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**Tactical Dislocation:
Force XXI Doctrine or Just Another Pretty Theory?**

by

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**TACTICAL DISLOCATION:
FORCE XXI DOCTRINE OR JUST ANOTHER
PRETTY THEORY?**

A MONOGRAPH
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ABSTRACT

TACTICAL DISLOCATION: FORCE XXI DOCTRINE OR JUST ANOTHER PRETTY THEORY? by MAJ David E. Funk, USA, 59 pages.

The U.S. Army is smaller today than at any time since before World War Two. With the dissolution of the Soviet Union, the Army is reducing significantly not only its size but also its forward presence, preferring instead to rely more on power projection. Notwithstanding the disappearance of the Soviets, there are still myriad contingencies around the world to which this small, power-projected force must react. As the Army continues to get smaller, it is also entering the information age through a modernization process called FORCE XXI. This monograph examines whether or not these factors make a new tactical doctrine -- specifically, a doctrine based on dislocation of enemy strengths -- possible and necessary.

The monograph begins by examining what both current and emerging tactical doctrine say and do in terms of three criteria: 1) How each views and addresses enemy strengths; 2) How each views defeat of the enemy; and 3) The level of flexibility each offers for a small, technologically advanced force, given the nature of future threats. Next, the monograph examines dislocation theory and defines each of the forms of tactical dislocation. Inherent in this examination is a look at the theoretical and historical soundness of the theory. Then, the monograph applies the three criteria to dislocation, in order to compare it with current and emerging doctrine.

Finally, the monograph discusses how the Army might go about adopting a dislocation-based doctrine. This discussion involves an examination of the phenomenon of defeat, a look at the defining characteristics of the future threat, and how to translate the concept of dislocation into action on the battlefield. In the end, this monograph concludes that a doctrine based on dislocation is not only necessary given a small U.S. Army and the threat it is likely to face, but it is also achievable using the capabilities of FORCE XXI technologies.

TABLE OF CONTENTS

I. INTRODUCTION	1
II. A LOOK AT ARMY DOCTRINE	5
Current Army Doctrine -- What We Say	6
Current Army Doctrine -- What We Do	9
Current Doctrine in Review	15
FORCE XXI Technologies -- Establishing a Common Baseline	16
Emerging Doctrine -- What We Say	17
Emerging Doctrine -- What We Are Doing	21
Emerging Doctrine in Review	22
III. DISLOCATION -- A DOCTRINAL SHIFT	23
Positional Dislocation -- The Missouri Boat Ride.....	26
Functional Dislocation -- Making the Enemy Bring a Knife to a Gun Fight	28
Temporal Dislocation -- The Fight For Time	28
Moral Dislocation -- A Mind is a Terrible Thing... ..	31
Dislocation in Review.....	32
IV. IMPLEMENTING DISLOCATION	34
Understanding Defeat	34
Understanding the Future Threat	37
Translating Dislocation into Action.....	42
V. CONCLUSION	46
ENDNOTES	48
BIBLIOGRAPHY	56

I. Introduction

The US Army is undergoing profound change. Global peer threats to US military dominance have disintegrated, replaced by numerous regional (albeit, determined) foes. With the disappearance of a large-scale European opponent, the Army's balance between forward presence and power projection has shifted decidedly toward the latter. Faced with massive budget cuts, the Army has reduced its force structure radically. In simple terms, this means in the future a small, forward-projected force may have to fight outnumbered and win. Juxtaposed on these conditions is the unfortunate fact that Americans have come to expect -- indeed, one might say demand -- short wars, decisive victories, and few friendly casualties.

Enter technology and Army FORCE XXI. The digital revolution is here. Information dominance, situational awareness, and precision strike are its watchwords. The Army has embraced modernization as the leverage that will allow a small, forward-projected force to fight effectively and achieve decisive victory. There is no doubt the commander of the future will have at his hands an unsurpassed technological advantage over his foe. He will see more of the battlefield, move faster through that battlefield, and shoot farther and more accurately than ever before. Still, the question remains whether that commander will win.

As Martin van Creveld observes in *Technology and War*, "...the best military technology is not that which is 'superior' in some absolute sense. Rather it is that which 'masks' or neutralizes the other side's strengths, even as it exploits his weaknesses."¹ Creveld recognizes correctly that technology will only be decisive to the extent it is used to take advantage of the enemy. In other words, the Army can exploit new technologies to their fullest only by embracing both a doctrine and an organization which fit with these technologies.

One intriguing approach to doctrinal change is offered by Dislocation Theory. The central question this monograph will answer is: Can our army remain poised to meet the myriad

challenges of future warfare by employing a tactical doctrine based on dislocation - the art of rendering enemy strengths irrelevant?² In order to answer this question, this paper will compare both current and emerging tactical doctrine with dislocation-based doctrine in terms of three questions:

1. How does each view, and plan to address enemy strengths?
2. How does each view defeat of the enemy?
3. Which offers a more flexible approach for the small, technologically advanced force of the future, given the probable nature of future threats?

Interestingly, the past half-decade of change in the Army has renewed an old debate concerning what our doctrine is, versus what it should be. In one corner sit the maneuverists, who describe the traditional American way of war as an attrition-based, methodical, and brute force approach to battle where the art of war takes a back seat to massive firepower and smash mouth tactics.³ In the other corner reside the maneuver school critics (the maneuverists would call them attritionists, but in truth, very few people claim the moniker). These critics deride maneuverists' seeming infatuation with Heinz Guderian and *Auftragstaktik*, (they call this infatuation Wehrmacht penis envy)⁴, and quickly point out that, after all, the Germans lost WWII.

The debate has been an important and thought provoking one, but it is losing its luster. While the two sides have busied themselves quoting their favored theorist, the resulting din has created a "false dichotomy"⁵ that fails to recognize the fact that every maneuver solution requires a certain level of attrition, and vice versa. An unfortunate byproduct of this debate is a "true dichotomy" in US Army doctrine, which has become decidedly maneuver oriented in writing, but firepower/attrition oriented in its execution. By examining both what we write and what we do, this paper will establish how current doctrine answers each of the aforementioned questions. Further, this paper will examine where our doctrine is headed with respect to the future

battlefield. To facilitate this examination, the paper will include a brief overview of FORCE XXI technologies. It will not attempt to describe each of the systems in detail, rather to grasp the essence of promised capabilities. In other words, the paper will explain what it means to digitize the battlefield.

When reviewing Army doctrine, the paper will address only the realm of traditional armed conflict at the tactical level -- that is, at corps level and below. It will avoid discussion of stability and support operations. At the tactical level, Army units mainly conduct offensive and defensive operations; in effect they either attack or defend. Sometimes higher formations combine these activities to accomplish military objectives. This paper will restrict its examination to consideration of attack and defense.

Next, this paper will define Dislocation Theory and examine its theoretical foundation. By examining the four types of dislocation - positional, functional, temporal, and moral⁶ - the paper will offer distinctions between a dislocation-based doctrine and current and emerging tactical doctrine in terms of the established questions. The term "dislocation" may appear new to the reader. However, this monograph will show that Dislocation Theory has a long-standing and solid historical and theoretical foundation. This paper contends that dislocation offers a compelling doctrinal method for achieving an asymmetrical advantage over the enemy and provides a better way to achieve defeat. Critical to this examination is the question of what the enemy of the future will look like. While no one can predict with any certainty who that enemy may be, there are general characteristics common to many potential future threats. In any case, one may be assured that the hopelessly exposed, poorly led, symmetrically arrayed force over which we achieved our most recent combat victory is unlikely to represent the threat of the future.

Finally, this paper will suggest how the Army might approach the application of dislocation-based doctrine. This approach will recommend changes in three interrelated areas: 1)

leader development;, 2) written doctrine (what we say); and 3) training methodology (what we do). Dislocation is, more than anything, a philosophy that promotes envisioning a decisive fight against a disadvantaged enemy. Cultivating this new way of thinking is integral to achieving a dislocation-based doctrine.

The US Army is uniquely poised now, in a time of relative peace, to consider the doctrinal shifts that both are necessary as a result of down-sizing and the changed threat, and are possible with FORCE XXI technologies. Can a smaller force with the anticipated high-tech capabilities actually serve the nation better? The answer is yes, but only if the force uses the proper doctrine to make technology work for it. It is not technology in and of itself, but the way technology is integrated into a compatible fighting doctrine, that truly offers opportunities for leverage over our future foes.

II. A Look at Army Doctrine

*"At the tactical level of war, battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces."*⁷

- FM 100-5

With regard to Army doctrine, often a dangerous chasm exists between what we say and what we do. The former is based largely on theory and historical experience, the latter, on training models where the application of massive firepower aimed at destruction/attrition of enemy strengths determines victory. Since, as someone once correctly observed, "If we don't do it, it ain't really doctrine,"⁸ there is room for concern about which current doctrine -- what we say or what we do -- is driving future doctrine. It appears to be the latter. By examining both what we say and what we do, this paper will establish how our doctrine measures up with regard to the three established criteria.

Current and emerging tactical doctrine (especially as we practice it): 1) views enemy strengths as relevant (i.e., useful to the enemy) and promotes destruction/attrition of those strengths through dominant firepower; 2) views such destruction/attrition as the primary means of defeat; and 3) is largely inflexible with regard to the threat environment of the future. We reinforce this doctrine through our training, both at Combat Training Centers (CTCs) and in computer-generated simulations where strength-on-strength, symmetric clashes are the norm, and where maneuver is important only to the extent that it facilitates bringing massive firepower onto an enemy strength. Further, new technologies are leading to a future doctrine predicated on finding and destroying enemy forces (strengths and weaknesses alike, thereby negating even the need to make a distinction) at a distance. While overwhelming the enemy throughout the depth of the battlespace through precise, long range fires is a noble goal, it ignores the historical realities of warfare and sells short the true potential of FORCE XXI technologies.

Current Army Doctrine -- What We Say

Since the attack represents the decisive form of war, it is logical to begin a doctrinal probe there. In discussing offensive operations, FM 100-5 summarizes the attack thusly:

...in any offensive operation, ground commanders try to collapse enemy defenses as rapidly as possible...They do this by massing fires, concentrating units only when necessary. They also do this by retaining the initiative, striking enemy weaknesses, [therefore one assumes, avoiding enemy strengths] [author's comment], [and] attacking the enemy in depth...Occasionally, attacking commanders maneuver to avoid battles that would slow or weaken the offensive.⁹

In a chapter devoted to the fundamentals of the offense, the reader is told further, "At the point of their attack, commanders avoid the enemy's main strength, turning him out of his defensive positions...and forcing him to fight in an unintended direction..."¹⁰ While the manual concedes that more direct attacks are possible, it warns that, "...such attacks are nearly always costly in lives and material."¹¹

In reading the Army's other doctrinal manuals, one is exposed to many of the same ideas. Field Manual 100-15 Corps Operations addresses offensive operations by stating:

The corps can achieve decisive results by massing overwhelming combat power at the point of attack while avoiding the enemy's main strength. By attacking the enemy's flanks or selecting a location or time of attack when the enemy is most vulnerable, the corps can disrupt the cohesiveness of enemy defenses and force him off his plan...¹²

Similarly, the Army's manuals on division and brigade operations advise the commander to cause the collapse of enemy defenses when possible through massing combat power on weaknesses, avoiding strengths, and exploiting successes.¹³

Thus the doctrinal construct for the attack is established: leaders attempt to collapse the enemy defense by massing fires in order to strike weaknesses, attacking the enemy in depth, and avoiding (through maneuver) any battles which would slow or weaken the offensive (such as against enemy strengths). Liddell Hart, stalwart maneuverist and proponent of the indirect approach, would be proud.

Now we consider what our doctrine says concerning the defense, the less decisive but stronger form of war. Referring once again to the Army's capstone doctrinal manual, one reads that, "The immediate purpose of defensive operations is to defeat an enemy attack," and that, "Military forces defend only until they gain sufficient strength to attack."¹⁴ Doctrine recognizes two defensive patterns: mobile defense and area defense. The former orients, "on the destruction of the attacking force by permitting the enemy to advance into a position that exposes him to counterattack by a mobile reserve." The latter orients, "on retention of terrain by absorbing the enemy in an interlocking series of positions and destroying him largely by fires."¹⁵ Perhaps because one assumes the initiative belongs to the attacker, there is no mention of enemy strengths and weaknesses with regard to the defense. There is only an orientation either on the enemy or on terrain, with the end result being a destroyed enemy force.

