The Last Cavalry Regiment: The Corps Commander's Requirement for the 3d ACR

A Monograph

by

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In the years since Operation Desert Storm, there has been a significant restructuring of the United States Army that has had an enormous impact on the structure of the cavalry at brigade level and above. It began by ensuring the existence of a cavalry organization at every echelon of the Army from battalion to corps, then stripped them from all organizations higher than brigade. The end result was the addition of a cavalry squadron at the brigade level, at the expense of the divisional cavalry squadron, which no longer exists. Concurrently, the Army retained only one of its three active Armored Cavalry Regiments (ACRs), and not a single one of its National Guard ACRs. Due to the lack of ACRs, a substitute must be identified. The Infantry BCT (IBCT), Heavy BCT (HBCT) and Stryker BCT (SBCT) are examined to determine if they can fulfill the requirements of a covering and rear area security force. Should an ACR not be available, the HBCT is determined to be the next best unit to perform the covering force mission, while the SBCT is the ideal unit for rear area operations. The ACR is still the optimal choice for the offensive cover mission, as it is specifically designed to perform this mission. Since there is only a single ACR left, it must be preserved for this mission that it performs better than any other brigade-sized unit.

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Abstract

The Last Cavalry Regiment: The Corps Commander's Requirement for the 3d ACR by MAJ George A. Stewart III, United States Army, 58 pages.

In the years since Operation Desert Storm, there has been a significant restructuring of the United States Army that has had an enormous impact on the structure of the cavalry at brigade level and above. It began by ensuring the existence of a cavalry organization at every echelon of the Army from battalion to corps, then stripped them from all organizations higher than brigade. The end result was the addition of a cavalry squadron at the brigade level, at the expense of the divisional cavalry squadron, which no longer exists. Concurrently, the Army retained only one of its three active Armored Cavalry Regiments (ACRs), and not a single one of its National Guard ACRs. The continued existence of the one remaining ACR (3d ACR) is still uncertain as the Army failed to address the organization in all of its major transformation documents. It thus begs the question, is the ACR still relevant?

Given the desire of the government of the United States to achieve quick victories with fewer troops through rapid dominance as demonstrated in Operation Iraqi Freedom I, do the capabilities of the armored cavalry regiment fit into this paradigm given a future potential adversary? Using the hypothetical example of a conflict with Iran, it is reasonable to assume that the United States will attempt to once again use rapid dominance to achieve its goals quickly with as few troops as possible. Analyzing the mission and the threat the enemy will pose, there is the identified need for a ground unit that will operate independently in front of the attacking corps in order to allow the corps and division commanders to preserve their combat power until the decisive place and time. Additionally, that corps commander will need an independent unit to operate over hundreds of kilometers in order to defeat the rear area threat. Our doctrine identifies the ACR as this type of unit, as its structure and doctrine is ideally suited to act as a covering force at the front or flanks of a corps and to deal with the rear area threat.

Ideally, the heavy ACR is an independent organization that can conduct offensive and defensive reconnaissance and security missions as well as economy of force missions for the corps commander over the corps' frontage facing most types of threats. The ACR differs from the modular Brigade Combat Teams (BCTs) in three important ways: its air-ground integration, intelligence and reconnaissance capabilities and training, and its organic CSS capabilities. Whereas a BCT has combined arms, it does not possess manned reconnaissance, attack helicopters, or lift helicopters in the same numbers as the ACR. Nor is the majority of the BCT trained to conduct reconnaissance and security operations, as is the ACR. Finally, the ACR possesses a robust logistical foundation that allows it to plug into theater level support nodes. The modular BCT is not fully organized nor equipped to do this.

However, due to the lack of ACRs, a substitute must be identified. The Infantry BCT (IBCT), Heavy BCT (HBCT) and Stryker BCT (SBCT) are examined to determine if they can fulfill the requirements of a covering and rear area security force. Should an ACR not be available, the HBCT is determined to be the next best unit to perform the covering force mission, while the SBCT is the ideal unit for rear area operations.

The ACR is still the optimal choice for the offensive cover mission, as it is specifically designed to perform this mission. Since there is only a single ACR left, it must be preserved for this mission that it performs better than any other brigade-sized unit.

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INTRODUCTION

> [T]he reconnaissance detachments must be organized in peacetime just as they will be in war…. [I]f commanders, troops and the auxiliary arms are thrown into action without having settled down together, this would put a question mark against our ability to carry out reconnaissance at the outset of hostilities, when it is so important.[1]
>
> Heinz Guderian

In the years since Operation Desert Storm, there has been a significant restructuring of the United States Army that has had an enormous impact on the structure of the cavalry at brigade level and above. It began by ensuring the existence of a cavalry organization at every echelon of the Army from battalion to corps, then stripped them from all organizations higher than brigade. The end result was the addition of a cavalry squadron at the brigade level, at the expense of the divisional cavalry squadron, which no longer exists. Concurrently, the Army retained only one of its three active Armored Cavalry Regiments (ACRs), and not a single one of its National Guard ACRs.[2] The continued existence of the one remaining ACR (3^{d} ACR) is still uncertain as the Army failed to address the organization in all of its major transformation documents.

Without the ACR and divisional cavalry squadrons, the first ground cavalry units in a corps to make contact with the enemy will be at the brigade level.[3] A corps commander serving as a Land Component Commander during major combat operations will find the lack of an organization to perform cavalry operations at his echelon unacceptable. As the commander, how can he develop the situation to the front of his corps if the first units to do so are two echelons below his at the brigades? How can he secure the rear area of his corps? As a result of the

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[1]Heinz Guderian, *Achtung-Panzer!: The Development of Armoured Forces, their Tactics and Operational Potential* (London; New York: Arms and Armour; Distributed in the USA by Sterling Pub. Co., 1995), 165.

[2]The 2d ACR was converted to a light cavalry regiment equipped with HMMWVs in 1992, then converted to a Stryker Brigade Combat Team (SBCT) in 2006. The 11th ACR was restructured to serve as the OPFOR at NTC in 1994, and when portions of it deployed to Iraq during the 2005-6 time frame, it was not organized as an ACR, but more along the lines of an HBCT. The 278th ACR in the Army National Guard was converted to a Heavy Brigade Combat Team in 2006. The 3d ACR is the only remaining ACR in the Army.

absence of an ACR to perform these missions, the commander will require reinforced modular brigades to perform reconnaissance, security and economy of force missions for the corps, with a Heavy Brigade Combat Team (HBCT) executing the offensive cover force mission and a Stryker Brigade Combat Team (SBCT) executing rear area security operations.

In 1988 when COL Jarrett J. Robertson, commander of 3[d] ACR, sent a report to Forces Command (FORSCOM) on the structure and organization of cavalry, every echelon of the Army from battalion to corps had its own organic cavalry unit except for the brigade. COL Robertson clearly identified this deficiency and recommended that each brigade be assigned a cavalry troop. No cavalry organizations would be eliminated in the process. During the transition to the Force XXI Army under Army Chief of Staff General Eric Shinseki[4], the addition of the Brigade Reconnaissance Troop finally realized this goal of having cavalry at every echelon. However, the presence of a reconnaissance and security organization at every echelon did not persist.

The Department of Defense under Secretary Donald Rumsfeld initiated another transformation of the military with the issuance of its *Transformation Planning Guidance* in April of 2003. The planning guidance described the transformation of the military as necessary in order "to ensure U.S. forces continue to operate from a position of overwhelming military advantage in support of strategic objectives."[5] The Roadmap for Army Transformation that followed interpreted this imperative as indicating that the Army must create a Future Force that is a "strategically responsive, joint interdependent, precision maneuver force, dominant across the full range of military operations envisioned for the future global security environment."[6]

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[3]Cavalry units are trained and organized to perform reconnaissance, security and economy of force operations.

[4]General Shinseki was the Army Chief of Staff from 1999 to 2003.

[5]U.S. Department of Defense, *Transformation Planning Guidance* (Department of Defense, April 2003), 4.

[6]U.S Department of the Army, *2003 Army Transformation Roadmap* (Department of the Army, 1 November 2003), X.

En route to this Future Force, the Army implemented two major changes to the Current Force in order to enhance its capabilities. The first was to transition to a capabilities-based organization that rests on modular forces. The second was to implement the Force Stabilization and Unit Manning System, later renamed as the Army Force Generation Model, or ARFORGEN. Both of these changes have significant impact on the employment of the Armored Cavalry Regiment by the United States Army.

Modularity

According to the 2001 Quadrennial Defense Review, the United States military can no longer take a "threat-based" approach to planning, but must now embrace a "capabilities-based" approach. This change in perspective resulted from no longer knowing who our next adversary will be with any degree of certainty. Rather, we must concentrate on identifying the capabilities our military must possess in order to decisively defeat any of our potential adversaries. To accomplish this goal, the Army decided to transition to a modular force structure.

The goal of the modular force is to be able to "create rapidly deployable and tailorable force capability packages"[7] for the Joint Force Commander (JFC). One key aspect of modularity is designing units to possess similar structures that provide similar capabilities, allowing disparate units to be grouped together in a tailored force package with minimal administrative or logistical overhead. By possessing redundant modular units, the Army can more effectively provide the commander with the capabilities that he requires.

The Army established three standard brigade combat team (BCT) modular designs: Heavy (HBCT), Stryker (SBCT) and Infantry (IBCT). At the conclusion of its transition to modular forces, the active component Army will be comprised of 19 Heavy, 5 Stryker, and 18 Infantry BCTs, with the option to add five additional brigades at a later time.[8] The only brigade-

[7]Ibid., 1-11.

[8]Congressional Budget Office, *Options for Restructuring the Army* (Washington, D.C.: The Congress of the United States, May 2005), 66.

sized unit that was not identified by the plan for modular conversion as outlined in the *2004 Army Transformation Roadmap* (ATR) was the 3d Armored Cavalry Regiment.[9]

Since it possesses a unique structure and set of capabilities among the Army's 43 brigades, the 3d ACR cannot be categorized as an HBCT, SBCT or IBCT.[10] Contrary to expectations, the 3d ACR is not designated to transition to one of the three standard brigade structures, nor is it identified as a fourth standard modular brigade structure. Failing to convert the 3d ACR to a modular unit or declare a fourth type of modular brigade and create additional heavy ACRs violates the basic rationality within modularity of providing units with redundant capabilities. If the United States needed the unique capabilities provided by a heavy ACR, they could only be provided in one theater of conflict since the 3d ACR is the only remaining unit that can provide them.

Another impact of modularity is the dissolution of the divisional cavalry squadron. This leaves the division commander without a dedicated unit to provide the capabilities of reconnaissance, security, and economy of force operations. The cavalry squadron allowed the division commander to develop the situation before deciding how to employ his brigades.[11] Now the division commander must rely on his subordinate brigades to perform these missions for the division.

Execution of reconnaissance and security missions across the entire division will become more difficult as a result of having to delegate them to, and coordinate them between, the subordinate brigades. This problem of coordination will become even greater if the corps does not have its own dedicated cavalry organization, forcing it to rely on the brigades within its

[9]Also not mentioned is the 11th ACR since it generally serves as the Opposing Force at the National Training Center (NTC) at Fort Irwin, California. It has not been deployed as a full brigade, and when it did deploy to Iraq, it looked more like an HBCT rather than a heavy ACR.

[10]These capabilities will be described later in this document.

[11]The division commander will have reconnaissance assets from the Joint realm and others that will allow him to see the enemy. However, they are incapable of developing the situation with the enemy. He must be in ground contact with the enemy to develop the situation.

subordinate divisions to develop the situation with the enemy. First ground contact with the enemy will now be at brigade level instead of at the division or higher level. Neither the division nor corps will be able to provide security for its brigades as a result of the current transformation.[12]

Army Force Generation Model

The Army created ARFORGEN in order to "reduce personnel turbulence and provide combatant commanders more combat-ready units" amidst the high demand for ground units in both Iraq and Afghanistan.[13] For the active component brigade, ARFORGEN is designed to be a three-year cycle consisting of three phases: Reset, Train and Ready. All active component brigades, to include 3d ACR, are included in this cycle.

The first phase, the Reset Phase, begins when a unit redeploys from theater. It then undertakes a thorough repair of its equipment which in many cases requires transporting it to another location for depot-level maintenance and overhaul. The unit will also hemorrhage its personnel at the beginning of this cycle as they rotate to other units. As a result, unit manning has the potential to fall to almost 30%, and will not approach full manning until near the end of this phase. The bottom line is that during the 12-month period of Reset the unit is not deployable without incurring significant risk.

The second phase is the Train Phase, and should also take approximately 12 months. By the beginning of this phase, the unit should have reconstituted most of its equipment and personnel, ready to train the newly formed team. Units will progress from individual to collective training during this phase, culminating in a validation and certification exercise. A unit is

[12]Aviation units within the division might be able to screen, but they will not be able to seize or hold terrain like ground cavalry units during the execution of a guard or cover. They are not a feasible, acceptable, or suitable solution to protect a division or corps. An indicator of the vulnerability of helicopters in this type of mission can be witnessed in the failure of attack helicopter deep attacks during OIF I.

[13]U.S. Department of the Army, *2004 Army Transformation Roadmap* (Department of the Army, July 2004), 3-13. This is the major source for the discussion concerning the ARFORGEN model.

potentially deployable during this phase, but at the risk of not being fully trained and lacking some personnel and equipment.

The third and final phase, the Ready Phase, indicates the year that the unit has all necessary personnel and equipment and is available for deployment. Currently in the Global War on Terrorism (GWOT), every brigade entering the Ready Phase deploys to either Iraq or Afghanistan. Theoretically, if these conflicts were not occurring, the unit would be available for deployment in another theater of operation, should one arise. This phase ends upon the unit's redeployment and immediate entry into the Reset Phase.

