

The United States Army's Full-Spectrum Training Strategy Challenge

**A Monograph
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Abstract

THE UNITED STATES ARMY'S FULL-SPECTRUM TRAINING STRATEGY CHALLENGE
by COL Michael J. Lawson, US Army, 49 pages.

The debate within the US Army on the efficacy of the full spectrum operations training strategy is critical to preparing Army forces to fight in the 21st century. The challenges for the Army following a decade of counter-insurgent warfare and stability operations combined with reduced fiscal flexibility and dynamically adaptive enemies make this debate critical for the future capabilities of land force dominance. Based on a contextual analysis of national defense documents and their relation to theories of the character of 21st century warfare this monograph examines the US Army full spectrum training strategy and its effectiveness to produce forces capable of operating in a full spectrum conflict. A comparison of the training strategies of Israel and Britain provide an empirical context that allows for further analysis of the efficacy of the US Army training strategy.

Table of Contents

Introduction	1
Part 1- The Threat Environment and the Character of 21 st Century Warfare.....	3
Part 2 – US Army Force Generation and Preparation Processes.....	12
Part 3 – The Israeli Experiment and British Experiences.....	21
The Israeli Experiment	21
The British Experience	28
Part 4 - Conclusions & Recommendations.....	33
Conclusions	34
Recommendations	37
Bibliography	43

Introduction

The challenges for defense planners are immense; none more so than force preparation. Preparing US Army forces is essential to accomplishing the core requirement for land forces dominance.¹ The United States Army's operational doctrine is grounded in the capability and capacity to fight the full spectrum of conflict. The forces generated for this requirement must be able to fight major conventional combat as well as peace enforcement and any number of other military challenges. But what risks has the Army taken and continues taking as a result of its decade-long focus on counterinsurgency in Iraq and Afghanistan?² Is the Army prepared for future unknown contingencies with forces actually ready for the full spectrum of conflict? What can one learn from some of its allies challenged by similar developments? Is the desire of the Secretary of the Army or CSA and other senior Army leaders advocating a return to core capabilities an effort to prepare to fight nonexistent enemies, preserve force structure or another argument? Or is there truly a need for more sophisticated assessment and therefore different method of force preparation?

These are vital questions given the fiscally constrained environment of 2011 and beyond, expected reductions of US Army force structure with the drawdown of operations in Iraq and Afghanistan, and sustained global force commitments for the Army. General Raymond Odierno, the new Chief of Staff of the Army, outlined his initial thoughts on these critical issues:

Today is like no other time in our history. We remain at war, and our top priority is to win the current fight. It is also a time of uncertainty and historic change. We face a multitude of security challenges, such as transnational and regional terrorism in places like Yemen, Somalia, North Africa and Pakistan's Federally Administered Tribal Areas.

¹ U.S. Department of the Army, *FM 1 The Army*, Washington, DC, Government Printing Office, June 2001, 3. See for statutory requirement, Title 10 United States Code Armed Forces, 112th Cong., 1st sess., 2011, III, 3062b, 84.

² Donnelly, Thomas, *Ground Truth: The Future of US Land Power*, American Enterprise Institute, Washington, DC, 2008, 13.

We have the uncertainty of the Arab Spring, the proliferation of nuclear weapons, and challenges of rising powers. All of this is underpinned by fiscal constraint.³

While GEN Odierno's assessment may be accurate, US strategic planners have a poor track record for predicting the character and context of future conflict. In spite of that poor track record there are some facts worth noting on warfare and by extension force generation. First, no two wars have been alike. In terms of the character, unresolved issues, and people (both combatants and non-combatants), each conflict is unique. Second, US ground forces have consistently never been fully prepared based on the first fact; recall Task Force Smith of the Korean War or LTG William Wallace's assessment of preparations prior to OPERATION IRAQI FREEDOM.⁴ Third, the capability to impose one's will on another, either directly or by proxy, remains the key to success in conflict.

Armed with these facts, this research argues that the Army's force generation and preparation models to prepare full spectrum forces has not achieved the desired capabilities and a new forces structure and complementary training strategy is required. This is accomplished in several parts. Part one is a review of relevant literature on the threat environment which provides a basis for assessing the relevance of the full spectrum force concept. Part two provides a thorough review of US Army force generation and preparation under current strategic and operational requirements. Part three is an analysis and evaluation of Israeli and British force preparation and training methods. This comparative analyses help provide the context for a more robust analysis of the US Army force preparation process. Finally, part four provides a review of relevant considerations and recommendations.

³ Raymond Odierno, "Initial Thoughts", www.us.army.mil, 8 Sep 2011, (accessed September 8, 2011).

⁴ Gregory Fontenot, "Seeing Red: Creating a Red-Team Capability for the Blue Force," *Military Review*, Sep-Oct 2005, 4.

Part 1- The Threat Environment and the Character of 21st Century Warfare

The possibility of continuous, sporadic, armed conflict, its engagements blurred together in time and space, waged on several levels by a large array of national and subnational forces, means that . . . war . . . is likely to transcend a neat division into distinct categories.

—Michael Evans, “From Kadesh to Kandahar”
Naval War College Review, Summer 2003

Threats to US national security have accelerated over the past decade and require persistent focus. This section will discuss the changed strategic environment just prior to the September 11, 2001 terrorist attack and after and the ideas that shape national defense strategy. There has been exhaustive discourse into the terrorist attacks and no additional input is required on that issue. But the ideas that have driven US defense strategy since 1999 with respect to global threats, strategic capabilities, and how an industrial age military fights the current fight and prepare for future fights is worth exploring.

While September 11, 2001 was a monumental event, 1999 was a turning point for both the US Army and the Department of Defense. The turning point resulted from operations in Kosovo by US and NATO forces which demonstrated significant weaknesses in combined and joint capabilities. US Army Chief of Staff General Eric Shinseki advocated strategic force transformation in response to the lessons learned from NATO’s OPERATION ALLIED FORCE and the US generated Task Force Hawk in Kosovo.⁵ Army transformation at its core was a search for strategic relevance in light of the uncertainty of future conflict, the complex operational environment of state and non-state actors, recognition of the need for capabilities to

⁵ FM 1, 33, “Transformation in its Second Year”, *Army Magazine*, Dec 2000, <http://www3.usa.org/webint/DeptArmyMagazine.nsf/byid/CCRN-6CCRV7>, (accessed September 19, 2011). Lessons learned from US and NATO operations in Kosovo demonstrated the inability of US Army forces to rapidly deploy, tailor force packages for specific missions and rapidly transition to joint and combined operations. US forces in Germany were ill prepared to rapidly move into the Balkans during 1999 and commanders were too tied to Cold War organizational structures and methods of operations for effective and efficient employment of forces.

address the full spectrum of conflict and the inherent weaknesses of US Army forces organized and trained to fight symmetrically.⁶ The significant innovations to organizations, training, doctrine, and technologies were the cornerstones of Army transformation; but Army transformation was the weak remedy for a strategic challenge far more insidious than mere relevance.

Before discussing any element of Army transformation, it is critical to contextualize the rapidly shifting national defense strategy and the ideas that shaped it because they provide a window into the thinking of civilian leaders on the emergent character of 21st century war and how to prepare forces to fight and succeed in this environment. Between 2000 and 2008, US defense strategies rapidly morphed to address a dramatically changed strategic environment. In both his 2000 and 2001 Annual Report to the President and Congress, Secretary of Defense William Cohen described the strategic environment as dynamic and uncertain and presented his vision of the worst case scenario:

In addition to security challenges that the Department projects as likely is the possibility for unpredictable wild card scenarios that could seriously challenge U.S. interests at home and abroad. Such scenarios range from the unanticipated emergence of new technological threats, to the loss of U.S. access to critical facilities and lines of communication in key regions, to the takeover of friendly regimes by hostile parties. While the probability of any given wild card scenario is low, the probability that at least one will occur is much higher, with consequences that could be disproportionately high. Therefore, the United States must maintain military capabilities with sufficient flexibility to deal with such unexpected events.⁷

The probable wildcard occurred on September 11, 2001 and introduced the character of 21st century warfare, the most dangerous strategic challenge in decades, to America. Secretary of

⁶ David Jablonsky, "Army Transformation: A Tale of Two Doctrines", *Parameters*, Autumn 2001, 44.

⁷ U.S. Department of Defense, *Annual Report of the Secretary of Defense*, Government Printing Office, 2000, 3; U.S. Department of Defense, *Annual Report of the Secretary of Defense*, Government Printing Office, 2001, 3.

Defense Donald Rumsfeld outlined this character and its strategic and operational impacts in his 2002 Annual Report:

The attacks of September 11 showed that the U.S. is in a new and dangerous period. The historical insularity of the U.S. has given way to an era of new vulnerabilities. Current and future enemies will seek to strike...in novel and surprising ways. As a result, the U.S. faces a new imperative: It must both win the present war against terrorism and prepare for future wars – wars notably different from those of the past century and even from the current conflict. Some believe that, with the U.S. in the midst of a difficult and dangerous war on terrorism now is not the time to make changes. The opposite is true. Now is precisely the time to make changes.⁸

The character of 21st century warfare which Secretary of Defense Rumsfeld described in 2002, emerged in the National Military and Defense Strategies from 2004 through 2008 encompassing threats to US security through traditional military capabilities in “well understood forms of military competition and conflict,” through irregular warfare capabilities to “counter traditional advantages,” through catastrophic (i.e. weapons of mass destruction and like effects) capabilities, and through disruptive technologies that “negate current US advantage in key operational domains” in a strategic environment composed of a wide range of adversaries on a more complex and distributed battlespace with diffused technologies.⁹ The 2008 National Defense Strategy further stated “these modes of warfare may appear individually or in combination, spanning the spectrum of warfare and intertwining hard and soft power. In some instances, we may not learn that a conflict is underway until it is well advanced and our options limited.”¹⁰ These innovative views of conflict are not new. They have been circulated and debated in both academic and strategic think tanks since the collapse of the Warsaw Pact.

⁸ U.S. Department of Defense, *Annual Report of the Secretary of Defense*, Government Printing Office, 2002, 1.

⁹ United States of America, *National Military Strategy*, Government Printing Office, Washington, DC, 2004, 4-6; U.S. Department of Defense, *National Defense Strategy*, Government Printing Office, Washington, DC, 2005, 2; U.S. Department of Defense, *National Defense Strategy*, Government Printing Office, Washington, DC, 2008, 2.

¹⁰ U.S. Department of Defense, *National Defense Strategy*, 2008, 4.

The blurred lines between state and non-state actors and soft and hard power in conflict conceptually emerged overtime through a number of writers including William Lind in his discussions on fourth generation warfare (4GW). Lind characterized generations of warfare beginning with the 1648 Treaty of Westphalia to the 21st century. In the First Generation of Warfare, the state was the dominate force in waging war; fast forward to 4GW where Lind argues that power sources are diffused among both state and non-state actors resulting in a more complex interpretation of warfare and the value of applied force.¹¹ Lind's contributions to contextualizing warfare in terms of centers of power are important in understanding the shifting nature of power, a critical mechanism of conflict. He argues that these defused power centers rely on tactical and operational asymmetry, exploitation, and adversary strength avoidance in a world of heightened cultural awareness and globalized information. However, his linear generational argument from first to fourth over four and half centuries of history is simplistic and his evolutionary tactical and operational applications of power ignore conflicts that do not fit his model.¹²

In addition to Lind's 4GW concept, General Sir Rupert Smith argues in the *Utility of Force* that modern warfare is amongst the people where the people are the battlefield. He argues that the post-Cold War world witnessed the obsolescence of industrial armies and the emergence of a new paradigm dominated by civilians as the target – the objective to be won by both

¹¹ William Lind, "Understanding Fourth Generation Warfare", Jan 15, 2004, <http://antiwar.com/lind/?articleid=1702>, (accessed September 29, 2011).

¹² Artulio J. Echevarria II, "The Problem with Fourth Generation Warfare", <http://www.strategicstudiesinstitute.army.mil/pdffiles/pub674.pdf>, (accessed November 12, 2011). Echevarria argues that advocates of 4GW, like Lind, have simplistically outlined events and time analysis to support a theory that has little validity. Separating the evolving nature of warfare into generations of time ignores the often parallel and overlapping technological developments and methods of war over time. As an example, Lind and others argue that 2GW began during WWI dominated by firepower and 3GW initiated by the Germans in WWII was dominated by maneuver, yet these same examples are resident in the Korean War, the US Vietnam War, and the Soviet-Afghan War.

adversaries.¹³ The challenges for industrialized nations in the post-Cold War world are the outmoded military organizations and methods of operation under this new paradigm – wrong equipment, wrong skills, and wrong focus on outcomes. Smith’s paradigm is based on six anomalies to the traditional paradigm of inter-state industrial warfare – strategic ends are no longer hard objectives but conditions based, the people are the battlefield, conflicts tend to be timeless and even unending, force preservation and not objective accomplishment is paramount, industrial weapons and organizations are applied asymmetrically, and adversaries are predominately non-state or multi-state actors.¹⁴ Smith’s ideas are evident in public statements by national leaders of an era of persistent war, in challenges in defining success in conflicts such as Iraq and Afghanistan and in the complexity of threats from non-state actors. Smith’s solution to the dilemmas of this new paradigm are to refocus on understanding the people involved in conflict with the knowledge that neither military nor political solutions alone will achieve desired results.

