

Where is the Beef In the Objective Force?

**A Monograph
by
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United States Army**



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Abstract

WHERE IS THE BEEF IN THE OBJECTIVE FORCE? By Major Robert A. Reynolds,
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The United States Army Transformation Campaign Plan is designed as a means of ensuring an innovative and flexible transformation from the current force structure to the transformational goal of the Objective Force. The Objective Force is described as a force that is capable of rapid response to dominate any point on the spectrum of operations, and capable of rapid transitions between differing mission requirements. The Transformation Campaign Plan describes the Objective Force as being capable of attaining the characteristics of responsiveness, deployability, survivability, lethality, agility, versatility, and sustainability. In addition to these characteristics, the TCP establishes C-130 transportability and the ability to deploy a brigade in ninety six hours, a division in 120 hours, and five divisions in thirty days as an objective measure of successful transformation. To attain these capabilities the Objective Force will be required to forgo heavy armor organizations by transforming to a light armor force with a weight limitation of approximately twenty tons.

The purpose of this monograph is to determine if transformation to a light armor force is in the best interest of the Army. Since the Objective Force attains the ability to meet the ninety six hour deployment capability by drastic reductions in weapon system size and weight, it is necessary to analyze the ability of the Objective Force to attain full spectrum dominance with a light armored vehicle. This analysis is accomplished through review of: 1) the threat environment, 2) contemporary experiences with the emerging threat, and 3) Objective Force concepts. Each of these areas is evaluated with deployability, survivability, and lethality as the evaluation criteria.

The monograph determines that the Objective Force will not be able to attain full spectrum dominance with a light armor organization, and that the Transformation Campaign Plan is an attempt to improve strategic responsiveness at the cost of some of the inherent qualities that makes the Legacy Force such a decisive and capable organization. These two qualities being survivability and lethality, which are attained in the Objective Force by fusing command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems into all levels in the organization. The author determines that technology will not advance to a level that will allow the Objective Force to attain the situational understanding necessary to overcome survivability and lethality limitations of a light armor force while conducting operations in a complex urban environment. The conclusions drawn by the author forms the basis for the recommendation that the Army would benefit from approaching transformation as an evolutionary change to the Legacy Force, rather than a revolutionary change to the Objective Force. Allowing the expenditure of scarce national resources to develop joint deployment systems and platforms, rather than a compromise focused on joint deployment limitations.

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Chapter 1. Introduction

In a post Cold War environment, the United States Army has seen a dramatic increase in operational deployments postured against a threat organized and employed much differently than the former Soviet model. In October 1999, Joseph W. Westphal, the Secretary of the Army and General Erik K. Shinseki, the Chief of Staff of the Army, declared in the *Army Vision Statement* the need to posture the Army for the security challenges of the 21st century.¹ This vision set the stage for Army transformation, which has profound impacts on doctrine, training, manning, and equipping the Army for the next two decades.

This monograph utilizes theory, history, and doctrine to explore the relevance and need for heavy armor forces in the Objective Force organization. The research in this work evaluates this need through critical analysis of Objective Force concepts with three of the seven transformation objectives as the evaluative criteria.² Deployability, survivability, and lethality are the criteria used to compare and contrast the capabilities and limitations of the Legacy and Interim forces to formulate a recommendation for an Objective Force organization that can attain dominance across the full spectrum of operations.

The Transformation Campaign Plan

To understand what is being called Army transformation, a detailed examination of the actual plan and the concept of transformation are critical. The literal definition of transformation in the *American Heritage Dictionary* is a marked change, as in appearance or character, usually for the better.³ In the context of this definition, the Transformation Campaign Plan (TCP)

¹ Erik K. Shinseki, *Army Vision* (Washington: U.S. Department of the Army, 2000).

² Eric K. Shinseki, *Transformation Campaign Plan* (Washington: U.S. Department of the Army, 2001), 13. In the TCP, the Chief of Staff of the Army states that the Objective Force is one that is responsive, deployable, agile, versatile, lethal, survivable, and sustainable.

³ *American Heritage Dictionary*, 4th ed., s.v. “transformation.”

identifies two primary reasons for a marked change: 1) the emerging security challenges of the 21st century, and 2) the need to respond more rapidly and decisively across the full spectrum of operations.⁴ These two issues can be thought of as the “problem” to be solved and the TCP as the means to address the problem.

With the “problem” identified, a plan had to be developed that would describe how the Army would meet the emerging security challenges with a strategically responsive force. The plan developed to describe the transformational concept was the Transformation Campaign Plan. The TCP, published in April 2001, was seen by the Chief of Staff of the Army (CSA) as a means of promoting initiative, innovation and flexibility throughout the Army with a focus on the transformation objective.⁵ The transformation objective is characterized as a force that is strategically responsive and dominant at every point on the spectrum of operations. To attain this transformation objective the TCP identifies the three major objectives of transformation: 1) the Initial Force, 2) the Interim Force, and 3) the Objective Force. The Initial Force is a two-brigade force, utilizing off-the-shelf technology and equipment to validate, refine and develop tactics, techniques and procedures necessary to establish the conditions for transition to the Interim Force.

The Interim Force is a transition force that provides an advantage for deployment in Small-Scale Contingencies (SSC), but requires augmentation to attain full spectrum dominance. This force also has the requirements of being capable of worldwide deployment within ninety six hours of notification and being transportable on a C-130 type aircraft.⁶ The interim phase of transformation begins with the fielding of the Interim Armored Vehicles (IAV) to the first Interim battalion and ends when the last of five to eight Stryker Brigade Combat Teams (formerly

⁴ Shinseki, *Transformation Campaign Plan*, 1.

⁵ Ibid.

⁶ Ibid., 9.

described as Interim Brigade Combat Teams) are fully manned and equipped.⁷ Throughout the interim phase of transformation, the Legacy Force (current Army force structure) provides a lethal and survivable force for employment and augmentation until the final phase of transformation, which is the Objective Capability Phase.

During the Objective Capability Phase, the Army begins transition to the Objective Force. This force must have deployment capabilities of one combat capable brigade within ninety six hours, a division in 120 hours, and five divisions within 30 days.⁸ *TRADOC Pamphlet 525-3-90/O&O The United States Army Objective Force: Operational and Organizational Plan for Maneuver Unit of Action* further stipulates that the Objective Force will be transportable by C-130 profile aircraft with essential combat load.⁹ This developmental constraint predicates a light armored organization that must overcome the requirement of augmentation by Legacy Force systems to attain decisive capabilities across the full spectrum of conflict. In addition to these capabilities, the TCP states that the Objective Force is one that attains the seven transformation objectives of responsiveness, deployability, agility, versatility, lethality, survivability, and sustainability. These seven objectives provide the three evaluative criteria utilized in this work to formulate recommendations in chapter five.

Why Transform?

Operation Desert Shield provides a critical insight on why changes to the current Army force structure are needed. In response to the Iraqi invasion of Kuwait in 1990, the 82nd Airborne Division became the first U.S. force deployed into theater, with the Ready Brigade arriving in

⁷ Ibid., 12-13.

⁸ Ibid., 5.

⁹ U.S. Army Training and Doctrine Command, *TRADOC Pamphlet 525-3-90/O&O, The United States Army Objective Force: Operational and Organizational Plan for Maneuver Unit of Action* (Fort Monroe, VA, 2002), 141.

theater on C+2.¹⁰ At C+48, the 24th Infantry Division (Mechanized) completed deployment into theater, identifying an alarming disparity in U.S. force projection capabilities between heavy and light forces.¹¹ This forty six day difference in deployment capability created a critical vulnerability because a light infantry force lacking the mobility and lethality to counter a heavy armored threat in open terrain, had to wait for a lethal and survivable mechanized force to overcome strategic lift limitations. To compensate for differences in deployability, survivability, and lethality between heavy and light forces the TCP set the foundation for Army transition to a lighter armored force. This proposed change to Army organization and equipment is the basis for the research question of this monograph.

The Research Question

Is transformation to a light armor force in the best interest of the Army? Both the Interim and Objective Forces have the requirement for C-130 transportability, which greatly increases strategic and operational mobility, but what is the cost? While the SBCT organization provides increased survivability and lethality over that of a light infantry organization, the need for augmentation by Legacy Forces for the SBCT to attain full spectrum dominance indicates inherent limitations to a light armor organization.¹² The Objective Force, with the same size and weight limitations as the Interim Force, depends on technological advances that in many cases are theoretical or developmental at this time. The research in this monograph describes how the Army may be better suited to approach the Objective Force development as an evolutionary change from the Legacy Force structure rather than the transformation to an entirely new force structure.

¹⁰ James K. Mathews and Cora J. Holt, *So Many, So Much, So Far, So Fast*. United States Transportation Command and Strategic Deployment for Operation Desert Shield/Storm, Joint History Office, Office of the Chairman of the Joint Chiefs of Staff and Research Center, United States Transportation Command, (Washington, DC: U.S. Government Printing Office, 1996), 245.

¹¹ *Ibid.*, 250.

¹² Shinseki, *Transformation Campaign Plan*, 13.

Conclusion

While there have been significant global changes following the cold war, the operational risk of dramatic changes to the Army must be researched in further detail through analysis of the current and future threats. While the Interim and Objective Forces may be a concept that produces a short-term strategic benefit, these organizations may be addressing a symptom rather than the underlying cause of the deployability limitations in the force. Transforming to a light armor force, will consume time and valuable resources better spent on the evolutionary changes to the Legacy Force to ensure tactical, operational, and strategic dominance in the future.

Chapter 2. The Threat Environment

The more powerful and inspiring the motives for war, the more they affect the belligerent nations and the fiercer the tensions that precede the outbreak, the closer the war will approach its abstract concept, the more important will be the destruction of the enemy, the more closely will the military aims and the political objects of war coincide and more military and less political the war will appear to be.¹³

Carl Von Clausewitz, *On War*

The Objective Force must be capable of full spectrum dominance, but the focus on strategic responsiveness may not be the most critical transformation capability. Changes in doctrine, tactics, and organization are undertaken to improve the performance of a fielded military force in relation to an actual or perceived threat. This chapter describes the threat the Army must be prepared to face now and in the future. Analysis of culture, population increases, and urbanization describes the sources and settings of conflict, providing an understanding of when, where, and why conflict is likely to occur in the near future. Threat doctrine can be thought of as how an enemy force will utilize the assets available in a unique physical environment to maximize effectiveness against an actual or perceived U.S. threat. The second section of this chapter describes the most likely operational principles of a threat to counter the Objective Force organization. Critical analysis of probable sources, settings, and doctrine of the emerging threat against the transformational objectives of deployability, survivability, lethality will indicate that strategic responsiveness may not be the most critical capability, given the complexities of the future operational environment.

While nation-states remain the primary geo political influence in global affairs, there will continue to be challenges resulting from tribal, ethnic, religious, and socioeconomic issues. Lack

¹³ Carl von Clausewitz, *On War*, Edited and translated by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1989), 87-88.

of resources and rapidly expanding populations in underdeveloped and increasingly urbanized areas heightens the probability of regional conflict. These conflicts threaten the independent existence of weaker nation-states and potentially the security of others in the region. Domestic and political interest to solve moral dilemmas created by these types of conflicts are indicative of situations where the U.S. Army will have to intervene in undeveloped regions to protect a people and restore order.

The physical environment where conflict occurs has a profound impact on how a military force must be equipped, if full spectrum dominance is a desired capability. Potential adversaries can be expected to maximize their ability to exploit the complexities of their physical environment to counter the conventional force dominance of the U.S. military. Force tailoring and innovative use of existing and future weapon systems in relation to the physical environment will focus on actual or perceived vulnerabilities in U.S. organization and doctrine. Unable to match U.S. capabilities in conventional military engagement, they will forgo massed formations and attempt to force combat operations into physical settings to maximize their capabilities and undermine the U.S. advantages in command and control, weapons stand off, and intelligence collection.

The emerging threats to national security may lack the abundance of military resources possessed by U.S. military forces; but they will utilize their available assets and adapt their doctrine to counter the threat of U.S. military intervention. Potential adversaries will analyze the organization, expeditionary nature, and technological dependence of the Objective Force and develop operational concepts to counter what they see as an extra regional power. This enemy doctrine and operational principles coupled with the likely setting of future conflict, describes a likely future operational environment, in which the Objective Force must operate and attain full spectrum dominance.