Currently, ARFORGEN does not function as advertised. Mission requirements in Iraq and Afghanistan have reduced it from a three year to a two year cycle for most units. As an example, 3^{d} ACR deployed to Iraq from 2003 to 2004, then 2005 to 2006, and will deploy for a third time in 2007, demonstrating a two-year cycle. Additionally, units have been extended in theater, lengthening their time in the Ready Phase past the typical year mark. So the reality of ARFORGEN is one year in a combined Reset and Retrain phase followed by a year or more deployed. Due to the initial lack of personnel and equipment required in Reset, that one year in Reset/Retrain is probably not enough for a unit to effectively train missions that are radically different from those they have performed in the past.

Given 3^{d} ACR's participation in the ARFORGEN cycle, if it is deployed to Iraq, or unavailable for deployment due to being in the first two phases of the ARFORGEN cycle, then the U.S. Army cannot provide the capabilities of an ACR to any other Land Component Commander, whether he is in Iraq or a developing theater in another part of the world. To make matters worse, the 2001 *Quadrennial Defense Review Report* stated that the United States military must "remain capable of swiftly defeating attacks against U.S. allies and friends in any

two theaters of operation in overlapping timeframes."[14] This requires the Army to have similar capabilities available for employment in each of the two theaters simultaneously. However, it will always fail to provide the capabilities of a heavy ACR in one theater if the 3d ACR is available, and potentially both theaters if the 3d ACR is in either the Reset or Train Phases.

Thus identifying the shortage of ACRs and their capabilities in the United States Army, this monograph will attempt to determine what the Army can do to provide the capabilities of an ACR to a Land Component Commander in the absence of such a formation. I will first address the question of whether or not the capabilities of an ACR are really necessary in future major combat operations. This will be done through the examination of the doctrinal foundation of the ACR, its historical use, and how the capabilities of an ACR will be required in a hypothetical conflict with Iran. Secondly, if the capabilities provided by an ACR are necessary, then what type of structure and training is needed to provide those capabilities? Finally, is there a type of unit in the new modular Army that can be adjusted to provide them? This will require looking at the three modular brigade organizations to see if they can be reasonably modified to provide the capabilities of an ACR that are required by a corps commander. Each organization will be examined to see if, after modification, it provides a feasible, acceptable, and suitable course of action to providing the capabilities of an ACR for a corps commander.[15]

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[14]U.S. Department of Defense, *Quadrennial Defense Review Report* (Department of Defense, September 30, 2001), 21.

[15]Borrowing from the definitions found in *Field Manual 5-0 Army Planning and Orders Production* for the purposes of this monograph, feasible will be defined as "the organization must be able to accomplish the required mission within the available time, space, and resources"; acceptable will be defined as "the capabilities gained by building this organization must justify the cost in resources"; and suitable will be defined as "the organization will meet the requirements that a commander expects of a unit conducting that mission."

CHAPTER 1: THE ROLE OF CAVALRY AND RAPID DOMINANCE

Doctrinal Foundation of the Armored Cavalry Regiment

Ideally, the heavy ACR is an independent organization that can conduct offensive and defensive reconnaissance and security missions as well as economy of force missions for the corps commander over the corps' frontage facing most types of threats.[16] The Army's established doctrine for the employment of an ACR can be found in Field Manual 17-95 (FM 3-20.95), *Cavalry Operations*. The core missions of the ACR—reconnaissance, security, and economy of force—differ from those of the three standard types of modular BCTs. Because of the nature of the ACR's missions, its structure also differs from the BCTs.

The IBCT, SBCT and HBCT are all structured to conduct the attack and defense during major combat operations.[17] Their composition of combat, combat support and combat service support units provide an effective combined arms team to accomplish these missions. They are all designed to be subordinate to a division headquarters and must rely on a division and its assigned sustainment brigade for their logistical support.

The ACR differs from the modular BCTs in three important ways: its air-ground integration, intelligence and reconnaissance capabilities and training, and its organic CSS capabilities.[18] Even though each BCT has the combined arms of infantry, armor, artillery and engineers (the IBCT lacks armor), they do not own any air assets. The ACR has its own air squadron with attack and lift helicopters. For reconnaissance and security operations, each BCT only possesses a single reconnaissance squadron and a scout platoon per battalion, whereas the ACR is made up of three ground squadrons and one air reconnaissance squadron. Finally, the

[16]U.S Deparment of the Army, *Field Manual 17-95 Cavalry Operations* (Washington, D.C.: Headquarters, Department of the Army, 1996), 1-13.

[17]U.S Deparment of the Army, *Field Manual 3-90.6 The Brigade Combat Team* (Washington, D.C.: Headquarters, Department of the Army, August 2006), 2-1.

[18]H.R. McMaster, interview by author, Fort Leavenworth, Kansas, November 28, 2006.

ACR possesses a robust logistical foundation that allows it to plug into theater level support nodes. The BCT is not organized nor equipped to do this.

According to FM 17-95, there are six primary roles of the cavalry. They are to provide fresh information on the enemy and terrain, provide reaction time and maneuver space, preserve combat power, restore command and control, facilitate movement, and perform rear operations.[19] The ACR performs these roles for a Corps by executing reconnaissance, security and economy of force missions for the Corps commander.

An ACR performs reconnaissance in order to determine information about the enemy and terrain for the corps commander. It employs it ground assets, air assets, and sensors to acquire such information, while using its organic military intelligence assets to analyze the data and produce usable intelligence products that describe the enemy and terrain. It can perform reconnaissance in conjunction with an offensive cover mission.

According to Field Manual 1-02, *Operational Terms and Graphics*, a cover is "a form of security operation whose primary task is to protect the main body by fighting to gain time while also observing and reporting information and preventing enemy ground observation of, and direct fire against, the main body. Unlike a screening or guard force, the covering force is a self-contained force capable of operating independently of the main body."[20] Field Manual 63-1, *Support Battalions and Squadrons, Separate Brigades and Armored Cavalry Regiment*, then describes the expectations of an ACR performing a cover mission: "The ACR is normally the foundation around which the corps covering force is built. As a covering force, the regiment is

[19]U.S Deparment of the Army, *Field Manual 17-95 Cavalry Operations*, 1-4.

[20]U.S Deparment of the Army, *Field Manual 1-02 Operational Terms and Graphics* (Washington, D.C.: Headquarters, Department of the Army, 2004), 1-49.

expected to destroy a significant number of enemy forces in the corps security area. This requires attacking, defending, and delaying as necessary to accomplish the corps commander's intent."[21]

As a covering force for a corps, the ACR can provide fresh information on the enemy and terrain, and, more importantly, provide the corps' subordinate units with reaction time and maneuver space. This mission is extremely important due to the reduction of the HBCT's combat power to two maneuver battalions, and the tendency to use as small a total force as possible to accomplish the operational mission, as demonstrated in Operation Iraqi Freedom. In this environment, corps and division commanders must be free to husband their limited resources in the maneuver brigades to commit them at the decisive place and time, protected from molestation by the enemy.

Finally, the ACR can perform economy of force missions for the corps. The most important economy of force mission is providing rear area security to defeat enemy threats against the corps' lines of communication.[22] The self-contained, highly mobile, and lethal organization of the ACR makes it well-suited to perform this mission. Other economy of force missions that might be given to an ACR include conducting offensive operations, defensive operations, and raids.[23]

The ACR's inclusion of aviation assets, its standard training to conduct cavalry missions, and its ability to operate independently of the main body set it apart from the three standard modular brigades. It is these three areas that will be examined in Chapters 2 and 3 as we attempt to determine how to accomplish ACR missions with other Army assets.

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[21]U.S Deparment of the Army, *Field Manual 63-1 Support Battalions and Squadrons, Separate Brigades and Armored Cavalry Regiment* (Washington, D.C.: Headquarters, Department of the Army, 1994), 1-1.

[22]According to *Field Manual 100-15 Corps Operations*, the mission of rear security is normally given to the corps' Military Police (MP) (page C-5). However, due to the intensity of resistance expected in the rear as will be described in the hypothetical Iran scenario, there will be a higher number of Level III threats which the MPs cannot handle. Thus the need for a rear area security force with greater combat power. (See FM 3-90, *Tactics*, pages E-7 to 8, for a description of rear area threat levels.)

[23]U.S Deparment of the Army, *Field Manual 17-95 Cavalry Operations*, 1-13.

Historical Use of the Armored Cavalry Regiment

To justify the need for an ACR and its inherent capabilities, we will now look at how similarly-structured cavalry units have been used during major combat operations since the beginning of mechanized warfare. What this historical review will show is that ACRs were consistently used in a doctrinal manner (as per FM 17-95) during major combat operations, and that even when they were not used, that the capabilities provided by an ACR were noticeably lacking. To do this, we will look at the 3d Cavalry Group in World War II, the 2d, 3d and 11th ACRs during the Cold War and how they fit in the General Defense Plan of Europe, the 2d and 3d ACRs during Operation Desert Storm, and the 3d ACR during Operation Iraqi Freedom.

A prime example of an ACR-like unit during World War II would be the 3d Cavalry Group that served as the covering force for XX Corps in Patton's 3d Army.[24] During operations in the European Theater of Operations following Operation Overlord, the 3d Cavalry Group performed raids and screens in addition to the standard cover mission. At times, the XX Corps commander, General Walker, would reinforce the Cavalry Group with field artillery, tank destroyers and engineers in order to more effectively hold terrain and destroy the enemy in front of the rest of XX Corps. [25]

During the Cold War, the United States rotated ACRs to the West German border with Soviet-occupied East Germany. During that time, the ACRs conducted route reconnaissance to determine the best routes for deployments in the event of an attack by the Warsaw Pact and screened the German border.[26] Additionally, the 14th and 11th ACRs defended forward positions in the Fulda and Hof Gaps in order to buy time for the remainder of U.S. forces to respond to a Warsaw Pact attack.

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[24]*Blood and Steel! The History, Customs, and Traditions of the 3d Armored Cavalry Regiment* (Fort Carson, Colorado: Third Cavalry Museum, 2006), 19.

[25]Matthew D. Morton, "Men on "Iron Ponies," the Death and Rebirth of the Modern U.S. Cavalry," Ph.D. dissertation (The Florida State University College of Arts and Sciences, 2004), 390.

[26]*Blood and Steel!*, 24.

The United States employed two ACRs during Operation Desert Storm (ODS) in 1991. Each ACR was assigned to a corps and given doctrinal cavalry missions. The 2d ACR conducted a cover mission as they led the 1st and 3d Armored Divisions of VII Corps in their attack against the Iraqi forces in the southern portion of Iraq.[27] The 3d ACR was given the mission of protecting the flank (flank guard) of the 24th Infantry Division and the rest of XVIII Airborne Corps as they moved northward.[28]

During Operation Iraqi Freedom (OIF) in 2003, the 145,000-man invasion force did not include an ACR, which appeared to result from two factors. First, the Bush Administration pressured the military planners at the Coalition Forces Land Component Command (CFLCC) to initiate the ground offensive as quickly as possible, not allowing them to wait for the full force to arrive in Kuwait.[29] Second, with the theoretical basis for the war grounded in "Shock and Awe," there may have been the belief that the ground forces would be moving too fast for an ACR to be of any use as a covering force.

In the aftermath of the OIF ground campaign, two retired Army generals who commanded divisions during ODS commented that an ACR should have been used during the ground war. General Barry McCaffrey asserted that in the Army's portion of the ground force "there should have been a minimum of two heavy divisions and an armored cavalry regiment on the ground—that's how our doctrine reads."[30] Lieutenant General Thomas Rhame believed that "we would be much better off if we had another heavy division on the ground, and an armored cavalry regiment to deal with the mission in the rear."[31] McCaffrey bases his argument on doctrine which also implies that Army should fight as it trains to do so, and not make it up as it

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[27]Michael R. Gordon and Bernard E. Trainor, *The Generals' War: The Inside Story of the Conflict in the Gulf* (Boston: Little, Brown, 1995), 379.

[28]Ibid., 381.

[29]Michael R. Gordon and Bernard E. Trainor, *Cobra 2: The Inside Story of the Invasion and Occupation of Iraq* (New York: Pantheon Books, 2006), 88-9.

[30]Thomas R. Ricks, *Fiasco : The American Military Adventure in Iraq*, (New York: Penguin Press, 2006), 119.

[31]Ibid.

goes along, as seemed to be the case in OIF. Rhame identifies the ACR as a solution to the vulnerability of our rear area which resulted from a limited number of combat troops on the ground to protect the rear and the presence of the Saddam Fedayeen, which harassed our lines of communication as our combat forces drove north to Baghdad.

Rhame's comment also mirrors that of a CFLCC planner made during the execution of the ground war. As ground forces penetrated farther into Iraq, it became clear that there was a significant irregular-force threat to our lines of communication. Suggesting a solution, the planner recommended deploying the 2d ACR into theater believing that "the regiment would be ideal for operating independently, securing key intersections, and reconnoitering routes."[32]

The 3d ACR was actually scheduled to arrive in theater between the 3d Infantry Division and the 101st Air Assault Division. Its intended mission was to either control the terrain in the gap that formed between the Army and Marine forces as a sort of double flank guard, or to maneuver farther west to approach Baghdad from that direction as an economy of force mission.[33] However, General Tommy Franks, the Commander of Central Command (CENTCOM), had it pushed back until after the 101st Air Assault and 4th Infantry Divisions had arrived in theater. By then, the 3d ACR could not participate in major combat operations as that phase of the war had ended. Due to its motorized nature, the 2d ACR was given the mission of securing the main supply route (MSR) as ground forces moved north.[34]

Critics would contend that an ACR was not necessary during the invasion due to the rapid overthrow of the Hussein government by those forces already on the ground. What McCaffrey and Rhame believed necessary were perceived as outdated modes of thinking—warfare had changed. However, our rapid victory was due more to the state of our adversary than

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[32]Ibid., 121.