Doctrinal manuals from corps through brigade level describe the defense in similar fashion. In FM 100-15 Corps Operations one reads, "The major difference between the two [forms of defense] is the orientation of the defense. The mobile defense orients on the destruction of the enemy force. The area defense orients on terrain retention."¹⁶ In discussing the former, the manual states, "The mobile striking force conducts the decisive attack against a penetrating enemy force...[it] generally uses an indirect approach...[striking] the rear or an exposed flank of the enemy force."¹⁷

In FM 71-100, Division Operations the reader is told, "The mobile defense orients on the destruction of the enemy force."¹⁸ Critical to the success of the mobile defense according to the FM is the commander's visualization of the battlefield and his identification of, "a decisive point--the place he sees as the most advantageous to allow the enemy to proceed in order for the striking force to destroy the force."¹⁹

In discussing the area defense, the manual begins by informing the reader, "The area defense focuses on denying the enemy access to designated terrain or facilities for a specified

time, rather than on destroying the enemy. [author's emphasis]" However, the first sentence in the very next paragraph states, "The area defense is normally organized around static defensive positions in depth, seeking to destroy the enemy forces [author's emphasis] with interlocking fires."²⁰

While FM 71-3 concedes that, "A brigade generally does not conduct a mobile defense...,"²¹ the descriptions of the two forms of defense, along with the purposes and methods for each, parallel closely our other doctrinal manuals. When describing the area defense in depth, the FM states, "The flanks of the enemy main effort are counterattacked to isolate and destroy enemy forces in the MBA [author's emphasis]."²² In those rare instances when a brigade does conduct a mobile defense, the reader is told, "...destruction of the enemy is normally the primary objective...The brigade commander provides the striking force commander with the decisive point, objective, and EAs where the enemy force is to be destroyed."²³

Within the context either of attack or defense, Army doctrine defines operations as occurring within a battlefield organization. In short, "three closely related sets of activities characterize operations within an AO [Area of Operations] -- deep, close, and rear operations."²⁴ Current doctrine promotes simultaneous actions within the AO, such that the enemy perceives one continuous operation against him through the depth of his formation. While deep operations may sometimes be decisive, clearly current doctrine envisions the close fight as the decisive struggle. This is evident when FM 100-5 states, "The enemy is best defeated by **fighting him** close and deep simultaneously. In doing so, Army forces use deep operations to set the conditions for decisive future operations."²⁵ In this context, the deep battle (as well as the rear battle) is an enabling operation which sets the conditions for decisive close operations. It will be important to keep this relationship in mind during the discussion of emerging doctrine.

Current Army Doctrine -- What We Do

*"I saw the U.S. mass firepower better than any other nation in the world...maneuver merely got our firepower assets into position to annihilate the Iraqis, whether on the ground or during the preparatory air offensive -- it's the American way -- in spite of AirLand Battle Doctrine."*²⁶

-Letter from a field grade armor officer who participated in the Gulf War

The essence of what we do in battle is composed of two interrelated realms -- how we train, and how we fight. The former is the product of experiences gained in computer generated simulations and Combat Training Centers (CTCs). The latter is of real combat experience at the tactical level of war. The oft-quoted notion that the former has no bearing on the latter ("Yeah, but it's just a simulation. We wouldn't really fight that way") is absurd. The way we train, how we endeavor to achieve enemy defeat in simulated combat, is exactly the way we will fight. This has always been so.

A large portion of current tactical training involves computer simulations, based on some variant of Lanchester's equations of attrition.²⁷ Each year at the U.S. Army Command and General Staff College in Fort Leavenworth, Kansas, all future battalion and brigade commanders attend the School for Command Preparation (SCP). After a week in the Pre-command Course, the tactical commanders move on to the Tactical Commander's Development Course (TCDC). The purpose of this one-week course is to, "Enhance future tactical commanders' ability to synchronize combat power and exercise battle command."²⁸ The students in this course plan and rehearse a series of offensive and defensive fights, which they then execute using, "...Interactive simulation to build commander's experience,"²⁹ namely a computer model known as JANUS. In addition to the TCDC students, each year, 64 groups of students attending the Command and General Staff Officer Course (CGSOC) fight at least one battle (typically a brigade defense) using the same simulation.

In these simulations U.S. (BLUEFOR) and threat (OPFOR) units are represented by computer icons. The OPFOR employs "typical" Warsaw Pact organization and doctrine. When

the "battle" begins, simulation facilitators issue a series of computer commands to their respective icons based on the tactical plan, and a fight ensues. It has become axiomatic within the military that these simulations are only that -- simulations, and that they cannot replicate well the moral or cybernetic domains of combat.

Unfortunately this very fact, though well-recognized, causes a largely unrecognized -- perhaps unacknowledged is a better word -- phenomenon. The fact of the matter is simply this. In simulated combat, based on Lanchester's equations of attrition, there are lessons learned and there are "lessons learned." The BLUEFOR commander and his staff may well learn after several iterations, for instance, how to write an order that synchronizes combat power, masses at the decisive point, and integrates all the battlefield operating systems. They also "learn" very quickly that an enemy tank battalion of 31 tanks has exactly 31 centers of gravity. If they do not defeat (read destroy) all of them, they may lose the battle.

While the experiences of any one BLUEFOR group cannot be considered representative, the combined experiences of the nearly 400 colonels and 1000 majors each year certainly is illustrative. Interviews with the BLUEFOR interactors at the Fort Leavenworth JANUS facility revealed some interesting, though not necessarily surprising insights. First of all, upwards of 90% of all U.S. staffs, whether attacking or defending, pick as the decisive point the place where BLUEFOR and OPFOR strengths meet. More significantly, these staffs view the destruction of the enemy strength as the defeat mechanism. Fewer than 25% of these groups have enough combat power at the end of the fight to conduct follow-on operations without a major regeneration effort.³⁰ As one interactor put it, "When a Task Force is facing an attacking enemy tank regiment on very restrictive terrain, there is little choice concerning how to defeat him; you must kill him."³¹

Mr. Lee Denniston, Senior OPFOR Interactor for the JANUS team at Fort Leavenworth, has participated in countless JANUS rotations as the "enemy." According to Mr. Denniston, the

OPFOR will cease operations and “go to ground” when they are attrited to 45% combat power.³²

The BLUEFOR commander and his staff do not know this going in. This is a fact they must “learn,” and they do so very quickly. Given the limited -- indeed, almost non-existent -- logistical play in these scenarios and the short duration of the battles (usually less than four hours), the BLUEFOR commander is forced into a very METT-T constricted environment where he learns simply to inflict as much destruction on the enemy as possible in order to “win.”

There is no advantage gained by attempting to avoid enemy strengths and attack weaknesses, as our written doctrine describes. Indeed, in a simulated environment where there are no apparent OPFOR weaknesses and where each icon fights with the tenacity of a Japanese soldier in the Pacific, the only advantage is gained by killing everything. Whether every enemy should die eventually is not the issue. The point is whether that destruction -- especially destruction of enemy strengths -- should serve as the defeat mechanism. Historically, this is a costly and inefficient way of fighting. Yet this is the way we train our future battalion and brigade commanders every day.

Once an officer assumes command of a combat battalion or brigade, he soon will find himself in another of the Army’s training arenas, that of the Combat Training Centers (CTCs). At the CTCs, the OPFOR computer icon is replaced with a living, breathing, highly trained enemy. The CTCs offer a tough, realistic scenario for BLUEFOR units. As one author put it, “As an infantryman, I have faced real battle as well as the simulated battle against the OPFOR. Real battle was far easier!”³³ At the CTCs, soldiers get cold, tired, and hungry; vehicles and radios break down; units get lost. In short, the BLUEFOR are thrust into a domain where Clausewitzian notions of fog and friction rule the day.

Through the use of the Multiple Integrated Laser Engagement System (MILES), BLUEFOR and OPFOR units engage in two grueling, stressful weeks of force on force battles designed to improve the BLUEFOR’s planning, preparation and execution of tactical combat

operations. After each CTC rotation, the BLUEFOR unit receives a take-home package containing lessons learned -- the foundation used to develop future training strategies. It is no exaggeration to claim that the CTCs have contributed more to brigade and battalion tactical proficiency than any other training device the Army uses.

That said, there is still a tendency for BLUEFOR units to learn many of the wrong lessons about how to achieve defeat. This is because the CTCs, like their computer counterparts largely ignore the moral and cybernetic domains of battle. The BLUEFOR commander receives no tangible benefits, for instance, from attacking the enemy command and control. If the regimental commander dies, so be it. His subordinates are so well-trained and motivated, know the terrain so well, that no one misses a beat. Additionally, the live OPFOR at the CTCs are no more inclined to surrender or retreat than are their icon-based brethren. The Army justifies these characteristics with a "worst case scenario" logic. The idea, of course, is that if BLUEFOR can defeat the enemy at the CTCs, they can defeat any potential future threat.

The problem is that defeating the OPFOR means nothing more nor less than destroying him -- all of him. Although MILES equipment accurately reflects the simulated destruction that may occur from firepower, (with a flashing yellow "whoopie" light), it cannot replicate actual destruction. On the CTC battlefield, there are no burning vehicles, no body bags, nor any letters home to bereaved relatives. An enemy tank battalion that is reduced to a platoon-sized element does not stop, does not withdraw, and does not stop firing accurately. In this environment war is reduced to a simple battlefield calculus where the "...cumulative exchange of firepower"³⁴ and resulting attrition determine the victor. In a situation eerily reminiscent of our computer models, the only advantage gained is by causing the OPFOR to experience more yellow lights than the BLUEFOR. Frederick Lanchester is alive and well on our training battlefields. A transition now from the training battlefield to the real one will reveal the profound influence of the former on the latter.

In the winter of 1991, the world witnessed a brilliant 42-day military campaign that demoralized, defeated, and routed the world's fourth largest army. In hindsight, many post-war analysts touted Operation Desert Storm as a validation both of our doctrine and our training experiences. As for the former -- whether we validated AirLand Battle doctrine -- the reviews are mixed. As for the latter, there is strong evidence that the seminal influence of Army training models was present. It was our great fortune that this influence resulted more in lost opportunities than in lost lives.

In planning the ground campaign, the Commander in Chief, Central Command (CINC, CENTCOM) identified the elite Republican Guard Forces Command (RGFC) -- an operational reserve -- as the Iraqi center of gravity. Third Army, CENTCOM's Army component, developed a concept which, "...called for a two-corps attack on a broad front that would block the Iraqi routes of escape and destroy the Republican Guard Forces Command."³⁵ General Schwarzkopf made his intent for this attack clear when he said, "I want VII Corps to *slam* into the Republican Guard [emphasis in original]."³⁶

The VII Corps' tactical task was clear -- destroy the RGFC (an enemy strength) in zone. How the corps planned -- and in the event, attempted -- to achieve this destruction provides an interesting insight into the army's tactical *modus operandi*. First, one must understand a few facts concerning Iraqi forces in the Kuwaiti Theater of Operations (KTO). The RGFC consisted of two armored divisions (1st Hammurabi and 2d Medina), one mechanized division (3d Tawakalna), and two motorized divisions (6th Nebuchadnezzar and 7th Adnan). Additionally, there were various regular army units, both mechanized and armored, dispersed among the RGFC proper, throughout the theater.³⁷ In depth and width, these combined forces were arrayed over an area approximately the size of South Carolina.³⁸ Clearly, there were strengths and there were weaknesses in this defensive array.

Several options were open to the Iraqis in the face of a ground attack, but in reality, relentless operational pressure and absolute air supremacy meant that they could conduct only limited defensive movement, and not large-scale tactical maneuver. Indeed, the VII Corps commander himself predicted (quite correctly) that, "...the Iraqis will defend from positions about where they are now."³⁹

Given the enemy array, VII Corps expected three fights, first against the entrenched front-line defending infantry, second against Iraqi tactical reserves (regular army), and third and most importantly, against the RGFC.⁴⁰ Based on, "...various means of analysis and simulation...and professional judgment,"⁴¹ VII Corps developed a six-phase plan which would allow the corps to, "...[slam] into the RGFC with a three-division fist."⁴² The corps' challenge, according to its commander, was, "to keep his own forces continually arrayed...in time, space, and distance in relation to one another for the first two days, so he could have all seven of his FRAGPLAN options to choose from when he saw the final RGFC disposition."⁴³ In other words, "the absolute need for three heavy divisions at the point of impact with the RGFC,"⁴⁴ in the third fight dictated that this complicated and somewhat unwieldy "closed fist" approach be maintained in the first two fights, where defeat and not destruction was the goal. Clearly this resulted in a tempo of operations that did not suit the theater commander.

This paper does not question the need to destroy the RGFC. Operational considerations aside, there may have been political/strategic reasons for such destruction.⁴⁵ The VII Corps task to accomplish that destruction was unambiguous and, one assumes, non-negotiable. Too, one must not forget that the VII Corps plan had at least the tacit, if not explicit, approval of the CENTCOM commander. But again, it must be emphasized, the need to destroy an enemy strength should not necessarily lead one to develop a tactical plan which sees that destruction as the primary measure of defeat. One wonders if perhaps a less concentrated, less coordinated

approach which sought first to defeat the RGFC by exploiting its weaknesses, then achieved its destruction, would not have been quicker.

In the event, VII Corps', "...inexorable advance of irresistible destructive power,"⁴⁶ and the coordinated, methodical approach it required, actually led to far less destruction than anticipated. Because the Iraqis had time to reorient their defenses, many of their forces escaped into the Basra pocket, from which they moved north to safety after the politically-induced cease fire. The end result was the perception (however untrue it may be) of a failed exploitation of a defeated enemy, a fact which Schwarzkopf among others, has since lamented.⁴⁷

Theorists have offered numerous explanations for the U.S. Army's infatuation with superior firepower and destruction. Certainly among these explanations is the simple fact that destruction is very objective and is empirically quantifiable. It fits well with our computer models. Defeat, on the other hand, is largely subjective and difficult to measure. Also, as historian Christopher Bellamy points out, "Whatever the peacetime predilection with movement, soldiers in real war place a premium on firepower."⁴⁸

Current Doctrine in Review

By way of review, current tactical doctrine: 1) Views enemy strengths as relevant to the outcome of an engagement and seeks to destroy those strengths through the application of massive firepower; 2) Views the destruction of those strengths as the primary means of defeat; and 3) Provides little flexibility for a small (possibly outnumbered), technologically advanced force, in that it provides only one method of defeat and has a myopic view of the future threat.

