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**"Reconnaissance-Pull" - Seeking the Path
of Least Resistance**

**A Monograph
by
Major Frederick R. Kienle
Infantry**



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ABSTRACT

"RECONNAISSANCE-PULL" - SEEKING THE PATH OF LEAST RESISTANCE by Major Frederick R. Kienle, United States Army, 56 pages.

This monograph determines the utility of the "reconnaissance-pull" concept for division commanders. Although the term "recon-pull" is becoming widely used by many Army leaders, analysis proves that the concept is rarely applied in practice, and may be widely misunderstood. Simply defined, "recon-pull" is locating and rapidly exploiting enemy weaknesses.

A basis for the concept of "recon-pull" is clearly evident in the theoretical writings of Sun Tzu, Carl von Clausewitz, Basil H. Liddell Hart, and William S. Lind. These theorists demonstrate the need to find enemy weaknesses and exploit them - with reconnaissance as the means for identification of those enemy weaknesses.

"Recon-pull" is further demonstrated in the maneuver-based warfare practiced in history, specifically in World War I German "Infiltration Tactics," World War II German "Blitzkrieg" tactics, and the guerrilla tactics of Mao Tse Tung. The contemporary application of "recon-pull" is apparent in the tactics applied by the Soviet Army. These examples, combined with theory, provide a definitive framework for the "recon-pull" concept.

The essence of "recon-pull" resides in: a doctrine oriented toward maneuver and not attrition warfare; a philosophy of command and control which is flexible and promotes subordinate initiative (decentralized execution); an organization that is sufficiently robust and equipped to conduct reconnaissance on a broad front followed by penetration to disrupt the enemy; and the understanding and willingness to apply the "recon-pull" concept.

Analysis of current and future U.S. Army doctrine, command and control practices, and organization indicates a need to apply "recon-pull" to successfully prosecute maneuver warfare. Doctrine and organization are generally compatible with the "recon-pull" concept, attesting to its feasibility. The only apparent "disconnect" is the reluctance of commanders at all levels to apply "recon-pull." This monograph concludes that "recon-pull" holds great utility for division commanders, and its understanding and outright adoption would enhance the probability of success on current and future AirLand Battlefields.

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**"You can never do too much reconnaissance."
- George S. Patton, Jr.: War as I Knew It**

INTRODUCTION

The art of reconnaissance is as old as warfare. Since ancient days, commanders used their scouts to provide information about the enemy and the terrain for making plans, orders, and decisions.¹ Despite over two thousand years of military and technological advancement, the application of reconnaissance assets to collect information remains a vital prerequisite for maximizing combat effectiveness.

Joint Chiefs of Staff Publication 1 defines "reconnaissance" as simply :

...a mission undertaken to obtain, by visual observation or other detection methods, information about the activities of an enemy or potential enemy; or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area.²

Leaders throughout the United States Army generally recognize the critical role of reconnaissance on today's and future battlefields. Significant assets are annually allocated to the development and procurement of electronic devices which enhance information gathering capabilities, while the effectiveness of current procedures and capabilities receives the attention of numerous studies. The Commander of the US Army Training and Doctrine Command (TRADOC) recently directed special studies to assess the conduct and effectiveness of reconnaissance; the RAND Corporation completed a substantial analysis of

reconnaissance experiences at the National Training Center (NTC) in 1987; and the Center for Army Lessons Learned is currently producing a new bulletin emphasizing the importance of reconnaissance.³

A perception that numerous reconnaissance-related problems exist throughout the U.S. Army generated much of this recent emphasis on reconnaissance. We can validate this perception through an examination of CTC take-home packages and BCTP after-action reviews. Performances at the various Combat Training Centers (CTCs) and in battle simulation exercises, most notably the Battle Command Training Program (BCTP) Warfighter Exercises, indicated that commanders do not often use reconnaissance to obtain enemy information for exploitation purposes. Instead, commanders use reconnaissance forces to provide security for the main body or for locating where additional combat forces are needed to gain a favorable force ratio. In some recent Warfighter Exercises, commanders failed to use any reconnaissance to identify enemy weaknesses, and instead fought costly frontal attacks.

It is unusual for division commanders to conduct aggressive reconnaissance aimed at identifying enemy weaknesses against which they can maneuver. Instead, commanders concerned with force ratios and overwhelming the enemy tend to become fixated on "fighting their plan," which is usually based on intelligence gathered long before commencement of the operation. Despite what doctrine suggests, commanders are usually not agile enough to

rapidly shift their main effort, and they also tend to husband their designated reconnaissance forces for security missions. In most cases, commanders further demonstrate insufficient flexibility to allow subordinate unit commanders the freedom to exploit gaps found through a reconnaissance process. Even though espoused doctrine, command and control philosophy, and current organizations may suggest otherwise, "reconnaissance-pull" is rarely applied by U.S. Army division commanders.⁴

The term "reconnaissance-pull" ("recon-pull") entered the Army's current lexicon to counter the apparent lack of reconnaissance emphasis and to stress its importance for success in offensive combat operations. This non-doctrinal term appeared within the context of several reconnaissance studies and assessments produced at the Infantry and Armor Centers.⁵ At a recent BCTP division precommand course exercise, the Combined Arms Center Commander reminded new division commanders to apply the "recon-pull" concept throughout their planning. Despite these seemingly apparent adoptions of the "recon-pull" concept, many commanders and their staffs still fail to understand the term.

Simply defined, "recon-pull" is a conceptual process which emphasizes finding and exploiting enemy weaknesses. It transcends the isolated activity of reconnaissance which serves to obtain information about enemy activities and resources. "Recon-pull" is actually a process which encompasses the employment of information-gathering units

and systems to locate and expeditiously exploit enemy weaknesses. This process determines a unit's axis of advance, based on the results of reconnaissance, rather than having it firmly fixed by the commander (as is now often the case). The axis then shifts in response to successful reconnaissance efforts.⁶ The "Recon-pull" process uses reconnaissance to determine routes suitable for maneuver, to determine enemy strengths and vulnerabilities, and then to "pull" the main attacking body along the path of least resistance.

The main issue of this study is to determine whether the concept of "recon pull" has sufficient utility for US Army division commanders involved in the conduct of offensive operations. While the "recon-pull" concept may be slowly gaining acceptance by selected tactical commanders, an examination is warranted of its feasibility, benefits, and need for adoption at the division level. As the "largest fixed Army organization that trains and fights as a tactical team," the division is an appropriate level for our examination.⁷ If division commanders can adapt the concept of "recon-pull" to current doctrine and can further apply it with current resources for success in offensive operations, we can then assert that it has substantial utility "across the board." Therefore, a need may exist for its outright inclusion in doctrine and practice.

This study explores the theoretical roots of the "recon-pull" concept. Once the foundation for the concept is established, 20th century German and Chinese

applications of "recon-pull" are examined to extrapolate its essential aspects by concentrating in the areas of doctrine, command and control procedures, organization, and actual practice. In addition to examining history, the contemporary Soviet application of "recon-pull" is analyzed to further refine a model of the concept and to better recognize its essential ingredients. Once a cogent model is developed, analysis proceeds to the contemporary U.S. Army for comparison; analysis then focuses on the operational concept of AirLand Battle-Future to determine likely future compatibility between Army needs and "recon-pull." Based on the feasibility of applying "recon-pull" within existing force structure and doctrine, and the evidence of a requirement to better articulate and apply the reconnaissance process, this study concludes with a determination of the utility of "recon-pull" for division commanders.

THE THEORETICAL FOUNDATIONS OF "RECONNAISSANCE-PULL"

SUN TZU

A simple, broad basis for "recon-pull" exists in the ancient, but timeless writings of Sun Tzu. Finding and exploiting enemy weaknesses are emphatic principles in Sun Tzu's writings:

Determine his (the enemy's) dispositions and so ascertain the field of battle...Probe him and learn where his strength is abundant and where deficient.²³

Now an army may be likened to water, for just as flowing water avoids the heights and hastens to

the lowlands, so an army avoids strengths and strikes weaknesses."