[33]Kevin Benson, interview by author, email, Leavenworth, Kansas, 11 December 2006.

[34]Kevin Benson, interview by author, email, Leavenworth, Kansas, 13 February 2007. The 2d ACR (-) that arrived in theater in April 2003 consisted of the Regimental headquarters, one ground

Footnotes continued on next page.

to any revolutionary tactics. According to the Iraqi Perspectives Project, we faced an adversary who (1) prepared his security forces to face an internal threat rather than an external threat as presented by the United States, (2) did not allow his main force units to train properly due to fear of a coup d' état, and (3) oversaw a military that suffered from years of economic strangulation.[35] We took advantage of the unprepared state of the Iraqis and achieved victory through "Shock and Awe." A more capable enemy may have presented a greater challenge to our ground forces, requiring the employment of more units, such as the ACR.

Despite the rapid victory in OIF, during the attack to Baghdad there was still an identified need for the capabilities provided by an ACR as shown by early committal of main force units, unguarded flanks, and vulnerabilities in the rear areas. Historically, the need for an ACR to provide the corps commander with reaction time and maneuver space, to help him preserve combat power, and to perform rear area security is clear. No recent change in the conduct of warfare has alleviated the need for a unit with such capabilities. In fact, it may have exacerbated that need due to the requirement for a small number of forces and a high tempo of operations to achieve our objectives. Due to the desire to win wars quickly and decisively, coupled with the success of U.S. forces in major combat operations during Operation Iraqi Freedom (OIF), we can expect that our land forces will continue to operate within the paradigm of rapid dominance and they will need forces to cover the front and protect the rear of a rapidly advancing force.

Rapid Dominance

Throughout history nations have sought to win quick, decisive victories over their adversaries, and our nation is no different. Intending to remove Saddam Hussein from power in Iraq, the current Administration went looking for a theory of warfare that would give them a

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squadron, and one air cavalry troop. An MP battalion and an air cavalry troop from the 82nd Airborne Division were attached to the Regiment in theater.

cheap, easy victory over the dictator. It found such a promise in the theory of rapid dominance presented by Harlan Ullman, James P. Wade and L. A. Edney of the National Defense University. Their theory promised quick, decisive victory over our enemies while using relatively few troops to do so.[36] This became very attractive with the current Administration, and they decided to go forward with its implementation during the war in Iraq.

With the window of opportunity provided by the terrorist attacks of September 11, 2001, the United States added the removal of Saddam Hussein from power in Iraq to the newly announced GWOT. The nature of this window rested on the domestic support that the President Bush Administration received as a result of the attacks on America, and from the political momentum his Administration later achieved by justifying the operation to the rest of the world as being necessary to prevent Iraq from developing and using weapons of mass destruction (WMD). War against Saddam Hussein would be difficult to wage should the window close.

Thus, the window of time provided by both domestic and international support to depose Hussein was perceived as being finite. We later saw a similar political window close during the 2006 Israeli attack into southern Lebanon to defeat Hezbollah military capabilities. After less than a month of fighting, the United Nations Security Council passed a cease-fire resolution before the Israelis had accomplished many of their goals.[37] Ralph Peters, a retired Army Lieutenant Colonel and essayist, describes the requirement for quick results simply by stating that "[e]ven the firmest presidential decision can be undercut by the specter of increasing diplomatic

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[35]Kevin M. Woods and Joint Center for Operational Analysis, *Iraqi Perspectives Project : A View of Operation Iraqi Freedom from Saddam's Senior Leadership* (Norfolk, Va.: United States Joint Forces Command, Joint Center for Operational Analysis, 2006), vii-x.

[36]Harlan Ullman, James P. Wade, L. A. Edney, and National Defense University, Institute for National Strategic Studies, *Shock and Awe : Achieving Rapid Dominance* (Washington, DC: Center for Advanced Concepts and Technology, 1996), 22.

[37]Ze'ev Schiff, "Israel's War with Iran," *Foreign Affairs* 85, no. 6 (November/December 2006): 23-31, 27.

and political costs" and therefore "Presidential decisions to engage the enemy must be protected by the achievement of rapid results."[38]

Another factor that influences the way the United States prosecutes wars is its military. It is structured in such a manner that does not allow it to undertake long, sustained campaigns without significant adjustments. Its personnel system relies on an all-volunteer force which relieves the nation of the need for a national draft, but restricts the overall size of the military and its ability to replace medium to heavy losses during drawn-out campaigns. Its formations are designed to maneuver, as opposed to waging an attritional war with another large military. The 2003 Transformation Planning Guidance summarizes this by saying that "[w]e cannot afford to react to threats slowly or have large forces tied down for lengthy periods" and our forces must be able to "defeat adversaries swiftly and decisively"—describing the desire to adopt the "rapid dominance" theory of warfare. [39]

Rapid dominance is a theory that appeals to those seeking a swift and decisive victory over their adversaries by using just the right amount military resources. This is juxtaposed to the theory of "decisive force," which requires "delivering massive enough force to prevail" which is essentially a "'force-on-force' and attritional approach."[40] As shown by the Bush Administration in its execution of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) where it forgoes the massive buildup of troops for quick, decisive results, it tends to turn away from a "decisive force" solution and opt for a more "rapid dominance" one.

The theory of rapid dominance states that in order for us to achieve our military aims, we must impose enough Shock and Awe on the enemy to affect their will, perception and knowledge which will result in overcoming their resistance.[41] To achieve success, the theory rests on four

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[38]Anthony McIvor, *Rethinking the Principles of War* (Annapolis, MD: Naval Institute Press, 2005), 101.

[39]*Transformation Planning Guidance*, 4.

[40]Harlan Ullman and others, 15.

[41]Ibid., 90.

pillars: knowledge, rapidity, brilliance and control of the environment.[42] In order to achieve success using rapid dominance, we must have a full understanding of the environment, to include the enemy, in order to determine the weak points to exploit. Rapidity is the capability to act within the enemy's decision cycle by "combin[ing] speed, timeliness, and agility."[43] This implies using units that can move quickly into theater and, once there, can maneuver rapidly to affect the enemy's center of gravity, preventing an effective response and causing his collapse. Operational brilliance is necessary to orchestrate and sustain momentum and shock, and implies empowering junior leaders to make more crucial decisions in the application of power.[44] Taken in context with the modular Army, this indicates decentralization of execution down to brigade and lower levels. Finally, we must control the information and intelligence environment in order to bend the enemy to our will. Thus, rapid dominance theoretically allows the commander to leverage our nation's small, highly-maneuverable, and technologically-advanced military in order to achieve national strategic goals quickly while avoiding an attritional war that would require many more troops than the nation wishes, or has, to commit.

The original plan to depose Saddam Hussein and manage the aftermath of the operation required 380,000 troops (OPLAN 1003-98).[45] However, over the course of planning for OIF, the Secretary of Defense, Donald Rumsfeld, continually pressed for a smaller number of troops. To reinforce his demands, Secretary Rumsfeld asked that the war planners review the seminal work on rapid dominance—*Shock and Awe* by Harlan Ullman, et al—to obtain a better understanding of how he expected the war to be fought.[46] The actual invasion force numbered closer to 145,000 troops, including British forces, with the arrival of many scheduled reinforcements being

[42]Ibid., 17-8.
[43]Ibid., 139.
[44]Ibid., 18.
[45]Gordon and Trainor, *Cobra 2*, 26.
[46]Ibid., 35.

canceled.[47] Additionally, the Commander of CENTCOM, General Franks, issued his strategic intent that reflected a theoretical base in rapid dominance, as the coalition would "effect the elimination of the Iraqi regime by pressuring Iraqi centers of gravity in order to create crises to which the regime cannot respond."[48]

Given the desire of the government of the United States to achieve quick victories through rapid dominance with fewer troops, do the capabilities of the armored cavalry regiment fit into this paradigm given a future potential adversary? The next chapter will present a hypothetical military scenario in Iran, and determine whether or not the capabilities of armored cavalry regiment are necessary in that conflict.

[47]Ricks, 117.
[48]Gordon and Trainor, *Cobra 2*, 67.

CHAPTER 2: FUTURE EMPLOYMENT OF THE ARMORED CAVALRY REGIMENT

A clearly stated strategic goal of the United States is to prevent Iran from possessing nuclear weapons.[49] Iran possesses numerous nuclear research and development sites, the largest of which are concentrated at four main sites: Arak, Natanz, Isfahan (also known as Kashan) and Bushehr.[50] Should diplomatic and economic efforts to halt the Iranian nuclear program fail, the U.S. may have to resort to military means to physically destroy Iran's nuclear program.

1. Map of major Iranian nuclear sites

Given our ability to strike at Iran from Iraq and Afghanistan, and the failure to find weapons of mass destruction in Iraq during OIF, the U.S. will most likely use ground forces in an attack on Iran's nuclear program in order to (1) find with certainty Iranian nuclear facilities, (2) ensure the dismantling of the Iranian nuclear program, (3) provide evidence to the international community of the existence of a non-peaceful nuclear program, thus justifying the war, and (4) prevent an environmental catastrophe which may result by striking at the Iranian nuclear facilities solely from the air. Another significant advantage of conducting a ground attack into Iran would be the crippling of Iranian ground forces to prevent them from invading Iraq once U.S. forces withdraw from that country.

Should there be a conflict with Iran, it is reasonable to assume that the United States will attempt to once again use rapid dominance to achieve its goals quickly with as few troops as

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[49]"United States' Policy Toward Iran: Statement before the Senate Foreign Relations Committee," [cited January 5, 2007]. Available from http://www.state.gov/p/us/rm/2005/46528.htm.

[50]"Iran Weapons of Mass Destruction Nuclear Facilities." in GlobalSecurity.org [database online]. [cited October 26, 2006]. Available from http://www.globalsecurity.org/wmd/world/iran/nuke-fac.htm. Map from http://news.bbc.co.uk/2/shared/spl/hi/middle_east/06/iran_maps/html/default.stm. [Cited November 26, 2006.]

possible. The pressure to use fewer troops will also be reinforced by fact that the U.S. has over 130,000 troops engaged in Iraq, and will continue to require a significant presence there for the foreseeable future. Utilizing the troops currently operating in Iraq for an attack into Iran would weaken the security situation in Iraq, which would be detrimental to our operations in Iran as Iraq would be our rear area for the invasion. Therefore, if the Administration should confront Iran in the military realm, the objectives will most likely be limited in both time and space in order to make them manageable for the small number of forces available for use.

Because of Iran's size, the U.S. will most likely avoid the resource-intensive mission of regime change.[51] Iran is approximately four times the size of Iraq, totaling 1,648,000 km^2 of land mass.[52] It is also much more mountainous and has over two and a half times the population of Iraq.[53] To depose the government of Iran and control the country, along with its 5,440 km of land borders and 2,440 km of coastline, would require many times the number of troops that were used for the invasion of Iraq.[54] Field Manual 3-24, *Counterinsurgency*, recommends a minimum of 20 counterinsurgents for every 1,000 inhabitants, which would indicate a requirement of 1,374,000 security forces for the Iranian population of 68,688,000 people.[55] Even if we were able to enlist 1,000,000 indigenous security forces, that leaves a requirement for 374,000 of our troops. Couple that with the security requirement for Iraq, and you are looking at a total of around 500,000 soldiers. That amount is simply not feasible given the current strength of our military. Therefore the U.S. will pursue the limited objective of destroying the core of the Iranian nuclear program, and not the larger goal of changing the government of Iran.

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[51]Looking back at the invasion of Iraq, even though we achieved the overthrow of Hussein's government with fewer troops than prudence would dictate, that small number was woefully inadequate for the occupation of Iraq that followed.

[52]"CIA World Factbook: Iran." in Central Intelligence Agency [database online]. [cited October 26, 2006]. Available from https://www.cia.gov/cia/publications/factbook/geos/ir.html.

[53]Ibid. There are approximately 68,688,000 people in Iran.

[54]In contrast, Iraq has 3,650 km of land borders and 58 km of coastline. (from "CIA World Factbook: Iraq." in Central Intelligence Agency [database online]. [cited October 26, 2006]. Available from https://www.cia.gov/cia/publications/factbook/geos/iz.html.)

Now we must examine how to achieve the objective of destroying the Iranian nuclear program. Three of Iran's four key nuclear sites, Arak, Natanz and Isfahan, are located generally south and southwest of Tehran.[56] For the purposes of this hypothetical scenario, Army ground forces will be assigned the task of securing these three nuclear sites. The fourth, Bushehr, is located on the Iranian coast in the Persian Gulf. The Marines will be given the task of securing the Bushehr facility. A Joint Force in the Persian Gulf will be responsible for neutralizing the Iranian threat to shipping and other traffic in that area.

