

REGIONAL ALIGNMENT: PHASE ZERO LOGISTICS IMPLICATIONS

A Monograph

by

MAJ Curtis S. Perkins
United States Army



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

AY 2014-001

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.**

1. REPORT DATE (DD-MM-YYYY) 01-05-2014		2. REPORT TYPE SAMS Monograph		3. DATES COVERED (From - To) JUNE 2013 – MAY 2014	
4. TITLE AND SUBTITLE Regional Alignment: Phase Zero Logistics Implications				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Major Curtis S. Perkins, U.S. Army				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army School of Advanced Military Studies ATTN: ATZL-SWD-GD 1 Reynolds Ave. Fort Leavenworth, KS 66027-2301				8. PERFORMING ORGANIZATION REPORT	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT Regional alignment policy and the ability to operate with a globally responsive but regionally aligned construct will require adaptable sustainment organizations and doctrine for a changing operational environment. Post-Cold War policy and doctrine ignited a transformation of Army forces. Throughout the 1990's several deployments around the world suggested the need to shift away from a Cold War posture to deal with regional threats. To deter and respond to anticipated asymmetrical threats the US Army sought transformation of forces described as Force XXI. Entering the 21 st century amidst transformation efforts created challenges during Operation Iraqi Freedom (OIF). The success and failure of sustainment operations during the early stages of OIF illustrated the challenge of changing sustainment doctrine and organization structure to support a regionally aligned concept. Department of Defense budget cuts and subsequent reduction in military capabilities challenge the ways which the US Army will support regional alignment policy. To sustain operations in future operational environments, the US Army must retain the ability to establish sustainment priorities during phase zero. A way of approaching this challenge is adapting sustainment organization and doctrine for global responsive sustainment at the regional level.					
15. SUBJECT TERMS Regional Alignment, National Strategy, Phase Zero, Logistics Organizations, Logistics Doctrine					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			MAJ Curtis S. Perkins
U	U	U	UU	56	19b. TELEPHONE NUMBER (include area code)

MONOGRAPH APPROVAL PAGE

Name of Candidate: MAJ Curtis S. Perkins

Monograph Title: Regional Alignment: Phase Zero Logistics Implications

Approved by:

_____, Monograph Director
Robert T. Davis II, Ph.D.

_____, Seminar Leader
Jerry A. Turner, COL

_____, Director, School of Advanced Military Studies
Henry A. Arnold III, COL

Accepted this 22nd day of May 2014 by:

_____, Director, Graduate Degree Programs
Robert F. Baumann, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

REGIONAL ALIGNMENT: PHASE ZERO LOGISTICS IMPLICATIONS, by MAJ Curtis S. Perkins, Army, 56 pages.

Regional alignment policy and the ability to operate with a globally responsive but regionally aligned construct will require adaptable sustainment organizations and doctrine for a changing operational environment. Post-Cold War policy and doctrine ignited a transformation of Army forces. Throughout the 1990's several deployments around the world suggested the need to shift away from a Cold War posture to deal with regional threats. To deter and respond to anticipated asymmetrical threats the US Army sought transformation of forces described as Force XXI. Entering the 21st century amidst transformation efforts created challenges during Operation Iraqi Freedom (OIF). The success and failure of sustainment operations during the early stages of OIF illustrated the challenge of changing sustainment doctrine and organization structure to support a regionally aligned concept. Department of Defense budget cuts and subsequent reduction in military capabilities challenge the ways which the US Army will support regional alignment policy. To sustain operations in future operational environments, the US Army must retain the ability to establish sustainment priorities during phase zero. A way of approaching this challenge is adapting sustainment organization and doctrine for global responsive sustainment at the regional level.

TABLE OF CONTENTS

ABSTRACT	iii
TABLE OF CONTENTS	iv
ACRONYMS	v
INTRODUCTION.....	1
THE 1990s.....	7
THE OIF SUSTAINMENT EXPERIENCE	17
THE OIF LEGACY.....	32
REGIONALLY ALIGNED FORCES: ANALYSIS THROUGH DOCTRINE AND ORGANIZATION.....	39
CONCLUSIONS: IMPLICATIONS AND RECOMMENDATIONS FOR PHASE ZERO.....	45
BIBLIOGRAPHY	52

ACRONYMS

ADP	Army Doctrine Publication
ADRP	Army Doctrine Reference Publication
APS	Army Prepositioned Stocks
COSCOM	Corps Support Command
DISCOM	Division Support Command
FM	Field Manual
JOPES	Joint Operational Planning and Execution System
OIF	Operation Iraqi Freedom
QDR	Quadrennial Defense Review
RSOI	Reception Staging and Outward Integration
SB	Sustainment Brigade
TDC	Theater Distribution Center
TPFDL	Time Phased Force Deployment List
TSC	Theater Sustainment Command

INTRODUCTION

Not only are strategic and tactical plans limited by the feasibility of logistic support, but logistic plans themselves are subject to capabilities of the national economy, the availability of other resources, and the limitations of secondary requirements.¹

The policy of the Army's regional aligned forces concept is to provide US Army capabilities through the Army Force Generation process focused on a geographic region based on Combatant Commander's mission requirements.² The provision of Regionally Aligned Forces to Combatant Commander allows for the integration of planning and training for Combatant Command contingencies, focused language and cultural training, and provides predictable capabilities to the Ground Component Commander and Army Service Component Commanders. This concept provides readily usable cultural familiarity and builds capacity for Army brigades to operate in a complex environment with host-nation partners. Additionally, this concept shifts the Army focus from overseas contingency operations to a more predictable employment of Army forces to support each Combatant Commander's Theater Campaign Plan. In order to fulfill regionally aligned force requirements, the Army needs adaptable sustainment organizations and doctrine.³

Regional alignment of the total force will occur over the course of several years. According to the *Army Strategic Planning Guidance* (2013), a regionally aligned force is a near-term goal for transformation of Army capability. Mission tailored forces are the long-term goal in addition to regionally aligned forces, which optimizes a globally responsive but regionally

¹James Huston, *The Sinews of War: Army Logistics, 1775-1953* (Washington, DC: Office of the Chief of Military History, 1966), 663.

²The current Combatant Commands are US Special Operations Command, US Strategic Command, US Transportation Command, US Africa Command, US Central Command, US European Command, US Northern Command, US Pacific Command, and US Southern Command.

³Headquarters, Department of the Army, *Army Posture Statement*, May 2013, <http://usarmy.vo.llnwd.net/e2/c/downloads/302970.pdf> (accessed January 12, 2014), 4-5.

aligned posture for the Army. More specifically, mission tailored forces are programmed for a predetermined set of mission requirements and maintain proficiency in the fundamentals of decisive action. They also possess specialized training, organization, and equipment tailored for one or more specific missions.⁴

While the adjustment to regionally aligned forces is not instantaneous, the *Army 2020 Vision* along with *Army Sustainment 2020* provides a vision of how regionally aligned forces will develop. These documents codify concepts and problems with achieving regional aligned forces. Both documents indicate reduced capability to achieve strategic goals of the Army within the joint force structure. Within the scope of reduced capability explained in later sections, these documents do not attempt to match assets required to facilitate a globally responsive but regionally aligned force. *Army 2020 Vision* and *Army Sustainment 2020* explained tasks required to shape the future force but do not clearly outline how reshaping will support regional alignment policy. Within the “Army 2020 Update,” the operational environment is described as dynamic and rapidly changing. It provides insight on regional influences that are, or will become, factors for future operations. It characterized future operating environments as complex with hybrid threats within a denied area or region. US concepts like Air-Sea Battle and area access thru intermediate staging bases help counter these threats.⁵ This leads to the “Army 2020 Update” problem statement:

How do we transition from today’s force to the Army of 2020 in an era of fiscal austerity and still accomplish all that the Army must do as part of the Joint force? And

⁴Headquarters, Department of the Army, *Army Strategic Planning Guidance*, 2013, http://usarmy.vo.llnwd.net/e2/rv5_downloads/info/references/army_strategic_planning_guidance.pdf (accessed January 12, 2014), 5-6.

⁵Authur Bartell, “Army 2020 Update,” US Army Training and Doctrine Command, June 2012, http://defenseinnovationmarketplace.mil/resources/Army_2020_Charts.pdf (accessed October 13, 2013), 4-7.

subsequently. . . . How do we generate readiness and tie this process to a regional alignment strategy?⁶

In a time of transition, fiscal austerity, and reduction of capability, these questions present a challenge for the Army. Within the “Army 2020 Update,” all associated centers of excellence and Army force management agencies received tasks to develop courses of action to provide options on the approach to this problem. This paper focuses on sustainment implications of regional alignment and seeks to address challenges with fiscal austerity and readiness of sustainment forces.⁷

The Sustainment Center of Excellence, Combined Arms Support Command, produced the “Army 2020 and Beyond Sustainment” White Paper that provided insight on sustainment challenges associated with regional alignment. The central theme of the white paper is globally responsive sustainment.⁸ It outlined similar challenges as other Army documents with the current and future operating environments. The Combined Arms Support Command offered the following problem statement, “What must the future Army, as part of a joint and multinational force, do to integrate and synchronize operational and institutional sustainment forces and capabilities to effectively sustain Unified Land Operations?”⁹ This monograph assesses implications relative to this problem and provides recommendations to adapt sustainment capabilities for regional alignment.

⁶Ibid., 7.

⁷Ibid., 14.

⁸Combined Arms Support Command (CASCOM), “Army 2020 and Beyond Sustainment,” White Paper, August 30, 2013, <http://www.cascom.army.mil/PDF/Army%202020%20and%20beyond%20sustainment%20white%20paper%20globally%20responsive%20sustainment.pdf> (accessed November 19, 2013), 4.

⁹Ibid., 6.

The sustainment warfighting function is one of the eight elements of combat power.¹⁰ Sustainment replaced traditional logistics terminology by providing a broader scope of tasks to support Army units. This monograph uses sustainment and logistics interchangeably to reference types of units and their functions. The sustainment warfighting function is the related tasks and systems that provide support and services to ensure freedom of action, to extend operational reach, and to prolong endurance.¹¹ The Army White Paper provided a general characterization of sustainment, explaining that it has not experienced any revolutionary changes since the Civil War but has evolved based on capabilities, technology, and tactics.¹² To achieve globally responsive sustainment, the White Paper explained a similar approach within the evolution of future sustainment capabilities. This approach presents a challenge due to projected reductions in spending and the capabilities of the Department of Defense.

The concept of regional alignment is an approach to meeting the challenges of a complex operational environment. With smaller force capabilities and dispersed global requirements, Army sustainment capabilities cannot be an afterthought. Throughout history, an important attribute to the success of the United States military is its ability to project and sustain itself in conflict. During Operation Overlord in World War II, American forces used the United Kingdom as an intermediate staging base. For several months prior to the start of Operation Overlord, a key focus was logistics preparation prior to invading the European Continent.¹³ The trend of

¹⁰Headquarters, Department of the Army, Army Doctrine Reference Publication 3-0, *Unified Land Operations* (Washington, DC: Government Printing Office, October 2011), http://usarmy.vo.llnwd.net/e2/rv5_downloads/info/references/ADRP_3-0_ULO_Oct_2011_APD.pdf (accessed December 11, 2013), 3-1.

¹¹Headquarters, Department of the Army, Army Doctrine Publication 3-0, *Unified Land Operations* (Washington, DC: Government Printing Office, October 2011), http://usarmy.vo.llnwd.net/e2/rv5_downloads/info/references/ADP_3-0_ULO_Oct_2011_APD.pdf (accessed December 11, 2013), 14.

¹²Combined Arms Support Command, 7.

¹³Gordon A. Harrison, *Cross-Channel Attack* (Honolulu: University Press of the Pacific, 2002), 46-70.

projecting sustainment assets to set conditions for operations occurred in several conflicts that followed from the Korean War to Operation Iraqi Freedom (OIF).¹⁴

In US joint doctrine, the historical trend of setting logistics conditions is now referred to as phase zero. Phase zero is the first of six joint operations phases. Phase zero encompasses joint, multinational, interagency activities to achieve effects or objectives required to support the respective Theater Campaign Plan.¹⁵ In the event of a contingency or crisis, subsequent phases are typically conceived to be: phase I (deter), phase II (seize the initiative), phase III (dominate), phase IV (stabilize) and phase V (enable civil authority).¹⁶ OIF planning did not align with current joint planning construct and referred to theater shaping and preparation as phase I. This monograph follows the conventions of current joint doctrine with reference to theater shaping and preparations as phase zero.

