

EXTENDING THE OPERATIONAL RELEVANCE OF THE CURRENT HEAVY
MECHANIZED AND ARMOR FORCE TO 2020 AND BEYOND

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by

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MASTER OF MILITARY ART AND SCIENCE

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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

EXTENDING THE OPERATIONAL RELEVANCE OF THE CURRENT HEAVY MECHANIZED AND ARMOR FORCE TO 2020 AND BEYOND, by Major Gerald A Boston, USA, 73 pages.

Can the U.S. Army's current heavy mechanized and armor force adapt emerging *Joint Vision 2020* operational concepts, in order to remain relevant to the land power requirements of combatant commanders across the full range of military operations until the United States Army fields the objective force? This thesis analyses the capabilities of the current heavy force through the prism of the operational concepts articulated in *Joint Vision 2020*. Dominant maneuver, precision engagement, focused logistics, and full-dimensional protection are expanded into their constituent desired operational capabilities.

The wide range of military operations and the complexity of a nonaligned world revealed some key vulnerabilities and gaps in the nation's warfighting capability and force structure. The fundamental dilemma in balancing capabilities and structure that confronts the Army is especially acute concerning the current heavy mechanized and armor force. As that force has been optimized for decisive land warfare in major combat operations, it became less effective in other, more contemporary operating environments.

The thesis demonstrates that the current heavy force can execute most of the desired operational capabilities articulated in the *Joint Vision Implementation Master Plan* and provide the Joint Force Commander essential capabilities across the range of military operations.

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ACRONYMS

AOR	Area of Responsibility
ARFOR	Army Force
ASCC	Army Service Component Command
APOD	Air Port of Debarkation
BDA	Battle Damage Assessment
C2	Command and Control
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (or just ISR or C4I).
COE	Contemporary Operating Environment
CONUS	Continental United States
COP	Common Operational Picture
CSS	Combat Service Support
CS	Combat Support
DIME	Diplomacy, Information, Military Power, and Economics.
DOC	Desired Operational Capabilities
JFC	Joint Force Commander
JIMP	Joint Vision Implementation Master Plan
JOA	Joint Operations Area
JV 2020	Joint Vision 2020
MCO	Major Combat Operations
MOOTW	Military Operations Other Than War
OIF	Operation Iraqi Freedom
POD	Port of Debarkation.

JRSO&I	Joint Reception, Staging, Onward Movement, and Integration.
SPOD	Sea Port of Debarkation
SSC	Small Scale Contingency

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CHAPTER 1

INTRODUCTION

To fulfill its multiple roles, the Army's force structure and design must provide the [operational] capabilities necessary to operate across a broad spectrum of conflict in peacetime, crisis, and war . . . [it] must ensure that the United States is not susceptible to asymmetrical counters that circumvent U.S. [operational] capabilities or attack perceived U.S. vulnerabilities.¹

William T. Johnson, *Force Planning Considerations for Army XXI*

The Bygone Vision and the Future Certainty

The United States Army is transforming. The dissolution of the Soviet Union in 1989-90 signaled the beginning of the end for the force designed for high-intensity warfare on the inter-German border. The perception of quick victory in Operation Desert Storm in 1991 seemed to validate the Army's heavy mechanized force as the decisive instrument of land power. Potential adversaries carefully observed the American way of war. As the twentieth century drew to a close the Army began to understand that the force built for the Cold War would not serve the nation's security needs in the twenty-first century.

In October 1999, the Department of the Army announced the beginning of a transformation process. Both its current force structure and supporting doctrine were bifurcated (light and heavy) and less relevant to the emerging threat environment of the twenty-first century than had been the case at the end of Desert Storm. The transformation plan articulated in *A Statement on the Posture of the United States Army 2000* calls for a three-pronged approach oriented on:

the Objective Force, the Interim Force, and the Legacy Force. We [the Army] will develop concepts and technologies for the Objective Force while fielding an Interim Force to meet the near-term requirement to bridge the operational gap between our heavy and light forces. The third element of Transformation is the modernization and recapitalization of existing platforms within our current force--the Legacy Force--to provide these platforms with the enhanced capabilities available through the application of information technologies.²

Transformation is time consuming and expensive. Until it is complete, the current heavy mechanized and armor force will remain the decisive element of land power for major combat operations (MCO), but its applicability and adaptability across the likely range of military operations of the future is an open question.

Thesis Topic and Primary Research Question

Can the United States Army's current heavy mechanized and armor force adapt emerging *Joint Vision 2020* operational concepts, in order to remain relevant to the land power requirements of combatant commanders across the full range of military operations until the United States Army fields the objective force?

The Nature of the Problem

Strategic Context

The United States' national security and national military strategies call for the American military to accomplish objectives established by the President and Secretary of Defense. Fulfilling these requirements requires a tailored, adaptive joint force "operating unilaterally or in combination with multinational and interagency partners, . . . [which can] defeat any adversary and control any situation across the full range of military operations."³

Dominating potential adversaries across the full range of military operations (see figure 1) is a daunting mission for any force. Traditionally the American military developed, fielded, and optimized specialized forces to concentrate on particular facets of the operational continuum. This concept was predicated on a Cold War, industrial-age model that implied that conflict and war are sequential processes embarked upon by rational international actors whose goals and objectives were either familiar or similar to our own.

RANGE OF MILITARY OPERATIONS			
Military Operations		General US Goal	Examples
COMBAT	War	Fight & Win	Large-scale Combat Operations: Attack / Defend / Blockades
	NONCOMBAT Military Operations Other Than War	Deter War & Resolve Conflict	Peace Enforcement / Noncombatant Evacuation Operations (NEO) Strikes / Raids / Show of Force Counterterrorism / Peacekeeping Counterinsurgency
		Promote Peace & Support US Civil Authorities	Antiterrorism / Disaster Relief Peacebuilding Nation Assistance Domestic Support Counterdrug / NEO

Figure 1. The Range of Military Operations (Reprinted from *Joint Publication 3-0, Doctrine for Joint Operations*, 2001)

Army Service Component Commands and Joint Force Commanders (JFC) continue to struggle with the future role of landpower. The wide range of operations and

the complexity of a nonaligned world revealed some key vulnerabilities and gaps in the nation's warfighting capability and force structure. The fundamental dilemma in balancing capabilities and structure that confronts Army force managers is especially acute concerning the current heavy mechanized and armor force. As that force has been optimized for decisive land operations in a MCO, it has become less flexible and effective in other, more contemporary operational environments (COE).

The goal for transformation is to create "a different Army, not just a modernized version of the current Army. Combining the best characteristics of our current forces, the Army [objective force] will possess the lethality and speed [and survivability] of our heavy force, [and] the rapid deployment mentality and toughness of our light forces . . . adopting a common warrior culture across the entire force."⁴

Scope

The U.S. Army's current heavy mechanized formations represent the nation's best *near-term* strategic hedge to respond to MCO landpower capabilities as determined by the national strategies and the requirements of the combatant commanders. JFC will tailor subordinate (component) forces to accomplish missions consistent with their common operational picture (COP), theater design principles, and joint command and control relationships. The U.S. Army optimized its heavy mechanized and armor forces for MCO, but they may no longer be relevant across the full spectrum of conflict.

One of the most difficult challenges to overcome is the requirement for rapid force deployments frequently imposed by smaller scale contingencies (SSC) and military operations other than war (MOOTW). This requirement for rapid deployment--usually from continental United States (CONUS) locations--causes heavy mechanized and armor

formations and their associated logistics assets to be strategically unresponsive and therefore not useful across the entire range of operations. The optimization for MCO has created forces that are in danger of becoming one-dimensional. Light and intermediate (e.g., Stryker Brigades) forces are strategically responsive across a wider range of contingencies, but frequently lack the combat power and command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) assets to be successful in engagements or battles that may occur in such operations. Nevertheless, the combat power, lethality (and nonlethal) enhancements, C4ISR, and other situational awareness/understanding capabilities of the heavy force and its headquarters infrastructure are still desirable elements of the land component in future SSC and MOOTW.

How the Thesis is Relevant to the Problem

The JFC must have at his disposal forces that are "scalable and task-organized into *modular units* [emphasis added] to allow the JFC to draw on the appropriate forces to deter or defeat an adversary. The forces must be highly networked with joint command and control [systems], and they must be better able to integrate into combined operations than the forces of today."⁵ This requirement exists now and will not wait until the Army's transformation plan succeeds in optimizing a force to meet it.

Why Is This Research Question Central to the Topic?

In a resource-constrained, high-operational tempo environment, the Army cannot afford to let any of its forces become one dimensional. Training approaches, C4I packages, and innovative force tailoring methods must be developed to ensure its heavy

forces either augment current capabilities or develop new capabilities that will allow them to remain relevant until the objective force is fielded. Our adversaries understand the conditions required to employ our current force and its capabilities (chiefly time and adequate ports of debarkation). They will strive to alter those conditions to their advantage. Since the combatant commander will still need to leverage the capabilities and combat power (or combat potential) of heavy forces across the entire range of operations, these potential vulnerabilities must be mitigated.

Is This Research Question Practical?

By contributing to the discussion and adding to the knowledge base, this thesis will help current heavy mechanized and armor force units to maintain their mission focus and fighting edge. The transformation process has the potential to marginalize current heavy mechanized and armor force units and their soldiers. This thesis will help both to understand that their capabilities and relevance are not tied only to a technology solution, but to a way of thinking and the will to succeed.

Developing a Logic Trail to the Thesis

In order to answer the primary research question, this thesis uses a systematic approach that answers supporting questions in order to build a knowledge base that illuminates the topic. The thesis uses the four broad operational concepts outlined for the American military in *Joint Vision 2020 (JV 2020)*.

The Primary Research Question

Can the U.S. Army's current heavy mechanized and armor force adapt emerging *JV 2020* operational concepts, in order to remain relevant to the land power requirements of combatant commanders across the full range of military operations until the United States Army fields the objective force? The secondary, tertiary, and additional questions are listed in figure 2.

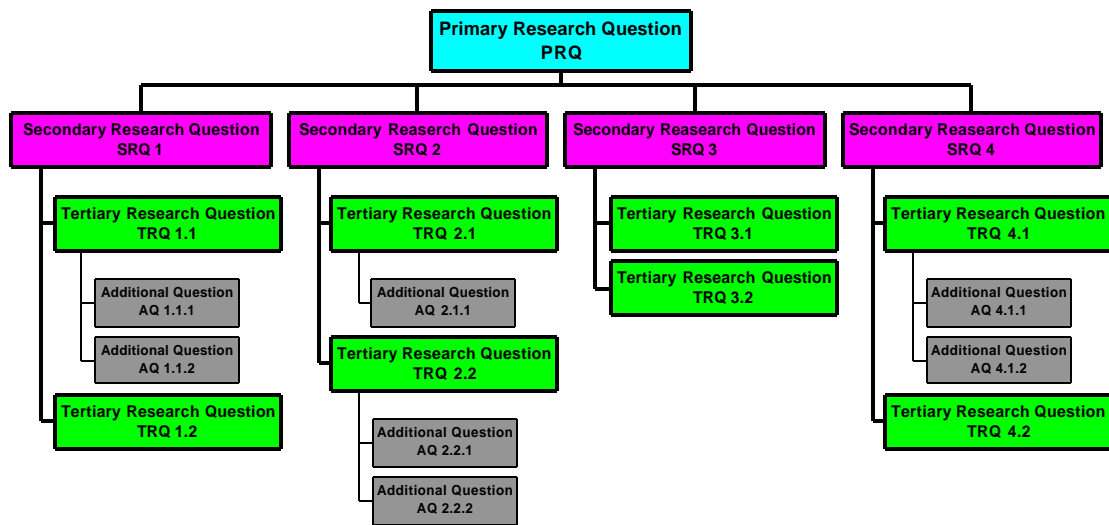


Figure 2. The Logic Trail

Secondary research question 1. Is the current heavy mechanized and armor force capable of dominant maneuver in the joint operational area (JOA)?

