



# Landpower Essay

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## Breaking the Saber: The Subtle Demise of Cavalry in the Future Force

by

Colonel John D. Rosenberger, USA Retired

### Introduction

The requirement for traditional Cavalry<sup>1</sup> organizations in the Future Force (not the mechanized infantry and armor units bearing the name only, but those units that perform reconnaissance and security missions for their parent unit) is a subject of considerable debate across the United States Army. Some believe that, given the nature of the likely threats we will face, the migration of warfare into complex terrain and urban environments, the nature of nonlinear warfare, and the inherent limitations and vulnerabilities of joint sensor technology, Cavalry organizations, performing in their traditional, time-proven role, will continue to play a critical role on future battlefields. Moreover, they will serve as the fundamental means of transforming the warfighting concepts of the Future Force into an actual capability.

Others believe that, given the manned and unmanned air and ground sensor platforms we intend to embed throughout future combined-arms brigades (Units of Action or UAs) and future division corps (Units of Employment or UEs), and seamlessly linked within a joint communications network, we have little need for the form of reconnaissance and surveillance (R&S) operations heretofore performed by mounted Cavalry organizations. Future maneuver units can perform these operations for themselves. Furthermore, they firmly believe that this future integrated network of joint and service platform-based sensors will provide an omniscient view of any area of operations; therefore, there will be little need for organizations that are specially manned, equipped and trained to perform security operations for the main body of the future combined arms brigades, divisions and corps. In short, sensors and information organized into dynamic tactical information spheres will ably secure our force.

One glance at the current U.S. Army Training and Doctrine Command (TRADOC) organizational designs for the Unit of Action and the Units of Employment indicates the technophiles are winning the argument. Moreover, this group, seemingly seduced by the siren call of sensor technology, is amply supported by ambiguous language in the original U.S. Army White Paper

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“Concepts for the Objective Force,” dated 8 December 2002. This base-plate document does not specifically address a conceptual requirement for Cavalry organizations in the design of the UA or UE variants. The authors of the White Paper state:

The Objective Force<sup>2</sup> possesses advanced ISR [Intelligence, Surveillance, and Reconnaissance] capabilities and networked sensors to see the enemy in complex, urban terrain through structures and below ground. Advanced technologies lead to an unprecedented common integrated operational picture enabling us to see the enemy in part and as a whole, as a complex adaptive organization. ISR enablers include combat identification systems; organic robotic multispectral, disposable sensors; UAVs (unmanned aerial vehicles), and UGVs (unmanned ground vehicles); embedded C4ISR [command, control, communications, computers, intelligence, surveillance and reconnaissance]; SOF (special operations forces); long-range surveillance detachments; and air and ground reconnaissance operations.<sup>3</sup>

Getting to the point, the current organizational design and intellectual underpinning of our Future Force do nothing less than signal the demise of Cavalry within the conventional forces of the United States Army, assuring its placement on the ash heap of history along with coastal artillery. Granted, bold and innovative change is essential as we adapt to the current operating environment—regarding our current force, the more the better—but if we are going to do this, we had better be right and base our judgments on something more than a series of attrition-based, constructive computer simulation models and PowerPoint charts that we know inadequately replicate the expected conditions of conflict in the years ahead. If we ignore the rich body of historical and contemporary experience that justifies the critical importance of Cavalry organizations in our Current Force, and instead place our faith in the promise of unrealized technology, we may undermine the validity of the Future Force concept and our ability to develop our full combat potential in the 21<sup>st</sup> century. Furthermore, in the light of observations and lessons learned from our recent conflicts in Afghanistan and Iraq, it is time for a penetrating assessment of the validity of our future concept of warfighting and the emerging organizational design of the Future Force before we get too far down the road.