This monograph investigates the following questions: What are the sustainment implications of regional alignment? Within the concept of regional alignment, what is the significance of those implications in phase zero? The significance of these questions relates directly to the future capabilities of the US Army. An examination of OIF sustainment doctrine and organizational changes provides insight to sustainment implications during phase zero. Operation Enduring Freedom offers similar challenges but will not be addressed specifically in this monograph to avoid redundancy. This study concludes with suggestions for restructuring

¹⁴Allan Reed Millett, *The War for Korea, 1950-1951: They Came from the North* (Lawrence: University Press of Kansas, 2010), 75-85; Gregory Fontenot, *On Point: The United States Army in Operation Iraqi Freedom* (Fort Leavenworth, KS: Combat Studies Institute Press, 2004), 31-41.

¹⁵Office of the Deputy Assistant Secretary of Defense for Plans, *Theater Campaign Planning Handbook*, February 2012, [http://www.alu.army.mil/ALU_DOCS/Planners_Handbook_Master_Final%20Draft%2002-22-12%20\(2\).pdf](http://www.alu.army.mil/ALU_DOCS/Planners_Handbook_Master_Final%20Draft%2002-22-12%20(2).pdf) (accessed February 22, 2014), 2.

¹⁶Joint Chiefs of Staff, Joint Publication 5-0, *Joint Operation Planning* (Washington, DC: Government Printing Office, August 2011), http://www.dtic.mil/doctrine/new_pubs/jp5_0.pdf (accessed December 18, 2013), III-38.

sustainment organizations and doctrine to facilitate the US Army's perceived future operational environments.

An examination of organizational structure and doctrine prior to, during, and after OIF, offers insight to the catalyst of change from post-cold war to Army of the 21st Century or Force XXI.¹⁷ The degree of change during that period is similar to the degree of change necessary to transition to the concept of regional alignment. The evolution of doctrine and organizational change affected sustainment operations phase zero of OIF. Those same affects offer insight to potential challenges with transitioning to regional alignment.

To illustrate the evolution of sustainment, this monograph focuses on OIF. While other campaigns of the past may offer regional alignment concepts and insight, OIF provides a contemporary example with immediate implications on current regional alignment policy. This monograph explores logistics concepts from the early 1990s regarding regional alignment to address a changing global operating environment. While acknowledging the joint interdependence of modern sustainment, this monograph focuses on Army sustainment implications for regional alignment and does not address the broader joint sustainment implications to other service components facilitated through US Transportation Command.

Section I provides an overview of the development of logistics concepts leading up to OIF and the significant sustainment attributes that were successful or failed during phase zero. Fuel and theater distribution planning offer examples of success and failure during phase zero. They are referenced throughout the following sections to provide context and perspective. Additionally this section discusses pre-OIF doctrine and organizational changes derived from the 1990's global operating environment. Section II describes how operations in OIF affected doctrinal language and organizational change in the shift from a regional aligned structure.

¹⁷John Sloan Brown, *Kevlar Legions: The Transformations of the United States Army 1989-2005* (Washington, DC: Center of Military History, 2011), 140-151.

Sustainment organizations evolved specifically to meet the operational challenges of OIF. This is significant because it shaped the post-OIF Army and established conditions that counter a regional alignment strategy. Section III outlines organizational and doctrinal changes post-OIF and the return to a regional aligned focus. While shifting back to regional alignment, the US Army will encounter many of the challenges faced during the early 1990s regarding the balance of force structure and in a fiscally constrained economy. Section IV analyses the significance of transformation prior to, during, and after OIF. Section V summarizes the significant implications to sustainment operations during phase zero of regional alignment and offers recommendations.

THE 1990s

Marked by the collapse of the Soviet Union (1991) and victory in the Gulf War (1991), the end of the Cold War facilitated a shift in US security strategy.¹⁸ The United State's extensive European based force posture was no longer required to deter Soviet aggression. Additionally, the US military prevailed as the world's premier fighting force by driving the Iraqi Army out of Kuwait. From these events, the United States government decided on a new security strategy to continue to protect its global interest and remain a relevant fighting force. The crux of the strategy was premised on regional deterrence executed with a reduced military capability. The focus on regional deterrence was accompanied by the transformation of Army doctrine and organizational structure through the 1990s and into the 21st century.¹⁹ Regional defense was the central theme of post-Cold War strategies through the early 1990s. Regional defense was codified in the *National Security Strategy* (1993), *National Defense Strategy* (1993), and *National Military Strategy* (1992). They contained four focus areas consisting of strategic deterrence and defense,

¹⁸The White House, *National Security Strategy* (Washington, DC: Government Printing Office, February 1993), <http://nssarchive.us/NSSR/1993.pdf> (accessed February 26, 2014), 1.

¹⁹*Ibid.*, 14.

forward presence, crisis response, and reconstitution. There was also considerable attention given to arms control, reduction of nuclear arsenals, security cooperation, regional response capability, and restructuring military respectfully. Amidst this mix of ideas, the Army began its transformation of doctrine and organization.²⁰

Following the establishment of the US Army's Training and Doctrine Command in 1973, the Army's Field Manual (FM) 100-5 has been referred to as the Army's capstone doctrine. This doctrine has morphed into FM 3-0 and, recently, Army Doctrine Publication 3-0. With focus on developing new doctrine to accommodate new deterrence strategy, FM 100-5 became the central point or engine of change initiating Army transformation.²¹ FM 100-5, known as AirLand Battle in the 1980s, was updated in 1993 due to the changing operational environment.²² There was tension between how much change it should embrace and how far ahead should the doctrine reach.²³ The 1993 edition of FM 100-5 reflected the national strategy policy and focused on rapid deployable forces that were adaptable to operate in the new strategic environment.²⁴

Entering the mid-1990s, the Army tested its new doctrine in several deployments throughout the world, which further justified post-Cold War strategy. In 1995 the newest version of the national security strategy shifted to engagement and enlargement, in part based on the

²⁰Dick Cheney, "Defense Strategy for the 1990s: The Regional Defense Strategy," January 1993, http://www.informationclearinghouse.info/pdf/naarpr_Defense.pdf (accessed February 14, 2014), 5-18; Joint Chiefs of Staff, *National Military Strategy* (Washington, DC: Government Printing Office, January 1992), <http://history.defense.gov/resources/nms1992.pdf> (accessed October 18, 2013), 6-8.

²¹Gordon R. Sullivan and Institute for Foreign Policy Analysis, *America's Army: Into the Twenty-First Century* (Cambridge, MA: Institute for Foreign Policy Analysis, 1993), 25.

²²John Romjue, *American Army Doctrine for the Post-Cold War* (TRADOC Historical Monograph Series, United States Training and Doctrine Command, Fort Monroe, VA, 1996), <http://cgsc.contentdm.oclc.org/cdm/ref/collection/p4013coll11/id/1207> (accessed January 29, 2014), 1-4.

²³*Ibid.*, 27-28.

²⁴Headquarters, Department of the Army, Field Manual 100-5, *Operations* (Washington, DC: Government Printing Office, June 1993), http://www.fs.fed.us/fire/doctrine/genesis_and_evolution/source_materials/FM-100-5_operations.pdf (accessed October 18, 2013), 1-1 to 1-3.

various deployments during the early 1990s. This included deployments to Somalia, Burundi, and deterring aggression in the Middle East.²⁵ In addition, it took a step further from 1993 version by describing the requirements for and integrated regional approach. The 1995 version described the relationship of the United States with each of its areas of interest and the relationship to foster with allies to protect those interests. In doing so, it shaped the approach of military operations throughout the late 1990s campaigns such as in Bosnia and Kosovo. From these campaigns, the Army would expedite its efforts in force transformation and logistics doctrine.²⁶

Policy and doctrine in the late 1990s and transitioning into the 21st century continued to drive Army transformation. Logistics doctrine transformed slower through the 1990s but began evolving from language in the *National Military Strategy* (1997), *Army Posture Statement* (2000), and the new Army keystone doctrine FM 3-0 (2001). The overarching theme of these documents was continued change in operating environment and preparation for associated changes. Within these documents, the Army prescribes a methodology for changes that directly influence logistics during OIF.

The *National Military Strategy* (1997) continued the shift towards a globally responsive force. The language used provided a shift from a static European Cold War posture to US based globally responsive posture. The *National Military Strategy* (1997) explained preparing now for an uncertain future:

As we move into the next century, it is imperative that the United States maintain the military superiority essential to our global leadership. To be able to respond effectively in the future, we must transform US combat capabilities and support structures, but while we do so, our forces must remain engaged worldwide and ready to fight and win two nearly simultaneous major theater wars. Success demands a stabilized investment

²⁵The White House, *National Security Strategy*, 7-9.

²⁶John Sloan Brown, *Kevlar Legions: The Transformations of the United States Army 1989-2005* (Washington, DC: Center of Military History, 2011), 139-161; Army War College and US Army War College Conference on Strategy, *Transforming Defense*, edited by Conrad C. Crane (Carlisle, PA: Strategic Studies Institute, US Army War College, 2001), 47-63.

program in robust modernization that exploits the revolution of military affairs. It also requires fundamental reengineering of our infrastructure and streamlining of our support structures through the revolution of business affairs to realize the cost efficiencies necessary to recapitalize the force. Though difficult to accomplish, such tasks are essential to reaching new levels of joint warfighting effectiveness.²⁷

This language led to increased dialog and focus on the requirements to transition to a global force strategy. As indicated, these changes were required transformation of combat capabilities and support structures. Particularly for the logistics community, streamlining forces integration of efficiency concepts and a reduction to support structures were possible.

Army Chief of Staff General Dennis Reimer emphasized transformation and future readiness in the *Army Posture Statement* (2000), which stated:

The Army is executing a comprehensive plan for achieving full spectrum dominance in the 21st century. The likely requirements of future national security strategy are the foundation of our plan for future readiness. From these anticipated requirements, Joint Vision 2010 establishes the conceptual template for America's armed forces in the 21st century. Army Vision 2010 identifies the capabilities required to ensure our Army remains ready to conduct prompt and sustained operations on land throughout the full spectrum of military operations. The Army uses the Force XXI process to ensure it remains the preeminent information age Army. To do this Force XXI incorporates a holistic approach to change. The innovative approach that we call spiral development compresses the development cycle for new systems by fielding prototypes and incorporating new technologies on fielded systems within a designated experimental force. The Army Modernization Plan describes our long-term strategy for modernization given anticipated force requirements.²⁸

For the logistics community, the *Army Posture Statement* (2000) referred to a revolution in military logistics, which consisted of harnessing technology to provide an almost continuously updated picture of the logistics requirements of units as well as the location and status of supplies

²⁷Joint Chiefs of Staff, *National Military Strategy: Shape, Respond, Prepare Now: A Military Strategy for a New Era* (Washington, DC: Office of the Chairman of Joint Chiefs of Staff, 1997), <http://www.au.af.mil/au/awc/awcgate/nms/> (accessed October 19, 2013), 48.

²⁸Headquarters, Department of the Army, *Army Posture Statement* (Washington, DC: Government Printing Office, 2000), <http://www.army.mil/aps/00/aps00.htm> (accessed October 18, 2013), 51; Joint Chiefs of Staff, *Joint Vision 2010* (Washington, DC: Government Printing Office, 1996), <http://www.dtic.mil/jv2010/jv2010.pdf> (accessed October 16, 2013), 1-2; Department of the Army, *Army Vision 2010* (Washington, DC: Government Printing Office, 1996), <http://www.dtic.mil/docs/citations/ADA319211> (accessed October 16, 2013), 1.

equipment personnel and logistics organizations on the battlefield. With this level of situational awareness, friendly forces could focus logistics resources where needed and in the process enhance both the effectiveness and the efficiency of the force. This language in the *Army Posture Statement* preceded the development of FM 3-0, *Operations*, as the Army's revised operating doctrine in 2001.²⁹

FM 3-0 (2001) established the Army's operational doctrine for full spectrum operations, including specific attributes for logistics. This doctrine held warfighting as the Army's primary focus and asserted that the ability of Army forces to dominate land warfare also provided the ability to dominate any situation in military operations other than war. The foundation of FM 3-0 (2001) reflected global strategic responsiveness by way of prompt, sustained Army force operations on land as a member of a joint or multinational force.³⁰

In FM 3-0 (2001), combat service support was a major component of sustaining operations. The execution of combat service support involved projecting a strategically responsive force that generates decisive combat power. FM 3-0 described combat service support operational reach as the operational positioning and efficient use of all available combat service support assets and capabilities, from the industrial base to the soldier in the field. Combat service support operational reach included the use of intermediate staging bases, forward-deployed bases, Army pre-positioned stocks, and continental US resources.³¹

FM 100-10 (1995) provided framework for logisticians to plan and execute logistics during the initial stages of OIF. FM 4-0, *Combat Service Support*, replaced FM 100-10 during

²⁹Headquarters, Department of the Army, *Army Posture Statement*, 54.

³⁰Headquarters, Department of the Army, Field Manual 3-0, *Operations* (Washington, DC: Government Printing Office, June 2001), Purpose Statement.

