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TACTICAL DEEP BATTLE: THE MISSING LINK

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While the furor over the introduction of the concept of deep operations, the 'buzz word' of the mid 1980's, has faded, its importance is not diminished. Instead, as the Army continues the doctrinal evolution of AirLand Battle, the concept will increase in significance. Unfortunately, the concept is not well understood, nor is its theoretical meaning clear. The Army needs a workable definition of tactical deep battle. This monograph explores the concept of tactical deep battle from a theoretical perspective. The result is a working definition of the concept of deep battle, in the context of AirLand Battle.

In the first section, the idea of deep battle is explored. Using concepts developed by Tukhachevskiy, and refined and explained by Simpkin, the theoretical basis of deep battle is introduced. This concept is compared and contrasted with the original US Army thought on deep battle/ attack (as expressed by GEN Donn A. Starry and others). The comparison produces a number of key principles, from both Soviet and American doctrine and theory, that form the core of a definition for tactical deep battle.

The second section is an analysis of these principles to determine their applicability in AirLand Battle doctrine. Inherent in this analysis is an examination of the ways, and most efficient means of executing tactical deep battle.

Finally, the purpose and end-state of tactical deep battle is examined, in light of the aforementioned principles. Central points of this discussion include an examination of tactical depth, and the linkage of tactical deep battle to the operational level of war.

This monograph concludes with a proposed working definition of deep battle. The definition emphasizes the importance of understanding commander's intent—especially the operational commander's intent—and the necessity to consider two major aspects of tactical deep battle, penetration and envelopment. An understanding of the mechanics of tactical deep battle, leads not only to tactical success, but opens the door to operational victory.

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ABSTRACT

TACTICAL DEEP BATTLE: THE MISSING LINK by Major Charles K. Pickar, USA, 47 pages.

While the furor over the introduction of the concept of deep operations, the 'buzz word' of the mid 1980's, has faded, its importance is not diminished. Instead, as the Army continues the doctrinal evolution of AirLand Battle, the concept will increase in significance. Unfortunately, the concept is not well understood, nor is its theoretical meaning clear. The Army needs a workable definition of tactical deep battle. This monograph explores the concept of tactical deep battle from a theoretical perspective. The result is a working definition of the concept of deep battle, in the context of AirLand Battle.

In the first section, the idea of deep battle is explored. Using concepts developed by Tukhachevskiy, and refined and explained by Simpkin, the theoretical basis of deep battle is introduced. This concept is compared and contrasted with the original US Army thought on deep battle/ attack (as expressed by GEN Donn A. Starry and others). The comparison produces a number of key principles, from both Soviet and American doctrine and theory, that form the core of a definition for tactical deep battle.

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I. INTRODUCTION

When the US Army introduced its new AirLand Battle doctrine in 1982, the world literally shuddered. The political and military ramifications of this new, offense-oriented, tactical doctrine were enormous. However, this new thinking put the Army and politicians at odds, and limited the deep attack aspect of the new doctrine. With the collapse of the Soviet Union, and the easing of tensions in Europe, the Army is finally free to pursue the theoretical and practical possibilities deep battle offers.

Although the furor has faded, the importance of deep battle has never been greater. As the Army continues the doctrinal evolution of AirLand Battle, the idea will increase in significance. Unfortunately, the concept of deep battle is not well understood, nor is its theoretical basis clear. The "I'll-know-it-when-I-see-it," method of doctrinal definition insufficiently explains the key principles of deep battle.

Additionally, the AirLand Battle application of deep battle is based on a preconceived threat array, and a doctrinal response to that array. As the threat continues to change, we must look to theory rather than a monolithic enemy to define not only the battlefield framework, but also the way we fight.

Tactical deep battle is both an end, and a precursor of the operational-level deep operation. Since the operational art builds on tactical engagements, a complete understanding of the theoretical strengths and weaknesses of deep battle is crucial to understand deep operations. Yet the current emphasis on the study

and conduct of the operational art and the concurrent interest in operational deep attack has eclipsed examination of tactical deep battle. The Army needs a workable definition of *tactical* deep battle.

This paper examines the concept of tactical deep battle, theoretically, by comparing and contrasting the American and Soviet practice of this application of warfare. The first section is an examination of Soviet writings and practice, and compares their interpretation of deep battle with that of the Americans. Then, using the AirLand Battle tenets of agility, initiative, depth and synchronization and the Soviet concepts of simultaneity, interchangeability, tempo and offensive action, the characteristics of deep battle are analyzed. Finally, by contrasting and highlighting the differences and similarities of Soviet and American practice and doctrine for deep battle, the theory is defined in an American Army context.

Definitions

To avoid confusion, the following definitions of key terms are proposed.[1] In most cases, these definitions differ from official use, but are provided as a synthesis of the various, divergent interpretations of the concepts. The distinctions are necessary to separate operational-level deep operations from tactical level deep battle.

Deep operations are those combat actions taken by operational level commanders for operational ends. Similarly, operational depth refers to the geographic or conceptual measurement used at the operational level of war. At the operational level, this depth is:

> ...that area beyond tactical depth in which both the defender and attacker can achieve freedom of maneuver, and if gained by the attacker provides

> the opportunity to destroy or disrupt the defender without engaging the majority of the defenses.[2]

To distinguish between the levels of war and the differences in attack depths, the term **deep battle** (tactical deep operations) refers to the tactical level of war, and actions taken by tactical units (usually corps and below) to prosecute the war. These actions include the effects of both fire, and maneuver.

Tactical depth is:

> ...that [area] which is occupied by defending units whose missions severely restrict their freedom of maneuver, and the continued occupation of which will maintain the integrity of the defense thereby denying the attacker the opportunity to destroy or disrupt the mass of defending forces by maneuver.[3]

It also refers to that geographic or conceptual space of the tactical level of warfare that can be influenced by means other than maneuver forces.

II. THE EVOLUTION OF DEEP BATTLE THEORY

Deep battle is an amalgamation of Soviet and American theory, doctrine, and practice that developed as a result of technology. As technology provided longer range weapons, more accurate artillery and an increased ability to "see" beyond the front lines, the attack of forces in depth became possible. As weapons increase in range and accuracy, and as the ability to find targets in depth improves, the possible benefits of deep battle also increase. Thus deep battle is a dynamic concept directly related to technology.

A theory, however, though borne of the results of technology should withstand the turbulence of change to provide a guide to those who must apply the concept on the battlefield. This section presents the Soviet and American

origins of deep battle, the major influences, technological and sociological in its development, and the evolution of those views into current practice.

The Soviet View of Deep Battle

Although not the first to practice it, the Soviets were the first to examine intellectually, and define the idea of deep battle. There are many reasons for this interest, not the least of which is the Soviet desire to quantify and qualify military practice into military science. The influence of the Russian Revolution, World War I, and the Russo-Polish War is highly pronounced in the writings of the major Soviet theorists of the 1920s. These influences, a combination of experience and study of the allied and German deadlock in France during World War I, drove Soviet officers to develop ways to break the impasse of trench warfare, and allow maneuver forces to defeat the opposition. The emphasis here is on maneuver—moving quickly and purposefully on the battlefield to defeat the enemy. Two Soviet officers, theorists and practitioners both, proposed new ways of dealing with this stalemate.

V.K. Triandafillov proposed counters to the type of warfare practiced in the preceding decade.[4] His contribution to the development of a theory of deep battle lies in his complete grasp of the then imminent changes in warfare. Although the bulk of his work discusses a methodology for force development, his ideas allowed others to link tactics to operations. In the area of tactics, he had a large influence on M. Tukhachevskiy, generally acknowledged the "father" of deep operation theory. Triandafillov's work is a forecast of future war based on his

evaluation of World War I, the impact of technology and the ever increasing size of modern armies.

Written in 1929, The Nature of the Operations of Modern Armies, is both a projection of the nature of modern warfare, and a proposal to deal with the new threats. Triandafillov believed the effects of technology, a revolution of another kind, demanded new theoretical and doctrinal responses. The way to defeat the enemy, he proposed, lay in the application of successive blows from different directions. These blows, *delivered throughout the depth of the enemy formation*, form the basis of the Soviet concept of deep battle.[5] This belief forms the central philosophy of deep battle theory.

Tukhachevskiy, Marshal of the Soviet Union, and integrator of the "deepening idea," as he called it, expanded on his colleague's work. His major contribution to the theory of war is the development of the operational level. In arriving at the operational level, however, he built on tactics, specifically tactical deep battle. His major tactical emphasis was on encircling and envelopment operations, delivered through the depth of the enemy defense.

> Maximum results in the old forms of operation were achieved while encircling the enemy force from both flanks. Enemy sectors devastated and overwhelmed on the flanks of an enveloped enemy grouping provide wide gaps for the by-passing columns; oftentimes in the early stages of the operation there is no force present to restrain it.[6]

In fact, for the Soviets, envelopment leading to encirclement and eventual annihilation equalled deep battle at the tactical level.