## **The Warfighting Concept for the Future Force**

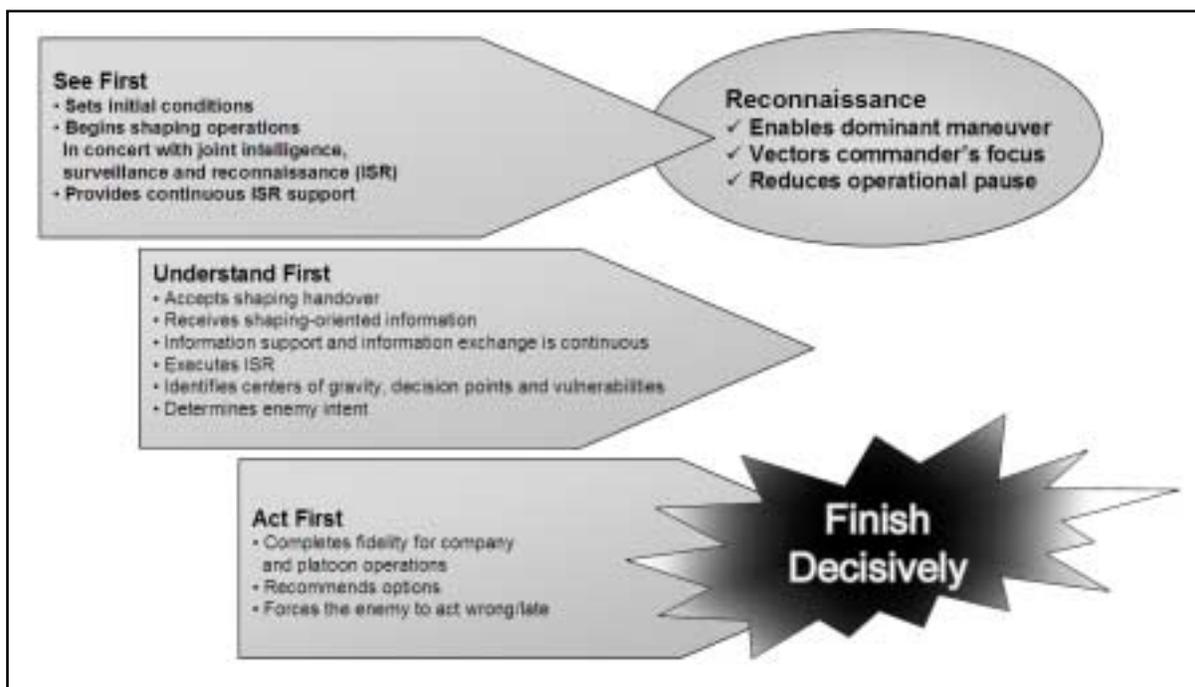
The Army Chief of Staff’s White Paper “Concepts for the Objective Force Concept Summary” provides the following description of future operations (author’s emphasis in italics):

Objective Force operations will be characterized by *developing situations out of contact*; maneuvering to positions of advantage; engaging enemy forces beyond the range of their weapons; [and] destroying them with precision fires and, when necessary, by tactical assault at times and places of our choosing. Commanders will accomplish this by maneuvering dispersed tactical formations of Future Combat Systems units linked together by robust C4ISR capabilities for common situational dominance.<sup>4</sup>

By extension, TRADOC Pamphlet 525-3-90, *Objective Force Maneuver Units of Action*, further expands on this vision:

Objective Force maneuver UA brigades and battalions are enabled by a *Quality of Firsts* [figure 1]— see first, understand first, act first; and finish decisively. . . . Objective Force units will *see first* by detecting, identifying, and tracking the individual components of

enemy units. Advanced technologies that lead to unprecedented intelligence, surveillance, and reconnaissance capabilities, coupled with other ground, air, and space sensors, are networked to provide a common integrated operational picture that will enable us to see the enemy, both in whole and in part, as a complex, adaptive organization. . . . *Able to see first and understand first with combat information on terrain and weather . . . the UA will develop the situation, out of contact, and establish a dynamic tactical information sphere in order to determine when and where to fight on favorable terms. The UA will also set conditions (isolate and shape) for one or more engagements, and maneuver rapidly on separate axes to positions of advantage, from which tactical units can move quickly to envelop, without the need to fix the engaged enemy force.... To act first, leaders, systems, and units must have information dominance and be capable of moving, shooting, and reengaging faster than the enemy.*”<sup>5</sup>



