

**Go Big or Go Home**  
**Employing America's Heavy Force**

**A Monograph**  
**by**  
**Major Robert E. Lee Magee**  
**United States Army**



**School of Advanced Military Studies**  
**United States Army Command and General Staff College**  
**Fort Leavenworth, Kansas**

**AY 2010**

# REPORT DOCUMENTATION PAGE

*Form Approved*  
*OMB No. 0704-0188*

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

<b>1. REPORT DATE (DD-MM-YYYY)</b> 01-04-2010			<b>2. REPORT TYPE</b> SAMS Monograph		<b>3. DATES COVERED (From - To)</b> JUL 2009 – MAY 2010	
<b>4. TITLE AND SUBTITLE</b> Go Big or Go Home Employing America's Heavy Force			<b>5a. CONTRACT NUMBER</b>			
			<b>5b. GRANT NUMBER</b>			
			<b>5c. PROGRAM ELEMENT NUMBER</b>			
<b>6. AUTHOR(S)</b> Major Robert E. Lee Magee			<b>5d. PROJECT NUMBER</b>			
			<b>5e. TASK NUMBER</b>			
			<b>5f. WORK UNIT NUMBER</b>			
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301			<b>8. PERFORMING ORG REPORT NUMBER</b>			
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>			<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>			
			<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>			
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for Public Release; Distribution is Unlimited						
<b>13. SUPPLEMENTARY NOTES</b>						
<b>14. ABSTRACT</b> Many authors have begun to write that the heavy force has no role in the future contemporary operating environment – especially where internal political-militia groups rely on guerrilla tactics. The US heavy force is an integral part of America's strategic land power. Integrating heavy and light units created combined arms teams that proved their effectiveness in combat. In the future contemporary environment, integration of heavy and light forces generates tactical overmatch in the 21 <sup>st</sup> Century. US Army doctrine articulated by FM 3-24 and FM 3-90.06 is sound. Combined, the two documents form the basis for integrated, combined arms, full-spectrum operations. Heavy- light training must be conducted at home station, deployed as a coherent force to meet the joint force commander's requirements and supported through ARFORGEN. US operations in Iraq provide multiple examples of how to integrate heavy and light forces. When contrasted with the Soviet Afghan War, the opportunity exists to incorporate heavy forces in NATO's current fight in Afghanistan to gain operational and tactical advantages. Land power is the Army's responsibility. Within the dictates of current national strategy, the Army must continue to integrate heavy and light forces over the broad spectrum of combat in order to generate decisive victory over conventional and nonconventional opponents.						
<b>15. SUBJECT TERMS</b> Heavy-Light Integration, ARFORGEN, Army doctrine, Soviet-Afghan War, Operation Iraqi Freedom, Operation Enduring Freedom						
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>	
<b>a. REPORT</b>	<b>b. ABSTRACT</b>	<b>c. THIS PAGE</b>			Stefan A. Banach, U.S. Army	
(U)	(U)	(U)	(U)	49	<b>19b. PHONE NUMBER (include area code)</b> 913-758-3302	

# SCHOOL OF ADVANCED MILITARY STUDIES

## MONOGRAPH APPROVAL

MAJ Robert E. Lee Magee

Title of Monograph: Go Big or Go Home – Employing America's Heavy Force

Approved by:

\_\_\_\_\_  
Robert Epstein, Ph.D. Monograph Director

\_\_\_\_\_  
Stefan Banach, COL, IN Director,  
School of Advanced  
Military Studies

\_\_\_\_\_  
Robert F. Baumann, Ph.D. Director,  
Graduate Degree  
Programs

## **Abstract**

Go Big or Go Home – Employing America’s Heavy Force by Major Robert E. Lee Magee, US Army, 49 pages.

Many authors have begun to write that the heavy force has no role in the future contemporary operating environment – especially where internal political-militia groups rely on guerrilla tactics. The US heavy force is an integral part of America’s strategic land power. Integrating heavy and light units created combined arms teams that proved their effectiveness in combat. In the future contemporary environment, integration of heavy and light forces generates tactical overmatch in the 21<sup>st</sup> Century.

US Army doctrine articulated by FM 3-24 and FM 3-90.06 is sound. Combined, the two documents form the basis for integrated, combined arms, full-spectrum operations. Heavy- light training must be conducted at home station, deployed as a coherent force to meet the joint force commander’s requirements and supported through ARFORGEN.

US operations in Iraq provide multiple examples of how to integrate heavy and light forces. When contrasted with the Soviet Afghan War, the opportunity exists to incorporate heavy forces in NATO’s current fight in Afghanistan to gain operational and tactical advantages.

Land power is the Army’s responsibility. Within the dictates of current national strategy, the Army must continue to integrate heavy and light forces over the broad spectrum of combat in order to generate decisive victory over conventional and nonconventional opponents.

## Table of Contents

Introduction .....	1
At Home – Doctrine and Training.....	7
Training Heavy-Light Integration .....	9
Integrating Heavy Light Training within the ARFORGEN Cycle.....	13
Heavy-Light Integration in Action.....	17
The US Army in Iraq.....	18
Western Iraq, 2003 .....	19
OPERATION AL FAJR – Retaking Fallujah, 2004. ....	21
Tal Afar, 2006 – Taking it to the Next Level.....	23
The Soviet Union’s Afghanistan War .....	28
NATO Operations in Afghanistan.....	32
Conclusion - A Road Ahead.....	37
The Heavy Force in the Today’s Wars.....	37
Integrating Heavy and Light Forces in the Future.....	39
APPENDIX 1 .....	42
Commander, TF 2-70 Armor, Personal Accounts from OIF.....	42
APPENDIX 2 .....	45
Proposal for Heavy-Light Sister Relationships .....	45
BIBLIOGRAPHY .....	47

## Introduction

“During the Middle Ages, probably one of the biggest mistakes was not putting on your armor because you were "just going down to the corner.” ~ Jack Handy

Jack Handy’s quote is just a Saturday Night Live punch line; however, it does have something to say about American integration of the heavy force into low intensity and mid-intensity conflict in an era of persistent conflict.<sup>1</sup> Deploying armored forces sends a message. Without fail, American tanks and fighting vehicles demonstrate US resolve in situations where the situation is ambiguous. Even our allies see their value. Canadian News reporter Murray Brewster commenting on Canada’s deployment of Leopard II tanks to Afghanistan quoted a Canadian tanker. "They don't want to come out and play when the tanks are around," said Cpl. Aaron Hodgin, a Leopard gunner when discussing Taliban.<sup>2</sup> The American heavy force is the decisive component to the nation’s land power. Since Berlin Wall’s fall, the United States Army committed armored forces to Panama, Kuwait, Somalia albeit belatedly, Bosnia, Kosovo, and Iraq. Afghanistan is the only curious exception. It is an interesting question that will be further developed.

What is the heavy force? This force consists of the US Army’s tanks, tracked infantry fighting vehicles and self-propelled artillery and the forces that directly support them. Today’s Heavy Brigade Combat Teams (HBCTs) and Armored Cavalry Regiments (ACR’s) in the active force and National Guard are the Army’s heavy force. Armored, mechanized and heavy force will be used interchangeably throughout this paper. The fighting vehicle is the primary combat platform of these units. The heavy force is distinctly different from light forces. Infantry Brigade Combat Teams (IBCTs) primary combat system is the rifle squad and are not equipped with armored vehicles except on a contingency basis. The Stryker Brigade also differs from the heavy force – its primary combat system is also the rifle squad. Although

---

<sup>1</sup> Handy, Jack. Saturday Night Live.

<sup>2</sup> Brewster, Murray. “Bring tanks: Canadians tell Afghan-bound Americans,” Canadian News, 2006.

Stryker Brigade Combat Teams (SBCT's) are equipped with over 300 armored Stryker vehicles, most of these vehicles serve as a fire support platform and means of transportation as opposed to a combat system in and of itself. Mobile Gun and Anti-Tank Guided Missile Stryker variants are potent systems, but they are not the key component to the SBCT's combat power – the rifle squad is. In contrast, the M1A2 tanks and M2/M3 Bradleys of the heavy force are its primary combat system.

With the heavy force defined, it becomes apparent that it suffers from a particular view held in political think tanks at the national level. Here are possible aspects of the narrative: The armored force exists to destroy other armies in nation-state warfare. It can only function in geographically suited theaters such as the European plains or open Middle Eastern deserts. It is incapable of operating in mountainous, urban or jungle terrain. America's heavy force is not strategically deployable and cannot respond as quickly as light formations. Its deployment creates a heavy logistics footprint that is unsustainable in austere environments. It is expensive to maintain, and exhaustive to train. This may be the heavy force's 21<sup>st</sup> Century perception; however, it is patently false and filled with myths that current operations and history debunk.

The army as a whole provides the nation's land power. Defeating all enemies, foreign and domestic requires army formations operating across the entire spectrum of combat. First, it falsely creates the impression that the heavy force is only suited for certain theaters. Historically, the United States deployed heavy forces to every possible terrain, weather and cultural condition since the inception of the tank. Armored forces fought in Korea, Vietnam and Baghdad. Terrain does not completely limit the heavy forces' effectiveness. LTG Wallace, Commander V Corps, stated "Another pleasant surprise was the success armored formations had operating in urban environments."<sup>3</sup> Second, some heavy forces can be as readily strategically deployable as light forces – all it takes is will, training and an operational

---

<sup>3</sup> Hollis, Patrecia Slayden. "Second Battle of Fallujah – Urban Operations in a New Way of War" *Field Artillery Magazine*, March-April 2006.

requirement. TF 1-63 Armor's rapid deployment to in conjunction with the 173<sup>d</sup> Airborne Brigade in northern Iraq during Operation Iraqi Freedom I proved this point.<sup>4</sup> Although heavy forces deployed may be small, integrating heavy forces with light generates tactical overmatch that can determine operational and strategic outcomes. Third, although heavy forces do generate a large logistics footprint, it is hard to see how this is any different when a light brigade equipped with MRAPs deploys into Afghanistan. The logistics footprint between the two is nearly identical.<sup>5</sup> Finally, heavy forces are expensive to train and maintain, especially in direct comparison to infantry brigades in particular. However, in protecting America's sons and daughters committed to combat, the American people demand that the Army do its utmost to bring them home. Congress, the Army, and the Marine Corps spent billions of dollars in creating MRAPs in order to allow its light forces to replicate a small portion of the heavy force's tactical mobility and firepower. Integrating heavy and light forces prior to deployment generates tailored forces that can act across the combat spectrum. The Army must maintain the core capability of protected, mobile firepower with its tanks, Bradleys, and their eventual ground combat vehicle successors.

Today, accepting this uninformed account previously described is destructive and dangerous to the future of the US Army. If taken as is in the current operating environment, this concept leads to a perilous decline in America's *strategic* capabilities in an era of persistent, asymmetric warfare.<sup>6</sup> The United States Army must preserve the heavy force's essential and unique capability that is an

---

<sup>4</sup> Fontenot et al, *On Point I*, 224.

<sup>5</sup> As part of OIF 08-10, the author deployed as a MRAP equipped HBCT without its heavy vehicles. The logistics footprint for an HBCT and an infantry BCT with MRAPs is the same. 4/1CAV replaced 1/82 ABN in total. From personal experience, there is no significant difference between a tank and Bradley equipped BCT and a MRAP-equipped unit other than price of certain parts and a huge difference in firepower. Tank and Bradley parts cost more, but no MRAP-equipped unit comes close to the firepower of a HBCT.

<sup>6</sup> Asymmetric warfare can describe a conflict in which the resources of two belligerents differ in essence and in the struggle, interact and attempt to exploit each other's characteristic weaknesses. Such struggles often involve strategies and tactics of unconventional warfare, the "weaker" combatants attempting to use strategy to offset deficiencies in quantity or quality. Robert Tomes, *Parameters*, US Army War College, (Spring 2004).



indispensable aspect of its military effectiveness. Failure to do so relegates the Army to becoming a larger version of the United States Marine Corps supported by joint air and naval fires.

What is the problem facing the US heavy force? The author believes it faces two major hurdles at home station. The first component is that the Army does not consistently train heavy and light forces together at home station and the combat training centers in accordance with its doctrine. Second, the Army has yet to deploy mixed brigade combat teams (task organized heavy, Stryker or light brigades) to Iraq or Afghanistan that trained together at home station. When heavy-light integration occurs, it occurs in theater, at the last minute, and on an ad hoc basis.