Tertiary research question 1.1. Is it capable of synchronizing the “employment of forces throughout the battlespace to achieve desired effects?”⁶

Additional question 1.1.1. Can it “rapidly integrate forces arriving in a joint & multi-national operations area?”⁷

Additional question 1.1.2. Can it “rapidly and seamlessly posture forces to enable rapid attainment of military objectives?”⁸

Tertiary research question 1.2. Can it “achieve and preserve battlespace control in support of the full spectrum [range] of operations?”⁹

Secondary research question 2. Is the current heavy mechanized and armor force capable of executing precision engagement?

Tertiary research question 2.1. Can it “identify, prioritize, and command/control effects against battlespace objectives/targets?”¹⁰

Additional question 2.1.1. Can it conduct “time sensitive targeting?”¹¹

Tertiary research question 2.2. Can it “integrate battlespace fire and maneuver?”¹²

Additional question 2.2.1. Can it “defeat threat protective systems?”¹³

Additional question 2.2.2. Can it conduct “extended range engagement?”¹⁴

Secondary research question 3. Can the current heavy mechanized and armor force “provide effective, efficient and responsive infrastructure and logistics support to meet CINC/warfighter operational requirements?”¹⁵

Tertiary research question 3.1. Can it “provide timely and accurate enhanced asset visibility, control and management?”¹⁶

Tertiary research question 3.2. Can it “support rapid force maneuver within the joint operations area?”¹⁷

Secondary research question 4. Is the current heavy mechanized and armor force capable of executing full dimensional protection?

Tertiary research question 4.1. Can it “mitigate [the] effects of terrorist attacks?”¹⁸

Additional question 4.1.1. Can it “deter terrorist incidents?”¹⁹

Additional question 4.1.2. Can it “recover from terrorist attacks and continue operations?”²⁰

Tertiary research question 4.2. Can it detect and engage air and missile threats?

Key Terms and Concepts

Terms are vital to understanding. However, not all are doctrinal. Where possible the study will limit itself to usage found in major departmental and executive reports as well as the doctrinal publications. The common usage of Army and Joint doctrinal terms throughout this discussion will enhance the value of the conclusions and findings. The following terms are central to understanding the thesis. Additional terms are listed in the glossary.

JV 2020 articulates four broad operational concepts for the joint force.

Understanding them is central to this thesis.

Dominant Maneuver is the ability of joint forces to gain positional advantage with decisive speed and overwhelming operational tempo in the achievement of assigned military tasks. Widely dispersed joint air, land, sea, amphibious, special operations and space forces, capable of scaling and massing force or forces and the effects of fires as required for either combat or noncombat operations, will secure advantage across the range of military operations through the application

of information, deception, engagement, mobility and counter-mobility capabilities.²¹

Precision Engagement is the ability of joint forces to locate, surveil, discern, and track objectives or targets; select, organize, and use the correct systems; generate desired effects; assess results; and reengage with decisive speed and overwhelming operational tempo as required, throughout the full range of military operations.²²

Focused Logistics is the ability to provide the joint force the right personnel, equipment, and supplies in the right place, at the right time, and in the right quantity, across the full range of military operations. This will be made possible through a real-time, web-based information system providing total asset visibility as part of a common relevant operational picture, effectively linking the operator and logistician across Services and support agencies. Through transformational innovations to organizations and processes, focused logistics will provide the joint warfighter with support for all functions.²³

Full-Dimensional Protection is the ability of the joint force to protect its personnel and other assets required to decisively execute assigned tasks. Full dimensional protection is achieved through the tailored selection and application of multilayered active and passive measures, within the domains of air, land, sea, space, and information across the range of military operations with an acceptable level of risk.²⁴

The United States' Joint Force executes Major combat operations "on a global basis and . . . across a wide range of combat conditions and geographic settings."²⁵ These operations consist of a "series of tactical actions (battles, engagements, strikes) conducted by various combat forces of a single or several Services, coordinated in time and place, to accomplish operational and, sometimes, strategic objectives in an operational area."²⁶

Smaller scale contingencies are combat operations that generally take place within a more compressed time period and are more regional in nature than MCO. These "contingencies could vary in duration, frequency, intensity, and the number of personnel [and mix of combat, combat support and combat service support] required."²⁷

For the purposes of this study, the Army's current heavy mechanized and armor force (used interchangeably with "the heavy force" or "the current heavy force")

encompasses those mechanized and armor formations (units of employment and units of action) and their associated headquarters, combat support (CS), and combat service support (CSS) elements based in CONUS and Europe. These brigade, division, and corps formations, “both Active and Reserve components—[are] the baseline from which the Department [of Defense] will develop a transformed force for the future.”²⁸ Mechanized and armor formations deployed forward in northeast Asia are, for the purposes of this thesis, designated as containment forces. As such, they are committed forces and not considered available for regional contingency operations outside their area of responsibility (AOR).

Limitations and Delimitations

This paper will not attempt to research or recommend any specific technology or material solution to the thesis question or address those desired operational capabilities not suitable for land forces. Rather it will focus on those *JV 2020* operational concepts that can be adapted by the current heavy mechanized and armor force in the next five to ten years.

Summary

Can the U.S. Army's current heavy mechanized and armor force leverage emerging *JV 2020* operational concepts, in order to stay relevant to the JFC's capability requirements across the full range of military operations until the United States fields the objective force? Time, money, people, and national resolve are finite resources. In order to maintain its contract with the nation, to fight and win wars, the Army must find near term solutions to reduce the strategic vulnerabilities it now faces.

The United States' national security strategy expects the American military to accomplish objectives established by the President and Secretary of Defense. The Army and JFC continue to struggle with the future role of landpower. The wide range of operations and the complexity of the COE revealed some key vulnerabilities and gaps in the Army's warfighting capability and force structure that must be resolved by the Objective Force. The U.S. Army's current heavy formations represent the nation's best *near-term* strategic hedge to respond to MCO and major theater war (MTW) landpower requirements as dictated by the National Security and Military Strategies. The Army cannot afford to let any of its forces become one-dimensional. Training approaches, C4I packages, and innovative force tailoring approaches must be developed to ensure our heavy forces augment and/or develop capabilities that will allow them to remain relevant until the objective force is fielded.

¹William T. Johnson, *Force Planning Considerations for Army XXI* (Carlisle, PA: Strategic Studies Institute, 1998), vi.

²U.S. Department of the Army, Office of the Secretary of the Army, *A Statement on the Posture of the United States Army 2002* [on-line] (Washington, D.C.: The Office of the Chief of Staff of the Army, 2002), 9. Available from <http://www.army.mil/aps/02/>; Internet; accessed 14 October 2002.

³U.S. Department of Defense, The Joint Staff, *Joint Vision 2020* (Washington, D.C.: US Government Printing Office, 2000), 6.

⁴U.S. Department of the Army, *A Statement on the Posture of the United States Army 2002*, 9.

⁵U.S. Department of Defense, Office of The Secretary of Defense, *Quadrennial Defense Review Report* (Washington, D.C.: US Government Printing Office, 2001), 32.

⁶U.S. Department of Defense, The Joint Staff, *Joint Vision Implementation Master Plan (JIMP)*, [on-line] (Washington D.C., 2001), A-C-1. Available from http://www.dtic.mil/doctrine/jel/cjcsd/cjcsi/3010_02a.pdf; Internet; Accessed 26 December 2002.

⁷Ibid.

⁸Ibid.

⁹Ibid.

¹⁰Ibid., A-C-3.

¹¹Ibid.

¹²Ibid.

¹³Ibid.

¹⁴Ibid.

¹⁵Ibid., A-C-2.

¹⁶Ibid.

¹⁷Ibid.

¹⁸Ibid.

¹⁹Ibid.

²⁰Ibid.

²¹U.S. Department of Defense, *Joint Vision 2020*, 20.

²²Ibid., 22.

²³Ibid., 24.

²⁴Ibid., 26.

²⁵U.S. Department of Defense, *Quadrennial Defense Review Report*, 21.

²⁶U.S. Department of Defense, The Joint Staff, Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms* (Washington D.C., 2002), 261.

²⁷U.S. Department of Defense, *Quadrennial Defense Review Report*, 21.

²⁸Ibid., 22.

CHAPTER 2

LITERATURE REVIEW

This thesis is addressing a topic that is extremely subjective and bereft of objective data. Training command battle labs, process action teams, and the Objective Force Task Force are all working towards an operational requirements document to map out the development of the Objective Force. The essential hypothesis of this thesis is that the current heavy force must meet the land power requirements of the JFC until the Objective Force is fielded.

National Command Authority Instructions

Joint Vision 2020

The author has decided the only way to effectively articulate the relevance of the heavy force is to use what the chain of command had told the military to do. *Joint Vision 2020* provides the capstone instructions to the force and defines the operational concepts the military must feature to achieve the national military strategy.

Quadrennial Defense Review Report 2001

This document ties the national security strategy to the national military strategy and articulates the department's program priorities, roles, and missions for the joint force.

A Statement on the Posture of the United States Army 2002

This document details how the Army will meet the operational requirements of the joint force for land power and its role in providing specific capabilities to the joint force.

Joint Vision Implementation Master Plan (JIMP)

A directive document issued by the Chairman of the Joint Chiefs of Staff conveying how the joint force will achieve the operational concepts of *Joint Vision 2020*.

Joint and Army Doctrine

The doctrinal references served primarily as a point of departure and frame of reference for the thesis. The author attempted to use the terms and concepts found in the relevant joint doctrine as close as possible to their intended use and meaning.

Studies, Journal Articles, and Books

There are more than enough authors willing to prophesize on the future of war and national security. Many contradict themselves and most contradict each other. Many are of no use at all since they come from a service-centric point of view designed to promote a specific agenda. They tend towards being highly subjective and are more operational art than science. Full-dimensional protection and focused logistical literature are not as developed as dominant maneuver or precision fires.

Summary

The author will attempt to wrap these diverse and contradictory sources into a cogent thesis, illuminate the means towards the end, and provide current context.

CHAPTER 3

RESEARCH METHODOLOGY

Purpose

This section will briefly explain the research methodology used in this thesis. The reader will gain an appreciation for the subjective nature of the thesis and the challenges of answering the research question before fielding the objective force and a firm recapitalization plan for the current heavy mechanized and armor force.

The Primary Research Question

Can the U.S. Army's current heavy mechanized and armor force adapt emerging *JV 2020* operational concepts, in order to remain relevant to the land power requirements of combatant commanders across the full range of military operations until the United States Army fields the objective force?

Questions Not Addressed

This thesis will not attempt to research or recommend any specific technology or material solution to the thesis question and it will only the four operational concepts specifically delineated in *JV 2020*. The thesis will not address the strategic context of information superiority and innovation, but will tangentially refer to full-spectrum dominance as relative to these specific operational concepts and the ground domain.