Tukhachevskiy's theory has three distinct phases, breakthrough, envelopment/ encirclement, and finally destruction of the enemy. Included in his theory are discussions of appropriate depths for deep strikes.

> In executing the enveloping operations it is necessary to face the very complex problem of how deep the enveloping swing should extend . . . [if] the direction imparted to both turning movements is too abrupt it will have the quickest effect on the enemy flanks and rear and will expose his forces, before they are encircled, to a series of strikes.[7]

Figure 1 portrays this condition.[8]

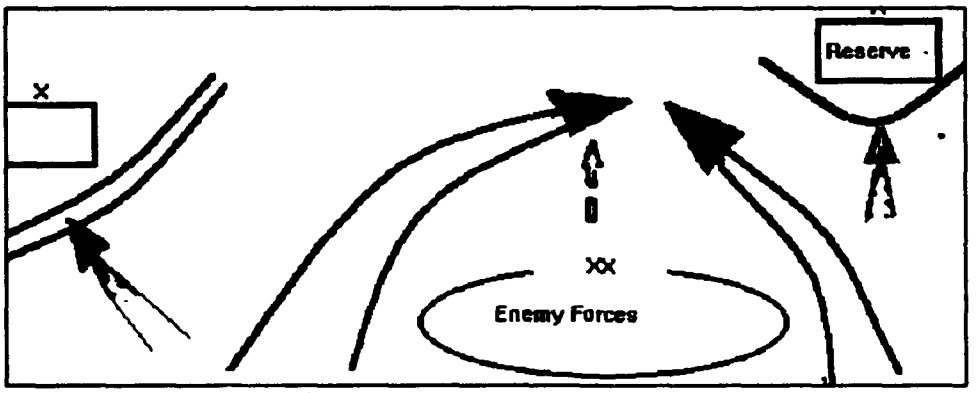

Figure 1 Abrupt Turning Movement

Note that the defender is engaged, simultaneously throughout his depth. An abrupt movement has a shorter reach, and not only encircles, but also seeks and attacks the defenders reserve. The attacking commander has two main missions, encircle and destroy front-line troops and destroy the reserve in a meeting engagement.

A variant of this attack, a deep turning movement, causes different reactions. Here the attacking force penetrates to a greater depth, encircling all tactical, front-line forces, including the reserve. The danger in this deeper option lies in the depth. "Going deep," requires speed. Speed is gained by avoiding strength, and attacking weakness. In this case, the defender's reserve is enveloped rather than attacked. The defending commander anticipating an envelopment, could beat the enveloping force commander at his own game. By escaping

envelopment, that enemy probably could constitute a defense, albeit behind initial lines, but defeating the purpose of the tactical deep attack.

(See Figure 2.)[9]

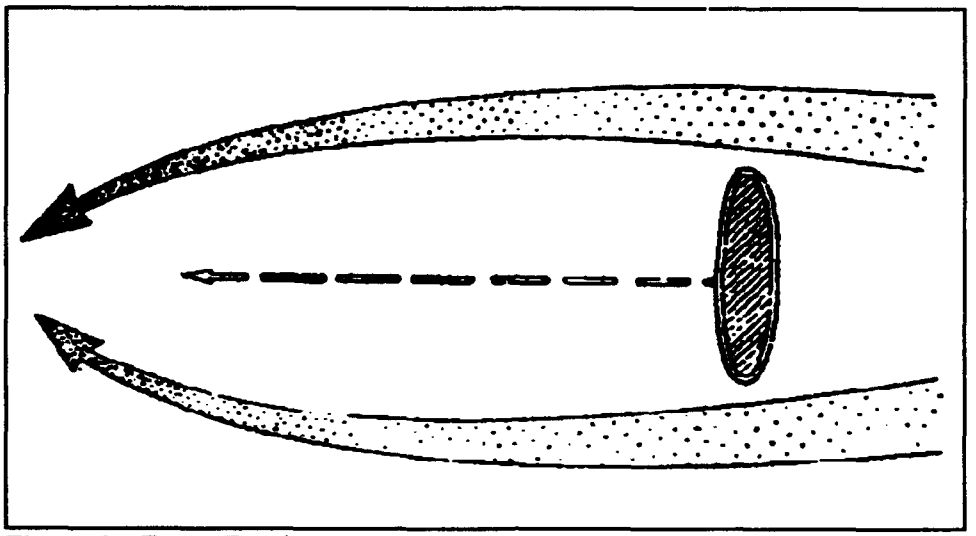

Figure 2 Deep Turning Movement

This discussion serves to emphasize the end-state of a deep attack. In both circumstances, *the depth of the attack is determined by the strength, location, and reaction of the defense.* The strength of the defense decides the speed, viability, and feasibility of the attack. For ground forces, this translates to the disposition of the defender's defenses, including maneuver forces, as well as other means of countering an attack.

Location refers, not to the disposition of forces, (which is covered by strength) but to the whereabouts of the reserve. Since the reserve gives the defending force commander freedom of action, it must be destroyed. Destruction of this force represents success of deep battle at the tactical level because the defending commander's options to react are negated. It is important to note, therefore, that depth, in terms of ground distance is irrelevant.

Reactions are those actions taken by the defending commander, and depend on timeliness. Thus, tactical depth (for the attacker), depends on the enemy's defenses. Similarly, in a meeting engagement, the enemy tactical depth is determined by those assets, maneuver forces or firepower, able to react to the deep attack.

Since strength, location and reaction are key to depth and success, the preconditions for success are created by attacking the enemy on a broad front.[10] Attacking on a broad front fixes enemy front-line formations to prevent reaction to a penetration. Broad front attacks also require the defender to position forces along the entire front. Since force, here manpower, is a finite resource, the broader the front, the less force available to counter enemy penetrations.

The points of breakthrough are selected with the utmost secrecy to present the enemy with surprise.

> But even this is not enough. [The] attack must be prepared so carefully that the enemy sectors attacked are not just knocked out but completely destroyed, abolished. Only if the enveloping columns are able after the first attacks with tremendous superiority in men and equipment to develop their success quickly without stopping is it possible to encircle the enemy.[11]

Thus, the breakthrough point, requires tremendous mass and power. It is important to note that Tukhachevskiy's work concentrates on the **maneuver** of ground forces in the depth of the enemy concentrations, rather than a newer, evolving concept of the maneuver of fires, which will be discussed in the section on interchangeability.

Having accomplished the breakthrough, the next step is envelopment/ encirclement of the enemy force in sector. Essential to this stage of the operation is:

> ...successive destruction of the enemy echelons in depth. These echelons should be struck in such a manner as to destroy the main enemy force in the nearest echelons before his deep reserves can organize concerted actions against the assault forces which have split up and contained his rear.[12]

In this passage, Tukhachevskiy refers to operational depth and reserves, but the discussion is significant at the tactical level. Time, or perhaps better stated, tempo, is vital at this point, for the attacker and defender are involved in a race. He who arrives first—defender's reserves, whether deep or tactical reserves, or the attacker's enveloping force—will win. For the Soviets, the enemy's deep reserves (operational) are more important because the focus of the attack concentrates on operational objectives rather than tactical.

Tukhachevskiy's deep battle theory concentrates on the idea of envelopment and encirclement. Conceptually, these envelopments entail embracing a large portion of an enemy force, along a front, and annihilating it. A key concept is successive, relentless force, applied across the front to fix the enemy. In the context of this broad front is another, simultaneous application of overwhelming force at a narrow, breakthrough point. The essential part of this force is not only its speed of execution, but its tempo, an inner, driving vitality that crushes everything in its path.

The Soviet view of encirclement should not be accepted literally. While physical encirclement was practiced often in Soviet tactics in the Second World War, the concept is not limited by an actual physical trapping of an enemy force. "Reading between the lines," as Richard Simpkin has done, suggests that encirclement and envelopment may actually be obsolete words which explain the desired effects of deep battle. Theoretically, a substitution of deep fires for ground

maneuver could accomplish the same goal. That goal is the destruction of the defending tactical units to allow continuation to the operational objective.