Army commanders remain conflicted on how and when to employ armored forces in operations short of high intensity war. During the Vietnam War, the Army stripped deploying divisions of their mechanized units due to perceived terrain restrictions. General Johnson successfully argued to keep his divisional reconnaissance squadron and its armored vehicles.<sup>7</sup> In Somalia, army tank forces were not deployed until after the events described in Mark Bowden's *Black Hawk Down*. Although this may be contributed to Defense Secretary Les Aspin's refusal to approve the request for forces, it also demonstrates a failed operational requirement to maintain the capability in theater.<sup>8</sup> In Iraq, 1<sup>st</sup> Cavalry Division and 1<sup>st</sup> Infantry Division both deployed to Operation Iraqi Freedom II without a significant portion of their armored combat vehicles.<sup>9</sup> As the Iraqi insurgency grew, both commanders requested their tanks and Bradleys to deal with the threat despite the urban areas in which they operated. In revolutionary wars<sup>10</sup>, integrated heavy and light forces allow US commanders to control ground. Once control is established, collaboration with the populace is possible.

---

<sup>7</sup> Kerns, Brian. "Not Just an Infantryman's War, 23.

<sup>8</sup> Bowden, Mark, *Black Hawk Down*. 310.

<sup>9</sup> Wright and Reeves, *On Point II*, 504.

<sup>10</sup> Shy, John and Thomas Collier, 817. Paret, Peter, Gordon Craig, and Felix Gilbert. *Makers of Modern Strategy : from Machiavelli to the Nuclear Age*. Princeton, N.J.: Princeton University Press, 1986. Revolutionary War refers to the seizure of political power by the use of armed force within a nation-states' boundaries.

Peculiarly, the Army continues to fight in Afghanistan without utilizing the unique capabilities of the heavy force. NATO allies and the United States Marine Corps have deployed armored units to their areas of operations both in northern and eastern Afghanistan. Notably, Canadian, German and British armor contributed to those nations' ability to sustain their troop presence. The USMC's 2<sup>d</sup> Marine Expeditionary Brigade deployed M1A1's to its fight in Helmand Province.<sup>11</sup> The Army deployed 5<sup>th</sup> Brigade, 2d Infantry Division to Afghanistan; however, a SBCT does not provide the same capability that a HBCT brings.<sup>12</sup> Stryker variants can provide fire support power that is somewhat similar to tanks and Bradleys; however, there is one key difference. Most Stryker vehicles do not provide overwhelming protected firepower in the form of large cannon fire, a chain gun or wire-guided missile. Some do, but most are equipped with automatic grenade launchers or M2 .50 caliber machine guns. In comparison, the Army's heavy force provides this capability, in addition to being better protected than its wheeled cousin.

What then, is the solution? This monograph will first examine the Army's gap between doctrine and training practice as it deploys its brigade combat teams. In recent years and operating under the Army's Force Generation (ARFORGEN) Model, the Army has yet to task organize deploying brigade combat teams prior to deployment. It just is not done. The first time heavy and light units fight together should not be as they cross the line of departure. Critics will cite logistics, cost and different deployment cycles as the reasons the Army fails in this endeavor, but the author attempts to counter these arguments. The Army will begin to lose part of its combat experience in heavy light operations, and the ramifications must be part of the training discussion. Finally, the ARFORGEN model should determine how it could support heavy-light integration to enhance military effectiveness at home station.

---

<sup>11</sup> In late 2009, as part of President Obama's authorized increase in force, the USMC deployed 2d MEB to Afghanistan.

<sup>12</sup> In March 2009, as part of the first increase in troops authorized by President Obama, this Stryker BCT deployed to Afghanistan from Fort Lewis, WA.

In Iraq and Afghanistan, the Army employed its heavy force differently. In Iraq, armored formations spearheaded the assault and overthrew Saddam Hussein's government. As the insurgency developed in 2004, Generals Chiarelli and Baptiste needed tanks and Bradleys to combat it – tanks and Bradleys left at home bases. In 2007, Army commanders surged five additional combat brigades into Iraq, each bringing its full heavy vehicle compliment. As the insurgency faded by mid-2008, commanders still integrated heavy force vehicles into its combat formations. In stark contrast, the Army's commitment in Afghanistan stands as a polar opposite. Despite Allied and now USMC armored contributions to Operation ENDURING FREEDOM, the Army does not consider armored force employment in this theater. The author believes the Army misjudged the Soviet Union's Afghanistan War experience and did not reevaluate its operational and tactical requirements when President Obama authorized a 30,000 increase in US troop presence. Evaluating and contrasting the 1980 Soviet campaign with US combat experience in Afghanistan and Iraq will inform this audience as to why the Army continues to draw the wrong conclusions in the employment its heavy force in Afghanistan.

If the author's thesis is correct, then in an era of persistent revolutionary conflict, the heavy force is a critical component of the nation's strategic arsenal. The Army must decide how to employ the heavy force in future contingency operations. The heavy force is definitely not suited for all contingency operations – humanitarian assistance first comes to mind. However, intellectual honesty compels Army planners to understand that the Army's distinctive measure of military effectiveness in large part relies on its heavy forces. In revolutionary conflict, integrated light and heavy forces execute successful counter-insurgency strategy by providing operational commanders with tactical overmatch. The author will draw relevant conclusions from current operations in Iraq and Afghanistan and project those heavy force requirements to future operations in order to improve future Army effectiveness.

## At Home – Doctrine and Training

“An understanding of heavy/light operations should not remain at higher levels of command, but should be common knowledge to the leaders who are actually on the ground. Heavy-Light operations are the future of our profession. This works well when the two have previously established a working relationship and understands each other's strengths, weaknesses, and SOPs.”<sup>13</sup> Keith A. McKinley, “Working with the Light Fighters”, 2002

“You go to war with the Army you have,” stated Secretary of Defense Donald Rumsfeld in 2004<sup>14</sup> Media and political pundits ridiculed the Secretary repeatedly, but it remains a true statement. Carl von Clausewitz begins his theory of war with “the first art of war is the preparation of the armed forces.”<sup>15</sup> In the modern US Army, von Clausewitz is alive and well. His thinking permeates our strategic and operational doctrine. Without doubt, the Army is a product of its doctrine and training. Even though overcoming Clausewitz’s friction<sup>16</sup> remains constant, correct intellectual application of doctrine combined with hard, realistic training provides the foundation for today’s combat tested Army.

In remarks to the Association of the U.S. Army (AUSA) Oct. 10, 2007, Secretary of Defense Robert M. Gates stated, “We can expect that asymmetric warfare will remain the mainstay of the contemporary battlefield for some time.” In asymmetric warfare, the full spectrum still includes offensive, defensive, and stability operations. FM 3-24 states, “The exact mix varies depending on the situation and the mission. Commanders weight each operation based on their assessment of the campaign’s phase and the situation in their AO. They shift the weight among these operations as necessary to address situations in different parts of the AO while continuing to pursue their overall objectives.”<sup>17</sup> FM 3-24 states, “These

---

<sup>13</sup> Keith A. McKinley, Working With the "Light Fighters," Tips for Mechanized Company Commanders, (Fort Benning, Georgia, *Infantry*, Volume 91, Issue 2, May 1, 2002): 40.

<sup>14</sup> Kristol, Williams. “The Defense Secretary We Have.” Washington Post, 15 December, 2004

<sup>15</sup> Von Clausewitz, *On War*. Ed. by Anatol Rapoport. pg 180.

<sup>16</sup> Ibid, 165. Von Clausewitz defines friction as the myriad opportunities for random chance to interact with military operations on the battlefield. Friction is commonly understood as the “fog of war” as well.

<sup>17</sup> FM 3-24 Counter-Insurgency Manual, pg. 1-19.

conflicts will be fundamentally political in nature and require the application of all elements of national power.”

In numerous remarks to media outlets, the Secretary challenged every armed service to fight the wars at hand and not a future one. For the Army, this challenge represents a requirement to employ all of its assets to win the nation’s wars to including revolutionary wars. Maintaining the Army’s ability to fight a persistent threat requires that the Army employ all three types of maneuver brigades in order to minimize the Long War’s impact on IBCTs and Special Operations Forces within the Army’s Force Generation (ARFORGEN) Cycle.<sup>18</sup> Therefore, the ARFORGEN cycle sets the doctrinal foundation in preparing troops for deployment. Merely deploying units to theater is not enough. FM 3-24 defines the nature of war and requires commanders and staffs to implement Army capabilities to win the wars. By taking Secretary Gates intent to employ Defense Department to win today’s wars, then joint force commanders must consider employing the heavy force to implement their campaign plans. Commanders in Iraq demanded heavy forces. Commanders in Afghanistan did not. .

Tactics and techniques drive combat unit proficiency required to defeat today’s enemies in today’s wars. Therefore, Field Manual 3-24 is the logical start for the doctrinal dissection. FM 3-24 rightly does not attempt to cover specific tactics, techniques and procedures (TTPs) for employing tactical forces. FM 3-24 provides a fundamental basis for conducting a successful counter-insurgency fight through the successful application of all means of national power. Winning counter-insurgencies requires protecting the civilian populace and legitimizing the central government over the insurgents. This is good operational guidance, and translates well to tactical units. Brigade Combat Teams provide the primary means to accomplish the operational mission. They are the headquarters that fight tactical battles in order to accomplish the operational campaign. By their very nature, Brigade Combat Teams are robust

---

<sup>18</sup> The Long War is another name for the US Global War on Terrorism.

organizations able to support multiple unit types, be they heavy, light, Stryker, civil affairs or military police.

## **Training Heavy-Light Integration**

Army doctrine is sound – especially at the tactical level. FM 3-24 and FM 3.0-6.11 both articulate how to conduct tactical operations in arguably the hardest conditions possible – urban insurgency. Under current doctrine, brigades apply doctrine to develop their Mission Essential Task Lists to both major combat operations and counter-insurgency. “Counterinsurgency operations are manpower intensive and therefore infantry, armor, artillery, reconnaissance, and military police battalions are the primary tactical building blocks for combat in a counterinsurgency environment<sup>19</sup> As such, the BCT’s apply current doctrine to train their soldiers prior to deployment under the watchful eye of observer-controllers. However, the ARFORGEN cycle treats all brigade combat teams the same, regardless of type, and does not provide opportunities to cross train with unlike units. At Army posts worldwide, tactical commanders train their units to meet deployment training gates and provide the Army effective units as pure HBCTs, SBCTs or IBCTs. No integration between these different types of units occurs during training. The exception to the rule may be a heavy-light combat training center rotation, but these are the exception as opposed to the rule. For practical purposes, Army brigade combat teams train “pure” with the exception of small attachments or internal task organization adjustments.

Another part of the doctrinal problem is the heavy force narrative where armored forces cannot operate in urban terrain comes into play. Field Manual 3-06.11 Combined Arms in Urban Operations may be the best doctrinal manual for integrating heavy and light forces – especially in complex urban terrain. This manual counters the armored narrative when it says, “The belief that armor has no role in city fighting is wrong. Tanks, infantry fighting vehicles (IFVs), and armored personnel carriers (APCs) prove

---

<sup>19</sup> FM 3-24 Counter-Insurgency Tactics, pg. 3-16.

vital to the attacker inside the city as long as they are protected by infantry.”<sup>20</sup> The manual continues in this vein with, “Urban combat is primarily a small unit infantry fight, requiring significant numbers of infantry to accomplish the mission; however, combined arms must support the infantry.”<sup>21</sup> Counter-insurgency fights are successful when the population is secure and political, economic and police forces can take root. The military conducts counter-insurgency operations in cities, towns and villages. The doctrine clearly argues that combined arms between heavy and light forces are critical to success, and yet this is not how we train and deploy.

Stryker brigades train in close cooperation with armored vehicles; however, there is one key difference. In a Stryker brigade, infantrymen and armored vehicles integrate at the platoon level. In other words, the platoon’s soldiers all commonly train and move together. It is an inherent trait of the unit. Bradley and Stryker operations in many regards would be very similar. The key difference is the integration of tanks. Stryker brigades do not provide shock effect in the same way tank units do.<sup>22</sup> Tanks working with infantrymen require training together in order to employ both combat arms’ unique capabilities. Combined Arms Battalions integrate tanks and infantrymen by their nature. In all fairness, SBCTs are more easily able to integrate tanks and Bradleys than infantry brigades and plan for it in SBCT doctrine.

Upon arrival in theater, operational and senior tactical commanders determine the capabilities they require in their areas of responsibility. Typically, the first time light and heavy tactical units work together is in combat. This reduces their initial effectiveness and increases the opportunity for fratricide until combat experience leavens both units. To illustrate this training shortfall, 2<sup>d</sup> Battalion, 70<sup>th</sup> Armor’s experience in Operation Iraqi Freedom is telling. In February 2003, Task Force 2-70 Armor deployed to Kuwait in order to prepare for OIF I. 2-70 Armor did not conduct heavy-light training at home station or

---

<sup>20</sup> FM 3-06.11 Combined Arms in Urban Operations, pg. 2-32.

<sup>21</sup> FM 3-06.11 Combined Arms in Urban Operations, pg. 1-12.

<sup>22</sup> FM 3-21.21 The Stryker Infantry Battalion, pg. 4-58.

in theater with the 101<sup>st</sup> Airborne Division, yet this battalion spearheaded most of the 101<sup>st</sup>'s attacks as it shifted from brigade to brigade during combat.

