germans, Israelis or even British do. American strategy, in short, must be appropriate to our history and institutions, both political and military ... bigness, not brains, is our advantage, and we should exploit it.<sup>3</sup>

As a profession we must reject this line of reasoning. The commitment to excellence in the common defense is an open-ended contract, requiring constant reexamination and improvement. As resources become constrained, the military services will have no choice but to find ways to fight more effectively with smaller, leaner forces. Past criticism of American reliance on mass, firepower and abundant resources may have been accurate.<sup>4</sup> But innovation, initiative and competitiveness are American virtues too. In today's strategic environment, doctrinal approaches must use these strengths to find a way to win without overpowering mass. A maneuver-based doctrine — a shared vision and philosophy based on maneuver concepts — can exploit unique American strengths to build a more powerful, effective force even as numbers of systems and troops are reduced.

Maneuver-based doctrine differs significantly from other approaches to warfighting. It deemphasizes set-piece, linear, methodical views of warfare, stressing the fluid, nonlinear nature of modern warfare and a chaotic, fast-paced, "messy" battlefield characterized by friction in all its forms. As a general rule, attritional exchanges are

rejected in favor of methods offering faster, more decisive results with far fewer casualties.

Maneuver-based doctrine is best understood as a *thought process which seeks to pit strength against weakness to break the enemy's will*. It should not be confused with systems of tactics, principles or formulas. In its broadest sense maneuver doctrine can be relevant at the theater strategic, operational and tactical levels of war. Looked at in this light, warfighting becomes something very different from applying “principles” to mass “systems” to “service targets.” Instead, it appears as a clash of wills, with victory going to the side which destroys the opponent’s will to resist.

Maneuver thinking is not new, although the work of modern students and practitioners has helped to crystallize and codify it as a coherent body of thought. Though the German and Israeli armies are often cited as expert practitioners, the maneuver thought process is not an exclusively “foreign” concept. Anthony Wayne, Stonewall Jackson, Randal MacKenzie, Emery Upton, George Patton and many other American commanders used similar methods and concepts with outstanding success. Maneuver doctrine teaches leaders how to think, not what to do. This is its first and most important contribution to the theory and practice of warfare.

A maneuver-based warfighting approach is much more than doctrine defined as “how to fight,” though written doctrine is a necessary first step. Maneuver doctrine represents a comprehensive, articulated approach to warfare — more accurately described, perhaps, as “how to think about fighting” — supported by institutional structures which teach leaders how to “think” and “do” maneuver doctrine.

Many of these concepts are well-known and time-tested. What is most important is not the concepts themselves, but rather the mental processes by which they are employed and the means by which these processes are encouraged and developed throughout the force. It is not enough to memorize sets of principles and rules. *From top to bottom, the organization must accept and implement a shared approach to warfighting based on maneuver concepts.*<sup>5</sup>

## **Fundamentals**

Conceptually, maneuver doctrine emphasizes result, not process.<sup>6</sup> Too often we confuse the two. Of course we must use a standard professional language. But what matters most is the outcome, not the process used to achieve it. This argues for wide latitude and discretion in method but strict accountability for result.

The first commandment in maneuver-based warfare is “attack weakness, avoid strength.” Appreciation of strength and weakness is as much an art as a science, one reason (among many) why maneuver doctrine cannot be “taught” as a set of techniques or tactics. Weakness is often, but not always, the flanks or rear. It could be the enemy’s

command and control system, his fire control system, his logistical system or a unit boundary. It might even be psychological, such as reluctance to conduct night operations.

To accurately identify enemy weakness, continuous reconnaissance and intelligence preparation of the battlefield are fundamental. So are terrain appreciation and an understanding of the enemy and his commanders. U.S. technology gives us signal advantages in this essential area, but traditional methods of intelligence gathering — reconnaissance, patrolling, interrogation and upfront battlefield leadership — retain their crucial importance. All this might seem obvious, were it not for the number of battles fought in violation of the famous dictum: “Hit the enemy as hard as you can, as often as you can, where it hurts him most, when he ain’t looking.” A salient observation helps to make this point: We knew opposing commanders intimately in the Second World War. Did we in Korea?

In a war of maneuver the ultimate objective is destruction of the enemy’s will to resist, not his physical destruction. This is obviously a psychological and moral as well as a physical effect. It also appears to contradict a fundamental premise of modern war, namely that the destruction of the enemy’s forces should be the primary object of combat.