This method of war is characterized, in a word, as "confrontation," defined as the tendency, "...to face (something dangerous or dreaded) without flinching or avoiding..."⁴⁹ As the Army moves towards FORCE XXI, there are indications that our "premium on firepower" will

become stronger than ever. The look to future Army doctrine begins with a review of FORCE XXI technologies.

FORCE XXI Technologies -- Establishing a Common Baseline

After both the collapse of the Soviet Union and our victory in the Gulf, the Bush administration directed DOD leadership to begin focusing on a capabilities-based, rather than a threat-based military.⁵⁰ To meet the DOD challenge, then Army Chief of Staff, General Gordon Sullivan examined how to maintain the Army's relevance in a rapidly changing strategic environment. Integral to this examination was General Sullivan's recognition that technology was ushering in a new era - the information age. In order to stay competitive, the Army would have to evolve from an industrial-age force to an information-age force.⁵¹

General Sullivan then developed a campaign plan for achieving such a force. As part of that campaign he identified five critical capabilities for the Army of the 21st century:

Dominate Maneuver,
Project and Sustain the Force,
Win the Information War,
Conduct Precision Strike, and
Protect the Force.⁵²

Arguably, of the five capabilities, the third -- winning the information war -- is, or should be, the most important. General William Hartzog, TRADOC Commander, echoed this sentiment when he described the essence of FORCE XXI technologies thusly: "Where am I? Where are my buddies? Where is the enemy?"⁵³ With these three elements of information, described as situational awareness in current vernacular, the force of the future is poised to achieve the other four of General Sullivan's capabilities. Without this information, the other four are difficult to achieve.

The draft 1997 version of Field Manual 100-5 Operations also recognizes this fact. In chapter five, the manual lists the Army's five core functions as: see, shape, shield, strike, and

move.⁵⁴ While conceding that these functions should not be viewed separately, the authors submit correctly that the first of these -- see -- is the basis for the others, when they write, "The degree to which a force can see largely determines how effectively it performs and combines the other core functions."⁵⁵ Thus the baseline for Army FORCE XXI technologies is established -- a technologically advanced force, capable of achieving information dominance (seeing) in order to facilitate other critical capabilities. A later look at what we are doing will illustrate which of these other capabilities is receiving the most emphasis.

Emerging Doctrine -- What We Say

FORCE XXI doctrine has yet to be written, at least completely. There are Draft versions of new doctrinal manuals emerging from various locations, and many of our existing FMs contain references to FORCE XXI operations. Additionally, several authors have written extensively on the doctrinal implications of digitizing the battlefield. There is sufficient data available to examine the essence of this matter. As with the examination of current doctrine, the look to the future begins with the decisive form of war -- the attack.

The final draft version of the 1997 FM 100-5 Operations was released in August. In this new FM, the reader is introduced to the six offensive imperatives.⁵⁶ It is the second imperative - - attack weaknesses, avoid strengths -- that provides a line of continuity from current to emerging doctrine. However, when discussing this imperative, the FM makes it clear:

Having discovered weaknesses, the force must attack the *right ones* [emphasis in original]. Attacking a weakness has utility only if it leads to the enemy's strength in the way the attacking force wants. Attacking a weakness that does no genuine harm, which is not a decisive point, is counterproductive.⁵⁷

This important insight concerning enemy weaknesses has been absent in past doctrinal manuals. It is refreshing to see it addressed. However, the notion of how to deal with enemy strengths -- avoiding them -- remains constant, and it is important to pause here and note this as a cause for concern.

The issue is not that avoiding enemy strengths is wrong. On the contrary such a notion is obvious to the most elementary tactician, and it is one possible way of achieving dislocation. But the very simplicity of the idea causes it to miss one of the enduring realities of warfighting. The issue is -- and this is the essence of the anti-maneuverists' arguments for the past twenty years -- sometimes an enemy strength cannot be avoided. In this case, the leader must develop another way to address this strength. As our training experiences illustrate, when placed in an environment where avoiding enemy strengths is impossible, we attack them. That is our answer, because our doctrinal manuals do not address any other options. We have become so inculcated with this notion that even when situations arise where avoiding enemy strengths is possible, we still attack them. There is in fact a middle ground, and this paper will address it presently.

There is very little written in our other doctrinal manuals concerning future offensive operations. In fact even the new FM 100-5 does not mention digitization per se, nor whether digitization makes this refinement of doctrine possible or necessary. However, FM 71-100 Division Operations contains a chapter entitled "Fighting on the Digitized Battlefield." The opening scenario in this chapter provides a glimpse into how the Army thinks new technology will affect offensive warfighting:

The division commander moved with 1st Brigade as his division, equipped with modern technological enhancements, continued its attack in zone... He could see Task Force Dragon, 1st Brigade's lead task force, closing quickly on its electronic line of deployment....LTC Smith, the task force (TF) commander, entered the launch command into his onboard computer with one key stroke...His advanced land combat task force of M1A3s and M2A5s rolled across the desert toward the enemy positions 25 kilometers away...The defender was alert, well armed, and ready. His forces were much better than the Iraqi army destroyed in Operation Desert Storm. His new training technologies, long-range antitank (AT) weapons, and improved T-80 tanks had given him confidence...LTC Smith's vehicle and his rear command post synchronized their common view displays of the zone of action. They could see that most targets had already been acquired by UAVs, processed and correlated at ground centers, and attacked by Comanches with blinding speed and violence. The hulks of dug-in enemy vehicles were smoldering as the task force rolled past. (Obviously the enemy had not been ready for the Comanches' stand-off range and "smart" munitions.)...Friendly artillery was being fired with pinpoint accuracy from the recently acquired advanced field artillery system guns, with each enemy position

taking a precision "burst" of advanced projectiles in a time on target (TOT)...The defender was no match for the violent combat power massed on him. It must have seemed to him like both magic and a nightmare--not a battle, but an almost instantaneous blanket of destruction accurately pinpointed across his entire force. The enemy commander could only watch as his dug-in tanks and AT weapons were destroyed in a 15-second wave of precision task force fires...It was over in minutes. The Task Force Dragon infantry dismounted and, in total darkness, rounded up stunned groups of prisoners...LTC Smith's digital monitor read... "OBJECTIVE 2005 SECURED!"⁵⁸

Here we see an enemy that is strong, ready, well-trained and equipped, and yet hopelessly outmatched by American firepower. There is no attempt -- indeed, there is no need -- to avoid strengths. The division of the future will see everything, and everything its sees it will destroy. Notwithstanding the fact that this scenario smacks of Desert Storm, (first oak leaf cluster), we must ask ourselves whether it represents reality, both in terms of the enemy we are likely to face in the future and the true possibilities offered by digitizing the battlefield. The one "reality" it does reflect is that of the computer simulation, which, as this paper has established, uses destruction as the primary means of defeat. Unfortunately, this "reality" is driving future doctrine.

With regard to the defense, the new FM 100-5 parallels closely the current manual when it states, "Defensive operations resist, defeat, or destroy an enemy attack."⁵⁹ It replaces the concept of "Defensive Patterns" with "Types of Defensive Operations" and adds Retrograde to the list.⁶⁰ This addition makes sense given that at least part of a force conducting a mobile defense will have to conduct a type of Retrograde (specifically, a delay). With regard to the other two types -- Mobile Defense and Area Defense -- there is little change from current doctrine.

In addressing the former, the FM states, "Mobile defenses are force-oriented operations designed to defeat and ultimately destroy an attacking force."⁶¹ Like our current doctrine, the manual emphasizes the decisive role of the striking force to destroy the enemy. Also, like our current doctrine, the manual leaves open the question of what part of the enemy the striking force

should attack. Given the probability that an enemy main effort (strength) will attempt the penetration of our defense, a small leap of logic leads to the obvious conclusion.

The area defense seeks to, "...deny the enemy access to specific terrain or facilities for a specified time. Unlike the mobile defense, [it] does not seek outright destruction of the attacking force [author's emphasis]."⁶² The new FM 100-5 does not contradict itself blatantly in the very next paragraph, as does our current FM. Instead, it asserts that a numerically inferior force in an area defense should focus on halting or canalizing and delaying the enemy rather than, "absorbing the enemy in an interlocking series of positions and destroying him largely by fires." The difference may be only semantic, but the emphasis on destruction is gone.

As with the attack, there is no link established between FORCE XXI technologies and the necessity for a refined defensive doctrine. Further, there is next to nothing written in our other doctrinal manuals concerning a digitized force in defense. Appendix E of FM 71-3 The Armored and Mechanized Infantry Brigade provides one exception when it addresses the effects of digitizing the heavy brigade by stating that the digitized brigade employs both the attack and defense as "decisive operations [which are] aimed to overwhelm the enemy."⁶³ Other than that, there is only the liberal use of the word "digitized" inserted here and there to describe business as usual.

As with our current doctrine, the new FM 100-5 describes both offensive and defensive operations as occurring within a battlefield organization. This organization is renamed the offensive and defensive framework, respectively, and in addition to the traditional deep, close, and rear operations, it adds reconnaissance operations. There is still an emphasis on the close fight as the decisive operation, with the others serving as shaping or enabling operations.⁶⁴ Evidence thus far, however, suggests that our doctrine is reflected more by what we do than what we write. What we are doing, or attempting to do, is shift the decisive operation to the deep fight.

Emerging Doctrine -- What We Are Doing

"The relationship between fire and maneuver may undergo a transformation as armies with high technology place increasing emphasis on simultaneous strikes throughout the battlespace..."⁶⁵

- TRADOC Pam 525-5

"We'll use long-range fires as the spearhead of the attack to the extent that ground maneuver forces may only need to mop up after the fires."⁶⁶

- General (retired) Glenn K. Otis

One of the primary results of digitizing the battlefield is an increase in the size of the battlespace -- the area of the battlefield where "[c]ommanders seek to dominate the enemy..."⁶⁷ The proliferation of sensor technology -- the ability to see -- coupled with advances in Precision Guided Munitions (PGM) and communications has resulted in a doctrinal move to, "...reduce, if not entirely eliminate, the time and need to shape the battlespace..." through the concept of, "...deep and simultaneous attack..."⁶⁸ Given the previously established propensity of the U.S. Army to view destruction as synonymous with defeat, one may guess how we envision "dominating the enemy throughout the battlespace."

There is a vociferous calling among many in the Army to reconsider the traditional role of fire support.⁶⁹ Universally recognized as the greatest killer on the battlefield, but relegated to the mundane role of maneuver support, fires can now employ advanced sensor technology and PGM throughout the battlespace to assume their rightful place as the decisive element of combat power. So the argument goes. This is not the first time the Army has explored this concept.⁷⁰ But, the enduring images of the incredible destruction wrought by high-tech, long-range weaponry in Desert Storm have renewed the debate.

It is perhaps understandable that the need to extend the battlespace and to dominate the enemy within that battlespace would lead to a call for the ascension of fires. After all, the dual technologies of battlefield sensors and long-range precision strike have increased at a much greater pace than have the technologies associated with maneuver, which is still limited largely

by the capabilities of protection and of the internal combustion engine. The fact that this phenomenon is understandable makes it no less lamentable to many.⁷¹ This paper will explore some of the concerns associated with this phenomenon in a section on the threat of the future.

Emerging Doctrine in Review

Emerging tactical doctrine is simply confrontation, writ large. Returning to the evaluation criteria, we see that emerging doctrine: 1) No longer needs to view enemy strengths as relevant or irrelevant, but simply as an array of targets to be destroyed through precision long-range fires; 2) Views such destruction as the method of defeat; and 3) Is perhaps even less flexible than current doctrine in that it relies on a very tentative and as yet unproved, (except in simulation), electronic link between sensor and shooter. Additionally, it suffers from the same myopia as current doctrine in that it foresees a symmetrically arrayed future enemy.

Having established the propensity of the U.S. Army to employ massive firepower, and destruction of enemy strengths, as the means of defeat, this paper will now introduce a new doctrinal paradigm based on dislocation. Here the reader will see the middle ground that may exist between avoiding enemy strengths, which is desirable but not always possible, and attacking those strengths, which is often very costly in lives, equipment, and lost opportunities.

III. Dislocation -- A Doctrinal Shift

*"Thus a victorious army wins its victories before seeking battle; an army destined to defeat fights in the hope of winning."*⁷²

- Sun Tzu

When attempting to define a new term in a way that will have some applicability to the military, one is never too far wrong in consulting Webster's dictionary for a known point from which to shift. There, one reads that to dislocate is, "to put out of place: as...to put (a body part) out of order by displacing a bone from its normal connections..." and, "to cause confusion in : cause to deviate from a normal or predicted course, situation, or relationship..."⁷³ The analogy of displacing a bone is particularly useful. If one envisions an athlete who suffers a dislocated shoulder, it is obvious that this athlete can no longer perform his or her primary role at peak capacity. Indeed, in a physical sense, the injury makes the athlete useless to his or her team. In effect, the injury renders that athlete irrelevant to the outcome of the game.

The second part of the definition implies more than a physical effect, in that dislocation causes confusion and a deviation from one's "normal course, situation, or relationship." Continuing with the sports analogy, to replace the injured athlete in the starting lineup causes confusion on the team as the coach is forced to "deviate" from a game plan based on a change in that athlete's "relationship" to the team.