³¹Headquarters, Department of the Army, Field Manual 100-10, *Combat Service Support* (Washington, DC: Government Printing Office, 1995), 1-4.

stability operations of OIF in August 2003. The major difference between FM 100-10 and FM 4-0 was the official transition to the use of full spectrum operations and the Force XXI structure for future changes to combat service support operations. Specifically, FM 100-10 prescribed building logistics capability that supported Army force projection and forcible entry operations. To support force projection, FM 100-10 stated, “strategic stocks of initial entry force equipment and supplies, sustainment materiel, and equipment repair capability will be prepositioned on land and afloat in likely force projection areas.”³² This force projection methodology was reflected in the use of Army Prepositioned Stocks (APS) in Kuwait to support major combat operations in Iraq. FM 100-10 outlined, “the CSS [combat service support] system will have to be resilient. Incorporating the total range of CSS resources, it will balance the need for US based projection and logistics against a reduced military structure to support forcible entry into bare-based operational areas.”³³ Planners adjusted the Time Phased Force Deployment List (TPFDL) to accommodate forcible entry operations by prioritizing the reception of maneuver units’ but did not balance logistics units required to sustain operation. The theater APS stocks did not have specific logistics equipment or operators for early entry operations.³⁴ This contradicts the logistics principles described above and contributed to many of the theater distribution challenges that occurred during the first weeks of OIF and reminiscent of past challenges highlighted in the following quote from *Theater Distribution* doctrine:

Since America's first major deployment of combat forces during the Spanish-American War, United States forces have faced constant and consistent patterns of combat service support challenges. Ports of embarkation and debarkation become overwhelmed,

³²Ibid., 1-5.

³³Ibid.

³⁴Cofield Hilburn, “Transforming for Distribution Based Logistics” (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, May 2005), 17.

shipments sidetracked; units lose visibility of their in-transit equipment, and deliveries of critically needed supplies are delayed.³⁵

Theater distribution operations during the first weeks of OIF were less than optimal and presented a significant challenge for units rapidly advancing towards Baghdad.

Inconsistencies in preparatory planning, not necessarily doctrine, for initial phases of OIF contributed to the sustainment weakness experienced during the first weeks of the campaign.

Although FM 100-10-1, *Theater Distribution*, prescribed a detailed approach to executing distribution-based logistics, guidance is useless if not executed.³⁶ FM 100-10-1 (1999) prescribed many requirements to mitigate logistics challenges during OIF and was the guiding doctrine for Army theater distribution at this time. The primary audience for this doctrine was logistics planners. Additionally, the doctrine provided guidance for organizational structure and material development to support major combat operations.³⁷ This concept would be tested during phase zero and initial operations of OIF and led to success and failure in application.

As with doctrinal changes, military organizational structure changes would require a shift in military thought to facilitate the new post-Cold War environment. Organizational changes were driven by forced reductions in the early 1990s and enhanced technology transitioning into the 21st century. Forced reductions in personnel and organization structure were a result of shifting economic priorities.³⁸ To meet these objectives, the Army proposed a reduced footprint in Europe and other Cold War forward positions to become a more U.S based force that could respond to

³⁵Headquarters, Department of the Army, Field Manual 100-10-1, *Theater Distribution* (Washington, DC: Government Printing Office, 1999), Preface.

³⁶Michael Wynne, *Objective Assessment of OIF Logistics*, Joint Assessment (Washington, DC: Headquarters Department of Defense, March 2004), http://www.ndu.edu/library/docs/J1911_ObjAssess.pdf (accessed November 18, 2013). 25-27.

³⁷Headquarters, Department of the Army, Field Manual 100-10-1, 3-1 to 3-5.

³⁸Brown, 73-76.

regional threats.³⁹ The *National Military Strategy* (1992) referred to this force as “The Base Force”. The Chairman of the Joint Chiefs of Staff General Colin Powell proposed the Base Forces. The Base Force attempted to anticipate the peace dividend of the time by advancing a reshaped to respond to the regional threats.⁴⁰

To develop the requirements for a restructured force, a Bottom-Up Review initiated the reshaping of Army organization structure. The Bottom-Up Review was comprehensive and covered all aspects of defense planning to include training, force management, basing, and logistics. In all, the Bottom-Up Review would decrease the Army by nearly 300,000 personnel by 1995 and redistribute equipment based on regional requirements. Additionally, it would increase the budget for modernization of equipment. Most importantly, it became a reference for America’s security requirements later called the Report of the Quadrennial Defense Review or QDR.⁴¹ The 1997 *QDR* would further highlight the importance of modernization of organization structure and a continued shift to regional defense strategy.⁴² The modernization of logistic organizational structure proved significant in transitioning into the 21st century.

From 1997 to 2004, the Army experienced several iterations of new concepts to shape the Army for future operations.⁴³ During this period of transition, logistics capability experienced great tension to support a legacy Cold War Army while adjusting to support the Objective Force

³⁹Sullivan and Institute for Foreign Analysis, 29.

⁴⁰Joint Chiefs of Staff, *National Military Strategy*, 17-18.

⁴¹Les Aspin, *Bottom Up Review* (Washington, DC: Office of the Secretary of Defense, October 1993), http://www.dod.mil/pubs/foi/administration_and_Management/other/515.pdf (accessed February 23, 2014), 1-4, 14; Brown, 73-75.

⁴²National Defense Panel, “The Report of The Quadrennial Defense Review,” May 1997, http://www.dod.mil/pubs/foi/administration_and_Management/other/900.pdf (accessed November 7, 2013), 14.

⁴³Fontenot, 14.

of the future.⁴⁴ The Army intended to reduce its forces for increased responsiveness, agility, versatility, lethality, survivability, and sustainability summarized as Force XXI and noted as a revolution in military affairs. Logistics organizational structure needed a revolution in military logistics to adapt logistics organization capabilities.⁴⁵ Many of the logistics organizational changes specified to meet the Force XXI requirement were not implemented prior to the initial stages of OIF.⁴⁶ Despite its intentions regarding transformation, few substantive changes were in place before the Army found itself engaged in two challenging operations in the early 21st century.

Changes to organizational structure and capabilities to meet Force XXI requirements required reorganization of legacy logistic structures and integration of technology. Reducing the logistics footprint in the area of operations and minimizing logistics management redundancies were a priority to organizational change. In doing so, the Army logisticians hoped to rid themselves of the stigma of moving “Iron Mountains,” which referred to the robust stockpiles of supplies and the overwhelming amount of resources it took to mobilize those resources in support of operations.⁴⁷ The first set prescribed to meet this requirement was reforming legacy unit composition. The most sweeping change involved the composition of the Theater Sustainment Command (TSC). In restructuring this logistics organization, the Army would minimize the intermediate handling of stocks between the legacy units like the Division Support Command

⁴⁴Government Accountability Office, *Major Challenges for Army Transformation Plan* (Washington DC: Government Printing Office, November 2001), <http://www.gao.gov/products/GAO-02-96#> (accessed January 1, 2014), 7-11; Army War College and US Army War College Conference on Strategy, 51.

⁴⁵Headquarters, Department of the Army, *Army Posture Statement*, 54-55.

⁴⁶Katherine Cook, “Transforming the Force and Logistics Transformation” (Strategy Research Project, Army War College, Carlisle Barracks, Carlisle, PA, 2006), <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA449090> (accessed January 1, 2014), 5-6.

⁴⁷*Ibid.*, 4.

(DISCOM) and Corps Support Command (COSCOM). These units increased redundancy in managing and maneuvering logistics stocks and often created significant challenges in accountability distribution of supplies. Restructured units like the Theater Expeditionary Sustainment Commands and Sustainment Brigades replaced COSCOM and DISCOM infrastructure offering a modular approach to logistics management. Within this modular design, logistics units were tailorable to meet the specific and evolving requirements of the operating environment. Additionally they offered more distributed management functions, which helped to eliminate the “Iron Mountains” or logistics stockpiles by an estimated 30 to 70 percent.⁴⁸ This reorganization of logistics organizations would remain conceptual due to a shift in focus caused by terrorist attacks of September 11, 2001. Thereafter, the task of supporting two theaters of operation simultaneously absorbed a great deal of Department of Defense energy. During phase zero of OIF, the legacy units were actively preparing for the shift in organizational structure, but were mobilized and deployed using the legacy unit structure.⁴⁹

The Force XXI organization changes, including integration of new technology offered streamlining logistics operations and reduction of staff requirements without reducing effectiveness. The goal prior to OIF was to deploy an interconnected logistics force, which provided visibility of assets to form the foundation for the streamlined concept of distribution-based logistics. Technologies like Force XXI Battle Command Brigade and Below, movement tracking system, and radio frequency identification were to provide connectivity amongst logisticians for visibility of supplies. Conceptually, these types of systems would reduce redundant staff analog tracking methods. At the start of OIF, these systems were not universally

⁴⁸Darrell Ransom, “Logistics Transformation-Reducing the Logistics Footprint” (Strategy Research Project, Army War College, Carlisle Barracks, Carlisle, PA, 2002), <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA404441> (accessed January 1, 2014), 8.

⁴⁹Ransom, 8; Cook, 5; Fontenot, 9.

available to units that established operations during phase zero of OIF. By introducing technology as a means to enhance logistics efficiency, the Army fell short of its transformation goals.⁵⁰

The impact of not achieving organizational changes prior to the start OIF did not lead to failure on the battlefield. Several organizational structures proved relevant even as the Army prescribed change. Conversely, there are examples of lack of organizational changes that caused challenges during phase zero and contributed to logistics inefficiencies.

THE OIF SUSTAINMENT EXPERIENCE

OIF presented significant logistics challenges for the United States Army logistics community. A review of OIF logistics highlights these significant issues as a baseline for the operational approach to mitigate future logistics issues during phase zero of regional alignment. The methodology for this case study consists of a summary of theater strategic plan, assessment of logistics doctrine, assessment of organizational structure, and the successes and failure during initial operations.

The theater strategic plan for OIF relied on tactical and operational surprise to topple the Saddam Hussein regime in Iraq.⁵¹ To ensure surprise and gain the initiative, forces quickly advanced into Iraq without the full complement of combat support units. The plan prescribed a rapid advance to apply pressure on the Iraqi forces in order to fix and defeat them near Baghdad. The rapid advance of US combat forces relied on the concept of distribution-based logistics to support major combat operations and establish supply lines of communication. Established supply lines of communication supplied frequent, reliable distribution with a focus on right-sized inventories positioned across the supply chain to cover consumption between replenishment cycles. A key requirement for effective distribution-based logistics was to establish large supply

⁵⁰Fontenot, 14.

⁵¹Ibid., 241-282.

bases of operations between the Iraqi/Kuwait borders and control the advance of U.S forces. During execution, the advance of US forces was quicker than anticipated, negating the opportunity to establish supply bases, resulting in US forces “out running” their supply lines of communication. U.S forces relied on their thirty days of supply until the infrastructure of the distribution-based logistics concept was constructed. US operational commanders recognized the risk of rapid advancing operations and security of supply lines of communication but accepted the risks as a trade off for a quick and decisive victory.⁵²

OIF military forces consisted of a Combined Joint Task Force with representation from several US coalition partners and all branches of service. Within the Combined Joint Task Force the Coalition Forces Land Component Command consisted of two US-led Corps level commands (US Army V Corps and 1st Marine Expeditionary Force). To support rapid offensive operations, the theater logistics plan relied heavily upon prepositioned stocks of equipment and supplies and ad hoc logistics execution. As forces flowed into Kuwait, personnel often arrived earlier than their equipment. APS offset equipment shortages. Most Soldiers were able to advance into Iraq with minor challenges because of APS equipment. Unlike the success of APS, changes in force projection methods disrupted logistics operations in phase zero of OIF and caused significant challenges. An ad hoc force-packaging concept replaced the Time Phased Force Deployment List (TPFDL) and Joint Operational Planning and Execution System (JOPES). The changes resulted in a mix of unit capabilities arriving in Kuwait without proper logistics enablers.⁵³

The 3rd ID was positioned to conduct initial major combat operations and relied upon APS to offset combat power that was en-route by sea vessel. They were one of the led Army

⁵²Wynne, Introduction; Eric Peltz, John M. Halliday, Marc L. Robbins, and Keith J. Girardini, *Sustainment of Army Forces in Operation Iraqi Freedom: Battlefield Logistics and Effects on Operations* (Santa Monica, CA: RAND, 2005), Summary Introduction; Fontenot, 85-92.