Criteria

Subjective Analysis

This analysis will consist primarily of the author's subjective judgments based on contemporary theorist's speculative assertions on the future strategic context and the nascent operational concepts defined in *JV 2020*, and hypothesize about subordinate tasks and criteria for success. These operational concepts are heavily influenced by the notion of effects-based operations and the synergy generated by the joint force (see figure 3).

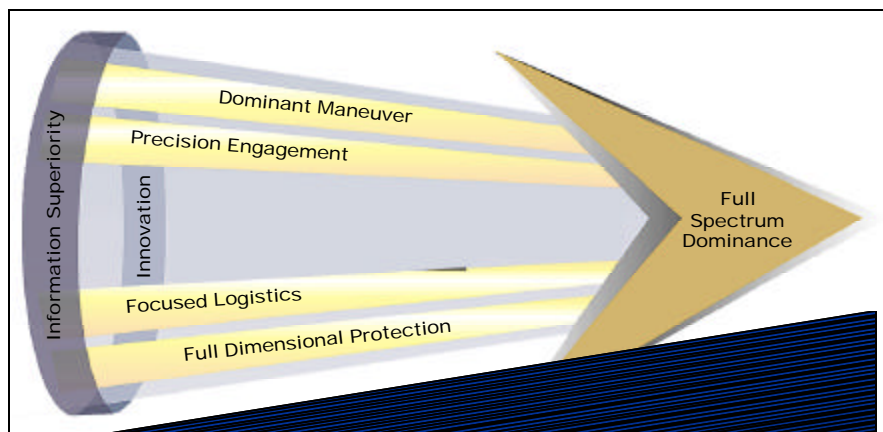


Figure 3. Full-Spectrum Dominance (Reprinted from *Joint Vision 2020*, 2000, 2)

Objective Analysis

Minimal objective information is available to conduct an objective analysis on the objective force or the future combat system itself. The thesis will rely on those desired operational capabilities (DOC) spelled out in the *Joint Vision Implementation Master Plan (JIMP)* and enumerate specific means by which the current heavy mechanized and armor force can attain those capabilities.

Procedures

This thesis will conclude with description of subordinate tasks and criteria compared against specific means the current heavy force have to achieve the operational concepts articulated in *JV 2020* and those DOC named in the *JIMP*.

In 2020, the nation will face a wide range of interests, opportunities, and challenges and will require a military that can both win wars and contribute to peace. The global interests and responsibilities of the United States will endure, and there is no indication that threats to those interests and responsibilities or to our allies, will disappear. This document describes the operational concepts necessary to do so.¹

These DOC and their implementation are defined in instructions from the Chairman of the Joint Chiefs of Staff. In his *JIMP*, he defines “a process that will translate emerging joint operational concepts [from *JV 2020*] into joint warfighting capabilities [DOC] as the result of joint experimentation and assessment. The end result is a joint force capable of meeting the requirements of 21st Century operations.”² Figure 4 outlines some of the challenges for the twenty first century.

The *JIMP* is intended to be directive in nature and serves as the benchmark for this thesis in analyzing the *JV 2020* operational concepts and the DOC that the current heavy force must implement to remain relevant. The *JIMP* is “intended to be the benchmark for Service, CINC [combatant commander], and Defense agency visions and influence the evolution of joint forces and joint warfighting to meet a challenging and an uncertain future.”³

Concept	21st Century Challenge
Full-Spectrum Dominance	Joint Command and Control Unified Action Shape the Environment
Information Superiority	Information Transport and Processing Information Gain and Exploitation Information Operations
Dominant Maneuver	Decisive Combat Operations Crisis Stabilization Rapid Joint Force Projection Battlespace Control
Precision Engagement	Generating Precision Effects Integrating Precision Effects
Full-Dimensional Protection	Countering Air and Missile Threats Combating Terrorism Combat Identification
Focused Logistics	Information Fusion Joint Deployment/Rapid Distribution Force Health Protection Agile Infrastructure Multinational Logistics Joint Theater Logistics Management

Figure 4. Twenty First Century Challenges (Reprinted from *Joint Vision Implementation Plan*, 2001, A-A-1)

Secondary Research Question One

Is the current heavy mechanized and armor force capable of dominant maneuver in the joint operational area? This thesis treats dominant maneuver as the primary operational concept that is *decisive* to the joint force achieving full spectrum dominance. The operational agility to move forces in such a way as to create effective positional advantage is vital to a global military strategy. Supporting questions are designed around the *JIMP* and its associated DOC so that a comparison of present and future capabilities can be reached. Figure 5 outlines some DOC that enable dominant maneuver.

<u>Dominant Maneuver DOC</u>
Ability to Rapidly Integrate Forces Arriving in a Joint and Multi-national Operations Area
Ability to Rapidly and Seamlessly Posture Forces to Enable Rapid Attainment of Military Objectives
Achieve and Preserve Battlespace Control in Support of the Full Spectrum of Operations
Forces Generate Overmatching Lethal and/or Nonlethal Effects
Synchronize Employment of Forces Throughout the Battlespace to Achieve Desired Effects
Provide Short Notice Global Maneuver and Attack Capability
Air and Space Control and Superiority
Achieve and Preserve Subsurface Maritime Control and Superiority
Seize and Hold Deep Military Objectives

Figure 5. Desired Operational Capabilities for Dominant Maneuver (Reprinted from *Joint Vision Implementation Plan*, 2001, A-C-1)

TRQ 1.1

Is it capable of synchronizing the “employment of forces throughout the battlespace to achieve desired effects?”⁴

AQ 1.1.1

Can it “rapidly integrate forces arriving in a joint & multi-national operations area?”⁵

AQ 1.1.2

Can it “rapidly and seamlessly posture forces to enable rapid attainment of military objectives?”⁶

TRQ 1.2

Can it “achieve and preserve battlespace control in support of the full spectrum [range] of operations?”⁷

Secondary Research Question Two

Is the current heavy mechanized and armor force capable of executing precision engagement? This thesis treats precision engagement as the primary operational concept that *shapes* the battlespace so the joint force can achieve full spectrum dominance. The strategic and operational agility to employ kinetic, non-kinetic, and electronic means to “obtain lethal and nonlethal effects in support of the objectives of the campaign”⁸ is vital. Supporting questions are designed around the *JIMP* DOC in order to establish a comparison of present and future capabilities. Figure 6 outlines some DOC that enable precision engagement.

<i>Precision Engagement DOCs</i>
Conduct Battlespace Analysis
Relevant Force Location and Status
Integrated Battlespace Picture
Identify, Prioritize, and Command/Control Effects Against Battlespace Objectives/Targets
Tailorable Force Packages
Minimize and/or Control Collateral Damage
Time Sensitive Targeting
Fratricide Prevention
Defeat Threat Protective Systems
Integrate Battlespace Fire and Maneuver
Fused Battlespace Sustainment
Precision Force Protection
Extended Range Engagement

Figure 6. Desired Operational Capabilities for Precision Engagement (Reprinted from *Joint Vision Implementation Plan*, 2001, A-C-3)

TRQ 2.1

Can it “identify, prioritize, and command/control effects against battlespace objectives/targets?”⁹

AQ 2.1.1

Can it conduct “time sensitive targeting?”¹⁰

TRQ 2.2

Can it “integrate battlespace fire and maneuver?”¹¹

AQ 2.2.1

Can it “defeat threat protective systems?”¹²

AQ 2.2.2

Can it conduct “extended range engagement?”¹³

Secondary Research Question Three

Can the current heavy mechanized and armor force “provide effective, efficient and responsive infrastructure and logistics support to meet CINC/warfighter operational requirements?”¹⁴ This thesis treats focused logistics as the operational concept that *sustains* the joint force so that it can achieve full spectrum dominance. Complete asset visibility, coupled with advances in transportation technology and embedded decision support tools, will better serve the JFC’s requirements. Supporting questions are designed around the *JIMP* DOC to enable a comparison of present and future capabilities. Figure 7 outlines some DOC that enable focused logistics.

<i>Focused Logistics DOCs</i>
Provide Unimpeded Access to Operational and Logistics Information for All Who Need It
Provide Timely and Accurate Enhanced Asset Visibility, Control, and Management
Provide Fully Enabled Mobility System to Optimize Rapid Joint Projection, Delivery and Hand-Off of Forces and Sustainment Assets Worldwide
Deployment and Distribution of the Required Forces and Sustainment at the Place and Time Required
Support Rapid Force Maneuver Within the Joint Operations Area
Protect Forces From All Health Threats Across the Full Spectrum of Conflict
Provide Effective, Efficient and Responsive Infrastructure and Logistics Support to Meet CINC/Warfighter Operational Requirements
Capability to Synchronize, Prioritize, Direct, Integrate and Coordinate Common User and Cross-Service Logistics Functions
Tailor Units to Provide Essential Care in Theater and Enhanced Care During Evacuation to Definitive Care
Optimize Logistical Operations Across and Between All Echelons, Coalitions, and Host Nations.
Provide Effective, Efficient, Responsive, Tailored Engineer Support to Meet CINC/Warfighter Operational Requirements and Timeframes.

Figure 7. Desired Operational Capabilities for Focused Logistics (reprinted from *Joint Vision Implementation Plan*, 2001, A-C-2)

TRQ 3.1

Can it “provide timely and accurate enhanced asset visibility, control and management?”¹⁵

TRQ 3.2

Can it “support rapid force maneuver within the joint operations area?”¹⁶

Secondary Research Question Four

Is the current heavy mechanized and armor force capable of executing full-dimensional protection? This thesis treats full-dimensional protection as the operational concept that *enables* the joint force to achieve full spectrum dominance by preserving the combat potential of the joint force. The operational capacity to protect military, multinational, and nonmilitary assets across the range of military operations is vital to a global military strategy. Supporting questions are designed around the *JIMP* DOC in order to compare present and future capabilities. Figure 8 outlines some DOC that enable full-dimensional protection.

<i>Full-Dimensional Protection DOCs</i>
Single Integrated Air Picture (SIAP)
Early Detection, Identification and Dissemination of Air and Missile Threats
Early Engagement of Air and Missile Threats
Deter Terrorist Incidents
Employ Terrorist Countermeasures
Mitigate Effects of Terrorist Attacks
Recover from Terrorist Attacks and Continue Operations
Detect Entities in the Combatant's AOR
Locate Entities in the Combatant's AOR
Identify and Characterize Entities in the Combatant's AOR
Provide All-Source, Fused Positive Identification Throughout the Combatant's AOR
Maintain Continuous Combat Identification

Figure 8. Desired Operational Capabilities for Full-Dimensional Protection (Reprinted from *Joint Vision Implementation Plan*, 2001, A-C-2)

TRQ 4.1

Can it “mitigate [the] effects of terrorist attacks?”¹⁷

AQ 4.1.1

Can it “deter terrorist incidents?”¹⁸

AQ 4.1.2

Can it “recover from terrorist attacks and continue operations?”¹⁹

TRQ 4.2

Can it detect and engage air and missile threats?

Summary

Establishing the methodology for this comparative analysis is essential to understanding the subsequent analysis. The subject of this thesis is extremely subjective and open to a wide variety of interpretations. The evolving nature of conflict can render even the most well-considered operational concept obsolete by the time the force is trained to think in terms of new doctrine. The analysis will attempt to show that the current heavy force can adapt to the JFC’s needs and remain a viable part of the national military strategy.