Simpkin, after long study of Tukhachevskiy and other Soviet sources, interprets Soviet deep battle theory as shown in Figure 3.[13]

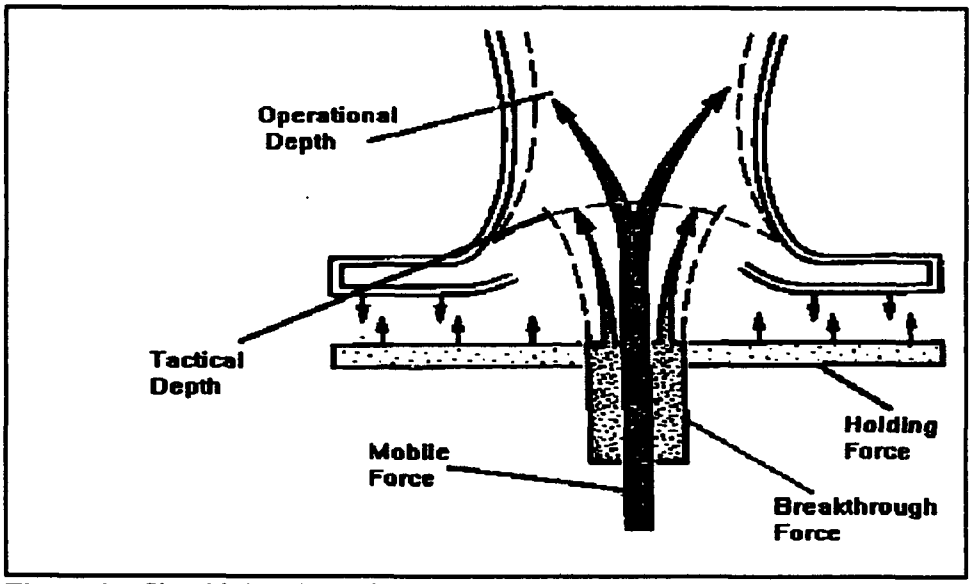

Figure 3 Simpkin's View of Deep Battle

There are three types of force applied here, the holding force, breakthrough force and mobile force. The holding force fixes the enemy, while the breakthrough force destroys enemy concentrations, to include his reserve, and creates the breach. The mobile force is the force that penetrates into the enemy rear and brings the effects of deep battle. The mobile force also represents the physical linkage of tactics to the operational level of war. Tactical depth is that depth reached by the breakthrough force. Note also that tactical depth is but the first stage of a penetration to achieve operational depth.

Closely related to Simpkin's view of deep battle, is his concept of maneuver theory. Figure 4 portrays Simpkin's basic maneuver theory model.[14]

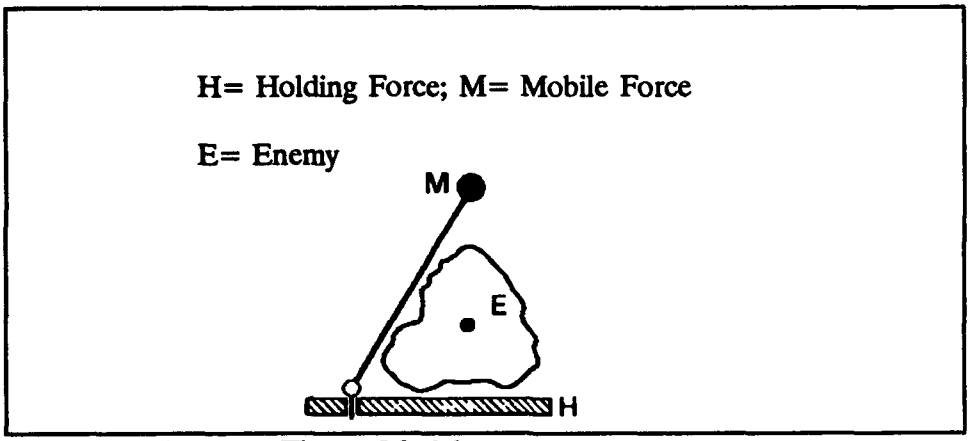

Figure 4 Maneuver Theory Model

The similarities between Figures 3 and 4 are remarkable. Deep battle theory advocates attacks into the enemy rear. Basic Soviet maneuver doctrine stresses this emphasis. In fact, it is difficult to differentiate between the two because the philosophy of the deep attack has so permeated Soviet tactical thinking that there is no difference. PU-36 (Soviet Field Regulation of 1936) states:

> With all arms and forms of support acting in concert, an offensive operation should be based on the simultaneous neutralization of the entire depth of the enemy defence. This is achieved by: a) air action against reserves and rear areas; b) artillery fire on the entire depth of the enemy tactical layout; c) deep penetration of the enemy tactical layout by long-range tanks; d) incursions into the enemy tactical layout by infantry and infantry support tanks; e) incursions into the enemy's rear by mechanized and cavalry formations; f) extensive use of smoke, both to cover manoeuvres by friendly forces and, on secondary sectors, to deceive the enemy. **In this way the enemy should be pinned down over the entire depth of his dispositions, encircled and destroyed** (my emphasis.)[15]

In summary, deep battle, for the Soviets, has a distinct meaning, much different from that used by the Americans. Soviet deep battle is the penetration of enemy primary defensive areas to allow another force to gain access to the operational depth. For the Americans, this penetration limits itself to tactical

advantage. This is the key to understanding the Soviet practice of deep battle. Tukhachevskiy preached breakthrough and deep battle because operational envelopments were impossible without it. The Soviets, force oriented, seek annihilation of the enemy force as a goal of all combat. Encirclements cut the enemy off and allow systematic destruction.

Any examination of deep battle must keep the Soviet perspective in mind. Tactical actions are only a step in the accomplishment of operational effects. Tactical deep battle for the Soviets is only the first phase in the development of operational depth. The inextricable linkage of tactical deep battle to deep operations and the operational level of war explains the Soviet emphasis on something, that for Americans, is only an element of the battlefield framework.

The American View of Deep Battle

If Soviet deep battle is characterized as penetration, envelopment/ encirclement, and destruction, then American deep battle means, "shape the battlefield." Shaping the battlefield encompasses actions taken by a hierarchy of command to allow subordinates to defeat an enemy force.

The evolution of American AirLand Battle (ALB) doctrine is well documented, along with the reasons the American Army embraced the offensive spirit of deep battle.[16] In comparing the origins of the theory from the Soviet perspective, some surprising similarities result. First, the Soviets found themselves lacking in their ability to counter the Germans in World War I, and the Tsar's loyalists in the Russian Civil War. Second, and probably most important, technology offered an answer to the problem.

As the US Army came home from Vietnam, it faced similar circumstances. While generally triumphant on the conventional battlefields of Vietnam, the Army now had to worry about an ever increasing Soviet threat in Europe. At the same time, advances in weapons technology resulted in improvements in both accuracy, and the ability to identify deep targets. To fight an immensely larger force and win required the ability to separate that enemy force and defeat each piece individually.

An overlooked, but central part of the American deep battle theory or "Extended Battlefield Concept," is its genesis:

> The extended battlefield concept deals with war in areas of the world where there are large numbers of relatively modern, well-equipped forces who use Soviet-style operational concepts and tactics.[17]

Thus, American deep battle theory and doctrine is a result of the threat the Army expected to face. That threat has diminished, to include the threat from Soviet surrogates. Additionally, American doctrine, in a departure from Soviet theory, concentrates on enemy forces not in contact.

> Deep operations at any echelon comprise activities directed against enemy forces not in contact designed to influence the conditions in which future close operation will be conducted. . . . At the tactical level, deep operations are designed to shape the battlefield to assure advantage in subsequent engagements. At both levels, successful deep operations create the conditions for future victory.[18]

A key difference in Soviet and American thought lies in the reasons for deep battle. The Soviet mentality of deep battle is ingrained in their doctrine to such an extent that all operations are planned to go deep. This is a reflection of the offensive spirit.

American doctrine and practice, embodied in the battlefield framework, treats deep battle as one of many components of a fight. Moreover, although we speak of the offense, American deep battle is primarily defensive in nature:

> The aim of deep battle is to prevent the enemy from massing, and to create opportunities for offensive action—"windows of opportunity"—that allow us to defeat him in detail.[19]

The present American notion of deep battle is a result of the circumstances the American Army faced in the mid-1980's, when the concept was introduced. The Inter-German Border (IGB), the forward defense concept, and severe political restrictions on cross border operations engendered a mind-set emphasizing the defense. The idea of attacking follow-on echelons, and uncommitted force all reinforce this defensive mind-set. General Donn A. Starry developed this theory while commander of the US Army's Training and Doctrine Command, (TRADOC). Figure 5 reflects the "Starry" theory of deep battle thinking.[20]