This contradiction is, however, more apparent than real. Clausewitz defined “destruction” as putting the enemy “in such a condition that they can no longer carry on the fight.”<sup>7</sup> A. A. Vandegrift observed that “positions are seldom lost because they have been destroyed, but almost invariably because the leader has decided in his own mind that the position cannot be held.” Only rarely will an enemy resist to the point where each of his positions must be physically destroyed. More often, hard blows combined with uncertainty, multiple perceived threats, pressure against weak points and similar stresses will break his will. In the just-concluded Gulf War, the bulk of the Iraqi forces confronting the allies disintegrated when faced with rapid blows delivered almost simultaneously on their front, flanks and rear. One hears little criticism of the almost bloodless victory which quickly followed.

The art of warfare was once said to consist of forcing the enemy’s surrender without the necessity of battle. Maneuver does not offer victory by avoiding battle, although brilliance in planning and execution will sometimes bring about the early collapse of the enemy.<sup>8</sup> We should not expect an opposing force to capitulate without being struck hard and decisively.<sup>9</sup> Where and when the blow lands — and how this decision is reached — is the essence of maneuver operations.

How does a force destroy the enemy’s will to resist without seeking to crush him with fire? A good start is to generate uncertainty and fear by hitting identified weak points with unexpected and indeterminate threats. Vertical envelopment, sudden attacks from the flank and rear, battlefield deception, jamming, psychological warfare, infiltration and other forms of the unexpected are time-tested techniques which seek to unhinge the enemy’s sense of control over the situation. Fear and uncertainty magnify any threat. The technique selected will differ with the situation, but the principle is the same: to target

the enemy's balance and cohesion by hitting his weaknesses — physical, moral or psychological — with multiple, unexpected blows.

Some critics conclude that this focus on “stunning” the enemy encourages a lack of aggression or willingness to engage the enemy. Maneuver doctrine in no way implies a lack of violence or hard fighting. On the contrary, in its rapidity and offensive frame of reference it demands leaders who understand organized violence intimately. Maneuver is not glorified at the expense of firepower, but maneuver does not serve firepower. Firepower creates conditions which support the maneuver concept. To assume otherwise is to be drawn into a technical frame of mind where warfare becomes an exercise in targeting and neutralizing target sets and arrays by massing systems — the very essence of attrition warfare.

Such methods may prevail over weaker opponents, although at great cost in resources. They will almost certainly fail against a comparable or superior opponent who can play the attrition game better than we can. The enemy's fighting forces remain the principal objective. A maneuver mindset means attempting to create conditions where the enemy can be “knocked out” without becoming locked in an attritional exchange.

“Maneuver” deserves precise definition. Maneuver is not simply movement about the battlefield. Maneuver is relational movement, movement in relation to the enemy.<sup>10</sup> Maneuver doctrine preaches the ability to move faster than the enemy expects and faster than he can react. Maneuver fits conceptually into our theory when it advances the goal of attacking weakness with strength to break the enemy's will. For example, a tactical or operational envelopment against a forewarned enemy who has shielded his flank (as the Soviets did at Kursk) meets the standard definition of maneuver but falls short of the essence of maneuver doctrine. A sudden frontal attack, delivered at night against an enemy whose reserves have been drawn off to a threatened flank, preceded by infiltration groups and coinciding with an air strike against the enemy command post, shows a maneuver thought process even though the technique used is the frontal attack.

Maneuver doctrine seeks to operate consistently faster than the opponent can react, so that a given response must inevitably lag behind one's own decision cycle. Out-cycling the enemy ensures speed and surprise relative to the enemy, keeping the initiative out of the enemy's hands, but it does more. As the enemy attempts to respond to what has already happened — not what is happening and is about to happen — confusion, uncertainty and doubt set in to magnify every problem and threat. The inability to respond to a very fast decision/action cycle quickly leads to frustration, system overload and panic.<sup>11</sup>

## **Command and Control**

Maneuver doctrine accepts, even embraces, a nonlinear battlefield where positive control measures and detailed coordination are reduced or absent, while initiative and innovation are encouraged at the lowest possible levels. The perception that maneuver

doctrine demands surrender of control to subordinates is a major concern for many critics. Maneuver doctrine does not call for abdication of command authority and responsibility, but it does prescribe a different approach to command and control leading to greater speed, initiative and flexibility. Command and control in maneuver operations is based on the following “filters.”