During the ground assault, the mountainous terrain of Iran will canalize U.S. forces into constricted mobility corridors, limiting our options for ground maneuver. These mountains generally run from the northwest to the southeast, preventing any direct approach from the west to any of the nuclear sites. Therefore, it appears to be most feasible to launch an attack from the Diyala province of Iraq toward Kermanshah, then toward Arak, and finally south toward Natanz and Isfahan. As the crow flies, it is approximately 650 kilometers to the farthest of these sites, over 150 kilometers farther than from the Kuwaiti border to Baghdad. To logistically bridge this distance, intermediate supply bases will have to be established and secured en route.[57]

A possible plan could call for two divisions of seven total maneuver brigades, with each division attacking towards Arak and Isfahan on separate axes. Once the lead division with three maneuver brigades seized the Arak nuclear facility, it would then find itself with having to control the city of Arak and its population of approximately 511,000 people.[58] This would take at

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[55]U.S. Department of the Army, *Field Manual 3-24 Counterinsurgency* (Washington, D.C.: Headquarters, Department of the Army, 15 December 2006), 1-13.

[56]"Iran Weapons of Mass Destruction Nuclear Facilities."

[57]Generally, most Army ground vehicles can travel a maximum distance of 480km (300 miles) on a full tank of fuel. Therefore, there will have to be some sort of intermediate logistical facilities established en route to bridge the final 170km to the objectives.

[58]"2005 Population Estimates for Cities in Iran," in Mongabay.com [database online], [cited March 26, 2007], available from http://www.mongabay.com/igapo/2005_world_city_populations/Iran.html.

least a brigade to control.[59] A second brigade would conduct a feint toward Qom and Tehran in order to cause the Iranians to divert forces to protect those two key cities.[60] A third brigade would need to secure the nuclear site for exploitation and eventual destruction and defeat any counterattacks from the northwest.

The second division comprised of four maneuver brigades would attack toward Isfahan and seize its nuclear site. The division will have to keep two brigades at that location in order to control the city of almost 1.55 million people and to secure the nuclear site.[61] The remaining two brigades would attack toward Natanz to secure that site.

This scenario illustrates bold steps toward the way we want our Future Force to fight—by using as little ground force as necessary to achieve objectives in a non-linear, non-contiguous environment. Additionally, joint reconnaissance and fires would support the maneuver divisions during the entire operation. By striking quickly with Shock and Awe, we can quickly achieve our objective of crippling the Iranian nuclear program. We would also be dealing a serious blow to the Iranian military, preventing them from attacking into Iraq or other neighboring country in the near future. Once exploitation and destruction of the nuclear sites are complete, U.S. forces would then withdraw from Iran, avoiding long-term occupation and its associated insurgency that would require the continued commitment of substantial forces for a significant amount of time.

Faced with the presence of United States forces on its east and west borders, the Iranians have probably been hard at work studying the lessons from the recent conflicts in Iraq, Afghanistan, and Lebanon. The most important lesson comes from the employment of irregular units that blend into the local population until the appropriate time to strike. The Iranians understand that they can probably not defeat us tank-on-tank, and that they have a better chance

[59]"Control" in the case of this operation does not indicate complete control of a city or its people. It indicates the need to prevent the population from affecting the operation, and to secure any areas in and around populated areas that are vital to the conduct of the operation.

[60]Qom is the religious center of Shia Iran. Tehran is the capital of Iran.

[61]"2005 Population Estimates for Cities in Iran."

at affecting our operations through our logistical tail. The Iranians also have the luxury of a deep country which they can use to draw an invader in and exhaust them, with special attention being paid to the canalizing effects of their mountains. They can also wreak havoc on our rear area in Iraq by using their Shiite proxies in that country to foment civil unrest and attack our forces.

Due to our use of rapid dominance and its requirement for a small ground force, there are definite risks associated with this plan. First, there is the rapid, forward movement of two divisions separated by a gap against an armored enemy force. That gap between divisions can create vulnerable flanks. Second, as the divisions advance into Iran, their LOCs become very long and vulnerable to attack. As the modular Army is organized now without divisional cavalry and assuming there is not a covering force, it will fall upon brigade organizations to deal with all ground threats. Because of this, the divisions will lose much of their already limited combat power as their brigades must develop the situation and deal with peripheral threats. This will detract from the overall combat power they will be able to concentrate on their objectives and slow down the overall forward progress of the corps.

In order to mitigate these risks and accelerate the forward movement of the corps, there must be a ground unit that will operate independently in front of the attacking corps in order to allow the corps and division commanders to preserve their combat power until the decisive place and time. This unit can also provide reaction time and maneuver space for the corps commander as it will be the first to come into direct contact with the enemy away from the friendly main body. Additionally, the corps commander will need an independent unit to operate over hundreds of kilometers in order to defeat the rear area threat. Our doctrine identifies the ACR as this type of unit, as its structure and doctrine is ideally suited to act as a covering force at the front or flanks of a corps and to deal with the rear area threat.

Dealing with the Threat

Now that we have identified the existence of threats to the front and rear of the attacking corps, we must determine how to defeat them. First, we will examine how these threats to the advancing corps could be countered without an ACR. Then we will look at how it could be done with an ACR, and the advantages or disadvantages of doing so.

Prior to launching the attack, the Land Component Commander will rely heavily on Joint Assets to conduct reconnaissance along the avenues of approach into Iran. These collection assets will include both technical means (e.g. satellites, aircraft, UAVs) as well as the human means (e.g. special operations teams). The purpose will be to identify and target enemy locations, and to analyze critical pieces of terrain. However, due to increasing Iranian ballistic missile capabilities, many of those Joint collection assets will be used to locate Iranian ballistic missile launchers, which will divert them from the task of identifying Iranian ground forces.[62]

The commander will then launch an air campaign either prior to or simultaneous with the land campaign. The prosecution of the air and land campaigns will rely heavily on the results of Joint Reconnaissance for planning and targeting. However, if Lebanon is an appropriate example, the picture painted by Joint reconnaissance for the commander will be woefully lacking.

Prior to their 2006 attack into Southern Lebanon, the Israelis spent years observing and analyzing Hezbollah forces with their technical and human assets. However, the air campaign that was executed based on that reconnaissance failed to achieve the necessary objectives. For example, most of the bunkers destroyed by the Israeli Air Force were decoys.[63] Additionally, it is estimated that the Israeli "air offensive degraded 'perhaps only 7%' of the total military resource assets available to Hezbollah's fighters in the first three days of fighting."[64] The United States

[62]According to Jane's online, in October 2005 Iran had close to 400 ballistic missiles, with the maximum range of 1500km for the Shahab-3 (according to the Federation of American Scientists). The number of ballistic missiles and their ranges have probably increased significantly over the past year.

[63]Alastair Crooke and Mark Perry, "How Hezbollah Defeated Israel, Part 1," 2006, 3.

[64]Ibid., 4.

will face similar problems as the Iranians will attempt to counter our superiority in technical reconnaissance assets through the use of concealment, camouflage and deception (CC&D).

Unlike Hezbollah, Iran possesses a large, armored conventional force to defend their nation against a U.S. attack. If these forces can be identified by our Joint reconnaissance assets, they can be easily killed by our technologically-advanced weapons systems. But much like Hezbollah, they will most likely conceal a portion their forces amidst the civilian population to avoid being identified. Because the U.S. strictly adheres to the laws of war concerning populated areas and the protection of noncombatants, the Iranians will most certainly resort to this tactic as it will help prevent both the identification and destruction of their forces. As a result, most of our Joint reconnaissance assets will have difficulty differentiating the Iranian military from the civilian background.[65]

Similarly, Iran has learned the utility of using guerilla forces against Western conventional forces from both the Lebanese and Iraqi conflicts. During the Lebanese conflict, Hezbollah fighters were able to hide amongst the local population, making them hard to target and destroy, but giving them the advantage of striking Israeli forces at the time and place of their choosing. In Iraq, the Saddam Fedayyin harassed the U.S. lines of communication as they advanced on Baghdad. With all its Joint reconnaissance assets, the U.S. failed to detect the existence of these forces. It took the presence of ground forces to bring the existence and the intent of those forces to light.[66] Even in the case of Israel where they clearly understood the nature of the Hezbollah forces, they still had a difficult time determining their disposition with Joint reconnaissance assets. As a result, the Israelis ended up using ground units to effectively

[65]Stand-off surveillance platforms, such as aircraft and satellites, will be the least effective at differentiating an adversary trying to blend in with the civilian population from the population itself. Special Operations Forces (SOF) operating behind enemy lines are much more capable of doing so. However, limited by their numbers and the ability to insert SOF teams in a hostile country, they will most likely be tasked to conduct surveillance on strategic targets, rather than operational or tactical targets of the most importance to ground maneuver forces.

[66]Tommy Franks and Malcolm McConnell, *American Soldier* (New York: Reganbooks, 2004), 486-7.

find and destroy Hezbollah forces: “IDF senior officers concluded that, given the failure of the air campaign, they had only one choice - to invade Lebanon with ground troops in the hopes of destroying Hezbollah's will to prevail.”[67]

Because guerilla forces blend with the population, even if you identify a target, how do you know if it is a civilian or a guerilla? The law of war restricts combatants from firing on innocent civilians, so they cannot be killed under the general suspicion that they could be a guerilla. More proof is necessary—their intentions must be uncovered to determine if they are combatants or noncombatants.

In most cases, Joint reconnaissance cannot determine enemy intentions. Field Manual 3-0, *Operations,* describes a defending force as gaining the initiative by “taking aggressive action to collect information and force the attacker to reveal his intentions.”[68] Even though this refers to the defense, the need to take aggressive action to reveal the enemy’s intentions is also present during offensive actions. By the very nature of offensive operations, you are attempting to gain and maintain the initiative and force the enemy to react to you, and thus reveal his intentions. Joint reconnaissance does not possess the capabilities to take this “aggressive” action—they are most often tasked to observe the enemy without taking significant action against them. Even though they may be seen, the enemy can still conceal their true intentions from Joint reconnaissance.

It takes ground forces in contact with the enemy, forcing enemy commanders to make decisions to truly learn their intentions. In this case, it is to determine whether they are a guerilla or civilian. By using ground forces, the guerilla will reveal their intentions by reacting to their presence.

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[67]Ibid., 6.

[68]U.S. Department of the Army, *Field Manual 3-0 Operations* (Washington, D.C.: Headquarters, Department of the Army, 14 June 2001), 4-16.

Thus we will see it play out for the U.S. attack into Iran. As a result of effective Iranian countermeasures learned from recent conflicts, the air campaign will not effectively identify or destroy a good portion of Iranian forces as a result of Joint reconnaissance. It will require ground forces to identify and affect the destruction of many Iranian units.

Given the absence of a covering force, those ground units will have to come from the divisions within the corps. The mission of finding the enemy and determining his intentions for the lead division will most likely fall to one of its brigade's organic cavalry squadrons, reinforced with at least one tank company from a maneuver battalion. The additional tank company is necessary to effectively destroy enemy armored forces as the cavalry squadron no longer possesses tanks or helicopters. As a result, the lead reconnaissance and security fight for the corps has now become a fight for one of its maneuver brigades, which will be forced to commit over one-third of its total combat power.

This requirement will transfer to each of the lead brigades across the corps front, as they will all become committed to each fight encountered during the advance. As the brigades are committed to the fight, then so are the divisions. So now any division in the lead is in the fight, no matter how small that fight may be. Additionally, it will be more difficult for a division commander to coordinate the reconnaissance and security fight since it will be conducted across brigades by separate cavalry squadrons, as opposed to one coherent unit as with the divisional cavalry squadron of old.[69]

If the lead brigades were protected from having to deal with every enemy encountered during the advance, this would allow them to conserve their combat power and move in a more rapid fashion. They could remain in an approach march posture longer, with some tanks even

[69]According to *FM 6-0 Mission Command: Command and Control of Army Forces*, "[a]n effective C2 system allows the commander to…[d]elegate authority to subordinate commanders and staff to allow decentralized execution of operations." (page 3-3) If a division commander does not have a single unit he can delegate the division reconnaissance and security mission to, then the command and control for that Footnotes continued on next page.

being loaded on HETs, saving wear and tear on equipment and reducing the demand on logistics.[70] The brigades will be preserved for the larger fight ahead, instead of being worn down with every fight along the way.

So what is the solution? At the division level, the commander could strip a cavalry squadron from one of his brigades to reconstitute the old divisional cavalry. However, this has two drawbacks. First, he would be reducing the combat power of one of his brigades by almost a third. Second, the structure of the current brigade cavalry squadrons lacks tanks, helicopters and the logistics structure that would make it easier to operate independently at the division level. Therefore, the division commander would have to gut other units to make this organization effective, which is not a good option with the limited combat power that brigades already possess.

By utilizing the existing structure and capabilities of the ACR, a corps commander can preserve the combat power of the brigades in his subordinate divisions. The offensive cover mission that the ACR will perform ahead of the advancing corps will relieve the brigades and divisions of having to manage that fight. They can then be committed to the fight after the situation has been better developed and when they are closer to their main objectives.

As the corps advances deeper into Iran and extends its lines of communication (LOCs), another situation will develop in the rear areas. As demonstrated during the occupation of Iraq, the enemy will take every opportunity to interdict our LOCs. The Iranians will employ the guerilla forces they have created as a result of the lessons from Iraq and Lebanon against the rear areas of the corps, resulting in multiple Level III threats throughout.[71]

As discussed before, these guerilla forces will be hard to distinguish from the civilian population. They will choose the time and location to strike, and will not reveal their intentions

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battle is not as effective since the division has to be directly involved in coordinating the fight across the brigades.

[70]H.R. McMaster.

until then. Their tactics will be similar to those used during the occupation of Iraq: small arms ambushes, improvised explosive devices (IEDs) placed along highly-traveled routes, mortar attacks, anti-armor ambushes, and anti-air ambushes.