⁵³Wynne, 12; Fontenot, 29-32, 73-76.

elements under operational control of US Army V Corps. 3rd ID's experiences during phase zero of OIF offer insight to several aspects of sustainment operations. Force enablers such as Army APS proved its value for 3rd ID. Variations in equipment models between home station and APS created the requirement for additional operator training. The APS program provided enough prepositioned equipment to support a division for thirty days. This enabled the 3rd ID to deploy into Kuwait, train in the desert, and advance into Iraq quickly.⁵⁴

Essential theater logistics processes and organization were ad hoc creations in response to the demands of the conflict. From the start of operational planning for OIF, the need to improvise was apparent. A force package approach replaced the established TPFDL/JOPES planning processes. This vastly complicated matters for logisticians because there was not a baseline plan to reference. Additionally, it disrupted the establishment of theater support functions.⁵⁵

Without an established theater distribution plan, 3rd ID's DISCOM helped establish ad hoc Theater Distribution Center (TDC) capability in response to the backlog of supplies and equipment required during major combat operation. The TDC was a contracted organization, constructed to support units based on amount personnel and equipment. This TDC concept was a part of the logistics concept that supported operations in the 1990s following the Gulf War. The capability assigned to execute the plan was inadequate, which caused significant delay in resources. During the initial stages of OIF, the TDC required 3rd ID DISCOM Soldiers and equipment along with contracted civilians to conduct initial TDC operations. This decreased the capability of the DISCOM to support 3rd ID units.⁵⁶

⁵⁴US Army Material Command, *OIF- "It Was A Prepositioned War"* (Fort Belvoir, VA: US Army Material Command, 2005), 1-2.

⁵⁵Fontenot, 73-76.

⁵⁶Wynne, 25.

The success of Army forces during major combat operations in OIF overshadowed the broad spectrum of logistics challenges. The use of APS and ad hoc logistics processes underscored adjustments during phase zero that remain relevant for logistics planning in future operations. Understanding doctrine and organization leading to the start of OIF offers insight to future logistics implications to regional alignment.⁵⁷

To appreciate implications requires further examination of theater fuel and distribution planning during phase zero. Bulk fuel management and theater distribution planning provide an example that illustrates inconsistencies in logistics planning in accordance with doctrinal principles. Fuel management planning in support OIF represents an example of success according to doctrinal principles. From the start, fuel planning was detailed and coordinated from the strategic to tactical level. Theater distribution plans lacked doctrinal foundation, which led to struggles in execution. More importantly, these examples offered challenges that correlate with potential challenges of regional alignment of forces.⁵⁸

A major strength of theater logistics planning for phase zero resided in the construction and management of fuel capability. According to FM 100-10 (1995), the Army was responsible for all inland distribution of bulk fuels.⁵⁹ This responsibility included planning force structure to construct, operate, and distribute through the theater of operations. Authorization to prepare fuel capability infrastructure began in September 2002 and allowed a steady construction of fuel capabilities. Five Reserve fuel companies and an Inland Petroleum Distribution System from Qatar APS provided storage, management, and distribution of 7.3 million gallons of fuel to start major combat operations. Additionally, the Kuwait National Oil Company connected a pipeline

⁵⁷US Army Material Command, 1-2; Wynne, 25.

⁵⁸Peltz et al., 12.

⁵⁹Headquarters, Department of the Army, Field Manual 100-10, C-1.

directly to fuel farms from their refineries, eliminating shipping requirements and streamlining payment processes.⁶⁰ This example illustrated how doctrinal best practices were used to set the conditions for phase zero of OIF.

Fuel management organizational structure supported operations during phase zero of OIF and represented success without organizational change. A fuel preparation for OIF started in mid-2002 and was approved by September 2002. Although theater fuel is a joint responsibility, the Army was the proponent for all land-based distribution. The bulk of the Army fuel management and distribution capability comes from the Army Reserves. Within the 377th TSC, which provided theater support to OIF, five of the seven petroleum truck companies were from the Army Reserves.⁶¹ These companies were not reorganized or technologically outfitted based on Force XXI requirements. As noted, success of fuel operations during OIF was attributed directly to the planning effort and prioritization.⁶² With early approval and arrival of fuel management and distribution units, they were able establish all required petroleum infrastructure to include pipeline operations, construction of petroleum facilities, and establish fuel contracts with the government of Kuwait. Additionally, they were able to reorganize in theater by augmenting 3rd ID with fuel trucks. Providing 3rd ID fuel trucks forward on the battlefield was modeled on the modular concept proposed by Force XXI. The ability to throughput fuel directly from a theater unit to the divisional unit eliminated redundant layers of intermediate managers as proposed by Force XXI modularity.⁶³

⁶⁰Peltz et al., 12-13.

⁶¹Wynne, 31-34.

⁶²Headquarters, Department of the Army, *Army Posture Statement*, 54-55; Ransom, 8; Cook, 5.

⁶³Ransom, 8.

Unlike fuel management, theater distribution processes for general cargo were a challenge. The theater sustainment plan had significant adjustments that created issues with supply management and distribution of dry supplies.⁶⁴ Choosing not to use the traditional TPFDL process presented the first major challenge that started a “domino effect” of logistics issues that continued through the execution phase of major combat operations.

Adjustments away from the TPFDL process delayed the arrival of theater logistics units and capabilities. Planners chose to deploy forces into theater by force packages focused at the brigade level and below. During the force packaging process, maneuver units arrived prior to logistics units, which caused inefficiencies in logistics functions during phase zero. The lack of theater logistics units hindered the management of theater support processes. As a result, ad hoc organizations had to perform logistics functions.⁶⁵ For example, 3rd ID arrived ahead of many logistics units and chose to augment theater sustainment processes with internal logistics assets. While providing assets externally to augment the sustainment processes, 3rd ID’s logistics units encountered competing requirements to provide habitual support to internal units to complete Reception Staging and Outward Integration (RSOI) prior to starting major combat operations.⁶⁶

The delayed arrival of theater logistics units during phase zero affected theater distribution of general cargo. A shortage of cargo vehicles constrained theater distribution during initial stages of OIF. According to theater logistics models described in FM 100-10-1, developing infrastructure during phase zero is critical to meeting unit requirements. Additionally, it described the flow of supplies from a theater hub through a series of Corps and Division hubs to the

⁶⁴Wynne, 25.

⁶⁵Peltz et al., 23.

⁶⁶Wayne, 25; Joint Chiefs of Staff, Joint Publication 3-35, *Deployment and Redeployment Operations* (Washington, DC: Joint Chiefs of Staff, January 2013), http://www.dtic.mil/doctrine/new_pubs/jp3_35.pdf (accessed January 13, 2014), 3.

supported unit. This process required logistics units that specialize in the movement of cargo within a theater of operation.⁶⁷

The delayed arrival of 3rd COSCOM theater distribution assets created a situation of reduced cargo transport capability and a large volume of supplies to distribute. 3rd COSCOM planners estimated that they had only twenty percent of the transport capability to start major combat operations. In order to complete phase zero requirements, maneuver units augmented theater distribution capability with their internal transportation assets. Under these constraints, the priority for supplies was food, water, and ammunition, with all other classes of supply delivered on emergency basis.⁶⁸

During phase zero an ad hoc TDC was developed to organize and process large volumes of supplies to move forward for theater support. The concept of a TDC lacked full development, although FM 100-10-1 prescribed some form of hub to distribute supplies. The TDC concept consisted of contracted civilian workers that managed all functions and ensured supplies were organized and prioritized for delivery. Applying this concept to operations in Kuwait for major combat operation in OIF proved challenging because of lack of contractors, equipment, and facilities. The TDC backlogged with supplies and required external support from Soldiers to augment operations.⁶⁹ Issues with theater distribution would continue through April 2003 as theater logistics personnel and equipment continued to arrive.

Theater distribution capabilities in OIF are an example of failed organizational structure during phase zero. As mentioned in the planning and preparation actions of fuel management, there were several deliberate actions taken to ensure the right capability was available to prepare

⁶⁷Headquarters, Department of the Army, Field Manual 100-10-1, C-1.

⁶⁸Peltz et al., 17.

⁶⁹Wynne, 25-26.

and support initial operations. These units performed in a modular fashion to promote efficiency on the battlefield. Theater distribution organizations lacked deliberate prioritization, which caused disorganized effect during phase zero. Under the legacy concepts, support units were a part of a larger parent logistics unit that provided habitual support to a unit or geographical area. This operating concept restricted the ability to tailor forces as prescribed with modular Force XXI concept. This restriction along with the decision to deviate from the TPFDL process to a force packaging or request for forces process led to inefficiencies in establishing theater distribution for OIF. The advantage of the TPFDL process is that it forced planners to match logistics capabilities with deploying forces. The disadvantage was slower adjustments once forces were programmed to deploy. The request for forces process allowed for last minute adjustments, which was ideal during the phase zero as the negotiations ensued to deter war with Iraq. Because of the lack of prioritization and continued adjustments to deploying units, theater distribution assets were not available during phase zero or initial operations into Iraq. During RSOI, weeks prior to crossing into Iraq, the majority of logistics units on ground were organic units or units that habitually supported 3rd ID. Not all theater sustaining units arrived prior to start the start of major combat operations in OIF.⁷⁰

The deficit of theater distribution units caused issues with establishing critical theater opening functions, RSOI, and initial operations into Iraq. With joint assistance, the Army is responsible for establishing surface distribution management. In order to facilitate this responsibility, a variety of movement control and transportation units were required. These were required to establish all logistics functions to receive, sustain, and coordinate for unit movement into Iraq. As stated previously, these forces were not available prior to combat forces arriving. The use of contracted support to establish initial distribution efforts failed, resulting in the TDC

⁷⁰Peltz, et. al., 21-23; Fontenot, 73-76.

being established two weeks before the invasion into Iraq began. As a result, combat units were required to use their logistics units to offset the shortfalls in theater support unit. In this case study, the 3rd COSCOM started initial operation with twenty percent of its required transportation capability. With this level of capability shortfalls, 3rd COSCOM was unable to execute the modular Force XXI concept of augmenting forward deploying units with transportation assets, which limited the amount of supplies they carried. In the concept of fast moving offensive operations, it is ideal to maintain mobility of supplies to keep pace with operations. Without the augmentation of trucks from the 3rd COSCOM, combat forces relied on the TDC to receive supplies forward on the battlefield in a timely manner. The shortage of transportation assets created significant delays in resupply of all classes of supply with the exception of fuel. This highlights the importance of adaptable logistics organizations to meet developing theater requirements.⁷¹

Army logistics transformation continued during OIF. As the process continued, a new vocabulary developed as well. As the Army fought in Afghanistan and Iraq in dynamic counterinsurgency environments, military leaders realized future conflicts might take a similar form anywhere in the world. To prevent or counter future conflicts of this nature, the US military needed to maintain presence in national areas of interest. To achieve presence in the wide variety of global areas of interest, the military needed to establish diplomatic partnerships. National strategy documents began to expand on areas such as security assistance and regional stability around the world. This language began to filter from the 2006 *Quadrennial Defense Review (QDR)* into Army operating doctrine and Army logistics doctrine.⁷²

⁷¹Peltz et al., 20-23; Wynne, 35-27; Fontenot, 408-410.

⁷²Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: Government Printing Office, February 2006), <http://www.defense.gov/qdr/archive/20060206qdr1.html> (accessed October 19, 2013), 1-7.

The 2006 *QDR* concluded that it is “part of the continuum of transformation in the Department. Its purpose was to help shape the process of change to provide the United States of America with strong, sound and effective warfighting capabilities in the decades ahead.”⁷³ The 2006 *QDR* outlined and recommended the priorities for national defense strategy. The 2006 *QDR* asserted lessons learned from the previous years of fighting and illustrated the importance of a preemptive rather than responsive posture for military forces to deter future conflict. In order to support a preemptive posture for deterrence, it prescribed the importance of building partner capacity and security assistance in areas of interest. To achieve this posture, one of two main imperatives of this document was to implement changes to the organizational structure, processes, and procedures to reorient capabilities and forces. The overall theme for organizational structure change was the expansion of current capabilities to facilitate modular employment of forces. Specifically, it advocated a forty-six percent increase in support brigades and the ability to position logistics assets abroad to accommodate building security capacity and security assistance.⁷⁴

The 2007 *Army Modernization Plan* reflected the continued transformation of the Army and the overall theme to expand capability to meet the future defense requirements outlined in the 2006 *QDR*. Like the 2006 *QDR*, the 2007 *Army Modernization Plan* stressed infrastructure changes the Army needed to achieve in order to fulfill its role in the national defense strategy. As a reflection of the past five years of conflict in Iraq and Afghanistan, significant logistics lessons learned indicated a need for increased speed in transition to the Army future force. A significant aspect of the infrastructure change related to enhanced logistics and the evolution of doctrine to

⁷³Ibid., ix.