*Mission-type Orders:* Called “*auftragstaktik*” in the German army, this concept requires commanders to articulate a precise mission statement, but leaves the “how” in the hands of subordinates.<sup>12</sup> The mission takes on meaning when explained as a function of the commander’s intent.<sup>13</sup> Only then can the subordinate leader really grasp what the commander is trying to achieve. Leaders at each level should know what the commander’s intent is at least two levels up. If they do, the role of the smaller unit in the overall plan now makes sense and leaders have a conceptual framework to use when the situation changes or when unforeseen opportunities present themselves.

When clearly understood, intent replaces detailed and restrictive instructions and permits subordinates to understand what the higher level commander is trying to accomplish. Subordinates are allowed, even encouraged, to depart from the original scheme if changed circumstances require a different response to satisfy the commander’s intent. Sometimes called “trust tactics,” mission-type orders are demanding — of commanders, of subordinates, of the whole system of command. In armies and units which trust the leadership, intelligence and initiative of their junior leaders, much more is possible than before.

*Focus of Effort:* Every operation must have a focus of effort, chosen for a specific purpose and clearly understood by all. Usually expressed in action terms (“focus of effort is 1st battalion’s attack up the Rosario valley”), the focus of effort is not synonymous with the objective or the mission. While it will often coincide with the main attack, the focus of effort describes where the commander believes he can force a decision. The unit designated as the focus of effort is given the bulk of available fire, close air, engineer and other kinds of support and is supported by sister units. It reinforces the thrust of the commander’s intent. When necessary to support the intent of a higher level, the commander may switch the focus of effort at any time to adjust to a changing situation or to exploit opportunity.

*Surfaces and Gaps:* These are concepts, not physical constructs. Surfaces represent enemy strengths or hard spots. Gaps are weak or vulnerable points. Reconnaissance and intelligence “pull” us towards gaps and away from surfaces. Recon pull may reveal an opportunity not realized during the planning phase. A strong, thrusting reconnaissance effort will probe the enemy for gaps while screening the main effort. If this reconnaissance justifies a departure from the original plan, for example by identifying an undetected gap which can be exploited, previous coordination and planning must

not shackle subordinate commanders. They must be free to report and exploit if the friendly force is expected to move, think and strike consistently faster than the enemy. If they cannot, we are led back to a reliance on mass and fires to fix and crush the opponent.

This alternate approach to command and control provides a supporting environment for operations. While different from more traditional views, it does not imply an absence of command and control. But instead of "micromanaging," the commander manages by exception, by monitoring (instead of monopolizing) radio traffic and selectively intervening with decisions that only the commander can make, such as committing the reserve or shifting the focus of effort. Otherwise, silence means consent. While the reins of command do not come together in the hands of the commander as fully, since subordinate leaders have the right (in fact, the duty) to act on their initiative, the command is actually more focused on the objective and more aware of what must be done. The commander's prerogatives are diminished, by the commander himself, in order to make the force more agile and more lethal.

What happens when situational changes require commanders to immediately reassert control and change the mission? An Army imbued with maneuver doctrine is actually *better* prepared to respond to rapid change. Mission orders, commander's intent and focus of effort are a way to speed up the decision/action cycle. The commander's orders still carry the stamp of urgency and authority. Subordinates are still responsible for results. The difference is in the speed and flexibility with which the force operates, and this can only come through decentralization and initiative.

Viewed from this perspective it becomes clear that maneuver doctrine actually demands more from the commander. It requires top-flight teachers and trainers who can develop their subordinates' ability to act independently. It demands the self-confidence to trust juniors to think and act on their own initiative, within the framework of the mission and the commander's intent. It demands the ability to see what must be done and to articulate it clearly. It demands intuition, flexibility and decisiveness to dominate a much more fluid and unstructured battlefield. It demands originality to avoid patterned behavior. It demands physical courage to move well forward, to see the battle, to look in a subordinate's eyes, to take charge at the decisive moment and lead. It demands moral courage to create a command climate where juniors are free to be decisionmakers, and where they feel free to approach the commander with ideas, observations and recommendations. There will be mistakes, especially in the early stages of combat where everyone is learning. But the commander remains responsible.