Due to the nature of rapid dominance, the corps will be moving forward at a rapid pace, potentially bypassing enemy units as they go because they do not have enough time or forces to deal with them. Therefore, there must be a force operating in the rear of the corps to combat the threat posed by guerilla and bypassed enemy forces. This brigade-sized force must be capable of operating independently of a division and work directly for the corps. The threats they will encounter will be more guerilla in nature, rather than a heavily-armored enemy. They will also have to respond to threats developing in urban areas, since many of the guerillas will take shelter amongst the population. Therefore the organization of the unit should reflect the requirements of defeating this threat; the ACR is sufficiently equipped and trained to accomplish this mission.

Requirements for a Covering Force

According to FM 17-95, a covering force "develop[s] the situation early and deceives, disorganizes, and destroys enemy forces" and is required to be "self-contained and capable of operating independently of the main body."[72] In the case of the hypothetical scenario in Iran, the lead unit will be conducting an offensive covering force mission, which requires it to "locate and penetrate the security zone and forward defenses of an enemy force deployed to defend" and to "destroy enemy reconnaissance, advance guard units, and, as required, the first-echelon regiments of a moving enemy force."[73]

To be effective at destroying the enemy while maintaining the rapid momentum demanding by the current operating environment, the covering force must be equipped with

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[71]According to FM 3-90, *Tactics*, a Level III rear area threat "is beyond the defensive capability of both the base and base cluster and any local reserve or response force. It normally consists of a mobile enemy force." (page E-8)

[72]U.S. Department of the Army, *Field Manual 17-95 Cavalry Operations*, 4-32.

highly-mobile and highly-lethal killing systems able to traverse all types of terrain. Those systems must be able to shoot on the move and effectively destroy everything from a tank-heavy force to an infantry-heavy force. More importantly, however, is those units must be trained to conduct reconnaissance operations to find the enemy in order to kill them.

The 3[d] ACR is comprised of three ground cavalry squadrons, with three ground cavalry troops and a tank company each. The ground troops are equipped with thirteen M3-series cavalry fighting vehicles that can employ their 25mm Bushmaster cannons on the move, and also fire Tube-launched Optically-tracked Wired-guided (TOW) missiles from a stationary position to destroy heavy armor and bunkers. They also have nine M1-series main battle tanks that can engage targets on the move with their 120mm main gun and 7.62mm coaxial machine gun. The squadron commander can utilize the squadron's organic tank company as a reserve in order to assist in the destruction of the enemy.[74]

The air assets of the ACR give them an added advantage as an offensive covering force. Due to the nature of helicopters not being tied to the terrain, they can move about the battlefield at rapid speeds and observe the enemy at great distances. Some would argue that UAVs have taken the place of manned aerial reconnaissance in helicopters. Even though they have a high loiter time, the view from a UAV is akin to looking at the battlefield through a soda straw. A helicopter pilot, on the other hand, has a much wilder field of view than a UAV, and has much more latitude to observe and react to enemy contact than the pilot of a UAV. He will know that he is being shot at, for instance, thus revealing the location of an enemy. Unless armed, a UAV has a limited ability to engage the enemy that it sees. The twenty-four AH-64 attack helicopters found in the ACR are equipped to identify, engage and destroy the enemy.[75]

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[73]Ibid., 4-34.

[74]Force Management System Website (FMSWeb), [cited March 14, 2007] available from https://webtaads.belvoir.army.mil/usafmsa/.

[75]Ibid.

Having habitually trained together, the integration of air and ground cavalry units will give the Regimental and corps commanders a much better picture of how the battlefield is developing to its front. The armed helicopters can also maneuver about the battlefield and bring firepower to affect the enemy's destruction. FM 17-95 also recommends the addition of an attack helicopter battalion to assist in the destruction of enemy forces, and in some cases to serve as the Regimental reserve.[76]

In regards to conducting reconnaissance and gathering intelligence about the disposition of the enemy for the corps commander, the cavalrymen in each of the ground squadrons are trained to execute reconnaissance missions. As stated in Field Manual 3-20.96, *Reconnaissance Squadron*, the primary missions for the squadron are reconnaissance and security, with reconnaissance falling into three main categories: area, zone and route reconnaissance.[77] The Regiment also has its own Military Intelligence company with an analysis and control element (ACE) that can process intelligence and produce intelligence products for the Regiment and corps.[78]

FM 17-95 recommends that a covering force also maintain a reserve in the form of another battalion, since the three cavalry squadrons will most likely be spread across the entire front of the Corps. It specifically recommends a heavy battalion task force, which would imply a combined arms battalion in today's modular Army.[79] This battalion would bring two companies of mechanized infantry to the fight to assist the covering force in eliminating pockets of dismounted resistance, especially in urban or constricted areas, and two companies of tanks to destroy the enemy. If there is an expectation that there will be many instances of dismounted and urban fighting, then the covering force can use an attached infantry battalion as the reserve, or as

[76]U.S. Department of the Army, *Field Manual 17-95 Cavalry Operations*, 4-33.

[77]U.S. Department of the Army, *Field Manual 3-20.96 Reconnaissance Squadron* (Washington, D.C.: Headquarters, Department of the Army, September 2006), 1-14.

[78]H.R. McMaster.

[79]U.S. Department of the Army, *Field Manual 17-95 Cavalry Operations*, 4-33.

a force in addition to a mechanized reserve. However, in order to be effective the infantry battalion must be highly mobile to maintain the pace and cover the wide distances across the front of the covering force.

Due to constant pressure by the U.S. administration concerning the Iranian nuclear program, the Iranians have had plenty of warning that an attack on their country may occur. They will therefore use every opportunity to impede our movement over the terrain we must traverse. Joint reconnaissance may be able to identify some of the obstacles and fortifications that the Iranians have built, but they will not find them all. For example during Operation Anaconda in Afghanistan, Joint reconnaissance was unable to locate the caves that the enemy was using. Israeli intelligence in southern Lebanon was unable to determine the locations of many of the Hezbollah bunkers due to the enemy's effective CC&D program.[80] Likewise when invading Iran, it will take the lead ground force to locate such fortifications and obstacles and establish breaches or bypasses. In this manner the covering force will smooth the forward movement of the corps as it will remove this requirement from the follow-on divisions, facilitating a more rapid advance.

To effectively accomplish this mission of finding and breaching obstacles and fortifications, the covering force must have engineers. The 3[d] ACR possesses its own engineer company, and FM 17-95 recommends that an additional engineer battalion be attached to the Regiment when it serves as a covering force.[81]

One of the lessons resulting from the Iranian human-wave attacks used during the Iran-Iraq War of the 1980s is to "provide improved area and direct-fire lethality against infantry attacks, even in the complex mix of built-up areas, wet terrain, and mountains."[82] The corps' covering force must be prepared to counter such attacks in Iran, especially in the urban and mountainous terrain which will be more common during the attack.

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[80]Alastair Crooke and Mark Perry, 3.
[81]U.S. Department of the Army, *Field Manual 17-95 Cavalry Operations*, 4-33.

During Operation Anaconda in Afghanistan, once allied forces engaged the enemy within the Shahikot Valley, they had a difficult time destroying the enemy with Joint fires and attack helicopters. Joint fires were planned improperly, and because of the travel time of the aircraft, could not necessarily be counted on to be responsive at a moment's notice.[83] Attack helicopters had to enter the valley to engage targets, exposing themselves to dangerous anti-aircraft fire from the ground.[84] The one thing they lacked in that mountain fight was sufficient artillery and mortar units that would provide timely and accurate fires on the enemy no matter what the weather conditions while keeping themselves out of the range of enemy fire. Execution of the operation "highlighted the weaknesses of a plan that relied almost exclusively on air power for indirect fires."[85] The covering force needs robust indirect fire capabilities to not suffer from this weakness.

In the 3[d] ACR, each of the three ground cavalry squadrons has a Paladin 155mm howitzer battery of six guns that is organic to the organization. Additionally, each of the three ground cavalry troops has a section of two 120mm mortars. FM 17-95 recommends either attaching or placing an artillery brigade in direct support to the ACR during the execution of a cover mission.[86] This is still possible under modularity as the Army will have six heavy artillery brigades.[87]

Joint fires and organic indirect fires should complement one another in the cover force. As it will be in the lead of the corps, it should receive priority of Joint fires. To ensure the

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[82]Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War: The Iran-Iraq War* (Boulder, Colo.; London: Westview Press; Mansell Pub., 1990), 435.

[83]Sean Naylor, *Not a Good Day to Die: The Untold Story of Operation Anaconda* (New York: Berkley Books, 2005), 270.

[84]Ibid., 258.

[85]Ibid., 263.

[86]U.S. Department of the Army, *Field Manual 17-95 Cavalry Operations*, 4-33.

[87]Congressional Budget Office, *Options for Restructuring the Army* (Washington, D.C.: The Congress of the United States, May 2005), 66.

Regiment derives maximum use and effect from available Joint Fires, the fire support teams down to the Troop level must be trained in the employment of such fires.[88]

Finally, due to the independent nature of the covering force, it must have a logistical structure that can adequately support it in that role. The logistical structure of the force must be able to plug into any logistics base within the area of operation, and not be reliant on any specific divisional logistical support assets to provide for it. The areas that allow the ACR to do this more effectively than other modular BCTs are the structure of its Regimental Material Management Center (RMMC), the presence of a Tactical Airlift Liaison Officer (TALO), the organic Aviation Intermediate Maintenance (AVIM) company, its increased ability to produce water, and the presence of Heavy Equipment Transport (HET) vehicles within the Regiment.[89]

Since the ACR must sustain itself without support from one specific divisional sustainment brigade, it must possess capabilities normally provided to a BCT from division logistical assets to allow it to sustain itself from any sustainment brigade in theater. First, the ACR has its own Regimental Material Management Center (RMMC) at Headquarters that it uses to resolve issues with all classes of supply, to include maintenance and the tracking of equipment. Other BCTs must rely on their supporting sustainment brigade to fully implement this function since their "Super SPO" organizations in the Brigade Support Battalions cannot fully replicate this capability.[90]

To coordinate for the airlifting of supplies, the Regiment has a Tactical Airlift Liaison Officer (TALO) in its headquarters. In other units the TALO is normally found at division level

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[88]H.R. McMaster.

[89]RMMC information from Michael Garlington, interview by author, email, Leavenworth, Kansas (15 March 2007); TALO information from Sean Davis, interview by author, Fort Leavenworth, Kansas (14 February 2007); AVIM and HET information from the Force Management System Website (FMSWeb), [cited March 14, 2007] Available from https://webtaads.belvoir.army.mil/usafmsa/.

[90]Jeff Britton. interview by author, Fort Leavenworth, Kansas (14 March 2007).

or above.[91] Since the ACR has organic aviation assets, it also has its own Aviation Intermediate Maintenance (AVIM) company which are normally found at echelons above division.

In the area of water production, the Regiment possesses a greater production capability than does the HBCT or SBCT, with the capacity to produce 72,000 gallons of fresh water per day, as opposed to 30,000 gallons in the HBCT and SBCT.[92] Finally, the Regiment possesses six Heavy Equipment Transport (HET) vehicles that facilitate the movement of tanks about the battlefield, especially ones that can no longer move on their own.[93] The other brigades do not have HETs.

Requirements for a Rear Area Force

As U.S. forces attack deeper into Iran toward the nuclear objective sites, we will extend our LOCs over hundreds of kilometers through mountainous, and generally constricted, terrain while leaving a hostile population to our rear. This, coupled with Iranian guerilla and stay-behind forces, will present a formidable threat to our LOCs.

What we will find is a force that has prepared ahead of time to resist the invader.[94] The Iranians will have stockpiled arms and munitions throughout the countryside, hiding them in towns and mountains. Learning from the insurgency in Iraq, and acknowledging our superiority in the air, they will preposition amble numbers of dismounted anti-armor and anti-aircraft systems, along with small arms and explosives to use as IEDs.

The threat will look much like the irregular threat faced by U.S. forces in Afghanistan and Iraq. Guerillas will most likely lack a uniform, and will attack from bases in the towns and mountains. They will be almost impossible to identify by sight until they attack. Their primary form of conveyance will be on foot and in civilian vehicles, and they will communicate through

[91]Sean Davis. interview by author, Fort Leavenworth, Kansas (14 February 2007).
[92]Ibid.
[93]Force Management System Website (FMSWeb). [cited March 14, 2007] Available from https://webtaads.belvoir.army.mil/usafmsa/

basic civilian means—cell phone, telephone, and messenger. They may use satellite phones as well.

The guerillas will target our soft logistics tail and any command and control nodes in the rear. Any logistics base will be a prime target for dismounted assaults with small arms and mortars. Logistical convoys will be ambushed, especially at choke points along the main supply routes (MSRs). Helicopters and other aircraft will be engaged across the entire rear area, with most occurrences being in the mountains and urban areas.

The guerilla forces will use the civilian population to their advantage. They will conduct heavy information operations to turn the people against us, especially along our heavily utilized MSRs. This will be done to prevent the population from cooperating with our forces, prevent local contracting, and to block the use of infrastructure. Most importantly, it will create civil disturbances along our LOCs that we will be forced to divert assets to resolve. In summary, the enemy will have the ability to present multiple Level III-type threats in the rear.

Rear area security would therefore require an independent force that is highly mobile, can operate over great distances, and can defeat multiple Level III threats. The ACR can certainly provide these capabilities, as described in the previous section on the cover mission. The presence of organic attack and lift helicopters also gives the organization the ability to react quickly to threats throughout the breadth and depth of the rear area.

The rear area security force must be proactive in finding and destroying the enemy. Therefore, the organization must be able to collect intelligence about the enemy and act upon it. The presence of the MI company and ACE within the ACR, combined with the large density of soldiers trained to conduct reconnaissance, give it an outstanding ability to do so. Tactical

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[94]What follows is a description of the threats posed to U.S. forces in Iraq and Afghanistan, extrapolated to what our rear area would experience if the Iranians should use similar tactics.