⁷⁴Department of Defense, *Quadrennial Defense Review Report*, 43; Department of the Army, *2007 Army Modernization Plan* (Washington, DC: Government Printing Office, 2007), <https://www.hsdl.org/?view&did=472184> (accessed January 12, 2014), 24-30.

support those changes. Within this new doctrine, commercial logistics business practices and new concepts such as Army Force Generation maximized the employment of expanded resources to sustain combat operations globally. Additionally, the new Army logistics doctrine emphasized the need for joint logistics and continued sustainment capacity with global allies and partners. With increased funding and emphasis on expansion of capabilities, Army doctrine continued to transition, prescribing modular force doctrine to operate across all spectrums of conflict.⁷⁵

The 2008 version of FM 3-0, *Operations* further highlighted the transition in Army doctrine based on operations in Iraq and Afghanistan. FM 3-0 (2008) expressed the importance of modular force capabilities, and the strategic and operational reach that related directly the execution of logistics. As stated previously, the FM 3-0 (2001) had emphasized global strategic responsiveness for prompt, sustained Army force operations on land as a member of a joint or multinational force. Expanding this concept, FM 3-0 (2008) referenced the requirement for tailored forces to respond to global threats. These tailored forces would then become the forces required to deploy in support of mission requirements. FM 3-0 (2008) expanded the concept of tailored forces by officially introducing the term modular forces, briefly described in FM 3-0 (2001). Additionally, FM 3-0 explained entry operations under the terms strategic and operational reach. Together, modular force capability and strategic/operation reach gave the Army expeditionary capabilities which allowed combat power to be projected to respond to global requirements. These doctrinal language changes reflected principles that shaped the evolution of logistics doctrine to expeditionary logistics.⁷⁶

⁷⁵Department of Defense, *Quadrennial Defense Review Report*, 43; Department of the Army, 2007 *Army Modernization Plan*, 24-30; Derrick Corbett, “Logistics Transformation: The Paradigm Shift” (Monograph, School of Advanced Military Studies, Fort Leavenworth KS, 2007), <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA470672> (accessed March 2, 2014), 35.

⁷⁶Headquarters, Department of the Army, Field Manual 3-0, *Operations* (Washington, DC: Government Printing Office, 2008), 8-1 to 8-7.

Like Army operations doctrine, the Army logistics doctrine changed to meet the requirements of continuous operations in Iraq and Afghanistan. FM 100-10, *Combat Service Support* (1995) prescribed the general logistics operating principles and capabilities that were responsive to meet theater requirements. Additionally, FM 100-10-1, *Theater Distribution* (1999) prescribed the methodology for projecting combat service support capabilities. The overarching theme of these pre-OIF logistics doctrines was responsive force projection to establish logistics capabilities to support theater operations. FM 4-0, *Combat Service Support* (2003), followed a methodology similar to FM 100-10 where it was focused on responsive capabilities of logistics. To achieve the levels of responsiveness required to support theater, FM 4-0 introduced new concepts such as the use of mission essential task lists and modularity to efficiently manage and employ logistics capabilities.⁷⁷

In 2009, FM 4-0, *Combat Service Support* was revised and replaced by FM 4-0, *Sustainment*. FM 4-0, *Sustainment* took the next step in transformation of logistics doctrine by establishing improved roles and responsibilities within the new modular Force XXI structure. This document introduced sustainment, which included logistics personnel services and health service support as the overarching terminology for supporting Army forces. This document addressed many of the planning shortfalls experienced during the initial stages of OIF such as distribution management by defining the responsible agencies more precisely. In chapter four, FM 4-0, *Sustainment* outlined integrating sustainment into operations and the importance of preparing for sustainment of operations. This section provided many of the same theater preparation responsibilities outlined in FM 4-0, *Combat Service Support*, such as contracting operations and use of APS. It identified the importance of host nation support and building

⁷⁷Headquarters, Department of the Army, Field Manual 100-10, 1-1 to 1-7; Headquarters, Department of the Army, Field Manual 100-10-1, 1-1; Headquarters, Department of the Army, Field Manual 4-0, *Combat Service Support* (Washington, DC: Government Printing Office, 2003), 1-2, 1-9.

capacity and capability through negotiations and agreements. Furthermore, FM 4-0 *Sustainment* explains, “these agreements are designed to enhance the development and cooperative solidarity of the host nation and provide infrastructure compensation should deployment of forces to the target country be required.” By 2009, the transformation of logistics doctrine focused on finishing the support mission in Iraq and Afghanistan and codifying the logistics lessons learned to fight the next OIF.⁷⁸

Army sustainment organizations experienced an increased level of transformation from 2004 to 2009 but lost focus on a preemptive global posture to focus on responsive sustainment to meet operational requirements. Many of the legacy organizations that deployed in support of OIF restructured to support the ongoing requirements. The initial global force requirements of Army transformation goals were delayed to overcome the challenge of sustained operations in Iraq.⁷⁹ Prior to deploying in support of OIF, many sustainment units were attempting to transform under the Force XXI modular design but fell short due to competing requirements to sustain legacy units.⁸⁰ Five years of fighting in two theaters of war allowed for continual integration of modular organizations and the development of support relationships specifically to fight the next OIF.

Army guidance for sustainment organizations during OIF remained focused reducing the sustainment footprint and eliminating redundancies in management of sustainment.⁸¹ The overarching goal was to shift from the legacy sustainment concepts to modular ones by

⁷⁸Headquarters, Department of the Army, Field Manual 4-0, 2-9 to 2-13; Headquarters, Department of the Army, Army Doctrine Publication 4-0, *Sustainment* (Washington, DC: Government Printing Office, July 2012), http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/adrp4_0.pdf (accessed December 7, 2013), 4-7 to 4-10.

⁷⁹Government Accountability Office, *Major Challenges for Army Transformation Plan*, 7-11.

⁸⁰Cook, 5.

⁸¹Headquarters, US Army Combined Arms Support Command, *Modular Logistics Concept*, September 2006, https://blackboard.leavenworth.army.mil/master_library/TRADOC_Pubs/Modular_Force_Logistics_Concept_ver6_Sept06.pdf (accessed January 23, 2014), 4-5; Ransom, 8.

reorganizing the first echelon of self-sustaining logistics capability from the DISCOM down to the brigade level. This restructuring was in line with modular brigade combat teams that deployed with all organic support capabilities. This decision increased the amount of sustainment assets in brigade combat teams and allowed divisions to become tailorable organizations. This transformation eliminated organizations such as DISCOMs, COSCOM, and Corps Support Group variants. Under the legacy Army of Excellence structure, these organizations created overlapping layers of redundancy in management of sustainment within an area of operations. Corps units operating in the division's area provides an example. The Corps unit would not receive support from the DISCOM, but rather from the Corps Support Groups (Forward). This support relationship produced a complicated layered effect up to theater level sustainment. This effect produced redundancies to support a Cold War supply-based system. Furthermore, Corps formations relied on echeloned, reinforcing force structures with echeloned stockpiles. These stockpiles held percentages of like materiel at different levels to support forward units. This structure required increased logistics staff officers and often resulted in inefficiencies of managing stocks as described previously during distribution operations during initial operation of OIF.⁸² Initial analysis outlining the responsibilities of this new sustainment structure is recognized in the Army War College paper, *How Effective is the Combat Service Support*

Transformation Process:

The sustainment brigade will be a multifunctional CSS organization that combines functions that formerly resided in the DISCOM and COSCOM. Its primary mission will be to plan, coordinate, synchronize, monitor, and control CSS in the Brigade/Division area of operations. The sustainment brigade commander will serve as the senior logistics commander in the area of operations⁸³

⁸²Ransom, 8; Corbett, 3.

⁸³Steven Risley, "How Effective Is the Combat Service Support (CSS) Transformation Process?" (Strategy Research Project, Army War College, Carlisle Barracks, Carlisle, PA, 2006), <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA449736> (accessed January 23, 2014), 8.

A complete redesign was required to restructure sustainment forces within the new modular sustainment concept. As previously noted, the objective of this redesign was to create the modular self-sustaining brigades. The new modular sustainment organization structure reduced redundancy at supply points thus streamlined materiel management from the legacy logistics system. The Sustainment Brigade (SB) replaced the legacy Army of Excellence organizations of DISCOMs and Corps Support Groups. The legacy organizations inactivated or reflagged to form the basis of the new sustainment organizations. Specifically, the capabilities, equipment, and personnel from the legacy organizations formed the SB, which supported specified areas within a theater of operation. The SB organization was completely tailorable down to the composition of the companies to perform specific missions. The SB's primary missions were theater opening, theater distribution, and sustaining.⁸⁴

To manage the new sustainment brigade structure, theater sustainment commands managed sustainment brigades required for theater operations. The revised theater level sustainment organization provided the following responsibilities:

[T]he Army is developing theater sustainment commands (TSCs) at the operational level (theater/corps) that, with augmentation, can be capable of supporting joint forces. The TSC will combine some of the current corps support command (COSCOM) and theater support command functions . . . will include modular units specifically tailored to provide theater opening; theater distribution; medical; petroleum, oils, and lubricants; aviation; civil engineering; and multifunctional supply, maintenance, and transportation support.⁸⁵

The TSC provided command and control over all theater logistics and served as the senior logistics headquarters in theater. This new modular design provided the TSC commander the flexibility to adapt his command and control requirements with deployable command posts that provided an additional measure of responsiveness, agility, and flexibility for employment or

⁸⁴Headquarters, US Army Combined Arms Support Command, *Modular Logistics Concept*, 10-16.

⁸⁵Risley, 10.

deterrence. The mission of the TSC was to plan, prepare, rapidly deploy, and provide operational logistics with an assigned area of operations.⁸⁶

The new modular TSC fulfilled the need to create a joint and rapidly deployable and employable theater sustainment unit. The TSC's ability to plan, control, and synchronize logistical support contributed to the Army's transformation strategy. The theme of this reorganization was the reduction of echelons and responsive sustainment. As described in the distribution failures early in OIF, management of distribution-based logistics system required the organizational structure and the functional expertise meet the requirements of an expeditionary force. This distribution-based logistics system eliminated the need for intermediate supply points and maximized throughput to forward areas. The reduction of redundant layers facilitated a more responsive logistics structure to meet the needs of theater operations.⁸⁷

THE OIF LEGACY

As operations in support of OIF ended and budget constraints increased, the Army refocused its efforts to build partner capacity to deter and prevent conflicts in global areas of interest. As previously stated, the 2006 *QDR* expanded on the requirement for preemptive rather than responsive military capacities through increased host nation partnership capacity and security cooperation. A significant factor in accomplishing this requirement was an expanded defense budget to increase forces and responsive capabilities. Unfortunately, these efforts focused on operations in Iraq and Afghanistan and did not significantly contribute to other areas of interest. With increased budgetary constraints and renewed focus on preventing future conflict, the expressed requirement for building partner capacity emerged as Regional Alignment of

⁸⁶Government Accountability Office, *Major Challenges for Army Transformation Plan*, 13-16; Risley, 8.

⁸⁷Headquarters, US Army Combined Arms Support Command, *Modular Logistics Concept*, 10-12.

Forces for the Army. To facilitate the Army's transition to regional alignment, they introduced new doctrine but organization structure remained a challenge due budgetary constraints.⁸⁸

The 2010 *QDR* used stronger language that pertained to building partner capacity to prevent future conflict. Specifically, from the 2006 *QDR* to the 2010 *QDR*, building partnership capacity transitioned from a discussion point to a priority mission. Additionally, it alluded to using military forces from OIF to assist in security measure in other areas of interest around the globe.⁸⁹ Furthermore, it described an environment where security and stability in these areas of interest around the globe expand beyond the capability of Special Operations Forces and called for the integration of general-purpose forces into this mission. This expansion originated from the large-scale augmentation of Security Force Assistance Teams throughout Iraq and Afghanistan. The *QDR* proposed increased requirements for general-purpose capability in future conflicts to train host nation forces, provide major stabilization and defeat/deter regional aggression. The proposal to enhance this capability on a global and regional scale would provide a means to prevent and deter future conflict.⁹⁰ Chairman of the Joint Chiefs of Staff Admiral M.G. Mullen provided a similar view from the joint perspective in quote from his National Military Strategy.

This National Military Strategy emphasizes how the Joint Force will redefine America's military leadership to adapt to challenging new era. It identifies trends in the strategic environment, explains how we will address them, and articulates regional and functional capability priorities.⁹¹

⁸⁸Department of Defense, *Quadrennial Defense Review Report*, 1-7; Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: Government Printing Office, February 2010), <http://www.defense.gov/qdr/> (accessed November 12, 2013), 1-4.

⁸⁹Department of Defense, *Quadrennial Defense Review Report*, 2, 26.

⁹⁰*Ibid.*, 22.

⁹¹Joint Chiefs of Staff, *National Military Strategy* (Washington, DC: Government Printing Office, February 2011), <http://www.army.mil/info/references/docs/NMS%20FEB%202011.pdf> (accessed December 15, 2013), CJCS Letter of Endorsement.