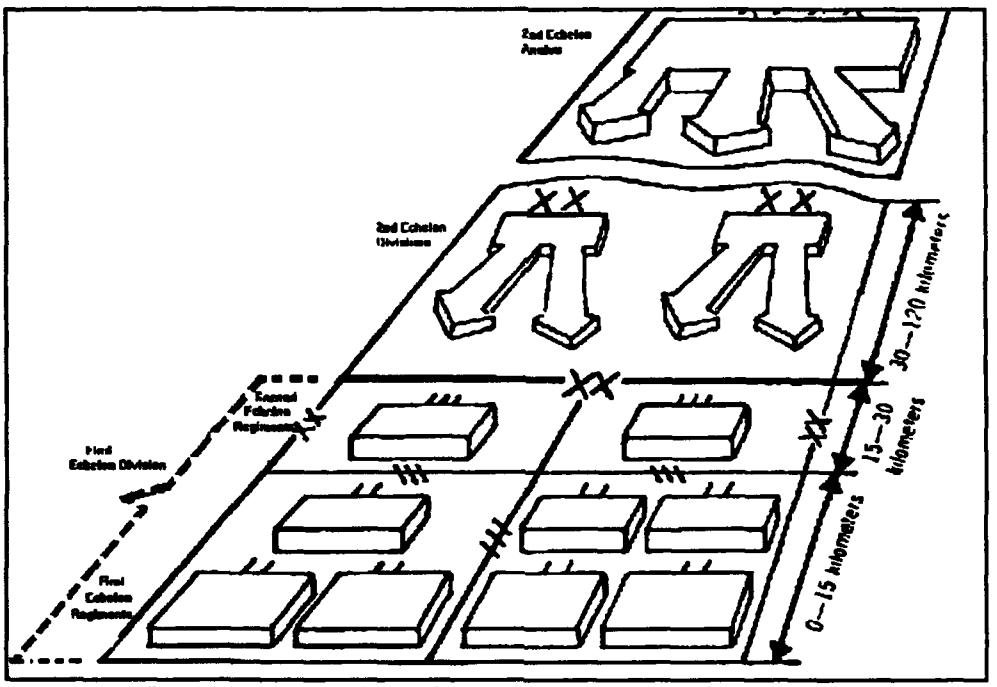

Figure 5 The American View of Deep Operations

This graphical depiction symbolizes the basis of American deep battle doctrine. The limitations and restrictions of the central European battlefield required such thinking. It is interesting to note that these regiments and divisions are arrayed to apply the Soviet version of deep battle doctrine against the US Army.

Current American deep battle doctrine stresses the indirect approach.[21] This indirect approach is reflected in the emphasis on the means available for deep battle, primarily artillery, but also Army aviation assets. Army aviation in this case is considered an indirect fire means because of the depth of the attack.

In summary, the US Army views deep battle in a defensive context, the Army in prepared defensive positions, waiting for the enemy to arrive. The Starry concept of deep battle emphasizes slowing this monolith down so American forces, already outnumbered, can deal with one echelon before engaging another.

American deep battle theory and doctrine, much like its Soviet counterpart, became possible with the assistance of technology. American doctrine, however, rather than being driven by theory, was shaped by the doctrinal actions of a possible enemy, and political limitations imposed by the U.S. government. An attack echeloned in depth, would be attacked in depth, but in a forward-defense, no-cross-border-operations context. Thus, in a sharp departure from Soviet thinking, American deep battle, instead of being the bridge between tactics and operations, became an end state of itself.

As the Soviet threat dies, and as we prepare ourselves for a new threat, we must change this graphical, defensive outlook to one that captures the essence of

deep battle, while retaining a functional sense of the possibilities it offers to both a defender, as well as an attacker.

III. THE CHARACTERISTICS OF DEEP BATTLE

The preceding examination of Soviet and American deep battle theory and practice provided some valuable deep battle principles. These principles, though not limited exclusively to deep battle, form the theoretical foundation for the accomplishment of this form of maneuver, and are essential to finding a definition for deep battle. They include the basic actions of deep battle, penetration and envelopment. Additionally, the Soviet principles of interchangeability, simultaneity, mass, tempo and offensive action, and the American tenets of AirLand Battle, which emphasize agility, initiative, depth and synchronization require closer examination. This section examines deep battle in light of these tenets, and compares and contrasts the Soviet and American styles for the conduct of tactical deep battle.

Penetration

Penetration is the breakthrough that ruptures enemy defenses. Conceptually, it is force— overwhelming force— applied at a point in the enemy line that forces an opening. This opening is the first stage of deep battle, and is the postulated "beginning of the end," for the defending force.

J.F.C. Fuller's "Theory of Penetration," explains the mechanics of a penetration.

> The fundamental difficulty in an attack of penetration is continuity of advance, and is restricted more through hostile flank pressure than hostile frontal resistance . . . .."[22]

In fact, the force holding the shoulder of the penetration is often initially more important than the penetration force itself.

In attempting a ground penetration, three forces are required. The first is the actual penetration force. The other two attack to open, then hold the shoulders of the penetration. Fuller theorizes that the forces holding the shoulders continue to attack thus widening and actually, "rolling up the rear of the enemy on each side of it."[23] The penetration, the attack through and beyond the tactical depth is thus able to continue unabated. Fuller's theory explains the Soviet theory of deep battle as it transitioned from tactical to operational depth. The flank attacks are examples of tactical deep battle and only serve to further the operational goal. Figure 6 is a graphical representation of Fuller's theory.[24]

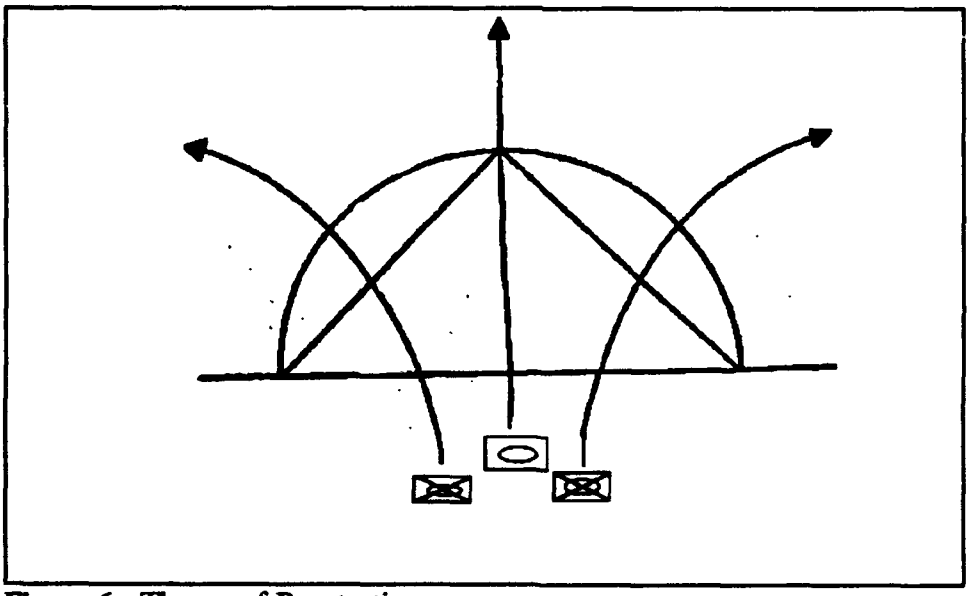

Figure 6 Theory of Penetration.

In this example, the mechanized infantry forces on each side of the penetrating force, attack to push the defender away from the main axis of attack. The abruptness of the turn, as already discussed in Tukhachevskiy's model, determines the effect. Of course, the attacker's effect is influenced by the enemy disposition. It is important to note that this graphic is representative of only one breakthrough point. Other points on a front would be attacked simultaneously to achieve the effects of envelopment.

The American idea of penetration is somewhat different. Since American deep battle and deep operations tend to emphasize the use of indirect fire weapons systems, ground penetration becomes less important. However, in all instances, a penetration of some sort, must occur. Figure 7 is a hypothetical rendition of an American view of penetration in deep battle. The battlefield is three-dimensional, with the third dimension starting on the ground, at the FEBA, and rising into the air, creating a notional wall of sorts.

The key difference is in the way the penetration is accomplished. Since we tend to see the battlefield in three or even four dimensions—we emphasize the third dimension as the medium for deep attack. Attack helicopters, artillery, and close air support (CAS) all use this medium.