HUMINT Teams (THTs) would also assist the Regiment in dealing with the civilian population.[95] The ACR can then act upon those threats with a range of armored and air assets.

Because the threat will be mostly dismounted in nature, and often operate within urban areas, the rear area force must have dismounted infantry to counter this threat.[96] Therefore, the ACR must be augmented with one or more infantry battalions that must also be highly mobile. The mobility can come from lift assets, motorized vehicles, or Stryker vehicles. Also, to counter the information operation campaign of the enemy and to deal effectively with the population, the ACR must receive large numbers of civil affairs and psychological operation personnel to liaise with the population.[97]

Finally, the organization must have a logistical system that can plug into any theater logistics node since it will be operating for the corps in the rear area. The areas that allow the ACR to do this more effectively than other modular BCTs are identical to those discussed in the covering force section: the structure of its Regimental Material Management Center (RMMC), the presence of a Tactical Airlift Liaison Officer (TALO), the organic Aviation Intermediate Maintenance (AVIM) company, its increased ability to produce water, and the presence of Heavy Equipment Transport (HET) vehicles within the Regiment.[98]

As described, the unit performing the missions of offensive cover or rear area security requires certain levels of firepower, mobility, and protection. But to be truly effective, it also requires air-ground integration, robust reconnaissance and intelligence assets, and a robust logistical system. The ACR as organized provides the corps commander with a feasible, acceptable, and suitable solution to performing these missions. Even though the ACR is typically reinforced with additional units to perform these missions, it organically possesses the basic

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[95]H.R. McMaster.

[96]U.S. Department of the Army, *Field Manual 3-06 Urban Operations (*Washington, D.C.: Headquarters, Department of the Army, June 2003), 4-3.

[97]Ibid., 9-28-9.

[98]This is as described before in the section on the Covering Force.

elements needed to accomplish them—weapons systems with the appropriate firepower, protection and mobility; air/ground integration; reconnaissance and security training; and a logistical structure able to operate independently of a specific division's assigned logistical assets. Now we will look at the other modular brigades to see if they can provide a similarly adequate solution.

CHAPTER 3: FINDING A SUBSTITUTE FOR THE ACR

Considering that there is only a single Armored Cavalry Regiment in the Army that may either be currently engaged in operations, in Reset Phase, or perhaps transitioned to one of the three modular brigades at some point in the future, what can the Army use to perform the advance cover and rear area security missions for a corps? Since both missions require a brigade-sized force, we will examine whether any of the three standard modular designs can fulfill those requirements. We will first examine the IBCT, then continue to the HBCT and finish with the SBCT.

Infantry Brigade Combat Team (IBCT)

The light infantry brigade combat team can be immediately ruled out for the advance cover mission. Due to its lack of mobility, protection, and firepower, the light infantry will be ill-disposed to lead a mechanized corps into battle.[99] They would be unable to maintain adequate momentum in front of the corps and would be quickly left behind by the mechanized forces that followed.

The rear area fight also requires great mobility, but against a threat that is more dismounted in nature. Again, the light infantry lacks the mobility to traverse the large distances across the corps rear area. Without adequate transportation, they would have to be employed in a more static fashion, garrisoning urban areas and protecting fixed logistical, power-projection and command and control sites, which would be an inefficient use of combat power. With wheeled transportation, they would be highly vulnerable to enemy anti-armor capabilities and have a much harder time than tracked vehicles moving off established routes.[100]

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[99]U.S. Department of the Army, *Field Manual 3-21.10 The Infantry Rifle Company* (Washington, D.C.: Headquarters, Department of the Army, July 2006), 1-10.

[100]Ibid., K-1.

The air assault infantry is better able to move rapidly about the rear area of the corps. Their organic lift assets allow them to be transported around the battlefield at great speed over great distances. However, once they hit the ground they lose their mobility and move at a much slower pace. Additionally, whereas vehicle-mounted units can maneuver in almost all types of weather conditions, helicopters cannot. For example during the 1980 Eagle Claw Operation in Iran to free American hostages, special operations aircraft flew threw a haboob, or large dust storm, which forced several aircraft to turn back, imperiling the mission.[101] Such weather conditions still exist there today, and must be able to be overcome by any force conducting rear area operations.

With all that being said, highly mobile light infantry units are an excellent and necessary addition to a rear area security force. They can provide a dismounted infantry force that can assist in urban areas and constricted terrain, especially mountains as can be found in Iran. However, due to their general lack of mobility on the ground, firepower and protection, a light infantry brigade should not serve as the basis for that force.

Thus during major combat operations facing an enemy equipped with armored forces, assigning an IBCT to perform an offensive cover mission or rear area security mission is not feasible, as it is hard to overcome their lack of protection, firepower and mobility necessary to conduct these operations. Nor is assigning an IBCT to perform these missions an acceptable solution, as the cost of the resources necessary to create an effective covering or rear area security force out of an IBCT outweighs the capabilities gained. Finally, an IBCT is not a suitable solution as they will not provide the commander with the requirements expected of a covering force or rear area security force.

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[101]Mark Bowden, *Guests of the Ayatollah: The First Battle in America's War with Militant Islam* (New York: Atlantic Monthly Press, 2006), 448-450.

Heavy Brigade Combat Team (HBCT)

Cover Mission

The HBCT more closely resembles an ACR than any other modular brigade. When faced with an armored enemy force, they are properly equipped to destroy that threat. However they are deficient in the areas of air/ground integration, reconnaissance training and logistics which are all critical to the success of a covering force. Despite this, the HBCT is the next best force after the ACR to perform the offensive cover mission.

M1 tanks and M2 infantry fighting vehicles within the HBCT's armor and mechanized infantry companies provide the necessary firepower and protection to survive on the battlefield and destroy enemy armored forces.[102] They also have the mobility necessary to move cross-country rapidly. Unfortunately, only two of the three maneuver units are fully equipped with these weapons systems. The third maneuver unit—the cavalry squadron—is a mix of M3 cavalry fighting vehicles and the much less capable HMMWV, which does not possess the firepower or protection to go head-on against an armored enemy.[103]

The HBCT in its current configuration completely lacks aviation assets.[104] As stated previously, aviation assets and the integration of air and ground assets are a critical component of a unit conducting an offensive cover mission. For an HBCT to be truly effective as a covering force, they must have attack aviation assets attached to them. Lift assets would also be desirable for moving troops and supplies over the great distances of the corps frontage.

Training is the largest deficiency of an HBCT when tasked to perform an offensive cover mission. Crucial to the mission is the conduct of reconnaissance and security over large

[102]U.S. Department of the Army, *Field Manual 3-90.6 The Brigade Combat Team*, A-3.
[103]U.S. Department of the Army, *Field Manual 3-20.96 Reconnaissance Squadron* (Washington, D.C.: Headquarters, Department of the Army, September 2006), 1-15.
[104]U.S. Department of the Army, *Field Manual 3-90.6 The Brigade Combat Team*, A-1.

distances, which the HBCT as a whole is not trained to do.[105] The HBCT's cavalry squadron is the only subordinate battalion-sized unit trained to conduct these missions.[106] Otherwise, the HBCT's main tasks are to attack and defend over a much narrower front than those usually encompassed by a cover mission in front of a corps.

Before being assigned a cover mission, the HBCT must train on the deployment, command and control of its subordinate units in a dispersed manner. Armor and infantry companies within the combined arms battalions are not accustomed to utilizing their platoons in a reconnaissance and security role. This requires training and practice down to battalion and company levels before actually being executed in combat. Similarly, the HBCT needs to train air/ground integration to maximize its effectiveness on the battlefield. Given the current state of the ARFORGEN cycle as discussed in Chapter 1, effectively training these tasks in the year between deployments with inadequate numbers of personnel is unrealistic. A HBCT given this mission would most likely arrive in theater only partially trained to execute it.

The HBCT is designed to be able to store and move the same amount of supplies as the ACR, respective to the size and composition of the unit. It is therefore well-prepared to operate logistically independent of a division. However, it does need slight augmentation before doing so. It lacks a Material Management Center and TALO, whose functions are currently provided by a division, a robust capability to produce water, and HETs to move tanks about the battlefield. To be able to obtain support out of any logistical node in theater and operate independently on the battlefield, the HBCT would first need augmentation in these deficient areas.

It is certainly feasible for a HBCT to perform an offensive cover mission, given adequate reinforcement by other assets such as aviation. The HBCT is also an acceptable solution, as it possesses the organic combat power to destroy enemy armored forces. Finally, it is a suitable

[105]Ibid., A-2.
[106]Ibid.

solution so long as the unit has had the appropriate amount of time to train prior to being given the mission.[107] This training would be best done prior to deployment at home station.

Rear Area Security Mission

As the threat to our rear areas will most likely be small, lightly-armed, guerilla-type units (but who can still present up to Level III threats), the HBCT is certainly equipped with the equipment necessary to deal with those threats. The M1 tank and M2 infantry fighting vehicle will certainly outmatch anything that the enemy will employ. They are also highly mobile over both roads and cross-country. However, excessive tracked vehicle traffic over roads will damage that infrastructure and necessitate eventual repairs.[108] The use of a HBCT to secure the rear area could be considered overkill.

The same deficiencies that the HBCT had when tasked with a cover mission apply to the rear area security mission as well, except they are not as serious in this case. The lack of aviation assets is not a showstopper, but its presence does enhance the execution of the mission by allowing the HBCT to react to any location in the rear area quickly with reconnaissance assets or troops, and also by facilitating resupply. Therefore it would be best to provide the HBCT with lift assets at a minimum.

Training is not as grave of a deficiency, as the HBCT will be performing missions that they normally perform, especially in the theater of Iraq today.[109] They are convoy and route security, security of key sites, reaction to ambush, establishment of checkpoints and the conduct of attacks and raids.[110] The only glaring deficiency is the command and control of its units over

[107]A full-up brigade would require a full year to train its new tasks, which is not currently feasible given the precedent of brigade deployments to Iraq being a year apart and the brigades being short on equipment and personnel for a good portion of the year once they return.

[108]Sean Davis, interview by author, Fort Leavenworth, Kansas, 13 March 2007.

[109]James Gallivan, "3 ACR MSC AAR Comments for OIF 1" (Headquarters, 3d Armored Cavalry Regiment, 14 March 2004), 26.

[110]Ibid.

the large distances in the rear area that must be trained. Otherwise, rear area security will look a lot like what battalions and companies normally train to do.

Finally the HBCT must be augmented with the logistical assets necessary for them to operate independently of a division. Without these, the HBCT will have a difficult time sustaining its subordinate units throughout the expansive rear area of the corps.

Thus, it is absolutely feasible for a HBCT to perform the rear area security mission. It may not be acceptable, however, as the use of a HBCT may be viewed as overkill and a misuse of the corps' heavy armored units. The HBCT would be a suitable unit to perform rear area security, as it would have no problem performing the mission, especially with some augmentation.

Stryker Brigade Combat Team (SBCT)

Cover Mission

According to FM 3-21.31, *The Stryker Brigade Combat Team*, the newly formed SBCT structure "on some occasions may be…a covering force for a division or corps during offensive operations" and "will require significant augmentation to conduct a covering force mission."[111] However, the SBCT is ill-equipped and trained to conduct an advance covering force for a mechanized Corps in the attack. It lacks the firepower and protection necessary for the armor fight, air-ground integration, and the training to conduct the advance cover mission.

Even though the SBCT is equipped with three infantry battalions and a reconnaissance squadron, the number of maneuver units does not make up for their lack of protection and firepower. The only Stryker vehicle which has the ability to shoot on the move is the Mobile Gun

[111]U.S. Department of the Army, *Field Manual 3-21.31: The Stryker Brigade Combat Team* (Washington, D.C.: Headquarters, Department of the Army, March 13, 2003), 7-3.

System, which has not been fully fielded yet.[112] Even when fully fielded, there will only be one platoon of MGS vehicles per Stryker company, used as a support weapon for the infantry. Unfortunately, the advance cover mission will require a lot of rapid movement and engagement from vehicular weapons platforms, rather than dismounting infantry to engage the enemy. Therefore, the presence of so few anti-armor systems makes the SBCT less than adequate for this mission.

Additionally, the survivability of the Stryker systems is less than optimal for the advance cover mission. The Stryker's armor protection is significantly less than that of a Bradley or Abrams tank, leaving it vulnerable to attacks by enemy armor and armor-defeating systems.[113] It will be especially less than optimal assaulting an enemy that is prepared in a deliberate defense supported by obstacles.

The Stryker brigade also lacks organic helicopter assets in its organization.[114] This shortfall will make it harder to integrate ground and air assets if the brigade should receive a helicopter battalion. The brigade will need time before deployment to work on the relationship between pilots and ground companies to attain the level of proficiency of the ground and air cavalry troops in the ACR.

Being an infantry brigade, the individual battalions are not trained to operate in sections over great distances, nor are they trained in the fundamentals of cavalry reconnaissance. The majority of their base training for major combat operations is spent on conducting the attack and defense over smaller, concentrated areas, as they mass their combat power to destroy the enemy.[115] The cover mission will differ as the brigade will have to spread out and destroy the enemy without concentrating the majority of the brigade. As stated before, the number of armor

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[112] "General Dynamics Delivers First Production Stryker MGS Vehicles" in General Dynamics Land Systems [database online]. December 15, 2005 [cited March 13, 2007]. Available from http://www.gdls.com/releases/2005_releases/ls-05-41.html.

[113] U.S. Department of the Army, *Field Manual 3-90.6 The Brigade Combat Team*, A-9.