Sun Tzu regarded knowledge of the enemy and terrain (along with knowledge of self) as the essential ingredients for total victory, and promulgated "subduing the enemy without fighting as the acme of skill." He also advocated forming two distinct forces: the "Cheng" and the "Ch'i." The "Cheng" was meant to expose adversary vulnerabilities while the "Ch'i" was to rapidly exploit and deliver a decisive stroke. Tactical reconnaissance, speed, and seizure of the opportunity to morally defeat the enemy were well understood and espoused by this ancient Chinese military theorist.

CARL VON CLAUSEWITZ

Carl von Clausewitz, the great eighteenth century military theorist, also professed pitting friendly strength against enemy weakness. Addressing "the attack," Clausewitz stated that it would be irrational for an attacker to attempt an assault on the enemy if he could possibly get his way without doing so. Regarding an attack on enemy defensive positions, he wrote:

One thing is sure and fundamental to the issue:
it is a risky business to attack an able opponent
in a good position."

Although Clausewitz considered the destruction of the enemy forces as the ultimate purpose of all engagements, he did not discount the decisive factors brought about by loss of morale, nor the significance of threats to the enemy rear." Although Clausewitz doubted the possibility of

collecting reliable intelligence, he still accepted the moral advantage gained by locating and then exploiting enemy weaknesses.¹³

BASIL H. LIDDELL HART

Avoiding enemy strengths through the "indirect approach" was a major premise of Basil H. Liddell Hart's writings. Reminiscent of the writings of Sun Tzu, Hart provided a useful metaphor for understanding the "recon-pull" concept.

If we watch a torrent bearing down on each successive bank or earthen dam in its path, we see that first it beats against the obstacle, feeling it and testing it at all points.

Eventually it finds a crack at some point. Through this crack pour the first dribblets of water and rush straight on.

The pent-up water on each side is drawn towards the flanks of the breach... wearing away the earth on each side, so widening the gap.

Simultaneously, the water behind pours straight through the breach between the side eddies which are wearing away the flanks. Directly (after) it has passed through it expands to widen once more the onrush of the torrent.

Thus Nature's forces carry out the ideal attack, automatically maintaining the speed, the breadth, and the continuity of the attack.¹⁴

Hart's "expanding torrent" metaphor illustrates the "recon-pull" process of locating a weakness in the enemy defense, and then quickly exploiting it well into the enemy's rear while continuously widening the initial penetration.

Hart convincingly asserted the value of locating and exploiting enemy weaknesses through a broad historical survey espousing the "indirect approach."¹⁵ Although he applied the idea at the "strategic level of thought," Hart nonetheless provided a sound basis for the tactical use of

mobility, maneuver and surprise to avoid enemy strengths. In one example, Hart cited William T. Sherman's tactics in the 1864 Atlanta campaign as an example of the "indirect approach." Sherman displayed flexibility, avoided decisive engagements, used an irregular front of foragers for reconnaissance, and dislocated the enemy morally throughout his campaign.¹⁵ Sherman's tactics were certainly one successful application of "recon-pull."

WILLIAM S. LIND

The term "recon-pull" was presumably first coined by a contemporary military reformer, William S. Lind. Building on two-thousand years of military theory, Lind developed "recon-pull" as an integral part of his overall theory of maneuver warfare; "a style of war in which movement, deception, and all other tools of combat are used to face the enemy with a succession of dangerous situations more rapidly than he can react to them, until his cohesion is shattered."¹⁷ The object of Lind's maneuver warfare is to shatter the enemy first psychologically, and then physically. Lind described maneuver warfare tactics as:

...non-linear, decentralized and opportunistic, the goal always being to throw strength against weakness. Attacks are pulled by reconnaissance around the enemy's strongpoints and into his rear, to destroy his artillery, headquarters, communications, and logistics. The attackers continue the push even deeper into hostile territory, leaving enemy combat units bypassed, encircled, and useless.¹⁸

There are several key elements to Lind's theory. He refers to these as mental reference points, or "filters," which help to shape our thought processes.¹⁹ The first

filter is the mission-type order which tells subordinates what he is to accomplish without detailing precisely how to do so. The second filter is the focus of effort, the German concept of "Schwerpunkt," which translates as the unit which is most likely to achieve a decision.²⁰ The "Schwerpunkt" helps focus friendly combat power against an identified enemy weakness.

The third "filter," surfaces and gaps, is actually the essence of "recon-pull." Surfaces and gaps are simply enemy strengths (surfaces) and weaknesses (gaps). At tactical levels, these gaps are most likely to be actual "holes" in enemy positions which are somewhat vulnerable due to enemy troop dispersal or tactical errors in timing or placement of units. Whatever the cause, reconnaissance can locate these gaps so that strength may be hurled through them. The avoidance of surfaces and exploitation of identified gaps is "recon-pull."

To provide contrast to "recon-pull," Lind presents a method that he terms "command push." Instead of determining an axis of advance through the use of timely reconnaissance, "command push" determines the axis during initial planning. With "command push," the commander directs the requisite number of forces down his predetermined axis to make the attack successful (i.e. friendly strength is committed to overwhelm enemy strength). "Command push" is often the method applied by U.S. Army commanders.²¹ "Recon-pull," on the other hand, suggests a reconnaissance screen preceding the main body,

oriented not on providing security to protect the friendly force but instead on finding a weakness which may be exploited to defeat the enemy force.²²

A testament to the impact of Lind's maneuver warfare theory is the embodiment of "recon-pull" in the U.S. Marine Corps' combat philosophy. The Marines' capstone doctrinal manual, FMFM-1 Warfighting, recognizes "recon-pull" specifically.²³ In the chapter entitled "The Conduct of War," and under the heading "Surfaces and Gaps," the US Marine Corps Warfighting manual states:

We must actively seek out gaps by continuous and aggressive reconnaissance. Once we locate them, we must exploit them by funneling our forces through rapidly. For example, if our focus of effort has struck a surface but another unit has located a gap, we shift the focus of effort to the second unit and redirect our combat power in support of it. In this manner we "pull" combat power through gaps from the front rather than "pushing" it through from the rear. Commanders must rely on the initiative of subordinates to locate the gaps and must have the flexibility to respond quickly to opportunities rather than following predetermined schemes.²⁴

Lind's concept of "recon-pull," as adopted by the US Marine Corps, goes well beyond being merely "a mission undertaken to obtain information about the activities and resources of an enemy."²⁵ Simply "obtaining" information conveys no advantage at all to an attacking commander. It is the proper and timely processing and exploitation of information that produces a decisive advantage. Reconnaissance is obviously not just an activity, but a process, and "recon-pull" capitalizes on that process to confuse and disorder the enemy.

HISTORICAL DEVELOPMENT AND EXAMPLES OF "RECON-PULL"

To further establish an understanding of "recon-pull," it is useful to take a cue from the theorists and study historical applications. By combining history with previously discussed theory we can further develop a conceptual framework for the "recon-pull" concept.

ANCIENT ARMIES

Ancient armies under Alexander, Genghis Khan, and Hannibal all used reconnaissance to some degree. In each of these armies, it served to probe the enemy's organization and dispositions to unmask strengths, weaknesses, and intentions. But those early leaders fought on battlefields that lacked significant depth and could usually be controlled by a commander observing the battle from a single vantage point. Once the enemy weak spot was identified, the commander would then thrust his heavy forces upon that spot to confuse and break-up the enemy formations. Successful ancient commanders identified and rapidly exploited enemy weaknesses faster than their opponents. ²⁶

Identification and exploitation of enemy weaknesses grew more difficult as the age of large conscript armies evolved. Enormous battlefields, increased weapons lethality, and tremendous logistics requirements suppressed the commander's ability to capitalize on surprise, deception, and mobility. Through the nineteenth century, attrition warfare became the norm, and by the First World

War firepower became the dominant factor in battle.