## **The Reserve**

Because maneuver operations are so dynamic, the concept of a strong mobile reserve is a basic tenet. A standard rule of thumb is to hold one maneuver unit in three in reserve, but maneuver doctrine encourages larger reserves. The reserve is often thought of as the commander's insurance against disaster, his primary means of retrieving

a deteriorating battlefield situation. It is better to think of the reserve as the “Sunday punch.” Offensively or defensively, commanders must be alert for openings to score a knockout, not just hold or take a piece of terrain. Particularly in uncertain, fluid situations, strong reserves enable a force to strike with decisive force at points of our choosing.

Picture a division attacking with two brigades, holding a third in reserve. As the lead brigades make contact their presence, strength and direction of attack become known to the enemy. The ability of either to maneuver effectively is inhibited. The single remaining brigade is available, but it may not be strong enough to force a decision. It will probably be necessary to look to corps for forces strong enough to deliver a decisive blow. This means a slower operating tempo as fires, boundaries, airspace and logistics are coordinated and follow-on units move up and deploy.

If we reverse the situation and lead with a single brigade, the situation is very different. The lead brigade is strong enough to feel out the enemy, to probe strongly and engage the enemy in the main defensive zone. Supported by the division artillery, cavalry squadron and combat aviation brigade, it can take care of itself and develop the situation for the division commander. But now, two full maneuver brigades are available to hit the enemy.

This strong reconnaissance effort will confirm the intelligence estimate or find new weak points. Now, however, the division has more options than before. It can envelop both flanks with a full brigade, or use both to collapse a single flank and drive in to the enemy’s rear. The lead brigade can fall back and accept a penetration which can be enveloped, chopped off and destroyed. The division can move straight ahead if resistance is weak. It can disengage and reposition in the face of very strong opposition, since most of the division is not in contact. For any option, its attack helicopter, field artillery and close air support assets can be switched on short notice to weight the main effort.

In the defense, strong reserves offer comparable advantages. Some maneuver units may occupy important terrain features to canalize or influence the enemy to move in a desired direction. Powerful mobile reserves should be retained, not to restore the integrity of a linear defense, but to lend depth to the defense and capitalize on opportunities to destroy large enemy forces. Even in defense, commanders should look for opportunities, not just to hold ground or buy time, but to take out whole enemy formations. Linear defenses which try to succeed by inflicting casualties on the attacker are rejected in favor of more elastic concepts which seek to combine depth, fires and maneuver to defeat the attacker, not to rigidly hold terrain.<sup>14</sup>

Every situation is different. A maneuver focus does not mean that terrain retention is never important, that buying time is irrelevant or that mobile offensive action is always feasible even in the face of much stronger forces. A growing threat or increasing uncertainty, however, should lead the commander to provide a larger, not smaller, reserve. This limits the enemy’s knowledge of friendly capabilities and intentions, increases the options available to the commander, and preserves a mobile combat force strong enough to make a difference.

How should the reserve be used? Usually the reserve commander will be told to prepare for multiple missions. Often, he is tasked to be ready to assume the missions of other elements. It is probably better to assign possible missions which offer the opportunity to strike a decisive blow.

For example, let us say that a brigade is attacking with two battalions abreast. The left-hand battalion makes no immediate progress. The right-hand battalion reports that one company is stalled, one is being slowly pushed back and one is making slight progress.

One tactical option is to commit the brigade reserve in support of the withdrawing company to restore the continuity of the attack and get the battalion moving forward. This solution is safe, methodical and linear. It guards against disaster. But it also shows patterned thinking. It shifts responsibility for making a decisive blow up the chain of command. It avoids risk and contributes to a slow operating tempo. It is predictable and reinforces failure.

An alternative solution is to throw the entire reserve in the zone of the company which is moving forward, backed up by as much of the brigade and division's fire support resources as possible. An audacious commander might even move the stalled company over to participate in this effort, sliding adjacent units towards the breach at the same time.

The enemy might throw everything into the weakened area and disrupt the entire operation. But he probably will not. Before he realizes that one part of his front has thinned out, he will be struck by a heavy and sudden blow in a weak area. He will try to assess what is happening and respond, but he cannot know the mind of his adversary or its intentions. He must respond to this very dangerous threat, and quickly.