¹U.S. Department of Defense, The Joint Staff, *Joint Vision 2020* (Washington, D.C.: US Government Printing Office, 2000), 1.

²U.S. Department of Defense, The Joint Staff, *Joint Vision Implementation Master Plan (JIMP)*, [On-line] (Washington D.C., 2001), A-1. Available from http://www.dtic.mil/doctrine/jel/cjcsd/cjcsi/3010_02a.pdf; Internet; accessed 26 December 2002.

³Ibid.

⁴U.S. Department of Defense, *Joint Vision Implementation Master Plan*, A-C-1.

⁵Ibid., A-C-1.

⁶Ibid.

⁷Ibid.

⁸U.S. Department of Defense, *Joint Vision 2020*, 22.

⁹U.S. Department of Defense, *Joint Vision Implementation Master Plan*, A-C-3.

¹⁰Ibid.

¹¹Ibid.

¹²Ibid.

¹³Ibid.

¹⁴Ibid., A-C-2.

¹⁵Ibid.

¹⁶Ibid.

¹⁷Ibid.

¹⁸Ibid.

¹⁹Ibid.

CHAPTER 4

ANALYSIS

Armored vehicles will be around for a long time to come. But their shapes, sizes, weights, armor, armaments, propulsion, connectivity, battlefield awareness, and crewing will change profoundly. The continuity will be in the mission: to deliver local killing power and allow protected maneuver. The evolution of armored vehicles [and formations] will be driven by technology and strategic requirements [and the contemporary operation environment].¹

Ralph Peters, *Fighting for the Future: Will America Triumph?*

Purpose

This chapter will articulate the intermediate findings and preliminary assertions of the thesis. The reader will gain an appreciation for the subjective nature of the thesis and the challenges of answering the research questions before the fielding the objective force and the establishment of a firm recapitalization plan for the current heavy force.

The Primary Question

Can the U.S. Army's current heavy mechanized and armor force adapt emerging *JV 2020* operational concepts, in order to remain relevant to the land power requirements of combatant commanders across the full range of military operations until the United States Army fields the objective force?

Preliminary Assertions

The current heavy force is extremely relevant today, as demonstrated in Operation Iraqi Freedom (OIF) and will remain so for the next 15-20 years. JFC will continue to

have a critical need for land power to compliment the effects of the other components of the joint force across the full range of military operations.

Intermediate Findings

The current heavy force is capable of implementing most of the DOC subsumed under dominant maneuver, precision engagement, focused logistics and full-dimensional protection as described in the *Joint Vision Implementation Master Plan*. JFC of the future will need a scalable and tailorable land power capability to fight and win major engagements, provide combat potential as a coercive tool in stabilization operations and to provide manpower and logistics capability for support operations.

Analysis

Secondary Research Question One

Preliminary Assertions

Is the current heavy mechanized and armor force capable of dominant maneuver in the joint operational area? Yes. Dominant maneuver is *decisive* to the joint force's domination of the full range of military operations. The operational agility to move forces in such a way as to create effective positional advantage is vital to a global military strategy. The current heavy force provides the JFC unsurpassed (land) combat power and flexibility within a theater of operations.

Subjective Analysis

Dominant maneuver leverages the ability of the current heavy mechanized and armor force to approach operational maneuver from the standpoint of creating spatial and

temporal dilemmas for enemy forces. Underlying this premise is the force's ability to use its robust C4ISR capabilities to facilitate the accurate and constant (as opposed to pulsed or surged) application of operational capabilities.

The current heavy force cannot operate alone and requires the full application of diplomacy, information, military power, and economics (also known as the DIME) to create the conditions for success. The heavy force's main detriment is its ability to get to the JOA in a timely fashion. However, exercising the DIME to their full potential mitigates this disadvantage.

Tertiary Research Question 1.1

Is it capable of synchronizing the “employment of forces throughout the battlespace to achieve desired effects?”² Yes. If the heavy force can attain and protect freedom of maneuver in the JOA then the enemy will not be able to impede the JFC concept of the operation. All echelons of the heavy force are capable of concentrating combat power or the coercive potential of combat power in a JOA to achieve lethal and nonlethal effects as directed by the JFC. At the unit of employment (corps and division) level the heavy force executes joint reception, staging, onward movement, and integration (JRSO&I, see figure 9), joint targeting coordination board and battle damage assessment (BDA), manages battles and engagements at the appropriate level, and postures the force for operational employment. It transitions forces between combat and non-combat missions across the entire JOA.

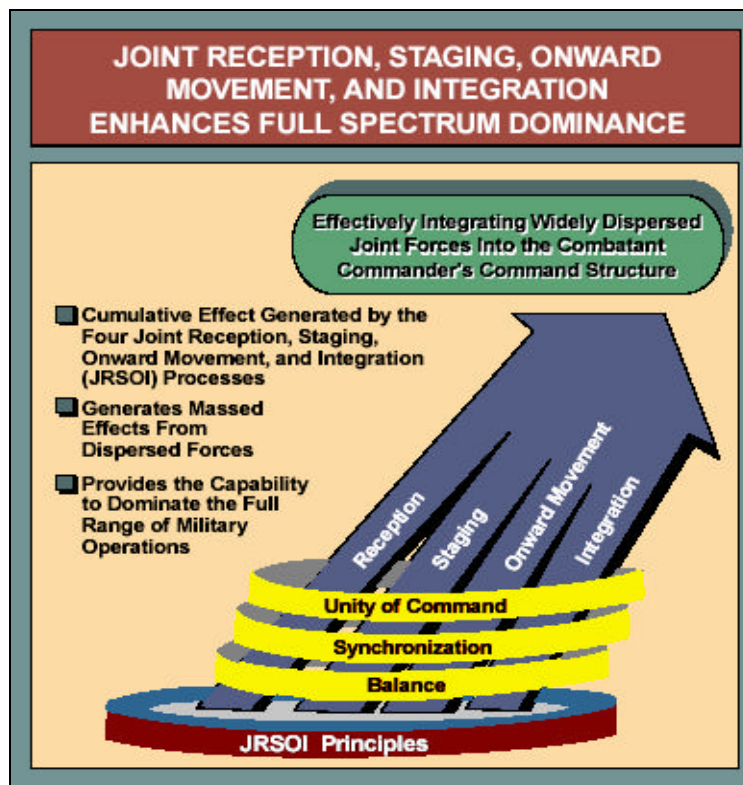


Figure 9. Joint Reception, Staging, Onward Movement, and Integration (Reprinted from JP 4-01.8, *Joint Tactics, Techniques, and Procedures for Joint Reception, Staging, Onward Movement, and Integration*, 2000, 1-2)

The heavy force is successful if it concentrates and sequences forces in accordance with operational timelines established by the JFC, controls or secures operationally significant terrain and applies its capabilities against enemy centers of gravity.

Additional Question 1.1.1

Can it “rapidly integrate forces arriving in a joint & multi-national operations area?”³ Yes. If the JFC can rapidly integrate incoming forces, then the joint force will be successful across the full range of military operations. The heavy force is and will continue to be the primary executor of JRSO&I operations for MCO. The logistical,

command and control (C2), force protection, and combat power generation capabilities of the heavy force allow the JFC to integrate and generate land combat power (or its coercive potential) faster than any other segment of the joint force.

The heavy force is successful if it demonstrates that (given a non-forced entry scenario) it can quickly, move forces for employment to accomplish assigned mission sets. It can efficiently organize for operations, train, and deal with the throughput of forces and supplies from ports of debarkation (POD) to employment by the JFC.

Additional Question 1.1.2

Can it “rapidly and seamlessly posture forces to enable rapid attainment of military objectives?”⁴ Yes. If the JFC can rapidly integrate incoming forces, then the joint force will be successful across the full range of military operations. The heavy force can, at the unit of employment (corps) level, facilitate or manage joint C4ISR-for the JFC. It can ensure mobility and ground combat mobility to make possible both lethal and nonlethal force employment. Combat support (CS) and combat service support (CSS) elements at the unit of employment (division or corps) support command level can provide CS & CSS mobility in support of lethal and nonlethal force employment. The heavy force has the ability to load forces and equipment on organic transportation assets, secure their own movement and the movement of non-military humanitarian support assets.

The heavy force is successful if it can move decisively within a JOA to preferred locations fully capable of accomplishing assigned missions. During both the 1991 Gulf War and OIF in 2003, the heavy force developed a very high percentage of its combat power at decisive points before detection by enemy ISR capabilities.

Tertiary Research Question 1.2

Can it “achieve and preserve battlespace control in support of the full spectrum [range] of operations?”⁵ Yes. If the heavy force can give the JFC battlespace dominance then the joint force can engage its missions across the full range of military operations. The heavy force can by using combat power or the coercive potential of combat power, protect itself and non-military humanitarian support assets across the full range of military operations. At the unit of employment level (corps) the heavy force can coordinate and effect theater or area missile defense and recon, surveil and neutralize nuclear, biological, and chemical threats. At the unit of employment level (division) and unit of action level (brigade) the heavy force can coordinate and execute sustainment-engineering operations in support of combat and non-combat missions. It can maintain and secure existing infrastructure, deny terrorists access to the joint force and nonmilitary humanitarian support assets, secure land lines of communication for combat and noncombat missions, employ electronic security and countermeasures, and execute ISR to protect the JOA.

The heavy force is successful if it can create the freedom of action to focus combat, CS, and CSS capabilities throughout the battlespace to achieve decisive results. These operations are time sensitive and the heavy force must influence and impede the enemy scheme of maneuver to prevent their interdiction of the joint force’s combat power or access to the JOA.

Objective Analysis

These means are primarily directed at the unit of employment level except where otherwise noted.

Tertiary Research Question 1.1

Is it capable of synchronizing the “employment of forces throughout the battlespace to achieve desired effects?”⁶ The heavy force will have the means to achieve the JFC’s desired effects if it assumes a more expeditionary mindset, becomes more flexible in its task organizations for combat and training, participates in more joint training at the unit of employment level, and focuses on sustaining combat power through force protection.

Additional Question 1.1.1

Can it “rapidly integrate forces arriving in a joint & multi-national operations area?”⁷ The heavy force will enhance its ability to rapidly integrate arriving forces with increased liaison capability, enhanced strategic and intra-JOA mobility, upgrades planning tools and decision support automation, and interactive visual aids networked to real time intelligence assets.

Additional Question 1.1.2

Can it “rapidly and seamlessly posture forces to enable rapid attainment of military objectives?”⁸ The heavy force will be better prepared to posture forces for mission success by advanced situational understanding through networked battle command systems, smaller force packages that focus on a particular operational capability (direct combat, fires, air defense, mobility, sustainment engineering, force protection), and more joint deployment training.

Tertiary Research Question 1.2

Can it “achieve and preserve battlespace control in support of the full spectrum [range] of operations?”⁹ The heavy force must be universally fielded with superior C4ISR capabilities, enroute planning systems and more flexible overseas (and enroute) basing

arrangements. These capabilities will allow the JFC to establish control of the battlespace. To maintain this control the joint force will need to employ organic mobility assurance assets, ensure complete weapon systems dominance, dominant all area and theater ballistic missile defense systems, and employ enhanced biological and chemical countermeasures (decontamination, detection and targeting). In order to manage major combat operations and keep a stability operation from becoming an SSC the heavy force must be augmented in order to conduct complex civil-military operations, and psychological operations. Robust military and interagency liaison teams must be fielded to facilitate multinational and non-governmental humanitarian relief.