Task Force 2-70 Armor was initially attached to the 3<sup>d</sup> Mechanized Infantry Division under LTC Jeffrey Ingram's command. Soon after the initial invasion, TF 2-70 AR shifted to support the 101<sup>st</sup> Airborne (Air Assault) Division. He provides three key examples of poor heavy-light training leading to consequences in combat. First, without training, relatively simple tactics and techniques such as movement timelines are misunderstood. In one attack, LTC Ingram's heavy task force led the assault, but was not relieved in a timely fashion, temporarily desynchronizing the attack. "A call to the follow on force commander revealed that the follow on light battalion was not planning to begin its movement for another hour and twenty minutes. The light force was thinking at dismounted movement speeds while the heavy force was thinking at mounted movement speeds."<sup>23</sup> His second point discusses how to provide light forces tactical mobility in combat situations. "It dawned on the company and Task Force commanders that there was no way the cross attached infantry platoon could move itself from the line of departure the 15 to 20 kilometers to the Limit of Advance. Given the speed of the tanks and distance involved, there was no option but to put the Infantry on the tanks, a technique that no one involved had ever done before. The designated dismount line was 100 one hundred meters too far to the North which led to the death of a 101<sup>st</sup> soldier at 0430 on 31 March 2003 as he rode into combat on the back of the company commanders M1A1 tank."<sup>24</sup> Understanding where the probable line of contact is critical to dismounting infantry from tanks. The tank company commander misjudged this point, and the enemy fired on the tank-riding infantry before they could deploy. Finally, light force commanders do not understand heavy force logistics requirements. "The Task Force was initially attached to the 2d BCT (101<sup>st</sup> ABN) commanded by COL Anderson. One of the first questions he asked the Task Force

---

<sup>23</sup> Ingram, personal recollection, "Where's the Heavy-Light Integration?" 8-9. COL Ingram's entire description of these three points is in Appendix 1.

<sup>24</sup> Ibid, 25-26.



commander was about how much fuel he needed. The reply, “about forty-five thousand gallons a day,” brought the conversation to an abrupt halt.”<sup>25</sup> In contrast, a light brigade consumes approximately 1000 gallons a day. LTC Ingram’s support platoon carried more fuel than COL Anderson’s entire brigade.

These three points dramatically emphasize the importance of heavy-light integration at home station. First, light force and heavy force commanders must understand each other’s basic tactical capabilities – movement rates are merely one aspect of the problem. Clearly two highly successful commanders and their operations officers missed this linkage in TF 2-70 Armor’s situation. Only training can impart fundamental understanding between armored and light forces. Finally, if an Infantry Brigade Commander does not grasp the basic logistics requirements for integrating heavy forces, then the Army has serious flaws in its overall ability to integrate heavy and light forces. Based on recent combat operations, true combined arms between light forces, armored forces and joint fires produces victory and plays to American Army’s strengths in initiative, tactical and operational flexibility and tactical overmatch. However, in some cases, junior leader developed ad hoc “workarounds” that training and experience should have eliminated.

Heavy and light forces fight and think differently. As COL Ingram points out, time, space, distance, speed, size, and weight all have different meanings to heavy and light forces. These differences are exacerbated when the two forces are thoroughly unfamiliar with each other but can be mitigated by close cooperation and training.<sup>26</sup> By conducting consistent Heavy-Light training the two different forces can overcome this problem, prior to combat, and without losing soldiers unnecessarily. Adjusting and synchronizing the Army’s ARFORGEN cycle can help commanders overcome the problems identified during OIF I which remain unresolved.

---

<sup>25</sup> Ingram, 8.

<sup>26</sup> Ibid. 9.

## **Integrating Heavy Light Training within the ARFORGEN Cycle**

It must start at home station. The Army must carry the “train as you fight” mentality to its logical end if it is to achieve true integration of its heavy forces with light and Stryker brigades. The key component is that heavy and light forces must train, deploy and fight together to the greatest possible extent. Army brigade and battalion commanders are superb at translating combat mission essential tasks to deployment mission essential tasks at the tactical level. The Army must operationalize training and deployment requirements within the Army’s ARFORGEN cycle and on the strategic guidance set in the President’s 2010 Quadrennial Defense Review (QDR). The requirement for heavy-light integration is inherent in the QDR, although not explicitly written.

In the QDR’s executive summary, the top three national priorities are to prevail in today’s wars, prevent and deter conflict, and prepare to defeat adversaries in a wide range of contingencies.<sup>27</sup> The QDR’s underlying principle for the Army is that “future mix of missions facing US forces will call for greater flexibility and agility to operate among diverse populations, with a wide range of partners, and in a variety of operating environments.”<sup>28</sup> Within this spectrum, the QDR defines “hybrid war” in which innovative adversaries employ protracted forms of warfare, with state and non-state proxies utilizing all tools within their purview (low-tech criminal methods to high-end combat systems.)<sup>29</sup> Specifically for the US Army, “US ground forces will remain capable of full-spectrum operations, with continued focus to conduct effective and sustained counter-insurgency, stability and counter-terrorist operations alone and in concert with partners.”<sup>30</sup>

---

<sup>27</sup> Quadrennial Defense Review, February 2010, v-vi.

<sup>28</sup> 2010 QDR, 24.

<sup>29</sup> 2010 QDR, 8.

<sup>30</sup> 2010 QDR, x. The QDR directs that the Army maintain 4 Corps headquarters, 18 division headquarters, 73 BCTs (40 IBCTs, 8 Stryker, and 25 HBCTs) This total includes recommended conversions of two HBCTs to Stryker Brigades by 2012.

Although not specifically articulated in the QDR, these national security requirements demand that the Army provide well-rounded formations capable of strategically deploying and being tactically relevant. What it demands is the integration of all BCT types within the force pool to meet national objectives. It starts with integrating heavy and light formations during training then deploying those assets as coherent teams. Combat experience shows that combining the inherent capabilities of light and heavy forces wins decisively. Now the Army must commit to training and deploying its forces this way. The QDR and ARFORGEN cycle generate the strategic guidance for employment of Army forces and its resourcing methodology; it must follow through on the home front to meet national objectives. How does the Army meet this challenge?

From an equipment point of view, heavy-light integration mitigates a firepower concern addressed by the Infantry Center. A Training and Doctrine Command paper, “Close-Combat Lethality Line-of-Sight Capabilities Based Assessment” written by the Army Infantry Center, examined the organic, close-combat line-of-sight direct-fire lethality of Infantry Brigade Combat Teams and Stryker Brigade Combat Teams. According to the analysis, these two brigade combat team types came up short against current and future threats from 2006-2018. “The analysis identified capability gaps that must be resolved to eliminate the current imbalance between the IBCT/SBCTs' strategic deployability and their tactical lethality upon deployment.”<sup>31</sup> In other words, these two unit types, consisting of 60% of the Army’s maneuver forces, lack close range kinetic lethality needed in the future to defeat America’s foes. Heavy brigades maintain their overmatch in the close fight in this future look.

Prior to Operation ENDURING FREEDOM, the Army conducted limited heavy-light training at the various combat training centers. The Joint Readiness Training Center would typically host IBCTs with an attached heavy company. The National Training Center occasionally trained a HBCT with a light

---

<sup>31</sup> Rocque, Ashley. “Army Combat Teams Lack Firepower.” 2006, 1.

battalion. Due to the nearly overwhelming burden of Iraq and Afghanistan, the number of these training opportunities fell. The Army's leadership must reverse this trend.

Within the ARFORGEN cycle, the Army must develop a habitual training relationship between heavy, Stryker and infantry brigades based on its expected training cycle. In a notional argument, 4<sup>th</sup> HBCT, 1<sup>st</sup> Cavalry Division, 3<sup>d</sup> Armored Cavalry Regiment (Stryker) and 4<sup>th</sup> IBCT, 10<sup>th</sup> Mountain Division are in the same training-ready to deploy timeline within ARFORGEN. During training exercises, the IBCT (due to its small logistics footprint) deploys to Fort Hood, Texas, where the other brigades are stationed. During training, light, heavy and Stryker formations integrate at the company level and conduct company level live fire exercises. Upon receiving deployment orders, Forces Command designates a brigade headquarters with the appropriate mix of heavy, light, and Strykers to deploy to meet the combatant commander's requirement. This brigade headquarters conducts its Mission Rehearsal Exercise at a training center, and deploys to theater. In combat, the Army task organized units as required. This construct forces the Army to do the same prior to deployment. The author recommends that ARFORGEN task organize battalions, not company level to ensure logistics and subject matter experts (Field grade officers, chief warrant officers, and senior non-commissioned officers) are resident within the deploying BCT. Building habitual relationships in training creates confident and competent operational forces.

ARFORGEN already maintains light and heavy brigades within each of its reset, ready to deploy and deployed windows. Combined with FORSCOM's deployment patch chart, the Army can identify which brigades should train together prior to deployment. General McChrystal already plans to cycle the same units through same geographic locations in Iraq. With that degree of fidelity, integrating heavy and light forces prior to deployment is possible. Even if the Army cannot overcome ARFORGEN requirements, it stationed heavy and light forces together at Fort Carson (4ID), Fort Bliss (1AD), Fort Riley (1ID), and Fort Stewart (3ID). The 1<sup>st</sup> Cavalry Division and 3<sup>d</sup> ACR will provide one location to integrate Strykers and heavy forces at Fort Hood in 2012. At a minimum, integrating heavy-light training

at these bases could establish a pool of nine heavy brigades and five light brigades trained for integrated operations for current and future joint force commanders.<sup>32</sup>

This initiative supports Army future contingency operation considerations for both high intensity warfare as well as revolutionary wars<sup>33</sup>. The proposal unquestionably supports major combat operations as all three force pools provide 15 maneuver brigades. Defeating insurgencies relies heavily on the military's ability to interact with the supported population and isolate insurgents from the populace. Revolutionary war may not require pure heavy brigades. Using America's Iraq experience, commanders augmented light brigades with a heavy battalion in theater. Light commanders then integrated the heavy battalion to provide pinpoint fire support to his riflemen on the ground. Heavy brigade commanders routinely received light battalions to augment their ability to conduct patrols. At the operational level, heavy forces, distributed throughout the Iraqi theater and working in coordination with light forces, set the conditions for Iraqi Security Forces to develop. In the Army's latest revolutionary war, integrated heavy and light forces allowed the United States to dominate the human terrain throughout the theater despite a numerical ratio that does not necessarily support typical counter-insurgency force ratios.

---

<sup>32</sup> Appendix 2 shows the Army's current active component footprint, which brigades are of what type, and how a ARFORGEN synchronization could occur, generating a formidable force pool to conduct operations. The notional cycle provided mimics the current ARFORGEN cycle.

<sup>33</sup> Galula, David. *Counterinsurgency Warfare: Theory and Practice*, 4.

## Heavy-Light Integration in Action

“Maybe we should deploy armor in penny packets, just like artillery.” ~ GEN Mattis, USMC, Commander, Joint Forces Command.<sup>34</sup>

General Mattis’ remarks to the FY 10-01 AMSP class in October resonated with the author. Since its inception, the heavy force, operating in conjunction with light forces, generates decisive victory. In revolutionary conflict, Army leaders seem to disregard heavy capabilities in supporting counter-insurgency operations.<sup>35</sup> Heavy forces enable light forces to control ground – either through deterrence or defeat of insurgent forces. In an interesting point, the Commander of Joint Forces Command, General Mattis, noted that the Army and USMC disregarded mass deployment of field artillery throughout both theaters, in violation of artillery doctrine.<sup>36</sup> Units routinely establish artillery firing points at almost every base in order to provide immediate fire support to the infantry. In Iraq, during the height of the insurgency, US commanders relied on indirect fires as well as immediate armored direct fire support to defeat rebel attacks. Why are heavy-light lessons learned in Iraq not put to use in Afghanistan? In a revolutionary conflict, General Mattis intimated that it may be time to change institutional attitudes to the heavy force’s employment with regard to today’s conflicts.

The answer is not easy. First, the author will utilize Iraq to articulate the case for the successful employment of heavy and light forces. To provide a strategic backdrop, the 1980 Soviet invasion of Afghanistan will demonstrate that the Soviets did use armor effectively in their war, but suffered eventual defeat due to their inability to integrate its heavy and light forces within a counter-insurgency campaign

---

<sup>34</sup> GEN Mattis, USMC open remarks to SAMS October 23, 2009.

<sup>35</sup> Shy, John and Thomas Collier, 817. Paret, Peter, Gordon Craig, and Felix Gilbert. *Makers of Modern Strategy : from Machiavelli to the Nuclear Age*. Princeton, N.J.: Princeton University Press, 1986. Revolutionary War refers to the seizure of political power by the use of armed force. Key components may efforts to seize power by a domestic popular movement, include promotion of a domestic or social agenda, may be a long term conflict, this definition include that it is not a war between states, but a war within a state. Guerrilla war is a technique of revolutionary war, not distinct in and of itself.

