# TRANSFORMATION CONCEPTS FOR NATIONAL SECURITY IN THE 21st CENTURY

**Williamson Murray**
**Editor**

**September 2002**

*****

The views expressed in this report are those of the authors and do not necessarily reflect the official policy or position of the Department of the Army, the Department of Defense, or the U.S. Government. This report is cleared for public release; distribution is unlimited.

*****

Comments pertaining to this report are invited and should be forwarded to: Director, Strategic Studies Institute, U.S. Army War College, 122 Forbes Ave., Carlisle, PA 17013-5244. Copies of this report may be obtained from the Publications Office by calling (717) 245-4133, FAX (717) 245-3820, or via the Internet at *Rita.Rummel@carlisle.army.mil*

*****

Most 1993, 1994, and all later Strategic Studies Institute (SSI) monographs are available on the SSI Homepage for electronic dissemination. SSI's Homepage address is: *http:// www.carlisle.army.mil/usassi/welcome.htm*

*****

The Strategic Studies Institute publishes a monthly e-mail newsletter to update the national security community on the research of our analysts, recent and forthcoming publications, and upcoming conferences sponsored by the Institute. Each newsletter also provides a strategic commentary by one of our research analysts. If you are interested in receiving this newsletter, please let us know by e-mail at outreach@carlisle. army.mil or by calling (717) 245-3133.

ISBN 1-58487-104-0

## CONTENTS

Foreword . . . . . v

1. TRANSFORMATION: Volume II
*Dr. Williamson Murray* . . . . . 1

2. THE ARMY, TRANSFORMATION, AND MODERNIZATION, 1945-91: Implications for Today
*Colonel Arthur W. Connor, Jr.* . . . . . 25

3. EFFECTS-BASED OPERATIONS: The End of Dominant Maneuver?
*Colonel Gary H. Cheek* . . . . . 73

4. EFFECTS-BASED OPERATIONS: A New Operational Model?
*Lieutenant Colonel Allen W. Batschelet* . . . . . 101

5. EFFECTS-BASED OPERATIONS: Theory, Application, and the Role of Airpower
*Lieutenant Colonel Brett T. Williams* . . . . . 133

6. RAPID DECISIVE OPERATIONS: The Emperor's New Clothes of Modern Warfare
*Lieutenant Colonel James L. Boling* . . . . . 167

7. OPERATION JUST CAUSE: Concepts for Shaping Future Rapid Decisive Operations
*Lieutenant Colonel James H. Embrey* . . . . . 197

8. TRANSFORMING THE INTELLIGENCE COMMUNITY
*Lieutenant Colonel Steven L. Salazar* . . . . . 247

9. THE ARMY'S ROLE IN HOMELAND SECURITY
*Lieutenant Colonel Daniel J. Shanahan* . . . . . 285

10. MILITARY TRANSFORMATION
FOR WARFARE IN THE 21st CENTURY:
Balancing Implications of Urban Operations
and Emerging Joint Operational Concepts
*Lieutenant Colonel Charles L. Taylor* . . . . . 311

11. A U.S. GOVERNMENT INTERAGENCY
STRUCTURE TO COMBAT TRANSNATIONAL
TERRORISM
*Lieutenant Colonel George J. Woods III* . . . . . 347

12. RAPID DECISIVE OPERATIONS:
The Search for the Holy Grail of Joint Warfighting
*Lieutenant Colonel David R. Hogg* . . . . . 375

ABOUT THE AUTHORS . . . . . 405

# FOREWORD

The famous Confederate General Stonewall Jackson noted that "To move swiftly, strike vigorously, and secure all the fruits of the victory is the secret of successful war." This observation is at the very heart of the current discussion and experimentation on how the transformed joint services of the United States should employ force in the 21st century. The services are exploring concepts such as Effects Based Operations and Rapid Decisive Operations to move swiftly and strike vigorously to secure victory in the coming decades. At the same time the nation and its armed forces are developing new concepts of homeland security to defend the country in the war on terrorism. The following chapters represent some of the thinking by students at the U.S. Army War College, considering the nature and direction of transformation concepts that deal with these issues.