If at the same time his communications are suddenly jammed and his command post (CP) is attacked with indirect fires, the enemy commander is in serious difficulty. He must relocate the CP and reestablish communications. He must try to make sense of the increasingly frantic messages from his front-line commanders. He must move forces to the threatened sector and coordinate fires to support them. He must report to higher headquarters and answer their urgent demands for information. In effect, the enemy is a captive, not master, of his situation. Unless he possesses considerable experience, nerve and talent he may fail completely.

In *Inside the Soviet Army*, Viktor Suvorov describes just such a situation. At Kursk in 1943, the 16th Guards Rifle Corps attacked with nine battalions. Eight made no gains at all, but one managed to make some slight forward progress. Its parent regiment and division rushed all available reserves to the area without consulting the corps commander, in accordance with standing orders. Within half an hour a kilometer-wide breach was made. Within three hours, 27 of the corps' 36 maneuver battalions were fighting in the breakthrough zone, widening the breach to seven kilometers. Every tank and 1,087 of the corps' 1,176 artillery pieces were dedicated to this attack. The Front's exploitation force, an entire army, was rushed to the spot, followed within days by the reserve army

of the Supreme Command. Ultimately, the German front collapsed completely, ending forever the possibility of a German strategic offensive in the east.<sup>15</sup>

The important point is not the proportion of engaged to reserve units. Nor should we conclude that the reserve must always be used where a local success appears to be developing. What is important is having control of a force powerful enough and mobile enough to make a difference, and to use that force against an identified weakness where a decisive result can be gained to deliver a knockout blow. Forces in contact hit, fix, push, collect intelligence and shape the battlefield, but the reserve will decide the issue in many cases. It should not normally be given missions already assigned to other units, which assumes that those units will fail. Once the reserve is committed, other reserves should be immediately reconstituted from units not decisively engaged, or provided from higher headquarters. Because of the demanding nature of the reserve mission and its importance as a decisive part of every plan, the reserve commander should be a proven leader, not a weaker commander placed there to be kept out of trouble.

## **Logistics**

More work is needed to develop fully the logistical implications of maneuver operations. Some points, however, stand out as logical corollaries. First, to the extent that maneuver offers a way to shorten the battle through the rapid collapse of the enemy, the possibility exists that the extreme demands placed on the logistical system by prolonged operations can be avoided. Less emphasis on the application of massed fires as the key to victory should mean much lower ammunition use rates. If battles can be kept short and sharp, fuel consumption within the theater may be high initially but much lower than one could expect from a more methodical, set-piece, sustained campaign of longer duration.

The maneuver distinction between “how to do” and “how to think” also applies to logistics. The 1986 version of Field Manual (FM) 100-5, *Operations*, departs from the 1982 version with its conceptual discussion of sustainment principles in lieu of a purely descriptive approach. These include anticipating maneuver requirements, close integration of sustainment with the maneuver plan, the need to surge logistically as maneuver units grasp fleeting opportunities and the importance of improvisation when things go wrong.<sup>16</sup>

At the tactical and operational levels, innovation and initiative are just as important to the logistician as to the operator. Fluid, mobile ground/air battles will often find units out of contact or with no clear line of supply to the rear, and the rear areas may have their own problems from ground and air attack. Nevertheless, these are features of modern warfare in general and not of maneuver operations in particular. Forward positioning of supplies, through-put logistical support, the ability to fix, fuel and arm well forward and at night, and protected supply vehicles which can keep pace with fast-moving mobile formations will all be needed to support large-scale maneuver operations.

Maneuver doctrine calls for many changes to our traditional way of doing business, but one thing that does not change is the central importance of logistical planning and support. The problem of supply in war will remain the driver behind all combat operations. We cannot afford to neglect it in the doctrinal development process.

## **Fire Support**

Maneuver thinking is often criticized unfairly for its perceived denigration of firepower. While it is true that maneuver theorists are critical of approaches to battle which emphasize the methodical application of overwhelming fires, firepower plays an essential role in maneuver doctrine.<sup>17</sup> Firepower, and the technologies used to exploit it, are crucial components of modern warfare. Fundamentally, armies fight with fires. The difference between maneuver and attrition thinking is that in maneuver operations, fires serve to support the maneuver concept — not the other way around (as was the case in the Vietnam conflict).

Firepower and technology, as important as they are, must not mask the essential truth that human factors are decisive in war. Given reasonable numbers and adequate equipment, training, leadership and drive will tell every time. Concentration and timing of fires are more important than sheer mass, with victory going to the side which combines fires and maneuver most effectively to destroy the opponent's cohesion and will to fight. Rarely will an enemy consent to be physically torn to pieces. But it is possible to create the impression he is about to be. The following examples illustrate how.