<sup>36</sup> Hollis, Patrecia Slayden. “Second Battle of Fallujah – Urban Operations in a New Way of War” Field Artillery Magazine, 2.

plan. The US Afghanistan invasion took the Soviet's hard won lessons a new direction. Since 2001, US planners acknowledged Soviet failures in Afghanistan, and maintained a small, light footprint. However, the strategic conditions changed drastically when President Obama ordered a 30,000 Soldier surge. The US switched from counter-terrorism to a counter-insurgency strategy. As part of ongoing efforts, the Army should deploy part of its heavy force to Afghanistan to provide protected pinpoint fire superiority to the infantry help close what Major Thomas Erhart refers as a gap in the rifle squad's inability to kill out to 500 meters.<sup>37</sup> In his 2009 monograph, Major Erhart argues that the Army's small arms training and equipment resident within the rifle squad allows insurgents to maintain a degree of stand-off in Afghanistan by remaining outside the rifle squad's 300 meter effective fire zone. Although Erhart's argument focuses on Afghanistan's mountainous terrain, his argument is relevant at lower elevations as well. Integrating the heavy and light forces fits exactly into part his perceived gap.

## **The US Army in Iraq**

Iraq confirms that heavy light integration works. It works in major combat operations. It works with counter insurgency operations, and it can even work in conjunction with Special Operations Forces. Iraq repeatedly demonstrated that combined arms approaches are effective. In the fall of 2004, General Chiarelli and his staff noted the heavy force's effectiveness in Operations BATON ROUGE and AL FAJR. In both operations, US heavy and light forces successfully fought insurgents in complex urban terrain. The success of those missions suggested strongly that when called on to go into battle in towns

---

<sup>37</sup> Erhart, Thomas. "Increasing small arms lethality in Afghanistan: Taking back the infantry half-kilometer" 3-4. In Major Erhart's paper, he argues that the infantry squad's equipment set does not provide firepower overmatch from 500 meters to approximately 1800 meters. Light forces are commonly equipped with just one designated marksmen and a M240B machine gunner that can effectively fire past 300 meters. He further states that 81% of a light company's equipment cannot engage targets beyond 200-300 meters and represents an unacceptable capability gap. The range indicated above is precisely the effective weapon range of the M1 tank and M2 Bradley.

and cities, the mechanized combined arms team can survive and even serve as the decisive force.<sup>38</sup> While General Chiarelli's comments serve as an operational overview, COL Pat White's statement sharpens the tactical lens. Then Lieutenant Colonel Pat White, the commander of Task Force 2-37 Armor, which served in An Najaf, claimed that most precise weapon in his unit was the M1A1 Abrams tank because its combination of machinegun and main gun gave Soldiers a choice and the ability to use pinpoint fire at ranges that prevented effective counter-fire from the enemy.<sup>39</sup> Both officers' remarks will resonate while discussing highlighting heavy-light integration during the Second Battle of Fallujah, 3<sup>d</sup> ACR's operations in Tal Afar and Company C, 2-70 Armor's support to Combined-Joint Special Operations Task Force (CJSOTF) in OIF I.

### **Western Iraq, 2003**

C/2-70 Armor initially crossed the Iraqi border under 3<sup>d</sup> Brigade, 3<sup>d</sup> Infantry Division (Mechanized). Simultaneous with the ground maneuver from Kuwait, CJSOTF conducted raids to seize key facilities in western Iraq including Haditha Dam and the H2 airfields in order to support V Corps and I Marine Expeditionary Force by tying down Iraqi forces in Anbar Province.<sup>40</sup> As CJSOTF forces maneuvered towards central Iraq, the CJSOTF commander determined that he needed additional mobility and firepower on the ground. C/2-70 Armor received this mission and on 31 March 2003, Captain Shane Celeen's company withdrew from fighting in As Samawah under the 82<sup>d</sup> Airborne Division's command and airlifted from the Talil airbase to western Iraq's H1 airfield. USAF C-17's in 15 sorties, airlifted CPT Celeen's company of 10 M1A1 tanks, three M113 armored personnel carriers, a FST-V fire-support vehicle, two fuel trucks, three cargo trucks, and an HMMWV. On arrival at H-1 Airfield, the company

---

<sup>38</sup> Chiarelli, Michaelis and Norman. "Armor in Urban Terrain: The Critical Enabler," *Armor*, March-April 2005, 7-12.

<sup>39</sup> Wright and Reese, *On Point II*, 335.

<sup>40</sup> Cordesman. *The Iraq War*. Westport, CT: Praeger Books, 362-363.



came under the control of the 3<sup>d</sup> Battalion, 75<sup>th</sup> Ranger Regiment. The rangers and the tank company road-marched 160 kilometers east towards Baghdad and conducted raids in the Baji-Tikrit area. In addition to the raids, the company supported interdiction missions along Highway 1 to Syria, attempting to seal the border from fleeing Ba'athist and Iraqi military personnel. The company supported JSOTF-West from 2 to 24 April, until 4ID assumed responsibility for the area. This rapid intra-theater movement and multiple task reorganizations integrating conventional and SOF units demonstrate the power of joint integration to meet the ever-changing tactical and operational situation in the theater.<sup>41</sup>

CPT Derek Drummond, C/2-70 AR's executive officer during the invasion noted two key points with the author in integrating his tank company with the Rangers. First, integrating unlike forces on the fly led to a misunderstanding between units of timing and tempo capabilities. Unlike LTC Ingram's experience, the Rangers expected C/2-70 AR to conduct relentless 100 km approach marches without pause. By April 24<sup>th</sup>, the company was at 50% combat power and what was working was "circle X'd."<sup>42</sup> Second, the Ranger battalion executive officer had no idea of how to support a heavy force. Fuel, parts and ammunition became serious points of contention that CPT Drummond could not gain 3/75 XO's support. When CPT Drummond submitted standard parts requests through 3/75's maintenance chain, he was accused of false requisitions – stemming from 3/75's executive officer's lack of understanding parts cost for a tank company.<sup>43</sup> Only intervention by the 3/75 Commander satisfied C/2-70 AR's requirements. Overall, the company and the Rangers performed superbly together, but not understanding each other's capabilities and limitations led to unnecessary friction on the battlefield.

---

<sup>41</sup> Fontenot, *On Point I*. 252-253.

<sup>42</sup> Circled X on a DA5988E (maintenance form) indicates that a vehicle has a deadline that the commander has allowed the crew to continue to use despite a fault that has some risk of catastrophic maintenance or safety failure.

<sup>43</sup> CPT Drummond's personal recollection upon redeployment with the author.

## **OPERATION AL FAJR – Retaking Fallujah, 2004.**

C/2-70 AR's experience is micro view of the war. The Second Battle of Fallujah provides a joint, large-scale integration of heavy and light forces. In 2004, Sunni insurgents had seized control of Fallujah from Iraqi Security Forces. In April 2004, the first foray into Fallujah ended with US forces forced to remain outside the city due to insurgent activity and political pressure from Baghdad. MG Natonski, Commander, 1<sup>st</sup> Marine Division (1<sup>st</sup> MARDIV), believed he needed a heavier and more mobile force to overcome insurgent defenses encountered by the Marines during the April VIGILANT RESOLVE.<sup>44</sup> The 1<sup>st</sup> MARDIV believed they did not have enough tanks and heavy infantry fighting vehicles to quickly penetrate the outer defenses. The two USMC regimental combat teams (RCT-1 and RCT-7) had a small number of tanks organically assigned.<sup>45</sup> Recognizing the shortfall, MG Natonski requested US Army mechanized forces from Lieutenant General Thomas Metz, commander, Multi-National Corps Iraq. LTG Metz attached two mechanized task forces to 1<sup>st</sup> MARDIV - 2<sup>d</sup> Battalion, 2<sup>d</sup> Infantry (from the 1st ID) and 2<sup>d</sup> Battalion, 7<sup>th</sup> Cavalry (from the 1st CAV).<sup>46</sup>

Utilizing Iraqi commandos, 1<sup>st</sup> Battalion, 5<sup>th</sup> Infantry (Stryker) and elements of 2<sup>d</sup> Brigade, 1<sup>st</sup> Cavalry, MG Natonski isolated Fallujah from outside support or inside escape. He attached one battalion to each Marine Regiment to spearhead each regiment's attack. By the end of October, 1<sup>st</sup> MARDIV had most of its required forces in place and the great majority of civilians in Fallujah had left the city. On 7 November, Iraqi Prime Minister Ayad Allawi announced that a State of Emergency existed across Iraq. He gave his approval for an attack on the city. With political approval from Baghdad, 1<sup>st</sup> MARDIV attacked on 8 November. Two reinforced RCTs of the 1<sup>st</sup> MARDIV breached a railroad embankment and

---

<sup>44</sup>Wright and Reese, *On Point II*, 351.

<sup>45</sup> Marine Regimental Combat Teams organize with three Marine infantry battalions, a direct support artillery battalion and its own service support. There are only two active USMC tank battalions and support the divisions as required. Other Marine fighting vehicles include the Light Armored Vehicle and Amphibious Assault Vehicle. Neither is protected enough to survive in close combat in urban environments for long.

<sup>46</sup> Wright and Reese, *On Point II*, 351.

the city wall on the northern edge of the city. Both RCTs passed their Army Task Forces through their lines to breach the city's defenses.<sup>47</sup>

Staff Sergeant David Bellavia, a squad leader in Alpha Company, 2-2 Infantry, described encountering very sophisticated defensive positions in the buildings close to the breach site: "During the day, you could see the way these insurgents were dug in; and without that relentless 155-millimeter barrage, we would've taken massive casualties."<sup>48</sup> Bellavia recalled, "You would actually hear insurgents challenging [Alpha Company's] tanks with AK-47 fire and then, *Boom!* Silence."<sup>49</sup> Using these tactics, 2-2 IN attacked deeply into Fallujah, disrupting the defenses and providing an opening for the Marines' infantry to clear behind them.

RCT-1, AL FAJR's main effort, attacked with Task Force 2-7 CAV (a mechanized infantry task force) leading; replicating 2-2 IN's attack further east. The tanks of Alpha Company, 2-7 CAV, led the assault. Lieutenant Colonel James Rainey, the commander of 2-7 CAV, conducted deliberate tank attacks followed by infantry sweeps to clear the objectives. Rainey contended that lethality of this tactic "totally devastated the enemy... they were still trying to get out of the way of the tanks and BFVs and our infantry squads were on top of them."<sup>50</sup> 2-7 CAV's attack also seriously disrupted insurgent defense and allowed 1 RCT to immediately begin clearing operations.

Originally, Marine planners for AL FAJR thought that Army mechanized battalions required 4 or 5 days to seize and secure central Fallujah. They accomplished the task in less than two. Adjusting the plan, Marine commanders accelerated their attack. The rapid attack conducted by two Army mechanized battalions, integrated with Marine light infantry and Marines shattered the insurgents defenses. Within a

---

<sup>47</sup> Wright and Reese, 352.

<sup>48</sup> Ibid, 353.

<sup>49</sup> Ibid, 354.

<sup>50</sup> Ibid, 355.

week, 1<sup>st</sup> Marine Division secured Fallujah, setting up the “hold” phase of their plan. Despite the success of Operation AL FAJR, US Army and Marine units did have coordination problems. The most critical was the tempo difference between Army and Marine units. Both Army task forces penetrated deeply into the city, more rapidly than 1<sup>st</sup> MARDIV expected. Although the Army’s rapid penetration into Fallujah’s city center disrupted enemy command and control, quick Army maneuver created a gap between Marine and Army units that insurgents exploited. Marine RCTs could not clear buildings as quickly as Army forces maneuvered through insurgent defenses. A physical gap opened between Army and Marine units, slowing down clearance operations and increasing losses.<sup>51</sup> Additionally, collateral damage from Fallujah was tremendous. Joint fires and tank fire did cause significant damage to the city’s infrastructure. Despite this criticism, from top to bottom, AL FAJR demonstrated how to integrate heavy Army forces with light Marine infantry. It follows that it would work just as well with Army light forces. The commander of RCT-1, Colonel Michael Shupp, believed that at the tactical level Soldiers and Marines worked very well together, “It really was one team, one fight.”<sup>52</sup>

### **Tal Afar, 2006 – Taking it to the Next Level**

Despite the tactical success of AL FAJR, its heavy use of firepower destroyed infrastructure throughout the city. Fortunately, information operations minimized civilian casualties, but nonetheless, Fallujah’s damage was significant. In any combat operations, city fighting is destined to leave its mark. In major combat operations, this may be unavoidable and may be even desirable. In counter-insurgencies, when civilians are the prize, other methods of employing heavy forces in coordination with light forces

---

<sup>51</sup> Wright and Reese, 356. The two Army task forces were tasked to breach Fallujah’s outer defenses and seize key terrain in the city center. Marine clearance operations were much more deliberate clearing operations that took longer to execute than the Army’s penetration mission.