**Figure 1. “Quality of Firsts”**

This compelling concept of fighting and winning engagements and battles at the tactical level is not only transformational in the truest sense of the word, it also constitutes a revolutionary approach to warfare; it does nothing less than break the historical pattern of warfare that has existed through recorded history. *Determine the enemy’s size, strength, composition, disposition, organization, weapon systems, morale and will to fight without making direct, physical contact with him. Then, conduct operational maneuver with multiple Units of Action inserted into unexpected locations by air, land and sea throughout a theater of operations, maneuvering and converging simultaneously on an objective from unexpected directions to achieve positional advantage out of direct-fire contact. Next, close with the enemy at a time and place of our choosing, and simultaneously attack the various critical capabilities and forces that the enemy requires to achieve his political and strategic objectives. Induce operational paralysis by quickly seizing and retaining the initiative and presenting the enemy with multiple*

*operational and tactical situations that he must resolve simultaneously.* From a military commander's perspective, this is nothing less than the Holy Grail.

However, upon closer examination, the viability of this concept hinges upon two prerequisites: first, the manned reconnaissance and surveillance capabilities embedded at every level of command within both the Unit of Action (company, combined-arms battalion and combined-arms brigade level) and the Units of Employment (division/CJTF [combined joint task force] and corps/CJTF/CJFLCC [combined joint force land component command ]<sup>6</sup>); second, the forces we provide to these organizations to secure them and preserve their combat power. Reasons follow.

### **Reconnaissance and Surveillance Operations: The Enduring Prerequisite to Operational and Tactical Success in Offensive and Defensive Operations**

Whether it be linear and sequential operations or nonlinear, multiple and simultaneous operations, our future combat commanders, from company to corps level, must be capable—above all else and under any set of environmental conditions—of gaining, retaining and exploiting the initiative. Furthermore, they must be capable of achieving superior agility relative to their opponents; maneuvering multiple combined-arms forces simultaneously; concentrating effects with precision against enemy points of weakness; generating a superior tempo of operations; and retaining freedom of action.

The ability to achieve these operational characteristics and the tenets of the “Quality of Firsts” in the conduct of offensive and defensive operations fundamentally depends on gaining detailed knowledge of the terrain and detailed information about the enemy. In short, it hinges on the successful conduct of reconnaissance and surveillance operations that must precede these operations. Gaining detailed and accurate knowledge of terrain conditions and the enemy within an area of operations—*day or night, regardless of the weather conditions*—has always been and will continue to be the prerequisite to operational and tactical success of conventional land forces in combat. Moreover, this requirement will take on even greater significance in the years ahead given the more illusive nature of our most likely threats and the adaptive and asymmetric solutions our enemies will inevitably develop to counter the dominant joint capabilities we currently possess. In response to our current joint capabilities and American style of warfare, and the overwhelming dominance we have been able to achieve against enemy forces who array themselves in the open and are easily acquired, our enemies are going to drag land warfare into urban areas and complex terrain, *among the people*, where environmental conditions and our ethical adherence to international laws inherently limit the effectiveness of our current joint sensor technology and network-centric form of warfare. This inevitable adaptation is well-established. Consider our experience in Vietnam, Somalia, Serbia, Afghanistan and the recent invasion of Iraq.

Against this background, to fight in accordance with the concepts outlined for the Future Force, commanders and leaders of our conventional fighting forces must know the current condition and characteristics of highways, roads, trails, potential assembly areas, caves, tunnels, forested areas, jungles, defiles, desert surfaces, streets, alleys, buildings, sewers, subways, contaminated areas, bridges and underpasses, as well as the depth and velocity of streams and rivers, the locations of fording sites, and the condition of river banks. Commanders of formations at every level must also know the locations, types and extent of obstacles such as minefields, canals and man-made barriers along a desired path of movement or maneuver, and the suitability of the ground for cross-

country movement of both dismounted and mounted forces. Decisions on suitable courses of action, task organization, schemes of maneuver, sustainment operations, and postconflict operations are fundamentally based on this knowledge. Appreciating the details and nuances of the terrain determines success or failure in land warfare. Therein lies the rub.