How, then, does dislocation apply to warfighting? In *Race to the Swift*, Richard Simpkin advises the reader to "...steer clear of the rather misleading terms 'destruction' and 'annihilation' and think simply in terms of *rendering the enemy force operationally irrelevant* [emphasis in original]." According to the author, this may be accomplished by fires and fighting -- which he calls (physical) disruption -- or, "...by turning, by the combination of potential energy and potential momentum that makes up the mobile force threat..." which Simpkin calls "dislocation."⁷⁴

Using Simpkin's ideas as a baseline, LTC Robert Leonhard, Army officer and author of several books, has defined dislocation as, "...the art of rendering enemy strength irrelevant."⁷⁵ In his earlier works, Leonhard makes clear his distinction between dislocation and the related terms "disruption...the practice of defeating the enemy by attacking his center of gravity,"⁷⁶ and "preemption -- seizing an opportunity before the enemy does."⁷⁷ However the author's subsequent works recognize correctly that these latter two are encompassed by, and to a large degree co-dependents of dislocation. In effect, disruption and preemption are two possible means of rendering an enemy strength irrelevant, and conversely, dislocation makes possible the disruption and preemption of the enemy.

We come then to a useable military definition of **dislocation -- the art of rendering an enemy strength temporarily irrelevant to the outcome of a battle**. Dislocation is an active measure which attempts to set aside enemy strengths in order to allow us to apply our strengths against the enemy's critical vulnerabilities. It does not seek destruction of enemy strengths as the primary means of defeat, but seeks to dislocate those strengths as the first critical step in defeat, then destroy them (if necessary) with an asymmetrical fight.

There are at least four types of dislocation: Positional, Functional, Temporal, and Moral. Each of these may differ in the techniques used to render enemy strengths irrelevant, but all are based on a vision of a decisive fight against a disadvantaged enemy. This paper will explore the forms of dislocation presently, but first it is important to establish the theoretical foundation of dislocation.

In his famous précis *Strategy*, Captain B. H. Liddell Hart makes at least 18 references to dislocation of the enemy's mind and forces.⁷⁸ Throughout his book, Hart uses the term to illustrate the effects of the "strategy of the indirect approach." Using the analogy of a wrestler attempting to overthrow his opponent, Hart tells the reader, "In war, as in wrestling, the attempt to throw the opponent without [first] loosening his foothold and upsetting his balance results in

self-exhaustion...”⁷⁹ To emphasize the universal nature of this concept, Hart goes on to assert that, “In most campaigns the dislocation of the enemy’s psychological and physical balance has been the vital prelude to a successful attempt at his overthrow.”⁸⁰

Another soldier and prolific author, J.F.C. Fuller, addresses one of the forms of dislocation (though he does not use the term) when he discusses the object of the offensive:

The fact I wish to accentuate here is that, as our present theory of offensive action is based on the idea of destroying personnel, [a] new means of war, so I am convinced, will force us to substitute a theory based on the idea of destroying command -- not after the enemy’s personnel has been disorganized, but, when possible, before it has been attacked, so that it may be found in a state of disorganization when attacked.⁸¹

Fuller refers to the idea of rendering the enemy’s command inoperative as “unhinging it,” but the link to our current definition of dislocation is clear -- first defeat the enemy by disorganizing him, then attack him.

Long before either Fuller or Hart, the ancient warrior and author Sun Tzu, wrote, “Thus, what is of extreme importance in war is to attack the enemy’s strategy...Next best is to disrupt his alliances...The next best is to attack his army.”⁸² Thus 25 centuries ago, the acknowledged master of ancient warfare recognized that attacking the enemy in order to cause defeat is, at best, only the third most attractive option. Mao Tse-Tung, an ardent student of Sun Tzu’s writings and a master of warfare in his own right, had much to say on the subject. Mao tells the reader : “The object of war is specifically ‘to preserve oneself and destroy the enemy’ (to destroy the enemy means to disarm him or ‘deprive him of the power to resist’, and does not mean to destroy every member of his forces physically).”⁸³

No reference to military theorists is complete without including the currently acknowledged god of war, Clausewitz. Probably the most quoted, yet least understood theorist of our time, Clausewitz considered war on two distinct levels -- the theoretical level of absolute war where each side uses all means necessary to destroy the other; and war as it actually exists,

subjugated to political considerations, and limited by a host of other factors, such as fog and friction (which themselves have dislocating effects). Too literal an interpretation of the theoretical level leads one naturally to conclude that destruction of enemy strengths is the sine qua non of defeat. A balanced interpretation leads to another impression altogether.

For example, in Book Four, Chapter Three, the reader is greeted by the following: "What do we mean by defeat of the enemy? Simply the destruction of his forces, whether by death, injury, or any other means -- either completely or enough to make him stop fighting."⁸⁴ Here we see a firm theoretical foundation for the way we practice warfighting today at the tactical level...or so it appears. Moving back to Book One, Chapter Two, the reader is told, "The fighting forces must be *destroyed*: that is, they must be *put in such a condition that they can no longer carry on the fight*. Whenever we use the phrase 'destruction of the enemy's forces' this alone is what we mean [italics in original]."⁸⁵ We see here a more balanced definition of destruction as it relates to defeat. Even if one accepts Clausewitz's contention that destruction is the true and only means of defeat, one must also concede that destruction, according to Clausewitz, means nothing more nor less than "putting the enemy in such a condition that they can no longer carry on the fight." Clearly, Clausewitz had a much more liberal definition of destruction in mind than the definition we often ascribe to him. As the reader will see, dislocation may offer a way to "put the enemy in such a condition" without necessarily having to confront and destroy him in the literal sense.

Positional Dislocation -- The Missouri Boat Ride

In a famous scene from the movie *The Outlaw Josey Wales*,⁸⁶ the title character (Clint Eastwood) crosses the Missouri River on a rope raft in order to evade a band of Red Legs who intend to kill him. When Josey reaches the far shore, he takes a seat under a tree while the raft master pulls the boat back to the near side. The bloodthirsty band of Red Legs has arrived there

to await their ride across. Hopelessly outnumbered, Josey knows it will be only a matter of time before his pursuers ride him down, so he does not run. As the raft full of Red Legs approaches, Josey gets up and calmly grabs his rifle. In a feeble attempt to appeal to Josey's logic, a snake oil salesman mutters, "Do you really think you can shoot all those men down before they shoot you? Oh, no, Mr. Josey Wales, there is such a thing in this country called justice." Josey replies, "Well, Mr. Carpetbagger, we got something in this territory called a Missouri boat ride." Josey steadies his rifle, takes aim, and shoots. With one shot, he cuts the rope, sends the raft full of Red Legs down river, and illustrates the art of positional dislocation.

Positional dislocation renders an enemy strength irrelevant by causing it to be in the wrong place, oriented in the wrong direction, or in the wrong formation to achieve its purpose. We positionally dislocate an enemy strength by removing that strength from the decisive point or by removing the decisive point from that strength.⁸⁷ For instance, enemy artillery may be a recognized strength, (as it almost always is in our training simulations), but that strength is only relevant if it is in a position that facilitates firing on our units.

The enduring appeal of the tactical envelopment as a form of offensive maneuver is that it moves the decisive point from in front of the enemy position, where ostensibly we fix his attention, to the flank where he is vulnerable. Similarly, the turning movement positionally dislocates enemy strengths by forcing them to leave prepared defenses and attack in a direction or formation for which they are not prepared. The entire art of deception is predicated on causing positional dislocation. Even an ambush on an enemy column is a form of positional dislocation in that the enemy (if we have planned it right) is in the wrong formation to react effectively.

Among the most notable historical examples of positional dislocation is Germany's conquest of France during the Second World War. Drawing on what they believed were the salient lessons of the great War, the French planned to protect their frontier by a combination of

static defenses along the Maginot Line and the movement of maneuver units into Belgium -- the location from whence the last German offensive had come. The Germans recognized these French strengths and were successful precisely because they removed the decisive point away from them when they attacked through the Ardennes.

Functional Dislocation -- Making the Enemy Bring a Knife to a Gun Fight

Functional dislocation seeks to render enemy strengths irrelevant by making them temporarily dysfunctional through the disruption of key functions at critical times.⁸⁸ The combined arms approach to battle seeks to achieve functional dislocation by presenting an enemy strength with more problems than it can solve at once, thereby placing the enemy on “the horns of a dilemma.” By jamming enemy sensors and communications at critical times, we render useless the enemy’s fire support or his air defenses, making them vulnerable to simultaneous attack by air or ground maneuver.

Throughout history, armies have endeavored constantly to achieve functional dislocation of the enemy. The development of siege weapons in ancient warfare sought to render dysfunctional the fortress defense. The English longbow at the Battle of Crecy did the same to the vaunted French cavalry. Frederick’s oblique order made dysfunctional the strength of linear defenses and volley fire. Wellington’s infantry squares at the battle of Waterloo functionally dislocated Marshall Ney’s cavalry by providing no assailable flank. Modern day stealth technology seeks to render useless enemy air defense radar. Whatever the means employed, the result is an enemy strength that is temporarily dysfunctional and therefore irrelevant.

Temporal Dislocation -- The Fight For Time

The notion of temporal dislocation appears at first glance to be absurd. Time, after all, is a constant; try as we may, we cannot manipulate it. However, we *can* manipulate the enemy with respect to time, and this is the goal of temporal dislocation. Temporal dislocation renders

enemy strengths irrelevant by making enemy actions, decisions, and dispositions untimely.⁸⁹

Dislocating the enemy with respect to time is one of the hinges on which turns the principle of surprise, the all-important combat multiplier that armies have always sought.⁹⁰ In fact, a little reflection reveals that fundamentally, surprise is a temporal phenomenon more than it is a spatial or mechanical one.

Strategist and author, Edward Luttwak emphasized the profound effects of military surprise when he described it as:

...not merely one factor of advantage in warfare among many others, *but rather the suspension, if only brief, if only partial, of the entire predicament of strategy,...* Without a reacting enemy, or rather according to the extent and degree that surprise is achieved, the conduct of war becomes mere administration [italics in original].⁹¹

Whether or not war becomes truly “mere administration,” it is clear that achieving surprise over the enemy, “should be regarded as the soul of every operation. It is the secret of victory and the key to success.”⁹²

Temporal dislocation achieves surprise because it recognizes a fundamental, (though not universally accepted), truth about warfighting: “...*all military organizations are per petually unready for combat.*”⁹³ A moment’s reflection will reveal the absolute veracity of this concept. Military units, whether in war or peace, must perform myriad activities other than fighting. Even those activities which prepare the unit to fight (fixing, moving, resupplying, planning) cause a degree of unpreparedness during their conduct. Indeed, the very need to establish security is based on an implicit recognition that units are in a normal state of unreadiness. Units come to full battle readiness only after a threat is detected.⁹⁴ Recognition that a degree of unpreparedness is the norm in all military units is fundamental to understanding the goal of temporal dislocation.

Temporal dislocation renders an enemy strength irrelevant by fighting it when it is unready -- that is, in its normal state. To accomplish this requires an understanding of the dichotomous nature of Nathan Bedford Forrest’s dictum to , “get there the firstest with the

mostest.” In fact, military units usually have to make a choice; they can either get there first or they can get there with the most. The former, called “preemption tactics,”⁹⁵ requires conceding some level of mass, concentration, and, dare it be said, synchronization in order to surprise the enemy through speed of action. The latter, called “concentration tactics,”⁹⁶ sacrifices speed in an attempt to garner all available combat power, synchronize it to the nth degree, and attack or defend with maximum strength.

History is replete with examples of temporal dislocation. The Israeli Defense Force used preemption tactics in 1967 to defeat the combined forces of Syria and Egypt in six days. Six years later, they themselves were the victims of preemption, and it almost led to their defeat. Frederick the Great, for the better part of two decades, managed to hold at bay the combined armies of France, Austria, and Russia primarily through the speed and surprise of preemption. By constantly attacking his would-be attackers, in effect, turning their “time flank,” he never allowed the allies to mass their armies or coordinate their efforts. They remained in a constant state of unreadiness.

Of course, Frederick eventually lost to the allies, and the Israelis overcame their initial surprise in 1973 to win that war. These facts illustrate an important point with regard to preemption as a means to achieve temporal dislocation -- the temporal effect of preemption tactics -- surprise -- is not permanent. Inherent in the art of war is the ability to recognize when preemption is possible, versus when concentration is necessary. As an example, author Richard Simpkin in large part sees Germany’s ultimate defeat in Russia during World War Two as a failure to recognize (along with a logistical inability to implement) this shift.⁹⁷ Russia, with her size, depth, and nearly unlimited resources, overcame the initial surprise of Blitzkrieg tactics and reversed her own “unreadiness.” At this point, preemption tactics became not only counter-productive, but ultimately fatal.

Moral Dislocation -- A Mind is a Terrible Thing...