<sup>52</sup> Ibid, 356.

may be more important.<sup>53</sup> The 3<sup>d</sup> ACR, led by then COL H.R. McMasters, demonstrates that heavy forces can be instrumental in counter-insurgency operations.

In Thomas Ricks' book *Fiasco*, he describes Tal Afar, a town of 250,000 in northwestern Iraq as a central support hub for Abu Musab al-Zarqawi's Al Qaeda in Iraq.<sup>54</sup> In a rare approval of US operations in Iraq in 2005, Ricks singled out 3<sup>d</sup> ACR's success in re-taking Tal Afar.<sup>55</sup> In May 2005, Multi National Division-North directed the regiment to clear Tal Afar. In Operation RESTORE RIGHTS, COL McMasters demonstrated superb counter-insurgency tactics. In his concept of operations, his unit isolated Tal Afar from the countryside by clearing those towns, and maintaining coalition presence with Iraqi police and parts of the 3<sup>d</sup> Iraqi Army Division. Simultaneously, the regiment secured the road network in and around Tal Afar.<sup>56</sup> With the countryside secured, and acting in collaboration with Iraqi leadership, 3<sup>d</sup> ACR built a berm around Tal Afar to control access into the city.<sup>57</sup> Supporting his controlled access to the city, 3d ACR's detainee operations meticulously followed processing procedures, going so far as allowing detainees critique their detainee holding system.<sup>58</sup> To set the conditions to clear the town, 3<sup>d</sup> ACR asked residents to move into a camp built for them south of town while his intelligence teams developed tribal links within the city.<sup>59</sup>

With the population moved, COL McMasters attacked in September 2005. In conjunction with troops from the 82<sup>d</sup> Airborne Division and 3<sup>d</sup> Iraqi Army Division to provide infantry support, 3<sup>d</sup> ACR moved block by block to clear Tal Afar. In the next thirty days, despite frequent sharp encounters, the

---

<sup>53</sup> McCone, David R. Wilbur J. Scott and George R. Mastroianni. "The 3D ACR in TAL'AFAR: Challenges and Adaptations," 20.

<sup>54</sup> Ricks, Thomas. *Fiasco*, 419.

<sup>55</sup> *Ibid*, 420.

<sup>56</sup> McCone et al, 14.

<sup>57</sup> *Ibid*, 15.

<sup>58</sup> Ricks, 422.

<sup>59</sup> *Ibid*, 422.

regiment succeeded. In a month of combat, 3d ACR's tanks, Bradleys and M109A6 Paladins provided precise indirect and direct fire support to the 82d's paratroopers, mechanized scouts, and Iraqi National Army. Building by building, tanks and Bradleys overmatched insurgent forces in every engagement. One of McMaster's majors, Jack McLaughlin summed up 3<sup>d</sup> ACR's operational concept, "There are two ways to do counterinsurgency. You can come in, cordon off a city, and level it, à la Fallujah. Or you can come in, get to know the city, the culture, establish relationships with the people, and then you can go in and eliminate individuals instead of whole city blocks."<sup>60</sup>

After McMaster's offensive, 2<sup>d</sup> Squadron, 3<sup>d</sup> ACR led by LTC Hickey established small combat outposts with Iraqi Army units throughout the city. Living on primitive patrol bases without hot water, reliable heat, or regular cooked meals, Hickey's men forged lasting relationships with the town's leadership and security force leaders. The provincial leadership appointed a new mayor, Najim Abdullah al-Jabouri, during RESTORE RIGHTS' hold phase. As an outsider, al Jabouri won an initial measure of confidence from the town's ethnically diverse population. As a measure of 3<sup>d</sup> ACR's success, Mayor al Jabouri wrote a letter to President Bush, Rumsfeld, and Congress asking them to extend 3<sup>d</sup> ACR's combat deployment.<sup>61</sup>

What is clear from OIF is that combined arms and tailoring organizations to meet changing operational requirements worked in OIF. The combination of heavy forces, light infantry and joint fires, generate overwhelming tactical overmatch. Doctrine, training, education and experience created an Army that is flexible, agile, and can transition from major combat operations to counter-insurgency warfare.<sup>62</sup> These three examples provide unique examples of how the heavy force remains relevant in future contingency operations. First, C/2-70 Armor should trigger a mindset to incorporate armored force's punch to support specific special operations missions. Expanding this construct to support Army

---

<sup>60</sup> Packer, George, "Is It Too Late to Change Course in Iraq," The New Yorker, pg. 5-6.

<sup>61</sup> McCone et al, 19.

<sup>62</sup> Fontenot, 397.

operations in whatever environment they face should be readily apparent. The Army's responsibility is to provide tactical overmatch in any situation. Iraq demonstrated where heavy-light integration works operationally. In direct contrast, Somalia demonstrated that a lack of heavy-light integration can lead to operational failure and strategic withdrawal. Before America leaves Afghanistan, Army heavy force capabilities may be necessary. Effectiveness matters.

Second, The Second Battle of Fallujah highlights the Army heavy force's unique capacity to concentrate armor in support of lighter units. The Marines specifically requested US heavy forces to "heavy up" their lighter forces. Applied heavy force firepower can lead to heavy destruction, especially in urban areas. AL FAJR demonstrates that combined arms works; however, this case may support US use of force critics like Thomas Barnett who argue heavy forces do not have a role in counter-insurgency operations. Barnett states that armored vehicles cause excessive damage to towns. They do not allow for the use of "minimum necessary force" when in contact, limit interactions between soldiers and the populace and, can be psychologically menacing to local citizens.<sup>63</sup> Although true to a point, Barnett completely disregards that without heavy forces, Operations like AL FAJR, BATON ROUGE and countless other battles would have been costly. Any military force may cause damage to towns through combat action. At certain moments, psychological intimidation saves lives – locals and US troops.

Any military tool can be misused. In an accurate criticism of heavy forces, Barnett quotes COL Sean MacFarland that the over application of force does have detrimental effects.<sup>64</sup> This problem is not just the heavy force; it applies to every military organization. This is why the 3<sup>d</sup> ACR's success in Tal Afar is so striking. In a patient campaign lasting almost 7 months, COL McMaster's successfully cleared

---

<sup>63</sup> Barnett, *Blue Print for Action*, 233.

<sup>64</sup> Barnett's *Blueprint for Action*, quotes COL MacFarland, an Army Brigade Commander in Ramadi, Iraq. "While many armored units have adapted themselves to counterinsurgency, the old adage "if your only tool is a hammer..." may apply. During the first six months of operations in Ramadi, the 1st Brigade, 1st Armored Division fired over five-hundred 120mm main gun rounds. Noting his unit was a "hammer," and everything looked like a "nail" to his soldiers, Colonel MacFarland eventually mandated that a major or above had to approve the use of a main gun round. Barnett, *Blue Print for Action*, 233.

a town the same size of Fallujah utilizing a force that was significantly smaller than 1<sup>st</sup> MARDIV's operation.<sup>65</sup> While operations took longer, the operation had significantly less impact on the city and its population in the end. Tal Afar demonstrates that Barnett's criticism is not universally true. Dynamic leadership, applied smartly with counter-insurgency techniques, and integrating heavy and light forces are critical to operational success. To sum up a tanker's point of view, "For all the talk of force transformation, the accounts of fighting by both the 3d Infantry Division and 1<sup>st</sup> Marine Division make it clear that the M1A1 Abrams main battle tank, and its combination of protection and firepower, played a critical role in ensuring Iraq's defeat. Iraqi forces could not bring firepower to bear at engagement ranges that allowed them to be effective, and the superior protection of the M1A1 and M2A3 greatly reduced losses and casualties."<sup>66</sup>

---

<sup>65</sup> Based on notes from various books, 1<sup>st</sup> MARDIV incorporated almost 20,000 troops including 2 Marine regiments, and a reinforced Army Brigade. COL McMaster's operations in Tal Afar incorporated elements of the 3d ACR, 82d Airborne and parts of the Iraqi 3d Division, just about 7-8000 Soldiers operating directly in Tal Afar.

<sup>66</sup> Cordesman, *The Iraq War*. 351.



## The Soviet Union's Afghanistan War

“Out of commission, become a pillbox. Out of ammo, become a bunker. Out of time, become heroes.” Russian tanker's lament as portrayed by George Dzundza in *The Beast of War*.<sup>67</sup>

In 1977, the Afghan Prime Minister, Mohammed Daoud was killed in Kabul by elements led by the communist People's Democratic Party of Afghanistan. However in 1978, the Democratic Republic of Afghanistan (DRA) attempted to implement massive changes in land ownership, women's rights and national language requirements that enflamed the rural population of Afghanistan. In short order, the Army's ranks slipped away to their homelands and the tribes became anti-government bastions.<sup>68</sup> By 1979, thousands of Soviet advisers supported the DRA's efforts to suppress the insurrection. As the situation deteriorated, Moscow continued to supply Afghanistan with men, equipment and money.<sup>69</sup> On December 12, 1979, Soviet Premier Brezhnev and the Politburo decided to intervene over some Soviet generals' objections.<sup>70</sup>

On 25 December 1979, the Soviet Union's 40<sup>th</sup> Army invaded Afghanistan to depose Hafizullah Amin, the current communist leader and replace him with Barbrak Kharmal, a “clean” communist leader unassociated with the current regime.<sup>71</sup> The 40<sup>th</sup> Army executed a well-planned assault that saw mechanized forces cross the Soviet-Afghanistan border while seizing Kabul and other key locations throughout the country with air assault forces. Within one week, 50,000 troops were inside Afghanistan. Soviet advisors sabotaged elements of the Afghan Army that might offer resistance. By January, the

---

<sup>67</sup> Dzunda, George, quoted from the movie, “The Beast of War.”

<sup>68</sup> Tanner, *A Military History of Afghanistan*, 231.

<sup>69</sup> *Ibid*, 232.

<sup>70</sup> Amstutz, *Afghanistan, The First Five Years of Soviet Occupation*. 40-42.

<sup>71</sup> Tanner, 233.

Soviets deployed 80,000 troops, 750 tanks and 2100 other vehicles. With this force, the 40<sup>th</sup> Army controlled every major city and the Afghani ring road.<sup>72</sup> However, Afghanistan's tribes were stirring.

Tanner and Amstutz both provide a good overview of Soviet strategic decision-making and the operational execution of the invasion itself. By most accounts, the Soviets solidly executed a complicated plan that understood Soviet doctrine and operational art. The Army they planned for, the Afghan Army was overwhelmed in short order. However, they fundamentally misunderstood the enemy they would face. When the tribes rose in revolt, the mujahedeen achieved fundamental surprise that would eventually lead to catastrophic Soviet military failure. By the end of 1980, the Soviet Army faced a counter-insurgency for which they were unprepared doctrinally or through training.<sup>73</sup> By 1981, the Afghan militias controlled 75-85% of the countryside while Russian forces remain tied to the cities and military bases. Over the next few years, 40<sup>th</sup> Army would repeatedly launch large-scale mechanized attacks supported with air assault infantry and Spetsnaz forces (Soviet special forces) that would achieve local limited tactical success. However, the mujahedeen would replace losses and retake ground lost as soon as Soviet forces withdrew. Afghan militiamen would fade away while Soviet heavy artillery and air support devastated towns and their civilian population.<sup>74</sup>

This basic overview of the Soviet's operational art is important because it instilled several myths that continue to bedevil US military planning. An evaluation of the conflict warrants a closer look at Soviet operational art and tactical integration to understand why they failed. At the operational level, Tanner and Amstutz make a strong case that Soviet 40<sup>th</sup> Army attacked Afghanistan with the wrong operational mindset and doctrinal organization. By targeting the Afghan Army's ground forces, the Soviets jettisoned the historical dichotomy that Afghan militiamen are the country's traditional fighting strength. Once the 40<sup>th</sup> Army eliminated the Afghan Army, it did not adjust to the insurgency. Amstutz

---

<sup>72</sup> Tanner, 235-236.

<sup>73</sup> Amstutz, 127.

<sup>74</sup> Ibid, 143-146.

states that the Soviets attempted four counter-insurgency concepts: intimidation and genocide, reprisals, subversion and military forays.<sup>75</sup> In general, almost everything the Soviets tried operationally drove more of the population into the mujahedeen's arms. Mass bombings of Herat and other cities, suspected use of chemical weapons and military operations that never attempted to maintain its presence among the population where hallmarks of Soviet operational art devoid of any attention to actually conducting effective counter-insurgency operations.