Secondary Research Question Two

Preliminary Assertions

Is the current heavy mechanized and armor force capable of executing precision engagement? Yes. At the operational and strategic levels of joint force employment, precision engagement is to dominant maneuver as fires are to maneuver at the tactical level. In order to attain dominant maneuver the JFC must execute all the elements of precision engagement. It becomes the operational concept that *shapes* the battlespace so the joint force can achieve full spectrum dominance. The current heavy force can, at the unit of employment (corps) level, control or facilitate the operational dexterity to employ kinetic, non-kinetic, and electronic means to “obtain lethal and nonlethal effects in support of the objectives of the campaign.”¹⁰

Subjective Analysis

Precision engagement leverages the ability of the heavy force unit of employment (corps) to understand its battlespace and operational environment. The heavy force approaches precision engagement from the operational level primarily because of “logistical and deployability limitations. Precision engagement is often [only] considered in terms of strategic applicability because of the great distances that munitions and delivery systems can cover and because their expense makes them”¹¹ unattractive against tactical targets. However, precision engagement is integral to the dominant maneuver of the joint force at the operational level. “In most cases precision engagement will not occur without some movement of joint forces or assets.”¹²

Tertiary Research Question 2.1

Can it “identify, prioritize, and command/control effects against battlespace objectives/targets?”¹³ Yes. If the heavy force can provide the JFC with the capability to competently and efficiently disseminate and exploit a joint COP then it can (as the joint force HQ or ARFOR) carry out continual and detailed analysis of the JOA to rapidly attack enemy vulnerabilities. Only the unit of employment level (corps) of C2 is equipped and trained to execute this mission at the operational level. The corps HQ must provide the JFC with operational ISR, sort out and make use of collected operational information and produce operational intelligence for the joint targeting coordination board. It must, if directed, be able to organize as a joint force HQ, exercise operational level C2, and assess operational objectives, plans, orders, and statuses. Interagency, joint, and multinational effects coordination and consequence management will be essential.

The heavy force is successful if it quickly establishes and implements the C2 architecture for forming a joint force HQ and established the requisite liaison elements with all joint, interagency, multinational and non-government elements involved in the operation. It must minimize the time required to disseminate priority intelligence requirements to subordinate elements of the joint force after they are collected, execute the joint targeting process, and ensure the effects of precision engagement (lethal and non-lethal) meet the combatant commander's concept of the operation without causing unintended consequences.

Additional Question 2.1.1

Can it conduct "time sensitive targeting?"¹⁴ Yes. The heavy force unit of employment level (corps) acting as an ARFOR or joint force HQ can accomplish operational level predictive analysis directed at time critical targets. The corps HQ must ensure that the joint targeting process has identified these targets as high pay off targets or have the agility to quickly recognize new ones when they become vulnerable. It must be able to do this in order to facilitate operational level objectives, provide operational protection to military, interagency, multinational, and non-governmental facilities and assets.

The heavy force is successful if it is able to generate and integrate precision effects that facilitate operational objectives and minimize unintended consequences.

Tertiary Research Question 2.2

Can it "integrate battlespace fire and maneuver?"¹⁵ Yes. The heavy force at unit of employment level (corps and division) can provide the JFC with tailorable forces able to quickly and precisely maneuver all the way through the battlespace and direct

coordinated effects in the JOA. It must execute the requirements of dominant maneuver by executing operational level C2, ensuring battlespace awareness, precision effects, ensure mobility, and protect the joint force.

The heavy force (corps or division HQ) is successful if it concentrates and sequences forces in accordance with operational timelines established by the JFC, controls or secures operationally significant terrain, applies its capabilities against enemy centers of gravity and ensures the precision effects desired by the JFC.

Additional Question 2.2.1

Can it “defeat threat protective systems?”¹⁶ Yes. The heavy force at unit of employment level (corps) can, when designated a joint force HQ, utilize national and multinational level assets to offensively employ precision effects at operational targets. It must be able to plan, facilitate, and direct joint ISR to defeat enemy efforts to cover, conceal, harden, and move high pay off targets. It must detect and neutralize emerging protective systems, penetrate the environmental conditions, and limit collateral damage.

The heavy force (corps HQ) is successful if it can coordinate the interagency, military, and multinational assets necessary to defeat enemy protection systems.

Additional Question 2.2.2

Can it conduct “extended range engagement?”¹⁷ No. The heavy force unit of employment level (corps) does not have the ability to provide the JFC precise effects from extended range that are integrated into the overall strategic plan. The operative phrase is “extended range.” Because of the close nature of ground combat, the heavy force does not currently have any weapons systems that are totally immune from enemy systems. This type of engagement is envisioned to take place from near-sanctuary type

conditions (perhaps outside the JOA) and is not applicable to the heavy force's operational environment.

Objective Analysis

These observations are primarily directed at the unit of employment level except where otherwise noted.

Tertiary Research Question 2.1

Can it “identify, prioritize, and command/control effects against battlespace objectives/targets?”¹⁸ The heavy force unit of employment (corps and division) HQ can continue to accomplish this task if continually upgraded with operational level C2 systems that provide and operational level COP and interactive C2 processes. Continued development and enhancement of joint ISR inputs to the corps and division HQ will allow the corps to collaborate with the JFC to fuse the decision making process across the joint force and integrate all of its capabilities.

Additional Question 2.1.1

Can it conduct “time sensitive targeting?”¹⁹ The heavy force unit of employment level (corps) acting as an ARFOR or joint force HQ can execute and facilitate this mission if it can upgrade its capability to link sensor platforms, targeting decision makers and delivery systems in real time. The corps HQ must streamline its joint targeting coordination board process to integrate in real time inputs (targets and battle damage assessment) from military, interagency, and multinational sources. It must train as a joint force HQ or ARFOR and establish how these processes will be executed with or without augmentation.

Tertiary Research Question 2.2

Can it “integrate battlespace fire and maneuver?”²⁰ To fully integrate battlespace fires and maneuver in the JOA the heavy force at unit of employment level (corps and division) must train with advanced models and simulations that allow it to manage an operational level database in near real time conditions. It must field and train on advanced enroute planning systems and be fully interoperable with the joint force.

Additional Question 2.2.1

Can it “defeat threat protective systems?”²¹ To defeat threat protection measures the heavy force at unit of employment level (corps) when designated a joint force headquarters must be equipped or have access to a variety of lethal and nonlethal joint systems and refine its targeting processes to employ them effectively. National and multinational level sensors, space assets, reconnaissance, and an integrated COP is necessary to fully understand the enemy’s protective posture and defeat it.

Additional Question 2.2.2

Can it conduct “extended range engagement?”²² To conduct true extended range engagements would require a significant overhaul of the organization and equipment of the heavy force’s engagement capabilities. It can employ effects based planning, but the capacity to provide immunity from enemy effects belies the nature of ground combat. To do so would require fielding of and training with partially self-directed munitions, extended range (from outside the JOA or theater) weapons systems and improved strategic lift capacity.

Secondary Research Question Three

Preliminary Assertions

Can the current heavy mechanized and armor force “provide effective, efficient and responsive infrastructure and logistics support to meet CINC/warfighter operational requirements?”²³ Yes. At the operational and strategic levels of joint force employment, focused logistics is the operational concept that *sustains* the joint force so that it can achieve full spectrum dominance. The heavy force at unit of employment (corps) level can integrate and facilitate the joint rear area operations, complete asset visibility, and (when reinforced by echelon above corps assets) JOA ground transport

Subjective Analysis

Focused logistics provides and coordinates the most favorable levels of logistics forces and resources to support the joint force. The heavy force at the unit of employment (corps) level is capable of providing logistics support in tailorable packages that can sustain the force across the range of military operations. When reinforced it can take advantage of reach-back capabilities outside the JOA and maintain significant stocks and assets outside the theater in near-sanctuary type conditions.

Tertiary Research Question 3.1

Can it “provide timely and accurate enhanced asset visibility, control and management?”²⁴ Yes. The heavy force at the unit of employment (corps and division) level can provide timely and accurate asset visibility and management to provide the joint force with more effective logistics support, and enhanced operational capacity. It must be able to fully integrate asset identification technology from the communications zone to

the JOA, identify and track key commercial assets, and integrate multiservice and multinational systems. Logistical HQ at corps and above must input critical asset and logistical data into operational and national level C2 systems to develop the COP and aid in decision making.

If successful the heavy force logistics HQ will maintain a low percentage of backlogged support requirements and deliver to the theater what is required without creating an unnecessarily large infrastructure requirement. It delivers planned sustainment to the joint force during operations and to multinational forces or local populations if planned. It tracks and accurately predicts and then generates movement capacity in theater through organic, multinational and contracted assets

Tertiary Research Question 3.2

Can it “support rapid force maneuver within the joint operations area?”²⁵ Yes. The heavy force at the unit of employment (corps) level can coordinate, execute, and sustain supporting functions for rapid force maneuver within the JOA. It must be able to develop a theater distribution scheme, support JRSO&I, and support all forces in the JOA. It controls the security, battlefield circulation, movement control, and routes for the JFC.

If successful, the logistical HQ will integrate multinational and contract assets into the scheme of support to ensure adequate lift within the JOA. It must also input critical transportation asset status into operational and national level C2 systems to develop the COP and aid in decision-making.

Objective Analysis

These observations are primarily directed at the unit of employment level except where otherwise noted.

Tertiary Research Question 3.1

Can it “provide timely and accurate enhanced asset visibility, control and management?”²⁶ To support asset visibility the heavy force unit of employment (corps) level support command must be trained and equipped to leverage commercial network architectures that are able to filter database information and support the JFC’s decision-making needs

Tertiary Research Question 3.2

Can it “support rapid force maneuver within the joint operations area?”²⁷ To support rapid force maneuver the heavy force unit of employment (corps) level support command must be able to integrate the C2 of all unit and logistical movements within the JOA via the COP and advanced planning asset visibility and tracking applications. The logistics HQ must be equipped and trained to supervise the throughput of POD (air and sea), deployment and redeployment operations and intra-theater airlift and airdrop.

Secondary Research Question Four

Preliminary Assertions

Is the current heavy mechanized and armor force capable of executing full-dimensional protection? Yes. At the operational level of joint force employment, full-dimensional protection is the operational concept that *enables* the joint force to achieve full spectrum dominance. The heavy force at unit of employment and unit of action level

coordinates across a wide variety of agencies to provide the most complete force protection capability available. The strategic and operational agility to protect military, multinational, and nonmilitary assets across the spectrum of operations is vital to a global military strategy.

Subjective Analysis

Full-dimensional protection leverages the ability of the heavy force to employ combat power or the coercive potential of combat power to present a credible deterrence or response to hostile action. Underlying this premise is the heavy force's ability to use its robust C4ISR capabilities to facilitate the accurate and constant application of operational capabilities. The heavy force cannot operate alone and requires the full implementation of all the elements of national power to create the conditions for success.

Tertiary Research Question 4.1

Can it “mitigate [the] effects of terrorist attacks?”²⁸ Yes. The heavy force at unit of action and unit of employment (brigade through corps) level is capable of defeating and mitigating the effects of terrorist attacks. This enables the joint force to recover and continue to pursue operational objectives. The heavy force can conduct limited combat operations to diminish the effect of a terrorist attack, and provide explosive ordinance disposal support to neutralize explosive devices.

