Cavalry in the Future Force: Is There Enough?

A Monograph
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14. ABSTRACT

The transformation of the United States Army from the Current Force to the Future Force is ongoing and will affect every aspect of the Army as it is known today. The ability to see first, act first, and finish decisively, also known as the "quality of firsts," are requirements that form the conceptual foundation for Army Transformation. This monograph examines the force that has traditionally conducted the fight for information that has ultimately allowed commanders to "see first," the cavalry. More specifically, the study analyzes the cavalry forces proposed in the most recent Maneuver Unit of Action (UA) Operational and Organizational Plan in order to answer the question, is there enough? In order to analyze the proposed cavalry organizations in the UA, the paper first provides a description of several doctrinal cavalry roles, and these are later used as evaluation criteria. It continues by discussing key principles that both current and future enemies can be expected to follow on the battlefield. The study then provides two historical case studies in which United States cavalry forces were faced with enemies that followed many of these same principles to determine if there are any lessons that may be applied to future cavalry organizations. Finally, the proposed cavalry forces are described in detail and evaluated in light of doctrinal cavalry roles using recent simulation and study results, contemporary academic analysis, and concepts that proved relevant from historical case studies. The study determines that though capable in many respects, the cavalry forces proposed in the 30 June 2003 version of the Maneuver Unit of Action Operational and Organizational Plan do not provide the reconnaissance and security capability required by the UA Commander to consistently win the fight for information at his level. While the anticipated technology overmatch possessed by the Future Force will be a great benefit to commanders at all levels, the proposed organizations rely too heavily on that technology to replace the multi-dimensional capabilities that characterize successful cavalry organizations of the past and in many cases lose the ability to fight for information once a single layer of technology is defeated. The study proposes an improved cavalry organization for the UA that provides the commander both manned and unmanned ground and air cavalry capabilities at his level. This organization offers the UA commander a significantly improved capability to answer his specific information requirements and ultimately provides the first step of Future Force information dominance.

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Abstract

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In order to analyze the proposed cavalry organizations in the UA, the paper first provides a description of several doctrinal cavalry roles, and these are later used as evaluation criteria. It continues by discussing key principles that both current and future enemies can be expected to follow on the battlefield. The study then provides two historical case studies in which United States cavalry forces were faced with enemies that followed many of these same principles to determine if there are any lessons that may be applied to future cavalry organizations. Finally, the proposed cavalry forces are described in detail and evaluated in light of doctrinal cavalry roles using recent simulation and study results, contemporary academic analysis, and concepts that proved relevant from historical case studies.

The study determines that though capable in many respects, the cavalry forces proposed in the 30 June 2003 version of the Maneuver Unit of Action Operational and Organizational Plan do not provide the reconnaissance and security capability required by the UA Commander to consistently win the fight for information at his level. While the anticipated technology overmatch possessed by the Future Force will be a great benefit to commanders at all levels, the proposed organizations rely too heavily on that technology to replace the multi-dimensional capabilities that characterize successful cavalry organizations of the past and in many cases lose the ability to fight for information once a single layer of technology is defeated. The study proposes an improved cavalry organization for the UA that provides the commander both manned and unmanned ground and air cavalry capabilities at his level. This organization offers the UA commander a significantly improved capability to answer his specific information requirements and ultimately provides the first step of Future Force information dominance.

TABLE OF CONTENTS

CHAPTER ONE—INTRODUCTION 1
ROLES OF CAVALRY 3

ORGANIZATION AND METHODOLOGY 4

SCOPE AND LIMITATIONS 6

SIGNIFICANCE OF THE STUDY 8

CHAPTER TWO—THE THREAT 10
THE THREAT TODAY 11

KEY PRINCIPLES 12

WHAT THIS MEANS TO THE CAVALRY 16

CHAPTER THREE—CAVALRY CASE STUDIES 18
CAVALRY ON THE AMERICAN WESTERN FRONTIER 19

CAVALRY IN VIETNAM 21

BLACKHORSE COMMENTARY 24

THE BOTTOM LINE 26

CHAPTER FOUR—FUTURE FORCE CAVALRY CAPABILITIES AND ANALYSIS 27
CAVALRY IN THE MANEUVER UNIT OF ACTION 28

SIMULATIONS RESULTS 29

TRANSFORMATION PRINCIPLES 33

ANALYSIS BY EVALUATION CRITERIA 37

OPERATIONAL IMPLICATIONS 40

CHAPTER FIVE—CONCLUSIONS AND RECOMMENDATIONS 42
FUTURE FORCE CAVALRY CAPABILITES AND LIMITATIONS 42

THE FUTURE IS NOW 43

RECOMMENDATIONS 46

BIBLIOGRAPHY 50
BOOKS 50

INTERVIEWS 52

ARTICLES 52

U.S. GOVERNMENT DOCUMENTS 53

THESES, STUDIES, and OTHER PAPERS 54

MISCELLANEOUS 55

CHAPTER ONE—INTRODUCTION

"You can never have too much reconnaissance. Use every means available before, during, and after battle. Reports must be facts, not opinions; negative as well as positive…Information is like eggs: the fresher the better." [1]

General George S. Patton Jr.

The United States Army is in the midst of what some experts consider the most turbulent period in its history. The Army entered the 1990's as the most dominant land force on Earth, and seemed to validate that claim with its overwhelming victory against Saddam Hussein's Iraq in Operation Desert Storm. However, while the media, our allies, and many others were trumpeting the success as a victory for coalition warfare, freedom, and the American way, others were taking notes. The euphoria over the dominance of the United States military was soon diminished by hard lessons learned in places like Somalia, Haiti, Bosnia-Herzegovina, and Kosovo. The heavy forces that swept across the sands of Southwest Asia and defeated the fourth largest army in the world were not quite as useful anymore—the traditional paradigms of conflict that the United States had based every aspect of its military organization on seemed to be shifting quickly.

This shift brought the realization that as the operational environment changed so must the United States military. The result of this realization has become known as "transformation." Transformation has touched every aspect of the military, from doctrine to equipment to training to organizational structures. The pinnacle of this quest for transformation in the Army became known as the "Objective Force" under the former Army Chief of Staff, retired General Eric Shinseki. It has since been renamed the "Future Force" by the current chief, General Peter Schoomaker, but the quest to create a construct that will emerge as an effective instrument of

[1] George S. Patton Jr., *War As I Knew It*, (New York: Houghton Mifflin Company, 1947), 400.

combat power for the foreseeable future remains the same. This "Future Force" is the army that the United States will field for decades to come against its enemies.

One of the key building blocks for the Army's Future Force is called the Maneuver Unit of Action, or UA. The UA is a combined arms brigade-equivalent force designed to "orchestrate multiple engagements to win battles."[2] It "integrates organic and supporting ISR [intelligence, surveillance, and reconnaissance], fires, and maneuver to close with and destroy the enemy."[3] One aspect of this evolving construct that should evoke concern is what many consider a significant shortfall in UAs proposed cavalry force. As the eyes and ears of the commander, the cavalry has been the one force that has been relied upon throughout the history of warfare to provide "accurate recognition," an aspect of armed conflict that Clausewitz called "one of the most serious sources of friction in war."[4] More than anything else, cavalrymen have historically been engaged in a fight for information with the enemy. Cavalry units are specifically trained and organized to answer the commander's information requirements across the full spectrum of warfare. This being said, "The Future Force places a high premium on information superiority, which is based around the common operating picture (COP). The common operating picture, in turn, is only as good as the inputs to [the] database."[5] General Schoomaker states that "full-spectrum dominance is based on the ability to sense, understand, decide, and act faster than an

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[2] U.S. Army Training and Doctrine Command, Change 2 to TRADOC Pamphlet 525-3-90 O&O, *The United States Army Objective Force: Operational and Organizational Plan for Maneuver Unit of Action* (Fort Knox, KY, 30 June 2003), 1-6.

[3] Ibid.

[4] Carl von Clausewitz, *On War*, Edited and translated by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1989), 87-88.

[5] COL Clinton Ancker, anckerc@leavenworth.army.mil "FW: Objective Force Cavalry O&O," January 17, 2001, personal e-mail, (January 8, 2003).

adversary in any situation."[6] Cavalry units, through a multitude of reconnaissance and security tasks, have traditionally been the force that provides the "sense" part of the above quotation, thus allowing the commander sufficient time to decide and act. This line of thought leads to the basic research question of this study—will the United States Army require more robust reconnaissance and security organizations in the Future Force than the cavalry units that are a part of the most current Maneuver Unit of Action Operational and Organizational Plan?

ROLES OF CAVALRY

Before attempting to answer the research question, it is important to examine some of the traditional roles cavalry plays for commanders in the fight for information. The face of cavalry has changed significantly over the years, but since the advent of gunpowder, the roles have remained essentially the same and have remained an indispensable element of Army doctrine to this day. The first and perhaps most important of these roles is to provide fresh information to the commander. Whether in the offense, defense, or a tactical pause, cavalry organizations are required to continually update the commander on the environment in which he is operating. The cavalry normally performs this role while conducting traditional missions such as the zone reconnaissance or screen.

The cavalry performs additional critical roles, as well. One is that the cavalry provides the commander reaction and maneuver space. This role can likewise be performed while in an offensive or defensive posture. Another role is to preserve combat power. While it is preferred for the cavalry not to become decisively engaged with the enemy, the fact remains that most cavalry organizations pack a significant punch and can be used effectively in both offensive and defensive economy of force missions. Additionally, the cavalry functions as a means to restore

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[6] Peter J. Schoomaker, *United States Army: The Way Ahead* (Washington: U.S. Department of the Army, 2003), 6.

command and control. By its very nature, the cavalry organization is a flexible, adaptive, modular organization that can adjust quickly to changing battlefield conditions. These characteristics make cavalry units well suited to maintain battlefield command and control while larger, less agile formations transition their battlefield posture. Another important role that the cavalry plays is facilitating movement. Because of its inherent combined arms task organization, the cavalry is uniquely suited to open and maintain lines of communications between formations that are dispersed on the battlefield. With its combined ground and aviation capability, the modern cavalry can also provide a three dimensional aspect of protection to "soft" targets like combat service support convoys or non-governmental organization (NGO) relief operations.