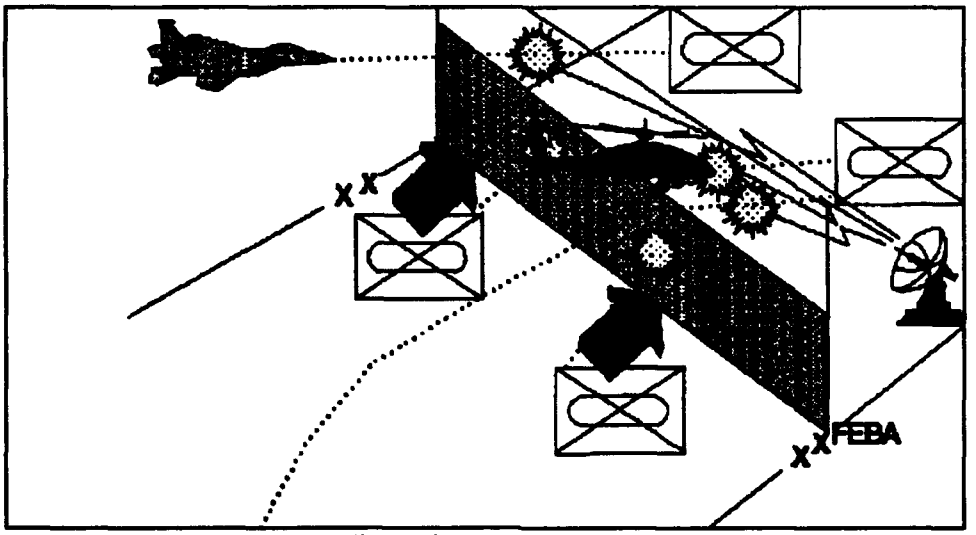

Figure 7 The American View of Penetration

The flank pressure Fuller speaks of in his ground penetration theory, takes the form of counter-air and counter-artillery actions. This suggests that in air penetrations, the same requirements for "holding the shoulders" exists. The shoulders, however, are not ground forces on the FEBA, but consist of enemy artillery, aviation and air defense artillery. The forces to be "rolled up" are those forces dedicated to countering this form of penetration. The force to be attacked is that force which provides freedom of action to the defending commander, usually the reserve.

As in a ground penetration, the defender resists, only the means are different. In a third-dimensional, aerial penetration, the resistance takes the form of radar, and associated weapons that counter air, artillery and electronic means of attack. The basic difference between the two, ground and third-dimensional penetration, is the type of reaction. In the Soviet or ground case, reaction involves close fighting, and resistance can be formidable. Thus, as already mentioned mass is necessary to overcome this resistance.

In the American understanding of penetration, the reaction may or may not involve ground forces, if it occurs at all. Examples of reaction include counterfire from artillery. In aerial penetration, the reaction occurs on the defender's territory, but primarily depends on technology in the form of radar and missiles to defeat. American maneuver forces are seldom used for penetration, notwithstanding sporadic calls their use.[25] Instead, air and other indirect means are the weapons of choice for the deep battle.

This principle surfaces an important difference between the Soviet and American practice of both penetration, and deep battle. The Soviets are willing to expend force to penetrate, even attacking against well-defended positions to gain access into the enemy rear. In fact, the Soviets accept that flanks may be impossible to find. They attack to create assailable flanks. They emphasize that the fight must be brought to the enemy. Americans, on the other hand, practice the indirect approach, constantly seeking the open flank. This, of course, reflects the "fight outnumbered and win" philosophy of the 1980s.

The penetration, as a form of maneuver, is artificially separated from the other forms of maneuver. Moreover, this separation extends into the realm of deep battle. The Soviets, for instance, include penetration as the initial phase of deep battle. For the American Army, there is no link between deep battle and penetration. Any practice of deep battle, be it the American or Soviet form, requires a penetration, albeit not in the way normally defined. To be effective, and to make a difference on the battlefield, the penetration must be closely followed by mass, either more fires or maneuver, to exploit the advantage gained by piercing the enemy's lines.

While FM 100-5 lists penetration as a form of maneuver, we rarely practice it in the pursuit of deep battle.[26] Instead of massing force to "make a hole," we tend to apply force on a broad front that achieves a semblance of penetration. Penetration is inextricably linked to other forms of maneuver, and cannot stand alone. Unfortunately, although we speak of combinations of penetration with other forms of maneuver, we rarely practice, and seldom master them. In a theoretical, evolutionary sense, our understanding of the philosophy of penetration is still in the 1930s. Penetration is not the tactical end, but the first, tactical step in the application of the operational art.

Envelopment

Envelopment is the form of maneuver best combined with penetration, for tactical deep battle. Traditionally, envelopment means *physically* surrounding the enemy force to destroy it. The envelopment distinguishes American and Soviet practice of deep battle.

For the Soviets, the evolution of the envelopment, as a form of maneuver started at the tactical level with the development of tactical deep battle. Tukhachevskiy's writings continually emphasize the importance of envelopment. As Soviet thought on deep battle evolved to the operational level, the emphasis on envelopment increased. Indeed, since envelopment focuses on force destruction, rather than terrain retention, it fits well in Soviet doctrine. The Soviets, however, continue to focus on physical envelopment.

The American conception of envelopment is defined in FM 100-5:

> Envelopment is the basic form of maneuver in any doctrine that seeks to apply strengths against weakness. Envelopment avoids the enemy's front,

> where his forces are most protected, and his fires most easily concentrated. Instead, while fixing the defender's attention forward by supporting or diversionary attacks, the attacker maneuvers his main effort around or over the enemy's defenses to strike at his flanks and rear.[27]

The effects of envelopment on the enemy are devastating. Of all the forms of maneuver, envelopment is most decisive because it not only applies strength against weakness, it creates a psychological effect that effectively causes the enemy to forfeit the initiative.

FM 100-5 lists envelopment and other forms of maneuver in the chapter on offensive operations. Envelopment, however, is also the effect sought in tactical deep battle, whether offensive or defensive. Applying strength against weakness—or creating weakness by overwhelming force—comes from penetration. "Maneuvering a main effort around or over enemy defenses to strike at his flank or rear," is exactly what tactical deep battle does.

Envelopment is that missing link, between a penetration and the desired effect of a deep strike, and the tactical deep attack and operational success. Envelopments do not require physical force as will be demonstrated in the next section. The effects of strength against weakness, and a moral strike on the enemy's confidence are the key results of a combination of penetration and envelopment.

Interchangeability

Interchangeability is one of the most original aspects of the Soviet conduct of deep battle, and, interestingly enough, is also that technique most often used by the US Armed Forces in their conduct of deep battle. Essentially, interchangeability is the capacity to substitute fire for maneuver. This concept is reflected in

the truism, "Why send a man, when you can send a bullet?" Simpkin believes that fires and troops are *not* interchangeable. His argument, although weakened by the onslaught of technology, is still valid, at least at the tactical level.[28] Simpkin believes, that once fire is delivered, it poses no further threat,

> ...except perhaps within the limited though important scope of delayed-effect munitions. The results of fire may be devastating at the physical or psychological level, or at both. But they can be seen and measured or estimated; in effect they present the commander of the force fired on with a new discrete situation. The only way to impose a firepower threat on a target is to place projectors where they can bring fire to bear on it.[29]

The fundamental issue in this discussion is the potentiality of the threat of firepower. Simpkin believes that a presence must be established to deter an enemy from an act. Figure 8 suggests that technology offers an ability to achieve the same effect, while using stand-off distance to gain absolute superiority. A key issue of interchangeability and deep battle however, is whether deep battle serves to destroy, neutralize, or deter.

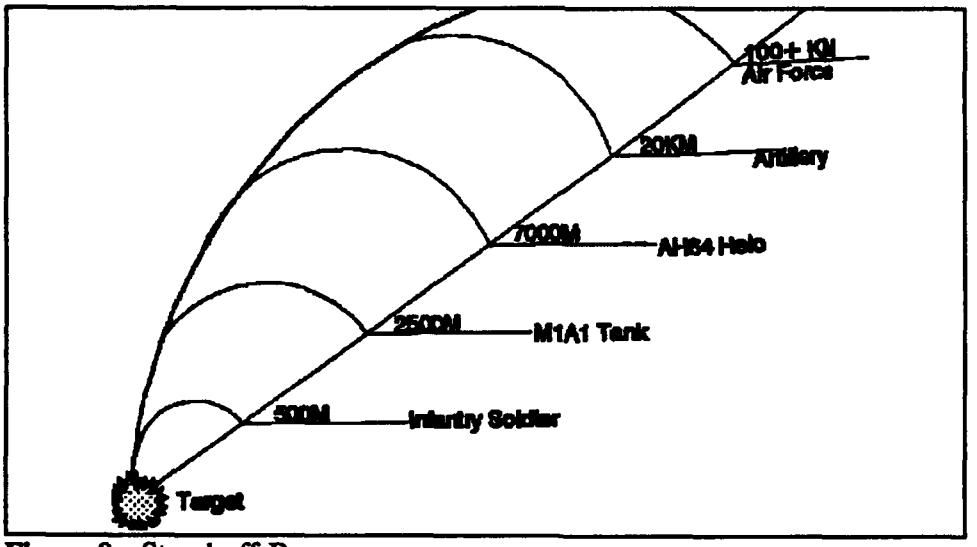

Figure 8 Stand-off Range

Since the 1930s when the deep battle concept came to the fore, stand-off distance has increased tremendously. While this increase was originally due to increased weapons ranges, optics and acquisition technology have taken over recently. Recent experience in Operation Desert Storm suggests that this tendency to more stand-off range is continuing. With the advent of the JSTARS system, for example, real-time intelligence on enemy targets is feasible.