Sources and Settings of Conflict

Although nation-states will likely remain the primary geo political influence in global affairs, the challenges from tribal, ethnic, religious, and socioeconomic issues must be an influencing consideration during the Army transformation process. With the diffusion of power following the cold war, there have been more than 200 conflicts in the world: fifty ethnic in nature, 170 border conflicts, and two major wars in the past ten years.¹⁴ Long standing hostilities between groups of people with differing ethnic and cultural ideals, formerly kept in check by colonial and national influence, face a high probability for a resumption in hostilities, when the colonial and national influences are removed. This is described by Samuel Huntington as a “Fault Line War”, a situation where there is protracted and bloody conflict between groups of people struggling to maintain their group identity in the same geographic area.¹⁵ The goal of these fault line wars is usually to control territory and free the area of peoples with different cultural or ethnic values. Palestine and Chechnya are characteristic examples of the level of violence encountered in this type of conflict. In many cases both sides in a fault line conflict resort to massacres, terrorism, torture and attempts at ethnic cleansing.¹⁶ The recently published National Security Strategy calls for continued military transformation and the ability to conduct rapid and precise operations to achieve decisive results in response to instability caused by this type of conflict.¹⁷ In regions where fault line conflicts are the source of instability, the application of military power does little to solve conflict and hatred spanning generations. While these types of wars can be controlled or suppressed in the short term, they will likely reemerge

¹⁴ Deputy Chief of Staff for Intelligence, *Future Operational and Threat Environment: A View of the World in 2015*, (Fort Monroe, VA: U.S. Army Training and Doctrine Command, 2001), 2.

¹⁵ Samuel P Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon & Schuster, 1996), 252.

¹⁶ Ibid.

¹⁷ George W Bush, *The National Security Strategy of the United States of America* (Washington: The White House, 2002), 16.

when the controlling influence has departed, because of the perceived need of the people to maintain their cultural identity.

A continual rise in the world population provides an added catalyst for conflict likely to require commitment of Army forces in the future. Population densities are shifting from rural to urban in many areas of the world, creating an environment ripe for conflict and instability.¹⁸ Some studies state that over half of the world population currently lives in cities, and this percentage will increase to eighty five percent by the year 2025.¹⁹ This rapid shift from a rural to urban social structure is made possible by advances in agricultural practices, industrialization, and in many cases, amplified by a quest for economic prosperity unavailable to the rural populace. The populations in many of these rapidly expanding cities are often thrust together without sufficient infrastructure to support the increase in population, resulting in large numbers of people attempting to survive in an urban sprawl with limited resources and little chance for social advancement. In many developing and failed nations, the inability of the governmental systems to support the population, coupled with rampant unemployment, crime, and hunger leads to a situation ripe for internal conflict. Robert Kaplan states that the current situation in Western Africa is an example of social conflict and violence created by the urbanization of a culture dependant on a traditional family support structure, whose social control mechanisms were left behind in the migration from the rural environment.²⁰ Another potential for conflict in large population centers is when the cultural differences discussed earlier are compounded by the proximity of large groups with differing ideals. Because of this the Army must not only be prepared to conduct operations to prevent the escalation of violence between differing cultures, but must be able to conduct these operations in a complex and restrictive urban setting.

¹⁸ Robert D. Kaplan, *The Coming Anarchy* (New York: Random House, Inc., 2000), 7-13.

¹⁹ US General Accounting Office, GAO/NSIAD-00-63NI, *Military Capabilities: Focused Attention Needed to Prepare U.S. Forces For Combat in Urban Areas* (Washington: Government Printing Office, February 2000), 6-7.

²⁰ Kaplan, *The Coming Anarchy*, 1-7.

The global trend of urbanization also frustrates problems associated with refugees. In urban environments, conflicts resulting from a competition for scarce resources, or cultural and ethnic strife often cause the displacement of large portions of the society, in an effort to escape the violence. When large masses of refugees flee to adjoining regions, humanitarian crisis normally ensues when the perceived area of safe haven is unwilling or unable to support the sudden increase in population. Somalia and Yugoslavia are examples of how a sudden influx of refugees can overwhelm a region with limited resources, further destabilizing an already tenuous peace between neighboring states. Military support of humanitarian operations, such as Haiti and Somalia, typify one of the many aspects of Stability and Support Operations (SASO) that U.S. forces have and will continue to execute in support of what is identified in the 2001 *Quadrennial Defense Review Report* as honor to our international commitments to preclude hostile domination of key areas while promoting peace and stability.²¹ While the U.S. military must maintain the versatility necessary to conduct peace support operations, the need for full spectrum dominance and survivability inherent to current Legacy Force systems must continue to be a factor for proposed transformation concepts. This issue is discussed in further detail in chapter four.

While review of the sources and setting of possible conflict provides valuable information in respect to where, when, and why conflict is likely to occur, an understanding of who will be fighting provides another dynamic factor in understanding the future threat. Robert Kaplan uses Western Africa, in *The Coming Anarchy*, as the model of the future threat, where overpopulation, disease, crime, and scarcity of resources create the catalyst for conflict that threatens regional security.²² This type of environment produces what Ralph Peters describes in his work, *Fighting for the Future*, as the “warrior class”. The warrior class is the product of the anarchy described by Kaplan, and these warriors seek to hold their societies out of equilibrium for

²¹ Office of the Secretary of Defense, *Quadrennial Defense Review Report* (Washington, DC, 2001), 2.

²² Kaplan, *The Coming Anarchy*, 1-17.

their own profit.²³ The warrior class is one that fights for reasons ranging from a lack of hope in society, to patriots with strong ethnic beliefs and a sense of personal loss, to the most dangerous warrior class being dispossessed military men with enough training and incentive to further their cause. The conflict in Somalia describes the first pool warrior who is unable to lead a productive life in a dysfunctional society and turns to armed aggression as a means to attain personal goals.²⁴ The conflict in Chechnya describes the effectiveness of the fifth pool warrior who has the military training and equipment necessary to overpower and control a weakened society and the persistence necessary to prevent any external attempt to normalize the region.²⁵ Terrorist attacks on the World Trade centers on 11 September 2001 show the voracity and drive of the fourth pool warrior, whose religious, ethnic, or national beliefs are so strong that these types of warriors are ready to kill or be killed in support of their beliefs.²⁶ These warrior classes are a destabilizing influence on weakened or failing nations. Their actions result in spreading instability, humanitarian crisis, or threats to resources necessary for continued economic prosperity of other nations. Operation ENDURING FREEDOM in Afghanistan is an example of direct military action against a warrior class, providing conditions necessary for normalcy and peace in a region without the influence from an example of fourth pool warriors know as al Qaeda.²⁷ U.S. involvement in Somalia during Operation RESTORE HOPE is an example of how military forces can be utilized to ensure security for United Nations sanctioned humanitarian efforts.²⁸

²³ Ralph Peters, *Fighting for the Future: Will America Triumph?* (Mechanicsburg, PA: Stackpole Books, 1999), 37.

²⁴ Ibid. 34.

²⁵ Ibid. 37.

²⁶ Ibid. 36.

²⁷ Center for Army Lessons Learned, *Operation Enduring Freedom: Tactics, Techniques and Procedures*, Number 02-8 (Fort Leavenworth, KS, June 2002), 97.

²⁸ Center for Army Lessons Learned, *Operation Restore Hope Somalia*, [document on-line]; available from <http://call.army.mil/Products/mout/docs/Somalia.htm>; Internet accessed 19 January 2003.

Operational employment of U.S. forces to counter the destabilizing effects of these warrior classes is likely to continue far into the future.

The analysis in this section indicates four primary areas of critical importance during transformation. The first is that when fault line conflicts are the primary source of conflict, the rapid application of military power does little to alleviate potential conflict over time, because it is likely the conflict will reemerge once the controlling military influence has departed the region. The second is that the Army must be prepared to quell culturally based conflict occurring in a complex and restrictive urban setting. The third is the ability to rapidly transition from low to high intensity conflict while conducting peace support operations. The fourth and final area is the critical capability of being able to counter warrior classes, who have a wide range of capabilities and reasons for initiating and ensuring continued instability in a region. While these four areas are not all inclusive, considering the full range of possible sources and settings for conflict, it is the intent of the author to focus on these areas in respect to the transformational objectives of deployability, survivability, and lethality.

While a rapidly deployable force increases strategic responsiveness, given the probable nature of future conflict, the capability to rapidly deploy may be secondary to the ability to deploy a survivable and lethal force. The rapid introduction of a military force into a region where cultural conflict is the source of instability is likely to produce short term benefit, but given the sources, probable physical setting and motivation of the warrior classes requires a force capable of deploying with inherent survivability and lethality. The warrior classes, with an inherent reason for ensuring continued instability will attempt to maintain their base of power in a complex and increasingly urban physical setting. The future Army force must have the survivability and lethality to attain dominance against these warrior classes who will likely exploit their physical environment and force the Army into close combat in restrictive terrain. This is analyzed in further detail with review of the Soviet and U.S. experiences in Chechnya and Somalia in chapter three. The following section describes the doctrine the threat is likely to

employ to counter the Objective Force, given the expeditionary nature of the proposed U.S. force structure.

Doctrine of the Emerging Threat

While an understanding of the sources of conflict provides a predictive tool for determining where and why military involvement will be used to resolve regional conflict, a more thorough understanding of how the threat will fight is required. The “how” can be thought of as doctrine, that is formally or informally developed by an organization to anticipate circumstances the organization might encounter. The threat, whether a warrior class, a drug cartel, dictator, or nation state, will have a common goal of survival against U.S. influence and further expansion of influence in the region.²⁹ For the purpose of this monograph, this section focuses on five possible operational principles the threat may utilize used to counter U.S. involvement as an extra regional influence. The operational principles addressed in this section are: 1) Controlling access to the region, 2) operational shielding, 3) controlling tempo, 4) neutralization of technological overmatch, and 5) changing the nature of the conflict. Each of these principles provides a potential threat with capabilities critical for success against the proposed Objective Force organization.

The first of operational principle is that of controlling access to the region. These operations have two basic forms and are based on the premise that U.S. forces must gain initial entry and force building capabilities in the region prior to commencement of decisive operations. To control access to the region, the threat can counter force projection capabilities of the U.S. by limiting access and operational exclusion.³⁰ Limiting access is achieved through direct action against the U.S. air or sea ports of debarkation, information operations, or political negotiations

²⁹ U.S. Department of the Army, FM 7-100.1: *Opposing Force Operations*, 1-11.

³⁰ *Ibid.*, 1-13.

(assuming a recognized nation being the threat) to prevent the introduction of forces into the region. Operations DESERT SHIELD and DESERT STORM indicate the critical vulnerability in the current Joint Reception, Staging, Onward Movement, and Integration (JRSOI) process of introducing forces into theater. The initial entry of Army forces began on 9 August 1990 and ended with the last unit closing in the AOR on 7 February 1991.³¹ During this six month period, masses of personnel and equipment at the air and sea ports of debarkation provided a highly lucrative and vulnerable target to a threat with weapons of mass effect (WME) capability. Direct action to control the ports of debarkation (POD) prior to the introduction of U.S. forces is another option the threat has to prevent the introduction of an extra regional force into the region. Because of the current time required to strategically deploy and build combat power for utilization by the Regional Combatant Commander (RCC), the Objective Force concept calls for the ability to introduce a combat capable brigade sized Unit of Action (UA) into an AOR within ninety six hours.³² While this greatly exceeds current strategic and operational mobility capabilities of the Legacy Force, the capability of this force to project a lethal and survivable force in a timely manner is questionable and is discussed in more detail in chapter four.

The second operational capability of the threat against an extra regional power is that of operational shielding. These operations include the use of any, or all of the following 1) noncombatants, 2) risk of unacceptable collateral damage, 3) and dispersion.³³ The goal of operational shielding is to protect key elements of combat power, preserving this capability for use at a time and place of their choosing. To exploit the complexities of their physical environment, the threat may use noncombatants to preserve their forces. In many cases the threat

³¹ Mathews, Holt, *So Many, So Much, So Far, So Fast*, 245-255.

³² U.S. Army Training and Doctrine Command, TRADOC Pamphlet 525-3-90/O&O, *The United States Army Objective Force: Operational and Organizational Plan for Maneuver Unit of Action* (Fort Monroe, VA, 2002), 141.

³³ FM 7-100.1, *Opposing Force Operations*, 1-13. While this work also discusses complex terrain and fortifications, it is the authors' view that this is the physical dimension of the battlefield and will not be reviewed further in this section.

can collocate with the indigenous population to avoid detection and targeting by an extra regional force. Restrictions imposed by Rules of Engagement (ROE), designed to limit collateral damage, provide the threat with a safe haven. To prevent massing of easily targeted formations, the enemy will also disperse in the area of operations, often in proximity to civilians or sensitive areas.³⁴ This limits the ability to exploit long range precision fires, one of the cornerstones of the lethality of the Objective Force.³⁵ A recent RAND study indicates that exploiting the limitations of ROE coupled with noncombatant shielding produces an exceedingly high casualty rate, an unacceptable option given the current strategic concern on limiting collateral damage. A computer simulation based on precision and non precision air attacks against 100 targets in urban areas (1,500 persons per square kilometer for this study) resulted in 14,327 casualties.³⁶ This indicates the need for a close combat capability in the Objective Force. Where the ability to abandon protection provided by stand off weapons to maneuver and engage an enemy at close range with both lethal and non lethal fires is a critical capability.