Finally, the cavalry can play a decisive role in rear operations. While this mission is less glamorous than most, it is every bit as important. Closely related to facilitating movement, the cavalry's ability to perform rear operations ensures that the combat service support organizations that feed, fuel, and arm the forward maneuver formations are allowed to perform their duties without interruption. Once again, the ability of the cavalry organization to rapidly adapt to changing battlefield conditions allows it to play a key role in the success of today's Army. While the six roles mentioned above are certainly not all encompassing, they highlight the key capabilities of cavalry organizations that have been integral in past successes, remain a part of current doctrine, and cannot be compromised on the future battlefield.[7]

ORGANIZATION AND METHODOLOGY

This study will first look at the enemy that Future Force cavalry will most likely be operating against. The current U.S. Army threat doctrine is based on an enemy called the

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[7] U.S. Department of the Army, FM 3-20.95: *Cavalry Operations*, 1-9 to 1-11. These six roles of cavalry have been identified in previous versions of the *Cavalry Operations* manual as the "traditional roles of cavalry" but are contained under the heading "Contribute to Dominant Land Operations" in FM 3-20.95.

contemporary opposing force (OPFOR). This force is defined in FM 7-100 as "a plausible, flexible military and/or nonmilitary force representing a composite of varying capabilities of actual worldwide forces, used in lieu of a specific threat force, for training and developing U.S. forces."[8] A sound explanation of the principles that guide the contemporary OPFOR is important to this study because theoretically, the Future Force will be organizationally and doctrinally tailored to defeat these forces. After looking at some of these basic threat operating principles, this study will present two historical case studies in which United States Cavalry units were applied against an opponent that adhered to many of the same principles that the contemporary OPFOR follows. These case studies will provide a historically based vehicle that ultimately validates using the previously described roles of cavalry as evaluation criteria for analysis of the proposed Maneuver Unit of Action cavalry organizations.

After looking at the contemporary OPFOR, the historical case studies, and the proposed Maneuver UA cavalry organizations, the study conducts a comprehensive analysis of the proposed structure using recent simulations results, relevant academic commentary, and by looking at the proposed organization's ability to fulfill the traditional roles of cavalry against future foes. Through this process, the study reaches conclusions about the overall effectiveness of the proposed cavalry force design. Finally, the study will provide recommendations for any changes that should be applied to the proposed configuration of cavalry organizations in the Maneuver Unit of Action to ensure its ability to prevail when conducting operations on future battlefields.

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[8] U.S. Department of the Army, FM 7-100: *Opposing Force Doctrinal Framework and Strategy*, vi.

SCOPE AND LIMITATIONS

This study focuses on the proposed Maneuver Unit of Action (UA) as it is described in the 30 June 2003 Operational and Organizational Plan. The study will not address the echelon of command directly above the UA in the Future Force construct, the Unit of Employment (UE). The UE is defined as "tailorable, higher-level echelons that integrate and synchronize Army, Joint and Multinational forces for full spectrum operations at higher tactical and operational levels of war."[9] It is intended to provide the same basic command and control capabilities to the UA that division and corps headquarters provide to brigade combat teams in the current Army construct. Questions about cavalry operations at that level certainly reside within the framework of the proposed Unit of Employment, but they are beyond the scope of this study. However, the Combined Arms Doctrine Division at Ft. Leavenworth is developing a proposal for a "Reconnaissance Unit of Action" that would be a part of the UE task organization.[10] The result of that proposal may provide answers to many of the cavalry-related questions about the UE, and this study, focused on the UA, may nonetheless be of some use to that effort as well.

It is also important to note that the Maneuver UA is not the only brigade-sized force included in recent Future Force proposals. One such organization that will not be discussed is the Stryker Brigade Combat Team (SBCT) and the Reconnaissance, Surveillance, and Targeting Acquisition (RSTA) squadrons associated with them. While it is widely recognized that the development of the SBCT is an important stepping-stone in the Army's transformation process, the organization is both significantly different in composition than the proposed Maneuver UA and has followed a separate and unique development process. Furthermore, MAJ Louis Rago has

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[9] TRADOC Pamphlet 525-3-90 O&O, 1-5.

[10] COL(R) Clinton Ancker, interview by author, January 8, 2004, Ft. Leavenworth, KS, verbal/notes, Bell Hall, Ft. Leavenworth.

previously examined the capabilities and shortfalls of the RSTA Squadron in sufficient depth in his recent monograph, "Are We Shooting the Horse Too Soon." According to the Army Transformation Roadmap, there are to be five SBCTs in the active component by 2008.[11]

The organizations that will be addressed in this study are the active component maneuver brigades that the Army has earmarked for transition to Future Combat System (FCS)-based units during the first increment of transformation. This "first increment" is scheduled for completion no later than 2019, at which time nearly 35 percent of the force is to be comprised of FCS-based units. Until recently, most in the defense community believed that these brigades were scheduled to simultaneously "transform" into Maneuver Units of Action during the fielding the FCS family of vehicles.[12] This assumption has been proven false by the recent announcement that General Schoomaker not only plans to transition all current brigade combat teams into unit of action-type organizations by the year 2007, but also that he plans to increase the total number of these brigade-level units from the current 33 to 48 in the active force. Additional guidance includes the fact that these units of action are to maintain the lethality of the current brigades but improve on the ability to deploy and maneuver with independent sustainability.[13] While many of the structural characteristics of these organizations will likely carry over to FCS-equipped Future Force Maneuver UAs, this study will specifically focus on the cavalry organizations contained in the latter. The cavalry organizations in the proposed Maneuver UA include three ground cavalry troops (one in each Combined Arms Battalion) and an Aviation Squadron comprised of two aviation companies with a combined attack and reconnaissance capability. Other organizations

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[11] Peter J. Schoomaker, *United States Army Transformation Roadmap* (Washington: U.S. Department of the Army, 2003), 8-13.

[12] Larry D. Welch et al. *Review of the Army's Objective Force and Future Combat System (FCS) Components* (Alexandria, VA: Institute for Defense Analysis, 2003), 10.

that contain redundant capabilities but will not be addressed in this study include the Brigade Intelligence and Communications Company (BICC) and the Non-line of Sight (NLOS) Battalion.

SIGNIFICANCE OF THE STUDY

This particular study is significant for several reasons. The first has to do with an underlying assumption that not only directly affects the structure of cavalry in the Future Force Maneuver Unit of Action but also permeates every organizational proposal associated with Army transformation. This assumption is that the FCS-based UAs that will replace the current Army brigades will have the ability to achieve and maintain information dominance on tomorrow's battlefield. It is this key assumption that provides the foundation for the "Quality of Firsts" tactical paradigm within which the Future Force Maneuver UA will operate. The "Quality of Firsts" is defined as "the ability to See First, Understand First, Act First, and Finish Decisively."[14] What follows from this basic assumption and tactical paradigm are key decisions about the overall size, manning, organizational design, lethality, protection, and training of the Army's Future Force. This study will challenge the assumption of information dominance and how it has affected proposed cavalry units in the latest Maneuver Unit of Action Operational and Organizational Plan.

Another important aspect of this study has to do with the fight for information. As mentioned earlier, cavalry has traditionally executed this fight by performing reconnaissance and security tasks for commanders at every level. A key supporting question to this study's primary research question asks whether in the future operational environment, commanders at each level in the Maneuver UA will require an air-ground capable cavalry force specifically trained to

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[13] Gina Cavallaro, "From 33 to 48 Brigades by 2007: First of Smaller Units to be Ready This Year," *Army Times* (March 1, 2004): 10.

[14] TRADOC Pamphlet 525-3-90/O&O, 4-5.

perform traditional reconnaissance and security roles. As this study looks at the proposed structure of the Future Force Maneuver UA, it will determine whether this capability exists at each level within the UA and if not, whether that capability is otherwise accounted for through emerging technologies or other means. If there is a shortfall at some level, the possibility exists that the "lack of specially trained reconnaissance units will both decrease the quantity and quality of information, but also the effectiveness of the judgment applied to analyzing that information when it is collected."[15]

Finally, this paper is important because it examines the overall evolution of the United States Cavalry in terms of what it has been asked to do in the past versus what it will need to do in the future. Throughout its history, the United States Cavalry has been required to provide a reconnaissance and security capability that facilitates victory in the information fight at every echelon of command. Based this study's look at how cavalry organizations have successfully been applied against past foes, will the same traditional cavalry roles still be applicable in the future? Will the proposed cavalry organizations in the Future Force be able to win the fight for information against future foes? Do the doctrine and tactics of our future foes necessitate a drastic change in cavalry organizational design, doctrine, or tactics? Given the nature of the battlefield that American forces will likely fight on in 2020 and beyond, the answer to these questions will no doubt have significant implications at every level of war. This study attempts to shed some light on these questions as they relate to the future role of the United States Cavalry.

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[15] COL Clinton Ancker, anckerc@leavenworth.army.mil "FW: Objective Force Cavalry O&O," January 26, 2001, personal e-mail, (January 8, 2003).

CHAPTER TWO—THE THREAT

Before this study details the composition of cavalry forces and capabilities in the Maneuver Unit of Action, it is important to establish a picture of the enemy that the UA will face on the future battlefield. One thing is certain—cavalry in the Future Force will meet a very different foe than that which its predecessors were created to face. For over four decades after World War II ended, the United States was able to comfortably fall back on the classic Soviet doctrinal and organizational model when considering questions about who the enemy was and how he would fight. There was very little mystery about the Warsaw Pact, its structure, echelonment or doctrine. With few exceptions, the U.S. Army tailored its cavalry forces to operate against hordes of Warsaw Pact tanks streaming westward across the European plain. There was some comfort in knowing that we had a basic understanding of the equipment, organizational structure, and methods of this enemy. However, with the collapse of the Soviet Union also came the collapse of this familiar threat paradigm that the West was able to address for so long. The predictable tactical timetables that Western intelligence officers spent painstaking hours memorizing were all of a sudden of little value. The nature of war seemed to change before the world's eyes as places like Somalia, Rwanda, Bosnia-Herzegovina, Kosovo, and most recently Iraq replaced the more familiar and traditional locations of the Fulda Gap, the Berlin Wall, and the Czech border in the headlines. For years, the Western world allowed itself to believe that once the Soviet Union fell, the "threat" would diminish significantly. In the decade after this fall finally occurred, pictures of slain Americans being dragged through the dusty streets of Mogadishu, mass graves in the Balkans, and innocent children mangled by the machetes of warring Hutu and Tutsi factions made it clear that this assumption was simply not the case.