On October 26, 1917, a weak detachment led by Lieutenant Erwin Rommel, ignoring orders to withdraw, attacked and captured the Matajur massif in the Italian Alps. The action earned Rommel the *Pour le Merite*, Germany's highest battlefield decoration. Advancing boldly to create the impression of superior numbers, Rommel maneuvered across very steep terrain to attack consistently from unexpected directions.

Throughout the action, Rommel repeatedly concentrated the fires of his heavy machine guns against single targets, shattering them one by one and causing the collapse of entire formations as Rommel's small company of riflemen struck these demoralized units repeatedly from the flank and rear. Although infinitely inferior in firepower, Rommel used the fire assets he did have in a concentrated, closely controlled way to strike heavy blows at enemy weak points. Caught in the bag were 150 officers and over 9,000 Italian troops. It was the beginning of the Rommel legend.<sup>18</sup>

As the Second World War progressed, British artillery commanders began to realize that their standard fire support doctrine was not achieving desired results. Successive British defeats in North Africa provided a powerful stimulus to try something new. One such innovation was the Parham method of fire control, sometimes called the "72-gun battery."<sup>19</sup> Used primarily in British divisions (though also by some U.S. units later in the war), this system placed seasoned battery commanders forward as observers

in place of junior artillery lieutenants. These officers were delegated authority to literally command the fires of the division artillery through the use of a single code word — “uncle target.” For single targets the battery commander/forward observer directed the fires of his own battery; since he commanded it, these fires were extremely responsive.

If necessary, this officer could request a division artillery fire for effect over a net reserved only for “uncle” fires. Standard fuze-shell combinations were used and the calls for fire could not be countermanded by intermediary fire support personnel. Typical response time on the target for 72 guns was four to six minutes. Time and again, German formations attempting to move in the open were drenched with the massed fires of the entire division artillery, which could be switched to other targets quickly and easily.

At first glance one might assume that the division’s indirect fire assets would be in a constant state of chaos as inexperienced officers called for simultaneous fires. In practice, this almost never happened. In the same way that outfielders sort out who will take the fly ball, combat-experienced artillery commanders quickly learned to identify the enemy’s main effort and to reserve massed fires only for worthwhile targets. The system greatly speeded up the division’s decision/action cycle and made the division artillery a decisive instrument of combat. The Parham method did away with the practice of giving some artillery to everyone but no decisive quantity to anyone — in effect making it an instrument of strength to break the enemy’s will. Maneuver commanders now had fire support that moved and thought as quickly as they could.

These examples illustrate how firepower, used with speed and concentration against weak points, offers a way to use firepower to assist maneuver by providing decisive concentrations of fire extremely quickly. This underscores the fact that maneuver doctrine does not mean excessive reliance on movement and deemphasis on fires. The two remain inseparable. A maneuver-oriented force, however, will use its fire assets more effectively and decisively. If necessary, it can fight outnumbered with confidence that superior doctrine gives it important advantages over larger but slower and more methodical adversaries. Maneuver-based warfare views battle not as an attritional exchange of massed fire systems, but as the dynamic application of maneuver and fires to shatter the enemy’s will — something very different.

In maneuver literature perhaps no single concept is more prominent than that of the operational art. The operational level of war has received so much emphasis in the last decade that one forgets that, for most of our history, the U.S. Army made do without the use of the term.

Operational art is important because it provides structure, coherence and doctrinal focus to the process by which battles and engagements are linked together or sequenced to achieve strategic objectives. Previously, the relationship between tactical engagements on the one hand and strategy on the other was both indistinct and somewhat tenuous. Although broadly-based strategic planning within a theater did exist, there was a tendency to prosecute campaigns through the “accumulation of tactical victories” in order to wear down the enemy.<sup>20</sup>

A vivid example of the contrast between this approach and true use of the operational art can be seen in Operation Desert Storm. The initial plan prescribed separate but related components: the air phase, the amphibious feint, the frontal holding attack along the Kuwaiti-Iraqi border, and the operational envelopment from the west. The objective, however, was not to force the Iraqis to give battle and be physically destroyed by superior allied technology and firepower. Instead, these phases were sequenced in order to bring about the panic and collapse of the identified Iraqi center of gravity in the Kuwaiti Theater of Operations — the enemy's ability to command and control his forces.