The key to interchangeability is its effect on the enemy. An infantryman standing beside an enemy soldier is certainly able to bring fire. Additionally, that desired effect of potential firepower is present, and weighing on the enemy. Consequently, an enemy soldier in such a position will do exactly that which the friendly soldier tells him. In this case, all three aspects, destruction, deterrence, and neutralization are served.

Consider now a tank positioned at two-thousand meters but able to fire upon an enemy force. Two thousand meters is a long distance, usually too long for the naked eye to discern movement. Yet that tank can bring fire to bear, and in most cases, historical and otherwise, is able to prevent undesired enemy actions. Thus, with potential firepower present, although at increased range, destruction, deterrence and neutralization are again accomplished.

Extending ranges even further, we can use an Apache helicopter, equipped with Hellfire missiles. The range is now about six-thousand meters, the enemy cannot see his aggressor. But the friendly ability to see and act is still there, thus the potential to destroy still exists. Likewise, as long as the enemy is in the sights of the helicopter, neutralization is possible. However, deterrence is more difficult

to obtain. Lacking that physical presence, the enemy commander could be tempted to pursue a course of action dangerous to the friendly force.

Finally, consider an M-109 firing battery some 15,000 meters from the enemy position. This battery, firing on data supplied by a forward observer, or better yet, firing Copperhead ammunition with a probability of kill (Pk) of nearly 100%, is also able to engage the enemy. Again, the potential, expressed as the ability to bring fire to bear on the enemy is present, while the physical presence (an observer) can be up to five kilometers away. Destruction and neutralization are easy, but deterrence is impossible.

Extrapolating this discussion, the only limit to engaging the enemy effectively lies in the acquisition means. Delivery means, including aircraft, already exist. Theoretically then, deep battle is only limited by the ability to acquire, and engage targets. This point is vital because of the present mindset in the US Army today. The consensus, driven by the idea that to own terrain, one must stand on it, believes that maneuver forces must be an essential element of deep battle. In fact, this concept agrees with the Soviets, but in our Army it is misplaced. Maneuver forces are too important, expensive and essential to the close battle to spend them on a deep battle, that may, or may not bear fruit.

Maneuver by fire (as opposed to maneuver) seeks to create a psychological effect on the enemy the same as that created by maneuver. In fact, the key is the effect we seek on the enemy, not the means. By agreeing to the desired effect on the enemy, we can reduce means to mere technicalities. The desired effect in deep battle is to take away, or limit the enemy commander's freedom of action, while increasing our own. That effect is created by attacking his center of gravity.

The "weak link" in maneuver by fire is the acquisition means. Consequently, a physical presence is essential.

The fundamental importance of interchangeability lies not in the means used to attack deep, but in the desired end. Deterrence, destruction and neutralization are all possible with the technology in the field. A basic question that must be addressed, is the aim of deep battle. What is it we want deep battle to accomplish for us? This point will be examined in Section IV.

Simultaneity

Simultaneity is the attack of an enemy force, *throughout the depth of that force,* at the same moment. Obviously, the coordination of such force represents an almost physical impossibility. However, as Simpkin notes, the idea is relative, and serves as a useful way of evaluating a tactical problem.[30]

An integral part of simultaneity is that of "maximum contact area."[31] Maximum contact area means applying force to fix the enemy, keeping the maximum forces occupied. Originally, this meant equal attack on a broad front. Technology, however, provided the capability to attack in depth. Thus forces on the front were thinned to provide the overwhelming force capable of making the breakthrough, yet still able to pin the enemy.

Once pinned, the enemy's freedom to maneuver and react is severely limited. Limiting freedom of maneuver causes vulnerability. This onslaught of force, both maneuver and firepower is a requirement for the successful conduct of deep battle. The enemy must be overwhelmed, not only on the front lines, but also in depth.

This concept highlights an essential requirement of deep battle. The enemy must be attacked simultaneously everywhere. If not, theoretically, he could react, seal the penetration, and spoil the successive mission of the attacking force. Recall Figure 1. There, if the enemy was not simultaneously attacked, both front-line forces and reserves, he could reposition forces and counter a penetration. Since absolute destruction of the enemy is the goal, then the force being attacked must be offered no opportunity for escape.

Simultaneity in Soviet deep battle consists of fixing attacks and heavy artillery attacks in depth to engage enemy artillery and air defense artillery (ADA) systems. At the same time, maneuver forces are either in contact or approaching enemy defenses, thus completing the effect. While simultaneity and the ALB tenet of synchronization appear to have some things in common, one major difference is one of scope. A second, less obvious difference is the psychological or moral effect produced by simultaneous engagement of all enemy forces. This will be further discussed under the heading of synchronization.

Mass

Mass is essential to any combat operation, but most difficult to apply in tactical deep battle. It is the ability to concentrate combat power at the decisive place and time.[32] Assuming we know the decisive place and time, the problem lies in coordinating the arrival of this force (synchronization). Several qualifiers about mass, however, also should be considered.

First, the mass must be superior to that of the enemy. Thus mass depends on a thorough knowledge of the enemy situation. Intelligence must be continuous because the time between force commitment and arrival could allow enemy

commanders to change their force array and disposition. Thus, much like interchangeability and simultaneity, mass depends on an accurate picture of the enemy situation.

The second major factor of mass hinges on the ability of the attacking force to arrive at the appropriate place with the requisite force intact. In deep operations, this force takes several forms from maneuver to artillery. In the case of maneuver, a force going deep must be kept as massed as possible. In other words, the deep force must be structured to deal with contingencies, while retaining enough combat power to get the job done on arrival at the target. This generally requires the assistance of a follow-and-support force specifically designated to accomplish this mission. On the other hand, maneuver by fire can theoretically be massed with none of these limitations.

Closely related to the question of mass is one of sufficiency of force to accomplish the aims of deep battle. A point raised when the concept was introduced in 1982, goes to the heart of the discussion. "If the Warsaw Pact can defeat our defending forces with their first echelon, it makes no difference if we do any damage to, or delay, the second echelon."[33] In other words, why attack the second-echelon if we cannot defeat the first?

The issue of sufficiency is one that troubles commanders even today. Obviously the most important mission, for the tactical commander, is the destruction of the force immediately threatening the friendly force. The balance between fighting the close battle and the deep battle is one of timing and trade-off. However, since all force is not always engaged, the possibility of attacking deep presents itself.

The structure of a US division, for instance, allows the application of a finite amount of force on the battlefield. Often, higher headquarters base calculations of capability on the entire force. In other words, there is little force available to fight deep, because all combat forces are generally committed in the close fight.

The application of mass in the deep fight does not require continuous force, only simultaneous force. In most engagements there is a lull that occurs after initial contact with the enemy. This lull, ranging in time from minutes to hours, is situational dependent. It generally occurs after first contact as the opposing forces try to determine each others' strengths and weaknesses. This is the point where deep attack assets become available to the commander. Granted the time is short, but resources are available. Frequently the resources are field artillery assets, but may include aviation and even maneuver forces, if desired.

The key to mastering the application of mass in the deep battle is timing. US Army doctrine calls this synchronization, but the doctrinal definition fails to grasp the concept involved. Applying mass in the deep battle suggests the necessity of a dedicated command and control element, poised to act to commit the force, whatever it is.

Tempo

Tempo is a measure of the speed and direction of mass against an opposing force, and equals,

> the total distance from initial concentration area to final operational objective divided by the time from receipt of orders by the executing formation to accomplishment or abandonment of its mission.[34]

Thus tempo not only determines combat power, it <u>is</u> combat power.

This concept emphasizes the Soviet predilection for overwhelming the enemy. It depends on concentration and its effects produce the momentum that in most cases prevent an enemy from reacting in time. Tempo relates to the operational level of war, but, as already indicated, is an essential part of the tactical level because of the relationships of tactical and operational deep battle for the Soviets.

Tempo in deep battle, as it relates to current American doctrine, is a function of initiative on the battlefield.

> The need for deep attack emerges from the nature of our potential enemies—their doctrine and their numerically superior forces. . . . What is important is that superiority in numbers permits him to keep a significant portion of his force out of the fight with freedom to commit it either to overwhelm or to bypass the friendly force.[35]

In essence, the American approach to tempo is reaction as opposed to action. This is a result of limited resources and the defensive mind-set of American deep battle. We speak of "getting inside the enemy's decision cycle," or "breaking up his tempo," but these are only words. They have little meaning for an enemy committed to deep attack. The only way to counter the effect of tempo is to apply our force, against the opposing force, before he overwhelms us.

Offensive Action

Offensive action, emphasizes seizing and holding the initiative, "rather than a piece of real estate."[36] FM 100-5, notes, " . . . offensive action, or maintenance of the initiative, is the most effective and decisive way to pursue and attain a clearly defined, common goal."[37] The practice of deep battle gives the initiator a way of forcing an opponent to react, thus causing a shift in the initiative.