THE THREAT TODAY

In fact, quite the opposite has occurred. Now, there is no great Communist empire to which all evil in the world can somehow be traced. Instead, there exists a complex and in many cases unrelated web of transnational organizations, ethnic, religious, and political groups, criminal organizations, and even nation-states that no longer have the secure guarantees of arms, funding, and support from a superpower. Without this support, these groups that comprise the current "threat" are forced to rely much more on creativity to both sustain themselves and to achieve their ultimate objectives. This creativity has led them to use tactics that are most often characterized as "asymmetrical." There is much public debate about the usage and doctrinal meaning of this term, but that argument is another monograph subject that is outside the scope of this study. Colin Gray, Professor of International Politics and Director of the Centre for Security Studies at the University of Hull provides a useful explanation of the asymmetric threat in a recent article called "Thinking Asymmetrically in Times of Terror." Gray describes the asymmetrical threat as being unusual in our eyes, irregular in that they are posed by instruments unrecognized by the long-standing laws of war, unmatched in our arsenal of capabilities and plans, highly leveraged against our particular assets, designed to work around and negate our strengths, difficult to respond in kind, difficult to respond to in a discriminate and proportionate manner, and friendly to the frightening prospect of the "unknown unknown."[16] Put more succinctly, "military asymmetry is acting, organizing, and thinking differently from the opponent to maximize the enemy's weakness both psychologically and physically."[17]

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[16] Colin S. Gray, "Thinking Asymmetrically in Times of Terror," *Parameters* (Spring 2002): 5-14.

[17] Earl H. Tilford Jr., "Asymmetry and the American Way of War," *The Officer* (January/February 2003): 98.

At first glance, the concepts that surround the asymmetry in warfare as explained by Gray may seem foreign to the cavalryman who for so many years relied on his knowledge of the composition and mission of Warsaw Pact division recon, regimental recon, and the conventional forces that were to follow in a doctrinal Soviet advance across the East German border. While lessons learned from Somalia and the Balkans have certainly been helpful, only recently has the asymmetrical threat been significantly incorporated into Army threat doctrine. Current Army doctrine has evolved to capture these new threats in the form of the 7-100 series of field manuals and has added significant clarity to the contemporary foe. FM 7-100, which will be examined more closely in this chapter, outlines the overall doctrinal framework and strategy for the contemporary OPFOR. It represents the enemy that Future Force cavalry troopers will meet on current and future battlefields and is the force against whose doctrine, strategy, tactics, and structure the Maneuver UA is being designed.

KEY PRINCIPLES

There are four manuals that detail specific aspects of the contemporary operational environment (COE). FM 7-100, referred to in the previous section, explains the overall doctrinal framework and strategy of the foe that represents current and future threats. FM 7-100.1 addresses the operational doctrine that the contemporary OPFOR follows, while, FM 7-100.2 focuses on OPFOR tactics. Finally, FM 7-100.3 outlines both paramilitary and nonmilitary organizations and their specific tactics. While each of these manuals addresses different levels and types of warfare, the doctrinal principles presented in FM 7-100 are consistent throughout each of them. As this study will show, many of the principles that are only now appearing in the Army's threat doctrine have guided foes of the United States Cavalry in both the distant and not so distant past. It is necessary to consider both these principles and how potential adversaries view us to gain a true understanding of the contemporary foe's mindset.

FM 7-100 gives a detailed explanation of how those foes represented by the contemporary OPFOR may view us. First, they acknowledge that the United States has and will continue to have "an overall advantage in warfighting capability."[18] Next, they recognize that rarely will U.S. forces operate outside of a coalition in the present or future. With this comes the assertion that there are inherent vulnerabilities in coalitions that foes replicated by the contemporary OPFOR will attempt to exploit.[19] Another key perception highlighted in FM 7-100 is a U.S. "unwillingness to accept heavy losses."[20] Directly related to this perception is the government's "sensitivity to public opinion and lack of commitment."[21] The manual follows with four perceptions that directly follow as functions or results of the previous two. They begin with the preference for standoff combat, and continue with a lack of optimization for close combat, dependence on high technology, and a dependence on information dominance.[22] Finally, FM 7-100 explains that our current and future foes view the U.S. Army with a perception of predictable operations, lack of cultural awareness, force projection vulnerability, dependence on robust logistics for continuous operations, an increasing reliance on contractor support, and a propensity to downsize after a major conflict. While these views certainly do not cover the entire scope of external perceptions of the United States military, they do provide a basis for many of the principles that both the contemporary OPFOR and many of our current foes operate under. This study will address the preference for standoff combat and the dependence on high technology and

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[18] FM 7-100: *Opposing Force Doctrinal Framework and Strategy*, 1-8.

[19] Ibid.

[20] Ibid.

[21] Ibid.

[22] Ibid., 1-9 to 1-10.

information dominance as they apply to reconnaissance and security operations in the Future Force Maneuver Unit of Action.

The FM 7-100 series manuals also provide insight into how current and future foes may choose to engage forces deployed against them. FM 7-100 details these thoughts under the heading "Principles of Operation Versus an Extraregional Power."[23] While the principles outlined are not solely intended for use against U.S. forces, one can make the assumption that since the United States is arguably the most capable extra-regional force in the world and certainly one of the most willing to commit forces against its foes, the principles would apply equally to less powerful and willing coalition partners as well.[24] The principles begin with the requirement to control access into the region. They continue with the employment of operational shielding, controlling overall tempo of engagements, neutralizing technological overmatch, changing the nature of the conflict, and allowing no sanctuary. The final principle that the foes represented by the contemporary OPFOR will follow will be to cause politically unacceptable losses.[25] Each of these principles nests with one or several of the perceived weaknesses of the United States mentioned earlier in this chapter.

An excellent example of the application of these principles is occurring today during the transition phase of Operation Iraqi Freedom. While the insurgents who are resisting the coalition's reconstruction efforts are certainly outgunned and don't have near the technological sophistication that coalition forces do, they have succeeded in casting disrupting efforts to ensure security in nearly every major population center. By conducting simple pattern analysis, insurgents have been able to determine routes coalition troops use and when they use them,

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[23] FM 7-100: *Opposing Force Doctrinal Framework and Strategy*, 3-16.

[24] Ibid.

[25] Ibid., 3-16 to 3-22.

allowing them to focus resources for attacks on the coalition. One such instance, related in a recent New York Times Magazine article, explained how coalition soldiers allowed this to happen by repeatedly using the same hut as a resting spot during patrols and when conducting checkpoints. As one may expect, insurgents in the area noticed this and conducted an improvised explosive device (IED) attack on the hut, wounding several American soldiers. The weapon, two artillery shells wired together, was simple and crude. It was also extremely effective.[26]

While the insurgents in the previous example were ultimately unable to control access of coalition troops into the area of operations (in this case Baghdad), they were able to successfully apply several of the previously mentioned principles. By blending in with the local population, they were able to effectively shield their operations from the coalition intelligence-gathering infrastructure. They controlled the tempo of this particular engagement by attacking at a time and place of their choosing. The insurgents were able to neutralize technology by conducting a pattern analysis and ultimately determining when and where coalition troops may have their guard down. By continuing to create doubt in the world about the security situation in Iraq, the insurgents are also essentially changing the nature of the conflict. In what is supposed to be the reconstruction phase of Operation Iraqi Freedom, coalition troops have found themselves increasingly focused on counterinsurgency operations. The fact that the insurgents attacked coalition troops in a place the troops had previously used as a resting spot validated the principle of "allowing no sanctuary." The final principle identified, causing politically unacceptable losses, depends heavily on the will of the government and the people it represents. While this is not readily apparent in the previous example, one can look back to the battle in Mogadishu on

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[26] Peter Maass, "Professor Nagl's War," *The New York Times Magazine* (January 11, 2004): 14; [on-line]; available from http://www.nytimes.com/2004/01/11/magazine/11IRAQ.html?pagewanted=print&position=; Internet, accessed 13 January 2004.

October 3, 1993 and the events that followed as a telling demonstration of this principle. In the weeks leading up to the battle, the Somali warlord Aidid's agents conducted a pattern analysis on the technologically superior coalition forces.[27] Though the Somali militia ultimately lost the battle, the losses that the United States forces incurred that day and the graphic news reports that surfaced in the following days contributed significantly to the withdrawal of U.S. forces from Somalia.[28] As a matter of fact, Saddam Hussein actually made his officers, many of whom are at the heart of the insurgency in Iraq, read "Black Hawk Down," a book that recalls the American experience in Mogadishu, to convince them that the United States would leave Iraq if they suffered major casualties.[29] Though each of these examples has seemingly simple solutions, they demonstrate the difficulties a technologically superior force can have in dealing with enemies that abide by the principles that define the contemporary OPFOR. As stated in a recent U.S. Army War College Student Issue Paper, "the fog of war remains to a considerable degree impenetrable even to the latest technology."[30]

WHAT THIS MEANS TO THE CAVALRY

The enemy depicted in the 7-100 series of manuals provides the Army with a valid and effective tool to use in transformation process. The manuals reflect a diverse, comprehensive foe that can and will apply any means necessary to defeat extra-regional forces deployed against him.

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[27] McMaster, H.R. LTC, "Crack in the Foundation: Defense Transformation and the Underlying Assumption of Dominant Knowledge in Future War," Student Issue Paper. (U.S. Army War College, Carlisle Barracks, PA: Center for Strategic Leadership, November 2003), 19.

[28] Interview with Senator Richard Lugar, "Ambush in Mogadishu," available from http://www.pbs.org/wgbh/pages/frontline/shows/ambush/interviews/lugar.html, Internet, accessed 6 March 2004.

[29] Anthony H. Cordesman, "The Current Military Situation in Iraq" (Washington DC: Center for Strategic and International Studies, November 14, 2003), 4.