If successful, the heavy force minimizes casualties to U.S. military personnel and non-combatants. It counters access denial operations by preventing damage to ports of debarkation (air and sea) that limit or inhibit the JFC's concept of operations. The corps and division HQ must activate appropriate civil military operations centers as soon as they arrive in theater and establish liaison with the U.S. State Department country team,

appropriate host nation authorities, and other agencies. It must establish real time coordination with nonmilitary humanitarian relief agencies to facilitate their activities if they are in concert with the JFC's operational objectives.

Additional Question 4.1.1

Can it "deter terrorist incidents?"²⁹ Yes. The heavy force at unit of action and unit of employment (brigade through corps) level is capable of deterring terrorist incidents allowing the capabilities of the joint force to concentrate on operational objectives. The heavy force can (at corps & division level) fuse all-source intelligence analysis to provide the intelligence assistance for the antiterrorism mission and identify terrorist activity in the JOA. It can reduce the physical vulnerability of key operational assets and capabilities and evaluate the antiterrorist posture of the joint force.

If successful, the heavy force minimizes the number of terrorist attacks influencing the operational capability of the joint force and other multinational, interagency, and nongovernmental assets in the JOA. It continually evaluates the current vulnerability of key assets, capabilities, and implements appropriate countermeasures.

Additional Question 4.1.2

Can it "recover from terrorist attacks and continue operations?"³⁰ Yes and No. The heavy force at unit of action and unit of employment (brigade through corps) level is capable quickly recovering from the consequences of terrorist attacks and continuing to pursue operational objectives. The heavy force can (at corps and division level) assist in decontamination of key assets and capabilities and facilitate mass casualty management. It can continue to operate in a contaminated environment in pursuit of the JFC's objectives, but can only aid in the recovery of civilian populations, infrastructure, and nongovernmental or multinational assets and capabilities. Significant augmentation is

required to assist a distressed population to recover from a wide area attack of persistent effects.

Tertiary Research Question 4.2

Can it detect and engage air and missile threats? Yes and No. The heavy force at the unit of employment (corps) level can, when fused with a national level sensor and reconnaissance platforms, detect and identify most in-flight airborne threats in a selected surveillance area. This enables the joint force to propagate real time warning information, engage early, reengage as required, and implement passive protective measures. It cannot detect, without significant augmentation, pre-launch threats that are deep in enemy controlled or urban areas.

Objective Analysis

These observations are primarily directed at the unit of employment level except where otherwise noted.

Tertiary Research Question 4.1

Can it “mitigate [the] effects of terrorist attacks?”³¹ To mitigate the effects of terrorist actions the heavy force unit of action and unit of employment (brigade through corps) level must be trained to integrate joint, multinational, and interagency capabilities (especially human intelligence) and analysis. All levels of the force must have the requisite level of basic combat skills to protect key joint force capabilities and themselves. The heavy force must be augmented to exploit sensitive sites especially those suspected of containing weaponized chemical or biological agents. National level medical research must offer the military components and multinational and interagency

personnel advanced immunizations and readily available antidotes for agents that can potentially be weaponized.

Additional Question 4.1.1

Can it “deter terrorist incidents?”³² To deter terrorist attacks the heavy force at unit of action and unit of employment (brigade through corps) level must focus training (mission rehearsal exercises) of all combat and support leaders on fundamental close combat skills and situational awareness. The heavy force has little organic capability to manage and exploit human intelligence. This critical augmentation will allow the joint force to employ the coercive potential of combat power to deter attacks and create conditions where the local population views such attacks as against their interests.

Additional Question 4.1.2

Can it “recover from terrorist attacks and continue operations?”³³ To recover from terrorist attacks the heavy force at unit of action and unit of employment (brigade through corps) level must simply revert to basic combat skills training and discipline. It possesses the organic equipment, skills, and training to continue its mission as well or better than any peer or near peer competitor. However, regeneration of capabilities affected by weapons of mass effects within the joint force, interagency assets, multinational forces and nongovernmental assets are beyond the capacity of the combat formations. Significant augmentation on a national and industrial level may be required.

Tertiary Research Question 4.2

Can it detect and engage air and missile threats? To detect and engage air and missile threats the heavy force at the unit of employment (corps) level must simply revert to basic passive and active air defense combat skills, training, and discipline. However, it

cannot (without significant augmentation) determine pre-launch intent or capacity outside its designated surveillance area.

Summary

These desired operational capabilities are extremely subjective and open to a wide variety of interpretations. An assessment plan beyond the scope of this thesis is required to determine the implementation strategy and pace. The conclusions will summarize the implications for the heavy force and make recommendations for future research.

¹Ralph Peters, *Fighting for the Future: Will America Triumph?* (Mechanicsberg, PA: Stackpole Books, 1999), 84.

²U.S. Department of Defense, The Joint Staff, *Joint Vision Implementation Master Plan (JIMP)*, [On-line] (Washington D.C., 2001), A-C-1. Available from http://www.dtic.mil/doctrine/jel/cjcsd/cjcsi/3010_02a.pdf; Internet; accessed 26 December 2002.

³Ibid.

⁴Ibid.

⁵Ibid.

⁶Ibid.

⁷Ibid.

⁸Ibid.

⁹Ibid.

¹⁰U.S. Department of Defense, The Joint Staff, *Joint Vision 2020* (Washington, D.C., 2000), 22.

¹¹Autulio J. Echevarria, "Interdependent Maneuver for the 21st Century," *Joint Forces Quarterly* 26 (autumn 2000): 15.

¹²Ibid., 12.

¹³U.S. Department of Defense, *Joint Vision Implementation Master Plan*, A-C-3.

¹⁴Ibid.

¹⁵Ibid.

¹⁶Ibid.

¹⁷Ibid.

¹⁸Ibid.

¹⁹Ibid.

²⁰Ibid.

²¹Ibid.

²²Ibid.

²³Ibid., A-C-2.

²⁴Ibid.

²⁵Ibid.

²⁶Ibid.

²⁷Ibid.

²⁸Ibid.

²⁹Ibid.

³⁰Ibid.

³¹Ibid.

³²Ibid.

³³Ibid.

CHAPTER 5

CONCLUSIONS

The general pace of change is overwhelming, and information is both the motor and signifier of change. Those . . . who cannot understand the new world, or cannot profit from its uncertainties, or who cannot reconcile themselves to its dynamics will become violent enemies of their [own] inadequate governments, of their more fortunate neighbors, and ultimately of the United States.¹

Ralph Peters, *Fighting for the Future: Will America Triumph?*

The Results

This thesis examined the operational relevance of the current heavy mechanized and armor force through the prism of the four operational concepts outlined in *Joint Vision 2020*. It evaluated each operational concept using the desired operational capabilities summarized in the *Joint Vision Implementation Master Plan* and attempted to answer the following question: Can the U.S. Army's current heavy mechanized and armor force adapt emerging *JV 2020* operational concepts, in order to remain relevant to the land power requirements of combatant commanders across the full range of military operations until the United States Army fields the objective force?

Operation Iraqi Freedom (OIF) in March and April 2003 provides a useful vignette to focus the discussion of the objective analysis (means) identified in Chapter 4. Today's transformation has not occurred in a vacuum or a Training and Doctrine Command battle lab. Its pedigree derives from all the operations of the U.S. military since the "small wars" of intervention in Latin America between the world wars.

"This is not a casual point to make in analyzing the lessons of the Iraq War [OIF]. It took nearly a quarter of a century under a wide variety of military [and] civilian leaders to shape the US forces that went to war in March 2003.

They were the product of both victory and defeat, and virtually every element committed to battle was still in the process of ongoing transformation when it went into battle.”²

Recent media analyses often cite the Afghan conflict of 2001-2002 as both the first war of the so-called “Rumsfeld Doctrine” (precision strike) and a repudiation of the “Powell Doctrine” (massive force) of the first Gulf War. In fact, U.S. joint forces implemented many new operational, planning, and employment concepts during the Gulf war of 1991 (albeit with planning and weapons systems derived and shaped by the Cold War and Vietnam). In fact, “transformation” of the U.S. military in the sense of adaptation to changing operational environments is a constant process. Change is not restricted to the periodic bursts of energy stimulated by one particular Secretary of Defense or Service Chief. “Certainly some of the most important lessons regarding readiness and leadership go back to the initial US defeats in the Kasserine Pass [early in World War Two] and the shattering of Task Force Smith in the Korean War.”³

The elements of the “Rumsfeld Doctrine” utilize ideas and conceptual models that draw from military experience and derived wisdom that took place long before he became Secretary of Defense. The operational concepts of *JV 2020* were published before the Bush Administration was elected. Not surprisingly, these operational concepts “seem remarkably familiar in terms of both the war plan used in the Iraq War [OIF] and the force transformation goals of Secretary Rumsfeld.”⁴ Additional theories such as network centric warfare, hyper-war, parallel attack, effects-based warfare, asymmetric warfare, and expanding the role of special forces in conventional conflicts were already well advanced ideas by the mid-1990’s.

As expected, the final answer to the thesis question has proven to be more subjective and nuanced than a straightforward yes or no. The analysis desired operational capabilities of the *JIMP* indicated that the heavy force was capable of providing exceptional value to the JFC. However, when applied to the full range of military operations the results are not as clear. The value-added of the heavy force to the joint force in a MCO is not equal to its value-added in a MOOTW or strictly non-combat environment. The wide range of military operations (see figure 1, page 3) and the complexity of the emerging COE prevent any conclusive, absolute statement about the ability of the heavy force to provide unique capabilities to the joint force in all environments and circumstances, but did offer some provoking insights into the issue.

Dominant Maneuver

Combat

The heavy force is primarily decisive to the joint force achieving dominant maneuver and achieving full spectrum dominance in MCO and SSC environments where active combat is the principal type of operation being conducted. The heavy force's main disadvantage in these employment scenarios is its inability to get to the active theater from distant bases (e.g. in the continental United States or Europe) in a timely fashion. However, exercising the other instruments of national power (DIME) to their full potential as enablers and implementing an effective JRSO&I procedure to facilitate and speed their entry to a theater can mitigate this constraint. However, the heavy force cannot execute forced entry operations directly into POD and must rely on other instruments of national power or joint force elements to assure access. Once in theater it

provides the JFC significant (land) combat power and flexibility. The heavy force will improve its ability to integrate and employ arriving forces with a more robust liaison capability, enhanced strategic and intra-JOA mobility upgrades, more adaptive planning tools, and upgraded decision support automation to include interactive visual aids linked to real time intelligence assets.

No analysis of the lessons of OIF can disregard the ongoing value of regional defense cooperation agreements, secure bases, alliances, and coalitions. Gaining access to the JOA is critical to both future operations and dominant maneuver. The current heavy force cannot achieve dominant maneuver or even reach many potential JOA without access. “Regardless of force transformation and any new way of war, US strength remains dependent on coalitions, even when these are coalitions of the partly willing.”⁵

To optimize its value across range of operations the heavy force must assume an expeditionary mindset. Not all elements of a heavy division or even brigade may be needed in any given situation and the heavy force may not be the main effort of the joint force or even the land component. Flexible capabilities-based task organizations with scaled command and control at the unit of action level that train and think of themselves as a combined or single arms team working in conjunction with joint forces are essential. The heavy force can configure itself into adaptive force packages to support any type of unit of action (e.g. maneuver, attack aviation, fires, mobility, intelligence, CSS, chemical, etc.) in support of a joint force. Smaller capabilities-based units of action could come from force pooling at the division or corps level and allow the current heavy force to reduce its operational footprint and deployment limitations.