The most comprehensive argument with direct linkage to US national defense documents of 21st century warfare was offered by Nathan Freier who described these blurred lines between state and non-state actors as hybrid warfare. As one of the architects of the 2005 National Defense Strategy, Freier shied away from overly defining hybrid warfare but essentially described actors who use multiple and simultaneous combinations of traditional, irregular, catastrophic and disruptive capabilities to achieve synergistic effects.¹⁵ This view of the character of 21st century warfare is not relegated to academics; Michele Flournoy, Undersecretary of Defense for Policy, described the challenges of the strategic security environment

¹³ Sir GEN Rupert Smith, *The Utility of Force: The Art of War in the Modern World*, New York: Vintage Books, 2008, 269-270.

¹⁴ Ibid, 271.

¹⁵ Nathan Freier, “The Defense Identity Crisis: It’s a Hybrid World”, *Parameters*, (Autumn 2009), 81.

encompassing “...more hybrid conflicts in which the enemy combines regular warfare tactics with irregular and asymmetric forms of warfare.”¹⁶

Hybrid warfare is not simply the melding of irregular and conventional warfare. It goes beyond simply these limitations and included advanced technological capabilities (i.e. information systems, networks, non-military related technologies) and mass-effects weapons adapted to the environment by adversaries that are networked and self-organizing, unrestricted by political boundaries. This loosely-tied definition incorporates elements of Lind’s 4GW notions of defused centers of power and Smith’s war-amongst-the-people paradigm as organizing logic to describe the character of 21st century war. Hybrid adversaries do not simply apply avoidance tactics against technologically superior forces but operationalize irregular tactics in diverse combinations with other capabilities to shape operations in order to achieve strategic goals.

This hybrid warfare can be seen in several recent conflicts. Both Chechen Wars, that of 1994-1996 and 1999-2000, were characterized by Chechens employing tactics of small unit tank-killer teams, ambushes, snipers, terrorism, and subterfuge in an operational environment of urban warfare against superior Russian forces.¹⁷ Also, in 2003-2010 Operation IRAQI FREEDOM, where US forces faced rapidly morphing enemy, enemy forces were initially composed of Saddam Hussein’s regular industrial-based conventional forces. With the collapse of these forces Iraqi resistance shifted to the paramilitary Fedayeen, who deployed adaptive tactics and deception, but failed to blunt US offensive operations. Following the initial occupation US forces were confronted by a growing and diverse insurgency that operationalized traditional insurgent

¹⁶ John Kruzal, “‘Hybrid War’ to pull US forces in two directions, Flournoy says”, *Armed Forces Press Service*, May 4, 2009; Michele Flournoy & Shawn Brimley, The Contested Commons, *Proceedings Magazine*, Vol 135/7 (July, 2009), 1. Flournoy argues that “ America's recent wartime experience, combined with insights derived from other contemporary conflicts, suggest that the U.S. military will increasingly face three types of challenges: rising tensions in the global commons; hybrid threats that contain a mix of traditional and irregular forms of conflict; and the problem of weak and failing states.”

¹⁷ Theodore Karasik, *Chechen Clan Military Tactics and Russian Warfare*, CACI, Mar 15, 2000. Curt Black, *The Russian-Chechen Conflict: A Case Study in Asymmetric Warfare*; Ilios, <http://dornsife.usc.edu/ilios/russiachechnyaconflict>, (accessed October 4, 2011).

tactics and adapted technological and organizational structures as counter-measures to US multi-dimensional dominance. And the 2006 Second Lebanon War between Israel and Hezbollah, where Hezbollah employed conventional capabilities with short and medium range operational level rocket units, as well as obstacles, sophisticated anti-tank systems, improvised explosives (mines), autonomous guerilla squads, tactical and operational deception, and the use of counter-signal intelligence technologies to defeat a technologically superior industrial-based Israeli Defense Forces.¹⁸ The consistent features of each of these examples is a modern industrial-based conventional technologically superior force confronted by enemy forces seeking advantage by exploitation of tactical or operational weakness through adaptive uses of organizations, technologies and information to achieve objectives not attainable in a direct confrontation.

It is critical not simply to understand the thought behind hybrid warfare but how these ideas informed and effected defense policies during a time of war and transformation. The response by the Department of Defense to hybrid threat and global demands on existing forces can be characterized by Secretary of Defense Donald Rumsfeld's reply to a question on equipment needs of units deploying into Iraq, "...you go to war with the Army you have---not the Army you might want or wish to have."¹⁹ Rumsfeld's comment encapsulates the essence of defense planning in an era of hybrid warfare – that of optimizing tactical and operational applications of existing systems and organizations while simultaneously preparing for an uncertain strategic future.

¹⁸ Alistair Cooke, "How Hezbollah Defeated Israel", http://www.atimes.com/atimes/Middle_East/HJ12Ak01.html, Oct 12, 2006 (accessed 2 October 2011); Matt Matthews, *We Were Caught Unprepared: The 2006 Israeli-Hezbollah War*, Combat Studies Institute Press, Ft. Leavenworth, KS, 2008, 1-2.

¹⁹ US Department of Defense, "Secretary Rumsfeld Town Hall Meeting Kuwait", <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=1980>, Dec 8, 2004, (accessed September 12, 2011).

Over the span of eight years, US national defense strategies shifted from a threat-based two major theater of war construct to a capabilities-based approach more applicable to hybrid threats through the DOD transformation initiatives. Secretary Cohen directed these initiatives outlined in Joint Vision 2020 (JV2020) transformation strategy which set full spectrum dominance as the focus,

...achieved through the interdependent application of dominance maneuver, precision engagement, focused logistics and full dimensional protection. Attaining that goal requires the steady infusion of new technologies and modernization and replacement of equipment. However, material superiority alone is not sufficient. Of greater importance is the development of doctrine, organizations, training and education, leaders and people that effectively take advantage of the technology.²⁰

Following the September 11, 2001 terrorist attacks Secretary of Defense Rumsfeld accelerated transformation. While the Secretary strongly advocated transformational capabilities-based forces outlined in JV2020, he set significant requirements on each service's transformational initiatives to remain capable of undertaking major combat operations globally across a wide range of conditions and environments: to retain capability to decisively defeat an adversary in one of two theaters where major combat operations are conducted, including the ability to occupy territory or set conditions for regime change, and preparing forces for small-scale contingency operations in peacetime.²¹

While the breadth of Army transformation is beyond the scope of this monograph, the critical features of transformation related to this research are training and force preparation for full spectrum dominance. Essentially, GEN Shinseki and GEN Peter J. Schoomaker, Chiefs of Staff of the Army from 1999-2007 respectively, recognized that the Army was too heavy for rapid deployment, too light to achieve decisive victory, too hierarchically organized to be agile and flexible, and too focused on the wrong threats to provide strategic relevance in 21st century

²⁰ U.S Department of Defense, *Joint Vision 2020*, <http://www.iwar.org.uk/rma/resources/jv2020/jv2020a.pdf>, (accessed November 4, 2011), 3.

²¹ *Annual Report*, 2002, 5-6.

warfare.²² Army transformation centered on developing a networked system of systems through the technology intensive Future Combat System (FCS) and the organizational development of the Objective Force which would allow the Army to see first, understand first, act first and finish decisively.²³ Transformation was broad in scope but contained two key components - shifting the Army institutionally and organizationally from a division to an expeditionary brigade combat team (BCT) centric force and building capabilities to address the full spectrum. At its very core, the spectrum of conflict relates to the ambient level of violence from the least violent peacetime military engagements escalating progressively to limited interventions, peace operations, irregular war and culminating in the highest levels of violence in major combat operations.²⁴ The challenge for the Army was to transform a threat-based force to a capabilities-based organization that could handle all levels of conflict sequentially and/or simultaneously.

Embedded in the organizational components of Army transformation were the development of doctrine and training to support full spectrum operations (FSO) and a force generation model (ARFORGEN) to create a sustainable supply of expeditionary forces centered on the modular BCT. But Army transformation had its limits during a time of protracted

²² Rick King, *Army Transformation: A Cultural Change*, US Army War College, Carlisle PA, 2008, 9. Both GENs Shinseki and Schoomaker recognized the organizational and operational weaknesses of the army based upon experiences in Kosovo in 1999 and lessons learned from OPERATION IRAQI FREEDOM.; Frank G. Hoffman “Conflict in the 21st Century: The Rise of Hybrid Wars”, *Potomac Institute for Policy Studies, Arlington, VA*, Dec 2007, 20-27.

²³ GEN Kevin P. Byrnes, *Accelerating Transformation*, <http://zieg.com/links/army/people/GEN-Byrnes.html>, (accessed November 19, 2011); U.S. Department of the Army, *Army Transformation Roadmap 2001*, <http://www.gees.org/documentos/Documen-016.pdf> (accessed Nov 2, 2011), 6-7. FCS was a networked group of 18 systems linking manned and unmanned platforms designed to allow units and commanders to see first, understand first and act first. Conceptually, FSC was designed to transform army and joint forces on a dispersed battlefield into a linked force that magnified dominance by overmatching enemy capabilities. FCS further shifted the base organizational structure of the army from divisional to Brigade Combat Teams (BCT) designed to enhance expeditionary capabilities. The Objective Force was to be the premier end state of army transformation with a force more responsive, deployable, agile, versatile, lethal, survivable, and sustainable than existing forces. Both the FCS and the Objective Force concepts were cancelled in 2009, however, the army did execute the brigade based organizational structure in 2006.

²⁴ FM 7-0, *Training For Full Spectrum Operations*, Washington, DC: U.S. Government Printing Office, December 2008, 1-7.

persistent conflict and the FCS and Objective Force did not survive the demand for forces, budgetary constraints and systems complexities. The Army did transform all active brigades to BCTs or multi-functional brigades, implemented the supply-based force generation model (ARFORGEN) and made full spectrum operations training a basic training standard for all units.

This section focused on a review of relevant literature on the character of 21st century warfare. The hybridization of conflict incorporating conventional and irregular warfare with asymmetric mass-effects weapons and disruptive technological impacts conducted amongst people challenges the abilities of industrial-based forces to effectively adapt. The Department of Defense through its transformation initiatives set a course to achieve full spectrum dominance in this hybrid environment. The Army transformation campaign, while significantly altered by the demand for forces in support of OPERATION IRAQI FREEDOM and OPERATION ENDURING FREEDOM, was built a on modularized sustainable expeditionary brigade-based structures operable in the full spectrum of conflict remained. In assessing the ability of the Army to prepare forces for full spectrum capabilities, a thorough review of the Army's force generation and preparation methods is essential and will be explored in part 2.

Part 2 – US Army Force Generation and Preparation Processes

As part of the Army transformation campaign plan, Forces Command was designated as the execute agent for development of an Army-wide synchronized force generation (ARFORGEN) model that would create pools of available forces and expeditionary packages to support geographic combatant command and civil authorities' requirements.²⁵ This process

²⁵ US Department of the Army, *AR 525-29 Army Force Generation*, Washington, DC, 14 Mar, 2011. The regulatory authorities for ARFORGEN are found in DAGO 2002-03 and as amended 2009-03. Guidance for ARFORGEN was directed by SECARMY in 2006 and codified in AR 525-29; FM 7-0 *Training Units and Developing Leaders for Full Spectrum Operations*, Washington, DC, Feb 2011, 3-3&4.

replaced the total force readiness processes of the Cold War.²⁶ It was a natural outgrowth of persistent conflict in a hybridized strategic environment with the need to build predictably available ready forces.²⁷

Original ARFORGEN Model²⁸



ARFORGEN conceptually created three equal sized force pools – reset, train/ready and available pools - (Figure 1) based on availability for steady-state rotation. Units linearly progressed along a timeline with specific activities, capabilities and transition requirements for each pool. Additionally, units were designated as either deployment expeditionary forces (DEF)

²⁶ During the Cold War US defense forces operated on a DEFCON system that provided for escalating levels of readiness for mobilization and employment which meant that US army forces, particularly active forces and more specifically those forward deployed, operated on a always ready concept. This was critical based on the strategic notions of the expected scale and scope of potential combat with Warsaw Pact forces.

²⁷ Army Posture Statement, 2006, Addendum E: Army Force Generation Model – ARFORGEN; http://www.army.mil/aps/06/14_acronyms.html (accessed September 15, 2011).