[114] Ibid., A-6.

killing systems in the SBCT is much lower than those in the ACR, so it will take them longer to destroy the enemy they face, and at a higher cost in friendly casualties.

On the military intelligence side, each SBCT has an organic MI company.[116] That company provides an Intelligence Surveillance and Reconnaissance (ISR) analysis platoon that could replicate the ACE present in the ACR. Therefore the SBCT does have MI assets inherent to the organization that can assist in developing a picture of the battlefield for the SBCT and Corps commanders.

The SBCT is not as well prepared to operate logistically independent of a division. Not only does it lack a Material Management Center, TALO, and robust water production, but they also lack some capability to move and store their supplies. Because the SBCT is designed to deploy rapidly with a small logistical footprint, it carries about one-third less supplies than are required by doctrine for the operation of a unit of its size and composition.[117] Even the Brigade Support Battalion (BSB) does not have enough Forward Support Companies (FSC) to support every maneuver battalion.[118] It would therefore require additional logistical assets such as a transportation company and a fuel distribution company to move the additional supplies needed to operate independently.

It is certainly feasible for an SBCT to conduct an offensive cover mission, as they have the mobility and some of the protection to do so. However, even though the SBCT can be augmented to achieve air-ground integration, and be partially trained between deployments to conduct the advance cover mission, the basis for their organization—the Stryker-series vehicle which lacks firepower and protection causing a slow-down in the advance and greater loss of personnel and equipment—makes the SBCT an unacceptable alternative to an ACR for performing the advance cover mission for a corps. Finally a SBCT would be unsuitable for the

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[115]U.S. Department of the Army, *Field Manual 3-21.31 The Stryker Brigade Combat Team*, 1-6.
[116]U.S. Department of the Army, *Field Manual 3-90.6 The Brigade Combat Team*, A-8.
[117]Jeff Britton.

mission as its performance as an offensive covering force would not meet the corps commander's expectations of it to cover his corps from an armored enemy force.

Rear Area Security Mission

Due to the nature of the rear area threat being lightly-armored and dispersed, a reinforced Stryker brigade is the best brigade-sized unit to perform the rear area security mission. As described before, the threat will mainly consist of guerilla fighters and small, bypassed enemy units. Operations will look very similar to those currently in Iraq and Afghanistan, with the enemy executing ambushes along LOCs, small raids against our forces, and revolts in urban areas.

First, the SBCT's Stryker vehicle is a highly mobile platform, especially on roads and in urban areas.[119] The Bradley and Abrams are also highly mobile, but tend to tear up the road infrastructure as they travel. The Stryker's high mobility will allow it to traverse the corps' rear area quickly. Since most actions will occur along our LOCs and in urban areas, there will be less need for the Stryker to move off-road than in an offensive cover mission.

What the Stryker vehicle lacks in survivability against an armored opponent, it makes up for in survivability against small arms, rocket-propelled grenades, and IEDs. Feedback from Iraq has shown the Stryker to be mostly survivable against these threats.[120] And since the rear area threat is generally not armored, the Stryker is ideal for the mission. However, it is wise to reinforce the SBCT with a heavy combined arms battalion to provide armored forces if they should be needed.

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[118]U.S. Department of the Army, *Field Manual 3-90.6 The Brigade Combat Team*, A-9.

[119]U.S. Department of the Army, *Field Manual 3-21.31 The Stryker Brigade Combat Team*, 1-2.

[120]"Initial Impressions Report: Operations in Mosul, Iraq (Stryker Brigade Combat Team 1, 3rd Brigade, 2nd Infantry)" (Fort Leavenworth, Kansas: Center for Army Lessons Learned, 21 December 2004), 48. The Stryker with slat armor does not defeat the rocket-propelled grenade anti-tank round, nor projectiles from heavier anti-tank systems. It provides some survivability for the crew in the event of an IED strike.

To further enhance their mobility and reconnaissance capabilities, the corps commander should attach aviation units to the SBCT. With aviation lift assets providing freedom of movement, the SBCT can rapidly move its infantry to distant locations in the rear area—much faster than over land with the Strykers. Aviation reconnaissance assets will provide the SBCT with the capability to observe areas inaccessible to vehicles on the battlefield, and also bring mobile firepower to the fight. The attachment of these assets requires air-ground integration, which implies the need for training.

Unlike what is necessary to perform an offensive cover mission, the current training for SBCTs closely matches the skill set necessary to conduct rear area security operations. Most actions in the rear will be company-level actions punctuated from time to time by the occasional battalion-sized action. The SBCT will most likely find itself conducting convoy and route security, reacting to ambushes, and performing many of the same missions that units in Iraq perform today.[121] The one main element that will need to be trained is the command and control of the SBCT subordinate units over great distances, as they will be responsible for the wide swath of land that comprises the corps rear area and have its units dispersed throughout.

In summary, giving a SBCT the mission of providing corps rear area security is a feasible solution, as they are properly equipped and trained to do so. The SBCT performing rear security is absolutely acceptable, as their equipment has the proper balance of firepower, protection and mobility to perform the mission effectively. Finally, it is a suitable unit to assign this mission as they will be able to meet the expectations that a corps commander has of his rear security force.

[121]Ibid., 81-102.

CONCLUSION

To be prepared for future major combat operations, the United States Army must maintain a force trained and equipped to perform both offensive cover missions and rear area security for a corps. Without a covering force providing a buffer for the corps, brigade organizations within the corps' subordinate divisions will make first ground contact with the enemy. This will prevent the division commanders from preserving their combat power until the decisive place and time. Without a rear area security force, the corps LOCs will be continually harassed by enemy guerilla activity, reducing the effectiveness of the forward combat units. Given these requirements as demonstrated by a hypothetical offensive operation in Iran and the Army experience in OIF I, a corps commander will require a heavy ACR to conduct an advance cover mission in front of his attacking corps and an SBCT to secure the corps' rear area.

The ACR is the optimal choice for the offensive cover mission, as it is specifically designed to perform this mission. Its combat vehicles possess the necessary firepower, protection and mobility to defeat enemy armored formations. The Regiment possesses its own reconnaissance and attack aviation assets, and constantly practices air/ground integration. All Regimental combat units are trained to conduct dispersed reconnaissance and security missions, as opposed to the BCTs who train to attack and defend on a much narrower front. Finally, the Regiment's logistics structure allows it to sustain itself from any theater logistics node, as opposed to modular BCTs relying on specific divisional logistics elements. All of these factors combined make the heavy ACR the most feasible, suitable and acceptable unit for the offensive cover mission.

Lacking a heavy ACR, the next best unit to perform an offensive cover mission for a corps commander is a reinforced HBCT. The firepower, protection and mobility provided by its organic combat vehicles make it the best modular brigade from which to build the necessary capabilities. However, being organized for conducting attack and defense missions within a

division organization, the HBCT lacks critical training and assets to effectively perform a cover mission without significant augmentation. Two critical additions to the HBCT will be aviation assets and increased logistical capabilities. Attack aviation needs to be attached to make the brigade much more effective conducting reconnaissance and security in a widely dispersed manner. HBCT logistical units must be expanded to allow the unit to operate logistically independent of the divisions. Significant unit training must accompany this augmentation. Since the HBCT does not normally train for a cover mission, this must be done so prior to deployment. This implies that the HBCT, along with its attachments to create a cover force, must be designated for this mission during the Reset Phase of ARFORGEN. This creates the challenge of finding the attachments, especially aviation units, in the force pool. The bulk of the training must be moving the two combined arms battalions away from their normal attack and defend missions toward dispersed reconnaissance and security missions in conjunction with aviation assets. However, the HBCT will not have time to become proficient in the execution of the offensive cover mission given the limited amount of time between deployments (a year or less).

Even though the ACR is well-organized to counter threats to the corps rear area, there is another brigade-sized unit that can perform the mission as effectively—the SBCT. Due to the nature of the rear area threat, using an ACR to counter it could be considered overkill. The SBCT has the appropriate amount of firepower, protection and mobility found in its organic Stryker vehicle systems to secure the corps rear area. Similar to the HBCT conducting a cover mission, the SBCT will have to supplement its logistics forces to operate independently of the forward divisions. Even though it could still effectively execute its missions without Army aviation, the addition of such forces would make the organization more effective. The SBCT would only require minimal additional training to perform rear area security missions, as it approximates what they already train to do.

The United States Army must now decide whether or not it wants to maintain the capabilities provided by the heavy ACR. As the lead-in quote to this monograph by Heinz

Guderian described, if you do not properly organize and train your reconnaissance units before a war, you are putting the security of the nation at risk. If the United States decides to assume risk and give the offensive cover mission to a HBCT, then it must identify that HBCT ahead of time so they can task organize and train for the mission. To maintain the proficiency that the HBCT will gain, it would be prudent to perpetually identify that HBCT with the cover mission. If that should occur, then the Army is back where it started—having a brigade-sized unit prepared to conduct cover missions for a corps. However, instead of being called an ACR, it will be a HBCT with special capabilities. So why dispose of the ACR in the first place?

Since its beginnings during World War II, the ACR has been utilized along doctrinal lines during major combat operations. That is, until OIF. Since victory during OIF was achieved without an ACR, that places the need for an ACR and its capabilities in doubt. Also, during this period of transformation in the Army, there is a general belief that the fundamentals of warfare are changing. Perhaps these perceived changes have negated the need for an ACR. Given that the foundational Army transformation documents do not acknowledge the existence of the ACR organization, it is absolutely clear that the Army is completely confused as to the future of the ACR and the capabilities it provides.

If the Army decides that the capabilities provided by an ACR are not necessary at all, then they are violating doctrine derived from past experience and potential future major combat operations. Without a robust covering force, a corps conducting the offense during major combat operations will relearn hard lessons from the past that, no matter how much you think you understand the battlefield, it is in reality an obscure place with a thinking, adapting enemy. No stand-off reconnaissance capability will ever replace the soldier on the ground fighting for intelligence. Therefore, the corps commander needs a dedicated formation leading his corps into the fight that can develop the situation and give him the time and space necessary to effectively conduct his operations before his subordinate brigades become committed to the fight. That unit is the heavy armored cavalry regiment.

RECOMMENDATIONS

As a result of the findings of this monograph, there are certain recommendations to be made for the United States Army. The first recommendation concerns the number of ACRs in the Army. Since the United States still requires its military to fight two major conflicts at once, it needs an ACR to provide the capabilities of a covering force for each theater. Therefore, the Army must maintain two active duty ACRs at a minimum to meet this requirement, as it has done in the past. An additional ACR in the National Guard would help backstop the requirement for an ACR if one of the active duty regiments should be in the Reset Phase when needed.

If the Army should decline to maintain the appropriate number of ACRs, then an HBCT must be ready to perform the cover mission for a corps. Certain changes to its organization and training must happen before they can be effective at doing so. First, combat aviation units should be fully integrated with the HBCTs to give them the attack and lift assets, as well as the appropriate logistical assets for aviation, necessary to truly operate self-contained and independent. It will also give them the capability to operate dispersed over greater distances when performing the cover mission.

Second, improvements need to be made to the HBCT's armored reconnaissance squadron (ARS). Under its current design, the ARS can effectively perform reconnaissance missions, but lacks the firepower and protection to perform security missions for the HBCT. This will seriously limit their employment when the HBCT is performing a cover mission against an armored enemy. Therefore, the ARS should be given main battle tanks to allow them to effectively perform security missions such as guard and cover.

Third, the HBCT needs to replicate the RMMC of the ACR to achieve better logistical efficiency when operating as an independent force. Since they will not have a division to rely upon, they will need the robust capabilities of an RMMC-like organization.

Finally, the HBCT that is given a cover mission needs adequate time to train to perform that mission. Giving the HBCT a year between deployments where it loses much of its personnel

and equipment for a portion of that time is unacceptable. The HBCT that is given a cover mission needs every possible day to train on its new mission set. Therefore, personnel and equipment turbulence should be kept to a minimum during its redeployment to allow them to maximize training time. Additionally, any attachments to the HBCT should be transferred to them at the beginning of this phase.

Due to its high mobility, high concentration of infantry, and less than adequate protection against an armored opponent, the SBCT is an excellent choice to conduct rear area security for a corps. However, to be effective, certain changes must be made. First, SBCTs should generally train to execute rear area security operations. Because of their composition they will be prime candidates for this mission.

Because the rear area security force must cover a large area, combat aviation assets should be integrated in the SBCT from the outset of preparation to deploy to theater. To make combat aviation units a permanent fixture in every SBCT would detract from the reasons for the design of the SBCT—its rapidity of deployment and small logistical footprint. However, a SBCT given the mission of rear area security must be given aviation assets.

Finally, the SBCT should have the logistical ability to fully support itself, which would require it to have an FSC per battalion at a minimum, and an RMMC-like organization at the brigade headquarters. Again, these additions violate the design of the SBCT to have a small logistical footprint. But the extra logistical assets are necessary for the unit to operate independently while securing the rear of the corps.

BIBLIOGRAPHY

Books

Atkinson, Rick. *Crusade: The Untold Story of the Persian Gulf War.* Boston: Houghton Mifflin, 1993.

Beckwith, Charlie. *Delta Force: The Army's Elite Counterterrorist Unit.* New York: Avon Books, 2000.

Bowden, Mark. *Guests of the Ayatollah: The First Battle in America's War with Militant Islam.* New York: Atlantic Monthly Press, 2006.

Cole, Hugh M. *The Lorraine Campaign.* Washington, D.C.: Historical Division, United States Army, 1993.

Condell, Bruce, and David T. Zabecki. *On the German Art of War: Truppenführung.* Boulder, Colo.: L. Rienner, 2001.