The third operational principle used by the threat is that of controlling tempo. Through employment of a rapid tempo, the threat can initiate hostilities and attain operational objectives prior to commitment of an extra regional force into the region.³⁷ The initial attack by Iraq to seize and control Kuwait gave them initial operational initiative, but failure to prevent the build up of U.S. forces in the region allowed the initiative to shift when the coalition attained offensive operational capabilities. Attaining the initiative during defensive operations allows the defender to control the tempo and to negate the attacker's initial advantages, gain freedom of action and

³⁴ FM 7-100.1, *Opposing Force Operations*, 1-14.

³⁵ TRADOC, Pamphlet 525-3-90/O&O: *Plan for Maneuver Unit of Action*, 11.

³⁶ John Matsumura, et al. *Exploring Advanced Technologies For The Future Combat Systems Program* (Santa Monica, CA: Arroyo Center, RAND, 2002), 70-75.

³⁷ FM 7-100.1, *Opposing Force Operations*, 1-13.

force the enemy to fight on the defender's terms.³⁸ Offensive operations by Iraq to limit access of coalition forces into the region could have given them the capability to control the tempo for much longer than what was actually experienced. If the threat is unable to quickly attain their operational objectives, they may exploit the protection attained by operational shielding to slow the tempo and prolong the conflict, attempting to take advantage of the attacker's resolve for commitment of forces in the region for long periods of time.³⁹ The threat sees patience as an ally, and an enemy of the extra regional force, the goal being the preservation of enough power to continue regional operations once the extra regional force has departed.⁴⁰ In a case such as this, the threat has the opportunity to analyze patterns of operation of an extra regional force over long periods of time, attacking when they believe that they have an opportunity to attain physical and moral overmatch, thus changing the operational tempo and gaining surprise. This indicates that the ability to deploy quickly into an area of operations means very little if the enemy chooses to slow the operational tempo to prevent the rapid application of military power by an extra regional force.

The fourth operational principle is that of neutralization of the technological overmatch enjoyed by U.S. forces. The threat will identify U.S. reliance on technological based information collection capabilities as a critical vulnerability.⁴¹ The threat force can limit the collection capabilities by overwhelming, deceiving, or attacking the system. The threat can attempt to overwhelm and deceive the collection system with a massive input of raw data. This being accomplished by planning large numbers of diversionary tactical operations, synchronized by time, with a decisive operation conducted during the ensuing flood of information into the

³⁸ U.S. Department of the Army, FM 3-0, *Operations* (Washington: HQ Government Printing Office, 2001), 4-16.

³⁹ FM 7-100.1, *Opposing Force Operations*, 1-13.

⁴⁰ *Ibid.*, 1-12.

⁴¹ *Ibid.*, 1-15-1-16.

collection system. New techniques of cover and concealment are sure to emerge, denying long range visual and thermal identification of hostile forces.⁴² The development of these techniques will undermine and shorten the technological dominance necessary for success of the Objective Force.

With the tactical mobility and lethality of the Objective force being predicated on the ability to collect and analyze massive amounts of information, the threat will soon identify collection assets as a high pay off target, whose destruction is critical in attaining a tactical advantage. The threat can attack this system by disrupting or denying the sensors an electromagnetic link to the collection system. Another possibility is the development of weapon systems designed to identify and destroy Tactical Unmanned Aerial Vehicles (TUAV) or other remote sensor assets prevalent in the proposed Objective Force organization.⁴³ Degradation of the sensor to shooter links, limits the ability of the Objective Force to conduct long range precision fires in support of the operational or tactical maneuver plan.

The final operational principle to be discussed is that of changing the nature of the conflict. Changing the nature of the conflict exploits differences in friendly and enemy capabilities and focuses on the preservation of combat power.⁴⁴ If an extra regional threat overcomes access control, operational shielding and challenges to technological overmatch, the threat may turn to targeting civilians as an asymmetrical means of attaining their operational objectives. Another possibility is exploitation of operational shielding and dispersion to preserve combat power while conducting guerilla type operations, attacking when and where a tactical advantage can be ensured. This is another example of how a rapid introduction of military power into a region may do little more than change the characteristics of the conflict while prolonging the need for U.S. involvement.

⁴² Matsumura, *Exploring Advanced Technologies For The Future Combat Systems Program*, xiv.

⁴³ TRADOC Pamphlet 525-3-90/O&O, 155.

⁴⁴ FM 7-100.1, *Opposing Force Operations*, 1-16.

Conclusion

The most probable conflicts in the future will arise from entities or nation states resorting to armed conflict to survive or compete in a rapidly changing world. These potential threats will attempt to leverage technology and asymmetrical attacks to counter U.S. conventional force capabilities, while continuing to modernize their existing force structure through exploitation of technological advances in weapon systems. The threat will not be willing to mass forces and engage with the methods developed by the Soviets during the cold war, but will view the expeditionary structure of the Objective Force as a critical vulnerability.

Army forces continue to conduct Stability and Support Operations (SASO) in areas such as the Balkans, Somalia, and Haiti in response to social, political, and economic crisis, a trend certain to continue into the future. These operations require the commitment of forces into regions to reduce the destabilizing effects of cultural conflict in an increasingly urbanize world. Urbanization and the reality of cultural or ethnic conflict in these areas indicate a need for an Army force structure and doctrine capable of achieving dominance during conflicts in urban areas.

The Army of the future must be prepared for a multitude of operations ranging from peace keeping to full scale war against a near peer competitor. It will have to face culturally based conflict, often in an urban environment and spanning long lengths of time, conducted by a warrior class that benefits from continued conflict. The future force must be able to rapidly deploy to these often underdeveloped regions, but must retain the survivability and lethality to conduct close combat operations in complex physical environments, without the benefit of long range precision fires. Through a review of experiences of the Russian military in Grozny, and U.S. involvement in Somalia, chapter three provides valuable lessons learned, applicable for consideration during Army transformation.

Chapter 3. Contemporary Experiences with the Emerging Threat

The future of war is not the son of Desert Storm, but the stepchild of Chechnya.⁴⁵

General Charles C. Krulak

With a rapidly changing global environment that complicates the ability to accurately predict trends, the review of history provides valuable lessons to aid the process. The previous chapter describes the probable sources, settings, doctrine of future threats, and the historical analysis of recent conflicts provides valuable insight on how enemy forces will conduct operations against the proposed Objective Force organization. The purpose of this chapter is to review the Russian and U.S. experiences in Chechnya and Somalia and evaluate each operation against the proposed transformational objectives of deployability, survivability, lethality, and versatility.

The Conflict in Chechnya

The Russian Republic of Chechnya is a region that is indicative of the current and future threat environment, where ethnic and cultural differences, coupled with regional instability provides the catalyst for conflict. The society of the Chechen people is dominated by tribal traditions formed around clans linked by family ties and geographic boundaries, dividing the country into over 150 separate tribes.⁴⁶ Indifference to the cultural identity of the Chechen people led to harsh and oppressive treatment by both Russian and Soviet leaders. In 1816 the

⁴⁵ Charles C Krulak, General, Proceedings of the RAND Arroyo-TRADOC-MCWL-OSD Urban Operations Conference (March 22-23, 2000) quoted in Russ Glenn, *Capital Preservation: Preparing for Urban Operations in the Twenty-First Century* (Santa Monica, CA: Arroyo Center, RAND, 2000), 61.

⁴⁶ Timothy L. Thomas, "The Battle of Grozny: Deadly Classroom for Urban Combat," *Parameters* 29, no. 2 (Summer 1999): 87-102; [on-line]; available from <http://carlisle-www.army.mil/usawc/Parameters/99summer/thomas.htm>, Internet; accessed 16 November 2002.

Russian Caucasus commander, General Alexi Yermolov, initiated extremely cruel treatment of the Chechen people to support his claim that the terror of his name would do more to protect the Russian frontier than chains or fortresses.⁴⁷ Joseph Stalin ordered the deportation of the entire Chechen population to Central Asia in 1944. The deportation resulted in many deaths and the Chechen people view this event as attempted genocide. The return of the Chechens to their homeland in 1957 did little to abate the resentment of the Chechens, whose adherence to the unwritten code of *adat* called for retribution against the Russians.⁴⁸ The situation in Chechnya represents several of the potential causes of conflict discussed in the previous chapter. The Chechen people had endured centuries of oppression by the Russian and Soviet governments. The cultural differences between the primarily Muslim Chechens and the Orthodox Russians were heightened from 1944 to 1957, when ethnic Russians repopulated the region freed from Chechen influence. After repatriation to their homeland in 1957, the Chechen people were suddenly placed into a “fault line” situation, where differences based on ethnic beliefs had over thirty years to fester until given the opportunity to be acted on following the collapse of the Soviet Union.

The Chechen Quest for Independence

Following the collapse of the Soviet Union the Chechen people started a movement to overcome centuries of Russian influence. In 1991, the Chechen Popular Congress, led by former Soviet Air Force general Dzhokar Dudayev, declared independence and demanded an autonomous Chechen homeland.⁴⁹ This declaration was an expected but unacceptable act to the Russian Federation President Boris Yeltsin, and lead to Russian support of the Ingush. The

⁴⁷ Ibid. Further insult to the Chechen people came when a stature of General Yermolov inscribed with "There is no people under the sun more vile and deceitful than this one." was erected in the city of Grozny in 1949.

⁴⁸ Ibid.

⁴⁹ Chad A Rupe, “The Battle of Grozny: Lessons for Military Operations on Urbanized Terrain,” *Armor Magazine* (May - June 1999): 20.

Ingush, the second most populous nationality in Chechnya, opposed governmental control by Dudayev and his supporters. In November 1994, the opposition party, supported by Russian advisors and air power, attempted to dislodge Dudayev from Grozny. This attempt failed, with 27 Russian soldiers taken prisoner and over 60 armored vehicles destroyed in the attempt, leading to a request by the opposition party for full commitment of the Russian Army to regain control of the region.⁵⁰ This initial conflict marks the initial Russian and Chechen operations that would last years and devastate the region.

In preparation for Russian military intervention, the Chechens developed a defensive plan utilizing varying degrees of resistance across a series of concentric rings surrounding the city of Grozny. The first ring consisted of civilians and small bands of Chechen fighters that would oppose the initial advances by the Russian forces into the region. The second ring focused on a 20-30 kilometer area surrounding Grozny, in which Chechen fighters conducted direct action against the advancing Russian forces in an effort to disrupt and delay their advance. The third ring, the city of Grozny, provided the core to the concentric rings. This center ring was the area where the Chechen fighters developed the most formidable defense.⁵¹ Within the center ring of defense, the Chechen forces utilized a tactic described as the “defenseless defense”. This tactic did not rely on strong point defense, but rather a totally mobile defense, utilizing point ambushes and rapid disengagement to prevent the Russians from massing combat power on the Chechen forces.⁵² Mobile detachments of civilian and military vehicles transported and supplied the extremely mobile hunter-killer teams. The hunter-killer teams were further divided into four to five man groups composed of an antitank gunner, machine gunner, sniper, and an ammunition

⁵⁰ Timothy L. Thomas, “The Caucasus Conflict and Russian Security: the Russian Armed Forces Confront Chechnya Part One, Section Two: Military Activities of the Conflict During 11-31 December 1994,” *Slavic Military Studies* 8, no. 2 (June 1995):257-290; [on-line]; available from <http://call.army.mil/fmsopubs/issues/chechpt2.htm>; Internet accessed 16 November 2002.

⁵¹ Ibid.

⁵² Thomas, “Deadly Classroom for Urban Combat,” [on-line]; available from <http://carlisle-www.army.mil/usawc/Parameters/99summer/thomas.htm>; Internet; accessed 16 November 2002

bearer.⁵³ These small, agile groups would soon show their combat potential against a technically advanced and better equipped extra regional influence.

The Russian forces prepared for an advance into a complex environment against an underestimated enemy. The Chechen warriors are a classic example of the fifth pool warrior that also possesses an added cultural impetus for fighting to maintain their identity. The Chechens masterfully utilized operational shielding in their rings of defense. In the outer ring, dispersion provided protection to the fighters who could move freely among the noncombatants to positions of advantage against the possible Russian avenues of approach. The inner ring exploited the complexities of the urban environment shielding their forces and preventing the initial use of long range fires, because of the risk of collateral damage. The Russian underestimation of the physical environment and the capabilities of an enemy force in complex terrain would soon be made painfully evident.