²⁸ AR 525-29, *Army Force Generation*, Figure 1, 2.

with specific assigned deployment missions or contingency expeditionary forces (CEF) available for combatant command requirements and national contingencies.²⁹

For units in the reset pool, either returning from a deployment or as part of the conceptual rotation through ARFORGEN, the focus is on soldier and family reintegration, manning and equipping, and individual skills training proficiencies. These requirements essentially mean that the unit is placed in the lowest level of expeditionary readiness, C-5 for 180 days.³⁰ Unit manning is reduced significantly, particularly at the officer and NCO levels, as personnel depart the unit in accordance with manning priorities of the Army. At the same time, the unit is prepared to receive a significant number of either new or reassigned soldiers over the next six to eighteen months. Equally as significant, complete equipment reset for all weapons, communications, protection, intelligence and ancillary systems is conducted over the same period to provide the unit with the most up to date fully functional systems. During reset, training, from a practical perspective, is limited to individual skills proficiencies based on personnel and leader turbulence, unit cohesion, and equipment availability. While units in the reset pool are at the lowest level of overall readiness, they are available in times of national emergency for deployment as part of a full surge force.

In the train/ready pool, units focus on progressively higher echelon collective training culminating in a collective training event typically at one of the combat training centers (CTCs include the National Training Center at Ft. Irwin California, the Joint Readiness Training Center at Ft. Polk Louisiana, and the Joint Multinational Readiness Center at Hohenfels, Germany) as well as continuing manning and equipping requirements from the reset phase. Conceptually,

²⁹ Ibid, 3.

³⁰ U.S. Department of the Army, *AR 220-1, Army Unit Status Reporting and Force Registration – Consolidated Policies*, Washington, DC, Apr 2010, Paragraph 4-8c(2), 19-20. Army units in reset will report mandatory C-5/T-5 during the HQDA-directed reconstitution period following their availability period as part of the ARFORGEN process for a duration of 180 days for COMPO 1 units (active) and 365 days for COMPO 2 (National Guard) and COMPO 3 units (Reserve units).

units are sufficiently manned and equipped at the end of the reset phase to transition to the train/ready phase and begin significant full spectrum operations collective training to certify squads/teams, platoons and companies, and battalion and brigade command posts. Units focus on progressively more complex offense, defense, stability and civil support (full spectrum) oriented requirements based on their DEF or CEF designation.³¹ Also, units receive significant external support from the Ft. Leavenworth based Mission Command Training Program focused primarily at brigade level units to stress their mission command systems in virtual, constructive and live scenarios. External support is also provided in this phase, culminating in a collective training event at one of the CTCs which requires detailed planning for reception, staging, onward movement and integration (RSOI) in situation-based collective training scenarios designed to test and validate commander objectives for unit readiness while allowing for external assessments and additional remedial training.

The ARFORGEN cycle culminates in the available pool with units fully prepared to deploy for specified missions (DEF) or prepared for contingency operations (CEF). Units assigned to the DEF are essentially certified for deployment at the conclusion of their collective training event, typically called a mission readiness exercise (MRX), which focuses on a very specific scenario based on the planned area of operations, designed mission, and commander's objectives. The MRX allows the unit commander and the senior mission commander confirmation that the deployment training strategy was sufficiently robust to prepare all units for the deployment. For units assigned to the CEF, the available phase transition allows them to continue to focus on full spectrum collective training until assigned a specific contingency mission.

³¹ U.S. Department of the Army, FM 7-0, *Training for Full Spectrum Operations*, Washington, DC, 2008, 1-7.

While ARFORGEN is the Army's force generation process, training for full spectrum operations is the Army's force preparation process found in FM 7-0, *Training for Full Spectrum Operations*.³² The Army laid out the challenges of 21st century operations succinctly in FM 7-0:

As recently as 2001, the Army believed that forces trained to conduct the offense and defense in major combat operations could conduct stability and civil support operations just as effectively. However, the complexity of today's operational environments and commander's legal and moral obligations to the population of an area of operations has shown that approach to be incorrect. Recent operational experience has demonstrated that forces trained exclusively for offensive and defensive tasks are not as proficient at stability tasks as those trained specifically for stability. For maximum effectiveness, stability and civil support tasks require dedicated training, similar to training for offensive and defensive tasks. Similarly, forces involved in protracted stability or civil support operations require intensive training to regain proficiency in offensive and defensive tasks before engaging in large-scale combat operations. Therefore, a balanced approach to the types of tasks to be trained is essential to readiness for full spectrum operations.³³

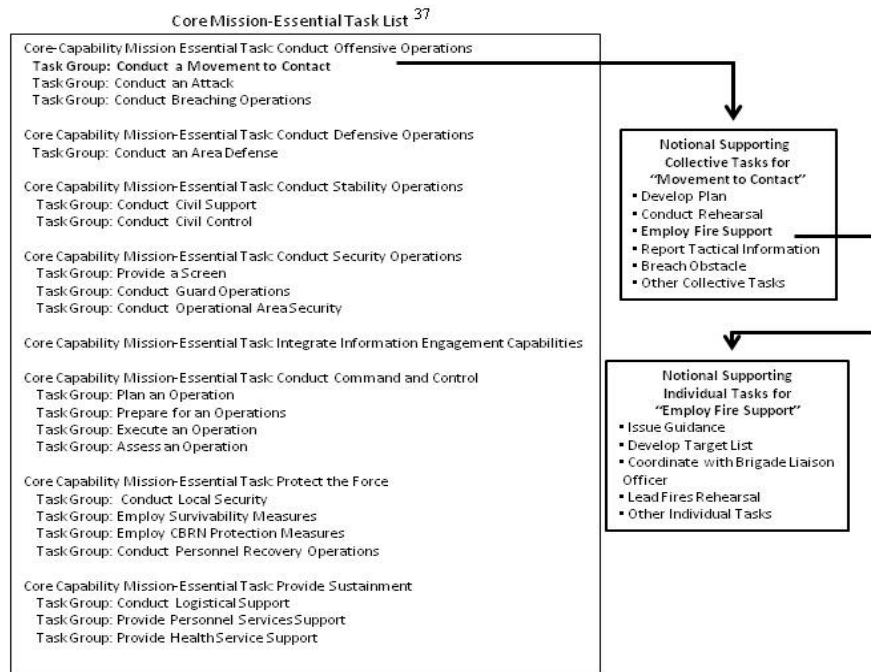
The goal of full spectrum training is to build sufficient levels of proficiency in assigned combat tasks so units are able to operate effectively across a broad series of tactical and operational challenges. The assigned tasks found in the unit's mission essential task list (METL) are based on a unit's deployment designation, DEF or CEF. The tasks focus leaders on a directed combat mission or preparation of future contingency missions within the ARFORGEN process. Whether DEF or CEF, units typically start with their core METL or those combat tasks the organization was built to execute and train to a specific level of proficiency. Additionally, units focus on general METL tasks that are not unit-specific but apply to all units as directed by Department of the Army.³⁴ This designation of a CMETL (core METL for CEF units) or DMETL (deployment METL for DEF units) is only one part of the Army's FSO training strategy.

³² FM 7-0 *Training for Full Spectrum Operations*, Washington, DC: U.S. Government Printing Office, December 2008. FM provided thorough outline of full spectrum operations (FSO) requirements.

³³ *Ibid*, 1-6.

³⁴ *Ibid*, 2-6, 4-6, 4-8. FM 7-0 further states core capability METL tasks are collective tasks approved by DA specific to a type of unit resourced by MTOE or TDA and doctrine that the unit must successfully perform. All core METLs have FSO tasks embedded to provide commanders tactical/operational options. General METL tasks are also approved by DA "that all units regardless of type, must be able to accomplish" such as protect and sustain the force and command and control.

The training strategy also incorporated a multi-echelon, concurrent, sequential and progressive approach (crawl-walk-run) to training that allows leaders and soldiers to develop and hone collective combat skills through live, virtual and constructive training events.³⁵ Ultimately, commanders must identify tasks for training within a METL, based either on a directed mission or goals to maintain core capabilities for future contingency missions.³⁶



For explanatory purposes, figure 2 shows a notional CMETL for an infantry brigade combat team (IBCT) CEF unit with tasks selected by the commander in support of his training objectives. Because the training strategy is as described above, units from squad through brigade have components of each METL task and task groups. In this example, for an IBCT to employ fire support, each maneuver unit in the IBCT must gain an acceptable level of proficiency in

³⁵ Ibid, 2-10 & 3-2.

³⁶ FM 7-0 *Training Units and Developing Leaders for Full Spectrum Operations*, Washington, DC, Feb 2011, 3-5.

³⁷ FM 7-0, *Training for Full Spectrum Operations*, Dec 2008, Figure 2 notional METL chart developed by US Army Training and Doctrine Command to show linkages within echelons for collective task training requirements. 4-9.

employing fire support from the forward observer team at a maneuver platoon, Fires Support Elements at company through brigade, as well as all systems of the fires battalion of the IBCT and essential joint capabilities with joint elements.³⁸ These skills, like all core combat skills, are extremely perishable and heavily dependent on stabilized personnel to sustain any level of proficiency and available training time. The acceptable level of proficiency is entirely dependent on the commander's assessment of whether the unit should operate in the crawl, walk or run capability against expected threats.³⁹

This training strategy conceptually prepares all combat forces for FSO as they progressively move through each ARFORGEN phase. Yet the concept as originally envisioned, or even as modified, is flawed for several reasons – lack of synchronization among Army enterprise elements; ARFORGEN, as a supply-based model, is out of synch with the GCC demands for forces; and the time required to attain or retrain on critical core combat skills as prescribed by FM 7-0 and Army guidance is insufficient to produce desired levels of proficiency.

The ARFORGEN model is like a three-legged stool with each leg representing a critical Army enterprise component -personnel, equipment and facilities, and training. Each component must be at the right level for units to attain tactical and operational proficiencies essential for FSO preparations. Yet, the practice of aligning these three enterprise elements is both complex and complicated, heightening operational risk and lowering combat effectiveness.⁴⁰ Combat units are typically reduced to a low personnel fill during the reset phase which often continues in the

³⁸ Joint elements in fire support include both lethal and non-lethal capabilities such as qualifying soldiers in the Joint Fire Observer program for type III close air support; training with US Air Force Joint Tactical Air Controllers; Special Operations Forces integration; non-lethal effects such as Electronic Warfare, Information Operations, and other non-tangible effects.

³⁹ FM 7-0, *Training Units and Developing Leaders for Full Spectrum Operations*, Feb 2011, 3-7.

⁴⁰ The complex and complicated challenges of aligning army enterprise elements for ARFORGEN execution refer to the competing demands for personnel for multiple deploying units in the operating force as well as sustaining the generating force; equipping both deployed units and training units with the same limited pool of equipment; and providing deploying units with maximum training time at installations while simultaneously providing CEF units with similar training opportunities.

train/ready phase exacerbating weaknesses in combat proficiency, particularly with leaders and low density critical skill MOS shortages.⁴¹ Units are typically filled between 105-115 percent of authorized strength with a boots-on-the-ground requirement of 90 percent which essentially means between 15-25 percent of a deploying unit does not deploy.⁴²

In addition to personnel challenges within ARFORGEN, equipment and facilities demands exceed the limited supply of available combat equipment and facilities for deployed, DEF, and CEF units. For example, the Army had limited supplies of M110 sniper rifles, M240B medium machine guns, HIDES biometric recognition systems, or MRAP class up-armored combat vehicles. The priorities for equipment are to deployed, DEF and CEF units with the vast bulk of available equipment designed for deployed units.⁴³ This prioritization creates significant training challenges for DEF and CEF units by the very nature of the Army's train as you fight philosophy (train with the equipment you will fight with).⁴⁴

Because ARFORGEN is a three-legged stool and each leg is essential to produce combat ready full spectrum forces, soldiers must be deployable and available and theater specific combat equipment must be operational and available for training. The Army personnel and equipment enterprise systems are demand based and not sufficiently synchronized with ARFORGEN, an expeditionary supply-based readiness mechanism, which creates significant challenges, including training proficiency. Because of personnel and equipment shortages, units often train and retrain similar combat tasks at the same echelon which means that units are not proficient in executing

⁴¹ AR 220-1, *Army Unit Status Reporting*, 31.

⁴² Brigadier General Gina Farrisee, DCS G1, Memorandum for Record: Active Component Manning Guidance for Fiscal 2007, 3; Also, personal observation of the author as both a Deputy Brigade Commander 4/1ID, a DEF unit and as 1ID Division Chief of Staff (Rear) responsible for deploying/redeploying five BCTs and numerous echelon above brigade units.

⁴³ A significant amount of equipment is not available due to Army equipment reset requirements, combat loss or fair wear and tear replacement or modernization.