At no time did the enemy see what he expected. Fooled from the outset by an epic deception plan, his attempts to recover were frustrated by the speed and depth of the allied envelopment, the surprising success of the frontal attack across the border, and pin-point attacks directed against virtually every identified command and control facility in the theater. With surprising speed, the Iraqi will to resist evaporated as the enemy's "brain" died.

Many of the staff officers associated with the planning of Desert Storm were products of the School of Advanced Military Studies, the "School of the Operational Art" at Fort Leavenworth. Placed in key operational assignments in the divisions and corps of the field Army, they help to impart a shared doctrinal vision of the battlefield they have been trained to know exceedingly well. That vision is not concerned with "wearing down" the enemy. Instead, it seeks his early collapse by winning the clash of wills at the operational level of war.

## **The Maneuver Spectrum**

In bridging the gap from theory to reality, it is important to note that combat operations may exhibit a higher or lower maneuver *content* depending on circumstances which may be partly or wholly beyond the commander's control.<sup>21</sup> Critics who point out that combat is rarely a question of pure maneuver vs. pure attrition are speaking accurately (and often from experience). While maneuver theory provides a basic framework for analysis of battlefield problems and a set of basic operating assumptions, reality dictates that operations will have a higher or lower relational maneuver content depending on circumstances. The maneuver thought process should always be applied. But practical considerations may dictate a low measure of relational maneuver in a given operation.

A classic example can be found in John Masters' *Road Past Mandalay*.<sup>22</sup> In the China-Burma-India theater in World War II, Masters' Long Range Penetration Brigade ("Chindits") achieved remarkable results in the Japanese rear in the first few weeks after their insertion by air. Their operations are outstanding examples of maneuver operations. Eventually, however, casualties, fatigue, terrain, weather, availability of food and ammunition and declining morale from all of the above strictly limited their ability to move, think and act faster than the Japanese. Their operations took on a half-speed, methodical character with a very low level of relational maneuver content.

In this vein, commanders and leaders must always consider the capabilities of their units relative to the enemy. Some courses of action which may otherwise seem appropriate will actually be infeasible because of the physical or psychological condition of friendly forces, or because of logistical, weather, space or time considerations. The range of options may reduce to one: a direct force-on-force engagement where leadership, aggressiveness and firepower must determine success or failure. At all times, however, commanders should weigh these considerations against the opportunities offered by speed, concentration, deception and originality — the hallmarks of a maneuver-focused battle force.

## **The Future of Maneuver**

A close look at AirLand Battle doctrine reveals a clear link to maneuver thinking. Where the 1976 FM 100-5, *Operations*, focused on firepower, emphasizing force ratios, the destruction of enemy forces and the defense, the 1982 version which introduced AirLand Battle doctrine emphasized the operational art and the importance of human factors, stressed the role of maneuver and the importance of the offensive, defined the nonlinear nature of the battlefield, and called for speed, surprise and audacity as key fundamentals of the new doctrinal approach to warfighting. The 1986 FM 100-5 was more restrained in its advocacy of maneuver over fires but retained the essential thrust of the revolutionary 1982 document.<sup>23</sup>

The developing Training and Doctrine Command (TRADOC) vision of “AirLand Operations” may go even further. The next version of FM 100-5 will reaffirm these principles and place further emphasis on seizing the initiative in offensive and defensive battles, mission orders as a technique of command, the focus of effort to define responsibility and the commander’s intent as the basis of command and control. Smaller forces will make the battlefield more fluid and nonlinear than ever. Maneuver will be firmly imbedded in doctrine and the will of the opponent will remain the primary target.<sup>24</sup>

U.S. Army doctrine in the past fifteen years, beginning with the 1976 FM 100-5 and continuing through the 1982 and 1986 versions, has steadily evolved towards a maneuver approach to battle and operations. Clearly, AirLand Battle doctrine and maneuver theory are largely complementary. By whatever name, these concepts deserve continued application and refinement.

But talking the language of maneuver is not enough. Beneath the lexicon of AirLand Battle, behind the maneuver “buzzwords,” lie decades of tradition based on lavish resources and abundant firepower. Those days may soon be well behind us. An Army capable of maneuver-based AirLand operations needs more than new terminology and new manuals. It also needs professional development programs, leader selection and evaluation architecture and unit training regimes designed to support a distinctly different approach to fighting wars. A smaller, less robust Army must learn to win without overpowering force. Other armies have learned to do so. Can ours?