The *National Military Strategy* (2011) continued to promote the theme of regional alignment of forces and addressed the complexity of a changing fiscal environment. As outlined in the 2010 *QDR*, the Army began to position forces from Iraq to accommodate regionally postured efforts. The *National Military Strategy* (2011) articulated two central objectives: deter and defeat aggression and strengthen international and regional security. To deter and defeat aggression, the *National Military Strategy* (2011) explained generally that the military must retain a rotational, forward-based posture, geographically aligned and supported by partnered nations.⁹² To strengthen this rationale, it described an environment that supported the concept of whole of government deterrence approach.

The second objective, “strengthen international and regional security,” in the *National Military Strategy* (2011) officially announced deliberate measures towards regional alignment of US military forces. It outlined:

US interests are deeply intertwined with the security and stability of the broader international system with alliances, partnerships, and multi-national institutions . . . We must address immediate challenges and posture ourselves in order to account for long-term trends . . . Strengthening international and regional security requires that our forces be globally available, yet regionally focused.⁹³

Within the context of this statement, the *National Military Strategy* (2011) prescribed partnered nation support. The support from these nations would allow forward presence and access to regional capabilities that supported national interest. It concluded that global posture remained the most powerful form of commitment and provided strategic depth within areas of interest.

The Army is transforming slower due to high probability of reduced spending and more than \$480 billion in the Department of Defense budget over the next ten years. In 2013, the *Army*

⁹²Joint Chiefs of Staff, *National Military Strategy*, 4, 11.

⁹³*Ibid.*, 10.

Posture Statements expanded on mission and fiscal changes for the Army. The *2013 Army*

Posture Statements clearly outlines the transition to regional alignment. The document stated:

The Army is regionally engaged and globally responsive; it is an indispensable partner and provider of a full range of capabilities to Combatant Commanders in a Joint, Interagency, Intergovernmental and Multinational environment.⁹⁴

The concept of globally aligned and regionally focused is intended to provide the Geographic Combatant Commander with responsive forces tailored to achieve mission requirements.

Specifically, regional alignment would draw from the total force, aligning combat capabilities and supporting units. Rotating assigned units within a region provided a means to build focus and expertise in Soldiers' training for respective regions. The fiscal challenges during this transition highlighted an imbalance in strategic transformation goals and government funding. Proposed cuts of more than 200,000 Soldiers over ten years, reduction in spending, and ongoing transformation programs are challenging the Army's ability to meet the strategic goals of regional alignment.⁹⁵

Along with the deliberate transition to regional alignment, the Army also restructured its operating concept from *Full Spectrum Operations* to *Unified Land Operations*. To achieve this, the Army sought to simplify doctrine without losing the key lessons learned from the previous ten years of war. There were several terminology changes between FM 3-0 (2008) and the Army Doctrine Publication (ADP) 3-0, *Unified Land Operations* but both documents offer a similar answer to the question: What is the Army's focus for the conduct of operations? In FM 3-0 (2008), the Army's focus was full spectrum operations. In ADP 3-0, the focus, or core

⁹⁴Headquarters, Department of the Army, *2013 Army Posture Statement*, 4.

⁹⁵*Ibid.*, 1-2.

competency, changed to the simultaneous application of combined arms maneuver and wide area security to achieve unified action.⁹⁶ ADP 3-0 describes how:

the Army seizes, retains, and exploits the initiative to gain and maintain a position of relative advantage in sustained land operations through simultaneous offensive, defensive, and stability operations in order to prevent or deter conflict, prevail in war, and create the conditions for favorable conflict resolution.⁹⁷

ADP 3-0 focuses on sustained land operations in order to prevent and deter conflict. It does not expand or specifically introduce the concept of regional alignment. It does reference the character of friendly forces and the importance of exercising unified action through security cooperation and building partner capacity.⁹⁸ In reference to sustained land operations, ADP 3-0 offers little discussion on the importance of reserving the ability to project and sustain forces in a theater of operation.

Army Doctrine Reference Publication (ADRP) 4-0, *Sustainment*, took a more comprehensive approach than FM 4-0, *Sustainment* in addressing sustainment planning considerations during phase zero. Like FM 4-0, ADRP 4-0 generally prescribed the considerations for preparation of sustainment operations. ADRP 4-0 took sustainment preparation a step further and by dedicating sections to operational reach, endurance and freedom of action as foundational principles to support decisive action. Within these sections, ADRP 4-0 outlined planning considerations that sought to codify sustainment lessons learned from the previous decade of war and guide sustainment actions in preparation for regional alignment.⁹⁹

⁹⁶Headquarters, Department of the Army. Field Manual 3-0, 3-1 to 3-22; Headquarters, Department of the Army, Army Doctrine Publication 3-0, 1.

⁹⁷Headquarters, Department of the Army, Army Doctrine Publication 3-0, 1.

⁹⁸Headquarters, Department of the Army, Army Doctrine Publication 3-0, 1; Headquarters, Department of the Army, Army Doctrine Reference Publication 3-0, 1-3 to 1-6.

⁹⁹Headquarters, Department of the Army, Army Doctrine Reference Publication 4-0, 3-5 to 3-18.

In the section on Operational Reach, ADRP 4-0 noted the importance of force-projection, theater opening capability, basing and the use of APS. All of these were significant factors in OIF. Force projection is critical in mobilizing and determining the required forces to meet the combatant commander's requirements. As discussed previously, this was a significant problem during OIF preparation where planners failed to prioritize critical sustainment unit's assets to perform shaping operations, which led to distribution challenges. This issue linked directly to theater opening capability and the ability to establish distribution of forces for reception staging and outward integration of forces to execute OIF theater operations. Unlike the force-projection and theater opening capability, basing operations during OIF exemplified success in establishing a geographic location that provided protection and extended operational reach. The successful use of APS stocks proved to be instrumental in providing combat power for early entry forces to begin initial operations without relying on continental US equipment.¹⁰⁰

The section on Endurance in ADRP 4-0 described a condition-setting requirement to sustain prolonged operations. Endurance is the by-product of effective sustainment planning. Additionally, this section emphasized the requirement for an effective distribution system to promote endurance during phase zero. It goes further to describe a distribution system as a complex of facilities, installations, methods, and procedures designed to receive, store, maintain, distribute, and control the flow of military resources between point of receipt into the military system and point of issue to using activities and units. These factors were not established during OIF initial operations.¹⁰¹

The concept of freedom of action is new for ADRP 4-0. It complements the theme of setting conditions to support theater operations through sustainment preparation of the operating

¹⁰⁰Ibid., 3-5 to 3-12.

¹⁰¹Ibid., 3-16 to 3-18.

environment and negotiations and agreements. Carried over from FM 4-0, sustainment preparation of the operating environment is the analysis to determine infrastructure, physical environmental, and resources in the operational environment that will optimize or adversely influence friendly forces means for supporting and sustaining the commander's operations plan. ADRP 4-0 emphasizes the importance of preparatory planning to offset the challenges during phase zero planning. Significant aspect of the freedom of action section is the negotiations and agreements. Within negotiations and agreements described in ADRP 4-0, the concept of a reduced sustainment footprint in theater was introduced. With an established host-nation support agreement, Army forces can utilize existing partnered nation sustainment capability. Kuwait fuel support highlights the success of host-nation negotiations and agreements. During phase zero, Army planners were able to position forces and established infrastructure required to support fuel operations. As illustrated in OIF case study, through agreements and negotiations the Kuwait government help establish facilities and contracts, which resulted in seamless fuel operations during OIF.¹⁰²

Unlike doctrine, organization structure is slower transform to support the concepts outlined by Regionally Aligned Forces. In 2013, during a period of budget cuts and sequestration, the Army began downsizing which complicates adjusting organization structure. Acknowledging this situation, sustainment organizational changed to support the shift to Regionally Aligned Forces were limited and reflected 2006 Modular Logistics Concept and 2007 Army Modernization Plan structure. Adjustments to organizational structure in accordance with the Modular Logistics Concept and Army Modernization Plan originated from the expanding operational requirements of OIF. The goal for the Army Modernization Plan was to establish 48 active component brigade combat teams to facilitate a deployment cycle of 20-21 teams deployed

¹⁰²Ibid., 3-12 to 3-16.

during any given cycle. In contrast, estimates of the future force downsizing due to sequestration are 80K -200K over the next ten years. The result is active duty brigade combat teams reduced as low as 32, along with supporting sustainment infrastructure. The Army Modernization Plan prescribed the reorganization of logistics infrastructure to accommodate the expanding operational requirements. Based on past transformation and the impending force reductions there is a noticeable level of tension between how the Army will operate with less personnel and capability in a more dispersed regionally aligned mission.¹⁰³

REGIONALLY ALIGNED FORCES: ANALYSIS THROUGH DOCTRINE AND ORGANIZATION

The transition to regional alignment started in the late 1990s. It was initially introduced into the Army as Force XXI. Many of the attributes described during this period are reoccurring themes of the current capabilities required to achieve regional alignment. Prior to OIF, the fundamental idea was the US had no near-peer competitor and was the dominant military power. This led to an assumption that potential adversaries would/might challenge the US asymmetrically. This understanding led Army leadership to conclude that the Army required a revolution in military affairs and from the logistics standpoint, a revolution in military logistics to meet the challenge of change. The changes required to achieve the desired revolution lay with technology, doctrine and organization. The exploration of Army logistics doctrine and organization before, during, and after OIF provided insight into the challenges of regional alignment. The section discusses the significant transition points within doctrine and organization that provide implications and recommendations for future sustainment of regional alignment during phase zero.

¹⁰³Headquarters, US Army Combined Arms Support Command, *Modular Logistics Concept*, 10-16; Department of the Army, *2007 Army Modernization Plan*, 24-34; Stuart E. Johnson, John E. Peters, Karin E. Kitchens, Aaron L. Martin, and Jordan R. Fischback, *A Review of the Army's Modular Force Structure*, Technical report TR-927-1-OSD (Santa Monica, CA: RAND, 2011), 17.

National policy and strategies affected Army doctrine before, during, and after OIF. They produced shifts that caused deviation from the regional alignment concept. In general, the concepts that initiated the transition to regional alignment were revolutionary and required a shift from Cold War mentality to anticipate new threats.¹⁰⁴ Logistics doctrine transitioned slower than projected because they continued to operate under Cold War doctrine. During OIF, the Army initiated the transition to regional alignment, but the concept fell short of expectations due to competing operational requirements. Logistics doctrine changed twice during OIF, with the purpose of facilitating efficient operation in OIF rather than continued transition to regional alignment. Post OIF doctrine continued to facilitate regional alignment and recognized a changing operational environment that mandated a revised push toward regional alignment. Logistics doctrine would need to accommodate a revised Army operational structure, which led to implications for future logistics doctrine.

As discussed in the OIF doctrine section, the language that influenced the transition to regional alignment originated from national policies and strategies to change the function of US fighting forces from a Cold War posture to meet the anticipated challenges of the 21st century. The *National Military Strategy* (1997), *Joint Vision 2010* and the *Army Posture Statement* (2000) all refer to this concept and create an environment of innovative thinking to achieve the prescribed transition of Army capabilities.¹⁰⁵ The prescribed restructuring of forces were to achieve efficiency and effective fighting forces called Force XXI. Force XXI was the result of innovative thinking and new or enhanced war fighting capability. With the Army still operating within doctrine prescribed for a Cold War threat, restructuring of doctrine was required to provide a new operational framework for forces to operate. From 1998 to 2003, it took the Army

¹⁰⁴Headquarters, Department of the Army, *Army Posture Statement*, 51-54.

¹⁰⁵Joint Chiefs of Staff, *Joint Vision 2010*, 1-2; Joint Chiefs of Staff, *National Military Strategy*, 2-4; Headquarters, Department of the Army, *Army Posture Statement*, 5.

approximately six years to revise and generate new doctrine. Additionally, during this period there was significant dialog and references to a revolution in military affairs to achieve to complete vision and specifically a revolution in logistics, to ensure logistics doctrine was able to support operational requirements. The Army required more dynamic and efficient logistics units. Furthermore, the true challenge for logistics doctrine during this period was conflicting requirements to support an Army structure in transition. At the end of the six-year transition period to Force XXI, the Army published its first draft of FM 3-0, *Operations*. In 2003 FM 4-0, *Combat Service Support* provided sustainment framework for Force XXI Army force to operate.