⁴⁴ FM 7-0, *Training for Full Spectrum Operations*, Dec 2008,2-5. Train as you fight means "training under the conditions of the expected operational environment".

higher echelon operations and are focused down as opposed to down, up and out. Furthermore, due to these shortages commanders focus training on core METL combat tasks – typically offensive and defensive in nature – and spend marginal time focusing on stability and civil support tasks. The effect of these shortages on combat-ready units limits full spectrum effectiveness.

Finally, the one element in this equation that has the most limiting flexibility is time. Commanders at all levels cannot create or extend time constraints. This was evident in the drive for surge forces in Iraq (early 2007 through 2009 and Afghanistan in 2009-2011). During early stages of surge operations, units were pulled forward through ARFORGEN with resulting abbreviated training and other preparation actions. This abbreviated process does not mean that units were not ready for combat; commanders, however, made choices to focus available time toward more challenging skills and further focus training at lower echelons for proficiency.

ARFORGEN, as the Army's expeditionary force generation and preparation model, has been overwhelmed by the Geographic Component Command wartime requests for forces, both whole units and specific capabilities.⁴⁵ Conducting simultaneous wars in two theaters, as well as myriad global force requirements for the global campaign on terrorism transformed ARFORGEN from a deliberate three year process often to an immediate action drill. Until recently, the National Command Authority advocated a two war strategy that allowed the US to confront significant threats to national interests; ARFORGEN was the Army's mechanism to feed those requirements.⁴⁶ However, the available end strength of active Army forces was never sufficient

⁴⁵ GEN George Casey, *Stand To*, <http://www.army.mil/standto/archive/2009/07/24/print.html>, (accessed October 5, 2011). Discusses temporary increase in end strength to rebalance army from eight years of war.

⁴⁶ U.S. Department of Defense, *Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense*, Washington, DC; Jan 2012, 4. The strategy envisions forces “able to secure territory and populations and facilitate a transition to stable governance on a small scale for a limited period using standing forces and, if necessary, for an extended period with mobilized forces. Even when U.S. forces are

to meet the requirements of the simultaneous undeclared wars in Iraq and Afghanistan requiring significant use of federalized National Guard and Reserve forces, individual joint augmenters, contractors and private forces, calling into question the whole notion of a two war strategy.

This section focused on the Army force generation and preparation processes and their challenges. It is clear that preparing forces for DEF or CEF in a high demand environment has impacted the capacity of units to fully prepare for full spectrum operations with high rates of non-deployables, a just in time personnel system and limited theater combat equipment. It is worth exploring several other nations' experiences and their force preparation processes over the past decade. Both the United Kingdom and Israel provide unique opportunities to explore this issue. Israel, since 2000, has experienced numerous challenges against terrorist organizations and hostile neighbors as well as internal challenges related to how their ground forces prepare to fight. The United Kingdom, referred hereafter as Britain, both as the most reliable US ally and similarly structured militarily, with similar deployment requirements into Iraq and Afghanistan over the past decade, will provide useful insights as we look at alternatives to full spectrum force preparations.

Part 3 – The Israeli Experiment and British Experiences

The Israeli Experiment

Just as 1999-2000 was a transformational time for the US Army, so too was it for Israeli Defense Forces. Prior to 1999, Israeli forces placed significant emphasis on systemic precision standoff engagements and the employment of overwhelming force to eliminate threats.⁴⁷ But two

committed to a large-scale operation in one region, they will be capable of denying the objectives of – or imposing unacceptable costs on an opportunistic aggressor in a second region.”

⁴⁷ David E. Johnson, *Military Capabilities for Hybrid War: Insights from the Israel Defense Forces in Lebanon and Gaza*, RAND, 2010, 2. During the time period discussed the IDF became focused on Effects Based Operations and associated systemic operational concepts designed to fracture enemy capabilities and indirectly break the will of adversaries to sustain conflict through overmatch in technological precision and targeting which would allow forces to achieve strategic objectives through deliberately limiting military methods.

events changed the course of Israeli combat capabilities and set the conditions for some very hard lessons learned – the 2000-2005 Palestinian Al Aqsa intifada (second intifada), and the 2006 Second Lebanon War against Hezbollah.

In July 2000, Yasser Arafat, Chairman of the Palestine Liberation Organization, increasingly frustrated with the failures of the Camp David and Oslo peace efforts, helped initiate the Al Aqsa intifada which shifted Israeli defense efforts toward countering the sustained Palestinian terror campaign of the intifada.⁴⁸ Arafat's frustrations went beyond the on-again-off-again peace efforts; Israeli insults fueled levels of mistrust and rising conflict within the Palestinian community. Emblematic of this frustration was the visit by Ariel Sharon, former Israeli Defense Minister, to the Temple Mount (Al Aqsa Mosque) in late September 2000 which sharpened Palestinian resolve that armed struggle was an essential component of fighting Israeli occupation of Palestinian lands and as the mechanism to force negotiations.⁴⁹

The Palestinian campaign employed asymmetric terror tactics targeting government and civilian soft targets as the mechanism to force political change.⁵⁰ The Palestinian Liberation Organization, Islamic Jihad, Hamas, Al Aqsa Martyrs' Brigade and other militant Palestinian organizations employed a variety of terror tactics including the use of sustained short range rocket attacks, suicide bombers, car and truck bombs, snipers and ambushes designed to create a climate of fear and terror in Israel and internationally delegitimize Israeli occupation of Palestinian territories.⁵¹

⁴⁸ Ibid; Jeremy Pressman, "The Second Intifada: Background and Causes of Israeli-Palestinian Conflict", *Journal of Conflict Studies*, Fall 2003, 116.

⁴⁹ Ibid. The on-again-off-again peace efforts and the ultimate explosion of Palestinian revolt stems from the quid pro quo nature of Arab and Jewish relations as well as the sucker culture of the region. Sucker culture simply means the first to concede or give any concession is a sucker and will continue to give until pressed otherwise.

⁵⁰ Gal Luft, "The Palestinian H-Bomb: Terror's Winning Strategy", *Foreign Affairs*, Vol 81, No 4 (Jul-Aug 2002), 2-3.

⁵¹ Ibid.

The intifada lasted five years causing thousands of casualties on both sides, resulting in a complete reshaping of Israel Defense Force (IDF) ground capabilities.⁵² The Israelis focused their efforts on preparing ground forces for counter-terrorist and low intensity counter-insurgency operations which resulted in a force preparation model that neglected medium and higher-end ground force capabilities such as tactical and operational employment of combined arms forces (armor, artillery, infantry, and aviation), as well as critical command and control of those forces.⁵³ Amir Rapaport, an Israeli Research Associate at the Begin-Sadat Center for Strategic Studies, writing in *Mideast Security and Policy Studies*, stated that IDF preparedness for low-intensity conflict “was put on the IDF’s list of priorities, just under the need to prepare for a nuclear threat such as Iran. As a result, the main facets of the Operational Art for a regular confrontation...were neglected. Particularly neglected were preparedness for an offensive ground maneuver aimed at destroying the enemy’s forces and conquering parts of his territory.”⁵⁴ Essentially, Israeli ground forces no longer focused on ground dominance through the decisive deliberate application of force; rather, ground forces operationalized the Effects-Based Operations (EBO) and Systemic Operational Design (SOD) concepts advocated by Brigadier General (res.) Shimon Naveh.⁵⁵ Israeli defense forces described their operations during the intifada as “mowing the grass” which

⁵² Johnson, *Military Capabilities for Hybrid War*, 2; For detailed casualty analysis see B’Tselem, The Israeli Information Center for Human Rights in the Occupied Territories, <http://old.btselem.org/statistics/english/Casualties.asp>. (accessed January 8, 2012).

⁵³ David E. Johnson, et. al., *Preparing and Training for the Full Spectrum of Military Challenges: Insights from the Experiences of China, France, the United Kingdom, India, and Israel*, National Defense Research Institute, RAND Corp., 2009. IDF focused forces on counter-terrorism and counter-insurgent operations as the true long-term threat to Israeli national security, effectively eliminating significant training requirements and capabilities for mechanized forces, fire support coordination as well as air to ground coordination and a whole host of critical combined arms capabilities in accordance with their stated doctrine, 214.

⁵⁴ Amir Rapaport, “The IDF and the Lessons of the Second Lebanon War”, *Mideast Security and Policy Studies*, No 85 (December 2010), 7.

⁵⁵ *Ibid*, 7 & 9.

articulated the inability of the Israel Defense Forces to militarily stop the terror campaign before the Palestine Authority ultimately achieved its political objectives.⁵⁶

It is important to understand the overarching ideas of EBO and SOD because they played a significant role in shaping Israeli ideas of operationalizing conflict and the eventual results of their 2006 war in Lebanon. The Effects Based Operations concept was a methodology refined following decisive air operations in the U.S. led First Gulf War against Iraq.⁵⁷ The methodology views the enemy as a system and focuses lethal and non-lethal actions toward affecting both the physical capacities of the enemy system as well as the behavioral capacity of its actors to resist without the attrition and mass destruction consequences of industrial-age warfare. The systems approach argued that because the enemy system does not exist in isolation, but interacts with other systems, there are numerous known and unknown interconnections among various systems. These interconnections have linkages, vulnerabilities, and strengths that can be exploited to achieve desired strategic effects. Yet the most significant limitation of this systemic approach is quantification of unknowns or predicting and effectively assessing effects against desired outcomes.⁵⁸

Contracting EBO is the traditional view of the enemy within a situation of opposites (friend or foe or neutral) with defined operational aims that seek to achieve broadly defined strategic goals through tangible operational and tactical actions.⁵⁹ This contract between EBO and the traditional view not only includes a recognition that there are subjective characteristics to

⁵⁶ Johnson, *Military Capabilities for Hybrid War*, 2; While there is no officially designated end of the Al Aqsa intifada, two events precipitated Palestinian President Mahmoud Abbas' secession of the terror campaign – the death of Yasser Arafat in 2004 and the official withdrawal of Israel from the Gaza Strip in 2005.

⁵⁷ BG David A. Deptula, *Effects-Based Operations: Changing the Nature of Warfare*, Aerospace Education Foundation, 2002, 5.

⁵⁸ Dr. Maris McCrabb, *Effects-Based Operations: An Overview*, www.au.af.mil/au/awc/awcgate/af/ebo.ppt, (accessed 8 February 2012).

⁵⁹ Milan N. Vego, "Effects-Based Operations: A Critique", *Joint Forces Quarterly* (issue 41 2nd Quarter), 2006, 53.

warfare that require experiential leadership but that warfare is not a simple systems diagram with spurious casual loops that can be deconstructed to cause enemies to fracture.

In conjunction with the ideas such as EBO, Brigadier General (res.) Shimon Naveh's Operational Theory Research Institute advocated SOD as a means to understand and affect the actions of complex adaptive systems. Unlike EBO's attempt at scientific quantification, Systemic Operational Design was philosophical, acknowledging inherent uncertainties and incompleteness in knowledge of complex adaptive systems requiring a continuous process of multi-disciplinary inquiry.⁶⁰ This approach was synthetic requiring system framing to rationalize complexity by utilizing system logic.⁶¹ Ben Zweibelson, writing in *Small Wars Journal*, argued, "Today's battlefield reflects an environment where traditional procedures and lockstep methodology alone are generally unable to translate the pursuit of strategic aims into tactical actions. Our enemies and rivals no longer "play ball" with any regard for the rules; most adapt and innovate at exceptional rates...Making sense of open systems requires a holistic and abstract mode of thinking that avoid reductionism, linear causality, and non-explanatory description."⁶² While Naveh's holistic approach sought to reframe Israeli operational art in the context of adaptive complex systems, unofficially, SOD became not just a method but *the* method for approaching military problems at every echelon which ultimately created institutional and organization confusion at the point least forgiving to Israeli forces, the Second Lebanon War.

The second significant event for Israeli ground forces was the brief 2006 Second Lebanon War with Hezbollah. The war began on July 12, 2006 with a coordinated deliberate

⁶⁰ Dr. Timothy Challans, *Emerging Doctrine and the Ethics of War*, http://isme.tamu.edu/JSCOPE06/Challans06.html#_edn7, (accessed 8 February 2012).

⁶¹ Shimon Naveh, *Operational Art, Operational Command: Systemic Operational Design slide presentation*, School of Advanced Military Studies Jan 2007, <http://www.slideshare.net/ubiwar/shimon-naveh-powerpoint>, (accessed 8 February 2012), slide 6.

⁶² Ben Zweibelson, "To Design or Not to Design: In Conclusion," *Small Wars Journal*, www.smallwarsjournal.com/blog/journal/docs-temp/752-zweibelson.pdf, (accessed 8 February 2012), 2.

attack by Hezbollah military forces operating from Lebanon against Israel Defense Forces and continued for thirty four days before a unanimous United Nations Security Council resolution ending hostilities.⁶³ The Israel Defense Forces did not fare well against Hezbollah.