GERMANY, WORLD WAR I

Because the French and British enjoyed an increasing material advantage as the war dragged on, the Germans sought a tactical innovation which could turn the balance in their favor. They anxiously sought to restore mobility to the static and attrition-oriented battlefield.²⁷ Defensive positions were virtually impregnable, despite such innovations as concentrated artillery barrages, poison gas, and the airplane.²⁸ In the 1917 battles of Riga and Caporetto, on the Russian and Italian fronts respectively, the Germans found success with "new" offensive tactics.²⁹ They bypassed strong forward defenses and disorganized the enemy with relatively small attacking forces.³⁰ The essence of these German tactics was for assault squads, or "storm units" ("Stosstruppen"), to move in irregular swarms seeking to penetrate enemy positions and identify "soft spots" while avoiding enemy strongpoints.³¹

These "soft spot," or "Hutier infiltration tactics," proved so successful on the Eastern Front and the Aisne, that Field Marshal Ludendorff incorporated them into his new offensive regulations.³² The Manual of Position Warfare for all Arms Part 14 The Attack in Position Warfare, issued January 1, 1918, called for the innovative use of short but heavy artillery preparations, highly trained "Stosstruppen" to find and exploit gaps, and a "continued infantry advance into the enemy's rear, leaving the task of reducing bypassed enemy strongpoints to the

second or third attack wave."³³

The "Stosstruppen" were to infiltrate small groups to reach the enemy artillery, always flowing forward by the path of least resistance followed by storm companies and flamethrower troops who attempted to envelop positions and generate confusion and paralysis by pushing through soft areas.³⁴ The German doctrine of 1918 clearly prescribed a probe to identify enemy positions followed by a deep penetration through weak areas with the intent of disrupting the enemy and retaining the initiative. German tactical doctrine did not require the complete physical destruction of the enemy.³⁵

Conducting "infiltration tactics" demanded a somewhat radical departure from the detailed orders and highly centralized control of First World War static trench warfare. The fluidity and tempo of "infiltration tactics" required a great deal of independent action by the small "Stosstrupps." Commanders authorized subordinate leaders to continue advancing through gaps without regard to the success of flank units.³⁶ Divisions were to establish initial penetrations and then press the attack with forward-positioned reserve divisions, committed by the field army, to reinforce success.³⁷ To maintain necessary speed and timing, division commanders tolerated a somewhat disorderly attack (in contrast to WWI "wave" attacks) and relied heavily on small unit initiative.

The highly trained "Stosstruppen" were well organized to act independently and seize available opportunities. These

storm units were unique combined-arms organizations of varying sizes formed within field army and divisions. Armed with trench mortars, light mountain howitzers, flamethrowers, and engineers, the methodically-prepared and rehearsed troops quickly attacked through enemy weak areas previously identified by infantry probes.³⁸ The storm troops were relatively heavily armed, but this was to provide fire to support forward movement of the penetration and to protect the inevitable exposed flanks.³⁹

The successful "infiltration tactics" and "Stosstruppen" employed during the March 1918 offensives provided valuable lessons for the application of "recon-pull." One key lesson was the rejection of the linear "strength against strength" advance which dominated the First World War. In another lesson, tactics which required locating and bypassing enemy strengths while conducting deep attacks to disorganize the enemy rear were adopted. Brief, but intense, and well planned "Bruckmuller" artillery preparations were adopted not to destroy the enemy, but to disrupt and suppress his defenses while obscuring reconnaissance probes for the follow on assault.⁴⁰ "Infiltration tactics" were the new dawn of maneuver tactics which were dependent on reconnaissance and exploitation of enemy weaknesses.

GERMANY, WORLD WAR II

S.L.A. Marshall recognized the impact that "infiltration tactics" had on the development of "Blitzkrieg" tactics, and even went so far as to cite

General Oskar Hutier as the "father of Blitzkrieg tactics."⁴¹ He identified commonalities such as: reconnaissance before and during battle to unmask enemy strengths and weaknesses, flexible command based on freedom for lower level leaders to exploit opportunities, rapid advance of combined arms units along paths of least resistance, and the intent of shattering the enemy through shock and confusion. There is an undeniable relationship between "infiltration tactics" and "Blitzkrieg."⁴²

Although there was no actual published doctrine of "Blitzkrieg," the German doctrine of "Truppenfuehrung" developed by General Ludwig Beck in 1933 strongly emphasized maneuver (Bewegungskrieg) and provided the principles for operations throughout the Second World War.⁴³ This German doctrine strongly favored the offense and included tanks as part of storm troop units, yet provided little in the way of textbook tactical solutions. "Blitzkrieg" was actually an innovation to this published doctrine. Hitler, desiring speed above all else in military operations, issued the official "Directives" and approved General Heinz Guderian's campaign plans which ultimately led to the use of the non-doctrinal innovation called "Blitzkrieg."⁴⁴

One important facet which allowed for the conduct of "Blitzkrieg" was its unique form of command and control popularly dubbed "Auftragstaktik" - a concept of decentralized execution which allowed subordinates the maximum freedom to accomplish their assigned tasks.⁴⁵

Commanders designated tasks which were, in effect, the commander's intent, while the subordinate commanders determined their own courses of action. Additionally, "Truppenfuhrung" explicitly stated that a subordinate commander could change his task so long as it remained in concert with the higher commander's overall intent.⁴⁶ This freedom of action proved advantageous when exploiting the weaknesses of more methodical and "lock-step" armies in a chaotic and fluid environment. It enabled German military commanders to observe from forward positions and make tactical decisions for themselves.

To accomplish "Blitzkrieg," the Germans formed "Panzer" Divisions - mechanized all-arms forces which could rapidly force through weak points and play havoc against rear areas before facing any counterattacks. A "Panzer" Division was a tailorable force which task-organized into battle groups to meet mission requirements:

A typical battle group consisted of a rifle regiment combined with a panzer regiment, together with engineers, signals, and an artillery battalion...the rifle regiment almost always chosen for use in this way since it was equipped with armored half-track vehicles and so could be committed with the tanks... Reconnaissance units were never detached to battle groups but always remained under the direct control of divisional headquarters.⁴⁷

Much of the "Panzer" Divisions' early successes on both fronts can be attributed to bold, skillful, and discreet ground reconnaissance which complemented excellent aerial reconnaissance.⁴⁸ Forward divisional reconnaissance was normally accomplished through armored car probes, air

reconnaissance and by motorcyclists of the reconnaissance battalion.⁴⁹ Reports of resistance went back to the division commander, who was close behind in a moving armored vehicle and could direct responsive actions. Often, reconnaissance was carried out for several zones of the divisional front before the choice was made as to where to attack.⁵⁰ If German tanks encountered enemy armor, they retired through the antitank gun batteries and moved to bypass the resistance.⁵¹

The "Schwerpunkt"-place of main effort-was not the place where major resistance was encountered. On the contrary, the advance elements bypassed and avoided opposition, wriggling and infiltrating wherever possible, fighting only where there was no other alternative. The momentum of the attack was vital to success...⁵²

The essence of "Blitzkrieg" was actually the preemption of battle through maneuver: a physical disruption which would psychologically dislocate the enemy.⁵³ Through its innovativeness and adaptation of available technology, combined with a system of flexible and decentralized command and control, the German army found success with "Blitzkrieg" tactics in Poland, France, Russia, and North Africa. "Recon-pull" evolved within the context of "Blitzkrieg." The Germans gained success through their ability to see the battlefield, aggressively seek out opportunities, quickly make and execute decisions, and psychologically dismember the enemy.