[30] McMaster, "Crack in the Foundation," 19.

The enemies known as the contemporary OPFOR range from the organized, methodical Soviet-style military organization to the decentralized, calculating, transnational terrorist network and every combination in between. The manuals provide the Future Force soldier an awakening of sorts, as they explain a full-spectrum enemy that past Army threat doctrine addressed in significantly less detail. For the cavalryman, the diverse threat outlined in the new manuals shows that the fight for information in the future will be even more complex than it is today and seems to validate the need for a dominant force organized and trained specifically to conduct reconnaissance and security related tasks. Looking back at the historical roles of cavalry outlined in the introduction, one can see how future enemies following the principles that guide the contemporary OPFOR will present even greater challenges to cavalrymen in the Army's Future Force. The flexibility, adaptability, and audacity that have allowed the cavalry to meet the commander's information requirements on past battlefields will be at even more of a premium in the future.

CHAPTER THREE—CAVALRY CASE STUDIES

It rapidly becomes apparent after examining the principles that define the contemporary OPFOR that United States Cavalrymen have encountered similar enemies before. Indeed, the concepts and principles outlined in the previous chapter are not only relevant to future foes, but to past foes as well. For many years, Army threat doctrine focused on an enemy that was organized and fought like the Cold War Soviet Union. Yet, during the height of the Cold War, the enemy that American cavalry troopers faced in Vietnam bore little resemblance to the conventional and predictable Soviet model of warfare. Facing the complicated "Mao-Giap" doctrine of revolutionary guerrilla warfare[31], American forces encountered a significantly more ambiguous and complex foe than in Europe. Likewise, even in the infancy of the United States Cavalry, it faced a foe in the Native American that did little to replicate the conventional foe that cavalry units during that period were designed to fight. In each case, the United States Cavalry underwent tremendous hardships but learned valuable lessons that ultimately led to tactical successes against their respective foes. The purpose of this chapter is to demonstrate that there are certain organizational characteristics that American cavalry units have developed over time that have made them successful at dealing with a wide variety of enemies regardless of who they were initially organized to fight. While there are numerous similar lessons throughout history, for the sake of both brevity and applicability, this study will only examine the two above-mentioned historical case studies. In each, United States cavalry forces faced an "asymmetric" foe that adhered to many of the same principles that the contemporary OPFOR represents in current threat doctrine. The lessons derived from these case studies also provide some insight into lasting principles and organizational characteristics that should be taken into account when analyzing the

[31] Douglas Pike, *Viet Cong*, (Cambridge, MA: The M.I.T., 1966), 36-40.

cavalry forces in the Future Force Maneuver Unit of Action. Each case study provides lessons that are worthy of re-examination before this study begins its analysis of Future Force cavalry.

CAVALRY ON THE AMERICAN WESTERN FRONTIER

The United States Cavalry learned about fighting the asymmetrical foe early in its history. Some of its hardest lessons came at the hands of the Native Americans as America expanded westward in the mid- to late-19th century. Through much debate, mostly about the cost of employment, the cavalry eventually became the guardian of the travel routes west. [32] "Although the field employment of cavalry raised staggering logistical problems that once impelled a department commander to ask to be relieved of all his cavalry, experts generally united in the judgment that only mounted troops could fight Indians with any hope of success."[33] General Winfield Scott, arguing for the use of cavalry on the western frontier in 1850, stated "no other description of troops will answer for the protection of our immense lines of emigration and frontier settlements."[34] In an effort to win the fight for information and provide security across lines of communication, the Army emplaced a network of small frontier forts from which the cavalry was able to mount patrols and scouting parties to conduct reconnaissance and escort details. The Army rarely was able to concentrate a force significant enough to field an offensive column and when it did, few succeeded. The hostile land and climate combined with an enemy that didn't fight according to "white soldiers' rules" usually made for a deadly combination.[35]

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[32] Robert M. Utley, *Frontiersmen in Blue—the United States Army and the Indian, 1848-1865* (Lincoln, NE: University of Nebraska Press, 1967) 308.

[33] Ibid., 21.

[34] Ibid., 20.

[35] Robert M. Utley, *The Indian Frontier of the American West 1846-1890* (Albuquerque, NM: University of New Mexico Press, 1984) 41.

The tactics used by the Native Americans frustrated the Army's cavalrymen, mostly through a lack of understanding. "Many army officers, incorrectly assuming that complete authority rested with a few head men, were bewildered by the unorthodox moves of a few undisciplined braves."[36] Though they did not know it at the time, the Indians were operating on the principles that now are represented by the contemporary OPFOR. "Although each tribe possessed unique characteristics, some generalizations can be drawn. Speed, stealth, and ambush were fundamental elements of their tactical arsenals."[37] Applying each of these elements in engagements with the Army and against settlers, the Indians attempted to stem the tide of emigration that was pushing them out of their hunting grounds and homes. The elements identified above directly relate to the contemporary OPFOR principles of controlling tempo, operational shielding, and neutralizing technological overmatch. The Army had not developed a formal doctrine in unconventional war, and attempted to wage a war using conventional tactics against their Native American foes. "Heavy columns of infantry and cavalry, locked to slow-moving supply trains, crawled about the vast western distances in search of Indians who could scatter and vanish almost instantly."[38] Unfortunately for the cavalrymen of the western frontier, the tension created between the requirement for mobility and the need to maintain a firepower advantage over the Indians caused them almost as many problems as the unconventional Indian tactics.[39]

The cavalry did maintain two significant advantages over the Native Americans during their experience on the western frontier which normally outweighed the frequent Indian

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[36] Utley, *The Indian Frontier of the American West 1846-1890*, 37.

[37] Robert Wooster, *The Military and United States Indian Policy, 1865-1903* (New Haven, CT: Yale University Press, 1988) 36.

[38] Ibid., 166-167.

numerical advantages, superior horsemanship, and outstanding fieldcraft. First, "the cavalry fought as disciplined soldiers, acting on command; the Indian brave fought as an individual, and hardly ever under active coordinating leadership."[40] The second advantage enjoyed by the cavalry was in firepower. While many Indian warriors carried guns during this time period, their lack of skilled smiths to maintain and repair the weapons and chronic shortages of ammunition prevented them from approaching the same proficiency demonstrated by the cavalry troopers they faced on the battlefield. Ultimately, "coordinated, concentrated firing, even by men lacking more than rudimentary training in marksmanship, often gave the outnumbered bluecoats the victory."[41] The inherent communications, coordination, and firepower advantages successfully demonstrated by the United States Cavalry against the "asymmetric" Indian foe were decisive in the Army's victory and were to be demonstrated again nearly 100 years later on very different ground against a surprisingly similar enemy.

CAVALRY IN VIETNAM

As with the Native Americans on the western frontier, the enemy that United States cavalry units initially faced in Vietnam closely followed many of the principles that define current threat doctrine's contemporary OPFOR. The non-contiguous environment explained in FM 3-0[42] was a reality, and the enemy used every aspect of it to his advantage. While many American units had a difficult time dealing with an enemy that hit them very quickly and then seemingly disappeared, the cavalry units that were deployed to Vietnam were trained and

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[39] Wooster, *The Military and United States Indian Policy, 1865-1903*, 33.

[40] Philip Katcher and RonVolstad, *U.S. Cavalry on the Plains, 1850-90* (London, England: Reed International Books, Ltd., 1985) 33.

[41] Ibid.

[42] U.S. Department of the Army, FM 3-0: *Operations,* 4-20.

organized to conduct reconnaissance and security tasks in the fight for information and fared significantly better against this "asymmetric" foe. One such unit, the 11th Armored Cavalry Regiment (also known as the Blackhorse Regiment), was deployed to Vietnam in early September 1966.[43] As explained by General Donn Starry, the regiment's capability for executing decentralized operations in a difficult environment like Vietnam was based on the fact that the "cavalry regiment had a higher density of automatic weapons, possessed long-range radios, and had more aircraft than a mechanized brigade. It had better means of gathering intelligence, was capable of rapid internal reinforcement, and possessed its own artillery in its squadron howitzer batteries."[44] All of these capabilities contained in a single command made for a much more flexible and responsive organization than the other light and mechanized units that were deployed to Vietnam in the mid-1960's.

Before the Tet Offensive in 1968, the primary threat to United States forces in South Vietnam were the Viet Cong. Supported by the North Vietnamese, their primary task was to overthrow the South Vietnamese government and eventually reunite with the North.[45] Like the contemporary OPFOR in the FM 7-100 series manuals, the Viet Cong clearly understood the overall war fighting advantage that the American forces deployed to support the South Vietnamese had. It was through this understanding that they were able to devise effective tactics to counter the Americans' strengths using many of the same principles represented by the contemporary OPFOR. The first and one of the most obvious was the Viet Cong use of operational shielding. Their effective use of camouflage, underground bunker complexes, and their ability to blend into the indigenous population made it extremely difficult for American

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[43] Donn A. Starry, *Armored Combat in Vietnam* (New York, NY: Arno Press, Inc., 1980) 73.

[44] Ibid.

[45] Pike, *Viet Cong*, 344.

forces to identify and engage them. The Viet Cong were also masters at controlling tempo. They exhibited extreme patience in recognizing patterns and developing high payoff targets. Before the Tet Offensive, they would usually only strike at times that it was to their tactical advantage in places that they could either immediately blend back in to the population or quickly escape to a camouflaged tunnel complex. Another aspect of Viet Cong operations against American forces was their ability to effectively neutralize the technology overmatch possessed by the Americans. They were able to do this in a multitude of ways, but one of the underlying premises was to always keep the Americans guessing as to where the next attack would come. As long as the Viet Cong were able to choose when and where they would fight, they felt like they could essentially "bleed their enemy at will." By maintaining the initiative, they were also able to take away any feeling of sanctuary that American forces might otherwise have felt. [46]

The 11th Armored Cavalry Regiment, the 17th Cavalry, and other cavalry organizations in Vietnam were able to mitigate many of the Viet Cong's tactics and operating principles though. Using the capabilities outlined earlier, the cavalry was able to react quickly to Viet Cong ambushes and attacks on unsuspecting friendly units. The Blackhorse Regiment's execution of Operation ATLANTA in late 1966 was an excellent demonstration of this capability. The mission given to the regiment was to "clear and secure lines of communication in three provinces near Saigon and to secure the new Blackhorse Base Camp."[47] The Viet Cong attempted ambushes on 11th ACR resupply convoys twice during ATLANTA. Both times, the ability to quickly coordinate firepower and maneuver assets at the decisive point on the battlefield enabled the cavalry to emerge victorious. In fact, the actions taken during the second of these ambushes

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[46] Tim Page and John Pimlott, ed., *Nam: The Vietnam Experience 1965-75* (New York: Barnes and Noble, Inc., 1995), 146-151.