Cordesman, Anthony H., and Abraham R. Wagner. *The Lessons of Modern War: The Iran-Iraq War.* Boulder, Colo.; London: Westview Press; Mansell Pub., 1990.

Davis, Lynn E., Jeremy Shapiro, Arroyo Center, and Rand Corporation. *The U.S. Army and the New National Security Strategy.* Santa Monica, CA: Rand, 2003.

Doughty, Robert A. *The Breaking Point: Sedan and the Fall of France, 1940.* Hamden, Conn.: Archon Books, 1990.

_____. *The Seeds of Disaster: The Development of French Army Doctrine, 1919-1939.* Hamden, Conn.: Archon Books, 1985.

Fontenot, Gregory, E. J. Degen, David Tohn, and United States Army Operation Iraqi Freedom Study Group. *On Point: The United States Army in Operation Iraqi Freedom.* 1st Naval Institute Press ed. Annapolis, Md.: Naval Institute Press, 2005.

Franks, Tommy and Malcolm McConnell. *American Soldier.* New York: Reganbooks, 2004.

Fuller, J. F. C. *Armored Warfare: An Annotated Edition of Lectures on F.S.R. III (Operations between Mechanized Forces).* Westport, Conn.: Greenwood Press, 1983.

Gordon, Michael R., and Bernard E. Trainor. *Cobra 2: The Inside Story of the Invasion and Occupation of Iraq.* New York: Pantheon Books, 2006.

_____. *The Generals' War: The Inside Story of the Conflict in the Gulf.* 1st ed. Boston: Little, Brown, 1995.

Guderian, Heinz. *Achtung-Panzer!: The Development of Armoured Forces, their Tactics and Operational Potential.* London; New York: Arms and Armour; Distributed in the USA by Sterling Pub. Co., 1995.

Hofmann, George F., and Donn A. Starry. *Camp Colt to Desert Storm: The History of U.S. Armored Forces.* Lexington, Ky.: University Press of Kentucky, 1999.

Hooker, Richard D. *Maneuver Warfare: An Anthology.* Novato, CA: Presidio Press, 1993.

Keller, William W., and Gordon R. Mitchell. *Hitting First: Preventive Force in US Security Strategy.* Pittsburgh, Pa.: University of Pittsburgh Press, 2006.

Macksey, Kenneth. *Guderian, Creator of the Blitzkrieg.* New York: Stein and Day, 1976.

Mc Ivor, Anthony. *Rethinking the Principles of War.* Annapolis, MD: Naval Institute Press, 2005.

Mosier, John. *The Blitzkrieg Myth: How Hitler and the Allies Misread the Strategic Realities of World War II.* 1st ed. New York: HarperCollins, 2003.

Murray, Williamson, and Army War College Strategic Studies Institute. *A Nation at War in an Era of Strategic Change.* Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2004.

Naveh, Shimon. *In Pursuit of Military Excellence: The Evolution of Operational Theory.* London: Frank Cass, 1997.

Naylor, Sean. *Not a Good Day to Die: The Untold Story of Operation Anaconda.* New York: Berkley Books, 2005.

Pauly, Robert J., and Tom Lansford. *Strategic Preemption: U.S. Foreign Policy and the Second Iraq War.* Burlington, VT: Ashgate Pub., 2004.

Perrett, Bryan. *A History of Blitzkrieg.* New York: Stein and Day, 1983.

Ricks, Thomas E. *Fiasco: The American Military Adventure in Iraq.* New York: Penguin Press, 2006.

Slim, William Joseph Slim. *Defeat into Victory: Battling Japan in Burma and India, 1942-1945 ; with a New Introduction by David W. Hogan Jr.* 1st ed. New York: Cooper Square Press : Distributed by National Book Network, 2000.

Swain, Richard M., and U.S. Army Command and General Staff College Press. *Lucky War: Third Army in Desert Storm.* Fort Leavenworth, Kan.: U.S. Army Command and General Staff College Press, 1997.

Ullman, Harlan, James P. Wade, L. A. Edney, and National Defense University. Institute for National Strategic Studies. *Shock and Awe: Achieving Rapid Dominance.* Washington, DC: Center for Advanced Concepts and Technology : For sale by the U.S. G.P.O., Superintendent of Documents, 1996.

Woods, Kevin M., and Joint Center for Operational Analysis. *Iraqi Perspectives Project: A View of Operation Iraqi Freedom from Saddam's Senior Leadership.* Norfolk, Va.: United States Joint Forces Command, Joint Center for Operational Analysis, 2006.

Articles

Crane, Conrad C. "Beware of Boldness." *Parameters* XXXVI, no. No. 2 (Summer 2006): 88-97.

Kagan, Frederick. "The Military's Manpower Crisis." *Foreign Affairs* 85, no. 4 (July/August 2006 2006): 97-110.

Luttwak, Edward N. "The Operational Level of War." *International Security*, no. 5 (Winter 1980-81): 61-79.

Schiff, Ze'ev. "Israel's War with Iran." *Foreign Affairs* 85, no. 6 (November/December 2006): 23-31.

Troxel, Orlando C. Jr. "A Corps Advances to Contact." *Military Review* XXXI, no. 4 (July 1951): 11-17.

U.S. Government Publications

Blood and Steel! the History, Customs, and Traditions of the 3d Armored Cavalry Regiment. Fort Carson, Colorado: Fort Carson Office of Historical Programs, 2002.

Congressional Budget Office. *Options for Restructuring the Army.* Washington, D.C.: The Congress of the United States, May 2005.

Gallivan, James. "3 ACR MSC AAR Comments for OIF 1." Headquarters, 3d Armored Cavalry Regiment, 14 March 2004.

"Initial Impressions Report: Operations in Mosul, Iraq (Stryker Brigade Combat Team 1, 3rd Brigade, 2nd Infantry)." Fort Leavenworth, Kansas: Center for Army Lessons Learned, 21 December 2004.

Robertson, Jarrett J. *Cavalry Missions and Structure.* Fort Bliss, Texas: Headquarters, 3d Armored Cavalry Regiment, February 26, 1988.

U.S. Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity.* Version 1.0 ed. Fort Monroe, VA: Headquarters, US Army Training and Doctrine Command, October 2004.

U.S. Department of the Army. *2003 Army Transformation Roadmap.* Department of the Army, 1 November 2003.

U.S. Department of the Army. *2004 Army Transformation Roadmap*. Department of the Army, July 2004.

U.S. Department of the Army. *Field Manual 1-02 Operational Terms and Graphics.* Washington, D.C.: Headquarters, Department of the Army, 2004.

U.S. Department of the Army. *Field Manual 3-0 Operations.* Washington, D.C.: Headquarters, Department of the Army, 14 June 2001.

U.S. Department of the Army. *Field Manual 3-06 Urban Operations.* Washington, D.C.: Headquarters, Department of the Army, June 2003.

U.S. Department of the Army. *Field Manual 3-19.1 Military Police Operations (Change 1).* Washington, D.C.: Headquarters, Department of the Army, 21 January 2002.

U.S. Department of the Army. *Field Manual 3-20.96 Reconnaissance Squadron.* Washington, D.C.: Headquarters, Department of the Army, September 2006.

U.S. Department of the Army. *Field Manual 3-21.10 The Infantry Rifle Company*. Washington, D.C.: Headquarters, Department of the Army, July 2006.

U.S. Department of the Army. *Field Manual 3-21.21 The Stryker Brigade Combat Team Infantry Battalion.* Washington, D.C.: Headquarters, Department of the Army, April 2003.

U.S. Department of the Army. *Field Manual 3-21.31 The Stryker Brigade Combat Team.* Washington, D.C.: Headquarters, Department of the Army, 13 March 2003.

U.S. Department of the Army. *Field Manual 3-24: Counterinsurgency*. Washington, D.C.: Headquarters, Department of the Army, 15 December 2006.

U.S. Department of the Army. *Field Manual 3-90 Tactics.* Washington, D.C.: Headquarters, Department of the Army, 4 July 2001.

U.S. Department of the Army. *Field Manual (Interim) 3-90.5 Heavy Brigade Combat Team Combined Arms Battalion.* Washington, D.C.: Headquarters, Department of the Army, 15 March 2005.

U.S. Department of the Army. *Field Manual 3-90.6 The Brigade Combat Team.* Washington, D.C.: Headquarters, Department of the Army, August 2006.

U.S. Department of the Army. *Field Manual 5-0 Army Planning and Orders Production.* Washington, D.C.: Headquarters, Department of the Army, 20 January 2005.

U.S. Department of the Army. *Field Manual 6-0 Mission Command: Command and Control of Army Forces.* Washington, D.C.: Headquarters, Department of the Army, August 2003.

U.S. Department of the Army. *Field Manual 17-95 Cavalry Operations.* Washington, D.C.: Headquarters, Department of the Army, 1996.

U.S. Department of the Army. *Field Manual 63-1 Support Battalions and Squadrons, Separate Brigades and Armored Cavalry Regiment.* Washington, D.C.: Headquarters, Department of the Army, 1994.

U.S. Department of the Army. *Field Manual 100-15 Corps Operations.* Washington, D.C.: Headquarters, Department of the Army, 29 October 1996.

U.S Department of Defense. *Quadrennial Defense Review Report.* Department of Defense, September 30, 2001.

U.S Department of Defense. *Quadrennial Defense Review Report*. Department of Defense, February 6, 2006.

U.S Department of Defense. *Transformation Planning Guidance.* Department of Defense, April 2003.

The White House. *The National Security Strategy of the United States of America.* The White House, September 2002.

Interviews

Benson, Kevin. interview by author, email, Leavenworth, Kansas (13 February 2007). [CFLCC planner for the invasion of Iraq, 2003.]

Benson, Kevin. interview by author, email, Leavenworth, Kansas (11 November 2006).

Britton, Jeff. interview by author, Fort Leavenworth, Kansas (14 March 2007). [Army logistical officer.]

Davis, Sean. interview by author, Fort Leavenworth, Kansas (14 February 2007). [Army logistical officer who has served in both Iraq and Afghanistan.]

Davis, Sean. interview by author, Fort Leavenworth, Kansas (13 March 2007).

Garlington, Michael. interview by author, email, Leavenworth, Kansas (15 March 2007). [Army logistical officer; currently the Executive Officer in 3^{d} ACR's Support Squadron.]

McMaster, H. R. interview by author, Fort Leavenworth, Kansas (28 November 2006). [Former commander of 3^{d} ACR.]

Internet

"2005 Population Estimates for Cities in Iran." in Mongabay.com [database online]. [cited March 26, 2007]. Available from http://www.mongabay.com/igapo/2005_world_city_populations/Iran.html.

"Armed Forces, Iran." in Jane's [database online]. October 21, 2005 [cited December 10, 2006]. Available from http://www8.janes.com/Search/documentView.do?docId=/content1/janesdata/sent/gulfsu/irans100.htm@current&pageSelected=allJanes&keyword=iran&backPath=http://search.janes.com/Search&Prod_Name=GULFS&#toclink-j0011080003278.

Bennett, Richard M. "Iran will fight to its strengths." in *Asia Times Online Ltd.* [database online]. August 1, 2006 [cited March 26, 2007]. Available at http://www.atimes.com/atimes/Middle_East/HH01Ak02.html.

"CIA World Factbook: Iran." in Central Intelligence Agency [database online]. [cited October 26, 2006]. Available from https://www.cia.gov/cia/publications/factbook/geos/ir.html.

"CIA World Factbook: Iraq." in Central Intelligence Agency [database online]. [cited October 26, 2006]. Available from https://www.cia.gov/cia/publications/factbook/geos/iz.html.

Crooke, Alastair, and Mark Perry. "How Hezbollah Defeated Israel, Parts 1-3." in *Asia Times Online Ltd.* [database online]. [cited December 9, 2006]. Available from http://www.atimes.com/atimes/Middle_East/HJ12Ak01.html.

Force Management System Website (FMSWeb). [cited March 14, 2007] Available from https://webtaads.belvoir.army.mil/usafmsa/.

"General Dynamics Delivers First Production Stryker MGS Vehicles." in General Dynamics Land Systems [database online]. December 15, 2005 [cited March 13, 2007]. Available from http://www.gdls.com/releases/2005_releases/ls-05-41.html.

"Iran in Maps." in BBC News [database online]. [cited November 26, 2006]. Available from http://news.bbc.co.uk/2/shared/spl/hi/middle_east/06/iran_maps/html/default.stm.

"Iran Weapons of Mass Destruction Nuclear Facilities." in GlobalSecurity.org [database online]. [cited October 26, 2006]. Available from http://www.globalsecurity.org/wmd/world/iran/nuke-fac.htm.

"United States' Policy Toward Iran: Statement before the Senate Foreign Relations Committee." [cited January 5, 2007]. Available from http://www.state.gov/p/us/rm/2005/46528.htm.

Monographs

Harris, Michael J. "3d Armored Cavalry Regiment as an Operationally Significant Force." Fort Leavenworth, Kansas: United States Army Command and General Staff College, 1999.

Morton, Matthew D. "Men on "Iron Ponies," the Death and Rebirth of the Modern U.S. Cavalry." Ph.D. diss., The Florida State University College of Arts and Sciences, 2004.

Mullins, J. Bryan. "Defining the Core Competencies of U.S. Cavalry." Fort Leavenworth, Kansas: United States Army Command and General Staff College, 2004.

Other

Davis, Sean. "Comparison of Unit Stability Assets." Fort Leavenworth, Kansas, February 2007. [A summary of Brigade Combat Team logistical capabilities compiled from the Force Management System Web Site and the *Modular Logistics Capabilities Book* of 29 September 2005.]