MAO TSE TUNG, GUERRILLA WAR IN CHINA

Use of reconnaissance and infiltration to uncover enemy

weaknesses for rapid exploitation was not confined to the German army. The use of stealth, a fast tempo, and fluidity also characterized the unconventional tactics of Mao Tse Tung in China. German and Chinese guerrilla commanders demanded the avoidance of attrition battles while pursuing disintegration of the enemy through surprise, shock, and disruption.

Mao's guerrilla tactics stressed surprise, deception, and striking enemy weaknesses. These tactics, based on the writings of Sun Tzu, Lenin, and Tukhachevski, were professed by the Communist guerrilla leader in his Selected Works:⁵⁴

...Cause an uproar in the east, strike in the west...The enemy advances, we retreat; the enemy camps, we harass; the enemy tires, we attack; the enemy retreats, we pursue. In guerrilla strategy, the enemy's rear flanks, and other vulnerable spots are his vital points, and there he must be harassed, attacked, dispersed, exhausted and annihilated.⁵⁵

Mao's doctrine of guerrilla warfare centered around pinpointing and exploiting enemy weaknesses, not attacking strengths. By stripping maneuver warfare of many of its conventional military trappings, Mao created a model guerrilla doctrine.⁵⁶

Mao's doctrine was executed by a Chinese Communist Party army organization that was, at once, both political and military. Units at every level operated under military and political officers. This dual command extended through the platoon level, and ensured that small units acting independently were part of a coordinated overall effort.⁵⁷

Through the extensive political and ethical indoctrination of every individual, Mao's doctrine and "intent" were able to permeate his guerrilla army. With their common ideological and doctrinal base, Mao chose his generals for their "flexibility" as commanders.⁵⁵ Mao encouraged initiative and flexibility as desirable attributes for his commanders at all levels in a mobile style of war that:⁵⁶

...involved many problems, such as reconnaissance, judgement, decision, combat disposition, command, concealment, concentration, advance, deployment, attack, pursuit, ..evading the strong and attacking the weak, bypassing operations, consecutive operations...⁵⁷

Mao's basic guerrilla unit for conduct of mobile war was the squad. Two to four squads formed a platoon, two to four platoons formed a company, and so on through battalion and regimental levels. These small guerrilla units were lightly equipped, obtaining most supplies from the enemy, and charged with several missions or "responsibilities. Among the missions of the small guerrilla units were: "to force the enemy to disperse his strength; to attack enemy lines of communication; to harass and weaken large forces; and to coordinate activities with those of the regular army on distant fronts."⁵⁸ Mao's guerrillas were organized to exploit information gained from the people through application of the "indirect approach."

The tactics and organization of Mao's Chinese Communist Party took maximum advantage of friendly strengths and enemy weaknesses. Mao garnered information about the enemy from the local population, while arousing and organizing

the people to support the Communists. This information revealed areas where the enemy was unprepared and vulnerable to attack; areas where Mao could "economize" force, yet gain psychological disintegration of the enemy.⁶² In effect, Mao depended on "recon-pull" (the reconnaissance being conducted by the populace) to enable him to disintegrate the enemy while preserving his own strength.

SOVIET UNION, CONTEMPORARY TACTICS

"Recon-pull" application is not confined to purely historical examples. Through their own analysis of military history, the Soviets have realized the importance of reconnaissance, its relation to intelligence, and the advantage of pitting friendly strength against enemy weaknesses. The Soviets use a single term, "razvedka," which includes the English ideas of reconnaissance and intelligence in one word. Tactical "razvedka," organized at all levels below army, is responsible for obtaining and analyzing information about the enemy before and during battle.⁶³ Designated "razvedka" units are responsible for determining enemy strengths and weaknesses, gathering information about terrain and obstacles, and creating a useful mosaic of the enemy which assists the commander in making decisions.⁶⁴

The Soviets consider tactical reconnaissance to be the single most important element of combat support.⁶⁵ One Soviet General recently stated:

Only he who organizes battle skillfully and

provides all-around support, never neglecting reconnaissance, can count on a successful outcome. Indeed the role of reconnaissance can scarcely be overestimated. It allows commanders to ascertain not only the enemy's forces and strength, but also his strong and weak aspects and potential capabilities and to discover his intentions. Lacking this information, not a single officer will be able to make an expedient decision that fits the situation.⁶⁶

In offensive operations, Soviet doctrine calls for aggressive tactical reconnaissance which supports application of the principles of offensive action. Soviet offensive operations attempt to bypass strongpoints and envelop defensive positions by exploiting gaps in the enemy defense.⁶⁷ The goals of the offense are to locate weak points in the enemy defense, conduct a breach, rapidly maneuver forces and fires in the decisive direction, and strike rapidly and deeply into the enemy rear.⁶⁸ The main attack is to be delivered against the weakest point in the enemy defense.⁶⁹

To ensure responsiveness of tactical reconnaissance, regimental and division commanders employ a Chief of "Razvedka" (COR) to plan and coordinate all reconnaissance efforts. The COR is the staff intelligence officer who tasks subordinate and organic assets to collect information. Additionally he requests and coordinates the attached reconnaissance efforts from higher. The COR, directed by the Chief of Staff and higher level CORs, develops a plan of troop reconnaissance which confirms other collection means and provides timely information which is responsive to the commander's needs.⁷⁰

To allow for timely exploitation of reconnaissance information, the Soviets "presuppose the initiative of subordinates," and expect commanders to display reasonable initiative in determining the methods of carrying out missions.⁷¹ While centralized command and control remains paramount in the Soviet army, it is nonetheless recognized that rapid changes on the battlefield demand immediate response. The Soviet commanders, at all levels, are expected to avoid unnecessary rigidity and instead are to "plan for flexibility." Variants, or contingency plans, are produced to allow commanders the freedom to adjust rapidly to uncovered enemy weaknesses.⁷²

To uncover enemy strengths and weaknesses, offensive reconnaissance is conducted by many organizations through a variety of techniques. At all levels, "razvedka" units precede the main body to perform reconnaissance by acquiring information about the terrain and the enemy's locations. Avoiding detection and decisive engagement is crucial to their success. Within the division, dedicated reconnaissance assets provide a wide array of information about the enemy. Divisional units are organized to provide the commander with information about enemy artillery, air defense, engineer, chemical, and maneuver capabilities or intentions. Operating as much as one hundred kilometers forward of the division main body, specially trained and equipped reconnaissance battalions stealthfully gather information.⁷³ At the regimental level, motorized rifle and tank regiments employ reconnaissance companies out to

fifty kilometers to provide information about the the enemy location, composition, and formations.⁷⁴ These reconnaissance forces provide information which assists the division commander in projecting his main attack.

Soviet reconnaissance is responsive to the tactical commander's needs and provides him with timely information upon which to base his ongoing decisions. These decisions should promote a swift breakthrough and the maintenance of high tempo along the shortest possible distances. Continuous reconnaissance provides the requisite information for command decisions which can exploit enemy weaknesses.

This effective use of "recon-pull" is essential to the Soviet style of maneuver warfare which envisions:

Rejection of the classic breakthrough achieved by massed forces; attacking on multiple axes with no continuous front; concentrating and dispersing combat power quickly on a rapidly changing battlefield; transferring combat power swiftly from one point on the battlefield to another; exploiting weak points in an enemy defense; carrying the battle deep into the enemy rear; achieving surprise; employing initiative.⁷⁵

The Soviets see utility in the concept of "recon-pull." It is a feasible and essential component within the framework of their doctrine, command and control structure, and organization.

"RECON-PULL"- A CONCEPTUAL FRAMEWORK

Based on a theoretical background and the previous historical applications, we can create a conceptual framework for "recon-pull." First and foremost, the process of "recon-pull" seeks to place friendly strengths

against enemy weaknesses, finding and exploiting gaps. For the Germans (in two wars), the Chinese guerrillas, and the Soviets this called for an approach to fighting, or a set of guidelines, that favored a maneuver-based style of warfare over an attrition-based style. Doctrine which favored the application of "recon-pull" recognized the futility of hurling strength against strength to seize terrain-oriented objectives, and instead recognized the values of surprise, shock, disruption, and fast transient maneuvers. The doctrines of the armies previously discussed all recognized the value of shattering the enemy's cohesion in depth to bring about his collapse.