The Russian Response

In December 1994 the Russian military began marshaling their forces for an assault into the disputed region. The Russians assembled 23,800 soldiers, eighty tanks (T-72 and T-80), approximately two hundred Infantry Fighting Vehicles (IFVs) and Armored Personnel Carriers (APCs) and over one hundred and eighty artillery pieces and mortars to engage the Chechen force of an estimated 15,000 men⁵⁴, equipped with forty to fifty T-62 and T-72 tanks (most thought to be non functioning), seventy to eighty five IFVs, / APCs, and thirty 122mm howitzers.⁵⁵ The Russian plan called for a three-pronged attack with the main effort composed of the 81st Motorized Rifle Regiment (MRR), 131st Mechanized Infantry Brigade (MIBR), and the 20th

⁵³ Rupe, "The Battle of Grozny: Lessons for Military Operations on Urbanized Terrain," 21.

⁵⁴ Ibid., 20.

⁵⁵ Thomas, "Deadly Classroom for Urban Combat," [on-line]; available from <http://carlisle-www.army.mil/usawc/Parameters/99summer/thomas.htm>; Internet; accessed 16 November 2002.

MRR⁵⁶ attacking from the march with an avenue of approach from the north (Ingush controlled territory). Shaping efforts advanced from the east with three airborne divisions and from the west with a marine division and an MRR.⁵⁷ The advances from the east and west met with severe delays after encountering the outer ring of the Chechen defense. Civilian disruption of the approaching convoys coupled with isolated sniper attacks resulted in an unsupported attack by the main effort into Grozny.

On 31 December 1994 the Russian main effort initiated the assault on Grozny, not waiting for the arrival of the shaping operations from the east and west. The eastern attack commenced one day later, the western attack never entered the city because of the effectiveness of the outer defensive ring that severely disrupted the Russian advance.⁵⁸ The plan called for an attack from a march formation in armored columns to seize the Presidential Palace located in the center of a city populated by nearly 490,000 people and spanning an area of approximately 100 square miles.⁵⁹ With the advance of the main effort, the flaws in the Russian organization and tactics emerged. Many of the Russian soldiers in the initial attack lacked the experience and training necessary for success in a complex urban environment, with over half of the tank crews having never conducted live fire operations.⁶⁰ Having underestimated the enemy, the Russian forces entered the city without large scale maps, preventing situational understanding when the Chechen forces decided to initiate ambushes against the armored columns in the restrictive city streets.

⁵⁶ Rupe, "The Battle of Grozny: Lessons for Military Operations on Urbanized Terrain," 21.

⁵⁷ Ibid.

⁵⁸ Ibid., 22

⁵⁹ Thomas, "Deadly Classroom for Urban Combat," [on-line]; available from <http://carlisle-www.army.mil/usawc/Parameters/99summer/thomas.htm>; Internet; accessed 16 November 2002

⁶⁰ Ibid.

The implications of tactical operations against an innovative enemy in an urban environment, without the integration of fires and maneuver, were demonstrated by the initial Russian attack into Grozny. After the initial unopposed advance to the center of the city, the Russian forces halted and dismounted soldiers in the vicinity of the Presidential Palace. With the Russian forces stationary, the Chechen hunter-killer teams initiated offensive action.⁶¹ These teams, using the restrictive urban terrain to their advantage, destroyed the lead and trail vehicles in the Russian columns, effectively preventing the maneuver of vehicles in the center of the armored columns. With the columns immobilized, the Chechen forces utilized the complex, three tiered urban environment to their advantage, conducting attacks from rooftops and basements to destroy the Russian forces.⁶² Armored vehicle crewmembers, unfamiliar with their weapon systems were unable to engage the Chechens, who fought above and below the elevation and depression limits of the Russian armored weapon systems. Unsupported and isolated, the main effort's attack failed to seize the Presidential palace with only eighteen of the original 120 armored vehicles surviving the attack.⁶³ This indicating the continued necessity for the ability to field a force capable of combined arms operations in restrictive terrain.

The initial Russian assault into Grozny illustrates some issues critical for the success of military operations in complex terrain. The first being the need for combined arms operations at the lowest level possible to ensure mutually supporting fires and maneuver. The second being the reduced engagement ranges in an urban environment and how this factor can greatly increase the combat potential of a technologically inferior force. Lastly is the requirement for survivable combat systems capable of precision fires and lethality in a complex and restrictive physical setting.

⁶¹ Ibid.

⁶² Lester W Grau. "The RPG-7 On the Battlefields of Today and Tomorrow," *Infantry Magazine* 88, no 2 (May-August 1998): 8.

⁶³ Rupe, "The Battle of Grozny: Lessons for Military Operations on Urbanized Terrain," 21.

The critical need for combined arms operations in an urban environment forced the Russians to conduct hasty reorganization to ensure adequate direct and indirect fires in support of dismounted infantry clearing the complex urban terrain. Because of the lack of an effects based targeting process, the Russian air force was relegated to the role of reconnaissance and close air support.⁶⁴ Organic fire support assets of the attacking ground forces were found to be ineffectual given the low angle of fire of the artillery and the urban canyons formed by buildings and streets. The concept that maneuver and firepower are complementary to each other and that neither is decisive in isolation was demonstrated by the Russian attempt at rapid maneuver without adequate fires integration.⁶⁵ Failure to integrate fire and maneuver during the initial assault resulted in the devastating tactical defeat of the Russian forces at the hands of a loosely organized yet determined enemy.

The Chechen forces used the complexities of the urban environment to defeat the initial efforts to seize Grozny. The initial operations in the city illustrate how small, mobile, relatively lightly armed teams of men can defeat a more heavily armed mechanized force. The Chechen fighters would close to within yards of the Russian tanks that had been designed for optimal engagement ranges of several kilometers. Most of the tanks involved in the initial attack were equipped with explosive reactive armor (ERA), designed to defeat the terminal effect of shaped charge warheads like the RPG-7 and RPG-18 anti tank systems. But the Chechens quickly realized that volley firing of the anti tanks rockets yielded excellent results in defeating the ERA. Using this method, the first rocket causes the targeted ERA panel to explode, leaving an unprotected patch of armor that is targeted during subsequent attacks.⁶⁶ While changes in tactics

⁶⁴ Thomas, "The Caucasus Conflict and Russian Security," [on-line]; available from <http://call.army.mil/fmso/fmsopubs/issues/chechpt2.htm>; Internet accessed 16 November 2002.

⁶⁵ Alan Vick, et al, *The Stryker Brigade Combat Team: Rethinking Strategic Responsiveness and Assessing Deployment Options* (Santa Monica, CA: Arroyo Center, RAND, 2002), 6.

⁶⁶ Grau, "The RPG-7 On the Battlefields of Today and Tomorrow," 7.

were relatively quickly implemented, the lack of adequate equipment took the Russian military much longer to resolve.

The need for armored vehicles capable of accurate suppressive fires, at both high and low angles exceeding that of a tank, forced ZSU-23-4 anti aircraft weapon systems to fill this role. These lightly armored vehicles became high pay off targets for the Chechen fighters, whose shoulder fired anti tank weapons were very effective in the restrictive terrain.⁶⁷ This experience prompted the Russian development of the BTR-T, a heavily armored APC based on the T-55 chassis. This vehicle provides a much more survivable personnel carrier with precision fire capability at extremely high and low angles and survivability comparable to the main battle tank.⁶⁸ This concept of a heavy armored personnel carrier can also be seen with the Israeli development of the *Nakpadon* and *Achzarit*, both based on a tank chassis.⁶⁹ The time necessary to develop and field a weapon system demonstrates the criticality of weapons development that supports the tactical environment where forces will fight.

The Changing Nature of the Chechen Conflict

After the failed attempt to seize the city, the Russian forces conducted task organization changes that created combined arms teams at the lowest levels possible. These teams commenced offensive operations on 7 January 1995, but even with a systematic and devastating approach, the Russian forces did not seize the city of Grozny until the end of February. Faced with a complex tactical situation, amplified by the urban terrain, the Russian forces utilized massed fires and fuel air explosives, reducing whole sections of the city to rubble, denying the use of this terrain to the enemy.⁷⁰ While effective in achieving tactical objectives, this tactic

⁶⁷ Ibid., 8.

⁶⁸ IRA, L Partridge, Sergeant First Class, "Deployable Versus Survivable: Israel and Russia have Developed Heavier, Not Lighter, Armored Personnel Carriers," *Armor Magazine* (March-April 2001): 14.

⁶⁹ Ibid., 13.

⁷⁰ IRA, L Partridge "Modifying the Abrams Tank for Fighting in Urban Terrain," *Armor Magazine* (July-August 2001): 19.

contributed to a change in the nature of the Chechen conflict. Without refuge, and with Grozny under Russian control, the Chechen rebels continued to resist through a guerrilla war focused on force preservation and attacking when tactical victory was assured. The Chechen forces enlisted support from Muslims throughout the region, these being best described as fourth pool warriors fighting for religious ideology. Despite the previous Soviet experience with guerrilla forces during operations in Afghanistan, the Russian forces continued to amass losses with no apparent end to the hostilities. With the Chechen rebels still in control of the region, President Yeltsin declared a Russian victory and began the withdrawal of forces in November 1996. Although declared a victory, the Russians continued engagements in Chechnya, with major offenses conducted in 1999 and 2000.⁷¹ These actions show how an enemy can preserve and protect the force by changing the nature of the conflict to attain their operational objectives, even if this success requires long periods of time.

Implications for a Transforming Army

The operational and tactical experience of the Russian military in Chechnya has profound implications on the transformational plans of the U.S. Army. The source and setting of the conflict coupled with the tactics employed by the Chechen forces provided the Russians with valuable if not costly lessons relevant not only for their military, but for all militaries in the world. These lessons learned have a large impact on the proposed transformational objectives. Further analysis of the transformation objectives of deployability, survivability, and lethality with the Russian experience in Chechnya, indicates critical vulnerabilities in the objective force concept.

Although the Russian operation in Chechnya does not validate or disprove the deployability goal of the Objective Force, it still provides an insight on the operational requirement for a ninety six hour deployment capability. Although the Russian military had

⁷¹ Adam Geibel, "Some Russian Tankers' Experiences in the Second Chechen War," *Armor Magazine* (July-August 2001): 25.

taken three years to prepare for operations in Chechnya, there appears to be little evidence of joint planning until just months before campaign initiation.⁷² An underestimation of the Chechen resolve and hatred for the Russians, resulting from centuries of oppressive treatment, contributed to an early commitment of forces to the region without proper operational and tactical preparation. This contributed to the Chechen ability to change the nature of the conflict and prolong the Russian military involvement. Another contributing factor to the limited planning was the political determination that the city of Grozny constituted the Chechen center of gravity, resulting in a directed course of action to the Russian military leaders. Without a clearly stated strategic end state, the Russians reverted to direct military engagement to stabilize the region; despite an understanding by Vice Premier Shakhrai that it would require more than military power and two to three years to complete the campaign and reach a favorable operational end state.⁷³ This indicates that the rapid application of military forces into a region is secondary to the ability to deploy a force organized, trained and equipped to attain tactical dominance when introduced into the theater of operations.

The crushing defeat of the Russian forces during the initial attack into the city of Grozny indicates the necessity for a mechanized force with inherent survivability. By exploiting the physical characteristics of the urban environment, the Chechen fighters overcame the material and technological superiority of the Russian force. In a complex urban environment, armor forces must be capable of surviving engagements at extremely short range, to exploit the precision and lethality of the armored weapon systems. The Russian development of heavily armored personnel carriers indicates a need for weapon systems capable of surviving massed anti tank fires from high and low angles of attack. Given the twenty ton weight limitation of the

⁷² Thomas, "The Caucasus Conflict and Russian Security," [on-line]; available from <http://call.army.mil/fms/fmsopubs/issues/chechpt2.htm>; Internet accessed 16 November 2002.

⁷³ Ibid.

Objective Force vehicles, the survivability of the force is questionable given the probability of operations in an increasingly urbanized world. The Army transformation, which attains deployability at the cost of inherent vehicular survivability, runs the risk of experiencing the same results as the Russian forces in Grozny. Rather than deployability as an overarching capability, the Objective Force should focus on attaining a survivable force that can exploit fleeting tactical opportunities in support of operational objectives. Without this capability, there is little evidence to support the concept that full spectrum dominance is attainable with a light armor force in complex terrain.