[47] Starry, *Armored Combat in Vietnam*, 74.

became the standard operating procedure (SOP) that the regiment used during all future convoy-escort missions in South Vietnam. The basic premise was for the combat element that was providing escort and actually under attack to maintain contact with the attackers until reinforcements could arrive and attack the flanks or rear of the ambushing enemy. Other on-call combat multipliers such as regimental artillery and rotary-wing aviation assets and on-call fixed-wing tactical air were used to complete the destruction of the unfortunate Viet Cong ambush force. Thought the above battle drill sounds simple, it would likely not have been possible in a unit that did not possess the inherent firepower and ability to communicate that the cavalry regiment did. The habitual relationships developed by living, working, and training in a unit organized with the full spectrum of combat multipliers coupled with the fact that each of these combat multipliers answered to only one commander made for an efficient, responsive, adaptable organization capable of operating effectively in the most difficult environments.

BLACKHORSE COMMENTARY

Retired Brigadier General John C. "Doc" Bahnsen, an outspoken expert on cavalry operations in Vietnam, brings another critical perspective to this analysis. He served two tours in Vietnam, the first as an air cavalry troop commander and the second as a cavalry squadron commander in the aforementioned 11th ACR. His input reinforced several points that are both important to this study and ultimately to the cavalry in the Future Force.

First, much of the cavalry's success against the Viet Cong came because of communication. While it was true that the Americans were much more technically advanced than the Viet Cong, he reiterated the fact that Viet Cong tactics were specifically designed to mitigate that advantage. General Bahnsen pointed to the flexibility and responsiveness of the 11th ACR once they found the enemy that allowed the unit to project the requisite amount of combat power where it needed to be and when it needed to be there. The inherent proficiency of combined air and ground cavalry assets that lived, worked and trained together on a daily basis enabled the 11th

ACR to quickly communicate and execute mission orders against Viet Cong operations. Less familiar units that do not train together on a regular basis inherently require more time to develop efficient command and control procedures, a luxury that Viet Cong tactics simply didn't allow for. [48]

The next point made by the general had to do with applying organizational redundancy to the fight for information and intelligence about the enemy.[49] It was not sufficient to simply set and monitor movement sensors on the ground or conduct overhead reconnaissance flights to determine enemy positions and intentions. As mentioned earlier, the tactics used by the Viet Cong emphasized the contemporary OPFOR principle of "operational shielding" by taking advantage of foliage, complex tunnel and bunker systems, and simply blending with the local population. The fight for information required a persistence and redundancy that the cavalry organization could much more easily provide with its inherent combined ground and air reconnaissance capability.

General Bahnsen summarized his comments by using a concept he explained as "mobility differential."[50] The Viet Cong forces he fought were adept at showing themselves only when they were prepared to attack or felt they had the advantage. In most cases, this would occur on ground of their choosing that provided significant challenges to the American force they chose to confront. Referring back to his comments about communication and redundancy, Bahnsen's cavalry forces possessed significant reconnaissance and security capabilities on the ground and in the air and had established an effective means of command and control. Using these advantages, he was able to effectively coordinate combat power appropriate for each situation encountered.

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[48]BG(R) John C. "Doc" Bahnsen, interview by author, November 6, 2003, Lansing, KS, notes, The Overlook Restaurant, Lansing.

[49] Ibid.

[50] Ibid.

Those areas that were inaccessible by air could invariably be accessed by land, and those that couldn't be reached by land were attacked using rotary wing aviation assets. The communications, coordination, and firepower advantages of the 19th century cavalry on the western frontier were once again evident in operations against an asymmetric foe, this time 100 years later.

THE BOTTOM LINE

While these case studies occurred nearly 100 years apart, they share some unmistakable similarities. Each examines the effectiveness of the United States Cavalry against a similar foe at very different points in the cavalry's development. The case studies identified several important characteristics of cavalry organizations that, along with the previously identified traditional roles of cavalry, will assist this study in analyzing the cavalry in the proposed Future Force Maneuver Unit of Action. First, each case study highlighted the importance of communication and coordination in cavalry organizations. The ability to apply firepower at the decisive point on the battlefield was another common characteristic that led to success against an asymmetric foe for each of the identified organizations and will be used in this study's examination of the Army's future cavalry. The concept of air and ground redundancy was introduced in the second case study and will likewise be referred to in more detail later. The lessons learned in each situation were not only invaluable to each particular organization, but also to the development of the United States Cavalry as a whole. Each demonstrated that while many aspects of warfare change over time, there are common lessons, organizational characteristics, and concepts that remain constant as well.

CHAPTER FOUR—FUTURE FORCE CAVALRY CAPABILITIES AND ANALYSIS

The preceding chapters have established a basis for analysis. The presentation of the contemporary threat's doctrinal principles not only provides insight into the operational environment, but also informs about the enemy that the Future Force is being structured, equipped, and trained to fight. The historical case studies identified important characteristics of past cavalry organizations that had tactical success against an asymmetric foe. This combination, along with the traditional roles of cavalry described in the introduction, provide tool for the study to conduct a relevant and beneficial analysis.

It is now necessary to introduce the subject to be analyzed, cavalry in the Future Force Maneuver Unit of Action (UA). This chapter presents an overview of the organizations and systems that the most current Maneuver Unit of Action Operational and Organizational Plan (O&O), dated 30 June 2003, asserts will provide a reconnaissance and security capability to the Future Force Maneuver Unit of Action. The chapter will refer to several of the characteristics and capabilities of effective cavalry organizations that were identified in the historical case studies that will either be carried over to the Future Force cavalry or be lost if the proposed task organization is executed. Though the equipment and organizational structure of the UA has not been tested in live or combat situations, significant simulations work and academic analysis has been conducted on the specific organizational characteristics of the Maneuver UA, on the systems that will populate this organization, and on the principles that are guiding the Army's transformation. Each will be addressed as it applies to the analysis of the Maneuver UA's reconnaissance and security capabilities. Finally, an analysis of the UA's cavalry is conducted against the criteria of the previously discussed traditional roles of cavalry.

CAVALRY IN THE MANEUVER UNIT OF ACTION

The Maneuver Unit of Action is, in its basic structure, very similar to today's regimental cavalry configuration. In the current version of the Maneuver Unit of Action Operational and Organizational Plan, each Maneuver UA contains three combined arms battalions (CAB), an aviation squadron, a non-line of sight (NLOS) battalion, and a forward support battalion (FSB). Due to the habitual relationships that will invariably develop in these organizations, many of the same structural and organizational advantages provided to the Blackhorse Regiment in Vietnam will likely apply to the maneuver UA when employed in a hostile environment. The similarities begin to fade after you look past the basic structure of the two organizations, though. As stated earlier, the "Blackhorse" organization was specifically configured and trained for reconnaissance and security operations. The terms "reconnaissance" and "security" are only used together in the Maneuver UA O&O when the manual describes the tasks that the aviation squadron is expected to perform. It thus follows that the primary "cavalry" capability for the UA commander would come from the reconnaissance/attack helicopter-equipped aviation squadron. Its mission profile includes both reconnaissance and security subtasks, as well as the overall orchestration of the reconnaissance effort by employing off-board/on-board assets and close combat with ground forces. In the current version of the Maneuver UA O&O, there are no dedicated ground cavalry assets directly available to the Maneuver UA commander. [51]

There is, however, a significant ground cavalry capability available in each combined arms battalion. As stated in the Maneuver UA O&O, "the reconnaissance troop organic to each CA Battalion contains three reconnaissance platoons, each with three reconnaissance and surveillance vehicles [Future Scout and Cavalry System—FSCS], optimized for reconnaissance

[51] TRADOC Pamphlet 525-3-90 O&O, 3-30 to 3-31.

missions with an on-board Prophet collection system. Each recon platoon also has a Class III [Unmanned Aerial Vehicle] UAV and an organic [Armed Robotic Vehicle] ARV optimized for [Reconnaissance, Surveillance, Target Acquisition] RSTA capabilities."[52] These recon platoons are specifically organized and trained to perform the reconnaissance and security tasks required for the CAB commander to accomplish his specified mission. The CAB Recon Troops provide the battalion-level commander a significantly improved capability over that contained in the Army's current mechanized task forces. While the current 10 HUMMWV task force scout platoon is also designed primarily for reconnaissance and light security missions, the simple addition of a Class III UAV capability gives each recon platoon an air-ground reconnaissance redundancy that it did not previously have. There is also an increase in personnel from the current 30 to 62 in the CAB Reconnaissance Troop and the added capability gained in the upgrade from the HUMMWV to the FSCS. Overall, the CAB Reconnaissance Troop provides a significant reconnaissance and security capability for the CAB commander to execute the fight for information at his level.