For the Germans, the Chinese, and the Soviets there was a dependence on initiative at low levels which required delegating of authority. Small unit commanders displayed initiative and quickly adjusted to the discoveries of probing units or reconnaissance forces. Information from forward moving elements was rapidly exploited in an effort to deny the enemy the ability to react. A "reconnaissance screen" (or in Mao's case, the populace) "pulled" the friendly strength against the enemy weakness. Intelligence determined the scheme of maneuver, which dictated the probing or reconnaissance effort, which in turn redirected the scheme of maneuver.⁷² Flexibility and decentralized execution, like dedicated reconnaissance assets, were essential to success.

In each case, a designated element covered a broad front to collect information which would lead to exploitation of

enemy gaps. The forward forces did not have the mission to attack, but instead were to determine the location and disposition of enemy strengths and weaknesses. The initial reconnaissance organization depended on some combination of speed, stealth, or surprise to collect the information needed to apply "recon-pull." In each case the only security provided by the recon element was derived from the information it generated, not from its ability to engage in combat.

"RECONNAISSANCE-PULL" AND THE CONTEMPORARY U.S. ARMY

U.S. Army commanders have employed "reconnaissance-pull" on limited occasions throughout history. These relatively limited instances occurred under maneuver warfare practitioners such as Lee, Sherman, and Patton. The predominant U.S. style of warfare, however, has been attrition-based and has relied heavily on huge armies and massed firepower.⁷⁷ Today, there is a definite doctrinal shift to a preference for maneuver warfare - which should embody the concept of "recon-pull."

FM 100-5, OPERATIONS

The US Army's capstone doctrinal manual, FM 100-5 , Operations clearly states:

Whenever possible, commanders design their tactical plans to avoid the enemy's strength and strike at his weaknesses. Maneuver units can inflict the greatest damage on the enemy by avoiding head-on encounters with his deployed forces. Instead they should operate on his flanks and rear, where direct fire is most effective, psychological shock is the greatest, and the enemy is least prepared to fight.⁷⁸

FM 100-5 further describes AirLand Battle offensive actions as "rapid, violent operations that seek enemy soft spots, rapidly shift the main effort, and exploit successes promptly."⁷ The manual all but prescribes the outright application of "recon-pull:"

Offensive operations are characterized by aggressive initiative on the part of subordinate commanders...The ideal attack should resemble what Liddell Hart called the 'expanding torrent.' It should move fast, follow reconnaissance units or successful probes through gaps in enemy defenses, and shift its strength quickly to widen penetrations and to reinforce its successes, thereby carrying the battle deep into the enemy rear.⁸

It would seem as though US Army divisions must be practicing "recon-pull:" but are they? From an analysis of National Training Center (NTC), Joint Readiness Training Center (JRTC), and Battle Command Training Program (BCTP) take home packages, we can readily conclude that our commanders are often not using reconnaissance to locate enemy weaknesses for subsequent exploitation.⁹ In a significant number of training exercises, maneuver force commanders do not apply an effective reconnaissance process to identify enemy weaknesses; instead, they tend to fight costly frontal attacks.¹⁰ Often, reconnaissance is used to assess enemy strengths to thereby assist the commander in developing the appropriate "force ratio or correlation." "Recon-pull" is not universally applied throughout the U.S. Army.

To determine if division commanders are capable of applying the concept of "recon-pull," it is essential to

review the precepts or suggested methods obtained from official doctrine. To apply the concept of "recon-pull" it need not be mentioned specifically, but instead should not be in contravention to the "fundamental principles by which the military or elements thereof guide their actions."³³

Returning to the capstone doctrinal manual, FM 100-5, we can find a strong allusion to "recon-pull." The manual states: "because of the strength of established defenses, commanders should aggressively seek gaps or weaknesses in the enemy's defenses."³⁴ This "seeking of enemy weakness" is specified under the heading of "Planning, Preparing, and Conducting Attacks," and implies the need to wage a reconnaissance effort prior to finalization of planning. Under the same heading, the manual later quotes General Patton to stress the efficient use of time:

Haste exists when troops are committed without proper reconnaissance, without proper supporting fire, and before every available man has been brought up...Speed is acquired by making the proper reconnaissance, providing the proper artillery, and other tactical support...³⁵

Although used within the context of stressing time management in tactical planning, this passage certainly emphasizes the importance of the reconnaissance process as a prerequisite for a rapid attack.

FM 71-100, DIVISION OPERATIONS

The guide for the organization, capabilities and employment of the division is FM 71-100 Division Operations. It "applies to all types of divisions and sets forth doctrinal principles which guide the conduct of

division operations."²⁶ Under the heading of "Reconnaissance and Security Operations," FM 71-100 states that "reconnaissance provides information on the terrain, fresh information on enemy dispositions, clears security zone forces, and helps guide attacking forces against enemy weaknesses."²⁷ Other portions of the manual, as in the above reference to "clearing security forces," focus on providing security for friendly flanks and rear. Nonetheless, this section clearly asserts that "reconnaissance by air, ground, and intelligence units is continuous and aggressive prior to and during offensive operations."²⁸

Offensive forms of maneuver available to the division commander are the envelopment, the frontal attack, and the penetration.²⁹ The envelopment requires an assailable enemy flank or "very strong fire support;" the frontal attack is the "least desirable form of maneuver;" and the penetration is an "attack through the enemy's principal defensive position to divide the enemy force and allow it to be defeated in detail."³⁰ The section describing the conduct of the penetration later clarifies the statement which called for attacking "the enemy's principal defensive position:"

A penetration is conducted when the enemy is overextended, weak spots in his position are detected, terrain and observation are favorable, strong fire support is available, or an assailable flank is not available...As the penetration progresses, bypassed forces are reduced by follow and support forces...³¹

The penetration, which exploits an existing gap or creates a gap where none existed, is normally preceded by an artillery preparation to "demoralize and weaken the defender." In many ways, the penetration is reminiscent of German "infiltration tactics, Blitzkrieg," or Soviet style breakthrough operations.

The division's primary reconnaissance force is the division cavalry squadron. However, it has several other missions, in addition to reconnaissance, during the conduct of offensive operations. FM 71-100 states that:

In addition to reconnaissance, during offensive operations, the division cavalry squadron is assigned guard missions to protect the force and develop the situation to prevent premature deployment of uncommitted brigades. The squadron can be tasked to control terrain, delay or destroy large enemy forces, or perform economy of force missions.³²

Doctrinally, the division commander could expect the cavalry squadron to orient on the enemy to function as a reconnaissance force while simultaneously orienting on the friendly force to provide security and protection.

FM 17-95, CAVALRY OPERATIONS

The division cavalry squadron obtains much of its own doctrinal guidance from FM 17-95, Cavalry Operations.³³ This manual tends to concentrate more on cavalry combat operations than the vital division reconnaissance functions. For example, the manual downplays the cavalry's vital recon role in a penetration in favor of its role as a fixing or exploitation force.³⁴ This manual does specify that the division cavalry conducts zone reconnaissance to

locate the enemy and or find suitable routes for the main body, but it later treats this mission as a security-oriented covering force mission. The Cavalry Operations manual is apparently not fully aligned with other selected doctrinal publications, but application of "recon-pull" would not violate any of its guiding principles.

FM 71-3, THE ARMOR AND MECHANIZED INFANTRY BRIGADE

Because the division conducts its attack with brigades, we must examine reconnaissance emphasis in FM 71-3, The Armor and Mechanized Infantry Brigade. In the section which addresses "Planning," the process starts with intelligence but does not address the need to develop a reconnaissance plan to obtain combat information for command decisions.²⁵ The manual does, however, stress the importance of reconnaissance and security operations within the offensive framework and calls for detailed intelligence and reconnaissance to successfully apply strength against weakness in the envelopment.²⁶ For the most part, reconnaissance and security appear to be interchangeable activities in a manual which is otherwise compatible with the "recon-pull" concept.