In addition to a critical need for a survivable force, the initial Russian operations in Grozny show how lethality in close combat operations is critical for successful tactical operations. Weapon system lethality and the combined effects of fire and maneuver are critical when the adversary exploits the complexities of the urban environment. The Chechen fighters prevented direct fires against their forces by conducting ambushes from above and below the elevation and depression limits of the Russian armored vehicles. The Russian forces quickly realized this to be a critical vulnerability and hastily employed lightly armored anti aircraft systems (ZSU-23-4) to support ground maneuver. Although the ZSU-23-4 is capable of delivering excellent lethal and suppressive direct fire affects at both high and low angles of fire, the lethality of this system could not be exploited because of the vulnerability of the system to direct fires. This lead to the development and fielding of heavier, rather than lighter armored vehicles in the Russian military. The Russian experience in Grozny indicates that lethality in complex terrain requires the integration of fires and maneuver, and the ability to maneuver is restricted, if the weapon system employed can not survive direct fire contact.

The Conflict in Somalia

The U.S. experience in Somalia provides additional lessons critical in the development of a force capable of full spectrum dominance in a culturally based conflict. Somalia, a small nation on the northwest coast of Africa, became a hotbed of conflict in the early 1990's, culminating in a pitched battle between Somali and American Forces on 3 October 1993.⁷⁴ Somalia's history is marked with European colonial involvement beginning in the latter part of the nineteenth century, with British, French, and Italian implementation of new geographic boundaries that separated the Somali peoples. The Somali people are themselves a very homogeneous society, with over ninety eight percent of the population classified as native Somali, within which almost 100 percent are Muslim.⁷⁵ The Somali culture is dominated by a complex clan system that is made up of six primary clans, subdivided into many smaller sub-clans.⁷⁶ These clans loosely associate themselves with territories within the geographic boundaries of their nomadic wandering; territories often overlap and require contractual relationships between clans to prevent conflict. Similar to the Chechen code of *adat*, the Somali clans informally manage affairs with blood compensation (*dia*) as a method of retribution.⁷⁷ Clan affiliations combined with *dia* payments result in bloody inter and intra clan conflicts.⁷⁸ The arbitrary establishment of geographic boundaries by European colonial powers did not support the nomadic nature of the Somali clans, creating a source of conflict with neighboring clans and countries.

⁷⁴ U.S. Army Combined Arms Command, *Somalia: Operations Other Than War*, Special Edition Number 93-1 (Fort Leavenworth, KS: Center For Army Lessons Learned, January 1993), 1.

⁷⁵ U.S. Army Training and Doctrine Command, *Operation Enduring Freedom: Tactics, Techniques and Procedures*, Number 02-8 (Fort Leavenworth, KS, Center for Army Lessons Learned, June 2002), 107.

⁷⁶ *Ibid.*, 108.

⁷⁷ U.S. Army Combined Arms Command, *Somalia: Operations Other Than War*, 3.

⁷⁸ U.S. Army Training and Doctrine Command, *Operation Enduring Freedom*, 109.

Following World War II, as part of the 1947 Peace Treaty, the Italian government gave up all rights to colonial holdings in Somalia. The newly established United Nations adopted a resolution placing Somalia under international trusteeship for a ten year period to alleviate problems associated with the dissolvent of Italian influence in the country.⁷⁹ This action created a triple coalition government influenced by British, Italian, and ethnic Somali interests. In 1969 the Somali military seized control of the government and sided with Soviets as a result of a border dispute with U.S. supported Ethiopia. The continued border dispute with Ethiopia created a refugee crisis in Somalia estimated between 400,000 to 840,000 persons.⁸⁰ The Somali government recruited many of these refugees with stolen United Nation relief supplies in efforts to protect the government. Weakened by continual conflict and economic crisis, the government was overthrown through a combined assault by three rival factions in 1991. Following the overthrow of the government, tribal conflict between fifteen clans and sub-clans attempting to gain power further devastated the shattered country.⁸¹ Without a central government and with continual conflict among warring factions, the country continued to deteriorate to a point where humanitarian crisis in the country required international intervention to supply food to the starving nation.

The situation in Somalia represents what Robert Kaplan describes as the “lies of mapmakers”. This being a description of the problems associated with the establishment of geographic borders that counter the cultural realities of the region.⁸² The arbitrary boundaries established by the British, French and Italian governments did not complement or support the tribal customs and nomadic lifestyle of the Somali people. With the withdrawal of colonial

⁷⁹ Center for Army Lessons Learned, *Operation Restore Hope – Somalia*, [document on-line]; available from <http://call.army.mil/Products/mout/docs/Somalia.html>; Internet accessed 19 January 2003.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Kaplan, *The Coming Anarchy*, 37-42.

influence that kept internal conflict in check, the Somali clans attempted to reestablish former territories and influence. A result of these clashes being the utter destruction of a functional government, replaced by warring factions that continually fought each other, causing a humanitarian crisis that threatened the stability of neighboring countries.

Intervention

The humanitarian problems created by the clashes between clans required an external influence to alleviate the crisis. In April 1992 the United Nations Operation in Somalia (UNOSOM) initiated peacekeeping operations with fifty unarmed observers and the initiation of UN relief shipments.⁸³ The initiation of relief supply shipments to Somalia saw the initial U.S. involvement, with Operation PROVIDE RELIEF. This operation provided military air transport assets to move supplies for non governmental organizations.⁸⁴ Continued conflict between clans and looting of relief supplies resulted in a UNOSOM strength increase in August 1992 to four 750 man security units to provide security for relief convoys and distribution centers.⁸⁵ Despite the increase in UN security forces, looting of relief supplies and armed conflict between clans continued. Plans for US troop involvement commenced in November 1992, marking the start of Operation RESTORE HOPE, an operation envisioned to provide a secure area for humanitarian relief and an eventual return of control to the UN contingent.⁸⁶ From December 1992 to February 1993, incidents between Somali and the UN / U.S. forces were rare, and when they did occur, they were limited in scale.⁸⁷ Operation RESTORE HOPE ended with transition to

⁸³ Center for Army Lessons Learned, *Operation Restore Hope – Somalia*, [document on-line]; available from <http://call.army.mil/Products/mout/docs/Somalia.htm>; Internet accessed 19 January 2003.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Sean J. Edwards. *Mars Unmasked: The Changing Face of Urban Operations* (Santa Monica, CA: RAND, 2000), 11-12.

⁸⁷ Charles P Ferry. "Mogadishu, October 1993: Personal account of a rifle company XO," *Infantry Magazine* (September-October 1994): 23.

UNOSOM II forces and Operation CONTINUE HOPE in May 1993, during which approximately 6,000 U.S. forces remained to conduct an increasing number of operations.⁸⁸ Mohammed Farah Aidid, one of the primary forces behind the governmental overthrow in 1991, and one of the most powerful warlords in Somalia, increased actions against the UNOSOM II forces in the summer of 1993, attacking when they had a tactical advantage.⁸⁹ Small scale attacks against UN forces escalated to the point where direct action against a Pakistani UN force attempting to shut down Aidid's personal radio station resulted in twenty-four UN deaths.⁹⁰ UN pressure as a result of the attack forced Aidid to go into hiding while his militia continued attacks against the UN forces. The increase in Somali attacks during this period supports Ralph Peter's argument that a warrior class profits from instability, and that this class will seek to maintain a society out of equilibrium.⁹¹ The change in tempo and intensity of Somali operations is a factor that U.S. forces, now and in the future must be prepared to counter while conducting humanitarian assistance operations, especially when the enemy seeks to maintain the status quo.

The increase in hostile activities by the Somali forces necessitated a corresponding escalation by the UN. The establishment of UN resolution 837 empowered UNISOM II to arrest those responsible for the attack on the Pakistani contingent and establish UN control and authority in Somalia.⁹² In support of the expanded UN operations, and in response to the death of four American soldiers, the US employed Task Force Ranger (TFR) to facilitate the capture of Aidid. This task force composition included forces from the 75th Ranger Regiment, a detachment of Delta members, and aviation support from Task Force 160.⁹³ Numerous raids conducted from

⁸⁸ Ibid., 23.

⁸⁹ U.S. Army Combined Arms Command, *Somalia: Operations Other Than War*, 31.

⁹⁰ Edwards, *Mars Unmasked: The Changing Face of Urban Operations*, 12.

⁹¹ Peters, *Fighting for the Future: Will America Triumph?*, 37.

⁹² Edwards, *Mars Unmasked: The Changing Face of Urban Operations*, 11-12

⁹³ Ibid., 12-13.

both air and ground by TFR focused on the capture of Aided or his senior leaders. On 3 October 1993, TFR commenced a raid to capture senior leaders of Aidid's organization.⁹⁴ This operation resulted in an eighteen hour engagement with significant strategic implications.

While conducting this raid, an MH-60 Blackhawk aircraft crashed as a result of ground fire from an RPG-7 rocket propelled grenade. A convoy of wheeled vehicles (HMMWV's and 5-ton trucks) originally tasked with extracting Somali's during the raid was forced into a recovery mission at the crash site being secured by a small contingent of TFR.⁹⁵ The complex and restrictive urban sprawl of the city provided the Somali warriors the opportunity to seize the initiative and allowed their loosely organized forces to capitalize on the extremely short engagement distances to repel the ground convoy with rocket and small arms fire.⁹⁶ The MH-60 crash site became a focal point for Somali warriors and civilians who surrounded the site and the security force. Another MH-60 was shot down while providing support to the isolated contingent at the crash site.⁹⁷ Another attempt to reach the crash sites by light wheeled convoy met with little success as a result of intense direct fire contact and barricaded streets. An armored relief force from the UN contingent composed of four Pakistani tanks, fourteen Malaysian APC's and two light infantry companies from the 10th Mountain Division conducted a ground assault to extricate the soldiers surrounded in the city.⁹⁸ This armored force succeeded in reaching the crash site, recovering the TFR soldiers and casualties. Although a successful mission in respect to the capture of Aidid's senior leaders and over 500 enemy dead, the eighteen American dead and seventy three wounded, coupled with negative media coverage resulted in an early withdrawal of

⁹⁴ Major Clifford E. Day, "Critical Analysis on the Defeat of Task Force Ranger" (M.S.diss., US Air Command and Staff College, March 1997), 7.

⁹⁵ Ibid., 8.

⁹⁶ Charles P Ferry, "Mogadishu, October 1993: A company XO's Notes on Lessons Learned," *Infantry Magazine* (November-December 1994): 33.

⁹⁷ Day, "Critical Analysis on the Defeat of Task Force Ranger", 8.

⁹⁸ Ferry, "Mogadishu, October 1993: Personal account of a rifle company XO," 26.

forces from the region.⁹⁹ This indicating not only the need for a military force capable of achieving rapid military dominance, but also the ability and resolve to conduct operations for extended periods when committed in response to culturally based conflict.

Implications for a Transforming Army

The tactical experiences of U.S. forces in Somalia provide valuable lessons learned applicable to both the current and future Army forces. The cultural basis of conflict and the characteristics of the warrior classes destabilizing the region indicate the applicability of possible threat operational principles discussed in the previous chapter. The ability of loosely organized and poorly equipped force to exploit terrain and utilize operational shielding has a major impact on both infantry and mechanized operations now and in the future. The operations in Somalia indicate a need for a capability that far exceeds the perceived necessity of attaining a ninety six hour deployment capability. Further analysis of the transformational objectives of deployability, survivability, and lethality in relation to the U.S. experience in Somalia indicates vulnerabilities similar to those indicated by the Chechen conflict.

The Objective Force, which attains deployability by transforming to a light armor organization, runs the risk of succumbing to the same limitations of a light infantry organization. The light infantry forces utilized in Somali, although rapidly deployable and responsive, lack survivability and mobility when conducting dismounted operations in an urban environment. The Somali warriors, technologically overmatched by U.S. forces, utilized an innovative application of a simple and easily adaptable weapon system to attack and destroy a highly advanced aerial weapons platform. By shooting down the first aircraft in the urban sprawl of Mogadishu the Somali forces were able to rapidly change the tempo of the conflict, an action the U.S. were unable to quickly overcome. A lack of armored vehicles to the U.S. operating in Somalia hampered the ability to conduct combined arms operations in urban terrain to regain the initiative

⁹⁹ Edwards, *Mars Unmasked: The Changing Face of Urban Operations*, 35

from the Somali forces. While deployability will continue to be an increasingly important characteristic in the U.S. force structure, when pitted against an enemy that utilizes the operational principles discussed in the previous chapter, the Army must be prepared and equipped to operate effectively and decisively against an enemy that mitigates information dominance through lethal close quarter combat. Much like the Russian experience in Chechnya, Somali operations show the critical need to project a force tailored for success exceeds the need for a rapid introduction of force into the theater.