SIMULATIONS RESULTS

Simulations are currently the primary vehicle being used to evaluate proposed Future Force configurations. They allow the Army to "build" both friendly and enemy organizations with varying capabilities to test the effectiveness of each in a wide array of environments. Though anecdotal, the following comments from the current commander of the 16th Cavalry Regiment, COL George Lockwood, provide an interesting view into some of the problems encountered when a simulated Maneuver UA is pitted against a complex future foe that follows the principles outlined in the previous discussion about the contemporary OPFOR. Also the

[52] TRADOC Pamphlet 525-3-90 O&O, 4-33.

former commander of the 3d Infantry Division's 3rd Squadron, 7th Cavalry, COL Lockwood has an extensive background in cavalry operations and is highly respected in the Army community. During his time as Commander of the 16th Cav, he has had the opportunity to "command" the Maneuver UA in multiple iterations of simulated combat.[53] He stated that he "relied exclusively on the RAH-66, Class IV UAVs and Class III UAVs from the NLOS [battalion] to gain and maintain situational awareness of enemy and friendly situation."[54] He continued that from his position, he felt that "ground reconnaissance assets at the UA level are essential. In a couple of scenarios, the UA took heavy losses of organic Class III and IV UAVs to enemy ADA. Our ability to see first was taken away at the UA level."[55] Finally, he stated that the "first fight for the UA is the counter-reconnaissance fight."[56] This fight is traditionally most effective when units dedicate combined air and ground assets against enemy reconnaissance. These comments do not necessarily mean that we are headed down the wrong road when addressing the structure of the UA as a whole, but they certainly raise questions about the cavalry allocated in the most recent O&O. Colonel Lockwood's observations give a glimpse of how Clausewitz's fog and friction could quickly disrupt the supposed information dominance of the Future Force.

In addition to COL Lockwood's experience, there are some telling conclusions from simulations and analysis conducted by the U.S. Army TRADOC Analysis Center (TRAC). In December 2000, the center completed the TRADOC Combined Arms Reconnaissance Study. The study was "an investigation of how tactical reconnaissance systems (integrated by a highly

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[53] Dan Caterinicchia, "Colonel Leading Digital Troops"; available from http://www.fcw.com/fcw/articles/2003/0224/web-digitial-02-27-03.asp; Internet; accessed 17 Jan 2004.

[54] COL George Lockwood, interview by author, December 2, 2003, Ft. Knox, KY, e-mail, Ft. Leavenworth, KS.

[55] Ibid.

[56] Ibid.

capable C4ISR [command, control, communications, computers, intelligence, surveillance, and reconnaissance] system) provide effective reconnaissance."[57] The context of the study was a combined arms reconnaissance force operating in the 2007-2010 timeframe, equipped with a C4ISR architecture similar to that proposed for a Maneuver UA containing the Future Scout and Cavalry System (FSCS), the RAH-66 Comanche, and the Tactical UAV (TUAV). The focus of the study was on how the future combined arms force would conduct reconnaissance. The desired issues addressed tactics, techniques, and procedures (TTP). The results of the study primarily addressed overall force performance, with insights gained regarding reconnaissance system performance within the context of the combined arms team. The results provide tremendous insight from a simulations perspective into the overall effectiveness of future cavalry organizations against a diverse range of foes operating under the same principles as current threat doctrine's contemporary OPFOR.

There were several comments made in the conclusions of the study that directly apply to the composition of the cavalry forces in the maneuver UA. Many of the assertions made seem to support the aviation-centric construct of the units performing traditional cavalry roles at the UA level. As stated earlier, allowing ground elements to maneuver out of contact is one of the keys to success for the Maneuver UA. The study reinforces this by stating "aerial reconnaissance (RAH, TUAV, or a combination of both) figured significantly in reducing risk for the ground reconnaissance elements. The aerial recon systems amplified the cues from the external ISR network. This information allowed ground elements to maneuver out of contact, while the aerial systems maintained observation."[58] The next comment directly reinforces COL Lockwood's

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[57] TRADOC Analysis Center, *TRADOC Combined Arms Reconnaissance Study Phase II Report*, 15 December 2000, [CD-ROM] Ft. Leavenworth, KS, TRAC-L-TR-01-005.

[58] Ibid.

contention that ground reconnaissance elements were required at the UA level, stating that "tight integration and cooperation between aerial and ground reconnaissance is essential in complex terrain situations, and when the enemy is employing an integrated defense with sophisticated air defense systems."[59] The comment concludes with an assertion about the optimal employment of cavalry assets by saying that "the resulting combination of close-in reconnaissance (ground recon), sensors and immediate effects (RAH), and overhead reconnaissance (TUAV) serves to detect the enemy early, and enhances overall survivability."[60] Additional support for ground recon elements is gained as the study comments that "when FSCS is employed, it contributes as an exploiter and a killer of ISR detections, and has the added benefit of freeing the RAH from a "riding shotgun" role."[61] The comments made in the conclusions of this study certainly do not seek to compare the use of air reconnaissance and security assets and the use of ground reconnaissance and security assets. Rather, the conclusions argue for effective combinations of each in our future cavalry organizations. This is seen in the following statement, which summarizes many of the hard-fought lessons our cavalry troopers have learned over the years. "A mixture of air and ground tactical reconnaissance systems is essential. Air reconnaissance provides immediate, eyes-on feedback. This information helps further focus the ground reconnaissance effort. Systems such as the RAH and TUAV greatly facilitate reconnaissance, and therefore, help set the conditions for success."[62]

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[59] TRAC, *TRADOC Combined Arms Reconnaissance Study Phase II Report,* CD-ROM.

[60] Ibid.

[61] Ibid.

[62] Ibid.

TRANSFORMATION PRINCIPLES

This section of the study addresses some of the applicable criticism that is being leveled against Army transformation as a whole. While simulations data can certainly provide useful insights into the capabilities and limitations of the Army's Future Force, academic analysis can also reveal important aspects of the force that should be considered. There is significant debate about both the direction that the current transformation is taking the Army and about many of the guiding principles that have laid the foundation for that direction. Two positions are particularly applicable to the analysis of the proposed cavalry configuration in the Future Force. The first is made by Lieutenant Colonel H.R. McMaster in his issue paper "Crack in the Foundation: Defense Transformation and the Underlying Assumption of Dominant Knowledge in Future War." His contention is that the emerging technologies that the Army's Future Force is being built around have created the "assumption of near certainty in future war" or "dominant battlespace knowledge," and that this assumption is a "dangerous fallacy."[63] He continues his analysis and brings relevant questions to light about the Maneuver UA. He explains that "the UA…must exercise caution to survive as it is designed only to operate when the situation is clear."[64] He continues by stating, "Because many believe that certainty will be the dominant condition of future war, "knowledge" is overtaking fighting as the primary basis for Army doctrine and organization."[65] He quotes a recent RAND study that assumed perfect functioning of all emerging technologies in the year 2020 that concluded that "the UA's air and ground sensors would only achieve dominant knowledge against an enemy in the open and that the precision fires on which the Objective Force (now Future Force) depends would "provide

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[63] McMaster, "Crack in the Foundation," 2.

[64] Ibid., 43.

[65] Ibid., 44.

attrition" but be insufficient to accomplish typical tactical missions."[66] McMaster's analysis relates directly to the research question posed in this study. The fact that the UA is a knowledge-based organization but may not be able to provide the information superiority that it relies on in its current state speaks directly to the reconnaissance and security capabilities of the proposed organization.

Frederick W. Kagan, noted historian and an associate professor of military history at the United States Military Academy at West Point, presents a related position in two recent articles. The first, titled "The Art of War," presents wide criticism against the overall focus of the current American military transformation. Though broad in scope, the article presents several concepts that are directly applicable to the plight of the cavalry in the Future Force. The first is the tension between redundancy and efficiency. Kagan comments that unlike the American military "transformations" in the 1970's and 1980's, the current transformation is being guided by efficiency and economics[67], admirable qualities in the business world but not always positive qualities when applied to the military. He presents a powerful argument that "the willingness to accept redundancy and inefficiency" in the development of the American war machine has paid tremendous dividends as recently as Operation Iraqi Freedom. While many in the current administration trumpeted Operation Enduring Freedom's combination of special operations forces and air-launched precision-guided munitions as a glimpse into the future of warfare,[68] some harsh reminders of this paradigm's limitations surfaced on the road to Baghdad. When sandstorms and harsh weather conditions prevented the Air Force from flying reconnaissance and

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[66] McMaster, "Crack in the Foundation," 44.

[67] Frederick W. Kagan, "The Art of War," *The New Criterion*, November 2003 [journal on-line]; available from http://www.newcriterion.com/archive/22/nov03/kagan.htm; Internet; accessed 18 November 2003.

strike sorties against Iraqi mechanized force concentrations, the Abrams and Bradley-equipped Third Infantry Division was still able to survive unexpected encounters with these units because of their overwhelming lethality and protection. Based on the requirement for improved deployability, FCS-equipped units in the future are not expected to possess the same capabilities as many of our heavy forces today. [69] Kagan summarizes this concept in stating that "redundancy in war can yield flexibility and security. It ensures that when one system fails for whatever unforeseen reason, another can take its place. It provides the ability to meet unexpected challenges. In military affairs, redundancy is a virtue."[70]

A second applicable concept that Kagan presents in "The Art of War" has to do with asymmetry in terms of the technological advantage possessed by the United States over its foes. He states that the current administration has "sought to develop transformation programs to extend the asymmetrical advantage indefinitely into the future"[71] and points out that this requirement is simply unrealistic.[72] He explains that under this doctrine, the United States would "always have to fight wars in which striking targets precisely from great distances will lead to victory, and second, they will always have to fight enemies incapable of either matching the skill or of preventing the U.S. from using it."[73] He summarizes this concept in stating, "The precise weapons will *always* have to get through, their effects will *always* have to be decisive, and no

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[68] Frederick W. Kagan, "War and Aftermath," *Policy Review,* August 2003 [journal on-line]; available from http://www.policyreview.org/aug03/kagan_print.html; Internet; accessed 18 September 2003.

[69] Kagan, "The Art of War," Internet.

[70] Ibid.

[71] Ibid.

[72] Ibid.

[73] Ibid.

enemy will ever be able to fire them effectively at American forces."[74] This thought process can be seen as a logical continuation of McMaster's "assumption of near-certainty" in future war.

It is important to note that Kagan concludes "The Art of War" not with continued criticism, but with thought provoking suggestions for the future of American military transformation. He acknowledges that America should continue to develop its technological advantage in the area of precision-guided munitions, but not at the expense of the unique, and sometimes redundant, capabilities of our ground forces. He correctly states that ground forces "can present the enemy with unacceptable situations simply by occupying a given piece of land, forcing the enemy to take actions that reveal his intentions and expose him to destruction."[75] This idea mirrors the techniques for fighting the Viet Cong adopted by the 11th ACR in Vietnam and the foundations of the "fight for information" contained in American cavalry doctrine since then.