Sensor systems such as unmanned ground and aerial vehicles, side-looking airborne radar systems, and reconnaissance satellites cannot reliably provide this information today against projected threats in complex and urban terrain, and it is unlikely they will be able to provide it in the foreseeable future. The laws of physics and technological limitations apply. First, all of these sensors are limited to some extent by weather and terrain conditions. They cannot reliably provide 24-hour coverage, day and night, regardless of the weather conditions. Case in point: During the 78-day air operation, less than 5 percent of Serbian ground combat systems were acquired and destroyed. Additionally, there was 50 to 100 percent cloud cover 72 percent of the time, and only 21 of 78 days had weather that did not impose any limitations on joint overhead sensors. More than 56 percent of planned aircraft sorties were aborted due to weather.<sup>7</sup> The 3d Serbian Army rolled back into Serbia virtually unscathed by the intense air operation conducted against it for more than three months.

Furthermore, while overhead sensors can show us that a bridge has been blown, they cannot tell if the bridge is skillfully wired with explosives and ready for detonation. They can show us a bridge is intact but cannot determine if the bridge can support the weight of an armored column or multiple 5,000-gallon fuel tankers. They can tell if a defile is blocked by an above-ground obstacle or barrier, but as yet they cannot tell if the roadbed and shoulders are saturated with subsurface mines, if the mines are booby-trapped or if a narrow trail or alley is laced with hair-thin trip wires linked to a daisy-chain of explosives that could decimate a column of vehicles. They can show us existing roads and trails, but they cannot determine if the road surfaces are capable of supporting the movement of a column of 20-ton vehicles. They can see streets and rooftops of buildings, but they can't see enemy forces and combat systems concealed in homes, barns, factories, hospitals and other structures. Only specially-equipped and specially-trained soldiers can perform these tasks under all weather and terrain conditions, day or night. This business requires special skill sets developed over years of training and operational experience.

The Future Force concept of developing the situation out of contact and of maneuvering out of contact to positions of advantage presumes that commanders at every level from company to corps have *somehow* obtained fresh and accurate information about enemy forces *prior* to commitment of maneuver units. It implies that commanders have somehow accurately determined the enemy's strength, location, disposition, composition, current activities, morale and will to fight using an array of sensors. Yet, obtaining this information from afar with sensors is problematic at best in complex and urban terrain against a well-trained, adaptive enemy that is cleverly concealed in a large, three-dimensional fortress, using a variety of active and passive techniques, including deception, to prevent himself from being acquired and engaged with direct and indirect fires. In fact, if we can trust historical and contemporary experience, it is impossible to do this without closing with the enemy, and *engaging suspected enemy positions with direct-fire weapons in close combat to induce the enemy to return fire and disclose his actual location*. In complex and urban terrain of various types, reconnaissance by fire is often the technique of choice as a means of developing the situation. Airborne and ground robotic sensors are inherently unsuited to perform this task.

For another case in point, consider our recent experience in Operation Iraqi Freedom. Despite the vast array of overhead sensors of various types, pumping images and information into U.S. Central Command (CENTCOM) and subordinate headquarters of our corps and divisions, little if any timely and accurate information about terrain and enemy forces to the front, flanks or rear was provided to our maneuver brigade, battalion and company team commanders, both air and ground, Army and Marines. To a man, these veteran commanders in published after-action reports and interviews describe their operations as a series of movements to contact over unfamiliar terrain of which they had little information and surprise engagements initiated by the enemy at the time and place of his choosing; these were resolved quickly by application of massive direct and indirect firepower once the enemy's strength and location were actually determined. This, by the way, is of *exactly the same character as most offensive battles and engagements conducted by our brigades at dirt Combat Training Centers for the past 15 years*. Fortunately, the Iraqis, unlike our permanent Opposing Forces, were for the most part inept, undisciplined, poorly led and poorly trained, and they possessed a brittle will to fight. The point is that even the impressive array of joint sensor technology above the battlefield today contributed little information of value to the men and women who actually did the fighting in Iraq. What information our tactical-level commanders were able to acquire about the nature of the terrain and enemy forces they had to obtain themselves, unaided by their organic scout platoons and reconnaissance troops, which we have known for years have never been optimized and equipped to adequately perform their tasks and survive. But that's another story.