Soviet doctrine and training magnified operational strategy failures by the 40<sup>th</sup> Army. Lester Grau's translation of the Soviet General Staff's *The Soviet-Afghan War* illustrates a key point. The Soviets designed the 40<sup>th</sup> Army for short duration, high tempo attacks against NATO and China.<sup>76</sup> Afghanistan's insurgency would be neither. In combination with the aforementioned lack of a coherent counter-insurgency strategy, Soviet tactical actions would consist of high tempo, short duration attacks that achieved varying degrees of success. Those battles that integrated mechanized units in conjunction with air assault forces seizing key terrain invariably generated good results in terms of insurgents killed and weapons caches seized. Short duration, tactical surge battles took ground and killed some insurgents but did not clear and hold human or even geographic terrain for Soviet forces. In fighting the Afghani insurgency, Soviet tactical success actually reinforced operational failure.

These operational failures overshadow Soviet tactical achievements that injudiciously advised American efforts in Afghanistan. Without a doubt, the Soviets proved that their heavy forces, T62 tanks, BMP-2, and BTR-80 infantry fighting vehicles could fight effectively throughout the country. In May 1982, the Soviets concentrated 12,000 soldiers from the 66<sup>th</sup>, 860<sup>th</sup>, 191<sup>st</sup> Separate Motor Rifle Regiments, and 345<sup>th</sup> Parachute Regiment attacked into the Panjshir River and Gorband Valleys in the Hindu Kush northeast of Bagram. Over the next three weeks, Soviet ground forces averaged 8-10 km a day attacking

---

<sup>75</sup> Amstutz, 144.

<sup>76</sup> Grau, *The Soviet-Afghan War*, 310.

up both valleys. Armored forces successfully employed tank and infantry vehicle weapons to destroy enemy positions. Supporting the ground force, Soviet and Afghan Army light battalions seized high ground along the valley floors to support ground maneuver. By the end of the operation, Soviet 40<sup>th</sup> Army destroyed 10 Islamic committees, the command cells of the Panjshir, Parvan and Kapista provinces, multiple weapon caches, and secret guerrilla documents that provided the Islamic Society of Afghanistan's command structure.<sup>77</sup> This operation in scale and scope was similar to the 1<sup>st</sup> Marine Division's attack against Fallujah; however, 40<sup>th</sup> Army withdrew the force, receding back to its bases and conceding contested ground back to the insurgents. In contrast, MG Natonski's forces held Fallujah and denied it to the Sunni insurgency.

Grau highlights another Soviet parachute infantry commander, LTC Romanov. In 1984, he received a tank company and engineers to support his unit. Establishing two columns with integrated combined arms, LTC Romanov's troops attacked into militia held territory for over 72 hours of near continuous contact. His efforts defeated the enemy and seized several weapons caches, but his previously planned withdrawal allowed the mujahedeen to regain control after his battalion's departure.<sup>78</sup> The Soviets also employed heavy forces to secure remote combat outposts and secure lines of communication.<sup>79</sup> The Soviet Army executed hundreds of tactical level sweep and clear missions, encirclements and blocking actions using effective combined arms.<sup>80</sup> To reiterate, when the Soviets attacked in force and massed their armor – they were successful. When they did not, the mujahedeen took advantage.

---

<sup>77</sup> Grau, 72-83.

<sup>78</sup> Ibid, 192.

<sup>79</sup> Ibid, 193-194.

<sup>80</sup> Grau, *The Bear Went Over the Mountain*. 1991. In this book, Grau and the Soviet Frunze Academy documented tactical lessons learned from the Soviet-Afghan War. In this book, the Soviets attempted to pass lessons learned from combat and recommended courses of action for future operations. The book covers airborne, air assault, mechanized and aviation forces actions on contact and illustrate Soviet tactical successes (and failures) despite their operational lack of planning.

Soviet armored forces had faults. Poorly planned operations, high visibility on the battlefield, and logistics requirements hampered Soviet operations. Grau and Ali's *The Other Side of the Mountain* confirms both views of Soviet tactics.<sup>81</sup> When complacency set in and discipline broke down, the mujahedeen struck hard. The Soviet Army learned what worked eventually at the tactical level and generally executed competent combined arms operations. As the Afghan War persisted, the Soviet Union reduced its heavy force inventory to meet counter-insurgency requirements; however, they did not get rid of armor completely.<sup>82</sup> Throughout its deployment in Afghanistan, Soviet heavy forces operated nearly at will. The Soviets operated in mountainous terrain, within equipment limits. Light forces occupied ground the heavy force could not reach. 40<sup>th</sup> Army's failure to coordinate its tactical efforts into a coherent whole is more to blame for the Soviet failure in Afghanistan than its tactical efforts.

## **NATO Operations in Afghanistan**

Iraq demonstrated that US Army combined arms integration works and that it knows how to do it well. The Soviet experience reveals that heavy forces can operate effectively in Afghanistan despite some of their inherent drawbacks. The Army must understand the historical similarities and more importantly, the differences between its operations in Iraq and Afghanistan now and the historical Soviet experience. In 2001, the United States invaded Afghanistan in order to eliminate Al Qaeda and the Taliban harboring them. The National Command Authority tailored the invasion force to be very small and flexible, heavily reliant on Special Forces and joint firepower. During initial operations, the strategy worked. The Taliban were driven out and Al Qaeda hurt. In other words, the United States successfully executed a Counter-

---

<sup>81</sup> Grau and Ali, *The Other Side of the Mountain*. This book presents the Afghan militia's side of the story. Numerous engagements demonstrate Soviet and Majuhideen strengths and weaknesses in facing each other.

<sup>82</sup> Grau, 196-197.

Terrorist strategy. If Ralph Peters is right, then we should have left soon after dismantling the terrorist regime in Afghanistan.<sup>83</sup> However, this is not the course of action the United States pursued.

After routing the Taliban, America embarked on massive reconstruction efforts to build a stable regime in one of the most backward countries on the planet. Al Qaeda and the Taliban slowly regrouped in Pakistan and returned to Afghanistan to conduct a traditional Afghan guerilla war. In face of the new threat, America decided to fight an under-resourced counter-insurgency operation with NATO support under a US-led counter-terrorism campaign. As late as 2008, Anthony Cordeman's Congressional testimony underscored this confusion when he said, "Our problems, however, are far more serious than a failure to properly characterize the situation and communicate it to the American people. We have never had an effective strategy for winning the war in Afghanistan and Pakistan, and we have never provided the resources that have been needed to win."<sup>84</sup> COL Conrad Booth reinforces this perception in *Military Review* stating, "The environment in Afghanistan has significantly changed since 2003. It no longer reflects the assumptions of a relatively benign environment, as in 2003, when NATO first undertook the UN ISAF mandate for that nation."<sup>85</sup>

In late 2009, US policy changed. On December 1, 2009, the Obama administration articulated a new Afghanistan strategy, and more importantly, the President reinforced US forces in Afghanistan with 30,000 additional US personnel.<sup>86</sup> With this change in strategy, and more critically, the resources to execute the President's strategy, the United States must re-look how it will fight this war. There are two key differences between US and Soviet efforts in Afghanistan. First, the United States is executing a

---

<sup>83</sup> In open remarks to AMSP Class 2010-01 on March 10, 2010, Mr. Peters argued that the strategic policy makers should consider raids as a viable policy option against terrorism. In terms of blood and treasure, this represents a cost effective solution for complex problems.

<sup>84</sup> Cordesman, Congressional Testimony, 9.

<sup>85</sup> Booth, Conrad. 6.

<sup>86</sup> Montopoli, Brian, "Obama lays out new Afghan Strategy." CBS News, accessed 13 March 2010 from <http://www.cbsnews.com/stories/2009/12/01/politics/main5855734.shtml>.

counter-insurgency strategy that theoretically should work if given political backing. General McChrystal's command, the International Security and Assistance Forces (ISAF), developed a long-term plan to secure the population, concentrating on the rural population which is the bulk of the Afghan people. As exhibited earlier, the Soviets never formed a true counter-insurgency plan and failed catastrophically. Secondly, General McChrystal demanded that coalition forces accept extraordinary risk to prevent civilian casualties. He ordered stringent rules of engagement to reduce collateral damage by indirect and joint fires. Riflemen gain positive identification before killing suspects. Sharing the road with the civilian population is mandatory. ISAF's efforts should counter Cordesman's 2008 testimony in which he stated, "Civilian casualties in U.S. or NATO/ISAF air strikes are a key irritant. Seventy-seven percent of Afghans call such strikes unacceptable, saying the risk to civilians outweighs the value of these raids in fighting the Taliban. Forty-one percent chiefly blame U.S. or NATO/ISAF forces for poor targeting, vs. 28% who mainly blame the insurgents for concealing themselves among civilians."<sup>87</sup> Successful heavy-light integration is essential in order to maximize tactical and operational capabilities while simultaneously reducing casualties to both coalition forces and the civilian populace by unintended collateral damage. General McChrystal changed Rules of Engagement to reflect one of FM 3-24's key tenets – protect civilians. Heavy forces, employed correctly, provide immediate pinpoint fire support and limit civilian casualties.

All of these efforts are diametrically opposed to Soviet positions and provides an opening for employment of US Army heavy forces in Afghanistan in limited numbers. Most of Afghanistan's population lives in rural river valleys or the towns. As proven by Soviet armor, US heavy forces can operate in these locations. The insurgency attacks coalition forces with IEDs, mortars, and small arms fire. US heavy forces could allow light forces to dominate these threats. Combined with General McChrystal's population protection priorities, heavy forces can protect the population at a reduced cost to

---

<sup>87</sup> Cordesman Congressional Testimony, 6.

light infantrymen. US reliance on its non-commissioned officers to enforce field discipline would mitigate the worst Soviet offenses with regard to local security at isolated combat outposts. No insurgent force – Iraqi or Afghani-has defeated a US platoon-sized unit in either war. In contrast, the mujahedeen routinely commonly seized Soviet positions, personnel and equipment.

In certain roles, NATO and USMC heavy forces proved tactically effective. Already, NATO and the USMC replicated Soviet efforts in providing tactical overmatch, route clearance, convoy escort and force protection. Bob Bergen writes, “You don’t see, hear or read much about them, but Canada’s new Leopard 2A6M tanks thundered into Canadian history recently when one crew destroyed a Taliban mortar detachment in Afghanistan with a 120-mm HEAT round. The tanks also figured prominently in combat that forced the Taliban to retreat from the Arghandab District in late October after it launched a major offensive north of Kandahar to seize the weapons cache of a former warlord.”<sup>88</sup> In Bergen’s article with the Canadian Tank Battalion Commander, Lt.-Col. Pascal Demers, Demers remarked that the Leopard II saves lives due to its armor protection. With regard to his effectiveness he asserts, “In terms of confidence in the equipment, it gives the infantry a certain amount of comfort. If the enemy wants to mix it up, they are happy to have that extra firepower and protection. And, the firepower is instantaneous – as opposed to air power or artillery – which can take a few minutes. There is nothing quite like firing right away.”<sup>89</sup>

The USMC is also operating heavy forces in Afghanistan. Highlighting their route clearance and breaching capability, the Marines Assault Breaching Vehicle is a M1 tank variant that marries the M1 tank hull to heavily armored plowing blades and line clearing charges to clear Improved Explosive Devices and mines.<sup>90</sup> During operations in Helmand Province, Marine Regimental Combat Team 7 brought its heavy armored forces to support its light infantry, secure lines of communications, and breach

---

<sup>88</sup> Bergen, “Canadian Tank Squadron’s Success Goes Unnoticed in Afghanistan.” 1.

<sup>89</sup> Bergen, 2.

<sup>90</sup> Yahoo News, accessed 2 February 2010.  
[http://www.yahoo.com/news&ref=&url=http%3A%2F%2Fnews.yahoo.com%2Fs%2Fap%2F20100211%2Fap\\_on\\_re\\_as%2Fas\\_afghan\\_the\\_breacher](http://www.yahoo.com/news&ref=&url=http%3A%2F%2Fnews.yahoo.com%2Fs%2Fap%2F20100211%2Fap_on_re_as%2Fas_afghan_the_breacher)



mined areas.<sup>91</sup> The Marines duplicated Soviet means in a limited, but militarily effective manner. The ABV shrugged off large IED blasts that experts note would have shattered a MRAP.