As the Army transitioned to Force XXI, OIF created a divergence from the global posture construct described *Army Posture Statement* (2000) to support theater operations.¹⁰⁶ While the Army had distributed new doctrine and reorganizing forces accordingly, OIF caused significant tension points documented in aspects of sustainment planning and preparation. The start of OIF was the first major conflict to deploy Forces XXI units and employ revised operating doctrine FM 3-0 and FM 4-0. Focusing on planning and preparation for OIF, maneuver units had minimal transition issues because they are not the decisive operation during phase zero. In conjunction with planning for maneuver units, aspects of logistics preparation begun nearly nine months before the initial operations began in Iraq. The transition between FM 100-10 and FM 4-0 created gaps in doctrine that contributed to the problematic logistics preparation of OIF. The focus of FM 100-10 was Cold War sustainment by projecting forces that were responsive and had the ability to improvise in order to support theater requirements. The focus of FM 4-0 was the change to tailored sustainment forces forecasted by theater planners. The sustainment planners for OIF successfully forecasted fuel requirements and activated appropriate Army Reserve forces to

¹⁰⁶Headquarters, Department of the Army, *Army Posture Statement*, 5.

deploy and establish necessary fuel infrastructure as prescribed.¹⁰⁷ They failed at tailoring early entry capabilities prescribed in FM 3-0 (2001). As a result, distribution operations were immature at the start of OIF operations, which affected basing and operational reach of initial forces advancing into Iraq. Additionally, a change in force projection techniques added to the ineffectiveness of logistics efforts during phase zero. Switching from the deliberate TPFDL process of matching combat units with supporting units and enablers to the ad-hoc force packaging method, which did not require matching of supporting units and enablers, created a disconnect between timing of early support units maneuver units.¹⁰⁸ Ultimately, the confusion in application of doctrinal principles during this transition period contributed to the failure of distribution operations. From this point, the Army received new national strategy established new doctrine to codify the lessons learned during the first four years. FM 3-0 (2008) described principles to achieve success in Iraq, causing divergence from the principles that initiated the Army transition towards regionally aligned forces.

Following OIF, new strategic guidance recognized global threats and the requirement for regionally aligned forces. The *QDR* (2010) and *Army Posture Statement* (2013) described an operating environment that is fiscally constrained and focused heavily on leveraging security cooperation agreements and building partners' capacity to allow a globally responsive and regionally aligned force. As with the transition to Forces XXI, the Army produced new doctrine and changed the name of their new operational construct to unified land operations. ADP 3-0 was published in October 2011, less than one year after *QDR* (2010) followed by ADP 4-0 in July 2012. Both documents are less prescriptive reference on how to employ forces but are effective providing the general operational construct for forces. This methodology for ADP 3-0 and ADRP

¹⁰⁷Peltz et al., 12-16

¹⁰⁸*Ibid.*, 21-23.

4-0 follows the 2015 Doctrine guidance that shortened doctrine to be less prescriptive. Both ADP 3-0 and 4-0 offer the theme of regional alignment through security cooperation and building partner capacity with tailored forces. An advantage to publishing this type of doctrine is timely revision based on higher strategy and it avoids prescribing how we should operate in the environment and offers a general description instead. In regards to regional alignment, the less prescriptive the new doctrine offers an opportunity to adapt Army requirements as regional alignment policy evolves.¹⁰⁹

Sustainment organizational changes before, during, and after OIF were slow to materialize and experienced challenges to meet future regional alignment requirements. Like doctrinal changes, sustainment organizational changes prior to OIF needed to be revolutionary to shift from Cold War to operate against new threats.¹¹⁰ In order for logistics units to transform prior to OIF, they had to overcome tensions associated with a revolution in military logistics. During OIF, sustainment organizational structure transformed to a modular structure to meet OIF operational requirements. Post OIF organizational structure remained unchanged but changes in the operating environment presented challenges for support of regional alignment.

Prior to OIF, sustainment organization changes were not significant and contributed to confusion of organizational responsibilities. As mentioned previously, leaders recognized the requirement for revolution in military logistics. The revolution in military affairs proposed during this period primarily consisted of a reduction of logistics battle-space footprint and integrating technologies to reduce logistics stockpiles. For OIF, the challenge was that the sustainment footprint did not significantly change as proposed by the revolution in military affairs.

¹⁰⁹Headquarters, Department of the Army, *Army Posture Statement*, 1-2; Headquarters, Department of the Army, Army Doctrine Publication 3-0, 3; Headquarters, Department of the Army, Army Doctrine Reference Publication 4-0, 2-8 to 2-15; Department of Defense, *Quadrennial Defense Review Report*, 1-4.

¹¹⁰Headquarters, Department of the Army, *Army Posture Statement*, 5.

Technology enablers aimed to increase the agility of the supply system but failed timely implementation to yield significant battle-space reductions. This led to the concept of reduced sustainment footprint centered on reducing logistics assets in the area of operations.¹¹¹ This idea created confusion for planners who underestimated the logistics capability and capacity required during phase zero to support distribution operations in OIF.

During OIF, sustainment organization transformation enhanced efficiency of operations in Iraq and lost focus of a regionally aligned concept. With the focus on modularity, sustainment units transformed at all echelons. From the lessons learned during OIF, there was increased emphasis on sustainment mission command and organizations that were tailorable to meet mission requirements. The Army recognized that it could not reduce the sustainment footprint with expanding operations in OIF. OIF caused adaptation to Army sustainment functions to facilitate victory in OIF. The result was a sustainment infrastructure that was a robust, modular force-reception capability, dedicated and trained to quickly orient within Iraq and promote continuous operations.¹¹²

Post OIF, changes to sustainment organizational structure aimed to reduce its footprint and adapt to meet the global requirement of regional alignment. The robust sustainment footprint required to achieve victory at the peak of OIF is not sustainable within the current government fiscal environment. With the Army scheduled to reduce capabilities, regional alignment policy seeks to use a smaller Army in a globally aligned but regionally focused approach. A significant assumption for regionally alignment is reduced sustainment capability will support phase zero requirements. The requirement for an effective phase zero operations are evident in the OIF case

¹¹¹Ransom; Corbett, 22.

¹¹²Department of Defense, *2006 Quadrennial Defense Review Report*, 9-11; Department of the Army, *2007 Army Modernization Plan*, 24-30; Headquarters, US Army Combined Arms Support Command, *Modular Logistics Concept*, 6-7.

study. This presents a major challenge in shaping the right size and capability of logistics organizations.¹¹³

CONCLUSIONS: IMPLICATIONS AND RECOMMENDATIONS FOR PHASE ZERO

The Army is changing and so must sustainment; we must proactively approach this change to ensure that we are prepared to support and sustain our Army whenever and wherever called.¹¹⁴

— MG Larry D. Wyche, CASCOM CG

This monograph described an environment that is uncertain regarding regional alignment. Based on past conflicts and trends we can anticipate logistics shortfalls that are relevant to phase zero operations of regional alignment. From the analysis above, sustainment footprint, early entry capability, building partner capacity, and adaptable doctrine present concerns during phase zero. These issues are not new and continue to shape sustainment operations. Referencing elements of operational art, the concerns stated above suggest shortfalls with the doctrinal concepts of basing and operational reach.¹¹⁵ A base is a locality from which operations are projected or supported. Generally, bases are in host nations where the United States has a long-term lease agreement and a status-of-forces agreement. Operational reach is the distance and duration across which a unit can successfully employ military capabilities. Sustainment enables operational reach. It provides Army forces with the lift, materiel, supplies, health services, and other support necessary to sustain operations for extended periods. From a sustainment organization standpoint, these implications expand from the OIF experience and offer a general capability requirement to

¹¹³Headquarters, Department of the Army, *2013 Army Posture Statement*; Headquarters, Department of the Army, *2013 Army Strategic Planning Guidance*; Kathleen Hicks and Samuel J. Brannen, "Force Planning in the 2010 QDR," *Joint Force Quarterly* 59 (4th Quarter 2010): 136-142, <http://www.dtic.mil/dtic/tr/fulltext/u2/a536593.pdf> (accessed January 15, 2014).

¹¹⁴Combined Arms Support Command, 4.

¹¹⁵Headquarters, Department of the Army, Army Doctrine Reference Publication 3-0, 4-2 to 4-9; Headquarters, Department of the Army, Army Doctrine Reference Publication 4-0, 3-5 to 3-10.

consider as we shape the force of the future. From the doctrinal standpoint, the Army will need to continue to evolve and integrate concepts to facilitate the nuances associated with regional alignment in order to integrate future requirements.

Organization and Doctrinal Implications

Determining the sustainment footprint to meet the needs of Army operations was a challenge in the past and will continue in the future. Prior to OIF, the focus was on reduction of capability without properly acknowledging operating requirements. During OIF, the logistics units transformed to a modular force and tailored specifically to meet operational requirements. This approach lost sight of original transformation objectives, which were to develop a force that could operate globally. Post OIF, the Army is reducing capability to meet fiscal requirements. The trend from OIF is that sustainment footprint was not adaptable enough to meet initial theater requirements. This problem is less about size and more about capability. Specifically, the minimum capability to establish conditions prior to theater operations. As seen in OIF, initial operations lacked the units in theater to establish logistics mission command during the initial stages of operations. Additionally, the units available lacked distribution capability. Determining the appropriate sustainment footprint to support a globally responsive but regionally aligned approach will rely on an organization capability that is able to expand operations to support theater operations.

This requirement leads to the next significant organizational concern, which is an early entry capability. The sustainment community must be capable of rapidly deploying Army capabilities, establishing the theater, and sustaining the deployed force. Consequently, this imposes a number of requirements on the future sustainment force. First, capabilities required for deployment and theater reception and terminal/port operation, such as theater reception capabilities, must be capable of moving in accordance with strategic guidance. Second, rapid theater opening capabilities such as early entry petroleum, ammunition and contracting

capabilities that enable specific missions, such as intermediate staging base on both land and at sea and RSOI must also meet strategic notice to move guidance. Third, sustainment forces must be able to establish lines of communication that utilize road, rail, waterway, and aerial supply to move supplies, material, and equipment in order to establish and reinforce units in their forward areas of operation. The underlying principle proposed is that all capabilities required to deploy, receive, and sustain the force in the first rotation should be capable, without constraint, of meeting regional alignment requirements.¹¹⁶

With the continued reduction of sustainment capabilities, building partner capacity is the final organizational concern for phase zero. The Army can shape the environment by maintaining strong relationships with other militaries and building their capacities. Sustainment units play a critical role in building partner capacity. The Army must proactively ensure that its organizations are capable of conducting such missions. Key capabilities required for building partner capacity include both operational contract support and foreign military sales, with associated support and training. The sustainment community must consider how operational contract support and foreign military sales can influence future operations from a perspective of generating third-party industrial capacity in a region. Such investment decisions may reduce future operational costs by ensuring that indigenous materiel repair and rebuild capabilities are available in a region. Sustainment units must be capable of conducting training as part of foreign military sales. To implement the requirements for building partner capacity, the Army must retain adequate personnel and organization support phase zero.¹¹⁷

Prior to OIF, doctrine was prescriptive and required prolonged implementation and revision. Then the lessons learned from OIF and national policy contributed to doctrinal changes

¹¹⁶Combined Arms Support Command, 17.

¹¹⁷Ibid., 18-19.

during OIF. Now unified land operations doctrine is flexible enough to facilitate the dynamics of an environment adjusting for a globally responsive and regionally aligned approach. In doctrine, described through operational art, the concepts of operational reach and basing generally describe requirements for phase zero. Discussed in the analysis section, the transformation of Army doctrine and specifically sustainment doctrine pertaining is generalized enough to facilitate planning for operational reach and basing. Overall, regional alignment doctrine must focus on preparing units to operate under conditions quite different from OIF. In OIF, there was increased focus for the Army to conduct successful operations in Iraq. This focused effort led to establishing new doctrine specific to operations in Iraq. An identical approach is required to approach a globally responsive and regionally aligned posture. For sustainment, the dynamics of each region will dictate the focus of sustainment priorities. Therefore, this requires a form of regional doctrine to guide sustainment planning and organizational structure. The general concepts for basing and operational reach will provide framework for regional doctrine supporting phase zero.

Organizational and Doctrinal Recommendations

Based on lessons learned from OIF, sustainment implications and regional alignment requirements, the Army must develop sustainment organizations focused on regional support requirements. In doctrine, expeditionary sustainment commands provide tailorable capabilities to assigned area of operations. Under this existing command and at the regional level, Regional Sustainment Commands can manage Army regional sustainment requirements. Primarily a mission command HQ, they would manage local Army logistics footprint, and establish early entry capabilities by building partner capacity. Each regionally aligned command would receive required Regional Sustainment Commands based on geographic combatant commander requirements and region capabilities.

The proposed Regional Sustainment Commands' responsibility entails establishing the Army sustainment footprint during phase zero of an operation. The functions of the Regional Sustainment Command during phase zero are purely administrative to minimize personnel and equipment requirements. Additionally, an important aspect of managing the sustainment footprint includes understanding requirements and capacity of regional capabilities. The Regional Sustainment Commands along with joint, coalition, and host-nations organizations would estimate regional sustainment capacity and capabilities to support regional operations. Providing this information to strategic planners would help determine forces required to support the geographic combatant commander. The result is a sustainment mission command that is minimal in size and links strategic planners to regional requirements. These actions would mitigate failures in sustainment planning described in phase zero of OIF, which led to theater distribution challenges during initial operations.