Finally, for our new warfighting concept to work, commanders at all levels must be able to continually discern all efforts by the enemy to deceive them. We have seen very effective use of active and passive measures to deceive our array of joint sensors by the Serbs, the Taliban and the Iraqis in response to our network of joint and service sensors above the battlefield. Why? Because overhead sensor platforms and electronic collection systems are inherently easy to deceive.

As we discovered in operations against Serbia in 1999, the Serbian armed forces rapidly adapted and effectively used a wide variety of physical and electronic deception techniques that limited the effectiveness of our joint collection systems, joint attack systems and precision weapons.

To neutralize the effects of our joint air attack system, the Serbs dispersed their units, concealed them within villages and dense forests, constructed decoy vehicles and radio towers, built fake bridges and installed submerged bridges across rivers and streams, and used camouflage very effectively. They moved their forces in small packets of vehicles, infiltrating into the area of operations to minimize their acquisition and tracking by Joint Surveillance Target Attack Radar System (JSTARS) aircraft. These kinds of adaptations will proliferate among our enemies in the months and years ahead.

Not surprisingly, these are the same adaptive techniques used by the Taliban forces in Afghanistan and by Iraqi forces toward the end of those recent campaigns after their commanders learned the futility of fighting in open terrain against our joint sensor technology and the devastating precision munitions of our joint forces. For instance, they used vehicle and aircraft decoys, which we attacked. They lit pools of diesel fuel in holes next to armored vehicles to portray that the vehicles had been previously engaged and destroyed, thereby preventing attack. They dragged nonoperational fighting vehicles into revetments and battle positions on the outskirts of towns and villages. We attacked these decoys, thereby preserving operational systems that the enemy had concealed in nearby built-up areas. The list goes on.

Add to these effective countermeasures the widespread acquisition of inexpensive global positioning system (GPS) jamming equipment by our potential opponents. By jamming the two static, low-power GPS radio frequencies, our enemies can easily disrupt precision navigation and precision targeting capabilities of our overhead sensor systems, in addition to disrupting the flight paths of GPS-guided munitions. With a relatively small investment, our potential enemies can drag us back into the Industrial Age. Given that we have based our entire form of joint warfare on the availability of GPS, what opponent would not invest heavily in denying us that capability in the future? The point is that relatively simple and effective countermeasures have been and will continue to be devised and employed against our dominant array of joint sensor technology and precision munitions in the future. Under such conditions, well-trained soldiers who are experts in reconnaissance and surveillance techniques and the use of maps are the only means of sustaining an effective targeting capability *day and night under all weather conditions*.

The fact is that unmanned electronic sensors in their various forms, as valuable as they are, cannot replicate the most powerful sensor system on the planet—the human being. As human beings, we possess the senses of sight, hearing, smell, taste and touch, plus that intuitive “sixth” sense that causes the hair on the backs of our necks to stand up when something just doesn’t feel right—a function of the brain’s continual pattern analysis based on its experience. In contrast, a UAV, an unmanned ground robotic sensor or a satellite system exhibits basically one-dimensional sensing capability; it only sees or hears, and it remains functionally dependent on limited bandwidth and communication systems that are susceptible to weather, terrain and jamming. These systems cannot match a human being’s innate ability to combine all his senses and reasoning ability to sense the true nature of a situation, quickly discern what the enemy is doing or intends to do, *and take appropriate action* then and there to resolve the situation. (See figure 2.)