*"Warfare is ultimately a human endeavor that relies primarily on the fighting spirit -- morale -- of the soldiers and units engaged...For the nation's enemies [morale] must be constantly evaluated and attacked."*⁹⁸

- FM 100-5 (Draft, 1997)

Moral dislocation renders an enemy strength irrelevant by defeating the minds and spirits of its soldiers, especially its leaders.⁹⁹ In effect, moral dislocation is a result of the combined effects of the other three forms of dislocation. Sun Tzu, John Keegan, S.L.A. Marshall, Ardant du Picq -- these men and many others have written volumes concerning what makes men fight, and conversely, what (short of death) makes them stop fighting. All of these authors are united in observing one simple truth -- an enemy unit may be strong in many respects, but if its soldiers are unwilling to fight, if its leaders are incapable of making decisions, those strengths are irrelevant.

An appreciable drop in morale is often viewed as a long-term process resulting from such factors as constant deprivation and exposure to danger, fear of isolation, and a lengthy series of tactical failures. Certainly, history bears out this view. However, FORCE XXI technologies allow us to affect a more immediate break in enemy morale by overwhelming them with multiple, simultaneous problems to which they cannot react. By combining the effects of fires, maneuver, electronic warfare, surprise, and other factors, we can attain a nearly instantaneous drop in the enemy's will to fight.

The history of warfare provides countless examples of the moral collapse of an otherwise strong enemy. One of the more famous is the battle of Cannae where Hannibal's 36,000-man army crushed a Roman force twice its number. Historians often attribute this victory to Hannibal's "hammer and anvil" tactics. However, Ardant du Picq points out that this tactic was important only to the degree that it caused the moral collapse of the Roman legion. As du Picq observes, in the close-order combat that ensued after the Romans were surrounded,

“...each combatant had but one man before him.”¹⁰⁰ The simple physics of the matter would dictate that if each man fought equally well, the sheer mass of the Romans would prevail. That, indeed, is the crux of the matter. Each man did not fight equally well. The Romans, feeling surrounded and unsupported, gave way and, “...let [themselves] be slaughtered. The weapons fell from their hands...”¹⁰¹

Dislocation in Review

By way of addressing the comparison criteria, a tactical doctrine based on dislocation: 1) Begins with a vision of an irrelevant enemy strength, and applies the various forms of dislocation to achieve that vision; 2) Views dislocation of strengths as the first critical step in defeat, and attacks the dislocated enemy with an asymmetrical advantage to complete the defeat; and 3) Is flexible enough to recognize several methods of fighting, (to include, when necessary, confrontation). Finally, dislocation does not depend on a symmetrically arrayed enemy in order to achieve defeat.

Dislocation, no matter its form, seeks an asymmetrical advantage over an enemy whose strengths are temporarily irrelevant. It is not a passive approach to warfare that seeks to run circles around the enemy in an attempt to confuse him into admitting defeat. It is a violent, combined-arms method of fighting that embraces destruction and attrition, but destruction and attrition of the right things at the right time.

Even the most cursory study of the history of warfare reveals the prevalence of at least some level of dislocation on one or both sides. As one author put it, “Indeed, it is the manifest appearance of dislocation throughout history that lends strength to the concept.”¹⁰² However, the reader must recognize that the historical appearance of dislocation, however manifest, often has been the fortuitous result of chance; that is not good enough. There is a fundamental difference between one who actively seeks dislocation and one who conducts business as usual in the vain

hope that dislocation will occur. The dual keys to success are the ability to cause, through active measures, great amounts of dislocation in the enemy, then following quickly that dislocation with decisive operations.

It is not surprising that the U.S. Army does not practice well the art of dislocation. In most training scenarios, the enemy is presumed to be -- in point of fact, he is -- strong in all areas. The enemy is always arrayed on terrain suitable for his purposes, and any attempt to turn him from that terrain is useless, because there is no critical vulnerability in his rear (remember the lack of logistics play). The enemy's weapons are always loaded, his soldiers are always alert, and they never rout or surrender. So rote and structured are our scenarios that preemption tactics (such as attacking the enemy in his assembly areas) are not possible. Given these circumstances, the Army's bent towards confrontation is understandable. But, if dislocation is about anything, it is about fostering a new conceptual view of defeat. The next section of this paper will suggest how we might develop that view.

IV. Implementing Dislocation

One might argue that dislocation is possible using current doctrine. Perhaps this is true. Also, evidence thus far suggests that the U.S. Army does not necessarily feel obligated to follow its written doctrine. Perhaps this is even more true. Why, then, introduce a new term? Because, the primary challenge to implementing a new idea is intellectual, and by introducing a new term, we can begin cultivating a new way of thinking about defeating the enemy of the future. Clearly, the U.S. Army's road to the future is partially paved -- we will be a smaller, technologically advanced force that relies primarily on power-projection. This paper will now address how we might continue the paving process by encouraging a shift in doctrinal thinking -- a shift that is not only necessary, but also eminently possible using FORCE XXI technologies. The process begins by developing an understanding of several factors: defeat mechanisms, the threat of the future, and how to translate the concept of dislocation into action on the battlefield.

Understanding Defeat

Precious little has been written concerning the phenomenon of defeat. There is a simple reason for this. Defeat is a nebulous concept, difficult to describe and not subject to the empirical measurement of computer simulation. But, rather than resign ourselves to the "don't know what it is, but I'll know it when I see it" school of thought, we should endeavor to achieve at least a cursory understanding of defeat. Again, we begin with Webster's dictionary. There, one reads that defeat is: " : frustration by rendering null and void or by prevention of success," and " : an overthrow esp. of an army in battle : loss of a contest."¹⁰³ Webster also tells us that in its archaic form, defeat is synonymous with destruction. More on this point later.

In his book, *Understanding Defeat*, Trevor Dupuy describes defeat as the flip side of the coin of success. Since he has previously defined success as: "...the unequivocal accomplishment of an assigned or perceived combat mission," clearly defeat must be, "...synonymous with failure

-- failure to accomplish a combat mission.¹⁰⁴ Borrowing from these definitions, and staying within the tactical framework of attack and defense, we may define defeat as **the failure of a combat unit, whether in attack or defense, to accomplish the primary task assigned to it.** In simple terms, defeat occurs when an attack falters prior to reaching its objective or when a defense suffers an unplanned collapse or penetration in the face of the enemy.

Having defined defeat this way, it is important to review some of its characteristics. Defeat is largely a local phenomenon, in that defeat at the tactical level does not necessarily lead to defeat at the operational or strategic levels (just as success does not). Also, defeat, like surprise, often is a terribly ephemeral condition, and failure to exploit rapidly a defeated enemy may result in a reversal. Finally, defeat may be the result both of objective and subjective factors. For instance, an attacking unit that simply cannot muster enough combat power to seize an objective has suffered an objective defeat. On the other hand, a unit may have enough combat power and still suffer a defeat because the commander calls off the attack based on a subjective assessment that his attack is faltering.

Before leaving the subject, it is also important to note what defeat is not. Contrary both to Webster's archaic definition and to the long-standing legacy of our training models, defeat is not the same as destruction. It is self-evident that a destroyed unit cannot accomplish its mission (unless of course its mission was to locate the enemy by drawing its destructive fire). Also, an inherent and important part of defeating an enemy is the destruction of key elements of his combat power at the right times. However, the link between defeat and destruction, (along with destruction's long-term cousin, attrition), is more tenuous than many analysts realize. In other words, the level of loss often has no direct bearing on the certainty of defeat.

Robert McQuie has conducted a study of 80 tactical defeats in twentieth-century warfare (1941 to 1982). His data consisted both of unsuccessful attacks and defenses (49 and 31 of each, respectively) in World War Two, and in the 1967 and 1973 Arab-Israeli Wars. To the extent that

80 twentieth-century battles of mid to high intensity are illustrative of modern combat, the results are interesting. His study revealed that the median attack was recognized as a failure when the level of casualties was four per cent. The median defense failed when it had experienced less than eight per cent casualties.¹⁰⁵ While these numbers represented the medians, (i.e., the middle values), the range of casualties varied from “negligible” to nearly one hundred per cent.¹⁰⁶

The obvious conclusion one might draw from these data is that defeat usually occurs at a much lower casualty rate than that for which we plan. This is true, but the more revealing insight, given the wide variance in casualties, is that *no direct correlation exists between the level of casualties experienced and the decision to admit defeat*. Indeed, in the fast-paced maelstrom of modern combat, it is unlikely a commander could even guess with reasonable accuracy what his current level of attrition is at any given time. Instead, defeat seems to occur when soldiers, and especially leaders, perceive a change in the tactical situation that renders the current operation untenable. This suggests that the subjective form of defeat may be more common than the objective. Certainly the number of casualties incurred is one factor that plays a role in this subjective assessment, but it is rarely the major factor.

In 1988, Trevor Dupuy, along with a host of other analysts, compiled a research report that attempted to classify the reasons for defeat in eight different operations from World War Two and the Korean War. The research consisted of interviews with thirty-nine men who had experienced tactical defeat in these operations.¹⁰⁷ Although the interviewers used the term “Forced posture change” instead of defeat, it is clear that these operations resulted in defeat of the units in question. A sample of this limited size hardly allows one to make a broad generalization about the subject, but the results of the study are unique in that they represent the first concerted effort to view the reasons for defeat from the standpoint of the loser. Of the thirty factors the interviewees listed as crucial to their defeat, “One category of factor was cited in

almost every operation: tactics.”¹⁰⁸ A high rate of casualties was, “seen as crucial by veterans of only two of the operations.”¹⁰⁹

Dupuy summarizes his findings by telling the reader, “...in most cases a force of about division size has quit when its casualties reached less than 10 per cent per battle or 3 per cent per day. In most battles, moreover, acknowledgment of defeat does not appear to have been caused by casualties.”¹¹⁰ Interestingly, according to McQuie’s study, a group of U.S. Army combat arms officers, when asked: “How high would casualties have to be in your division for you to quit?” suggested they would recognize defeat, “on taking perhaps 50 per cent casualties.”¹¹¹ This appears to reflect more the influence of outdated Lanchestrian-based training models than the influence of historical reality.

Understanding the Future Threat

Unlike the phenomenon of defeat, much has been written concerning the enemy of the future. There has never been a shortage of prognosticators willing to theorize on the nature of America’s future foes. In the past, most have gotten it wrong, a few have been somewhat right, and almost no one has been perfect. Indeed, as we enter a twenty-first century devoid of Soviet influence, the plethora of possibilities makes the soothsayer’s challenge even greater. However, a poor track record of prediction should not deter us from investigating the subject. There is enough information available to make a few, albeit general, observations concerning the matter. Rather than focus on the equipment, doctrine, or location of a specific regional threat, this paper will address the probable characteristics of potential threats for the next fifteen years, regardless of whom they might be.

Characteristic #1: The threat of the future will not be able to match U.S. strengths in technology and training. As Saddam’s army proved, a T-72 tank that is manned by a poorly trained and incompetently led crew is no match for an M-1 that is well-crewed and led. It is

important to acknowledge, however, that when the United States-led coalition achieved its sweeping victory in the Persian Gulf, the eyes of the world were upon us. One may be assured that our observers, friend and foe alike, took notes. Among the lessons they likely learned is: "Whatever the temptation, refrain from attempting directly to challenge U.S. (and Western) military power on its own terms."¹¹² Though several potential threats are numerically superior, it is doubtful any of them can fare much better than did Saddam with regard to equipping and training an army that is qualitatively our equal in like-systems fighting. For this very reason, they will not try, which leads to the next characteristic.

Characteristic #2: The threat of the future will attempt to engage us asymmetrically. It is perhaps ironic that a paper promoting the dislocation of enemy strengths would suggest that our future foes will attempt the same tactic. But this is precisely what they will do -- indeed, what they must do -- if they are to achieve any measure of success. Military history illustrates vividly that a militarily weak force can achieve surprising successes by seeking an asymmetric fight. Indeed, the historical examples enumerated earlier in this paper almost always involved a weaker force achieving asymmetric advantages through the dislocation of a stronger enemy's strengths.

Among the myriad criticisms of Saddam Hussein as a soldier is that he attempted to match his strengths against ours. In essence, he gave us the massive tank battle we had always dreamed of, albeit on a different continent against a different foe. It was also a battle for which we had spent ten years rehearsing in the California desert. Moreover, he gave us six months to build up enough combat power to ensure that the result was never really in doubt. The enemy of the future will not be so accommodating.¹¹³

It is during the build-up of forces that the enemy may attempt his first asymmetric fight. A glance at the globe will reveal that our build-up in Desert Shield was an anomaly in many respects. Saudi Arabia was a mature theater, with well-developed ports, airfields, roads, and

facilities.¹¹⁴ Also, Saddam was either unwilling or too inept to interdict these assets before and during the build-up. One wonders how we might fare when deploying to an area with a poorly developed infrastructure, especially if the enemy is willing and able to interdict (through preemption) the ports and airfields upon which our power projection is so dependent. We may find out in the next fight.

A second potential for fighting the U.S. Army asymmetrically involves overcoming our firepower advantage, especially long-range fires -- the Army's "silver bullet du jour." Again, drawing on the salient lessons from the Gulf, the threat of the future has learned that to remain stagnant and unprotected in a desert environment is to be pounded to jelly by superior U.S. firepower. One of the options open to the threat of the future, therefore, is survivability through mobility. If there was any noticeable and costly U.S. failure in the Gulf, it was our inability to find and destroy the majority of Iraq's mobile Scud launchers.¹¹⁵ This suggests that current "sensor to shooter" links are not as effective against moving targets as they are against stationary ones. Our experiences in Viet Nam might have taught us the same lessons, where the enemy sought to neutralize our firepower advantage by employing tactical mobility to "hug-up" to our troops one moment, only to disappear the next.