Although Task Force Ranger exhibited the transformational objective of strategic and operational mobility, the lack of combined arms capability limited the effectiveness and survivability of the forces. The light infantry forces were unable to effectively maneuver without the suppressive and lethal fires from a mechanized force supporting the operation. Although it can be argued that Task Force Ranger did not require armored forces to gain tactical superiority, the inability to effect link up with an unarmed relief convoy required the dispatch and successful utilization of an armored relief convoy to extract the U.S. forces. The operations in Somalia are a fitting example of how a poorly equipped and organized enemy can utilize the complexity of their physical environment to limit the informational dominance of a technological advanced military force. Because of this, the Objective Force must place a high priority on the development of equipment and organization that can survive close combat in a complex urban environment, without the benefit of informational dominance. This will require the development and fielding of a mechanized force with inherent survivability characteristics beyond that exhibited by the Stryker family of vehicles and the proposed future combat system.¹⁰⁰ Failure to develop this capability imparts the risk of manning and equipping a force that is incapable of tactical success, at the price of attaining strategic responsiveness.

¹⁰⁰ TRADOC Pamphlet 525-3-90/O&O, 159.

While it is not the intent of this section to analyze the comparative lethality of light infantry forces, operations in Somalia provide important developmental considerations for the Objective Force. The urban sprawl of Mogadishu and the operational shielding utilized by the Somali warriors are conditions that must be addressed by the Objective Force. Situations such as this preclude the predominant use of long range fire because of the inability to identify and classify targets as a possible threat. The risk of collateral damage to noncombatants while utilizing air and surface delivered fires further complicates the issue and precludes its use. An organization like the Objective Force, which attains lethality through collection capability and long range precision fires will likely have to abandon this tactic and revert to direct fires and maneuver to positively identify and engage hostile forces in an urban setting. Regardless of the type and effectiveness of the direct fire systems developed for the objective force, light armored vehicles will unlikely have sufficient survivability to exploit the lethality of their own weapon systems because of the lethality, effectiveness and proliferation of shoulder fired anti armor weapon systems.

Conclusion

The Conflicts in Chechnya and Somalia provide valuable lessons and indicate trends relevant during a period of transformation in U.S. Army organization and design. Neutralization of technological overmatch, operational shielding, and exploitation of complex terrain are issues typified by both of these operations. If full spectrum dominance, as prescribed in the Objective Force concept is to be attained these factors must be addressed as critical capabilities as important as the seven transformational objectives.

Both operations indicate a critical factor in relation to deployability. The Operations in Chechnya and Somalia both saw the deployment and employment of forces not organized, manned or equipped for success in an urban environment. Both show how and enemy force can change the tempo of operations in response to an introduction of an extraregional force,

preserving combat power until they can be utilized in a swift and decisive manner. These examples also indicate that conflict based on, or supported by cultural or ethnic differences is not easily quelled by a rapid application of military power, but requires a coordinated and possibly protracted application of all elements of national power. These factors indicate that the ability to introduce an effective force is more critical than the ability deploy a force that is not organized and equipped for success in an urban environment.

Both operations are fitting examples of the need for a survivable force while conducting operations in urban terrain. Both the Chechens and Somalis faced a better equipped and technologically advanced force, but were able to overcome this with rudimentary weapon systems and the adaptive application of tactics, techniques and procedures. In both cases, the availability and effective use of shoulder fired weapon systems by the enemy indicate the necessity of vehicles that can survive anti armor ambushes initiated at extremely short engagement ranges. Rather than using the Russian and Israeli development of heavier weapon systems for use in urban operations, the Objective Force proposes the transition to a light armor organization that attains survivability through informational dominance. Given the nature and setting of likely future conflicts, technological or informational dominance is not a capability that ensures tactical and operational success.

Both operations show how the urban environment limits the lethality of the force employed in this setting. Operations in Chechnya demonstrate how both the integration of fires and maneuver is paramount, and that neither is decisive in isolation. In both cases the lack of armor support of infantry, and infantry support of armor led to the enemy's ability to exploit the physical environment to prevent the extraregional force from attaining tactical dominance. The ability to employ and exploit long range precision fires is mitigated when the enemy uses the urban environment to prevent their use. Both operations indicate that survivability and lethality are paramount capabilities that are critical in attaining tactical and operational success. This is addressed in more detail in the following chapter through critical analysis of the Objective Force

concepts used to attain the transformational objectives of deployability, survivability, and lethality.

Chapter 4. Transformation Goals and the Objective Force Concept

The whole of military activity must therefore relate directly or indirectly to the engagement. The end for which a soldier is recruited, clothed armed, and trained, the whole object of his sleeping, eating, drinking, and marching is simply that he should fight at the right place and the right time.¹⁰¹

Carl Von Clausewitz, *On War*

A diverse, modern society has inherent, ambitious, entrepreneurial energy. Our strength comes from what we do with that energy. That is where our national security begins.¹⁰²

George W. Bush, *National Security Strategy*

Introduction

While the current U.S. military force structure and capability has no peer competitor, the current organization is designed for maximum utility in unrestrictive terrain against an enemy utilizing former Soviet doctrine and tactics. Rather than the massive Soviet threat, current national strategy identifies failing states, regional instability, and terrorist activities as the primary threats to national security.¹⁰³ Because of this, the president cites the need for a military that can deter threats against U.S. interests, allies, and friends; and decisively defeat any adversary if deterrence fails.¹⁰⁴ To attain these strategic aims, the latest National Military Strategy identifies the need for decisive combat power at a speed and tempo potential adversaries cannot match.¹⁰⁵ The TCP states that the Army must change current organization and structure and organization to accomplish these aims of speed and tempo. The purpose of this chapter is to analyze the proposed Objective Force concepts of operations and organization against the stated

¹⁰¹ Clausewitz, *On War*, 95.

¹⁰² Bush, *The National Security Strategy of the United States of America*, 31.

¹⁰³ Ibid., 1-5.

¹⁰⁴ Ibid., 29.

¹⁰⁵ U.S. Joint Forces Command, *Rapid Decisive Operations White Paper*, J9 Joint Futures Lab, Coordinating Draft (August 9, 2001), ii.

transformational objectives of deployability, survivability, and lethality. This analysis answers the research question of whether the Army transformation to a light armor force is in the best interest of the Army, and worthy of the energy and resources expended to attain the transformational goals.

The current Legacy Force structure places an extreme burden on the strategic lift capabilities because of the size, weight, and logistic requirements inherent to the force. Rather than evolutionary developments to the Legacy Force equipment and organization, or development of more advanced and responsive strategic lift platforms, the Army transformation focuses on leap ahead technologies to develop a lighter and more strategically responsive organization. Analysis of the current deployment process describes how the Objective Force proposes to attain the ninety six hour deployment goal established in the TCP, and the impact this has on other transformational objectives.

Since the introduction of the tank during World War I, there has been a continual technological competition to overcome the operational and tactical advantages provided by a maneuverable and survivable weapon system. Improvements in survivability have resulted in a corresponding development in weapons and doctrine to counter this capability. This evolutionary spiral leads to the current Legacy Force weapon systems such as the M1 tank and the M2 IFV. These systems utilize speed, mobility and armor protection as the means to attain survivability necessary on the modern battlefield. Rather than depending on the physical survivability of Legacy Force systems, the objective force concept calls for informational dominance to provide a see first, shoot first capability to ensure survivability of the force.¹⁰⁶ Analysis of how the Objective Force attains survivability and lethality will indicate possible limitations and critical vulnerabilities in the transformation concept.

¹⁰⁶ TRADOC Pamphlet 525-3-90/O&O, 24.

Deployability

The deployment limitations of the Legacy Force, made painfully obvious during Operations DESERT SHIELD, ALLIED FORCE, and ENDURING FREEDOM, are a catalyst for improvements in Army deployability. The experiences in Chechnya and Somalia, discussed in the previous chapter indicate that the ability to introduce forces into a theater is undermined if the force does not have the survivability and lethality necessary for full spectrum dominance. FM 3-0 identifies force projection as a race between friendly forces and the enemy situation, and the side that achieves decisive operational capability first, seizes the initiative. This process is based on the speed and velocity that a combat capable force can be introduced into the theater of operations.¹⁰⁷ The deployment criteria of one combat capable brigade within ninety six hours, a division in 120 hours, and five divisions within thirty days is an attempt to improve upon the Legacy Force deployment limitations. To overcome the strategic deployment and operational mobility limitations of the Legacy Force organizations, the Objective Force concept focuses on speed, precision, and knowledge (noted as the future tenets of the deployment process).¹⁰⁸ Considered a new and innovative process to attain deployability improvements, the reality is that these tenets have been addressed, and in many cases attained by the Legacy Force through the development of computer based transportation planning and execution systems.

The precision and knowledge tenets of the future deployment process are capabilities inherent and operational in the current Legacy Force organization. Up to date and accurate unit deployment data is currently maintained and updated real time in the Transportation Coordinators Automated Information for Movement System II (TC-AIMS II). This system provides timely and accurate information necessary for force projection plans and estimates, and provides the capability to accelerate the TPFDD development process and reduce the planning and preparation

¹⁰⁷ U.S. Department of the Army, FM 3-0: *Operations*, 3-14.

¹⁰⁸ TRADOC Pamphlet 525-3-90/O&O, G-1.

time required for Legacy or Objective Force organizations.¹⁰⁹ With systems in place in the current force structure which allow the precision and knowledge tenets of the deployment process, it appears that the Army transformation concept is primarily focused on increasing deployment speed.

Deployment speed is not a quantitative measurement of the velocity or speed of an organization being deployed. Speed is defined as the velocity of the entire force projection process, from planning to force closure.¹¹⁰ The current Joint Operational Planning and Execution System (JOPES), is utilized to plan, monitor and execute deployment, employment, and sustainment functions of the deployment process. A product of the JOPES system is the Time-Phased Force Deployment Data (TPFDD), which includes information on units, sequence, routing, and estimates of common user transportation requirements. The development of TPFDD data is streamlined in the Objective Force organization through a modular and easily tailorable force structure.¹¹¹ While standardization of unit organization will likely simplify the deployment planning process, the complexities of the future operational environment discussed in chapters two and three indicate capabilities, not organizations are the critical factor.

This Objective Force organization is based on the Unit of Employment (UE) and the Unit of Action (UA). The UE is conceived as a highly tailorable higher level organization comparable to the current division or corps. This organization focuses on battles, operations, and campaigns in support of both joint and strategic objectives.¹¹² Organization and design of the UE allows it to function as an Army Forces (ARFOR) component, a Joint Force Land Component Command (JFLCC), or Joint Task Force (JTF)¹¹³. The core of the UE and the Objective Force concept is the

¹⁰⁹ U.S. Department of the Army, FM 3-0: *Operations*, 3-15.

¹¹⁰ *Ibid.*, 3-14.

¹¹¹ TRADOC Pamphlet 525-3-90/O&O, 141.

¹¹² *Ibid.*, 12.

¹¹³ *Ibid.*

Unit of Action (UA), which attains deployment speed through a standardized organization that enables delivery into undeveloped areas as an autonomous stand alone organization.¹¹⁴ A review of the proposed organization of the UA (figure 1) indicates one of the primary means of attaining deployability in the Objective Force is a drastic reduction in organizational size and personnel strength.

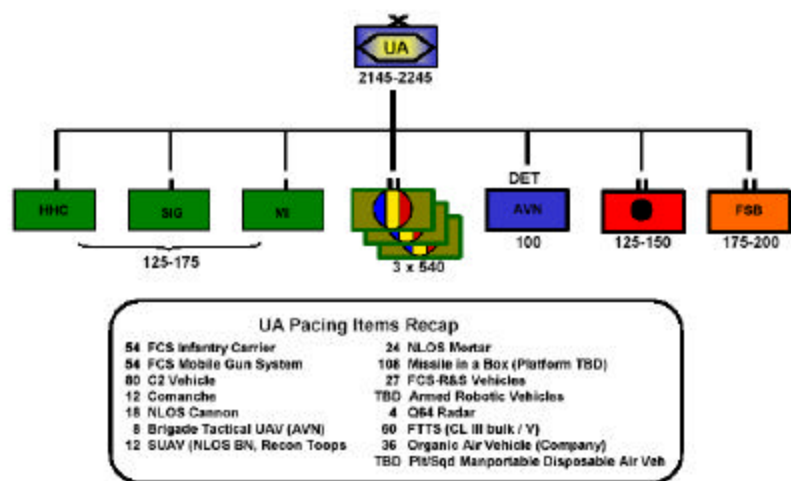


Figure 1. Unit of Action Organizational Chart¹¹⁵

To put the amount of organizational change necessary to attain the Objective Force deployment criteria in perspective, a comparison to Legacy Force strategic lift requirements is necessary. A heavy armored cavalry regiment, composed of 2,155 vehicles and 4,842 personnel requires strategic lift to transport 462,080 cubic feet and 32,689 short tons of equipment into a theater of operations located 3,200 nautical miles from the POE.¹¹⁶ This distance is comparable

¹¹⁴ Ibid., 32. These capabilities made possible because of C-130 transportability and ability to utilize unimproved airfields.