In addition to the sustainment footprint, Regional Sustainment Commands would manage early entry capabilities to support regional operations. Establishing sustainment appropriate conditions for the arrival forces is an important aspect of phase zero. This includes all theater opening capabilities. During phase zero, there are inherent mission command challenges that degrade the function of capabilities available. In OIF, they had a mix of sustainment capabilities in theater that formed ad-hoc organizations to meet mission requirements. Unfortunately, the ad-hoc units failed to set necessary sustainment conditions during phase zero. As a mission command element, the Regional Sustainment Command concept could facilitate tailoring sustainment forces during phase zero to establish sustainment conditions for early entry operations.

A significant aspect of managing regional requirements in phase zero is building partner capacity. Building partner capacity covers a broad spectrum of areas based on regional or host nation capacity and capabilities. All aspects will require governmental agreements and

partnerships to leverage required resources. The challenge is many of the agreements and partnerships develop over time and through government negotiations. In OIF, planners understood the importance of access to petroleum resources during phase zero planning. Conditioning setting for fuel operations began many months prior to the start of operations and made necessary agreements with Kuwait government to facilitate theater requirements. Regional Sustainment Commands could survey and recommend areas for building partner capacity based anticipated regional requirements. Regional Sustainment Commands would contribute to effective capacity building which can minimize projection of sustainment forces and allow tailoring of sustainment forces to support regional requirements.

A regionally focused force should provide general guidance for Regional Sustainment Commands to facilitate the management of sustainment footprint, management of early entry capabilities and building partner capacity during phase zero. Within the framework of operational reach and basing, this doctrine must allow Regional Sustainment Command mission command elements to function within joint, coalition, and host nation environment. The doctrine must allow physical integration of Regional Sustainment Command to develop the supporting concepts. Finally, the doctrine must clearly define sustainment mission command responsibilities and appropriate level of leadership to execute responsibility within the environment.

The concept of regional alignment and the ability to operate on a globally responsive but regionally aligned construct will require a revision of sustainment organizations and maintain doctrine that is adaptable to a changing environment. Post-Cold War policy and doctrine ignited a transformation of Army forces to engage regionally in preparation for an uncertain 21st century operational environment. The success and failure of sustainment operations during phase zero of OIF illustrate the challenge of changing sustainment doctrine and organization structure to support a regionally aligned concept. Additionally, this period of change is reflective of current changes to Army force structure to support a renewed emphasis on the regional alignment

concept. To sustain operations in future operational environments, we must retain the ability to establish sustainment priorities during phase zero. A way of approaching this challenge is adapting sustainment organization and doctrine for global responsive sustainment at the regional level.

BIBLIOGRAPHY

- Army War College, and US Army War College Conference on Strategy. *Transforming Defense*. Edited by Conrad C. Crane. Carlisle, PA: Strategic Studies Institute, US Army War College, 2001.
- Aspin, Les. *Bottom Up Review*. Washington, DC: Office of the Secretary of Defense, October 1993. http://www.dod.mil/pubs/foi/administration_and_Management/other/515.pdf (accessed February 23, 2014)
- Bartell, Authur. "Army 2020 Update." US Army Training and Doctrine Command, June 2012. http://defenseinnovationmarketplace.mil/resources/Army_2020_Charts.pdf (accessed October 13, 2013).
- Brown, John Sloan. *Kevlar Legions: The Transformations of the United States Army 1989-2005*. Washington, DC: Center of Military History, 2011.
- Cheney, Dick. "Defense Strategy for the 1990s: The Regional Defense Strategy." January 1993. http://www.informationclearinghouse.info/pdf/naarpr_Defense.pdf (accessed February 14, 2014).
- Combined Arms Support Command (CASCOM). "Army 2020 and Beyond Sustainment." White Paper. August 30, 2013. <http://www.cascom.army.mil/PDF/Army%202020%20and%20beyond%20sustainment%20white%20paper%20globally%20responsive%20sustainment.pdf> (accessed November 19, 2013).
- Cook, Katherine. "Transforming the Force and Logistics Transformation." Strategy Research Project, Army War College, Carlisle Barracks, Carlisle, PA, 2006. <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA449090> (accessed January 1, 2014).
- Corbett, Derrick. "Logistics Transformation: The Paradigm Shift." Monograph, School of Advanced Military Studies, Fort Leavenworth KS, 2007. <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA470672> (accessed March 2, 2014).
- Department of the Army. *Army Vision 2010*. Washington, DC: Government Printing Office, 1996. <http://www.dtic.mil/docs/citations/ADA319211> (accessed October 16, 2013).
- . *2007 Army Modernization Plan*. Washington, DC: Government Printing Office, 2007. <https://www.hsdl.org/?view&did=472184> (accessed January 12, 2014).
- Department of Defense. *Quadrennial Defense Review Report*. Washington, DC: Government Printing Office, February 2006. <http://www.defense.gov/qdr/archive/20060206qdr1.html> (accessed October 19, 2013).
- . *Quadrennial Defense Review Report*. Washington, DC: Government Printing Office, February 2010. <http://www.defense.gov/qdr/> (accessed November 12, 2013).
- Fontenot, Gregory. *On Point: The United States Army in Operation Iraqi Freedom*. Fort Leavenworth, KS: Combat Studies Institute Press, 2004.

- Government Accountability Office. *Major Challenges for Army Transformation Plan*. Washington, DC: Government Printing Office, November 2001. <http://www.gao.gov/products/GAO-02-96#> (accessed January 1, 2014).
- Harrison, Gordon A. *Cross-Channel Attack*. Honolulu: University Press of the Pacific, 2002.
- Headquarters, Department of the Army. *Army Posture Statement*. Washington, DC: Government Printing Office, May 2013. <http://usarmy.vo.llnwd.net/e2/c/downloads/302970.pdf> (accessed January 12, 2014).
- . *Army Strategic Planning Guidance*. Washington, DC: Government Printing Office, 2013. http://usarmy.vo.llnwd.net/e2/rv5_downloads/info/references/army_strategic_planning_guidance.pdf (accessed January 12, 2014).
- . Army Doctrine Publication 3-0, *Unified Land Operations*. Washington, DC: Government Printing Office, October 2011. http://usarmy.vo.llnwd.net/e2/rv5_downloads/info/references/ADP_3-0_ULO_Oct_2011_APD.pdf (accessed December 7, 2013).
- . Army Doctrine Publication 4-0, *Sustainment*. Washington, DC: Government Printing Office, July 2012. http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/adrp4_0.pdf (accessed December 7, 2013).
- . Army Doctrine Reference Publication 3-0, *Unified Land Operations*. Washington, DC: Government Printing Office, May 2012. http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/adrp3_0.pdf (accessed December 11, 2013).
- . Army Doctrine Reference Publication 4-0, *Sustainment*. Washington, DC: Government Printing Office, July 2012. http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/adrp4_0.pdf (accessed December 7, 2013).
- . *Army Posture Statement*. Washington, DC: Government Printing Office, 2000. <http://www.army.mil/aps/00/aps00.htm> (accessed October 18, 2013).
- . Field Manual (FM) 3-0, *Operations*. Washington, DC: Government Printing Office, 2008.
- . Field Manual (FM) 3-0, *Operations*. Washington, DC: Government Printing Office, June 2001.
- . Field Manual (FM) 4-0, *Combat Service Support*. Washington, DC: Government Printing Office, 2003.
- . Field Manual (FM) 100-5, *Operations*. Washington, DC: Government Printing Office, June 1993. http://www.fs.fed.us/fire/doctrine/genesis_and_evolution/source_materials/FM-100-5_operations.pdf (accessed October 18, 2013).
- . Field Manual (FM) 100-10, *Combat Service Support*. Washington, DC: Government Printing Office, 1995.
- . Field Manual (FM) 100-10-1, *Theater Distribution*. Washington, DC: Government Printing Office, 1999.

- Headquarters, US Army Combined Arms Support Command. *Modular Logistics Concept*. September 2006. https://blackboard.leavenworth.army.mil/master_library/TRADOC_Pubs/Modular_Force_Logistics_Concept_ver6_Sept06.pdf (accessed January 23, 2014).
- Hicks, Kathleen, and Samuel J. Brannen. "Force Planning in the 2010 QDR." *Joint Force Quarterly* 59 (4th Quarter 2010): 136-142. <http://www.dtic.mil/dtic/tr/fulltext/u2/a536593.pdf> (accessed January 15, 2014).
- Hilburn, Cofield. "Transforming for Distribution Based Logistics." Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, May 2005.
- Huston, James. *The Sinews of War: Army Logistics, 1775-1953*. Washington, DC: Office of the Chief of Military History, 1966.
- Johnson, Stuart E., John E. Peters, Karin E. Kitchens, Aaron L. Martin, and Jordan R. Fischback. Technical report TR-927-1-OSD, *A Review of the Army's Modular Force Structure*. Santa Monica, CA: RAND, 2011.
- Joint Chiefs of Staff. *National Military Strategy*. Washington, DC: Government Printing Office, January 1992. <http://history.defense.gov/resources/nms1992.pdf> (accessed October 18, 2013).
- . *National Military Strategy: Shape Respond, Prepare Now: A Military Strategy for a New Era*. Washington, DC: Office of the Chairman of Joint Chiefs of Staff, 1997. <http://www.au.af.mil/au/awc/awcgate/nms/> (accessed October 19, 2013).
- . *National Military Strategy*. Washington, DC: Government Printing Office, February 2011. <http://www.army.mil/info/references/docs/NMS%20FEB%202011.pdf> (accessed December 15, 2013).
- . Joint Publication 3-35, *Deployment and Redeployment Operations*. Washington, DC: Joint Chiefs of Staff, January 2013. http://www.dtic.mil/doctrine/new_pubs/jp3_35.pdf (accessed January 13, 2014).
- . Joint Publication 5-0, *Joint Operation Planning*. Washington, DC: Government Printing Office, August 11, 2011. http://www.dtic.mil/doctrine/new_pubs/jp5_0.pdf (accessed December 18, 2013).
- . *Joint Vision 2010*. Washington, DC: Government Printing Office, 1996. <http://www.dtic.mil/jv2010/jv2010.pdf> (accessed October 16, 2013).
- . *National Military Strategy: Preparing for the Future*. Washington, DC: Government Printing Office, 1997. <http://www.au.af.mil/au/awc/awcgate/nms/> (accessed October 23, 2013).
- Millett, Allan Reed. *The War for Korea, 1950-1951: They Came from the North*. Lawrence: University Press of Kansas, 2010.

- National Defense Panel. "The Report of the Quadrennial Defense Review." May 1997. http://www.dod.mil/pubs/foi/administration_and_Management/other/900.pdf (accessed November 7, 2013).
- Office of the Deputy Secretary of Defense for Plans. *Theater Campaign Planning Handbook*. February 2012. [http://www.alu.army.mil/ALU_DOCS/Planners_Handbook_Master_Final%20Draft%2002-22-12%20\(2\).pdf](http://www.alu.army.mil/ALU_DOCS/Planners_Handbook_Master_Final%20Draft%2002-22-12%20(2).pdf) (accessed February 22, 2014).
- Peltz, Eric, John M. Halliday, Marc L. Robbins, and Keith J. Girardini. *Sustainment of Army Forces in Operation Iraqi Freedom: Battlefield Logistics and Effects on Operations*. Santa Monica, CA: RAND, 2005.
- Ransom, Darrell. "Logistics Transformation-Reducing the Logistics Footprint." Strategy Research Project, Army War College, Carlisle Barracks, Carlisle, PA, 2002. <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA404441> (accessed January 1, 2014).
- Risley, Steven. "How Effective Is the Combat Service Support (CSS) Transformation Process?" Strategy Research Project, Army War College, Carlisle Barracks, Carlisle, PA, 2006. <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA449736> (accessed January 23, 2014).
- Romjue, John. "American Army Doctrine for the Post-Cold War." TRADOC Historical Monograph Series, United States Training and Doctrine Command, Fort Monroe, VA, 1996. <http://cgsc.contentdm.oclc.org/cdm/ref/collection/p4013coll11/id/1207> (accessed January 29, 2014).
- Sullivan, Gordon R., and Institute for Foreign Analysis. *America's Army: Into the Twenty-First Century*. [Cambridge, MA]: Institute for Foreign Policy Analysis, 1993.
- The White House. *1993 National Security Strategy*. Washington, DC: Government Printing Office, February 1993. <http://nssarchive.us/NSSR/1993.pdf> (accessed February 26, 2014).
- US Army Material Command. *OIF- "It Was A Prepositioned War."* Fort Belvoir, VA: US Army Material Command, 2005.
- Wynne, Michael. *Objective Assessment of OIF Logistics*, Joint Assessment. Washington, DC: Headquarters Department of Defense, March 2004. http://www.ndu.edu/library/docs/J1911_ObjAssess.pdf (accessed November 18, 2013).