Of course, tactical mobility is but one option the enemy may use to overcome U.S. firepower. Another tactic is the use of urban areas as shields. Such areas, with their inherent civilian populations and cultural/religious edifices, have always posed a dilemma for firepower solutions, precision or otherwise. Other options include hardened defensive positions, tactical deception, and the development of rather "low-tech" counter-measures,¹¹⁶ this latter of which leads to the next characteristic.

Characteristic #3: The threat of the future will have access to limited, relatively cheap technologies. Lest we believe the U.S. has cornered the market on new technologies, evidence indicates that existing and emerging technologies already are, or soon will be, in the

hands of many third-world nations. The world-wide proliferation of information-age technologies has already begun. Futurists Alvin and Heidi Toffler believe that adding, "... Third Wave [information age] 'smarts' to old, Second Wave [industrial age] weapons" can and will be done, "...at peanut prices that even impoverished armies can afford."¹¹⁷ Such technologies can be used as counter-measures to specific U.S. strengths or as offensive weapons.

Throughout the history of war, every new development that has conferred an advantage on one side has been countered by the other. According to Edward Luttwak, such counters do not have to be the best, they simply have to be good enough.¹¹⁸ One wonders what effect a non-nuclear electro-magnetic pulse (EMP) might have on sensitive U.S. communications equipment. That such a capability may not yet exist among third world nations is hardly reassuring. The technology is available for the right price.

Above and beyond the enemy's ability to counter many of our technologies, we cannot overlook the push to develop relatively cheap weapons of offensive capability. Recent reports indicate that Iran has enlisted Russia's help in its ongoing endeavor to develop nuclear weapons.¹¹⁹ Though Russia claims it has not, and will not, provide such help, it is not clear that other countries with "high-tech" capabilities and foundering economies will be so restrained. Beyond the nuclear threat is the very real fact that, "Information and equipment that could help a foreign nation build long-range missiles are readily available..."¹²⁰ An enemy with limited aims and a few long-range weapons of terror may attempt to inflict on the U.S. Army an unacceptable level of casualties in order to achieve success, which subject leads to the final characteristic.

Characteristic #4: The threat of the future will attempt to exploit America's aversion to friendly casualties, and its corresponding emphasis on force protection.

However proficient the U.S. Army has become at killing, it is not clear that it is very good at dying. One of the unfortunate legacies of the Gulf War was a belief that we can, and a corresponding expectation that we will, achieve our objectives with very little friendly

bloodshed. Indeed, it has been 25 years since the U.S. Army has experienced a level of casualties that can be considered alarming in an absolute sense. Unfortunately, absolutisms do not apply when soldiers begin filling body bags. One author has suggested that America's propensity to accept casualties is related directly to its support for the war effort. This support, in turn, exists (or does not exist) based on two factors: well-defined national goals, and evidence that we are reaching those goals in a reasonable amount of time.¹²¹ By the end of the Viet Nam war, neither of these factors was much in evidence. Perhaps the same can be said of the Army's recent experiences in Somalia.

Whatever the reasons, it is clear the Army has placed a premium on force protection.¹²² While this premium is admirable, placing it as the highest priority for planning, as evidence suggests we did in Desert Storm,¹²³ clearly opens the door for potential enemy exploitation. While Saddam did not or could not exploit this weakness, it is not clear his successors will be so restrained. This is especially true given the ever-present eye of the CNN camera, which will dutifully record every American casualty.

To summarize this paper's vision of the future threat, the enemy of the future will possess limited technologies, which he will array against us asymmetrically to achieve limited aims by countering our Third Wave technological advantage and by causing an unacceptable level of American casualties. Obviously, these four characteristics of the future enemy are not all-inclusive. Nor are they particularly revelatory. Based on the evidence available, most anyone could hazard a fairly accurate guess as to what the various enemies of the future might look like. That said, it is ironic that the Army's training models continue to portray only one threat -- the symmetrically-arrayed, highly-advanced, armor-heavy "Krasnovians." While, our "worst-case scenario" logic supports this training, it is not clear that the "Krasnovians" are either the worst case or the most likely threat of the future.

Translating Dislocation into Action

This paper has suggested that dislocation is, above all, a conceptualization of how to achieve defeat. The first and most important step in implementing dislocation-based doctrine, therefore, is leader development. As well as understanding the phenomenon of defeat and the enemy of the future, today's battlefield leader must develop a firm theoretical and historical appreciation for the art of warfighting. Military theory has been defined as, "...a reliable system of beliefs, causally sustained and justified by professional and personal understanding about the nature of war."¹²⁴ It is alarming how infrequently one observes such a "professional and personal understanding" among Army leaders. It is not uncommon to hear someone spout off with a famous quotation from Clausewitz or Jomini, without the slightest clue concerning what he or she just said. But a solid theoretical foundation is critical to understanding dislocation, or any other proposed doctrine. Indeed, given such a foundation, a learned soldier may disagree completely with the concept of dislocation. However, until one achieves at least a cursory understanding of military theory, it is useless to argue either way.

If military theory is a "causally sustained" system of beliefs, then history is the cause upon which theory is built. George Santayana's famous warning, "Those who cannot remember the past are doomed to repeat it," is perhaps a bit overdone, but his message is clear and timeless. It is not enough to know, for instance, that the French were unprepared for World War Two (they thought, in fact, they were prepared). One must study deeply the social, political, and technological factors that led them down their delusional path of unpreparedness. One who gleans the lesson from the battle of Cannae that "hammer and anvil" tactics are the key to victory may overlook completely the fact that this tactic was possible in no small part because of Roman tenacity in pursuing what they perceived was a beaten foe. Until one has studied the great captains and great battles with an eye toward gaining a reasonable depth of understanding, any hope of comprehending, developing, or debating military theory is gone.

Developing theoretically and historically sound leaders will be a challenge, one that we cannot depend on the Army school system to meet. Army schools are stretched nearly to their limit trying simply to teach process-related skills, such as the military decision making process. As of this writing, students at the Command and General Staff College receive only 81 hours of mandatory history instruction each year. Our advanced courses teach even less. Moreover, the Center for Military History is in danger of becoming extinct.¹²⁵ As the Army becomes more focused on technology and the promises of the future, there is evidence that the lessons of the past are fading into obscurity.

A second step necessary to implement dislocation is a shift of focus in our doctrinal manuals. The new version of FM 100-5 is now in its final draft stage. Given the trends of the past, this cornerstone doctrinal manual is updated about every five years, so nothing this paper says could have an appreciable effect for at least that long. However, using the "king for a day" philosophy, this paper would recommend rewording our doctrine, so that instead of telling planners to avoid enemy strengths and attack weaknesses, our manuals would say, "dislocate enemy strengths and attack critical vulnerabilities." Clearly, these critical vulnerabilities may include a dislocated strength. Our doctrine should include the types of dislocation, (which may well be different from the ones espoused in this paper), along with historical examples of each. Finally, our corps and below doctrinal manuals should offer tactics, techniques, and procedures (TTPs) for how to achieve dislocation, given a variety of reality-based scenarios that reflect the threat of the future.

Leaders who possess a firm grasp of military theory and history, and a slightly revised written doctrine will not be enough. The Army must then implement the third and final step -- a training program which allows units to practice dislocation. Clearly, this is the biggest challenge of all. It requires a departure from the "tried and true" Lanchestrian-based training models we use today. It is beyond the scope of this paper to suggest how to change the complex, inner-

workings of our computer models, but there must be some account taken in our virtual combat models for the moral and cybernetic domains of battle, along with such phenomena as battlefield adaptation and decreasing returns on fires.

Conceding the technical, financial, and bureaucratic difficulties of changing quickly our computer models, we can achieve more immediate results at our CTCs, not by making them easier, but by making them more realistic. This paper has documented the fact that Army units using confrontation tactics are habitually punished (defeated) by the OPFOR. There must also be some prospect of reward for the unit that applies successfully dislocation tactics. There are several ways to do this. First, expand unit boundaries to reflect the enlarged area of operations possible under FORCE XXI. This will have the added benefit of making strength on strength clashes possible but not inevitable, as they are now. Secondly, CTC scenarios should reflect "free play" in terms of recognizing that, over time, both sides in battle experience periods of unreadiness and are therefore vulnerable to preemption. Preemption is rarely possible now because of highly structured, short-duration battles; restrictions on reconnaissance; and so-called "safe havens" (assembly areas). Finally, the OPFOR must recognize indicators of defeat not associated with flashing yellow lights. Such indicators include degradation of command and control, lost logistics, and finding oneself surrounded and cut off. More important than recognition is an appropriate range of reactions, which probably do not include charging blindly on to the objective.

One of the promises of FORCE XXI technologies is the ability to "see" the enemy. This includes knowing and evaluating enemy strengths and critical vulnerabilities. It also includes knowing where the enemy is, but perhaps more importantly, where he is not. Once we learn how to harness this knowledge, we can move quickly to pre-empt an unready enemy, while protecting ourselves from similar efforts on his part. In other words, "free play" does not mean we have to be ready all the time. We simply have to know when to be ready.

Certainly, the symmetric, heavy force clashes that characterize two of our three CTCs reflect one possible future scenario, and must therefore remain as part (but not all) of the training. In addition to this typical scenario, our CTCs should incorporate new scenarios based on likely third-world foes. Solving the battlefield problem of defeating a "low-tech" enemy who fights asymmetrically will prepare our Army for the probable realities of early 21st Century warfare. Indeed, we must learn to embrace the enemy's asymmetry and use it to our advantage. One of the lessons we will likely learn is that over-reliance on long-range precision fires at the expense of combined-arms warfare is going to be costly.

V. Conclusion

*"Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after they occur."*¹²⁶

- *Giulio Douhet, The Command of the Air*

A famous basketball coach is rumored once to have quipped that given a choice between a big player and a fast player, he'd take the big fast guy every time -- sage advice, assuming one has the choice. Unfortunately, the U.S. Army has no such choice. We are going to be small -- smaller in fact than we have been at any time since the dawn of World War Two.¹²⁷ Our old rivals, the Soviets are gone, so we do not even have a clear schedule on which to plan our season. Worse, the recent death of a European princess has renewed the worldwide call for a ban on land mines, a ban that threatens to weaken our defense. One thing is clear -- our fans expect us to win. Now, we must develop a game plan.

Current Army doctrine, especially as we practice it, is characterized by confrontation of enemy strengths. As written, our doctrine recognizes the value of maneuver, but in practice, that maneuver is only important to the extent it facilitates bringing firepower onto an enemy strength in order to destroy it. Such destruction is the only universally recognized means of achieving defeat. Confrontation tactics are encouraged -- indeed, they are required -- by training models in which enemy strengths are always symmetrically arrayed and relevant, and in which the OPFOR does not stop until he is destroyed. Unfortunately, confrontation tactics can be very costly, not only in terms of lost lives, but also in lost opportunities.

Now FORCE XXI technologies are upon us, bringing with them the promise of information dominance and precision strike. Accordingly, there is a strong movement afoot to expand confrontation tactics throughout the depths of an ever-growing battlespace. Our experiences in the Persian Gulf, coupled with Lanchestrian-based computer simulations, seem to

have proved that such a doctrine is possible. As this paper has shown, however, there are many reasons why a doctrine based on precision strike may fail us.

This paper has proposed that a doctrine based on dislocation -- the art of rendering enemy strengths temporarily irrelevant -- will serve the Army well for several reasons. First, dislocation has a solid theoretical and historical foundation. Secondly, dislocation recognizes that defeat and destruction are not synonymous; the latter, if it is necessary, can and should be accomplished after the former. Thirdly, dislocation tactics will succeed not only against an advanced, armor-heavy threat, but also against the more likely asymmetrically-arrayed, third-world foe of the future. Finally, dislocation will allow us to leverage the true promise of FORCE XXI technologies -- the ability to see more of the battlefield than the enemy, strike with precision that which is necessary, and move rapidly to preempt and exploit an unready foe.

Implementing dislocation theory on the battlefield entails several challenges. Army leaders must study intensely the theory and history upon which the business of warfighting is based. The Army's tactical doctrine should be revised to reflect a better way of dealing with enemy strengths. Most importantly, the Army must break away from current attrition-based training models and develop better ways to practice defeat of the future threat. These challenges are significant, but not insurmountable. If indeed war is, "...a matter of vital importance...the province of life or death; the road to survival or ruin,"¹²⁸ these are challenges we must accept.

ENDNOTES

¹ Martin van Creveld, *Technology and War: From 2000 B.C. to the Present* (New York: The Free Press, A Division of Macmillan, Inc., 1989,1991), 320.

² Richard E. Simpkin, *Race to the Swift: Thoughts on Twenty-First Century Warfare* (New York, Washington DC: Brassey's Defence Publishers, 1985). 139-140.

³ Among the authors who describe the "typical American way of war" in this manner are Russell Weigley, Bill Lind, J.F.C. Fuller, Robert Doughty, Robert Leonard, and John Ellis. A rather comprehensive anthology which describes the essence of many maneuverists' thoughts, (along with the thoughts of at least one detractor), was compiled by Richard D. Hooker, ed., *Maneuver Warfare: An Anthology*, (Novatno, CA: Presidio Press, 1993).