In Lebanon, the Israelis faced terrain and enemy conditions for which they were not prepared. An Israeli journalist, writing about the war, noted that in the years preceding the operation in Lebanon, “at no stage was an Israeli unit required to face down an enemy force of a size larger than an unskilled infantry squad.” Hezbollah, although not ten feet tall, was trained and organized into small units and armed with sophisticated weapons, including anti-tank guided missiles, RPGs (including RPG-29s), rockets, mortars, mines, IEDs, and MANPADS. Hezbollah also occupied prepared defensive positions in Lebanon’s difficult hilly terrain and urban areas.⁶⁴

Israeli failures in the Second Lebanon War stem from two sources – incorporation of confusing operational concepts and a tactical and operational force preparation model that focused on the wrong threat. The official Israeli assessment of the war, the Winograd Commission Report, characterized both Israeli civilian leadership and military organizations as relying too heavily on unproved concepts and failing to prepare for known enemy capabilities.⁶⁵ Both the Commission and internal IDF inquiries also criticized the dependence on untested and poorly understood operational concepts like EBO and SOD whose reliance on standoff precision engagement and efforts to change enemy behavior proved incapable of accomplishing military objectives.⁶⁶ Conceptually, the IDF was grappling with the challenges of a growing existential threat from Iran and both EBO and SOD provided the operational and strategic tools to address

⁶³ Matt M. Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War*, US Army Combined Arms Center Long War Series Occasional Paper 26, Combat Studies Institute Press, Ft. Leavenworth KS, 37-39.

⁶⁴ Rapoport, *The IDF and the Lessons of the Second Lebanon War*, 3; Matthews, *We Were Caught Unprepared*, 16-22. Hezbollah’s extensive preparations including the use of a semi-independent organizational structure, prepared defensive positions in depth, redundant logistics caches, operational level rocket units, and combined insurgent and conventional tactics and weapons employment were essential to their tactical successes against technologically and numerically superior Israeli defense forces.

⁶⁵ Haninah Levine, *Behind the Headlines of the Winograd Commission’s Interim Report*, Center for Defense Information, http://www.cdi.org/program/document.cfm?documentid=3969&programID=82&from_page=/friendlyversion/printversion.cfm. (accessed January 10, 2012).

⁶⁶ Rapoport, *The IDF and the Lessons of the Second Lebanon War*, 8-9.

this type of threat. But the application of these concepts within the IDF along every echelon, from strategic to tactical, created confusion and diffused decision makers as Hezbollah escalated the crisis into a full scale war.⁶⁷

The second source of Israeli failure was in the preparation of active and reserve combat forces. While the doctrine for Israeli ground forces called for units to prepare for a full spectrum of threats, described as the Israeli Rainbow of Operations, ground forces prepared and operated along a narrow band of that Rainbow for at least a decade, focusing almost exclusively on counter-insurgent and counter-terror operations at the expense of more complex and decisive combined arms combat capabilities.⁶⁸

As a result of the focus on LIC, units had less knowledge of major combat than would otherwise have been the case. One of the common critiques of the IDF's operations in Lebanon in 2006 was that the Israelis had become so focused on the low-intensity operations in Gaza and the West Bank that they were ill-prepared for the different sort of threats posed by Hezbollah. During the conflict, there were reports of entire Israeli units stopping operations while under fire to assist fallen comrades. Although, this might be appropriate behavior during a COIN campaign, it placed the units at risk when they were under heavy fire. There were reports that units were unfamiliar with how to use mortars, tanks, heavy machine guns, and other weapons more often associated with HIC than with LIC.⁶⁹

The lessons learned of the Second Lebanon War were significant for the IDF and should resonate with the US Army. Two critical lessons were organizational challenges and unit preparation strategy. During the Al Aqsa intifada, IDF elements continued to operate in smaller and smaller decentralized units, eventually stripping away traditional divisional oversight, as forces focused on the decentralized nature of counter-insurgent operations.⁷⁰ In addition, reserve

⁶⁷ Johnson, et. al., *Preparing and Training for the Full Spectrum of Military Challenges*. While the official operational doctrine for EBO and SOD were adopted in April 2006, the concepts advocated by Naveh and proponents in OTRI and the Design Branch of the Operational Plans Directorate had been circulating within the IDF for over a decade, 207.

⁶⁸ Johnson, *Military Capabilities for Hybrid War*, 2; Johnson, et. al., *Preparing and Training for the Full Spectrum of Military Challenges*, 198.

⁶⁹ Johnson, et. al., *Preparing and Training for the Full Spectrum of Military Challenges*, 214.

⁷⁰ Rapaport, *The IDF and the Lessons of the Second Lebanon War*, 20.

forces became a pool of replacements resulting in incoherent unity and unit readiness for vital reserve units.⁷¹ As a result of the Winograd Commission and internal IDF reviews, ground forces were reoriented back toward divisional oversight and organizational structure to meet expected threats.

A second lesson learned was that a training strategy focused on past threats (terrorism/Palestinian insurgents) and not expected threats (Hezbollah) further driven by confusing operational concepts like EBO and SOD, resulted in ground forces being ill-prepared for medium or higher intensity conflict. Most importantly, both civilian and military senior leadership recognized that a vibrant professional and highly trained ground forces with demonstrated core capabilities served both as a deterrent and was "...an essential component of military operations."⁷² These lessons translated into a renewed emphasis of echeloned readiness and oversight as well as clearly detailed plans and concepts to prepare and train combat forces to again achieve land force dominance.⁷³

The British Experience

British experiences in the first decade of the century have been markedly similar to those of the US in terms of understanding the changing character of warfare, force preparation and generation, and force commitments for the war on terrorism.⁷⁴ The British, however, came to

⁷¹ Ibid, 18.

⁷² Johnson, *Military Capabilities for Hybrid War*, 6.

⁷³ Ibid, IDF significantly reoriented their training and preparation strategies focusing 75 percent of training resources and time on conducting combined arms operations to overwhelm enemy forces and the remaining available resources and time on COIN and associated type threats. This was a return to basic war fighting capabilities and recognition of the limitations of precision engagement and nebulous operational concepts like EBO and SOD.

⁷⁴ British Army, www.army.mod.uk/operations-deployments/22800.aspx (accessed January 30, 2012). British army force structure consists of eight brigades and other sub-units. During Operation HERRICK (occupation of Afghanistan) (HERRICK I-XV) which began following Operation VERITAS and Operation FINGAL effectively from December 2001 to the present and saw steadily rising requirements for personnel from 2000 in 2003 to 9000 in 2009. During Operation TELIC (invasion and

significantly different conclusions as a result of the pressures of sustained force requirements following ten years of continuous low-intensity counter-insurgent and counter-terror conflict. These conclusions provide the US Army opportunities to see and understand the challenges of significant global security responsibilities experienced by a critical ally and how these challenges might assist defense planners in shaping and preparing future forces.

British appreciation of the changing character of conflict in the 21st century was formally documented in 2006 with the publication of Ministry of Defense *Strategic Trends Programme: Future Character of Conflict*, which used five Cs to describe modern warfare – congested, cluttered, contested, connected and constrained.⁷⁵ This appreciation of was further articulated in the *Strategic Trends Programme*:

Conflict follows a natural cycle of adaption and response, but its evolution is neither linear, nor constant...Future conflict will be increasingly hybrid in character. This is not code for insurgency or stabilization; it is about a change in the mindset of our adversaries, who are aiming to exploit our weaknesses using a wide variety of high-end and low-end asymmetric techniques. These forms of conflict are transcending our conventional understanding of what equates to irregular and regular military activity; the “conflict paradigm” has shifted and we must adapt our approaches if we are to succeed.⁷⁶

The British army, like its American counterpart, had been an industrial-based army designed to fight maneuver warfare, and like its counterpart, saw the changing character of strategic threats from about 2000 forward. Beginning in 2000, British army units, under the newly formed Joint Rapid Reaction Force (JRRF), participated in the UN-mandated post-civil war peace enforcement operations in Sierra Leone following a decade of war. Sierra Leone, a

occupation of Iraq) (TELIC I-XIII) which effectively ran from March 2003 through April 2009 with roughly 46,000 continuously assigned under Operational Commitment Plan program.

⁷⁵ Ministry of Defense, *Strategic Trends Programme: Future Character of Conflict*, Development, Concepts and Doctrine Centre, 2006. The five Cs provide defense planners and policy makers an assessment of potential future conflict focused on the urbanization (congested), blending of combatants and non-combatants (cluttered), enemies unwilling to concede any environment (contested), enemies are no longer isolated because of globalized communications (connected), and the conduct of operations in a hyper-sensitive globalized environment enhanced the challenges of target discrimination and distinction (constrained), 20.

⁷⁶ Ministry of Defense, *Strategic Trends Programme: Future Character of Conflict*, 1.

former British colony in West Africa, had experienced progressive levels of violence since gaining independence in 1961. By 1991, open warfare between the government forces of President Joseph Saidu Momoh and The Revolutionary United Front (RUF) spiraled into sustained insurgent operations by the RUF and heavy-handed martial law by Momoh.⁷⁷ Following non-combatant evacuation operations under OPERATION PALLISER, the JRRF transitioned to counter-insurgent operations under OPERATION BASILICA and subsequent named operations. In a case study monograph on British intervention in Sierra Leone, Major Walter Roberson wrote,

...British forces concentrated on securing the capital and increasing confidence with the local populace through patrolling, live fire exercises, an extensive Information Operations (IO) campaign, and placing Sankoh, the RUF leader, in prison...The British intervention provided legitimacy to the UN mission, time for the UN peacekeeping mission to build up forces, and allowed the British to reconstitute the Sierra Leone Army (SLA) as a force to counter the RUF. Designed as a Short Term Training Team under Operation Palliser, the UK established a central training center and began the training support mission. Eventually transformed into a longer term International Assistance and Training Team ...the British trained and rebuilt the entire SLA. Reformed as the Republic of Sierra Leone Army (RSLA) with British advisors and trainers, the RSLA began to take control of parts of the country outside the capitol and into the interior, long the domain of the RUF.⁷⁸

OPERATION BASILICA provided a microcosm of hybrid challenges or as the Ministry of Defense would later describe them as forms of conflict that transcends conventional understanding of irregular and regular conflict.⁷⁹ And by 2003, the British army was involved in OPERATION HERRICK in support of NATO operations in Afghanistan and OPERATION TELIC in support of coalition operations in Iraq. These continuing operations, like their

⁷⁷ Walter G. Roberson, *British Military Intervention in Sierra Leone: A Case Study*, U.S. Army Command and General Staff, Ft. Leavenworth, KS, 2007, 17.

⁷⁸ Ibid, 20-21.

⁷⁹ Riley; Patrick J. Evoe, *Operation Palliser: The British Military Intervention into Sierra Leone, A Case of a Successful Use of Western Military Interdiction in a Sub-Sahara African Civil War*, Texas State University-San Marcos, Texas, 2008, 21-31. of Defense, Strategic Trends Programme: Future Character of Conflict, 1.

American counterparts, would overwhelm the British army's force preparation and generation models.

British force preparation methods operated on the notion that units must be prepared to operation in a Mosaic of Conflict, surprisingly similar to the US army's spectrum of conflict concept.⁸⁰ However, unlike the US military, the British army differentiated force preparation, which was general war preparations, from force generation, which focused on specific operational deployments.⁸¹ This differentiation essentially meant that all units, until assigned a specific operational mission, trained alike for general war.

Training was organized through the Force Operations and Readiness Mechanism (FORM), a sequential progressive mechanism that has five phases (recuperation, unit training, formation training, high readiness and programmed operations).⁸² Within the phases of FORM, units dedicate an even amount of available time toward adaptive foundation training in core unit skills before transitioning to campaign training if so required.⁸³ Adaptive foundation training focused on core combat skills to ensure broad capability that support the British concept of the Mosaic of Conflict. Essentially, armored units focused on armored force proficiencies while artillery or engineer units focused on their respective core skills. Once units were designated on the Operational Commitments Plot (OCP) for deployment, they shifted their training toward an assigned mission, focusing on specific terrain, populations, threat trends and operational requirements.⁸⁴

⁸⁰ Ministry of Defense, *Strategic Trends Programme: Future Character of Conflict*, 16 & 30.

⁸¹ Johnson, et. al., *Preparing and Training for the Full Spectrum of Military Challenges*, 159.

⁸² Ibid, 163.

⁸³ Ibid.

⁸⁴ The Operational Commitments Plot (OCP), similar to US FORSCOM's "patch chart", designates units and sub-units for operational commitment into a theater of operations for deployment.