Kagan echoes his commentary on transformation in an earlier article called "War and Aftermath." While he is again critical of broader concepts such as the assumption of "dominant battlespace awareness"[76] also addressed by McMaster in his work, he also specifically addresses our future cavalry forces. He plants the seed for a point made in "The Art of War" in stating that "one of the advantages of using ground forces to conduct reconnaissance is that the very presence of such forces compels the enemy to react."[77] He continues this logic by explaining that "in this way it is possible to gain an understanding not only of where the enemy is, but also of how he is likely to behave when the attack begins. Long range sensors cannot discern these characteristics of an enemy force because frequently the enemy does not know how he will react until he is

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[74] Kagan, "The Art of War," Internet.

[75] Ibid.

[76] Kagan, "War and Aftermath," Internet.

[77] Ibid.

confronted with a particular situation."[78] It is in that moment that the enemy decides exactly how he will react that the cavalry force in contact with the enemy has provided the commander information that a UAV or other long-range passive surveillance system simply cannot replicate.

Perhaps the most telling criticism of the current transformation effort comes from one who has been intimately involved in the process. Major General James A. "Spider" Marks presented his insights and opinions of the underlying principles of Army transformation during a lecture to SAMS in November 2003. Then the commander of the United States Army Intelligence Center and Ft. Huachuca, General Marks commented that our adversaries have somehow overcome every "niche capability" we have put out.[79] He pointed to an example in the Kosovo conflict of the Serbians' ability to hide mass formations of armored vehicles from our overhead reconnaissance assets by simply parking them in densely wooded areas. Though this certainly does not prove that we will never gain technological overmatch in any area, his point was that basing the transformation of the Army on an assumption of infinite information dominance due to a technological overmatch with probable foes is a dangerous proposition. He concluded his comments by stating that regardless of the technological dominance the United States may possess, he believed that the "movement to contact" would always be a part of warfare and that we should tailor our force accordingly.

ANALYSIS BY EVALUATION CRITERIA

The final aspect of organizational analysis returns the study to the traditional roles of cavalry described in the introduction. After studying the doctrinal principles of the current and future foes represented by the contemporary OPFOR and the past enemies that followed those

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[78] Kagan, "War and Aftermath," Internet.

[79] MG James A. Marks, "Beer for my Horses" (lecture to the School for Advanced Military Studies at Ft. Leavenworth, KS on 17 November 2003).

same principles in the case studies, one can easily see that those six traditional cavalry roles will continue to be applicable in the contemporary operational environment. These roles, described as enabling missions and tasks that contribute to dominant land operations in Chapter 1 of FM 3-20.95,[80] serve as effective vehicles to determine how the UA may perform its basic reconnaissance and security responsibilities on the future battlefield.

As mentioned earlier, the first of these roles is to provide fresh information to the commander. With the ground assets and the UAV capability in the Recon Troop, CAB commanders would maintain a significant three-dimensional capability to perform this role on the battlefield. The problems, as mentioned by COL Lockwood, may come at the UA level. While a RAH-equipped aviation squadron and the TUAVs in the NLOS battalion would provide tremendous overhead reconnaissance capability, there is no ground capability built in to the organization at the UA level. That fact, coupled with the recent cancellation of the Comanche program, creates significant doubt as to whether this role could be performed effectively at the UA level. As stated earlier, two key principles that the Future OPFOR will employ against our UA cavalry forces are operational shielding and efforts to neutralize technological overmatch. Success in either of these areas immediately negates the UA commander's hope for victory in a particular operation's fight for information and demonstrates failure in performing this role.[81]

The second and third roles outlined in Chapter 1 of FM 3-20.95 state that the cavalry provides the commander both reaction time and maneuver space and also preserves combat power. These roles are conducted while in an offensive or defensive posture as well, but normally call for a more robust physical force than that required for the zone recon or screen missions that form the foundation for the first role mentioned. Looking at this using Kagan's

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[80] U.S. Department of the Army, FM 3-20.95: *Cavalry Operations*, 1-9.

[81] Ibid.

concept of redundancy, the proposed reconnaissance and security assets in the UA would lack the capabilities necessary to guarantee the commander reaction time and maneuver space he requires. Assets from the CABs could certainly be used for these purposes, but that would detract from the CABs ability to accomplish missions assigned at their level. As for preserving combat power, this role normally is manifested in economy of force missions. Going back to a recurring theme, the current proposal simply does not give the UA commander a redundant force capable of accomplishing these types of missions effectively while still conducting the fight for information.[82]

The fourth traditional cavalry role to be used as evaluation criteria is the restoration of command and control during transition operations. The Future Force UA's C4ISR infrastructure is being tailored to alleviate the need for subordinate units to assume this role on the modern battlefield. While much of this infrastructure is based on emerging technology, a more robust cavalry force at the UA level would certainly provide a more extensive array of options to the UA commander instead of relying solely on the automated systems in the UA headquarters to ensure seamless transitions on the full-spectrum battlefield.[83]

The final two traditional roles that are helpful in evaluating the structure of Maneuver UA's cavalry forces are the cavalry's ability to facilitate movement on the battlefield and its ability to protect and facilitate rear operations. While the combination of manned and unmanned ground systems and unmanned air assets in the CAB Recon Troops certainly provide some redundancy in their ability to perform these roles, that same capability is not evident at the UA level. The UA commander would almost certainly have to assign missions related to these roles to a CAB commander, thus taking away from the UAs overall mission readiness. Gone are the

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[82] U.S. Department of the Army, FM 3-20.95: *Cavalry Operations*, 1-10.

[83] Ibid.

days of the linear battlefield when these two roles could be wished away with a weak economy of force action. The UA and its subordinate CABs will likely be placed in a non-contiguous area of operations[84] when deployed against enemies following contemporary OPFOR principles. As seen in both the American Western Frontier and Vietnam, missions associated with these roles require significant attention and dedication of assets when facing this foe in non-contiguous operations. That fact, coupled with the ever-present struggle to gain information dominance over the enemy, makes it easy to see how the manned and unmanned aviation capabilities that are to be the UA commander's primary reconnaissance and security tools would simply not provide him the required flexibility without significantly depleting one of his subordinate CABs.[85]

OPERATIONAL IMPLICATIONS

While much of this study has dealt with cavalry transformation at the tactical level of war, it is important to note that the true issues at hand are the significant operational implications that rest with the reconnaissance and security capabilities in the UA. Whether one views the foundations of Army transformation with skepticism as McMaster and Kagan do or actually believe that the "Quality of Firsts" is attainable, one cannot deny that success in the UAs fight for information will be required for the Future Force to attain any level of information dominance. The UA commander's ability to sense, process, and act on information in his tactical battlespace is the foundation for operational success. As with the American military's experience against Native Americans in the American West and the Viet Cong in Vietnam, the asymmetric foe the UA will encounter on the future battlefield will do everything he can to win the fight for information and negate any inherent advantages the Maneuver UA may have. The simulations

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[84] U.S. Department of the Army, FM 3-0: *Operations*, 4-20.

[85] U.S. Department of the Army, FM 3-20.95: *Cavalry Operations*, 1-10 to 1-11.

conclusions and academic analysis presented in this chapter show that if our Future Force echelons do not possess a significant reconnaissance and security capability at every level, we make victory in the fight for information against our future enemies significantly less likely.

CHAPTER FIVE—CONCLUSIONS AND RECOMMENDATIONS

Is there enough cavalry in the Future Force Maneuver Unit of Action? This study has identified key doctrinal principles and warfighting techniques of America's current and future threats, and characteristics of past cavalry organizations that have yielded success against similar enemies. It has also identified the organizations in the Maneuver UA that, according to the most recent version of the Maneuver Unit of Action Operational and Organizational Plan, will be expected to fulfill the tactical reconnaissance and security roles for the Future Force. Finally, the study has analyzed these organizations using both empirical data from simulations and conceptual data gleaned from both theoretical examination and recent operations. The study has found that the fight for information will be more critical than ever for the Future Force and, as has been the case in the past, the ability of cavalry to conduct effective reconnaissance and security at every level will still be critical in this fight. The results of these reconnaissance and security missions are ultimately information provided to the commander and preservation of the force, and more than ever the Future Force will rely on those things to succeed.[86]

FUTURE FORCE CAVALRY CAPABILITES AND LIMITATIONS

It was shown that the reconnaissance and security assets in the Future Force Maneuver Unit of Action and its subordinate Combined Arms Battalions possess an impressive array of capabilities. The CAB's Reconnaissance Troop provides the CAB commander tremendous flexibility with both manned and unmanned ground capabilities as well as a significant UAV capability. These redundant assets combined with FCS-equipped combined arms companies give the CAB a legitimate chance to win the fight for information in its assigned area of operations against a foe like that described in the FM 7-100 series manuals. Likewise, the

[86] COL Clinton Ancker, "FW: Objective Force Cavalry O&O," personal e-mail.

reconnaissance/attack helicopter- and unmanned aerial vehicle-equipped Aviation Squadron provide the UA commander the ability to conduct aerial reconnaissance over a large terrain area and the connectivity and maneuverability to rapidly react to a previously undetected hostile force.

Unfortunately, this aerial capability at the UA level has significant limitations as well. Going back to Kagan's concept of redundancy, COL Lockwood's simulation observations, and the results of the TRAC study in 2001, it has been shown that the UA commander is extremely limited in the assets he can apply to reconnaissance and security missions. LTC McMaster points to faulty logic regarding the "assumption of near-certainty in future war" as the reason for the apparent shortfall, while Mr. Kagan explains that the tension between redundancy and efficiency may have led those charged with designing our Future Force down this road. Whatever the reason, there is clearly need for concern when contemplating the UA commander's ability to win the fight for information at his level. While the Army admittedly will field an impressive array of technology in the Future Force Maneuver UA, the commander does not possess a redundant cavalry organization that is capable of answering his specific information requirements. The lack of a ground reconnaissance and security capability at the UA level drastically decreases the UA commander's ability to attain the "quality of firsts" that has become the mantra of Army transformation. Before providing recommendations to rectify this potential problem, it is first necessary to examine recent events that directly affect this study.