Human Capabilities	Robotic Capabilities
• “Six senses” make deception by the enemy difficult	• Limited sensor spectrum easier to deceive/spoof
• Speed of reaction; mental and physical	• Reaction dependant on remote operator
• Long dwell, 24x7, all weather capable	• Short dwell for mobile systems, impacted by weather
• Soldier enabled by systems	• Operator enables machine
• Soldier in harm’s way	• Machine in harm’s way
• Limited standoff to close range	• Standoff to close range
• Primary reconnaissance asset	• Supporting reconnaissance asset

**Figure 2. Complementary Capabilities**

For example, joint sensor technology above the battlefield cannot see the glint of a gun barrel in the sun or the dim form of a sniper in the back of a third-story room. It cannot distinguish between combatants in civilian dress and civilians in city streets, discern the sound of vehicle engines or voices in the distance, detect the smell of cigarette smoke drifting out of a basement, see the slight discoloration of soil in the road and detect the mines that lie beneath it, or see the tell-tale signs of a buried wire linked to an improvised explosive device concealed in or beside a roadbed. Nor can sensors reconnoiter by fire to induce the enemy to shoot back and disclose his strength and location, a common method of determining enemy location and strength when he is carefully and cleverly concealed. Well-trained human beings are the only “sensors” that can do that.

## **Every Combined-Arms Commander Needs His Own Reconnaissance and Security Capability**

Finally, for the Future Force concept to work, it is imperative that each combined-arms commander in the Future Force, from company to corps level, have his own organic reconnaissance and surveillance unit capable of gaining accurate and current information about the enemy's size, strength, locations, composition and activities and about the nature of the terrain within his area of operations. Why? Because the speed of ground movement, the ability to maneuver with precision, and the generation of an overwhelming operational tempo relative to the enemy—the ability to understand and act first—are a direct function of the tempo at which a unit can gather information about the enemy and the nature of the terrain, then decide how to proceed. *In short, operational tempo of a combined-arms maneuver force is a function of the tempo of reconnaissance it is able to generate.*

*On an ever-changing, nonstatic battlefield, if a commander has to depend on his higher headquarters to provide him the fresh information he needs to effectively employ his forces, or he has to request and wait for the reconnaissance and surveillance assets he immediately needs to develop the situation and decide what to do about it, then the operational tempo of his organization is inherently limited to the tempo at which the reconnaissance assets can be acquired, allocated, collected and redirected.* In practically all the after-action reports and interviews in Operation Iraqi Freedom, maneuver battalion and brigade commanders lamented the fact that they received no intelligence of immediate value from echelons above battalion level, and did not possess a *tough, robust* reconnaissance and surveillance force *under their control* to gain contact with the enemy, develop the situation, paint a clear picture of enemy strengths and dispositions, show them the best way to maneuver their forces to a point of advantage, and provide security to their flanks and rear as they committed their forces against the enemy at hand. Their HMMWV<sup>8</sup>-equipped scout platoons and reconnaissance troops were simply unsuited for the task—again a fact borne out year after year at dirt Combat Training Centers, and a fatal flaw in the Current Force design.

## **Security Operations—Preserving the Combat Power of the Main Body to Finish Decisively**

Much like reconnaissance, there is another immutable requirement in land warfare that cannot be ignored. Unit of Action and Unit of Employment organizations must be able to gain, retain and exploit the operational and tactical initiative, preserve freedom of action, preclude surprise, protect vulnerable lines of communication in linear or nonlinear warfare, and generate the time and space necessary to react effectively to unanticipated events on the battlefield. The physical ability of these units to do this absolutely depends on the conduct of security operations by some force operating at a distance from the main body of the Units of Employment or Units of Action—a force that possesses the requisite mobility, firepower, agility and endurance to perform the inherent warfighting tasks associated with these operations. Whether it be the main body of a battalion, brigade, division or corps, historical experience informs us that to preserve the striking power of the organization and to preclude debilitating attrition or premature culmination, each tactical echelon of the Army requires an organization capable of providing early warning of enemy approach, developing the situation, determining the main effort of the enemy, and fighting to trade space for time and thereby preserving freedom of action for the main body. Fighting in complex and urban

terrain against anticipated threats will be no exception, as we have seen recently in Iraq where various types of enemy forces swarmed around the vulnerable flanks and rear of our formations.