In order to make this concept a reality, JFC must clearly describe the capabilities required within a particular operational or contingency plan in order to ensure that the heavy force adapts force packages with capabilities consistent with the JFC's concept of operations. Enroute planning, flexible and creative basing options, advanced situational understanding through networked battle command systems, smaller force packages that focus on a particular operational capability (direct combat, fires, air defense, mobility, sustainment engineering, force protection), and more joint deployment training will continue to enhance dominant maneuver in the range of combat operations.

Noncombat

The heavy force lacks the ability to maneuver from strategic distances in reaction to short notice humanitarian disasters or support operations outside the continental United States. However, since MOOTW usually precedes and follows a MCO the heavy force's value to the joint force is high. As a MCO either escalates from MOOTW (perhaps from a stabilization mission or SSC) or transitions into a post-hostilities MOOTW environment, the heavy force can be critical to achieving long term strategic goals and final conflict resolution. As an operation or campaign enters the "grey" area between full scale combat operations and MOOTW (or vice versa) the combat potential of land forces are remains essential to the JFC's ability to psychologically dislocate adversaries from their chosen course of action. The heavy force is the ultimate expression of land power and its potential to exert coercive force can be central to subduing any but the most determined opponent without applying lethal force.

OIF did not transition seamlessly from conflict to post-hostilities and such a staggered transition may well become the new norm of the COE. Belligerents not imbued

with the legitimate power or support of a nation state (and its population) may not have the willingness or capability of presenting U.S. forces with the more traditional and sequential transition between these phases. They may just simply fade away, blurring the transition point between combat and MOOTW to the point of irrelevance. The OIF coalition did not seem to have anticipated such a transition by arraying its capabilities to secure liberated areas, facilitate the flow of humanitarian assistance, or protect important national assets (other than oil wells). “This, however, was partly a result of the sheer speed of the Iraqi regime’s collapse at the end of the war, Iraqi tactics that made it impossible to enter cities without diverting forces to secondary missions, and the problems created by not having a second front from Turkey and anything like the force totals originally planned.”⁶

A second operational echelon of combat forces, trained (e.g. via a mission rehearsal exercise) and specifically tasked for a leading role in a conflict’s terminal stabilization and support operations, would help provide a seamless and simultaneous progression from combat to MOOTW. Task organizing highly mobile and self-securing heavy force packages dedicated to the JFC’s capabilities-based requirements for MOOTW--area security, C4ISR, mobility assurance, sustainment engineering, force protection, etc.--would also optimize the joint force to execute dominant maneuver in the non-combat range of operations. Augmenting the heavy force to conduct sophisticated civil military operations, psychological operations, multinational and interagency liaison, guarding against an escalation of stability operations into an SSC or MCO, and other key MOOTW tasks would also help the JFC.

Precision Engagement

Combat

Precision engagement is the primary operational concept that *shapes* the battlespace so the joint force can achieve full spectrum dominance. The strategic and operational agility to employ kinetic, non-kinetic, and electronic attack to “obtain lethal and nonlethal effects in support of the objectives of the campaign”⁷ is critical to the JFC. At the operational level of joint force employment, precision engagement is to dominant maneuver as fires are to maneuver at the tactical level. They are mutually dependent and must support each other. At the strategic and operational level maneuver and fires can be independent operating systems (e.g. intercontinental ballistic missiles).

In order to attain dominant maneuver the JFC must be prepared to execute all the elements of precision engagement. “In fact, on closer inspection, engagement seems to be integral to maneuver rather than a separate concept. Indeed, in most cases precision engagement will not occur without some movement of joint forces or assets, whether it be repositioning intelligence gathering satellites or launching F-16s.”⁸ Dominant maneuver can have the same “effect” as fires. By establishing dominant positional advantage linked to visible coercive combat power, the enemy’s will to initiate combat is diminished.

Preliminary OIF reports and press coverage indicate that comparatively few soldiers of the Republican Guard were killed. Press accounts indicate the troops generally endured aerial bombardments by dispersing away from their armor. “The Iraqi land forces were forced to expose themselves by the speed of land operations and then hit hard

from the air, which in turn sharply reduce[d] the Iraqi threat to US and British land forces. Jointness took on a new practical meaning.”⁹

Current doctrine calls for extensive coordination elements and liaison between land component and air component headquarters. The heavy force unit of employment (corps HQ) can operate as the land component HQ and continue to coordinate this capability if continually upgraded with operational level C2 systems that provide an operational level COP and interactive C2 processes with the JFC. Continued development and enhancement of joint ISR inputs to the corps and division HQ will allow them to collaborate with the JFC to fuse the decision-making processes--including targeting, BDA, ISR--across the coalition and integrate all the capabilities of the joint force.

Noncombat

The heavy force makes only limited use of the destructive power of precision engagement during non-combat operations. MOOTW missions often rely in part on the combat potential of the joint force to prevent escalation of stability and support operations into combat. Rapid and staggered transitions within the range of military operations are greatly aided by the potential of (lethal) precision engagement.

Non-permissive strategic and political environments within MOOTW--either pre or post conflict--can be generated by belligerent attitudes deeply felt by all parties concerned. “History has shown that the human dimension of warfare cannot be countered by technology alone. Technology cannot overcome the greed, fear, hate, revenge, or other emotions that”¹⁰ take over a society on the brink of war or trying to recover from it.

Focused Logistics

Combat

Focused logistics is the operational concept that *sustains* the joint force so that it can achieve full spectrum dominance. Complete asset visibility coupled with advances in transportation technology and embedded decision support tools will better serve the JFC's requirements.

Preliminary analysis of OIF indicates the heavy force unit of employment (corps) level support command was able to utilize commercially available systems effectively filtering database information and support the JFC's decision-making needs. The largest change from the 1991 Gulf War was the first large scale use of commercial logistics technology "that allowed near real time tracking and characterization of shipments from origin to deployment. In [OIF], much of what was shipped had small radio transponders with Radio Frequency Identification (RFID) tags that broadcast a unique code for a given system or package. This allowed the rapid updating of on-line data bases, on a global basis and the RFIDs were [installed] on the systems from factory to [final] use in the field."¹¹

Supporting rapid force maneuver of the heavy force proved to be a challenge. The heavy force is a huge consumer of all types of expendables especially when executing dominant maneuver across long distances. Command and control, the COP, and movement control within the JOA remain a challenge. Logistics headquarters remain constrained by a continuing shortage of adequate intra-theater lift and transportation. The heavy force is operating against two opposing dynamics: there are never enough trucks and a footprint that is too large and vulnerable.

Noncombat

The presence of the heavy force does much to facilitate the type of secure environment needed to execute logistics operations during pre and post conflict MOOTW. The heavy force can facilitate governmental and nongovernmental humanitarian relief efforts, infrastructure preservation, and secure distribution. However, the expense of maintaining the potential of heavy combat power over long periods must be weighed against the permissive or non-permissive nature of the JOA. Lighter, cheaper, and more strategically responsive forces may be the most cost effective if the threat of escalation is low.

Full-Dimensional Protection

Combat and Non-Combat

Full-dimensional protection is the operational concept that enables the joint force to achieve full spectrum dominance. In today's COE, providing operational security, safety, and force protection, especially against terrorism is a continuing challenge in both combat and noncombat environments. The heavy force demonstrates the operational agility to protect military and nonmilitary assets across the range of military operations.

A preliminary analysis of OIF demonstrated the heavy force unit of employment (corps) level integrated joint, multinational, and interagency capabilities and analysis. Fusion of intelligence analysis allowed the joint force to recognize terror threats and adapt force protection measures and rules of engagement accordingly. Most levels of the heavy force demonstrated the requisite level of basic combat skills to protect key joint force capabilities and themselves. "The emergence of new and more lethal forms of

terrorism, and the shift that many potential threats nations are making towards the increased use of asymmetric warfare, presents major new challenges to [U.S.] . . . intelligence. Improvements in operational security and the lack of large physical indicators like the movement of aircraft and armor, or major combat units, make it much easier for potential opponents to use new methods of attack without adequate warning.”¹²

As OIF transitioned from MCO the political imperative of finding and neutralizing weapons of mass destruction became paramount. However, the joint force “did not seem properly prepared to conduct searches or survey the country, it did not preserve papers and facilities, and was not prepared to rush in civilians to help. The US had created an Iraq Survey Group, but training and deployment was delayed and little preparation was made for the start of a timely disarmament and inspection effort with a credible audit trail.”¹³ Sensitive site exploitation, like other MOOTW missions, must be viewed as simultaneous and not sequential.

The operation showed that even combat units are vulnerable to asymmetrical attack especially when the enemy exploits the cultural norms of American forces by embedding civilians and innocents into their scheme of maneuver. The heavy force at unit of action and unit of employment (brigade through corps) level must focus training (mission rehearsal exercises) of all combat and support leaders on fundamental close combat skills and situational awareness. It is hard to imagine that the original OIF plan called for using four brigades of light infantry, one mechanized infantry battalion, and one tank battalion (the 101st Airborne Division, 325th PIR, 1-41st Infantry, and 2-70th Armor) to secure ground lines of communication. By any measure, that much infantry could have been better used in the major urban areas of Baghdad.

The joint force never had to recover from an attack of weapons of mass effects (destruction). Had it faced this eventuality, the heavy force at unit of action and unit of employment (brigade through corps) level would have reverted to basic combat skills training and discipline. It possesses the organic equipment, skills, and training to continue its combat mission in such an environment, albeit at a degraded level. It appears that the speed of the joint operation might have prevented the Iraqi regime from recovering assets that were hidden from United Nation inspectors and other national intelligence collection efforts.

Significance of the Results

To the Army

The Army must divorce itself from the notion that only the combined arms (of the land component) wins. There is no denying the synergistic nature of combined arms warfare in a MCO or SSC and the Army's success at waging it. The heavy force is the decisive combined arms organization. However, a widening array of MOOTW missions will cause the JFC to seek capabilities that are not solely dependant on the synergy of combined arms. The heavy force must learn to configure itself in adaptive force packages to support any type of unit of action (e.g. maneuver, attack aviation, fires, mobility, intelligence, CSS, chemical, etc.) in support of a joint force. Smaller capabilities-based units of action must come from force pooling at the corps level and allow the current heavy force to reduce its operational footprint and deployment limitations.

To the Joint Force

Until the objective force is fielded, land component commanders must continue to use the heavy force while adjusting to its limitations. Only by exercising the DIME instruments to their full potential will the JFC be able to facilitate and speed the heavy force's entry to an active theater. No future JFC can disregard the value of regional defense cooperation agreements, secure bases, alliances, and coalitions. Gaining access to the JOA is critical to future operations.

The Army component of the joint force must do a better job of providing mission-specific, tailorable force packages for MOOTW. In order to make this concept a reality the JFC must clearly describe the capabilities required within a particular operational or contingency plan in order to ensure that the heavy force provides force packages with the capabilities consistent with the JFC's concept of operations.