DIVISION COMMAND AND CONTROL SYSTEMS

The division command and control system accomplishes the functions of planning, directing, coordinating and controlling in accordance with doctrine. The function of planning occurs through the command estimate process - an analytical process used to make tactical decisions based on available information. An integral component of the

command estimate process is the Intelligence Preparation of the Battlefield (IPB) process. The IPB process provides the basis for the collection of combat information through reconnaissance operations prior to battle, and assists in determining where, when, and how to deploy forces to ensure success.³⁷ The results of the IPB process eventually become the Intelligence Officer's (G-2) input to the command estimate process.

Although the command estimate and IPB processes appear to begin with receipt of a new mission and end with a decision and issuance of a complete operations order, they are both supposed to be dynamic and continuous.³⁸ Despite the usual practice of relegating IPB to the G-2, it is actually a total division staff effort which aids decision making throughout the execution of an operation. It should not end when initial plans are completed.³⁹ The IPB process drives reconnaissance planning and execution by identifying key intelligence requirements and areas of interest. Reconnaissance provides updated intelligence which, in turn, should update the plan and then require a new reconnaissance effort. The IPB and reconnaissance processes must be fully intertwined to be effective.

As the plan of the battle unfolds, the division commander must direct the battle. He directs by issuing oral or written orders which convert plans into instructions for subordinate units. Division Operations specifies that orders should explain the situation, mission, and intent of the commander in a manner which is

timely, complete and flexible. The manual specifically states that:

The division places a higher premium on maneuver and offensive spirit than ever before, and requires units agile and flexible enough to cope with rapidly shifting conditions. This environment requires a more decentralized command and control system... Mission oriented orders are fundamental for seizing and maintaining the initiative and they set the terms of battle by allowing subordinate leaders to exercise independent judgement to meet and exploit changing situations.¹⁰⁰

The US Army division command and control system clearly possesses flexibility and decentralized control which should provide a key ingredient to exploiting enemy weaknesses discovered by reconnaissance.

DIVISION INTELLIGENCE SYSTEMS

The division commander has a significant amount of assets for intelligence collection. These assets range from sophisticated aerial platforms with electronic collection capabilities such as QUICKFIX, to the eyes and ears of each individual infantry soldier.¹⁰¹ In addition, the division may receive intelligence collected by assets normally assigned to corps and echelons above corps.¹⁰² But despite the capabilities of these technical systems they are not sufficiently accurate, flexible, or timely to provide sufficient real-time combat information which may be exploited. And based on mission priorities at the corps level, these systems may not be available for the division. Because all currently fielded sensors employ active technologies and are therefore subject to enemy countermeasures, the best-up-to date combat information for

tactical operations still comes from the human scout.¹⁰³

DIVISIONAL LONG-RANGE SURVEILLANCE DETACHMENT

The division's long-range surveillance detachment (LRSD) is the only divisional organization with the sole mission of gathering human intelligence. The primary use of the division's LRSDs is to gather timely information up to fifty kilometers forward of the front line of troops (FLOT).¹⁰⁴ Highly trained in infiltration and clandestine operations, LSRDs are tasked by the division G-2 to provide information which assists the commander in planning and decisionmaking. However, these units have only limited reconnaissance capabilities (vice surveillance) because of their austere organization and the requirement to minimize movement to avoid detection. The small LSRD's value as a reconnaissance force is limited, given the extensiveness of a division area of operations.

COMBAT AVIATION BRIGADE

The division combat aviation brigade (CAB) provides substantial reconnaissance which can assist in locating enemy gaps and weaknesses which are vulnerable to penetration and exploitation, much the same as the Germans capitalized on aviation reconnaissance capabilities in World Wars One and Two. The CAB with its scout observation helicopters can cover a larger area in less time than is possible with ground assets. The responsiveness of aviation, combined with its visual, photographic, electronic and infrared collection means can provide a wealth of timely information about the terrain and enemy to

the commander. The drawback, however, of using the CAB for reconnaissance is its high vulnerability to enemy air defense and artillery, limited capability during adverse environmental conditions, and the difficulty of employing helicopters in a stealthful manner. Many commanders are reluctant to risk these valuable firepower assets in a purely reconnaissance role.¹⁰⁵

DIVISION CAVALRY SQUADRON

The division cavalry squadron in both the heavy and light divisions (recon squadron in the light infantry division) is organized and equipped to accomplish several missions. The doctrinal emphasis on missions assigned to the cavalry squadron appears to be weighted in favor of security over reconnaissance, and this seems reinforced by organization and equipment. Division cavalry squadrons maintain a significant tank-killing capability in the form of Cavalry Fighting Vehicle (CFV) or High-Mobility Multipurpose Wheeled Vehicle (HMMWV) mounted heavy antitank weapons (TOW). In addition, the squadrons possess a significant number of attack helicopters. Apparently, the division cavalry squadrons are well equipped to "fight within its limited capability to gain information in support of the division mission."¹⁰⁶

Trained to perform three distinct types of reconnaissance (route, zone, and area) the division ground and air cavalry troops can provide a wealth of information to the division commander. Advancing ahead of the division with troops abreast, the division cavalry squadron has the

ability to conduct a broad zone reconnaissance mission to locate enemy gaps and then exploit them by "pulling" the main body through. Although heavily equipped but not very robust, the division cavalry squadron can perform as a superb reconnaissance force.

BRIGADE RECONNAISSANCE ASSETS

The brigades which conduct the division attack do not "own and operate" their own reconnaissance force, and instead rely on the task force scout platoons.¹⁰⁷ The task force scouts, like the division cavalry troops, possess an organization and equipment better suited for security than reconnaissance.¹⁰⁸ In the heavy division, the scout platoons must often dismount from their fighting vehicles in order to stealthily conduct reconnaissance and can then only generate a reconnaissance element of approximately fifteen personnel. The small number of personnel assigned to task force scout platoons may seem to limit the task force commander's ability to apply "recon-pull" at his level, but the task force commander, like the brigade and division commanders, can certainly task any subordinate unit to perform reconnaissance.

"RECONNAISSANCE-PULL" (OR LACK OF IT) IN PRACTICE

Reconnaissance asset availability, like command and control systems and doctrine, would seem to indicate that the U.S. Army is applying the concept of "recon-pull;" but this, in fact, is not the case. Reconnaissance and security tend to coalesce, as though a single activity, making it difficult for any unit to devote its attention to

accomplishment of "recon-pull." The same unit that orients on the friendly force to protect it is often expected to orient also on the enemy force to locate strengths and weaknesses. In many instances commanders further expect reconnaissance forces to defeat the enemy's reconnaissance efforts through counterreconnaissance. Reconnaissance is often considered an activity which must be accomplished and not as a process which guides operations and requires precise integration into the overall tactical plan.¹⁰⁹

The basis for an initial reconnaissance effort, the IPB, is often treated as a G-2 process not involving the entire staff.¹¹⁰ Although a continuous IPB should guide reconnaissance efforts toward enemy gaps and allow reconnaissance assets to pull the main body along the path of least resistance, the commander often selects an axis of advance before the operation begins and seldom alters it.¹¹¹ To maximize combat effectiveness, intelligence should guide operations and operations should exploit intelligence.¹¹²

Division operations often lack the flexibility to exploit timely intelligence. Experience shows that many unit leaders are accustomed to their commanders doing their tactical thinking for them by issuing extremely detailed plans. Often, these plans do not allow for the flexibility required to respond to feedback gained from battle reconnaissance.¹¹³ Despite what is written in doctrine, some commanders remain reluctant to use mission-type orders which allow subordinates the maximum freedom to accomplish

their assigned tasks. The flexibility needed for "recon-pull" to succeed does not always exist.