The very nature of nonlinear warfare and the dispersed, simultaneous operations by multiple Units of Action within a Unit of Employment create an enormous security challenge for the Future Force; it is far greater than the challenges that face the Current Force. Multiple bases of operations and land and air lines of communications must be established. Multiple roads, highways and trails extending from the base or bases of operation must be continually reconnoitered, repaired and cleared of mines to ensure uninterrupted delivery of manpower, ammunition, and supplies to sustain operations, as well as to allow safe evacuation of casualties and damaged equipment from the various battlefields. Helicopters can augment, but they are limited by weather conditions and cannot handle the volume of supplies required. Additionally, supply convoys moving along these routes must be escorted and protected from enemy ambush and interdiction. Finally, all the area between the dispersed units on the battlefield must be continually reconnoitered to protect Unit of Action and Unit of Employment elements from attacks by partisans and guerrillas or by conventional forces attempting to isolate and defeat a Unit of Action in detail and exploit the vulnerability of these uncontrolled areas inherent in nonlinear warfare. This is precisely the tactic Iraqi Fedayeen and small units of conventional forces employed against us in Operation Iraqi Freedom, and as the North Vietnamese regulars and Viet Cong did effectively in Vietnam.

Security operations conducted by forces specifically organized, equipped and trained to do them will be critical in setting and preserving conditions for success of Units of Action and Units of Employment. If we do not embed organizations capable of performing these critical functions, our future units will have to divert combat power from the main body of the force to perform mandatory security tasks—just as the Army and the Marine Corps were compelled to do in Iraq during the drive north to Baghdad. The absence of a force capable of securing the flanks and rear will ultimately dilute the striking power of the unit, reduce the unit’s maneuver options, and jeopardize mission accomplishment.

Our historical experience in conflicts underpins this assessment. Throughout the 20th century and early 21st century experience indicates that the complex nature of reconnaissance and security operations requires combined-arms organizations *permanently* organized to perform these complex tasks. Ad hoc, task-organized units drawn from the main body, untrained to perform reconnaissance and security operations, have not proven effective and only serve to reduce the amount of striking power available to the commander. In addition, our experience indicates that an organization conducting security operations must possess sufficient organic capability to find, fix, delay, contain or repel enemy forces. The organization must also possess superior agility relative to the enemy and superior operational endurance relative to the force it is protecting. It must be able to operate independently at substantial distances from the main body of the protected force. These requirements have not vanished with the advent of the 21<sup>st</sup> century, nor with the creation of Units of Action or Units of Employment.

## **Conclusions of the Assessment**

The Future Force will be the most revolutionary transformation the U.S. Army has achieved in its history. Employing the concept of the “Quality of Firsts”—see first, understand first, act first, and finish decisively—the Future Force will give the Army a warfighting capability heretofore only imagined. The fact remains, however, that the ability to bring this concept to fruition will be a

function of obtaining fresh and accurate information about the terrain and enemy, regardless of limitations imposed by the environment and the weather. Joint sensors above the battlefield and unmanned robotic sensors on the ground, as valuable as they are in helping to gather the information needed to fight and win, are limited by endurance, the nature of complex and urban terrain, weather conditions and the nature of the threat. They are vulnerable to simple and effective deception techniques. Clever enemies will also continue to adapt and devise ways and means of neutralizing the precision weapons and the dominant joint capabilities we currently possess.