THE FUTURE IS NOW

Several developments have significantly altered many of the assumptions made even in the most updated manuals and documents detailing the Army's transformation. As mentioned earlier, one such development is the Army Chief of Staff's mandate to increase the number of

maneuver brigades from 33 to 48 without increasing the overall number of divisions.[87] A recent Defense News article explained that these brigades must be able to have enough command and control capability to operate independently, establish and maintain information superiority, conduct prompt and sustained land warfare, engage and attack precisely, control people and territory, and deploy flexibly.[88] While many of those capabilities sound eerily close to those outlined for the Future Force Maneuver UA, these restructured brigades will not benefit from much of the technology anticipated for the Future Force Maneuver UAs. With respect to the subject of this study, one would have to ask what this restructuring means for the cavalry forces that will support these "smaller, but every bit as lethal" brigades. There is an inherent requirement for a dominant reconnaissance and surveillance capability when operating independently on the battlefield, and that capability directly relates to the requirement to maintain information superiority. Given the basic capability requirements listed, one has to believe that the formation of these restructured brigades necessitates a significantly improved reconnaissance and security capability at both the battalion and brigade level. Though not equipped with the FCS, these restructured brigades will ultimately form the foundation for the Army's Future Force UAs and should be organized in a similar fashion. Doing this will both minimize the impact of adding emerging technologies to the UAs and contribute to building the organizational redundancy and relationships that will be required to win the fight for information on future battlefields.

Another development with a more immediate and direct impact on the proposed cavalry in the Future Force is the recent cancellation of the RAH-66 Comanche program. The Comanche was to be the foundation of the Aviation Squadron outlined in the most recent UA O&O and as

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[87] Sean D. Naylor, "Overhauling the U.S. Army," *Defense News* (September 29, 2003): 3; [on-line]; available from http://ebird.afis.osd.mil/ebfiles/e20030929220115.html; Internet, accessed 29 September 2003.

[88] Ibid.

mentioned earlier, the primary manned reconnaissance and security system for the UA commander. A recent Washington Post article quoted Les Brownlee, the acting secretary of the Army, as saying that the Comanche is "no longer consistent with the changed operational environment."[89] This comment seems to contradict the relationship that this study has established between the doctrinal multi-dimensional contemporary OPFOR and the proposed Future Force Maneuver Unit of Action configuration. It is clear that with the Comanche's cancellation, a critical system in the Maneuver UA's already questionable reconnaissance and security capability has been removed. While the article goes on to rationalize that unmanned aerial vehicles can perform many of the tasks originally envisioned for the Comanche,[90] the loss of the Comanche in the current O&O means that the UA commander would essentially only possess an unmanned aerial "surveillance" capability at his level. The fight for information would be left to his subordinate combined arms battalions and there would be little reconnaissance and security redundancy in an organization that by its very design requires information superiority to succeed.

These two developments only serve to emphasize the purpose of this study. A consistent theme throughout the Army's transformation effort has been information superiority, and that cannot be accomplished unless organizations at every level are equipped and trained to answer their specific information requirements. As evidenced by recent examples earlier in the study, the United States does not win that fight on a consistent basis right now. Though the Army possesses significant technology overmatch against its current foes and those envisioned as foes in the near future, that overmatch certainly does not equate to unchallenged information dominance. The fight for information against the asymmetric foe has been won in the past by units that were

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[89] Renae Merle, "Army Scraps $39 Billion Helicopter," *Washington Post* (February 24, 2004): 1; [on-line]; available from http://ebird.afis.osd.mil/cgi-bin/ebird/displaydata.pl?Requested=/ebfiles/e20040224260854...; Internet, accessed 26 February 2004.

[90] Ibid.

trained and organized to succeed in that fight. The recommendations in this study will provide that same capability to our Maneuver Units of Action, whether they are fielded in 2005 or in 2025.

RECOMMENDATIONS

Cavalry can create a tremendous information disparity between opponents on the battlefield because that is what it is trained, equipped, and manned to do.[91] That being said, it is imperative that Future Force UA commanders at every level are given the appropriate cavalry forces to achieve this disparity. As it currently stands, the cavalry forces proposed in the most recent Maneuver Unit of Action Operational and Organizational Plan fall short of this requirement. Whether one believes in the concept of Future Force information dominance on the battlefield or holds the more traditional view that the Army will always be forced to fight for information, significant changes are required to the UA cavalry structure to facilitate either. Implementation of the recommendations proposed in this final section of the study would resolve this serious deficiency in the proposed Future Force.

Looking back at Kagan's explanation of redundancy, it is clear that the "cavalry" forces tasked with reconnaissance and security missions at the Maneuver UA level would be incapable of effectively performing either mission on a consistent basis, especially with the recent cancellation of the RAH-66 Comanche project. It is not currently known if the Comanche will be replaced by an existing manned platform like the Apache or if the Army's leadership envisions the majority of the Comanche's stated responsibilities to be assumed by UAVs. What is known is that the lack of a manned or unmanned ground cavalry capability at the UA level makes it impossible to ensure redundancy in the Maneuver UA's fight for information.

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[91] COL Clinton Ancker, "FW: Objective Force Cavalry O&O," personal e-mail.

For the Future Force Maneuver UA to win the fight for information on tomorrow's battlefield, it will require a cavalry organization that combines manned and unmanned air and ground capabilities. Like the U.S. Cavalry that secured the American western frontier, the 11th ACR in Vietnam, and many others, this organization must be structured to maximize both technology and tactics. This will ensure that the UA commander is able to answer his specific information requirements, which is the first step required for him to accomplish his assigned mission. Instead of relying on technology that may or may not be able to provide him "dominant battlefield knowledge," he would posses a capable, redundant organization specifically trained and equipped to perform the reconnaissance and security tasks necessary to win the fight for information at the UA level.

So how big should this UA reconnaissance and security organization be? Certainly, an optimal solution would be to create a cavalry squadron that closely mirrors our current division cavalry squadron (3 x ground cavalry troops, 2 x air cavalry troops) for each Maneuver UA, but that may not be possible given the "smaller, but just as lethal" guidance issued by General Schoomaker. Instead, this study proposes a smaller organization that combines a wide spectrum of capabilities under one command. This will give the UA commander multiple options in his quest for information dominance without taking capabilities away from his subordinate combined arms battalion commanders, thus creating true reconnaissance and security redundancy in the Future Force Maneuver Unit of Action.

History has shown cavalry organizations at every level to be among the most flexible and adaptable on the battlefield. The UA Cavalry Squadron should be no different. The foundation of this squadron's reconnaissance and security capability should be what would best be described as an enhanced ground reconnaissance troop, loosely based on the structure of the CAB Recon Troops. To ensure maximum manned ground coverage throughout the UAs battlespace, this Recon Troop should contain four reconnaissance platoons (3 x FSCS each) instead of the three platoons contained in the CAB's Recon Troop. Additionally, two mounted combat system

(MCS) platoons (3 x MCS each) should be added to this troop to give the commander a legitimate ground security capability. Adding similar unmanned aerial vehicle and unmanned ground vehicle capabilities outlined in the Maneuver UA O&O for the CAB Recon Troops would provide the necessary unmanned ground and air redundancy to complete the UA Cavalry Squadron's Recon Troop.

The second key component of the UA Cavalry Squadron is an Aviation Flight Troop. As outlined earlier, the Future Force UA Aviation Squadron was to have two RAH-66 Comanche Flight Troops (6 x RAH-66 each). The cancellation of the Comanche program obviously negates that aspect of the most recent UA O&O, but it certainly does not negate the requirement for a manned reconnaissance and attack aviation capability in the UA. Whether the platform chosen for the role is a version of the AH-64 Apache or another airframe, this capability is a necessary aspect of the redundancy equation to ensure victory in the fight for information on the full-spectrum battlefield. The addition of eight reconnaissance and attack-capable helicopters to the UA Cavalry Squadron combined with the UAV capabilities proposed for the aviation flight troops in the UA O&O would fulfill this critical requirement for the Future Force UA.

Another aviation capability that should be considered for the Cavalry Squadron's Aviation Flight Troop is a medium-lift capability. Whether for air-insertion, emergency resupply, MEDEVAC, command and control, or as a weapons platform, the addition of eight versatile medium-lift helicopters to the UA would add yet another level of redundancy to the organization that is to be the building block for the Future Force. While a second manned airframe certainly adds logistical challenges to the equation, the flexibility gained by this addition would immediately be apparent to both the UA commander and his subordinate commanders.

As seen in the case studies and other examples presented in this paper, there are numerous instances of successful cavalry operations against asymmetric foes. Though they are now a key aspect of threat doctrine, the principles by which the asymmetric foe fights have changed little over the years. Likewise, the cavalry's ability to rapidly adapt to a diverse and

flexible enemy has remained consistent throughout history. The fact that cavalry units have always been trained, organized, and equipped to win the fight for information has given them a distinct advantage over the asymmetric foe in the past, and it is imperative that the United States Army maintain this capability in the future. The proposal for cavalry in the most recent Maneuver Unit of Action Operational and Organizational Plan falls woefully short of the requirement to win the fight for information and achieve information dominance in future full-spectrum operations. While the Combined Arms Battalion Recon Troops provide an effective reconnaissance and security foundation for the UA commander, the CAB commanders will need those assets to answer specific information requirements to accomplish missions assigned from higher. The UA commander requires a similar capability at his level. The recommendations presented in this study give him the ability to answer his specific information requirements by either active or passive means without stripping assets from his CABs to do it. With the inherent redundancy built into this proposal, "the enemy will be forced to contend with the strengths of multiple systems and therefore can't focus on defeating just one."[92] Additionally, the proposed cavalry organization gives the UA commander a realistic economy of force capability in either an offensive or defensive posture and provides sufficient redundancy to conduct both reconnaissance and security operations simultaneously. Whether you believe that true information dominance on the future battlefield is attainable or not, it is illogical to deny the importance of the fight for information. The building block of our Future Force, the Maneuver Unit of Action, deserves and requires a flexible, adaptable, redundant cavalry organization that specifically serves the information requirements of the UA commander and the soldiers he is charged to lead against the future enemies of the United States.

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[92] Ancker Interview.

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