Commanders also tend to rely only on their long-range surveillance detachments, cavalry squadrons, and battalion scouts to verify information gained from other acquisition sources. Because these reconnaissance units must also accomplish other important missions, the reconnaissance process may be inadequately resourced.¹¹⁴ Division commanders must be willing to designate other sub-elements to accomplish the reconnaissance mission if the intent is to adequately probe the enemy to locate his strengths and weaknesses. The best reconnaissance asset the division commander has may well be one of his infantry battalions. Doctrine, command and control processes, and organization certainly demonstrate the feasibility of the "recon-pull" concept for current U.S. Army divisions. Any contradiction to the feasibility of "recon-pull" seems to reside only in common practice and perceptions.

"RECON-PULL" IN TOMORROW'S ARMY

AIRLAND BATTLE-FUTURE

In the future, U.S. Army divisions will likely conduct tactical missions within the operational concept of AirLand Battle-Future (ALB-F) - a concept based on a changing strategic environment, advanced technologies, evolving force requirements, and the low probability of a high-intensity war. ALB-F focuses on a predominantly fluid nonlinear battlefield which requires extensive use of

offensive action and lethal long-range fires. The concepts of ALB-F and "recon-pull" appear fully compatible.

The conceptual ideas of ALB-F have expanded the importance of seizing the initiative and, therefore, increase the importance of "seeing the battlefield."¹¹⁵ The ALB-F concept calls for combat units to identify the enemy force, use fires in depth, and then "concentrate devastating combat power against vulnerable parts of the enemy force to gain the initiative locally at first, then throughout the battle area."¹¹⁶ Using a sequence of massing, fighting, dispersal, and reconstitution, ALB-F envisions a highly synchronized fight which avoids attrition battle.

To gain the initiative on the nonlinear battlefield, ALB-F calls for four overlapping and continuous phases: phase I- sensor acquisition, phase II- fires, phase III- maneuver, phase IV- reconstitution. Phase I relies heavily on sensors and reconnaissance forces to determine exploitable enemy vulnerabilities.¹¹⁷ Phases II and III depend equally on the use of reconnaissance forces to both locate and exploit enemy weaknesses. The overall objective of the ALB-F concept is to avoid any "head-to-head" confrontation and to instead attack the enemy through his vulnerable flanks and into his rear.

To execute the maneuver-based concept of ALB-F, divisions become tailorable command and control headquarters capable of accepting brigades allocated by the corps.¹¹⁸ The corps commander will establish a

reconnaissance/surveillance combined arms force to find and target enemy forces for the division, while avoiding decisive engagement while a separate force manages the counterreconnaissance fight.¹¹⁹ During the maneuver phase, reconnaissance forces assist lead elements of the maneuver forces in movement and positioning to exploit enemy weaknesses.

"The importance of decentralized execution of missions within the context of the commander's intent is essential to the successful application of the ALB-F concept."¹²⁰ Mission-oriented orders are essential to maintaining agility in the fluid environment of ALB-F. An "Auftragstaktik" type of approach is a prerequisite to the ability to manipulate and exploit enemy behavior.

The ALB-F concept requires reconnaissance forces which are agile and dedicated to the reconnaissance process. These forces are essential to providing the vital link between sensors, fires, and maneuver forces.¹²⁰ While technological advances in intelligence sensors may be able to locate significant elements of the enemy all of the time, the requirement for human scouts will nonetheless remain valid.

The ALB-F concept perceives a greater need than ever to apply the concepts of "recon-pull". Rapid, fluid, offensively based tactics with lower force densities than currently available are conducive to the "recon-pull" concept. The vast improvements in target acquisition and weapon lethality make it essential to find and avoid enemy

strengths while placing friendly strength against enemy weaknesses. In fact, the success of the ALB-F concept is predicated on the ability to successfully apply the "recon-pull" concept.

CONCLUSIONS

The concept of "recon-pull" is by no means a panacea, but merely an essential process for the prosecution of maneuver-based warfare. Applicable across the operational continuum from guerrilla war to high-intensity conflict, the "recon-pull" concept enables austere forces to launch attacks against enemy weaknesses, thereby achieving decisive results at the minimum possible cost. Armed with our understanding of "recon-pull" in theory and application, one cannot help but realize its advantages.

Because "recon-pull" appears compatible with doctrine, command and control procedures, and organization, it seems paradoxical that it is not routinely applied by commanders. There seems to be an inability of commanders to distill a sense of the "recon-pull" concept from existing doctrine. This couples with the reluctance of commanders to decentralize execution through mission-type orders and their fear of forfeiting any of their precious combat power to the reconnaissance process. The net result is division commanders who do not practice "recon-pull" to achieve tactical success.

The tactical successes of German "infiltration tactics,

Blitzkrieg," and Mao's revolution were all attributable in a large part to the application of "recon-pull." In a similar vein, the Soviets have fashioned their doctrine and forces to capitalize on the benefits of the "recon-pull" concept. We can compare the unifying attributes of "recon-pull" in these applications to the doctrine, command and control techniques, organization, and practice of the U.S. Army division to determine what changes, if any, are needed to formally adopt the concept.

The application of "recon-pull" is totally in concert with current and future U.S. Army doctrine. Current maneuver-oriented doctrine advocates placing strengths against enemy weaknesses, thereby avoiding attrition warfare. This implies that reconnaissance assets must be used to identify enemy weaknesses, and then begin to exploit them. Current doctrine also stresses the value of shattering the enemy's moral cohesion through the use of agility, initiative, and depth. "Recon-pull" is a viable and effective way to accomplish this.

The flexibility and decentralized command required for the execution of "recon-pull" mesh with both current and proposed U.S. Army doctrine and command philosophy. Although many commanders are reluctant to decentralize battlefield execution, this reluctance is not in consonance with AirLand Battle doctrine. The mission-type orders and dependence of subordinate initiative needed for "recon-pull" are identical to the command philosophy evidenced in AirLand Battle. "Recon-pull" is certainly

capable of being applied within the espoused division command and control philosophy.

The command estimate and IPB processes are existing vehicles for planning, directing and controlling tactical operations. The command estimate process, through the IPB, would reap significant benefit from the application of "recon-pull." Both of these processes are purported to be continuous, but in practice tend to conclude upon issuance of an operations order. Use of "recon-pull" would force staffs to continuously update IPB, while the command estimate process would then constantly receive new information for ongoing decisionmaking. It is obviously both feasible and effective within current command and control procedures, for reconnaissance-based intelligence to determine the scheme of maneuver, which in turn dictates the reconnaissance effort, which then redirects the scheme of maneuver.¹²²

The existing force structure may not, by current organization, be precisely trained and resourced for the most effective application of "recon-pull." Lacking the robust reconnaissance organizations of the Germans and the Soviets, the U.S. division commander must be more innovative. As with the army of Mao Tse Tung, every soldier should be capable of gathering intelligence. Division commanders can certainly designate up to one-third of their maneuver forces for the reconnaissance mission to compensate for the lack of reconnaissance-specific units.¹²² With only minor changes in tactics, techniques,

and procedures, "recon-pull" can be applied without significantly altering our current organizations.

To actually embody the concept of "recon-pull" in doctrine, by specific reference, would emphasize the importance of reconnaissance as a process; at the same time it would help to distinguish between reconnaissance and security by stressing the reconnaissance orientation on identification of enemy weaknesses. Commanders who currently hesitate to commit their "scarce" assets for information gathering would be prompted, by doctrine, to search for enemy weaknesses. There is definite need to portray the integral role reconnaissance plays in placing friendly strengths against enemy weaknesses, and the "recon-pull" concept accomplishes this portrayal.