The facts are that some requirements of warfare are timeless. To fight and win on land, somebody still has to find the enemy, fix him, deny him freedom of action, and then determine how to move friendly forces to locations from which they can gain positional advantage, close with the enemy and kill him. In other words, the tools we use to fight will most assuredly change—as they have over the centuries—but the requirements for successful land warfare will not. Regardless of the time of day, the weather conditions or the battlefield environment—smoke-filled and congested cities, urban sprawl and rubble-filled streets, thick jungle, inaccessible mountains or densely forested hills and valleys—fresh and accurate information about terrain and enemy forces will be fundamental to the success of our Units of Employment and the Units of Action in combat. Additionally, security operations to protect these future conventional forces—before, during and after engagements and battles—will also be a prerequisite for operational and tactical success. This critical but difficult work on the enemy’s turf won’t be done by dynamic tactical information spheres.

Do not misunderstand. The intent of this assessment is not to denigrate the value of the impressive array of joint sensors and technology that has transformed our nation’s style of warfare into the most dominating force on the planet. To our credit, we are in hot pursuit of the capability to see first and understand first, and we intend to vastly expand the amount of electronic sensor technology available to our combined-arms commanders down to company level. There’s nothing wrong with that given the value of this technology to date. However, these impressive and valuable systems provide only a *partial* solution to the reconnaissance and security requirements of our future combined-arms commanders. Obtaining the full range of battlefield information that our commanders require can be satisfied only by the incorporation into combined-arms, air-ground organizations of scouts—for lack of a better term—specially organized, equipped and trained to perform reconnaissance and security operations in all their complexity, harnessing the sensory and analytical power of the human brain.

If the term “Cavalry” carries too much baggage and perception of parochialism, then call these organizations something else. The point is we will need combined-arms, reconnaissance and security organizations much like our current Cavalry units, built around soldiers who are specially equipped and trained to obtain the vital information about the terrain and enemy that unmanned sensors on or above the battlefield cannot provide because of their inherent limitations or the effects of high winds, rain, fog, dust storms and the nature of the terrain. Said another way, what we should strive to do in the design of our Future Force is build a reconnaissance and security complex that is complementary in nature, that can obtain the full range of terrain and enemy information our commanders need—day and night, *unaffected by weather conditions*—while remaining very hard to fool. Will we relegate the Cavalry organizations in the Current Force to the ash heap of history, or adapt a time-proven organizational concept to the demands of the current operating environment? Nothing less than the validity of the operational and organizational concept of the Future Force is at stake.

## Endnotes

- <sup>1</sup> Cavalry in this context refers to battalion scout platoons, brigade reconnaissance troops, brigade reconnaissance and surveillance (RSTA) squadrons, division cavalry squadrons, and corps cavalry regiments.
- <sup>2</sup> Prior to the arrival of the 35th Army Chief of Staff, General Peter J. Schoomaker, on 1 August 2003, Army leaders referred to the force of the future—the successor to today’s Army—as the “Objective Force”; since that date the term used is “Future Force.”
- <sup>3</sup> HQ, U.S. Army Training and Doctrine Command (TRADOC), *The Objective Force in 2015* (Fort Monroe, Va., 8 December 2002).
- <sup>4</sup> US Army White Paper, *Concepts for the Objective Force*, HQDA, 8 December 2002.
- <sup>5</sup> TRADOC Pamphlet 525-3-90, *Objective Force Maneuver Units of Action*, Chapter 3, paragraph 3-2, 1 November 2002.
- <sup>6</sup> CJTF=Combined Joint Task Force. CJFLCC=Combined Joint Land Component Command.
- <sup>7</sup> Allied Force Munitions Assessment Team, *Kosovo Strike Assessment Final Report*. 14 October 1999.
- <sup>8</sup> High-Mobility Multipurpose Wheeled Vehicle, also known as “humvee.”

(Colonel John D. Rosenberger, U.S. Army, Retired, currently works for the Boeing/SAIC Future Combat Systems Training Integrated Production Team developing embedded Battle Command training capabilities for the future FCS-equipped Unit of Action. In the final assignment of his 29-year active Army career, he served as Commander, 11th Armored Cavalry Regiment, Fort Irwin, California.)