¹¹⁵ Ibid., 26.

¹¹⁶ Military Traffic Management Command, *MTMCTEA 700-5: Deployment Planning Guide* (Newport News VA: MTMC, 2001), I-2. An armored cavalry regiment is used for this comparison because in the authors view, the ACR is the only current force comparable to the Objective Force in respect to combat power and collection capability.

to a deployment from Diego Garcia to Cape Town South Africa.¹¹⁷ To deploy this distance by C-17 would require 543 air missions, or three fast sealift ships (FSS).¹¹⁸ Both of these modes of transportation require a developed infrastructure at the air and sea POD, and once in theater, intra theater mobility would be limited to ground transportation for most equipment. In comparison, the unit of action whose projected weight of ten to eleven short tons, as described in *TRADOC Pamphlet 525-3-90/O&O The United States Army Objective Force: Operational and Organizational Plan for Maneuver Unit of Action*, is stated as having the capability of conducting an air deployment from Hunter Army Air Field to Baku in a under ninety six hours.¹¹⁹ This deployment would not require a developed APOD or SPOD, and the unit would also have an improved intra theater mobility capability since every vehicle in the organization will be transportable on a C-130 aircraft.¹²⁰ This deployment estimate is questionable despite the UA organizational changes. A recent study concludes that a SBCT that displaces 12,840 short tons is incapable of attaining the ninety six hour deployment goal, utilizing current strategic air transport assets.¹²¹ Given the current and projected strategic airlift capabilities, the ability to deploy the UA is restricted by the same strategic deployment limitations that currently face the Legacy and Interim Forces.

Although the issue of a ninety six hour deployment capability is not a primary focus of this monograph, this capability has impacts on other transformational objectives. While the Objective Force and the UA may be able to come close to the ninety six hour deployment goal,

¹¹⁷ Alan Vick, et al., *The Stryker Brigade Combat Team: Rethinking Strategic Responsiveness and Assessing Deployment Options* (Santa Monica, CA, Arroyo Center, RAND, 2002), 124.

¹¹⁸ Military Traffic Management Command, *MTMCTEA 700-5: Deployment Planning Guide*, G-2-G6.

¹¹⁹ *TRADOC Pamphlet 525-3-90/O&O*, G-2.

¹²⁰ *Ibid.*, 141.

¹²¹ Vick, *The Stryker Brigade Combat Team*, 17.

the decisive operational capability described in FM 3-0 must not be forgotten.¹²² The proposed paradigm that the ability to deploy equals the ability to employ¹²³ is not a valid argument if the force deployed does not have the capability of attaining a decisive operational capability. In the quest to attain a strategically responsive force, by reducing organization and weapons system size, there may be a corresponding reduction in survivability and lethality of the projected force. The following section describes how the Objective Force proposes to attain the survivability necessary to attain a decisive operational capability.

Survivability

While undoubtedly more deployable than the Legacy Force, a function of size and weight, it is questionable if a force based on a twenty ton vehicle can survive given the complexities and challenges of the future operational environment. The Objective Force concept touts the ability to develop the situation out of contact with the enemy, engaging beyond the range of enemy weapons.¹²⁴ This ability is attained through the integration of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR). This integration is seen as the means to ensure that the Objective Force soldiers and systems can send and receive the necessary information to prevent an enemy from gaining surprise and attaining an operational or tactical advantage.¹²⁵ The ability to utilize collection assets from the national level to organic ground and air unmanned sensors, fused into a common data base and accessible at the lowest tactical level, allows leaders to gain the hallmark of the Objective Force, situational

¹²² U.S. Department of the Army, FM 3-0: *Operations*, 3-14.

¹²³ John M Riggs, Lieutenant General, *The Objective Force in 2015*, Objective Force Task Force (Arlington VA, Department of The Army, 2002), 32.

¹²⁴ TRADOC Pamphlet 525-3-90/O&O, 11.

¹²⁵ Riggs, *The Objective Force in 2015*, ii.

understanding (SU).¹²⁶ Because of this situational understanding, UA leaders will have the information necessary to gain a positional advantage, described as “middle ground”. This middle ground is an area that is beyond the weapon range of an enemy, but within the effective range of friendly weapons.¹²⁷

By seeking the middle ground, the Objective Force concept indicates that close combat is to be avoided, which is understandable given the ballistic protection afforded by a light armored vehicle. While there have been major improvements in armor development, the laws of physics can not be discounted. Kinetic energy weapons currently available produce approximately nine megajoules (MJ) of energy.¹²⁸ Even if technology advances to a point where light weight armor can prevent the penetration of current and expected kinetic energy projectiles, the impact shock imparted on the armor of a twenty ton vehicle would be comparable to the vehicle being hit by another twenty ton vehicle traveling at seventy two kilometers per hour.¹²⁹ Indicating the need for a certain level of vehicular mass to overcome the kinetic shock imparted upon a vehicle when engaged with a kinetic energy projectile.

Throughout the developmental history of armored vehicles, protection and the resulting survivability has governed the ability to maneuver freely on the battlefield. The Objective Force concept has gone in a different direction, attempting to nullify the paradigm of weight and protection. Richard Ororkiewicz proposes that light armored vehicles are designed to protect them from the lowest level of attack (small arms and shell fragments), which are likely to come from almost any angle of attack.¹³⁰ With this in mind and given the current state of armor

¹²⁶ TRADOC Pamphlet 525-3-90/O&O, 13.

¹²⁷ Ibid., 58.

¹²⁸ Brian, R Zahn, *The Future Combat System: Minimizing Risk While Maximizing Capability*, Working Paper 00-2, (USAWC Strategy Research Project, 2000), 16.

¹²⁹ Ibid. 26

¹³⁰ Richard, M Ororkiewicz, *Technology of Tanks II* (United Kingdom: Jane's Information Group Limited, 1991), 362.

development and the twenty ton weight limitation, it is likely that the Future Combat System (FCS) of the Objective Force will have armor protection comparable to the Stryker family of vehicles being fielded in the SBCT. Much like the Stryker in the SBCT organization, a critical design characteristic of the FCS is that it must provide protection from 14.5 mm weapons fire,¹³¹ a dangerous design characteristic given the proliferation and effectiveness of the RPG-7 weapon systems, the versatility and lethality of which is described in the previous chapter.¹³² *TRADOC Pamphlet 525-3-90/O&O The United States Army Objective Force: Operational and Organizational Plan for Maneuver Unit of Action* states that the UA will continually seek the middle ground, but will be capable of close combat through the shielding and isolation of battlespace.¹³³ Further analysis of whether the Objective Force is truly capable of effectively conducting close combat in complex terrain is conducted in the following section.

While information dominance and situational understanding provide valuable tools for the maneuver commander, there is ample evidence that friction in warfare, as described by Carl von Clausewitz, will continue to impact the tactical and operational levels of war.¹³⁴ Technological advances in collection and information sharing coupled with a clear understanding of the future nature of warfare will likely reduce, but not entirely eliminate, the fog and friction of war.¹³⁵ The U.S. experience in Somalia supports this argument. Task Force Ranger was arguably one of the most technologically advanced forces in the world in 1993, but despite a marked advantage in collection and communications, Somali forces were capable of seizing the

¹³¹ TRADOC Pamphlet 525-3-90/O&O, 159. This protection is increased with add-on armor to provide protection from a 30mm projectile.

¹³² Grau, “*The RPG-7 On the Battlefields of Today and Tomorrow*”, 6. The RPG-7VR employs a tandem warhead that overcomes explosive reactive armor, and an armor penetration of 600mm.

¹³³ TRADOC Pamphlet 525-3-90/O&O, 14.

¹³⁴ Clausewitz, *On War*, 119.

¹³⁵ Jacob W Kipp and Lester W Grau, “The Fog and Friction of Technology,” *Military Review* LXXXI, no. 5 (September-October 2001): 97.

initiative in a complex urban environment.¹³⁶ In their work, *The Fog and Friction of Technology*, Jacob W Kipp and Lester W Grau argue that while technology and information complement military operations, they are not a replacement for the principles of war.¹³⁷ They also argue that technological change in a military is best conducted gradually and thoughtfully; this is an observation supported by Trevor Dupuy, who argues that a precondition of successful integration of new technology has been an opportunity to analyze battlefield performance of the new technology.¹³⁸ With survivability predicated by hypothetical technological advances, the Objective Force proposes a rapid and massive change in the Army, despite limited opportunities to validate the concept prior to integration. The technological dependence of the Objective Force impacts transformational objectives other than survivability; the transformation to a light armor force enabled through technology also has an impact on the lethality of the organization.

Lethality

The experiences by the Russians in Chechnya, and the U.S. Somalia indicate the need for a survivable and lethal force when conducting operations in a complex physical environment. This section addresses the proposed method of attaining lethality in the Objective Force, and the risks inherent to the concept. The current objective force concept states that the UA develops an overmatch in lethality through application of a new formula to define combat power.¹³⁹ Current doctrine defines combat power as the ability to fight, and that the ability to apply this destructive

¹³⁶ Frank H Akers Jr. and George B. Singleton, *Task Force Ranger: A Case Study Examining the Application of Advanced Technologies in Modern Urban Warfare*, National Security Program Office (Oak Ridge, TN: Department of Energy, 2000), 9.

¹³⁷ Kipp and Grau, “*The Fog and Friction of Technology*”, 97.

¹³⁸ Trevor N Dupuy. *The Evolution of Weapons and Warfare* (Fairfax, VA: Hero Books, 1984) 323.

¹³⁹ TRADOC Pamphlet 525-3-90/O&O, 24.

or disruptive force underlies the success of all military operations.¹⁴⁰ This combat power is attained by the synchronization of all five elements of combat power. Figure 2 illustrates the current doctrinal view of how each element of combat power interacts to develop combat power, described in *TRADOC Pamphlet 525-3-90/O&O The United States Army Objective Force: Operational and Organizational Plan for Maneuver Unit of Action* as the formula $CP=M+F+P+L$.¹⁴¹ The Objective Force concept for combat power is $CP=(M+F+P+L)^{\text{information}}$, where information exponentially increases the combat power of the UA and the Objective Force.¹⁴² While this is an innovative concept, there is little historical evidence to support the claim.

While relevant and timely information provides advantage to the organization that possesses the information, the ability of the Objective Force to attain true situational understanding must be questioned given the current and expected advances in collection technology. The Objective Force concept gains the traditional heavy force overmatch in the same method survivability is attained, by developing the situation out of contact with the enemy and seeking the “middle ground”.¹⁴³ This concept calls for gaining a positional advantage beyond the range of enemy weapon systems and employing long range precision fires, enabled by a robust collection system.¹⁴⁴ To attain the lethality necessary for full spectrum dominance of the Objective Force, two critical assumptions are made. These two assumptions are: 1) technology will advance to the point where collection systems can provide the level of detail of the operational environment to develop targeting information, and 2) when targeted, long range

¹⁴⁰ U.S. Department of the Army, FM 3-0: *Operations*, 4-3.

¹⁴¹ TRADOC Pamphlet 525-3-90/O&O, 24. In the formula: CP is combat power, M is maneuver, F is firepower, L is leadership, and P is protection.

¹⁴² Ibid., 24.

¹⁴³ Ibid., 1.

¹⁴⁴ Ibid., 153.

precision guided munitions provide a decisive advantage. Further analysis of these assumptions will indicate limitations critical in developing the future Army.