It is important to note that NATO Allies including Germany, Canada and the Netherlands deployed small contingents of armored forces to support their infantry. The recent American force surge included a Marine Expeditionary Brigade that brought its heavy component with it. The US deployed 5th Brigade, 2d ID, a Stryker BCT. However, the Stryker does not provide the same armor protection or firepower that is inherent in the heavy force fighting vehicles. The US Army would do well to follow General Mattis' argument that armor, and specifically the M2A3 Bradley, ought to be deployed in small packets to provide dedicated fire support to light forces. This Bradley, with attached reactive plates, is survivable, provides protected firepower beyond the rifle squad's 300 meters, and is more logistically sustainable than M1 tanks. With this in mind, heavy brigade armored reconnaissance squadrons might be the unit of choice to integrate with IBCT's in theater.<sup>92</sup> The Afghanistan Study Group rightly denotes, "While zero civilian casualties may not be an attainable goal given the nature of the enemy and the battlefield, the U.S. and NATO should continue to minimize civilian casualties. We should be judicious in the frequent use of air power, erring on the side of caution when civilian casualties are probable."<sup>93</sup> As proven in Tal Afar, heavy forces can mitigate this problem. In addition to reducing civilian casualties, armored protection reduces friendly casualties. In light of 2009's uptick in soldiers lost in combat, the Army must pursue all means to maximize US military effectiveness.

---

<sup>91</sup> Marine Times Online article posted on You Tube. Accessed 13 March 2010.  
<http://www.youtube.com/watch?v=p0TMZGKKU3Q&feature=related>

<sup>92</sup> Armored Reconnaissance Squadrons consist of three troops of M2A3 and HMMWV vehicles. Each troop maintains two platoons of scouts, equipped with 3 M2A3's and 5 HMMWVs. The Troop Commander has 1 M2A3. The squadron could expect to deploy 22 M2A3's and 30 uparmored HMMWV's to support light brigades.

<sup>93</sup> Afghanistan Study Group, 14.

## Conclusion - A Road Ahead

### The Heavy Force in the Today's Wars

The United States Army has a strategic responsibility to integrate all of its innate combat power into an overwhelming tactical force capable of enabling operational ways and accomplishing strategic means. Handicapping future contingency operations by failing to deploy armored units as an integral part of the joint force is a grievous error in judgment. There will be some locales that terrain, political considerations, and local popular grievances would preclude military commanders from deploying heavy forces. The Army must suppress these impulses. Iraq shows that heavy-light integration achieves operational success. Strategic success remains to be seen. Somalia may illustrate that Army forces without heavy-light integration can fail.

Heavy forces by their nature can be more destructive by intention as well as accident. FM3-24.2 correctly states that patrolling from armored vehicles solely “limits a unit’s ability to interact with the population, and should be used as a last resort.”<sup>94</sup> This statement reflects a bad technique, and does not preclude the use of armored forces. Doctrine is important. It is interesting to note that the basic Infantry and Armor doctrinal publications very briefly describe how to integrate heavy forces with light infantry. However, FM 3-90.06 is superb. It states, “While urban operations historically have consisted of a high density of infantry-specific tasks, urban operations conducted purely by infantry units have proven to be unsound. Properly tasked-organized combined arms teams consisting primarily of infantry, engineers, and armor supported by other combat, combat support and combat service support assets have proven to be more successful both in the offense and defense.”<sup>95</sup> FM 3-24 follows, “If available, armored vehicles should be ready to rapidly reinforce urban patrols to provide additional firepower.”<sup>96</sup> Combining 3-90.06

---

<sup>94</sup> FM 3-24 Counter-Insurgency Tactics, pg 6-28.

<sup>95</sup> FM 3-90.06, 1-14.

<sup>96</sup> FM-3-24 Counter-Insurgency Tactics, pg 5-34.

with FM 3.24 is the doctrinally construct for employing the heavy force in operations short of major combat operations.

Although basic branch doctrine can be improved; the Army's doctrine remains sound. Training matters. COL McMaster's training program initiated his regiment's success in Tal Afar. When describing the situation he expected his unit to face in Iraq, he reached the conclusion that the military threat on the ground was an insurgency, calling therefore for counterinsurgency strategy. He encouraged his unit to think and behave differently. Rather than the "kill-capture" strategy of 2003 and 2004, the new counterinsurgency thinking, officially termed "clear, hold, and build," explicitly recognized that the solution is partly military and that the lethal, somewhat indiscriminate use of force so productive in a conventional battlefield, here is essentially counterproductive.<sup>97</sup>

Understanding the new dynamic in Iraq, COL McMaster established a training regime requiring each soldier would train as a light infantryman – regardless of military specialty. According to one sergeant, "Everybody got training in dismount training and four-man stack training and live-fire convoy exercises. Matter of fact, [Col. McMaster] pulled all the support guys together. He was like, look, you're gonna be the fighters. You are my killers. You are the guys who really need to get your ground convoy operations under a handle."<sup>98</sup> Soldiers received Iraq-specific training to include role-playing by Iraqi expatriots. In addition, the unit also developed Iraq-specific training scenarios. COL McMaster mandated the study of Iraqi history and culture. He also sent troops to conversational Arabic classes at a local university.<sup>99</sup> Finally, Col. McMaster repeatedly stressed that only a small fraction of the population was hard-core insurgents. 3d ACR deployed with a different mental toolbox for dealing with insurgents, yet incorporated counter-insurgency techniques with the firepower resident in an Armored Cavalry Regiment. Training matters.

---

<sup>97</sup> Packer, 6.

<sup>98</sup> Ibid, 6

<sup>99</sup> Ibid, 7.

Training and doctrine are useless if misapplied. The application of history to understand the differences between unique situations is remains critical in applying operational art and science. In 1980, Soviet doctrine, training, and operational art failed. The Soviet Afghanistan invasion and America's Vietnam experience are strikingly similar. Both nations were superb tactically, but failed operationally to make anything of their tactical successes. Both failed to understand the populace and both failed to implement effective counter-insurgency campaigns. In Iraq, the US finally shifted under General Petraeus to a winning counter-insurgency strategy. Army doctrine and training were not an issue. If anything, American training and doctrinal success bought time for military commanders to alter the operational strategy.

In Afghanistan, America gradually transitioned from counter-terrorism efforts to counter-insurgency operations. Due to its concern with Iraq, America neglected Afghanistan and under resourced this war for years. Fortunately, success in Iraq and new presidential leadership allowed the United States to reinforce its effort in Afghanistan. General McChrystal developed a potential road to success in Afghanistan. Although deploying limited heavy forces to Afghanistan is not a pre-requisite for victory, armored formations would craft opportunities to further implement General McChrystal's strategy. First, M2A3 Bradley protected precision fires would reduce excessive collateral damage to civilian life and property, enhancing his drive to protect Afghan civilians, while still providing tactical overmatch to coalition troops. Second, heavy forces could allow tactical commanders to conduct economy of force missions on base security, route clearance and securing lines of communication. Finally, heavy forces save American lives. Armor protection is valuable in any situation.

## **Integrating Heavy and Light Forces in the Future**

The current focus on the war in Afghanistan and its seeming reliance on light forces may relegate the heavy force to a second-tier status within the United States Army, reducing the Army's overall effectiveness in the contemporary operating environment. In Iraq, the Army's heavy force skill set atrophied as units continually deployed without their fighting vehicles. 3d ACR's training regime became

normal for heavy brigades preparing for Iraq. In recent training center rotations, counter-insurgency fundamentals dominate with little regard for major combat operation considerations. Additionally, heavy-light integration training opportunities fell as the Army struggled to maintain 16 deployed brigades. In fighting today's wars, these observations are logical extensions of the Army stretching to meet its land power obligations to the nation. It is critical for the Army to learn from its experience, both major combat and counter-insurgency operations, to balance the future force to respond across full spectrum contingencies.

Training and doctrine set the foundation for the Army's expeditionary forces. The Army must blend training and doctrine between heavy and light forces to meld their capabilities across the entire Army. The first step is to analyze the Army's combat experience from Iraq and USMC and Allied Afghanistan combat experience into a coherent whole. The Army must then integrate tactical capability between heavy and light forces and their combat service support requirements. In order to inculcate the last decade's combat experience into the future force, lessons learned must be written into doctrine and trained during the ARFORGEN cycle. Finally, the Army must begin to deploy heavy-light integrated brigades – depending on the joint force commander's requirements.

The Army must deploy integrated brigades. Future wars will require brigade combat teams that harness heavy, light and Stryker capabilities. Integrated brigades give joint force commanders operational flexibility because they can dominate enemy forces throughout human and geographic terrain. ARFORGEN already establishes parallel training timelines between heavy and light brigades. What is needed is to link specific units with each other to satisfy joint force commander requirements. This generates force pools that are familiar to each other and better able to integrate heavy and light forces. Deploying forces that trained together is the last logical step. This concept is extremely flexible in meeting a joint force commander's operational requirements.

A more radical solution may be a return to what 2d Brigade Combat Team, 2nd Infantry Division, used to have on the Korean peninsula. This brigade was permanently organized with two light battalions and a heavy task force that lived and trained together. In Keith McKinley's article, his unit

“learned a lot about the integration of light and heavy forces. Many of the lessons were painful, as I sat through many “humbling” after-action reviews in which every’ mistake I made was brought to light.”<sup>100</sup> The tips he shared in his article from 2002 directly correlate with LTC Ingram’s comments in 2003: Understand heavy/light linkup operations, fratricide prevention, light and mechanized units complement each other’s capabilities, and understanding the CSS plan is crucial for both forces.<sup>101</sup> This option is highly unlikely in the near future. It would be expensive and force the Army to drastically alter its entire brigade inventory, but it has historical precedent.

In the past, capabilities and liabilities of the heavy force’s combat roles in our nation’s wars seem to dictate its employment in combat operations rather than the commander’s operational or tactical requirements. The heavy force is going to be a critical component of the 21<sup>st</sup> Century Army. Soviet Afghanistan and Iraq experiences ripped away false perceptions. What the Army needs now is a fundamental change in how military commanders and strategists think to employ the heavy force (integrated with its light and Stryker forces). Iraq and the Soviet invasion of Afghanistan both clearly demonstrate that heavy forces have a role to play in counter-insurgency campaigns. The Army should deploy small numbers of armored units to support operational and tactical requirements in theater. NATO allies and the USMC led the way; the Army must follow suit not just in Afghanistan, but in how it trains and deploys its entire force structure for contingency operations. In the future, the Army must recognize that the Marines already provide integrated heavy-light forces. They just do not have as many to go around. As the proponent for the nation’s land power, the Army must orchestrate land force doctrine, training and deployment that incorporate the Army’s entire inventory. Fourth generation warfare is the future for many of our potential adversaries, and the Army must integrate tank and Bradley capabilities into this fight and the next.

---

<sup>100</sup> McKinley, 1.

<sup>101</sup> Ibid, 2.

## APPENDIX 1

### Commander, TF 2-70 Armor, Personal Accounts from OIF

LTC Ingram's command faced multiple issues in its march north. He illustrated these major integration points between heavy and light forces. LTC Ingrams's tactical pace and movement differences in operating with light forces:

“Task Force 2-70 Armor led the 3rd BCT's 8 April 2003 attack on Al Hillah and Babylon. As part of the attack, a route clearance tank company secured two key intersections and a bridge in Al Hillah to be quickly relieved by the follow on rifle battalion. Twenty minutes after crossing the Line of Departure, the Task Force, minus the tank company guarding intersections, exited Al Hillah and began to clear objectives in Babylon. A call to the follow on force commander revealed that the follow on Battalion was not planning to begin its movement for another hour and twenty minutes. The light force was thinking at dismounted movement speeds while the heavy force was thinking at mounted movement speeds. The light force was moving dismounted and its analysis showed that the heavy mounted force would not be clear of the Line of Departure for another hour and the first intersection for another hour and twenty minutes. The heavy force commander thought the light force would be right behind him and that his company guarding the intersections would be relieved within minutes and then be available to seize objectives in Babylon. Neither force was familiar with the thoughts, limitations, and capabilities of the other. Had the two dissimilar forces worked and trained closely together in the past and trained as a team this situation would not have occurred.”<sup>102</sup>

LTC Ingrams's tactical movement training and light mobility operating with light forces:

---

<sup>102</sup> Ingram, personal recollection, “Where's the Heavy-Light Integration?” 8-9. COL Ingram's entire description of these three points is in Appendix 1.

“When the Task Force linked up with COL Anderson and the 2nd BCT at Al Kifl he immediately attached Company C, 1-502d Infantry (Air Assault), to the Task Force. The Task Force commander cross attached a tank platoon to that company, which was guarding a bridge over the Euphrates, to give them some additional firepower and a more robust night thermal capability and the next morning cross attached an Air Assault platoon to Company B, 2-70 Armor to give that company an Infantry capability. As the Task Force prepared for the next morning’s feint towards Al Hillah it dawned on the company and Task Force commanders that there was no way the cross attached Infantry platoon could move itself from the Line of Departure the 15 to 20 kilometers to the Limit of Advance. Given the speed of the tanks and distance involved there was no option but to put the Infantry on the tanks, a technique that no one involved had ever done before. They were familiar with the Fort Knox Pamphlet that detailed how to mount the infantry on the tanks although it did not account for the space nullified by the addition of the anti fratricide panels mounted on the sides and back of the tank turret. The company commander was uncomfortable with the concept since no one involved had ever done it before and the Infantry would be sitting exposed on the sides and back of the tanks. They identified a probable line of contact and the Task Force Commander told the company commander to dismount the infantry short of that line. The designated line was 100 one hundred meters too far to the North which led to the death of a 101<sup>st</sup> soldier at 0430 on 31 March 2003 as he rode into combat on the back of the company commanders M1A1 tank. If the Task Force had trained with the Light Infantry in the past and been more in tune with what was a threat to them versus what was a threat to us the Task Force and the company commander would have been more skilled at knowing when to dismount the Light Infantry from the tanks.<sup>103</sup>

His third key point is fundamental logistics constraints.