The application of "reconnaissance-pull" has utility for division commanders at the present and in the future. It is fully compatible with current and future doctrine, procedures, and existing organizations; therefore it is feasible. It emphasizes the need for commanders, at all levels, to apply a reconnaissance process for attacking along the path of least resistance and achieving victory by shattering the enemy's moral cohesion.

ENDNOTES

1. LTC David Eshel, "Reconnaissance Operations," Defence Update International No. 94 (March 1989): p.10. LTC Eschel's first article in a series of three articles dealing with reconnaissance. The series presents a historical survey of scout organizations, tactics, and equipment.
2. Joint Chiefs of Staff Publication 1, Department of Defense Dictionary of Military and Associated Terms, (Washington, D.C., 1987): p.304. Note that this definition gives no useful indication of why information or data is obtained. This definition provides an explanation of the reconnaissance "activity" without portraying it as a "process."
3. U.S. Army Training and Doctrine Command, "Phase II Assessment: Reconnaissance, Surveillance, and Counterreconnaissance," (Fort Leavenworth, KS, 1989); Martin Goldsmith and James Hodges, Applying the National Training Center Experience: Tactical Reconnaissance, (Santa Monica, 1987); Center for Army Lessons Learned Bulletin, Reconnaissance Lessons Learned (Unpublished Draft), (Fort Leavenworth, 1990). Each of these publications/studies was initiated in an attempt to improve the conduct and effectiveness of reconnaissance at the tactical level.
4. COL William H. Janes, Memorandum, Subject: Division/Corps Exercises. (Fort Leavenworth, 1989); LTG Leonard P. Wishart, Briefing, Subject: Battle Command Training Program Perceptions. (Fort Leavenworth, 1990). This briefing, similar to the perceptions presented in COL Janes' memo, points out the usual tendency of BCTP participants (i.e. division commanders) not to apply recon pull. These perceptions further substantiate BCTP observer/controller remarks at a recent division commander's pre-command course exercise.
5. MAJ John D. Rosenberger, An Assessment of Reconnaissance and Counterreconnaissance Operations at the National Training Center. (Fort Knox, 1987); United States Army Infantry School, "White Paper: Reconnaissance and Security." (Fort Benning, 1988)
6. Ibid, p.3. This assessment strongly recommends the use of "reconnaissance-pull" by brigades and task forces engaged in offensive operations. In addition, this study points out that at the National Training Center commanders typically push however many forces are needed down axis chosen before operations begin. Rosenberger contends that

axis of advance are seldom altered once the operation begins.

7. Headquarters, Department of the Army Field Manual 71-100, Division Operations, (Washington, 1990): p.1-1.

8. Sun Tzu, The Art of War, translated by Samuel B. Griffith (New York, 1982): p.100.

9. Ibid, p.101.

10. Ibid, p.77.

11. Carl von Clausewitz, On War, translated by Michael Howard and Peter Paret (Princeton, 1984): p.11.

12. Ibid, pp. 231-233.

13. Ibid, p.84.

14. Captain B.H. Liddell Hart, "The Man in the Dark Theory of Infantry Tactics and the Expanding Torrent System of Attack," Journal of the R.U.S.I., (1921): p.3; This metaphoric illustration is also presented in Maneuver Warfare Handbook by William Lind. It is disputed as to whether this metaphor was an original thought of Liddell Hart's or if he "borrowed" it from Sun Tzu.

15. Captain B.H. Liddell Hart, Strategy, (New York, 1974) Liddell Hart's entire book, Strategy, is a justification of his theory of the indirect approach. Through numerous selected historical examples, Liddell Hart points out the success and validity of his theory.

16. Ibid, p.152.

17. William S. Lind, "Maneuver", Army Magazine (Washington, 1981)

18. William S. Lind, Outlook, "Washington Post", (July 26, 1985): pp. 81-82.

19. William S. Lind, Maneuver Warfare Handbook, (Boulder, 1985): p.13. This work is the definitive publication on "recon-pull," and lent considerable impetus to this study.

20. John A. English, A Perspective On Infantry, (New York, 1981): p.173; William S. Lind, Maneuver Warfare Handbook: p.18.

21. Ibid, p.18.

22. Ibid, p.75.

23. Headquarters United States Marine Corps, FMFM-1, Warfighting (Washington, 1989)
24. Ibid, p.75.
25. JCS Pub 1, p. 304. The JCS definition, and that in Army Field Manual 101-5-1 define reconnaissance as a mission but make no mention of reconnaissance as a process.
26. Colonel John Boyd. "Patterns of Conflict," unpublished briefing notes (1981). Boyd traces the evolution and essential elements of maneuver warfare from the Battle of Leuctra in 371 B.C. to the 1973 Middle East war.
27. Timothy T. Lupfer, The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War (Fort Leavenworth, 1981): p.41.
28. Laszlo Alfoldi, "The Hutier Legend," Parameters Journal of the U.S. Army War College (Carlisle, 1976): p.69
29. The battles of Riga and Caporetto occurred September 1 and September 24, 1917, respectively. For an excellent description see Erwin Rommel, Attacks (Vienna, VA., 1979).
30. Hew Strachan, European Armies and the Conduct of War (Boston, 1983): p. 145; Field Marshall Erwin Rommel, Attacks, (Vienna, 1979):pp.177-204; Jonathan M. House, Toward Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine, and Organization, (Fort Leavenworth, 1984):p.37.
31. Samuel J. Lewis, Forgotten Legions (New York, 1985):p.10; House, Toward Combined Arms Warfare:p.35.
32. Lewis:p.12; Alfoldi:p.69. Alfoldi's article declares that General Oskar von Hutier was not the originator of the tactics that bear his name. Hutier was credited with the inauguration of "infiltration tactics" by a Paris magazine in 1918 while German records present no evidence whatsoever of his being an innovator of tactical doctrine.
33. Ibid.
34. English:p.19.
35. Lupfer, pp. 41-45.
36. Lupfer:p.43; House:p.35.
37. Lupfer: p.16.

38. Ibid, p.44.
39. Ibid, p.44.
40. House, p.34.
41. Alfoldi, p.70.
42. Barry R. Posen, The Sources of Military Doctrine (Ithaca, 1984):p.207; Bruce I. Gudmundsson, Stormtroop Tactics: Innovation in the German Army, 1914-1918 (Praeger, 1989). "Blitzkrieg" is clearly shown to be the next logical step in the evolution of tactics that had begun in World War I. The author argues that these tactics didn't result from high level doctrinal developments at all, but instead were developed from the bottom up by small unit commanders seeking innovative ways to overcome attrition warfare.
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44. Posen, p.212.
45. Lewis, p.106.
46. Daniel J. Hughes,"German Military History," Military Review, (December 1986):p.68.
47. Len Deighton, Blitzkrieg, (New York, 1979): p.47.
48. Richard E. Simpkin, Race to the Swift, (McLean, 1985): p.35.
49. English, p.78.
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51. Deighton, p.156.
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53. Simpkin
54. Simpkin, p. 311.
55. Mao Tse Tung, "A Single Spark Can Start a Prairie Fire," Selected Writings, (Peking, 1972):p.72; Robert B. Asprey, War in the Shadows, (New York, 1975): p.363.
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61. Asprey, p.362; See also Mao's selected Waorks.
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72. FM 100-2-1, p.5-66.
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74. Ibid, p.9.
75. FM 100-2-1, p.1-42.
76. Scott Moore, "Recon Pull: A Marriage of 2s and 3s," Marine Corps Gazette, (August 1990):pp. 71-75.
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83. JCS Pub 1, Definitions...

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107. One current practice is brigade commanders
consolidating the scout platoons of their subordinate
battalion task forces to form Combat Reconnaissance
Detachments (CRD); this provides a substantial
reconnaissance capability to the brigade commander. This
practice has proven very successful at the NTC.

108. Light Infantry Division scouts have minimal force size
and mobility. Their limited size makes them better suited
for reconnaissance than active security missions.

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