The British army experienced many of the same systemic challenges of the US Army's ARFORGEN model as a result of the high operational tempo for deployed and deploying units. Soldiers and units conducted repeat deployments to both Iraq and Afghanistan with little time between post-deployment and preparations to reconstitute critical capabilities as outlined in FORM and adaptive foundation training requirements.⁸⁵ By 2009, the army had reached a critical decision point of sustainability on Mosaic-based FORM training. The Ministry of Defense, along with Headquarters Land Forces, issued FRAGO 001/09 OPERATION ENTIRETY, which significantly shifted British army training strategy away from a full spectrum posture. Adaptive Foundation Training was eliminated from FORM and replaced with Hybrid Foundation Training and Mission Specific Training prior to deployment.⁸⁶ Hybrid Foundation Training focused soldier and unit training "in generic field skills, learning and practicing adaptive skills that are applicable for any environment", while Mission Specific Training focused on an assigned mission.⁸⁷ In FRAGO 001/09, Land Forces Command effectively recognized that army units could no longer sustain the requirements laid out in previous versions of FORM, specifically the requirements to train on core capabilities then shift to theater specific requirements prior to deployment.⁸⁸ Under FRAGO 001/09, army units train using FORM Option 3 which assumed "...taking risk against some aspects of hybrid conflict...and focussing (sic) as early as possible in FORM on training for Afghanistan."⁸⁹

⁸⁵ Systemic challenges included high personnel turn over in units, equipment reset/recovery, military health care and family challenges.

⁸⁶ Headquarters Land Forces *FRAGO 001/09*, April 6, 2009, Andover, England, 2.

⁸⁷ Ministry of Defense, *British Army: An Introduction*, [http://www.army.mod.uk/documents/general/2010_ARMY_Brochure_9.0_\(2\).pdf](http://www.army.mod.uk/documents/general/2010_ARMY_Brochure_9.0_(2).pdf) (accessed January 30, 2012), slide 14.

⁸⁸ MAJ Angus Tilney, British Army, interview by author, Ft. Leavenworth, KS, January 12, 2012.

⁸⁹ FRAGO 001/09, 2.

The obvious strategic risks British Land Forces Command assumed may be the inability to respond appropriately to future threats that exceed the capabilities of army units trained exclusively for counter-insurgent low-intensity warfare. With the publication of OPERATION ENTIRETY and its requirements to focus training exclusively on Afghanistan, the Ministry of Defense placed ground forces on an Afghanistan campaign footing, but the ability to shift from that campaign footing to react to other threats may bring with it a whole host of strategic risks.

The strategic lessons learned for the U.S. from the British experience are twofold. First, focusing on a narrow band of threats within the Mosaic of Conflict leaves them vulnerable to other threats. As with the Israeli Defense Forces experiences following the Al Asqa Intifada, focusing force preparations to support the current threat without the flexibility to respond to unexpected threats can have catastrophic consequences. While Britain has not experienced anything similar to the Israeli failures of the Second Lebanon War that does not lessen the potential consequences of such an action.

The second lesson learned is perhaps more profound and enduring. With the publication of FRAGO 001/09, OPERATION ENTIRETY, the British government consciously assumed significant strategic risk in global responsiveness by placing land forces on an Afghanistan campaign footing which focused all forces and resources toward a single enemy in a discrete location. This is significant because nowhere has the British government articulated that Afghanistan is such an existential threat that such a course of action is warranted.

Part 4 - Conclusions & Recommendations

Kind-hearted people might of course think there was some ingenious way to disarm or defeat an enemy without too much bloodshed, and might imagine this is the true goal of the art of war. Pleasant as it sounds; it is a fallacy that must be exposed: war is such a dangerous business that the mistakes which come from kindness are the very worst. The maximum use of force is in no way incompatible with the simultaneous use of the intellect.

Conclusions

The challenges of preparing ground combat forces are immense. Defense planners and army leaders must assess risks on how to train, resource and posture forces to confront a variety of external threats. They must build capabilities that meet combatant commander requirements and deter and dissuade potential aggressors from using armed force as a mechanism for change.⁹¹ The Army's two track mechanism for developing forces, ARFORGEN and full spectrum training, have had mixed success, particularly in the context of a decade of sustained low-intensity combat in Iraq and Afghanistan.⁹² The Army instituted ARFORGEN in 2006 to serve as a mechanism for sustained force generation but that model has proven challenging with the demand for forces overwhelming the ARFORGEN model. Further, while the Army's training strategy called for full spectrum forces, the vast bulk of combat forces have trained for and engaged in sustained low-intensity counter-insurgent operations and nation-building over the past decade. So long as US forces are needed to fight these low-intensity conflicts, the Army must prepare forces for these operations. Yet, US strategic interests and threats stretch well beyond Iraq and Afghanistan, and the residual effects of a force focused on one narrow end of the spectrum of conflict is a force less capable of conducting combined arms maneuver and providing credible deter and dissuade capabilities.⁹³

⁹⁰ Carl von Clausewitz, *On War*, Translated and edited by Michael Howard & Peter Paret, Princeton, NJ, 1984, 75.

⁹¹ Thomas Donnelly & Frederick Kagan, *Ground Truth*, 5.

⁹² The mixed success refers to the singular counter-insurgent and stability operations focus for all active and national guard forces at the expense of other more challenging capabilities to deter and dissuade medium and higher intensity threats.

⁹³ Ibid, 30; Andrew F. Krepinevich, *The Future of U.S. Ground Forces: Testimony Before the U.S. Senate Armed Services Committee Airland Subcommittee*, March 26, 2009, 3. US Department of

The experiences of Israel in the first decade of the 21st century should serve as prologue for the US Army. While the Israeli ground force doctrine called for forces able to operate along a Rainbow of Operations, which included medium and higher intensity capabilities, the IDF focused overwhelmingly on low-intensity counter-insurgent and counter-terror warfare with resulting near-catastrophic consequences in the 2006 Second Lebanon War against Hezbollah. Lazar Berman argues that the IDF was “eaten through the core” with its low-intensity conflict mindset “in which decisive victory is unattainable, enemies must be cognitively defeated, and commanders subscribe to the ideas of post-modern warfare”⁹⁴ The hard lessons learned by Israel are valuable for US strategic leaders as they confront today’s fiscally and strategically challenging environments.

The experiences of the British are equally as revealing for the US Army. While the British army began implementing its Foundation Readiness Process for force generation and Hybrid Foundation and Campaign Training for force preparation in 2009, they have experienced similar challenges with deteriorating operational capabilities outside the limited scope of counter-insurgent warfare and stability operations. Britain has consciously taken strategic risk by implementing its Campaign Footing program, effectively focusing forces exclusively on preparations for Afghanistan. Yet, even with Campaign Footing, Britain sees significant and credible medium to higher intensity threats well beyond those posed by the Taliban or other

Defense, *Sustaining U.S. Global Leadership*, 4. New national strategic defense guidance clearly outlines what deterrence and dissuasion means: “Credible deterrence results from both the capabilities to deny an aggressor the prospect of achieving his objectives and from the complementary capability to impose unacceptable costs on the aggressor.”

⁹⁴ Lazar Berman, “Beyond the Basics: Looking Beyond the Conventional Wisdom Surrounding the IDF Campaigns against Hezbollah and Hamas”, <http://smallwarsjournal.com/blog/journal/docs-temp/744-berman.pdf>, 28 April 2011 (accessed 2 September, 2011). The notions of post-modern warfare or warfare beyond traditional state-on-state encompasses a broad range of adversaries including non-state actors, is a concept prevalent in Strategic Operational Design and associated variations of design. Further complicating Israeli ideas of warfare was the notion that victory, as seen in the 1968 Arab-Israeli War or the 1973 Six Day War, was no longer decisively or deliberately achievable through the application of force. Victory became a nebulous concept through dissuasion, persuasion and a Tzu Sunian notion of effecting enemy logical through a rational application of non-invasive force – the idea that you can win without fighting.

insurgent forces.⁹⁵ Britain's Global Strategic Trends Programme, 2007-2037 outlines some of these threats:

The greatest risk of large-scale conflict **will** be in areas of economic vulnerability, poor governance, environmental and demographic stress and enduring inequality and hardship, especially where there has been a history of recurring conflict. Most conflicts **will** be societal, involving civil war, intercommunal violence, insurgency, pervasive criminality and widespread disorder. However, in areas subject to significant demographic and wealth imbalances, there **will** be a risk of large-scale cross-border migration and exogenous shock. Finally, a trend toward societal conflict **will** be reflected in the continuing prevalence of civilian casualties, as it takes place in increasingly urbanized situations and human networks. (original emphasis)⁹⁶

Both Israeli and British experiences, with broad capabilities based strategies built to address the character of 21st century warfare, implemented through an equally broad training strategy, have left both armies dominant in a narrow spectrum of conflict and vulnerable to exploitation. Dr. Andrew Krepinevich, President of the Center for Strategic and Budgetary Assessments, in his testimony before the Senate Armed Services Committee on full spectrum conflict said, "...the range of missions is so broad, and the skill sets required sufficiently different, attempting to field forces that can move quickly and seamlessly from irregular warfare to conventional warfare seems destined to produce an Army that is barely a "jack-of-all-trades" and clearly a master of none."⁹⁷ Dr. Krepinevich's comments point to the dilemma of preparing effective forces in the 21st century with its shadowy spectrum of potential threats.

The underlying idea of full spectrum operational readiness is that at anytime, anywhere, against any adversary, US Army forces can face such a broad range of operational and tactical challenges requiring forces capable of operating effectively against any and all such threats. Yet, the history of the past decade reveals threats operating in a very narrow band of insurgent and terror capabilities. During this timeframe, US Army forces have almost exclusively prepared and

⁹⁵ MAJ Angus Tilney, British Army, interview.

⁹⁶ Ministry of Defense, *The DCDC Global Strategic Trends Programme, 2007-2036*, Development, Concepts, and Doctrine Centre, 2006, 69.

⁹⁷ Krepinevich, *The Future of U.S. Ground Forces*, 3.

trained for those low-intensity threats, even as concerns for medium to higher end threats emerge and grow.⁹⁸

Further complicating the ideas of full spectrum forces is the realization that modern warfare has always been complex, composed of agile and diverse enemies, requiring forces capable of either natural adaptation or overwhelming numbers or lethality.⁹⁹ The US Army has partially adapted to the character of 21st century warfare through organizational redesign (BCT based vice division based Army), evolved current and emerging doctrine against insurgent forces in Iraq and Afghanistan, and developed models for force generation and preparation in support of general war (contingency expeditionary forces) and specific operations (deployment contingency forces).

Yet concluding that the U.S. has unbalanced forces does not by itself fix any problem; it merely underscores a problem has been identified. Rebalancing forces requires a contextual framework, otherwise rebalance will be illogical. To paraphrase General Sir David Richards, Chief of the British Defense Staff, if one believes that non-state actor conflict is the future of warfare one needs to build forces for that threat. Equally as important, if one believes that state-on-state conflict, even through proxies like Hezbollah, are the future of warfare one needs to build forces for that threat as well.¹⁰⁰

Recommendations

With the publication of the 2012 Priorities for 21st Century Defense, the Obama administration has recast US nation defense goals from the Bush-era large scale stability

⁹⁸ *US National Security Strategy*, 2006 & 2010.

⁹⁹ Modern warfare being defined loosely as WWI forward. A thorough reading of operations during WWII, Korea War, Vietnamese wars, Balkan War and Russo-Chechen wars reveals engagements along a broad scale of capabilities.

¹⁰⁰ General Sir David Richards, “Twenty-First Century Armed Forces – Agile, Useable, Relevant”, Chatham House, London, 2009, 6

operations to a more restrained approach in an era of fiscal constraint and shrinking defense capabilities.¹⁰¹ There are several critical components to this emerging strategic guidance that in the near term will impact the Army and any future training strategies: geographic reorientation, anticipated force reductions, and refocused land based operations.¹⁰² The US is expected to shift priorities toward Asia with greater emphasis on naval and air forces to project US power based on Asia's growing economic importance to the US, challenges to openness of the global commons, and the strategic challenges of a more assertive China.¹⁰³ Further, Secretary of Defense Leon Panetta has advocated a reduction of active Army end strength from 570,000 to 490,000 which will significantly reshape the force in line with the priorities outlined in the 2012 defense priorities document.¹⁰⁴ Finally, the new national strategic guidance reshapes the Army by eliminating the simultaneous two war strategy of the past and focuses that service toward core competencies in the context of 21st century warfare.¹⁰⁵ The defense environment, coupled with the previously detailed limitations of the Army's current training strategy, and lessons gleaned for Israeli and British experiences, provide opportunities to rethink a training strategy that accounts for a refocused and reshaped Army.

The Army training strategy is driven by strategic requirements such as those outlined by President Obama and Defense Secretary Panetta in the 2012 strategic defense guidance. Several critical actions are essential before the Army reshapes its training strategy – reorientation and

¹⁰¹ U.S. Department of Defense, *Sustaining U.S. Global Leadership*, 3-4.

¹⁰² Ibid, 8; Thomas Shanker, "In New Strategy, Panetta Plans Even Smaller Army", *New York Times*, January 4, 2012.

¹⁰³ U.S Department of Defense, *Sustaining U.S. Global Leadership*, 8.