“The Task Force was attached and was going to integrate and fight with a dissimilar organization with which it was unfamiliar and for which it had never trained. Over the next 42 days, Task Force 2-70

---

<sup>103</sup> Ingram, 25-26.



Armor remained attached to the 101st Airborne (Air Assault). The Task Force was initially attached to the 2d BCT commanded by COL Anderson. One of the first questions he asked the Task Force commander was about how much fuel he needed. The reply, “about forty-five thousand gallons a day,” brought the conversation to an abrupt halt. Had fuel become an issue the 101st leaders and logisticians would have taken whatever action was necessary and diverted whatever assets were necessary from the remainder of the Division to ensure the heavy Task Force remained mobile and able to fight. However; the 101st was not prepared to assume the logistical responsibilities for the heavy Task Force. While the short term logistical shortfall of fuel resupply was readily solved, the long term shortfall, spare parts to keep the heavy equipment operational, was never solved. The long term tactical advantages of integrating heavy forces with the light infantry, under the light infantry support structure was almost nullified because of logistics shortcomings.

## APPENDIX 2

### Proposal for Heavy-Light Sister Relationships

The eventual Base and Realignment Plan templates Army BCT's at the following locations. The information presented is based on GEN Casey's direction to convert 1/1AD and 3ACR to Stryker Brigades upon their redeployment from OIF. This map is a reference tool.



#### Possible ARFORGEN Training Alignment

	Deployed	Training-Ready	Regeneration
HBCT			
IBCT			
SBCT			
Korea			

Within the construct on the previous page, heavy, light and Stryker Brigades would train together in the same ARFORGEN cycle. In a perfect world, FORSCOM dictates which brigades will task organize to support operational requirements, and realigning brigades internally to generate the required mix for full spectrum operations. As an example, joint force planning indicates that four heavy brigades, a Stryker brigade and three infantry brigades will deploy for a contingency operation. In this variant, each heavy brigade loses heavy task forces, which are replaced with three light battalions and a Stryker battalion. This generates eight brigades that are integrated between heavy and light forces, capable of conducting full spectrum operations. Based on the theater they are deploying to, FORSCOM then tailors the training program to support full combat readiness for each brigades' prospective deployment location.

## BIBLIOGRAPHY

- Afghanistan Study Group Report: Re-vitalizing Our Efforts, Rethinking Our Strategies. Chaired by Jones, James L. General, USMC (Ret.) and Ambassador Thomas R. Pickering. Washington, DC: Center for the Study of the Presidency. January 30, 2008
- Amstutz, J. Bruce. *Afghanistan, The First Five Years of Soviet Occupation*. Washington DC: National Defense University Press, 1986.
- Bahmayar, Mir. *Afghanistan Cave Complexes 1979-2004*. Oxford, UK: Osprey Publishing, 2004.
- Barnett, Thomas P.M. *The Pentagon's New Map*. New York: Putnam Publishing Group, 2004.
- Barnett, Thomas P.M. *Blueprint for Action*. New York: Berkeley Group, 2005.
- Bergen, Bob. "Canadian Tank Squadron's Success Goes Unnoticed in Afghanistan." Canadian Defense & Foreign Affairs Institute (CDFAI). Calgary, Alberta. [www.cdfai.com](http://www.cdfai.com).
- Booth, Brad. "Winning in Afghanistan: A NATO Operational Design." Carlisle, PA: Army War College, 2008.
- Bowden, Mark. *Black Hawk Down*. New York: Penguin Books, 2000.
- Brewster, Murray. "Bring tanks: Canadians tell Afghan-bound Americans," Canadian News, 2006. Accessed 21 October 2008.
- Carron, Ryan T. "Hezbollah: Operational Art in Fourth Generation Warfare." Newport, RI: Naval War College, 2006.
- Center for Army Lessons Learned Handbook No 02-8. "Operation Enduring Freedom." Fort Leavenworth, KS: CGSC, 2002.
- Center for Army Lessons Learned Handbook No 03-35. "Operation Enduring Freedom II." Fort Leavenworth, KS: CGSC, 2003.
- Center for Army Lessons Learned Handbook No 05-06. "Operation Enduring Freedom III." Fort Leavenworth, KS: CGSC, 2005.
- Center for Army Lessons Learned Initial Impressions Report. "Stability Operations Support Operations, Operation Iraqi Freedom." Fort Leavenworth, KS: CGSC, 2003.
- Center for the Study of the Presidency. "Afghanistan Study Group Report: Revitalizing Our Efforts, Rethinking Our Strategies," Washington DC: 2008. ([www.thePresidency.org](http://www.thePresidency.org)) Accessed 25 August 2009.
- Chiarelli, Peter GEM, MAJ Patrick Michaelis, MAJ Geoffrey Norman. "Armor in Urban Terrain: The Critical Enabler," *Armor*, March-April 2005.
- Cordesman, Anthony. "The Crisis in Afghanistan: Statement before the House Armed Services Committee." Washington, DC: Center for Strategic and International Studies, 2009.
- Cordesman, Anthony. *The Iraq War: Strategy, Tactics and Military Lessons*. West Port, CT: Praeger, 2003.
- Dzundza, George, quoted from the movie, "The Beast of War." 1988. Accessed 13 March 2010 from <http://www.imdb.com/title/tt0094716/quotes>.
- Erhart, Thomas. "Increasing small arms lethality in Afghanistan: Taking back the infantry half-kilometer" CAC: Fort Leavenworth, KS. 2009

- Fontenot, Gregory & E. J. Degen & David Tohn. *On Point: The United States Army in Operation Iraqi Freedom*. Fort Leavenworth, KS: Combat Studies Institute Press, 2004.
- Foreign Military Studies Office. *The Bear Went Over the Mountain*. Edited by Lester W. Grau. Washington DC: National Defense University Press, 1996.
- Foreign Areas Study, American University. Ed. Nyrop, Richard F and Donald M. Seekins. *Afghanistan, a Country Study*. Washington DC: US Government Printing Press, 1986.
- From Inside Afghanistan, Collection of Foreign Dispatches*. CGSC Library, Houtchen Bindery, Nebraska, 1988. (All other data in the book has been removed.)
- French, Mark A. "The Armor Force in Contingency Operations: Do We Have the Right Tactical Doctrine." Fort Leavenworth, KS: CGSC, 1991.
- Galula, David. *Counterinsurgency Warfare: Theory and Practice*. New York: Praeger Publishes, 1968.
- Goodson, Larry P. *Afghanistan's Endless War*. Seattle: University of Washington Press, 2001.
- Gott, Kendall D. ed. "Eyewitness to War Volume I: The US Army in Operation Al Fajr: An Oral History." Fort Leavenworth, KS: Combat Studies Institute Press, 2006.
- Gott, Kendall D. ed. "Eyewitness to War Volume II: The US Army in Operation Al Fajr: An Oral History." Fort Leavenworth, KS: Combat Studies Institute Press, 2006
- Grau, Lester W. ed. *The Bear Went Over the Mountain: Soviet Combat Tactics in Afghanistan*. London: Frank Cass Publishers, 1998.
- Grau, Lester W. and Ali Ahmad Jalali. *The Other Side of the Mountain: Mujahideen Tactics in the Soviet-Aghan War*. Quantico, VA., 1995.
- Handy, Jack. Accessed 30 November 2009 from [www.listology.com/list/funniest-jack-handy-quotes-snl](http://www.listology.com/list/funniest-jack-handy-quotes-snl).
- Hollis, Patrecia Slayden. "Second Battle of Fallujah – Urban Operations in a New Way of War" Field Artillery Magazine, March-April 2006.
- Ingram, Jeffrey D. "Where is the Heavy-Light Organization in the Army's Future Force?" Fort Leavenworth, KS: CGSC, 2005.
- Kerns, Brian D. "Not Just an Infantryman's War: United States Armored Cavalry of the Vietnam War." Fort Leavenworth, KS: CGSC, 2006.
- Maloney, Sean M. *Enduring the Freedom: A Rogue Historian in Afghanistan*. Washington DC: Potoman Books, 2005.
- Matheny, Michael R. "Armor in Low Intensity Conflict." Fort Leavenworth, KS: CGSC, 1987.
- Matthews, Matt M. "We Were Caught Unprepared: The 2006 Hezbollah-Israeli War." Fort Leavenworth, KS: CSI Press, 2008.
- McCone, David R. Wilbur J. Scott and George R. Mastroianni. "The 3d ACR In TAL'AFAR: Challenges and Adaptations" Strategic Studies Institute's Of Interest, January 8, 2008.
- McKinley, Keith A. "Working with Light Fighters, Tips for Mechanized Company Commanders.:" Infantry Magazine, Summer 2002. Accessed 8 March 2010 at [http://findarticles.com/p/articles/mi\\_m0IAV/is\\_2\\_91/ai\\_106792184/](http://findarticles.com/p/articles/mi_m0IAV/is_2_91/ai_106792184/).
- Nakhleh, Hany T. "The 2006 Israeli War on Lebanon: Analysis and Strategic Implications." Carlisle Barracks, PA: US Army War College, 2007.
- NATO. "Afghanistan Report 2009," Brussels, BE: NATO Public Diplomacy Division, 2009.

- Ostlund, William B. "Tactical Leaders Lessons Learned in Afghanistan." *Military Review*, July-August 2009, Combined Arms Center, Fort Leavenworth, KS, 2009.
- Packer, George, "The Lesson of Tal Afar: Is It Too Late for the Administration to Correct Its Course in Iraq?" *The New Yorker* (10 Apr 2006), 48–65. (The 2005 success of the 3d Armored Cavalry Regiment with the clear-hold-build tactic in Tal Afar.)
- Paret, Peter, Gordon Craig, and Felix Gilbert. *Makers of Modern Strategy : from Machiavelli to the Nuclear Age*. Princeton, N.J.: Princeton University Press, 1986.
- Prados, Alfred B. "CRS Report for Congress, Lebanon 2006" Washington DC: Foreign Affairs, Defense and Trade Division, 2006.
- Quadrennial Defense Review 2010: Department of Defense, February 2010. Accessed via CGSC Blackboard Twenty-first Century Conflict Class on 28 February 2010.
- Record, Jeffrey. *Beating Goliath*. Washington DC: Potomac Books, 2009.
- Rocque, Ashley. "Army Combat Teams Lack Firepower." Inside Defense.com. Accessed from <http://www.military.com/features/0,15240,97505,00.html> 26 March 2010.
- Rouleau, Richard. "Have Gun Will Travel: The Tank Company in a Light Infantry Brigade." Fort Leavenworth, KS: CGSC, 2003.
- Russian General Staff. *The Soviet Afghan War: How a Superpower Fought and Lost*. Translated and edited by Lester W. Grau and Michael A. Gress. Lawrence, Kansas: University of Kansas Press, 2002.
- Smith, Neil. "Retaking Sa'ad Successful." Fort Leavenworth, KS: Combat Studies Institute Press, 2007.
- Tanner, Stephen. *Afghanistan: A Military History from Alexander the Great to the Taliban*. Revised Edition. Philadelphia, PA: Da Capo Press, 2009.
- Tomes, Robert. "Relearning Counterinsurgency Warfare". *Parameters*. Carlisle, PA: US Army War College (Spring 2004). Accessed 15 January 2010. [http://www.army.mil/prof\\_writing/volumes/volume2/march\\_2004/3\\_04\\_1.html](http://www.army.mil/prof_writing/volumes/volume2/march_2004/3_04_1.html)
- Turabian, Kate L. *A Manual for Writers of Research Papers, Theses, and Dissertations*. 7<sup>th</sup> ed. Chicago: University of Chicago Press, 2007.
- United States Army 2001. *Field Manual 3-90 Tactics*. Washington DC: Headquarters, Department of the Army, June.
- United States Army 2001. *Field Manual 3-90.06 Urban Operations*. Washington DC: Headquarters, Department of the Army, June.
- United States Army 2001. *Field Manual 3-0 Operations*. Washington DC: Headquarters, Department of the Army, June.
- United States Army 2006. *Field Manual 3-24 Counter-Insurgency*. Washington DC: Headquarters, Department of the Army, June.
- Wright, Donald P. & Timothy R. Reese. "*On Point II: Transition to the New Campaign*." Fort Leavenworth, KS: Combat Studies Institute Press, 2008.