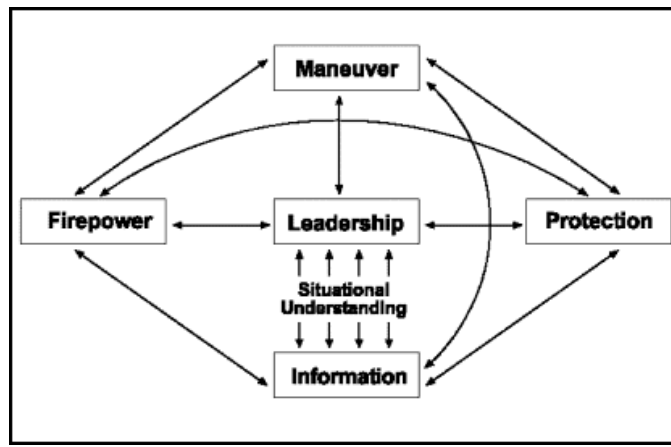


Figure 2. The Elements of Combat Power¹⁴⁵

Collection assets and capabilities at all levels of command have drastically improved in the recent past, but there are, and will continue to be limitations. Long range sensors are not expected to mature to the necessary levels during the proposed fielding timeline of the Objective Force.¹⁴⁶ U.S. operations in Somalia show how an enemy force can exploit their physical environment to mitigate information dominance during close combat operations. While there have been dramatic advances in collection systems and capabilities used during operations in Somalia, there are still limitations that indicate risks in developing a force dependant on near perfect information. Operation ANACONDA in Afghanistan indicates that remote sensors will not provide a level of resolution necessary to attain situational understanding, which is critical for

¹⁴⁵ U.S. Department of the Army, FM 3-0: *Operations*, 4-2.

¹⁴⁶ Matsumura, John, et al., *Exploring Advanced Technologies for The Future Combat Systems Program*, (Santa Monica, CA, Arroyo Center, RAND, 2002), xiv.

the Objective Force to attain conditions necessary for success in close combat.¹⁴⁷ During this operation less than fifty percent of enemy positions were identified in a ten square kilometer area, despite the utilization of all available collection and acquisition systems.¹⁴⁸ The al Qaeda fighters exploited the cover and concealment provided by the complex physical setting to deny detection by radar, thermal imaging and electro magnetic collection systems.¹⁴⁹ Although extremely capable of detecting forces in open, unrestrictive terrain the current and future sensors will have to overcome the problems associated with foliage and terrain. In situations where the enemy exploits the physical environment and utilizes non combatants as operational shielding, sensors will have to be able to identify and more importantly classify sensor hits as friendly or enemy. Studies indicate that even with advances in foliage penetrating radar, the ability to classify a target with a level of detail necessary for targeting is not an expected reality in the proposed fielding timeline of the Objective Force.¹⁵⁰ To overcome this limitation, the Objective Force leaders will have to abandon the protection of the “middle ground”, in vehicles with limited survivability, to gain a sufficient level of situational awareness.

Another issue is the actual lethality and effectiveness of long range precision fires. As discussed earlier, it is questionable if the Objective Force will be able to identify targets at long range to capitalize on long range precision strikes against an enemy force. Stephen Biddle proposes that precision guided munitions are not enough in themselves to overcome a determined and well entrenched enemy.¹⁵¹ Recent use of precision guided munitions like the Joint Direct

¹⁴⁷ TRADOC Pamphlet 525-3-90/O&O, 13.

¹⁴⁸ Stephen Biddle. *Afghanistan and the Future of Warfare: Implications for Army and Defense Policy*. (Carlisle, PA: Strategic Studies Institute. 2002) 28.

¹⁴⁹ *Ibid.*, 29.

¹⁵⁰ Matsumura, *Exploring Advanced Technologies For The Future Combat Systems*, 15-19.

¹⁵¹ Biddle, *Afghanistan and the Future of Warfare*, 38. The author of this work indicates historical evidence such as the battles of: Verdun in 1916, Messines in 1917, Cassino in 1944, and Operation ANACONDA in 2001 as examples where firepower alone has little chance attaining tactical success unless integrated with maneuver.

Attack Munitions (JDAM) in Afghanistan support the argument that maneuver and fires are complementary, and neither is decisive when isolated from each other.¹⁵² This indicates an inherent need for a force that can effectively maneuver to exploit the effects of fire to close with and defeat an enemy in close combat. A critical assumption in the Objective Force concept is that the UA will be capable of close combat by shielding and isolation of battlespace through acquisition capabilities and PGM lethality, but there is limited evidence indicating that sufficient shielding and isolation is attainable. With all elements of combat power exponentially enabled through information in the Objective Force, a lack of information also exponentially decreases the capability of the organization. When survivability and lethality have been reduced in an effort to gain strategic responsiveness, this becomes a critical vulnerability, imparting high levels of risk to the force during combat operations.

Review of the elements of combat power as described in *FM 3-0 Operations* indicates that the new formula for expressing combat power in the Objective Force is actually a different way of expressing current doctrine.¹⁵³ As seen in figure 2, information assists in the development of situational understanding, which in turn empowers leaders with the ability to decide on the best way to apply the means (maneuver, firepower, and protection). It may be more accurate to classify combat power in the Objective Force as $CP=(M+F+P)^{L+information}$, where leadership empowered with relevant information exponentially increases combat power. In this model information can be expressed as positive or negative factor. If the Objective Force expects to attain survivability (protection) and lethality (firepower) by gaining and maintaining information dominance, it is a logical conclusion that a lack of information exponentially degrades a leader's ability to maneuver until information dominance is regained. Because of this, this author supports the assertion of Frederick Rudesheim that closing with and destroying an enemy is, and

¹⁵² Vick, *The Stryker Brigade Combat Team*, 6.

¹⁵³ FM 3-0: *Operations*, 4-3 - 4-11.

should continue to be a core competency of the Army.¹⁵⁴ Without this core competency driving the organization, manning, and training of the Army, there is a real risk of transforming to a force that is enslaved rather than enabled by information. The Objective Force creates an Army whose leadership must depend on the holy grail of situational understanding to dominate the full spectrum of conflict, rather than organizing and equipping a force capable of dominance through dominant maneuver and firepower.

Conclusion

While an improvement in strategic responsiveness is necessary to overcome limitations in the current force structure, a ninety six hour deployment goal and the resulting changes necessary to attain this goal, imparts certain risks in the Objective Force. The proposed methods of attaining this deployment goal have serious implications on the survivability and lethality of the future Army. The Transformation Campaign Plan is an attempt to improve strategic responsiveness at the cost of some of the inherent qualities that makes the Legacy Force such a decisive and capable organization.

Survivability and lethality inherent to legacy force weapon systems is attained in the future force with the integration of information and technology, allowing the tactical and operational commanders the ability to shape the battlefield while beyond the effective range of enemy weapon systems. With changes in the sources of conflict and trends in urbanization, the Objective Force will have to forgo the time and space necessary to attain the “middle ground” and conduct decisive operations across the full spectrum of conflict, while in close proximity to the threat. The concept that information allows the Objective Force to gain survivability and lethality is a valid theory, but there is no evidence to support the assumption that current or near term technological advances will mature to a level necessary to validate the concept in the Objective

¹⁵⁴ Frederick S. Rudesheim, *Discovering the Army's Core Competencies*, Edited by Williamson Murray, (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, 2001), 87.

Force. The risk of transformation, as described in the TCP, is that of developing, manning, and equipping a force that does not have the survivability and lethality necessary to attain full spectrum dominance.

Chapter 5. Conclusions and Recommendations

To fully exploit the advantages of technology, a force must correctly determine who its opponent will be, where it will fight the opponent and how it will conduct the fight... technology will not solve everything. Innovation, professionalism, determination, and the ability to rapidly reconfigure and adapt will still play a major role in future war.¹⁵⁵

Jacob W Kipp and Lester W Grau, *The Fog and Friction of Technology*

Conclusions

Through theoretical, historical, and doctrinal analysis of Army transformation and Objective Force concepts, this monograph has identified several key factors that have major impacts on the proposed Army transformation objectives. This chapter will describe how changes in the likely threat, emerging threat doctrine, and proposed transformational concepts discussed in this monograph prevent the Objective Force from attaining the transformation objectives established in the Transformation Campaign Plan. The conclusions are based on three of the seven stated transformational objectives that are also the evaluative criteria used throughout this monograph. These conclusions provide the foundation for the recommendations on Army transformation and the Objective Force.

Likely conflict in the future will be fueled by cultural, religious, and non nation state influences that will require possible intervention to prevent a spread of regional instability that threatens U.S. national interests. With the reduction in forward deployed Army forces, there is an increased necessity for the capability to provide a strategically responsive force. Although culturally based conflict and the resulting instability may require the commitment of Army forces, the operations in Chechnya and Somalia indicate that the ability to rapidly apply military power is

¹⁵⁵ Kipp, Grau, "The Fog and Friction of Technology," 97.

secondary to the ability to implement an operational plan with a military force capable of tactical dominance in a complex physical setting.

While the ability to field a strategically responsive force into undeveloped regions provides many options to strategic and operational leaders, the method of attaining deployability in the Objective Force has major implications to other transformational objectives. Through standardization, personnel and equipment reductions, the Objective Force attempts to attain the strategic deployment capability of deploying a Unit of Action into a theater of operations within ninety six hours. This ninety six hour deployment capability is unlikely, given the inability to deploy a comparably sized Stryker Brigade Combat Team with the current strategic deployment assets. The C-130 aircraft transportability of all vehicles in the Objective Force imposes design characteristics and a weight limitation of approximately twenty tons. It is this weight limitation that has the most profound effects on the ability to attain full spectrum dominance and has negative impacts on the survivability and lethality of the force.

Although strategic responsiveness is greatly improved by reducing unit size and weapons system weight, the resulting reduction in survivability indicates a critical vulnerability in the concept. Given the likelihood of commitment of the Army into complex and increasingly urbanized environments, the Objective Force, based on a twenty ton vehicle is forced to rely on informational dominance to attain the transformational objective of survivability. With the current and expected capabilities of collections systems, it is unlikely the ability to attain situational understanding in a complex physical setting will become a reality during the developmental timeline of the Objective Force. Without situational understanding, the Objective Force will be unable to identify and exploit the “middle ground” between too close and too far. This factor, coupled with the likelihood of operations in complex and urban terrain indicates the need for a close combat capability. History indicates that success in close combat requires fire and maneuver with a system capable of surviving enemy attacks when conducting operations in an urban environment.

As with the transformational objective of survivability, the lethality objective is predicated by a dependence on information technology and collection capability coupled with the effectiveness of long range precision fires. Even with current and expected improvements in long range collection systems the technological advances are not expected to progress to the point where the Objective Force can identify, classify, and target an enemy effectively in complex terrain and exploit capabilities provided by long range precision fires. History also shows that there are few, if any indications that fire without maneuver is capable of producing a decisive effect on an enemy force. With reduced survivability, a function of armor protection, the Objective Force has a reduced ability to successfully survive close combat operations and attain lethality with direct fire. The operations in Chechnya and Somalia show how an enemy force can exploit the physical environment to deny the Objective Force the time and space necessary to employ and exploit the information and precision capabilities critical for success.

While the Objective Force seeks to attain the ninety six hour deployment capability established in the Transformation Campaign Plan by reducing vehicle size and weight, the concept imparts a high level of risk to the proposed organization. The concept that information and technology can overcome reductions in survivability and lethality while maintaining a dominant presence on the battlefield is not supported by military experiences in previous conflicts. Attainment of strategic responsiveness at the bereavement of other elements of combat power is not transformational, it is a compromise centered on strategic deployability limitations.

Recommendations

Although the Army transformation process is well under way, there is still time to review the facts and assumptions made in the Transformation Campaign Plan in order to develop viable and logical branches to the concept. Analysis of the likely future threat, desired capabilities, and a joint deployment focus can ensure changes to the concept are made before the Army reaches

conditions of irreversible momentum.¹⁵⁶ This analysis is required to ensure that the Army does not expend limited and valuable national resources to develop a force that has fewer capabilities than the current force structure.

By accepting as fact that the Army will have to attain dominance against a versatile and determined enemy in urban terrain, the Objective Force focus should first be on developing systems capable of survivability and lethality in this environment. Current and expected enemy capabilities should drive the design characteristics of the Objective Force, not the strategic deployment limitations of the U.S. military. Using this as the primary concern during the Objective Force development ensures the fielding of a force capable of full spectrum dominance and attainment of tactical and operational objectives.

Full spectrum dominance will be ensured in the Objective Force, only if the organization has the inherent qualities of survivability and lethality. Given the expected technological advances during the Objective Force fielding timeline, the Army will have to accept that there will continue to be a need for heavy armor forces to overcome limitations of employing light armor organizations in restrictive urban environments. Because of this the Army would be well served to continue the development of the informational technologies and apply these to the Legacy and Interim Forces rather than changing the entire Army force structure. Application of these technologies to a survivable and lethal force would ensure the ability to exploit information while conducting close combat operations. This approach would ensure the continued survivability and lethality inherent to the legacy Force and provide the flexibility to employ light, interim and heavy forces. By approaching transformation as an evolutionary, rather than revolutionary change, the expenditure of resources could be focused on joint development of mobility systems and platforms, rather than a compromise focused on joint deployment limitations.

¹⁵⁶ Shinseki, *Transformation Campaign Plan*, 20.

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