⁴ This author first saw maneuverists accused of "Wehrmacht Penis Envy" in an article by historian Daniel P. Bolger, "Maneuver Warfare Reconsidered," in *Maneuver Warfare: An Anthology*, 27. In his notes, Bolger attributes the term to Prof. John J. Mearsheimer, chairman of the Department of Political Science at the University of Chicago.

⁵ Brigadier General (Ret) Huba Wass de Czege, interview by author, 25 July 1997, Fort Leavenworth, by telephone, Fort Leavenworth, Kansas.

⁶ Robert R. Leonhard, *Dislocation and FORCE XXI: A New Perspective on Commander's Intent* (White Paper, Joint Venture Office, TRADOC, Fort Monroe, Virginia) 3-6. LTC Leonhard has authored several books, articles, and papers in which he describes the four types of dislocation. His definitions are based on his military experience and a long career of historical reading and analysis. While Dislocation Theory is not an official TRADOC position, it is gaining ascendancy in some circles. Throughout this monograph, the author will use LTC Leonhard's definitions as a baseline for discussion

⁷ U.S. Department of the Army, *FM 100-5, Operations* (Washington, D.C.: U.S. Government Printing Office, 1993) 6-3.

⁸ This quotation comes from a friend, fellow combat arms officer, and fellow SAMS student, Major Greg Schultz.

⁹ *FM 100-5, Operations*, 6-19.

¹⁰ *Ibid.*, 7-0.

¹¹ *Ibid.*, 7-0.

¹² U.S. Department of the Army, *FM 100-15, Corps Operations* (Washington, D.C.: U.S. Government Printing Office, 29 October 1996), 5-1.

¹³ U.S. Department of the Army, *FM 71-100, Division Operations* (Washington, D.C.: U.S. Government Printing Office, 28 August 1996), 4-5. U.S. Department of the Army, *FM 71-3, The Armored and Mechanized Infantry Brigade* (Washington, D.C.: U.S. Government Printing Office, 8 January 1996), 4-9 - 4-10.

¹⁴ *FM 100-5, Operations*, 9-0.

¹⁵ *Ibid.*, 9-2.

¹⁶ FM 100-15, *Corps Operations*, 6-2.

¹⁷ Ibid., 6-3.

¹⁸ FM 71-100, *Division Operations*, 5-2.

¹⁹ Ibid., 5-2.

²⁰ Ibid., 5-3.

²¹ FM 71-3, *The Armored and Mechanized Infantry Brigade*, 5-2.

²² Ibid., 5-3.

²³ Ibid., 5-14.

²⁴ FM 100-5, *Operations*, 6-13.

²⁵ Ibid., 6-14.

²⁶ As quoted by Richard D. Hooker, Jr., "Ten Myths About Maneuver Warfare" in *Maneuver Warfare: An Anthology*, 89.

²⁷ Col. Trevor N. Dupuy, *Understanding Defeat: How to Recover From Loss in Battle to Gain Victory in War* (New York: Paragon House, 1990), 216-217. Frederick Lanchester developed a model to determine the mathematical effect of mass or concentration on the battlefield. He produced two equations: a linear equation and a square equation, based upon whether both sides in an engagement could observe and fire equally well or one side knew only generally the location of the other. While the exact equations are unimportant, except to computer programmers, it is important to note that the equations are the principle tools used to calculate the destruction of one unit by another in almost all simulations we use today.

²⁸ U.S. Army Command and General Staff College PowerPoint Presentation, *School For Command Preparation* (Fort Leavenworth, Kansas, 1997), slide 11.

²⁹ Ibid., slide 11.

³⁰ Tom Chychota, Tom Hardy, Larry Caber, Cal Graef, and Dave Goebel, JANUS BLUEFOR Interactors, U.S. Army Command and General Staff College. Interviewed as a group by author 23 September 1997, Fort Leavenworth, Kansas. Verbal interview. Fort Leavenworth, Kansas: JANUS Facility.

³¹ Ibid., Comments made by Cal Graef.

³² Lee Denniston, Senior JANUS OPFOR Interactor, U.S. Army Command and General Staff College. Interviewed by author 19 and 22 September 1997, Fort Leavenworth, Kansas. Verbal interview. Fort Leavenworth, Kansas: JANUS Facility.

³³ Leonhard, *The Principles of War (Revised): A Guide to Conflict in the 21st Century* (Unfinished, unpublished work as of this writing), Chapter entitled Maneuver.

³⁴ Edward N. Luttwak, *Strategy and History* (New Brunswick, New Jersey: Transaction books, Inc., 1985), 174.

³⁵ Richard M. Swain, *Lucky War: Third Army in Desert Storm* (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1994.) 103.

³⁶ General H. Norman Schwarzkopf (with Peter Petre), *It Doesn't Take a Hero* (New York: Linda Grey, Bantam, 1992) 433-34; as quoted in Swain, *Lucky War*, 123.

³⁷ Norman Friedman, *Desert Victory: The War for Kuwait* (Annapolis, Maryland: Naval Institute Press, 1991), 292. Also Tom Clancy with Frederick M. Franks, *Into the Storm: A Study in Command* (New York: G. P. Putnam's Sons, 1997), Map, 233. Also Swain, Map, 212. These accounts differ as to whether a third motorized division (the 4th al-Faw) was in the theater. This paper uses Franks' post-war account, which indicates that it was not, as the authoritative record.

³⁸ Swain, Map, 249.

³⁹ Clancy, 235.

⁴⁰ *Ibid.*, 226.

⁴¹ Swain, 117.

⁴² Clancy, 235.

⁴³ *Ibid.*, 216.

⁴⁴ Swain, 117.

⁴⁵ Leonhard, *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle* (Novato, California: Presidio Press, 1991), 269.

⁴⁶ Swain, 229.

⁴⁷ During the "Mother of All Briefings," Schwarzkopf indicated erroneously that all routes of escape north for the Iraqi Army has been closed. Subsequently, in his book, he claimed he had received misleading information. Had he known the Iraqis had an open route of escape, he would not have recommended the cease fire to the President. Regardless of the confusion surrounding this event, it is clear that VII Corps was unable to conduct an immediate exploitation of the defeated enemy, even had it been ordered to. The fact that Schwarzkopf wanted, in hindsight, more complete destruction prior to the cease fire begs the question of why he did not commit air power or the, as yet, uncommitted ground reserve.

⁴⁸ Christopher Bellamy, *The Evolution of Modern Land Warfare: Theory and Practice* (London and New York: Routledge, 1990.), 16.

⁴⁹ *Webster's Third New International Dictionary* (Springfield, Massachusetts: G. and C. Merriam Company, 1976), 477.

⁵⁰ General (Retired) Colin Powell made these observations on *The Future of Warfare* (Inaugural Annual Conference of the James A. Baker III Institute at Rice University, as seen on "C-SPAN," 26 November 1995).

⁵¹ General Gordon R. Sullivan, "Force XXI: A New Force for a New Century," *ARMY*, (5 May 1994), 25.

⁵² Gordon R. Sullivan, and Anthony M. Coroalles, *Seeing the Elephant: Leading America's Army into the Twenty-First Century* (National Security Paper Number Eighteen, The Institute for Foreign Policy Analysis, 1995), 42.

⁵³ General William Hartzog, Commanding General, Training and Doctrine Command (TRADOC) in a speech delivered to the Command and General Staff College, Class of 96-97, Spring, 1997.

⁵⁴ U.S. Department of the Army, *FM 100-5, Operations* (Washington, D.C.: U.S. Government Printing Office, 1997 [Draft]) 5-1.

⁵⁵ *Ibid.*, 5-2.

⁵⁶ *Ibid.*, 13-2. The six imperatives are:

- Place the defender in a weak condition and position.
- Attack weaknesses, avoid strengths.
- Strike with extraordinary violence.
- Press the fight -- never let the enemy recover from the initial blow.
- Designate, shift, and sustain the main effort.
- Plan for and resource the exploitation.

These imperatives appear to have replaced the age old characteristics of the offense -- surprise, concentration, tempo, and audacity.

⁵⁷ *Ibid.*, 13-4.

⁵⁸ *FM 71-100, Division Operations*, 9-2 -- 9-3.

⁵⁹ *FM 100-5, Operations* (Draft, 1997), 14-1.

⁶⁰ *Ibid.*, 14-8 -- 14-16.

⁶¹ *Ibid.*, 14-8.

⁶² *Ibid.*, 14-10.

⁶³ *FM 71-3*, E-15.

⁶⁴ *FM 100-5, Operations* (Draft, 1997), 13-8 and 14-6.

⁶⁵ U.S. Department of the Army, *TRADOC Pamphlet 525-5: FORCE XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the Early Twenty-First Century* (Fort Monroe, Virginia: U.S. Army Training and Doctrine Command, 1 August 1994), 2-9.

⁶⁶ Glenn K. Otis, "Ascendancy of Fires: The Evolution of the Combined Arms Team." *Field Artillery* (June 1995), 18.

⁶⁷ *FM 100-5, Operations*, 6-12.

⁶⁸ *TRADOC Pamphlet 525-5*, 3-10.

⁶⁹ Michael T. Miklos, *Field Artillery, The Ascending Branch of FORCE XXI* (Fort Leavenworth, Kansas: Monograph written in the School of Advanced Military Studies, First Term AY 95-96). The author argues for a new doctrinal paradigm for FORCE XXI, based on the dominance of fires as the decisive element of combat power. Drawing on historical examples which show artillery as the greatest killer on the battlefield, the author argues that new technologies will allow the artillery to move away from

its traditional role as an area fire weapon in the close fight toward a decisive precision weapon that can strike throughout the depth of the battlespace.

⁷⁰ Mark G. Carey, *Forging Apollo's Golden Bow: Long Range Precision Fires in Future High Intensity Combat* (Fort Leavenworth, Kansas: Monograph written in the School of Advanced Military Studies, First term AY 96-97). The author cites at least two previous instances when a technological change precipitated a call for changing the balance between maneuver and fires in favor of the latter. Specifically, during World War I and during the U.S. Army's Pentomic Era, "the ascendancy of fires" gained favor in the military community. The author points out the various doctrinal, organizational, and technical reasons why these two attempts failed. He then explores the concept of long-range precision fires to see if FORCE XXI technologies can overcome past failures and realize a shift towards the dominance of fires.

⁷¹ Carey, 39. The author points to several reasons why over-reliance on precision, long-range strike, at the expense of maneuver, will be dangerous. He outlines the vulnerabilities of precision strike assets as follows:

- An enemy focus on tactics or weapons which target a specific, vulnerable aspect of a precision strike targeting system.
- An enemy doctrine based on rapid maneuver forward to close the distance with precision strike assets, thereby offsetting their advantage.
- An enemy that assumes a defensive posture with heavily fortified protection for critical assets and maneuver forces (which fortifications current precision weapons have a difficult time defeating).
- Enemy use of readily available and inexpensive countermeasure techniques, such as jamming or deceiving long-range sensors.

Other authors go further than simply pointing out possible enemy countermeasures and display doubt that the ability to find and destroy everything on the battlefield is even a realistic expectation. See Leonhard, *The Art of Maneuver*. According to the author: "Because a guided missile was made to hit a static target on some sterile firing range, we are persuaded to induce the notion that the past 5,500 years of military history have become irrelevant. What firepower could never do in centuries past, American know-how has in some mysterious way been able to accomplish." (p. 240). Also in a written interview with this author, LTC Leonhard intimated that in addition to a wide array of countermeasures available to the enemy, there is a fundamental truth that he believes many fire support enthusiasts are missing: "Destruction -- even if you accomplish it -- does not imply accomplishment of the mission. Destruction is not the same as control... Firepower advocates simply refuse to deal with reality and prefer computer simulation to make their point." (Interview by author 28 August 1997, e-mail, Fort Leavenworth, Kansas).

⁷² Sun Tzu, *The Art of War*, trans. Samuel B. Griffith, (New York: Oxford University Press, 1971), 87.

⁷³ *Webster's Third New International Dictionary*, 651.

⁷⁴ Simpkin, 139.

⁷⁵ Leonhard, *Dislocation and FORCE XXI*, 2. Also, Leonhard, *Fighting by Minutes: Time and the Art of War* (Westport, Connecticut: Praeger, 1994), 12 n.2. Also, Leonhard, *The Art of Maneuver*, 66.

⁷⁶ Leonhard, *The Art of Maneuver*, 73.

⁷⁷ *Ibid.*, 62.

⁷⁸ B. H. Liddell Hart, *Strategy*, (London: Faber and Faber Ltd., 1967), 5-6, 23, 52, 87-88, 146-47, 169, 182, 196-97, 216-17, 225, 235-36, 240, 276-77, 324-25, 336, 345-46, 372 *et seq.*, 388.