¹⁰⁴ Ibid. Land force focused priorities included deter and defeat aggression which requires a demonstrated capability and capacity through conventional joint capabilities that "includes being able to secure territory and populations and facilitate a transition to stable governance on a small scale for a limited period using standing forces and, if necessary, for an extended period with mobilized forces." Further, land force priorities include providing stabilizing presence, conducting limited stability and COIN operations, and humanitarian, disaster relief and other operations, 10-12.

¹⁰⁵ Ibid.

reorganization. Army forces must reorient toward preparing to defeat and deter aggressors by achieving dominance in core skills for ground combat. While it is useful for units to possess the broadest spectrum of capabilities, forces are organized to deliver specific tactical capabilities which allow operational and strategic commanders to array joint forces and resources in creative ways for deliberate limited objectives. This is not a return to some bygone era of conventional symmetric warfare but recognition that adversaries are never deterred if you do not possess demonstrated deterrence capabilities.¹⁰⁶ Lessons learned from sustained stability operations in Iraq and Afghanistan demonstrate that adversaries are not deterred by such campaigns.¹⁰⁷ Army ground forces must be expertly proficient in the application of lethality, terrain dominance in complex environments (i.e. urban and other complex natural and human terrains), fully capable of operating in a joint and combined environment, and capable of conducting security assistance force operations to preclude conflict and support indigenous security force capabilities.¹⁰⁸ Adversaries must know that when committed, Army forces will decisively defeat them. These are all limited expeditionary and constabulary missions that allow the Army to dominate decisively, when required, and pre-empt instability through security partnering.¹⁰⁹ These missions strike a balance by mitigating the effects of a non-forward deployed force while remaining deliberately engaged in strategic security engagement.

¹⁰⁶ Matthews, *We Were Caught Unprepared*. The lesson on weak or no deterrent capabilities was evident to Hezbollah leaders and forces in the Second Lebanon War. Hezbollah Secretary-General Hasan Nasrallah viewed Israel as weak and incapable of deterring Hezbollah's objectives in southern Lebanon based on his operational assumptions of Israeli combat experiences over the previous decade and a lack of support among the Israeli population for casualties, 16-17.

¹⁰⁷ Based on author's combat experiences in Iraq from 2005-2006, 2007-2008, 2009-2010 during multiple phases of OPERATION IRAQI FREEDOM/OPERATION NEW DAWN.

¹⁰⁸ Andrew F. Krepinevich, *An Army at the Crossroads*, Center for Strategic and Budgetary Analysis, Washington, DC Nov 2008, The development of larger scale security force assistance as preventative is advocated by Dr. Krepinevich and provides GCC commanders additional tools in phase 0 operations, 20 & 62-64.

¹⁰⁹ Krepinevich, *Transforming the Legions*, Krepinevich defines a constabulary army as one concerned principally with stability. An expeditionary army is a projection based force.

In addition to reorienting forces to a core set of ground dominance capabilities, force reductions also create opportunities to better organize units and realign echelons. Based on statements by Defense Secretary Panetta and other senior defense officials, the active Army forces will be reduced by 80,000.¹¹⁰ But critical Army capabilities do not need to be lessened if efforts are executed to reshape that force appropriately for the threat environment.¹¹¹ The Army has consistently reorganized and reshaped forces to meet the changing strategic environment and following ten years of warfare, the Army must again recast itself to meet the challenges it faces now.¹¹² Part of that recasting is the recognition of special capabilities within the general purpose forces that must be honed and maintained to the highest proficiency levels. For example, there is little doubt that the US Army possesses the capacity to defeat or even destroy adversaries through ground shock forces. The capacity of a US heavy brigade combat team with over 55 main battle tanks, over 85 scout and infantry fighting vehicles, 16 medium self-propelled howitzers, robust intelligence, surveillance and reconnaissance systems, logistics systems, integrated and networked information systems, and nearly 4000 soldiers make this a decisive force. Coupled with these capabilities are the joint and interagency enablers that make this a force superior in

¹¹⁰ Thomas Shanker, "In New Strategy, Panetta Plans Even Smaller Army", *New York Times*, January 4, 2012.

¹¹¹ Recommended reductions/realignments include the following: 1.) Eliminate 12 BCTs (3/1D IBCT, 3/1AD IBCT, 4/1CAV HBCT, 4/2ID SBCT, 3/3ID HBCT, 3/4ID HBCT, 4/10MTN IBCT, 1/25ID SBCT, 4/82 ABN IBCT, 4/101 AA IBCT, 170 IBCT, 172 HBCT), eliminate BCT level BSTB BNs, expand EN BNs ISO BCTs, enlarge remaining BCTs by one maneuver BN and fires battery to enhance tactical flexibility; 2.) align all combat brigades under direct division operational control – all BCTs, Fires BDEs, sustainment BDEs, combat aviation BDEs; align all BSFB, EN BDE, MEB under direct operational control of corps; 3.) Reorganize basic BCT structure focused on BCT enablers (signal, intel, recon) and maneuver, align division fires BNs under fires BDE control for manning, training, and readiness. No CONUS based independent BDEs. Realignment returns span of control to a more realistic level particularly for medium and high intensity combat operations.

¹¹² Michael Lawson, *Objective Force: Patterns of Change?*, US Army School of Advanced Military Studies, US Army Command and General Staff College, 2003 Referenced U.S. Department of the Army, Training and Doctrine Command, #14, *Sixty Years of Reorganizing for Combat: A Historical Trends Analysis*, (Ft. Leavenworth: Combat Studies Institute, 2000). 26,76. The army has reorganized 14 times over the previous 67 years for three primary reasons: changes in threats, to utilize or accommodate new technologies; or to accommodate austerity, 5.

mobility and lethality. Using the 2012 Strategic Defense Guidance priorities, the Army needs to identify critical combat capabilities and forces it must always possess. One should not confuse combat capabilities with ancillary capabilities like airborne or air mobile/assault delivery capabilities because these are only means to an end, the application of the delivered combat forces.

Equally important with critical combat capabilities is the realization that technological superiority or dominance is not an effective substitute for well trained soldiers in hybrid warfare. Both Israeli and US experiences over the past decade have demonstrated that simple weapons, tactics, and organizations applied smartly can diminish technological dominance. Technological superiority does not equal effective human engagement. Soldiers are not as effective in complex human terrain when they are not amongst the people. The soldier must become the prime weapons system, enabled by intuitive technologies. This means that in most instances well-trained and highly-disciplined combined infantry dominant forces, constantly immersed in complex human terrain scenarios, are prepared for all types of missions by the very result of that immersion. Stability operations, humanitarian relief, counter-insurgent operations or highly lethal discrete engagements are all part of the capabilities trained into these forces. While each mission is unique and there are, as Dr. Krepinevich argues, dissimilarities between the types of operations, the common thread for all missions is the human terrain.

If Dr. Krepinevich is correct, however, and building forces to meet all threats is too challenging, designing and training forces to mitigate or even preempt threats is preferable. The Security Assistance Force (SAF) serves this requirement.¹¹³ Aligning forces to serve as trainers and advisors for indigenous security forces helps to stabilize states in challenging environments,

¹¹³ Krepinevich, *The Future of U.S. Ground Forces*, 6; Krepinevich, *An Army At the Crossroads*, 53-55, Dr. Krepinevich argues for the creation of Security Cooperation BCTs (SC BCTs) similar to the Advise and Assist Brigade (AAB) concept employed in OPERATION IRAQI FREEDOM. The SC BCT, according to Dr. Krepinevich, would focus on Phase 0 stability operations.

provide continuous cultural immersion for soldiers and leaders, and operationalize combatant commander engagement strategies.

The creation of SAF allows the Army to engage in the development and professionalization of immature indigenous security forces and provide capabilities well beyond the limited foreign internal defense mission of special purpose force as well as the limited military-to-military engagements regionally executed. While there are political sensitivities unique to each nation or region, US forces can be trained, organized, and equipped to support combatant commander security objectives enhancing US strategic engagement.

Finally, what may be true of the understanding of 21st warfare today may not be true five or ten years in the future. There is a tendency among defense planners and political leaders to attempt to design and build the perfect system or machine or technology that fixes “the problem”. This can be seen in the concepts of the Objective Force and the Future Combat System, both of which consumed enormous resources and effort with little to no benefit. This can also be seen in the desire within the Army to develop an overarching operational framework that finally replaces Airland Battle, like EBO or some variation of operational design. But one does not need a Rube Goldberg machine nor grandiose confusing concepts that do not survive first contact with adversaries.¹¹⁴ Again, the Israeli experiences in the Second Lebanon War should serve as an example of the limitations of focusing on the tree in one’s front and not seeing the forest around them or more specifically, armies that focus on the last enemy and the last fight are often unprepared for the fight in front of them.

In order to recast US Army training strategy, it is essential to recognize that the soldier, not technology or systems or processes, is the linchpin of success in 21st century warfare. More specifically, disciplined soldiers expertly trained in the complexities of the human terrain are

¹¹⁴ Rube Goldberg was an American inventor who designed and built complex machines that performed simple tasks. The term Rube Goldberg is pejorative.

capable of rapid adaptation.¹¹⁵ Also, organizations that are structured to adapt, while preserving vertical and horizontal connections, create the institutional capacity for agility and are able to react to rapid environmental change. What is required is a simplified single source doctrine that addresses the commonality of all types of conflict or missions as well as organizational flexibility to institutionalize adaptability and agility.

Bibliography

- Berman, Lazar, "Beyond the Basics: Looking Beyond the Conventional Wisdom Surrounding the IDF Campaigns against Hizbullah and Hamas, <http://smallwarsjournal.com/blog/journal/docs-temp/744-berman.pdf>, 28 April 2011 (accessed 2 September, 2011).
- Black, Curt; "The Russian-Chechen Conflict: A Case Study in Asymmetric Warfare"; Ilios, <http://dornsife.usc.edu/ilios/russiachechnyaconflict> (accessed 5 September, 2011).
- Bohnenmann, Edward, T., *The Army's 21st Century Quandary: Preparing for Today or Looking at Tomorrow?*, Ft. Leavenworth, KS, U.S. Army Command and General Staff College, May 2010.
- B'Tselem, Israeli Information Center for Human Rights in the Occupied Territories, <http://old.btselem.org/statistics/english/Casualties.asp>, (Accessed January 8, 2012).
- Byrnes, GEN Kevin P., Accelerating Transformation, <http://zieg.com/links/army/people/GEN-Byrnes.html>; (accessed November 19, 2011).
- Casey, George, W., "The Army of the 21st Century", *Army Magazine*, (Oct 2009) 25-40.
- Casey, George, W., *Stand To*, <http://www.army.mil/standto/archive/2009/07/24/print.html>, (accessed October 5, 2011).
- Ciment, James, Conflict since WWII, <http://www.sharpe-online.com/SOLR/a/book-abstract/14> (accessed 2 October 2011).
- Challans, Tim, Dr., *Emerging Doctrine and the Ethics of Warfare*, http://isme.tamu.edu/JSCOPE06/Challans06.html#_edn7, (accessed 8 February 2012).
- Chiarcelli, Peter, W., "Winning the Peace: The Requirements for Full-Spectrum Operations", *Military Review*, (July-Aug 2005), 4-17.
- Clausewitz, Carl von, *On War*, Translated and edited by Michael Howard and Peter Paret, Princeton, NJ, Princeton University Press, 1984.
- Cohen-Almagor, Raphael, Haleva-Amir, Sharon; The Israeli-Hezbollah War and the Winograd Commission, *Journal of Parliamentary and Political Law*, 2 JPPL, http://hcc.haifa.ac.il/%7Erca/articles/WinoReport_2ndLebanonWar.pdf, (accessed January 10, 2012), (27-44)

¹¹⁵ An expert soldier is certified in core skills exemplified in the ideal that every soldier is a warrior able to fight, survive and sustain himself in any environment.