As already discussed in the section on penetration, the Soviets refuse to let "closed" flanks stymie them.

> If the enemy keeps his flanks closed and they cannot be turned, it becomes necessary to disrupt his tactical layout by a deep frontal attack.[38]

This philosophy of the offense is typical of the Soviet thought on deep battle. If the enemy does not provide opportunities, make them yourself. In contrast, the American view of the offense and initiative is to search for opportunities using indirect means. While safer, it is time consuming.

The conduct of deep battle allows the initiative to be seized by offensive action. Offensive action, however is keyed to force destruction rather than terrain retention. The clarity of thought provided by an emphasis on offensive action, allows a concentration on the matter at hand.

Agility

The American tenets of AirLand battle, much like the Soviet principles discussed above, are not limited to the deep battle. They form a basis for the doctrine practiced by each army. The American tenets in many ways echo the sense of the Soviets principles, but because they are more broad in scope, lose their impact when examining them in the deep battle context.

The AirLand Battle tenet of agility means the ability of friendly forces to act faster than the enemy.[39] Agility recalls the Soviet concepts of simultaneity, and offensive action. In the context of deep battle, agility should provide the needed edge, not only to anticipate enemy actions, but also to predict them.

Agility also means the ability to react faster than the enemy to changing conditions. It suggests an ability to rapidly synthesize the dynamic of deep battle.

It depends on accurate and timely intelligence, provided by a thorough reconnaissance of the enemy force. This area, reconnaissance, is one emphasized by the Soviets.

Deep battle offers the possibility of deciding and controlling enemy actions. Agility in deep battle seeks to gain such an advantage, thus gaining initiative.

Initiative

According to FM 100-5, initiative is "setting or changing the terms of battle by action."[40] Action implies an offensive attitude that overcomes the natural inertia of a military force in war. Of all the AirLand Battle tenets, this one most closely resembles a Soviet precept, that of offensive action. Indeed, the term initiative implies an imposition of will, by one force on an enemy force.

Webster's Unabridged Dictionary defines initiative as:

> 1. the action of taking the first step or move; responsibility for beginning or originating. 2. the characteristic of originating new ideas or methods; ability to think and act without being urged; enterprise.[41]

Deep battle, whether offensive or defensive, offers a unique opportunity to gain the initiative. In the attack, enemy forces not yet aware of friendly intentions can be engaged, throwing a defender into confusion. Similarly, a defender can attack an approaching enemy before he can close to the immediate battle. The distinction of advantage versus disadvantage between offense and defense is blurred by this ability.[42]

The Soviets anticipated this blurring of the distinctions between offense and defense. In many ways, their entire theory of warfare is based on gaining and retaining the initiative.

> Effective control of a battle should mean control over all battle processes, i.e., not only the actions of the friendly side but to some degree the actions of the enemy that have been imposed on him by our operations.[43]

Initiative implies acquiring the upper hand and keeping it. It also is the difference between active offense and passive defense. The offensive nature of deep battle, however, requires this all important tenet of AirLand Battle to be understood and applied.

Depth

Depth, according to FM 100-5 is the extension of operations in space, time and resources.[44] Depth is both a concept, as well as a physical layout of forces, and includes combat forces and their support forces.

Depth allows momentum and elasticity to develop. Momentum is not expressly defined, but implies a gathering, then concentration of resources that are then applied against the enemy. It is the offensive form of depth. Elasticity, on the other hand is the defensive form of depth and suggests an ability to react to the blows of the enemy with the necessary resources and force.

This idea perhaps more than any other AirLand Battle concept engenders the idea of American deep battle. The key phrase is, "the extension of operations in space, time and resources."

Space as a three-dimensional concept marks a unique American contribution to deep battle. Although the Soviets mention air and artillery attack in their

writings, the thrust of deep battle theory concentrates on the employment of maneuver forces throughout the enemy depth. American theory, both tactical and operational, emphasizes the employment of means other than maneuver to penetrate and delay forces in depth.[45]

Time, in deep battle is another important concept. As Clausewitz noted:

> Time that passes is *lost to the aggressor.* Time lost is always a disadvantage that is bound in some way to weaken he who loses it.[46]

In deep battle, time accrues to him who attacks deep, because he not only disrupts the enemy, he also reduces the time the enemy has available to pursue his own actions. Paraphrasing Clausewitz, time gained by deep attack is time taken away from the opposing force. Taking this time actually accrues time to the attacker or practitioner of deep battle, and is thus a tremendous advantage.

Resources are an issue already discussed above. A key point is the availability of a resource. Since the battle is not waged on a continuous basis before a decision is reached, some assets or resources are freed. These resources, though admittedly small, become the resources used to prosecute deep battle. The key issue in the resources question is its relationship to space and time in the context of depth.

Synchronization

> Winning in combat requires that a force mass its combat power against another force's weakness to inflict enough damage to cause its defeat or destruction.[47]

Synchronization, as discussed in FM 100-5, emphasizes the employment of force at the right place and right time. This force, overwhelming force, must be applied simultaneously to achieve, not only a physical effect, but also a psychologi-

cal effect. In other words, the whole is greater than the sum of the parts. The major difference between synchronization and the Soviet notion of simultaneity is one of application. Simultaneity suggests an application of force throughout the depth of an enemy formation. Synchronization, on the other hand, is the application of a part of the force at a specific point in time. Taken together, these ideas become key elements of the definition of tactical deep battle.

In summary, a definition of deep battle lies in its characteristics. The two major actions of deep battle, penetration and envelopment, are influenced by various principles which insure success. The last step in the quest for a definition of deep battle lies in its purpose.

IV. THE AIM OF DEEP BATTLE

The idea of striking the enemy beyond his forward formations is relatively modern, and certainly appealing. A key question that must be asked is, what is the object of the deep attack? According to Clausewitz, the immediate object of any attack must be victory.[48] But does deep attack cause or only contribute to victory? Further, is contributing to victory enough to justify the expenditure of effort and resources, or must the deep attack become a tactical defeat mechanism?

"At the tactical level, deep operations are designed to shape the battlefield to assure advantage in subsequent engagements."[49] This is an example of deep battle contributing to a victory. Contrast this statement with the Soviet reasons for attacking deep:

> Modern means of neutralization, employed on a mass scale, put within reach the possibility of simultaneous attack and destruction of the entire

> depth of the enemy's tactical defense, [to] . . . neutralize the enemy defensive fire system, [and] . . . to disrupt the enemy's command and control system, and to pin down and isolate his reserves . . . .[50]

This meaning, conveys a sense of victory, but also suggests a contribution to a higher-level, more complete victory than that at the tactical level.

For the Soviets, tactical deep battle is only the first step in a larger operation to gain access to and annihilate an enemy force. The American concept, on the other hand, treats tactical deep battle as an end itself. Such thinking artificially separates the tactical and operational levels of war. Further, our battlefield framework concept separates tactical deep and close actions.

A not surprising lesson of the Soviet practice of war and deep battle is their emphasis on the offense. Offensive operations naturally include offensive tactics, but defensive operations as a rule, form a mind set of defensive actions.

The ability to reach out with offensive power while in the defense, and actually attack enemy strengths is embodied in the deep battle concept, particularly at the tactical level. The Operational Maneuver Group (OMG) is the Soviet manifestation of the deep battle concept developed by Triandafillov and Tukhachevskiy. This offensive power is not limited to maneuver however. Instead, other forms of battlefield *action* are implied. Foremost among these is firepower. In this high technology world, electronic warfare applications and, as yet undeveloped weapons could also be employed.

The object of tactical deep battle is not necessarily victory, but it must be destruction. Destruction will contribute to the overall victory. This destruction is, by nature, limited to the initial enemy defenses. Destruction, however, should not be the end-state of tactical deep battle. Tactical deep battle must provide the

commander the ability to pursue an operational objective. This suggests a linkage between the tactical and operational plan that is absent, not only in the plans of tactical level planners, but also missing in their training. While taught to follow higher commander's intent, Americans miss the connection in this intent of the tactical to the operational level.

The aim of close battle is straightforward—defeat the immediate enemy. Defeat is accomplished by destruction of the enemy and survival of the friendly force. The aim of tactical deep battle, especially when oriented on the offensive, is not only survival, but victory. Victory however, comes, not at the tactical level, but at the operational level. This linkage is tantamount. Operational victories, satisfy Clausewitz' requirement for an end state of any type of battle.

V. TOWARD A NEW DEFINITION OF TACTICAL DEEP BATTLE

As the Army transitions from a single, European based threat, the doctrinal basis of tactical deep battle must be revised. Specifically, the benefits of deep attack must be emphasized while concurrently developing methods to reduce or address limitations. To define American tactical deep battle, four questions must be addressed:

1. What is the make-up and role of the various branches and arms in the tactical deep fight?
2. To what depth should they attack? (related to levels of command)?
3. What principles are necessary to plan and conduct such an operation?
4. How to ensure success?