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- ⁷⁹ Ibid., 5.
- ⁸⁰ Ibid., 6.
- ⁸¹ John Frederick Charles Fuller, *The Foundations of the Science of War* (London: Hutchinson and Company, Ltd., 1926; a military classic reprint, Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1993), 292.
- ⁸² Sun Tzu, 77-8.
- ⁸³ Mao Tse-Tung, "Selected Military Writings of Mao Tse-Tung" in *The Evolution of Military Thought* text compiled by the Combat Studies Institute (Fort Leavenworth, Kansas, U.S. Army Command and General Staff College), 230.
- ⁸⁴ Carl von Clausewitz, *On War*, trans. and ed., Michael Howard and Peter Paret (New York: Albert Knopf, 1993), 227.
- ⁸⁵ Ibid., 90.
- ⁸⁶ Clint Eastwood, dir. *The Outlaw Josey Wales*, with Clint Eastwood, Sondra Locke (Warner Brothers, 1976).
- ⁸⁷ Leonhard, *FORCE XXI How-to-Fight* (PowerPoint Presentation, Fort Monroe, Virginia: Joint Venture Office, DCSCD, TRADOC), Slide 11.
- ⁸⁸ Ibid., Slide 12.
- ⁸⁹ Ibid., Slide 13.
- ⁹⁰ FM 100-5, *Operations*, 2-5. The Army's keystone doctrinal manual tells the reader to, "strike the enemy *at a time or place or in a manner for which he is unprepared* [author's emphasis]."
- ⁹¹ Luttwak, *Strategy: The Logic of War and Peace* (Cambridge, Massachusetts: The Belknap Press of the Harvard University Press, 1987), 8.
- ⁹² Fuller, 272.
- ⁹³ Leonhard, *Dislocation and FORCE XXI*, 4.
- ⁹⁴ Ibid., 5.
- ⁹⁵ Leonhard, *Fighting by Minutes*, 153-5.
- ⁹⁶ Ibid., 155-62.
- ⁹⁷ Simpkin, 33-6.
- ⁹⁸ FM 100-5, *Operations* (Draft, 1997), 4-5.
- ⁹⁹ Leonhard, *FORCE XXI How-to-Fight*, Slide 14.
- ¹⁰⁰ Ardant du Picq, "Battle Studies: Ancient and Modern Battle," trans. John N. Greely and Robert C. Cotton in *Roots of Strategy: Book 2*, (Harrisburg, Pennsylvania: Stackpole Books, 1987), 91.

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- ¹⁰¹ Ibid., 92.
- ¹⁰² Leonhard, *Dislocation and FORCE XXI*, 3.
- ¹⁰³ *Webster's Third New International Dictionary*, 591.
- ¹⁰⁴ Dupuy, 7.
- ¹⁰⁵ Robert McQuie, "Battle Outcomes: Casualty Rates as a Measure of Defeat," *Army* (November, 1987), 32.
- ¹⁰⁶ Ibid.
- ¹⁰⁷ See Janice B. Fain and others, *Forced Changes of Combat Posture*, prepared for U.S. Army Concepts Analysis Agency under Contract No. MDA903-87-C-0807 by Data Memory Systems, Inc. (DMSi), Fairfax, Va., 30 September 1988.
- ¹⁰⁸ Dupuy, 27.
- ¹⁰⁹ Ibid.
- ¹¹⁰ Ibid., 218.
- ¹¹¹ McQuie, 33.
- ¹¹² Jeffrey Record, *Hollow Victory: A Contrary View of the Gulf War* (Washington, New York, London: Brassey's (US), Inc., 1993), 149.
- ¹¹³ Friedman, 255.
- ¹¹⁴ Record, 148. The author submits correctly that the majority of the third world is not so well endowed with modern infrastructure.
- ¹¹⁵ Friedman, 253. Ironically, the largest single instance of U.S. casualties in the Gulf was a result of an errant Scud attack on a military barracks in the KTO.
- ¹¹⁶ Carey, 34-40.
- ¹¹⁷ Alvin and Heidi Toffler, *War and Anti-War: Survival at the Dawn of the 21st Century* (New York: Little, Brown, and Co., 1993), 186.
- ¹¹⁸ Luttwak, *Strategy: The Logic of War and Peace*, 27-31.
- ¹¹⁹ David Hoffman, "Gore Says Probe Shows Iran Seeks Technology to Build Nuclear Arms," *Washington Post* (24 September, 1997), 26.
- ¹²⁰ Bill Gertz, "Ballistic Missiles Within Easy Reach for Many Nations," *The Washington Times* (23 September, 1997), 9.
- ¹²¹ Friedman, 255-57.
- ¹²² *FM 100-5, Operations* (Draft, 1997). Emerging doctrine lists "Protect the Force" as the second step in the pattern of Army operations (p. 1-5). Also, the five core functions include: See, Shape, Shield, Strike, and Move (p. 5-1).

¹²³ Swain, 336. As quoted by the author, Congressman Les Aspin's Committee on Armed Services reported after the war that, "In planning Operation Desert Storm, minimizing allied and civilian casualties was the highest priority."

¹²⁴ James J. Schneider, *Theoretical Paper No. 5 -- The Eye of Minerva: The Origin Nature and Purpose of Military Theory and Doctrine* (Fort Leavenworth Kansas: School of Advanced Military Studies, U.S. Army Command and General Staff College), 11.

¹²⁵ William G. Robertson, Ph.D., Deputy Director, Combat Studies Institute (CSI) and Combined Arms Center (CAC) Historian. Interview by author 24 October 1997, Fort Leavenworth, Kansas. Verbal interview, Fort Leavenworth, Kansas, Deputy Director's Office.

¹²⁶ Giulio Douhet, *The Command of the Air*, trans. Dino Ferrari (New York: Coward-McCann, Inc., 1942), 30.

¹²⁷ United States, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition, Part 1*, (U.S. Department of Commerce, Washington, D.C., 1975), 1141. This official government document, which contains data up through 1970, lists the 1940 active duty strength of the U.S. Army at 269,023. In 1941, as a result of World War Two, the number jumped to 1,462,315. Between the war and the year 1970, the number never dipped below 554,000. See also, U.S. Bureau of the Census, *Statistical Abstract of the United States: 1995* (115th edition, Washington, D.C., 1995), 364. This publication lists active duty military manpower from 1950 to 1993.

¹²⁸ Sun Tzu, 63.

BIBLIOGRAPHY

Government Publications

United States, Bureau of the Census. *Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition, Part 1*. Washington, D.C.: Department of Commerce, 1975.

_____. *Statistical Abstract of the United States, Part 1*. Washington, D.C., 1995.

U.S. Department of the Army. *Field Manual 71-100, Division Operations*. Washington, D.C.: Department of the Army, 1996.

_____. *Field Manual 100-15, Corps Operations*. Washington, DC: Department of the Army, 1996.

_____. *Field Manual 100-5, Operations*. Washington, DC: Department of the Army, 1993.

_____. *Field Manual 100-5, Operations*. Washington, DC: Department of the Army, 1997 (Draft).

_____. *TRADOC Pamphlet 525-5: FORCE XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the Early Twenty-First Century*. Fort Monroe, Virginia: U.S. Army Training and Doctrine Command, 1994.

Books

Bellamy, Christopher. *The Evolution of Modern Land Warfare: Theory and Practice*. London, New York: Routledge, 1990.

Clancy, Tom with Frederick M. Franks. *Into the Storm: A Study in Command*. New York: G.P. Putnam's Sons, 1997.

Clausewitz, Carl von. *On War*. Translated and Edited by Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1984.

Creveld, Martin van. *Technology and War: From 2000 B.C. to the Present*. New York: The Free Press. A Division of macmillan, Inc., 1989, 1991.

Douhet, Giulio. *The Command of the Air*. Translated by Dino Ferrari. New York: Coward-McCann, Inc., 1942.

du Picq, Ardant. "Battle Studies: Ancient and Modern Battle" in *Roots of Strategy Book 2*. Translated by John N. Greely and Robert C. Cotton. Harrisburg, PA: Stackpole Books, 1987.

Dupuy, COL Trevor N. *Understanding Defeat: How to Recover From Loss in Battle to Gain Victory in War*. New York: Paragon House, 1990.

- Friedman, Norman. *Desert Victory: The War for Kuwait*. Annapolis, Maryland: Naval Institute Press, 1991.
- Fuller, Colonel J.F.C. *The Foundations of the Science of War*. London: Hutchinson and Co., Ltd., 1926; a military classic reprint, Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1993.
- Hart, Liddell B. H. *Strategy*. Second Revised Edition. London: Faber and Faber Ltd., 1967.
- Hooker, Richard D., editor. *Maneuver Warfare: An Anthology*. Novatno, CA: Presidio Press, 1993.
- Leonhard, Robert R. *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle*. Novatno, CA: Presidio Press, 1991.
- _____. *Fighting by Minutes: Time and the Art of War*. West Port, CT: Praeger Publishers, 1994.
- _____. *The Principles of War (Revised): A Guide to Conflict in the 21st Century*. Unpublished as of this writing.
- Luttwak, Edward N. *Strategy and History*. New Brunswick, New Jersey: Transaction Books, 1985.
- _____. *Strategy: The Logic of War and Peace*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1987.
- Record, Jeffrey. *Hollow Victory: A Contrary View of the Gulf War*. Washington, New York, London: Brassey's (US), Inc., 1993.
- Simpkin, Richard E. *Race to the Swift: Thoughts on Twenty-First Century Warfare*. New York; Washington DC. Brassey's Defence Publishers, 1985.
- Schwarzkopf, General H. Norman with Peter Petre. *It Doesn't Take a Hero*. New York: Linda Grey, Bantam, 1992.
- Sun Tzu. *The Art of War*. Translated by Samuel B. Griffith. New York: Oxford University Press, 1971.
- Swain, Richard M. "Lucky War": *Third Army in Desert Storm*. Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1994.
- Toffler, Alvin and Heidi. *War and Anti-War: Survival at the Dawn of the 21st Century*. New York: Little, Brown, and Co., 1993.
- Websters's Third New International Dictionary*. Springfield Massachusetts: G. and C. Merriam Company, 1976.

Articles

- Gertz, Bill. "Ballistic Missiles Within Easy Reach for Many Nations." *The Washington Times* (23 September, 1997): 9.
- Hoffman, David. "Gore Says Probe Shows Iran Seeks Technology to Build Nuclear Arms." *The Washington Post* (24 September, 1997): 26.
- McQuie, Robert. "Battle Outcomes: Casualty Rates as a Measure of Defeat." *ARMY* (November, 1987): 30-34.
- Otis, General Glenn K. "Ascendancy of Fires: The Evolution of the Combined Arms Team." Interviewed by the *Field Artillery* staff, *Field Artillery* (June 1995): 18-19.
- Sullivan, General Gordon R. "Force XXI: A New Force for a New Century." *ARMY* (May 1994): 24-26.

Papers

- Carey, Mark G. *Forging Apollo's Golden Bow: Long Range Precision Fires in Future High Intensity Combat*. Monograph, Fort Leavenworth, Kansas: School of Advanced Military Studies, First Term, AY 96-97.
- Leonhard, Robert R. *Dislocation and FORCE XXI: A New Perspective on Commander's Intent*. White Paper. Fort Monroe, Virginia: TRADOC Joint Venture Office, Undated.
- Miklos, Michael T. *Field Artillery, The Ascending Branch of FORCE XXI*. Monograph, Fort Leavenworth, Kansas: School of Advanced Military Studies, First Term, AY 95-96.
- Mao Tse-Tung. "Selected Military Writings of Mao Tse-Tung." *The Evolution of Military Thought*. Text Compiled by the Combat Studies Institute. Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, Undated.
- Schneider, James J. *Theoretical Paper No. 5 – The Eye of Minerva: The Origin Nature and Purpose of Military Theory and Doctrine*. Fort Leavenworth, Kansas: School of Advanced Military Studies, U.S. Army Command and General Staff College, Undated.
- Sullivan, General Gordon R. and Anthony M. Coroalles. *Seeing the Elephant: Leading America's Army Into the Twenty-First Century*. National Security Paper Number Eighteen, The Institute for Foreign Policy Analysis, 1995.

Lectures/Briefings

- Hartzog, General William. Commanding General, U.S. Army Training and Doctrine Command. Speech delivered to CGSC class of 96-97, Spring, 1997.

Leonhard, Robert R. *FORCE XXI How-to-Fight*. PowerPoint Presentation. Fort Monroe, Virginia: Joint Venture Office, DCSCD, TRADOC, Undated. Briefing delivered to CGSC students in A308 (Mobile Strike Force), Winter, 1997.

Powell, General Colin. *The Future of Warfare*. Inaugural Annual Conference of the James A. Baker III Institute at Rice University, "C-SPAN," 26 November, 1995.

School for Command Preparation. PowerPoint Presentation. Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1997. Briefed to author on 17 September 1997 by the School for Command Preparation Executive Officer, LTC Daniel.

Interviews

Chychota, Tom, Tom Hardy, Larry Caber, Cal Graef, and Dave Goebel, JANUS BLUEFOR interactors. Interview by author, 23 September 1997, Fort Leavenworth, Kansas. Verbal interview. Fort Leavenworth, Kansas: JANUS facility.

Denniston, Lee, Senior JANUS OPFOR Interactor. Interview by author, 19 and 22 September 1997, Fort Leavenworth, Kansas. Verbal interview. Fort Leavenworth, Kansas: JANUS facility.

Robertson, William G., Ph.D., Deputy Director, Combat Studies Institute (CSI), and Combined Arms Center (CAC) Historian. Interview by author, 24 October 1997, Fort Leavenworth, Kansas. Verbal Interview. Fort Leavenworth, Kansas: Deputy Director's Office.

Wass de Czege, Brigadier General Huba. Interview by author, 25 July 1997, Fort Leavenworth, Kansas. Telephonic interview. Fort Leavenworth, Kansas.

Films

Eastwood, Clint. *The Outlaw Josey Wales*. Directed by Clint Eastwood. Starring Clint Eastwood and Sondra Locke. Warner Brothers, 1976. Videocassette.