- Cohen, Stuart, A., *Israel and its Army: From Cohesion to Confusion*, New York, Routledge, Taylor and Francis Group, 2008.
- Cooke, Alastair, "How Hezbollah Defeated Israel", http://www.atimes.com/atimes/Middle_East/HJ12Ak01.html, Oct 12, 2006 (accessed 2 October 2011).
- Dale, Catherine & Towell, Pat, *In Brief: Assessing DOD's New Strategic Guidance*, Congressional Research Service, Washington, DC, January 12, 2012.
- Dempsey, Martin, E., "Training Development for an Expeditionary Army", *Army Magazine*, (June 2009) 14-16.
- Deptula, David A., *Effects-Based Operations: Changing the Nature of Warfare*, Aerospace Education Foundation, Arlington, VA, 2001.
- Donnelly, Thomas, *Ground Truth: The Future of US Land Power*, American Enterprise Institute, Washington, DC, 2008.
- Diano, Oscar, F., *The Combat Training Centers: Training for Full Spectrum Operations*, Ft. Leavenworth, KS, U.S. Army Command and General Staff College, June 2007.
- Echevarria II, Artulio J., "The Problem with Fourth Generation Warfare", <http://www.strategicstudiesinstitute.army.mil/pdffiles/pub674.pdf>, (accessed 14 November 2011).
- Evove, Patrick, *Operation Palliser: The British Military Intervention into Sierra Leone, A Case of a Successful Use of Western Military Interdiction in a Sub-Sahara African Civil War*, Texas State University-San Marcos, Texas, 2008
- Farquhar, Scott., C., *Back to Basics: A Study of the Second Lebanon War and Operation CAST LEAD*, Combat Studies Institute Press, Fort Leavenworth, KS, May 2009.
- Flournoy, Michele; Brimley, Shawn; "The Contested Commons", *Proceedings Magazine*, <http://www.usni.org/magazines/proceedings/2009-07/contested-commons>, (accessed 12 November 2011).
- Fontenot, Gregory, "Seeing Red: Creating a Red Team Capability for the Blue Force", *Military Review*, Sep-Oct 2005, 4-8.
- Freier, Nathan, "Hybrid threats and challenges, describe don't define", <http://smallwarsjournal.com/jrnl/art/hybrid-threats-and-challenges-describe-dont-define>, 2009, (accessed 2 November 2011).
- _____, "The Defense Identity Crisis: It's a Hybrid World", *Parameters*, (Autumn 2009), 81-94.
- Hawkins, Jerome, K., *Training Balance: Full Spectrum Operations for 21st Century Challenges*, Ft. Leavenworth, KS, U.S. Army Command and General Staff College, May 2008.
- Hoffman, Frank, G., "Conflict in the 21st Century: The rise of Hybrid War", *Potomac Institute for Policy Studies*, Arlington, VA, Dec 2007.
- _____, "Hybrid Threats: Reconceptualizing the evolving Character of Modern Conflict", *Strategic Forum*, (No. 240, April 2009) 1-8.
- _____, "Hybrid vs. Compound War" *Armed Forces Journal*, <http://www.armedforcesjournal.com/2009/10/4198658>, (accessed 8 October 2011).
- Huntington, Samuel P., *The Soldier and the State*, Belknap Press Harvard University, Cambridge, MA, 1959.

- Jablonsky, David, "Army Transformation: A Tale of Two Doctrines", *Parameters*, (Autumn 2001), 43-62.
- Johnson, David E. et. al., *Preparing and Training for the Full Spectrum of Military Challenges*, Arlington, VA ,National Defense Research Institute, 2009.
- Johnson, David, E., *Military Capabilities for Hybrid War: Insights from the Israel Defense Forces in Lebanon and Gaza*, RAND Corporation, 2010.
- Karasik, Theodore; *Chechen Clan Military Tactics and Russian Warfare*, Central Asian Caucasus Institute, Mar 15, 2000, <http://www.cacianalyst.org/?q=node/353>, (accessed 4 October, 2011).
- King, Rick T., *Army Transformation: A Cultural Change*, US Army War College, Carlisle PA, 2008.
- Krepinevich, Andrew, F., *An Army at the Crossroads*, Center for Strategic and Budgetary Analysis, Washington, DC Nov 2008.
- _____, *Transforming the Legions: The Army and the Future of lands Warfare*, Center for Strategic and Budgetary Analysis, Washington, DC Nov 2004
- _____, *The Future of U.S. Ground Forces: Testimony Before the US Senate Armed Services Committee*, Center for Strategic and Budgetary Analysis, Washington, DC, March 26, 2009.
- Kruzel, John, "'Hybrid War' to pull US forces in two directions, Flournoy says", *Armed Forces Press Service*, May 4, 2009.
- Lawson, Michael J.; *Objective Force: Patterns of Change?*, US Army School of Advanced Military Studies, US Army Command and General Staff College, Ft. Leavenworth, KS, 2003.
- Levine, Haninah, *Behind the Headlines of the Winograd Commission's Interim Report*, Center for Defense Information, http://www.cdi.org/program/document.cfm?documentid=3969&programID=82&from_page=../frindlyversion/printversion.cfm (accessed January 10, 2012).
- Lind, William, S., "Understanding Fourth Generation Warfare", antiwar.com/lind/?articleid=1702, Jan 15, 2004, (accessed 29 September, 2011).
- Luft, Gal, The Palestinian H-Bomb: Terror's Winning Strategy, *Foreign Affairs*, Vol 81, No 4 (Jul-Aug 2002), 2-7.
- Makovsky, David, *Lessons and Implications of the Israeli-Hezbollah War: A Preliminary Assessment*, Washington Institute for Near East Policy, Washington, DC, , 2006.
- Matthews, Matt M., *We Were Caught Unprepared: The 2006 Israeli-Hezbollah War*, Combat Studies Institute Press, Ft. Leavenworth, KS, 2008.
- Mazarr, Michael J., "The Folly of 'Asymmetric War'", *The Washington Quarterly*, Summer 2008, 33-53.
- McCabb, Maris, Dr., *Effects-Based Operations: An Overview*, www.au.af.mil/au/awc/awcgate/af/ebo.ppt, (accessed 8 February 2012).
- McMichael, William H., "Are the troops losing their conventional warfare skills?", *Defense News*, Dec 3, 2007.
- Odierno, Raymond, "Initial Thoughts", www.us.army.mil, 8 Sep 2011, (accessed 8 September, 2011).
- Pressman, Jeremy, The Second Intifada: Background and Causes of the Israeli-Palestinian Conflict, *Journal of Conflict Studies*, Fall 2003, 114-141.

- Rapaport, Amir, *The IDF and the Lessons of the Second Lebanon War*, The Begin-Sadat Center for Strategic Studies, Bar-Ilan University, Dec 2010.
- Rebel, David, “Lebanon, 2006: Did Merkava challenge it’s march?” *Armor Magazine* (vol 116 Jan-Feb 2007).
- Richards, David, Sir General, “Twenty-First Century Armed Forces – Agile, Useable, Relevant”, 2009 Annual Defense Lecture, Chatham House, London, England, 2009.
- Riley, Jonathon , MG, “The U.K. in Sierra Leone: A Post-Conflict Operation Success?”, *Heritage Lectures* #958 Heritage Foundation, Aug 10, 2006
- Roberson, Walter G. MAJ, *British Military Intervention in Sierra Leone: A Case Study*, U.S. Army Command and General Staff College, Ft. Leavenworth, KS, 2007.
- Shanker, Thom, et. al., “In New Strategy, Panetta Plans Even Smaller Army”, *New York Times*, January 4, 2012. <http://nytimes.com/2012/01/05/us/in-news-strategy-panetta-plans-even-smaller-army.html?ref=us>. (accessed January 5, 2012)
- Smith, Rupert, *The Utility of Force: The Art of War in the Modern World*, Vintage Books, NY, NY, 2008.
- Tilney, Angus M. A., *Preparing the British Army for Future Warfare*, US Army Command and General Staff College, Ft. Leavenworth, KS, 2011.
- Tilney, Angus MAJ British Army, interviewed by author, January 12, 2012 at Ft. Leavenworth, KS.
- “Transformation begins its second year”, *Army Magazine*, Dec 2000, <http://www3.usa.org/webint/DeptArmyMagazine.nsf/byid/CCRN-6CCRV7>, (accessed 19 November, 2011).
- Turabian, Kate L., *A Manual for Writers of Research Papers, Theses, and Dissertations*, University of Chicago Press, Chicago, IL, 2008.
- Vego, Milan N., “Effects-Based Operations: A Critique”, *Joint Forces Quarterly* (Issue 41, 2nd quarter 2006), 51-57.
- United Kingdom, Ministry of Defense, *British Army: An Introduction*, [http://www.army.mod.uk/documents/general/2010_ARMY_Brochure_9.0_\(2\).pdf](http://www.army.mod.uk/documents/general/2010_ARMY_Brochure_9.0_(2).pdf) (accessed January 30, 2012)
- United Kingdom, *Land Forces Training Strategy After Operation Herrick*, Executive Committee of the Army Board, September 16, 2011.
- United Kingdom, Headquarters, Land Forces, British Army, *Operation ENTIRETY, FRAGO 001/09 to Army Plan Part 2*, Andover, England, April 6, 2009.
- United Kingdom, Headquarters, Land Forces, British Army, *Operation ENTIRETY – FRAGO VI*, Andover, England, May, 6, 2011.
- United Kingdom, Ministry of Defense, *Operations*, Army Doctrine Publication, Shrivenham, England, November 2010.
- United Kingdom, Ministry of Defense, *Strategic Trends: Future Character of Conflict*, Development, Concepts and Doctrine Center, Shrivenham, England, 2006.
- United Kingdom, Ministry of Defense, *The DCDC Global Strategic Trends Programme, 2007-2036*, Development, Concepts and Doctrine Center, Shrivenham, England, 2006.
- United Kingdom, Ministry of Defense, *British Army*, www.army.mod.uk/operations-deployments/22800.aspx (accessed January 30, 2012).

United States of America, *National Security Strategy*, Washington, DC, U.S. Government Printing Office, May 2010.

United States of America, *National Security Strategy*, Washington, DC, U.S. Government Printing Office, May 2000. http://www.au.af.mil/au/awc/awcgate/nss/nss_dec2000_contents.htm, (accessed 15 September, 2011).

U.S. Congress, *Title 10, United States Code Armed Forces*, 112th Congress, 1st sess., No. 2C, January 7, 2011, Vol. III, pt. 3062b.

U.S. Department of Defense, *Joint Vision 2020*, <http://www.iwar.org.uk/rma/resources/jv2020/jv2020a.pdf>, (accessed 4 November, 2011).

U.S. Department of Defense, *National Military Strategy of the United States of America*, Washington, DC, Government Printing Office, February 2011.

U.S. Department of Defense, *Sustaining Global Leadership: Priorities for 21st Century Defense*, Washington, DC, Government Printing Office, January 2012.

U.S. Department of Defense, *Quadrennial Defense Review Report*, Washington, DC, Government Printing Office, February 2010.

U.S. Department of Defense, *Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense*, Washington, DC, Government Printing Office, January 2012.

U.S. Department of Defense, *Annual Report of the Secretary of Defense to the President and Congress*, by William Cohen, Washington, DC: Government Printing Office, 2000.

U.S. Department of Defense, *Annual Report of the Secretary of Defense to the President and Congress*, by William Cohen, Washington, DC: Government Printing Office, 2001.

US. Department of Defense, “Secretary Rumsfeld Town Hall meeting Kuwait”, <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=1980>, Dec 8, 2004, (accessed September 12, 2011).

U.S. Department of the Army, *Army Transformation Roadmap 2001*, <http://www.gees.org/documentos/Documen-016.pdf> (accessed Nov 2, 2011).

U.S. Department of the Army, *Army Vision 2010*, <http://www.army.mil/2010/introduction.htm>, (accessed 3 November, 2011).

U.S. Department of the Army, *Field Manual 1, The Army*, Washington, DC: Government Printing Office, June 2001.

U.S. Department of the Army, *Field Manual 7-0, Training for Full Spectrum Operations*, Washington, DC: U.S. Government Printing Office, December 2008.

U.S. Department of the Army, *Field Manual 7-0, Training Units and Developing Leaders for Full Spectrum Operations*, Washington, DC, U.S. Government Printing Office, Feb 2011.

U.S. Department of the Army, *2000 Army Posture Statement*, Washington, DC: <http://www.army.mil/aps/00/aps00.htm>, (accessed 13 September, 2011).

U.S. Department of the Army, *2006 Army Posture Statement*, Washington, DC: http://www.army.mil/aps/06/14_acronyms.html (accessed 15 September, 2011).

U.S. Department of the Army, *2010 Army Posture Statement*, Washington, DC: U.S. Government Printing Office, February 2010.

U.S. Department of the Army, *2011 Army Posture Statement*, Washington, DC: U.S. Government Printing Office, March 2011.

- U.S. Department of the Army, Army Regulation 220-1, *Army Unit Status Reporting and Force Registration – Consolidated Policies*, Washington, DC, U.S. Government Printing Office, April 2010.
- U.S. Department of the Army, Army Regulation 529-29, *Army Force Generation*, Washington, DC, U.S. Government Printing Office, March 2011.
- U.S. Department of the Army, *Memorandum for Record, HQDA Active Component Manning Guidance for Fiscal 2007*, by BG Gina Farrissee, Office of the Deputy Chief of Staff G1, Washington, DC, 1 Mar 2007.
- U.S. Department of the Army, *Today's Focus: Temporary End-Strength Increase*, GEN George Casey, CSA, <http://www.army.mil/standto/archive/2009/07/24/print.html>, (accessed 2 January, 2012).
- Wass de Czege, Hubba, "Systemic Operational Design: Learning and Adapting in Complex Missions", *Military Review*, (Jan-Feb 2009), 2-12.