Future Study

This thesis highlights some specific areas that the heavy force must address to remain relevant to the JFC land power requirements. The Army must study force pooling at unit of employment level in order to configure and train capabilities-based units of action optimized for MOOTW. The task organization of such organizations and their training, basing, and equipment are of vital importance. If optimized for MOOTW what will be the impact on the preparedness of the heavy force for MCO?

Summation

The current heavy force is not irrelevant. OIF proved yet again that at the operational level of war the firepower, mobility, protection, and shock affect of the heavy

force is the decisive element in MCO for the joint force. When viewed from the perspective of the 1991 Gulf War and the 2001-2002 Afghan conflicts, OIF “was more an evolution than a revolution. The dramatic speed of the Coalition victory must also be measured against Iraqi weaknesses as well as Coalition strengths, and one must always be careful about how “new” any new way of war ever is.”¹⁴ Decisive maneuver, precision engagement, focused logistics and full-dimensional protection are not new concepts. They are as old as war, but articulating them, understanding their constituent parts, and synchronizing them have improved significantly. The challenge for the heavy force continues to be its ability to adapt to SSC and MOOTW applications until the Objective Force is fielded.

¹Ralph Peters, *Fighting for the Future: Will America Triumph?* (Mechanicsberg, PA: Stackpole Books, 1999), 133.

²Anthony H. Cordesman, *The “Instant Lessons” of the Iraq War: Main Report, Seventh Working Draft* [book on-line] (Washington, D.C.: Center for Strategic and International Studies, 2003), 117. Available from http://www.csis.org/features/iraq_instantlessons.pdf: Internet: accessed 29 April 2003.

³Ibid.

⁴Ibid., 119.

⁵Ibid., 191.

⁶Ibid., 194.

⁷U.S. Department of Defense, The Joint Staff, *Joint Vision 2020* (Washington, D.C.: US Government Printing Office, 2000), 22.

⁸Autulio J. Echevarria, “Interdependent Maneuver for the 21st Century,” *Joint Forces Quarterly* 26 (autumn 2000): 12.

⁹Cordesman, 132.

¹⁰Dennis J. Reimer, “Dominant Maneuver And Precision Engagement,” *Joint Forces Quarterly* 14 (winter 1996-97): 13.

¹¹Cordesman, 130.

¹²Ibid., 180.

¹³Ibid.

¹⁴Ibid., 119.

GLOSSARY

- Area of Responsibility. (JP 1-02) The geographical area associated with a combatant command within which a combatant commander has authority to plan and conduct operations. Also called AOR.
- Army Service Component Command. (FM 3-0) The senior Army command in a combatant commander's area of responsibility. The Army Service Component Command (ASCC) commander, using administrative control authority, is responsible for the Army Title 10 functions of preparing, maintaining, training, equipping, administering, and supporting Army forces attached to joint forces subordinate to the combatant command. Peacetime training of assigned Army forces is also under the ASCC. Combatant commanders may assign ASCCs responsibility for significant lead-service combat support (such as chemical decontamination) or common user logistic functions. The ASCC also provides theater-strategic and operational-level support to combatant command campaign and major operation planning.
- ARFOR. (FM 3-0) An ARFOR consists of the senior Army headquarters and all Army forces assigned or attached to a combatant command, subordinate joint force command, joint functional command, or multinational command. Providing Army forces within a joint operational area (JOA) is the responsibility of the Army Service Component Commander ASCC of the combatant command. The term ARFOR is commonly used to describe both the headquarters of the Army forces provided to the joint force and the Army forces themselves. An ARFOR commander may not have operational control of all of Army forces provided to the JFC; however, the ARFOR commander remains responsible for their administrative control.
- Battle. (FM 3-0) A set of related engagements that last longer and involve larger forces than an engagement. Battles can affect the course of a campaign or major operation.
- Battlespace. (JP 1-02) The environment, factors, and conditions that must be understood to successfully apply combat power, protect the force, or complete the mission. This includes the air, land, sea, space, and the included enemy and friendly forces; facilities; weather; terrain; the electromagnetic spectrum; and the information environment within the operational areas and areas of interest.
- Civil-military Operations Center (JP 1-02) An ad-hoc organization, normally established by the geographic combatant commander or subordinate joint force commander, to assist in the coordination of activities of engaged military forces, and other United States Government agencies, nongovernmental organizations, and regional and international organizations. There is no established structure, and its size and composition are situation dependent. Also called CMOC.

Combat Power. (JP 1-02) The total means of destructive and/or disruptive force which a military unit/formation can apply against the opponent at a given time.

Combat Service Support. (JP 1-02) The essential capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces in theater at all levels of war. Within the national and theater logistic systems, it includes but is not limited to that support rendered by service forces in ensuring the aspects of supply, maintenance, transportation, health services, and other services required by aviation and ground combat troops to permit those units to accomplish their missions in combat. Combat service support encompasses those activities at all levels of war that produce sustainment to all operating forces on the battlefield. Also called CSS.

Combat Support. (JP 1-02) Fire support and operational assistance provided to combat elements. Also called CS.

Combatant Commander. (JP 1-02) A commander in chief of one of the unified or specified combatant commands established by the President. Also called CINC.

Common Operational Picture. (FM 3-0) A common operational picture is an operational picture tailored to the user's requirements, based on common data and information shared by more than one command. The COP is displayed at a scale and level of detail that meets the information needs of the command at a particular echelon. C2 systems fuse information from a variety of sources, while information systems facilitate its rapid distribution in usable displays that facilitate understanding.

Communications Zone. (JP 1-02) Rear part of a theater of war or theater of operations (behind but contiguous to the combat zone) which contains the lines of communications, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces. Also called COMMZ.

Engagement. (FM 3-0) A small tactical conflict between opposing maneuver forces, usually conducted at brigade level and below. Engagements are usually short—minutes, hours, or a day

High-payoff Target. (JP 1-02) A target whose loss to the enemy will significantly contribute to the success of the friendly course of action. High-payoff targets are those high-value targets that must be acquired and successfully attacked for the success of the friendly commander's mission. Also called HPT.

Joint Force Commander. (JP 1-02) A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called JFC.

Joint Operations Area. (JP 1-02) An area of land, sea, and airspace, defined by a geographic combatant commander or subordinate unified commander, in which a joint force commander (normally a joint task force commander) conducts military operations to accomplish a specific mission. Joint operations areas are particularly useful when operations are limited in scope and geographic area or when operations are to be conducted on the boundaries between theaters. Also called JOA.

Joint Reception, Staging, Onward Movement, and Integration. (JP 4-01.8) The final phase of joint force projection that occurs in the operational area. This phase comprises the essential processes required to transition arriving personnel, equipment, and materiel into forces capable of meeting operational requirements. Also called JRSO&I.

Joint Targeting Coordination Board. (JP 1-02) A group formed by the joint force commander to accomplish broad targeting oversight functions that may include but are not limited to coordinating targeting information, providing targeting guidance and priorities, and refining the joint integrated prioritized target list. The board is normally comprised of representatives from the joint force staff, all components, and if required, component subordinate units.

Line of Communication. (JP 1-02) A route, either land, water, and/or air, that connects an operating military force with a base of operations and along which supplies and military forces move. Also called LOC.

Major Combat Operations. (FM 3-0) A major operation is a series of tactical actions (battles, engagements, strikes) conducted by various combat forces of a single or several services, coordinated in time and place, to accomplish operational, and sometimes strategic objectives in an operational area. These actions are conducted simultaneously or sequentially under a common plan and are controlled by a single commander

Military Operations Other Than War. (JP 1-02) Operations that encompass the use of military capabilities across the range of military operations short of war. These military actions can be applied to complement any combination of the other instruments of national power and occur before, during, and after war. Also called MOOTW.

Mobility. (JP 1-02) A quality or capability of military forces which permits them to move from place to place while retaining the ability to fulfill their primary mission.

Nonlethal Weapons. (JP 1-02) Weapons that are explicitly designed and primarily employed so as to incapacitate personnel or material, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment. Unlike conventional lethal weapons that destroy their targets through blast, penetration, and fragmentation, nonlethal weapons employ means

other than gross physical destruction to prevent the target from functioning. Nonlethal weapons are intended to have one, or both, of the following characteristics: (1) They have relatively reversible effects on personnel or materiel. (2) They affect objects differently within their area of influence.

Operational Level of War. (JP 1-02) The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or other operational areas. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide the means by which tactical successes are exploited to achieve strategic objectives.

Port of Debarkation. (JP 1-02) The geographic point at which cargo or personnel are discharged. This may be a seaport or aerial port of debarkation; for unit requirements; it may or may not coincide with the destination. Also called POD.

Stability Operations. (FM 3-0) Stability operations promote and protect US national interests by influencing the threat, political, and information dimensions of the operational environment through a combination of peacetime developmental, cooperative activities and coercive actions in response to crisis. Regional security is supported by a balanced approach that enhances regional stability and economic prosperity simultaneously. Army force presence promotes a stable environment.

Strategic Level of War. (JP 1-02) The level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) security objectives and guidance, and develops and uses national resources to accomplish these objectives. Activities at this level establish national and multinational military objectives; sequence initiatives; define limits and assess risks for the use of military and other instruments of national power; develop global plans or theater war plans to achieve these objectives; and provide military forces and other capabilities in accordance with strategic plans.

Strike. (JP 1-02) An attack which is intended to inflict damage on, seize, or destroy an objective.

Support Operations. (FM 3-0) Support operations employ Army forces to assist civil authorities, foreign or domestic, as they prepare for or respond to crisis and relieve suffering. Domestically, Army forces respond only when the NCA direct. Army forces operate under the lead federal agency and comply with provisions of US law, to include the Posse Comitatus and Stafford Acts.

Tactical Level of War. (JP 1-02) The level of war at which battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces. Activities at this level focus on the ordered arrangement and maneuver of combat elements in relation to each other and to the enemy to achieve combat objectives.

Theater of Operations. (JP 1-02) A sub-area within a theater of war defined by the geographic combatant commander required to conduct or support specific combat operations. Different theaters of operations within the same theater of war will normally be geographically separate and focused on different enemy forces. Theaters of operations are usually of significant size, allowing for operations over extended periods of time.

Theater of War. (JP 1-02) Defined by the National Command Authorities or the geographic combatant commander, the area of air, land, and water that is, or may become, directly involved in the conduct of the war. A theater of war does not normally encompass the geographic combatant commander's entire area of responsibility and may contain more than one theater of operations.

Units of Action. (TRADOC PAM 525-3-100) Units of Action (UA) are fixed organizations that accomplish discrete sets of functions in accordance with prescribed mission-essential tasks. UAs are further designed as modular organizations that can be combined and integrated as the basic building blocks of combined arms combat power to form larger formations. Represented today by the echelons of section through brigade, units of action will vary in size and number of organic sub-units, dependent on the battlefield functions performed by the unit and its organic capabilities.

Units of Employment. (TRADOC PAM 525-3-100) Units of Employment (UE) are highly tailorable, higher-level echelons that integrate and synchronize Army forces for full spectrum operations. They participate in all phases of joint operations from initial entry to conflict termination in any form of conflict and operating environment. The UE is capable of command and control of all Army, joint, and multinational forces. It is organized and designed to fulfill command and control functions as the Army Forces (ARFOR), Joint Force Land Component Command (JFLCC), or the Joint Task Force (JTF). It also has the inherent capacity to interact effectively with multinational forces as well as with interagency, non-governmental organizations, and private volunteer organizations.

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