## NOTES

1. The term “maneuver warfare” is sometimes applied to the concepts and analytical framework discussed in this paper. Because of its emotional connotations, a legacy of the bitter exchanges between reformers and military professionals a decade ago, the label itself often detracts from serious examination of these concepts on their own merits and is not used in this discussion.
2. Samuel Huntington, “Playing to Win,” *The National Interest* (Spring 1986).
3. Ibid, 10-15.
4. A partial list of those who have commented on American reliance on “industrial” or “attrition” techniques and doctrines include Weigley, Hadley, Doughty, English, T.N. Dupuy, Michaelis, Luttwak, Fehrenbach, Hastings and Lind, as well as Huntington and others.
5. Implementing written doctrine may be the most difficult step in changing the way military forces fight. Without genuine changes in leader development, collective training and leader selection and evaluation processes, the leap to a different conceptual approach to warfare may be impossible — regardless of what is written in operations manuals.
6. This discussion of maneuver fundamentals is based upon William S. Lind and M.J. Wyly, *Maneuver Warfare Handbook* (Boulder: Westview Press, 1985), still the most influential and widely read source on the subject.
7. Karl von Clausewitz, *Vom Kriege* (“On War”), ed. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 90.
8. German victories in Poland and France, Israeli victories in the 1956, 1967 and 1973 Arab-Israeli wars and the Gulf War demonstrate that quick, decisive knockouts can be achieved by avoiding force-on-force engagements and paralyzing the will of the enemy. The important point, however, is not battle avoidance but rather the application of force against vulnerabilities which, when struck, will cause the collapse of resistance.
9. Huba Wass de Czega, “Army Doctrinal Reform,” in *The Defense Reform Debate*, ed. Asa Clark et al (Baltimore: The Johns Hopkins University Press, 1984), 103.
10. See Edward Luttwak, *Strategy: The Logic of War and Peace* (Cambridge: Belknap Press, 1987), 93.
11. This concept is based on Air Force Colonel John Boyd’s “Patterns of Conflict” briefing, references to which exist throughout the body of maneuver literature. See Lind and Wyly, 5.

12. See John L. Silva, "Auftragstaktik: Its Origin and Development," *Infantry* (September-October 1989).

13. In the author's opinion, commander's intent is often misunderstood. FM 7-72, *Light Infantry Battalion*, discusses the term in the chapter addressing the defense, but no precise definition appears and no amplifying examples are used. FM 7-71, *Light Infantry Company* (1987), defines intent as "the purpose of the mission ... that condition or situation to be achieved by the mission." FM 100-5 does not define the term, mentioning it only three times. Frequently, a statement of intent is little more than the mission, worded differently.

14. German defensive doctrine from 1916-1918 is an apposite example. See Timothy Lupfer, Leavenworth Paper No. 4, *The Dynamics of Doctrine: Changes in German Tactical Doctrine During the First World War*, (Fort Leavenworth: U.S. Army Command and General Staff College, 1982).

15. Viktor Suvorov, *Inside the Soviet Army* (New York: Berkley Books, 1984), 202.

16. Major Jeff Long, "The Evolution of Army Doctrine: From Active Defense to AirLand Battle and Beyond," unpublished M.M.A.S. thesis (Fort Leavenworth: U.S. Army Command and General Staff College, 1991), 103.

17. "The importance of firepower in Maneuver Warfare cannot be overemphasized." Lind and Wyly, 21.

18. Erwin Rommel, *Infanterie Greift An* ("Infantry Attacks"), (Vienna, VA: Athena Press, 1979), 270-275.

19. See R.J. Bidwell, "The Development of British Field Artillery Tactics," *Journal of the Royal Field Artillery* (October-November 1978).

20. Lind and Wyly, 24. Montgomery's allusion to "writing down" German armor during Operation GOODWOOD is an apt example.

21. See Luttwak, 95.

22. John Masters, *Road Past Mandalay* (New York: Harpers, 1961).

23. Long, 94.

24. See General John Foss, "Command," *Military Review* (May 1990) and "AirLand Battle-Future," *Army* (February 1991) and Major General Steven Silvasy, Jr., "AirLand Battle Future: The Tactical Battlefield," *Military Review* (February 1991).