The make-up and role of the different branches will vary with the situation. The branches are grouped as maneuver, (infantry and armor), artillery, and army aviation. The arms include joint cooperation from the other services. Ideally, all available force will be applied at the furthest distance from the friendly force to preserve our own force while inflicting the utmost damage on the opposing force.

In the tactical realm, close air support (CAS) and Army attack helicopters (AH) have the longest reach, and the ability to inflict the most damage. Therefore, these should be the first weapons of choice. In practical terms, however, CAS and AH are limited in application, by available sorties, and the extreme lethality of cross-FLOT (Forward Line Of Troops) operations. This leaves the commander (Brigade and Division) with two alternatives, artillery and maneuver.

Of the two, artillery will probably be the weapon of choice for the tactical deep fight because of the targeting and extended range available. Maneuver force, in the form of raids, to destroy an enemy artillery concentration for instance, may be useful, but their flexibility and availability are questionable.

The depth of the attack should be on the seam between the tactical and operational levels, determined by the location of the enemy reserve. The main emphasis of the tactical deep battle is to engage and destroy the enemy reserve. An essential point to planners is the absolute necessity to include higher commander's intent when contemplating deep operations. Tactical maneuver and maneuver by fire offer an operational level commander the ability to strike deep operationally, using tactical advantage.

The tactical reserve is key to deep attack because it removes the enemy commander's freedom of action. Without a means to influence the battle, the enemy commander must turn to the next higher level, tactical in the case of a friendly brigade attack, but operational-level in the case of a division attack, for assistance. When an enemy operational level commander is forced to respond to tactical emergencies, the intent and fruits of tactical deep operations become apparent.

Finally, success in deep battle is insured by concentrating friendly resources on the offensive application of force. Doctrinally, this concentration comes when certain principles, a mix of Soviet and American philosophies, are applied. These principles include the basic deep battle actions of penetration and envelopment. Principles derived from the concepts of interchangeability, simultaneity, mass, tempo, offensive action, agility, initiative depth and synchronization are also necessary to successfully prosecute tactical deep battle.

A Proposed Definition of Tactical Deep Battle

To conclude, we must define, in clear, unambiguous terms, exactly what we mean by tactical deep battle, and what we want it to accomplish. This is necessary because tactical deep battle is the link, not only for the Soviets, but for the US Army, between tactics and operations. As such, tactical commanders must understand their key role in this process, and not limit themselves to tactical considerations. In this light the following, revised definition of tactical deep battle is offered.

Tactical Deep Battle: (tăk´tik-ul dēp băt´l) (Syn. tactical deep attack, tactical deep fight)

1. a simultaneous, synchronized series of **offensive** actions through and beyond the direct fire fight. The aim of the attack determines the depth, normally no further than the location of the enemy tactical reserve. Tactical deep battle seeks to restrict and deny an enemy commander's freedom of action.

2. it consists of two, related actions, penetration and envelopment. Penetration and envelopment are not limited by traditional definitions, instead these derivatives of maneuver are applied by all offensive weapons, direct, indirect, and electronic. The attack uses a three or four dimensional approach to destroy the source of the enemy commander's freedom of action.

3. for maximum effect, tactical deep attack must be: massed; applied simultaneously throughout the battlefield; and, synchronized.

4. effective prosecution of tactical deep battles requires, speed, and a gathering momentum that translates to tempo and thus, combat power.

5. the offensive actions are not limited to any branch or arm, on the contrary, use the force most suited, either because of availability or capability.

6. tactical deep battle is an inherent part of the operational commander's fight.

7. ensure that all deep tactical actions include a consideration of the higher (operational) commander's intent.

ENDNOTES

1. Current U.S. Army practice and doctrine states that there is only one battle, consisting of deep, close, and rear operations. In order to avoid confusion among the terms, deep operation, close operation, and operational depth, these new definitions are proposed. The operational level of war links battles and engagements into major operations; and major operations into campaigns. Thus linking deep operations into a battle, for instance, creates confusion when it is further connected to a major operation, at the operational level of war. See FM 100-5 (Operations), 33, and FM 100-15 (Corps Operations), 1-1, for a complete discussion of the differences.

2.Charles L. Crow, "Tactical and Operational Depth," (SAMS Monograph School of Advanced Military Studies, USACGSC, May 1986.), 2.

3. Ibid. 3.

4.Viktor Triandafillov, The Nature of the Operation of Modern Armies,(Ft. Leavenworth: US Army Command and General Staff College, School of Advanced Military Studies Reprint), 42.

5. The term simultaneity is one coined by Simpkin. For a complete discussion of the term see Richard Simpkin, Deep Battle, (London: Brasseys Publishers, 1987), 35.

6. Mikhail Tuchachevskiy, New Problems in Modern Warfare, (Ft. Leavenworth, KS: US Army Command and General Staff College, School of Advanced Military Studies Course Readings, 1990), 12.

7. Ibid, 13.

8. This diagram is from Tukhachevskiy's, New Problems in Warfare, 12.

9. Ibid.

10. Ibid.

11. Ibid, 14.

12. Ibid, 17.

13. Richard E. Simpkin, Race to the Swift, (London: Brasseys Defence Publishers, 1985), 62. I have modified Simpkin's diagram by adding a tactical depth. Tactical depth extends from the FEBA through the front-line units' tactical reserve location.

14. Richard E. Simpkin, Race to the Swift, 55.

15. PU-36, Chapter 7, "The Offensive," as quoted in Simpkin, Deep Battle, 222.

16. See, for instance, John L. Romjue, From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982, (Ft. Monroe, VA, US Army Training and Doctrine Command, June, 1984).

17. General Donn A. Starry, "Extending the Battlefield," in Military Review, March, 1981, 32.

18. US Army, Field Manual (FM) 100-5, Operations, Department of the Army, Washington, DC, May, 1986, 19.

19. COL Huba Wass De Czege, "The Theoretical Basis for Fighting Deep," in AirLand Battle Doctrine, US Army War College Art of War Colloquium, 44.

20. This diagram is adapted from a diagram on the second-echelon threat, in Starry, "Extending the Battlefield," 34.

21. See the Corps Deep Operations Tactics, Techniques and Procedures (TTP) Manual, (Ft. Leavenworth, April 1990), for a complete discussion of the tactics of corps deep operations.

22. J.F.C. Fuller, Armored Warfare, An Annotated Edition of Lectures on FSR I.I.I., Ft. Leavenworth, KS, School of Advanced Military Studies, 1990.

23. Fuller, 184.

24. Ibid.

25. See, for instance, David A.Mock, A Look at Deep Operations: The Option of Deep Maneuver, (Ft. Leavenworth, KS: 5 December 1986).

26. FM 100-5, 104.

27. FM 100-5, 101.

28. A number of authors have argued over the ability of one force to effectively subdue an enemy. COL J. Warden, in The Air Campaign, suggests precision munitions and air power may be able to accomplish the task without ground troops. Simpkin (and I) believe the psychological threat of a presence, serves to deter.

29. Simpkin, Race to the Swift, 137.

30. Simpkin, Race to the Swift, 145.

31. Simpkin, Race to the Swift, 37.

32. FM 100-5, 174.

33. Col. Trevor N. Dupuy, "The Soviet Second Echelon: Is This a Red Herring?" in Armed Forces Journal International, (August, 1982), 60.

34. Simpkin, Deep Battle, 54.

35. Starry, "Extending the Battlefield," 34.

36. Simpkin, Red Armour: An Examination of the Soviet Mobile Force Concept, (London: Brasseys Defence Publishers, 1984), 146.

37. FM 100-5, 173.

38. Tukhachevskiy, as quoted in, Simpkin, Deep Battle, 64.

39. FM 100-5, 16.

40. Ibid, 15.

41. Webster's Unabridged Dictionary, Second Edition, (New York: Prentice Hall, 1979), 944.

42. David M. Glantz, Soviet Military Operational Art, (Ft.Leavenworth, KS: US Army Command and General Staff College), 254.

43. Tukhachevskiy, 23.

44. FM 100-5, 16.

45. The current edition of FM 100-5 (May, 1986), tends to emphasize delay, and other generally defensive ideas. This tends to stress the defensive nature of American deep battle doctrine.

46. Carl von Clausewitz, On War, edited and translated by Michael Howard and Peter Paret, (Princeton: Princeton University Press, 1976), 383.

47. Clyde L. Long, "Synchronization of Combat Power at the Task Force Level: Defining a Planning Methodology," (MMAS Thesis, US Army Command and General Staff College, June 1989), 1.

48.Clausewitz, On War, 545.

49. FM 100-5, 19.

50. Tukhachevskiy, as quoted in Simpkin, Deep Battle, 39.

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