Officers who participated in the Advanced Strategic Art Program (ASAP) during their year at the U.S. Army War College wrote these chapters. The ASAP is a unique program that offers selected students a rigorous course of instruction in theater strategy. Solidly based in theory, doctrine, and history, the program provides these students a rich professional experience that includes staff rides, exercises, and the best instructional expertise available. The program is designed to provide the joint community with the best strategists and planners in the world. In the case of these officers and their work, they have already begun to make a difference. They and their fellow graduates of the U.S. Army War College will continue to serve the Army and the nation for many years to come.

ROBERT R. IVANY
Major General, U.S. Army
Commandant

# CHAPTER 1

## TRANSFORMATION: VOLUME II

**Dr. Williamson Murray**

This is the second volume of essays written by the students in the Advanced Strategic Arts Program at the U.S. Army War College.[1] Like last year's volume, it addresses the question of transformation, but this time within the larger framework of joint concepts and capabilities that are likely to drive processes within the Army and other services over the coming decade. Already joint or service concepts such as effects-based operations and operational net assessment are having considerable influence over how the Department of Defense (DoD) is conceptualizing the problems of transformation. In one form or another, the Army must address those concepts from the perspective of its history—a history that encompasses the whole strategic and operational framework of the U.S. military from the American War of Independence to the present. With that historical framework in mind, it must become an active partner in bringing substance to what has so far, more often than not, represented processes of conceptual development long on claims and short on serious intellectual content.

In the 1990s, as the services began to address the question of transformation seriously, a number of concepts emerged that aimed at utilizing rapidly advancing technology and new capabilities to realize a future revolution in military affairs—or, in the view of some, revolutions in military affairs.[2] Among the more recent concepts that have emerged are those of effects-based operations and operational net assessment. Unfortunately,

these efforts have for the most part remained immature. It is the purpose of this introductory chapter and the following essays to address some of the questions that such concepts should raise, as well as the potential role they might play in the processes of Army transformation.[3]

In the largest sense, the development of viable concepts of operations demands a symbiosis among the worlds of the intellect, the tactical and operational, and increasingly advanced technology.[4] As Michael Howard has suggested, this is because the military profession is not only the most demanding physically, it is the most demanding intellectually of all the professions. The latter is the case because military organizations rarely have the opportunity to practice their profession—not necessarily a bad thing—and military organizations can rarely, if ever, replicate the conditions of war in peacetime — particularly the fact that our enemy is trying to kill us.[5] As Clausewitz suggests:

> [W]ar is an act of force, and there is no logical limit to the application of that force . . . War, however, is not the action of a living force upon a lifeless mass, . . . but always the collision of two living forces. . . . if you want to overcome your enemy, you must match your effort against his powers of resistance, which can be expressed as the product of two inseparable factors, viz. the total means at his disposal and the strength of his will.[6]

This places a difficult burden on military organizations on whose wisdom in preparing for war, a nation's survival can depend. Consequently, the development of concepts, relevant and useful to thinking about and preparing for future war, is of crucial importance.

In fact, the concepts of effects-based operations and operational net assessment are not new, as many of their advocates claim. They are a consistent theme through the conduct of military campaigns by great commanders throughout the military history of the Western world over the past 3 centuries.[7] When tied to the historical framework and the evolution of American doctrine, particularly as it

emerged in the late 1970s and 1980s, these concepts offer the opportunity to expand the understanding of the U.S. military on the fundamental and unchanging nature of war, with its constraints both in terms of politics and the impact of friction. At the same time such concepts could allow the incorporation of the technological and computer revolution, clearly taking place in the external world, into service and joint doctrinal and operational frameworks as well as the education of future officers.[8]

When such concepts are not tied to the historical framework, then they become nothing more than "slogans and bumper stickers" that represent the re-invention of the wheel—a wheel rickety, insubstantial, and incapable of bearing any weight.[9] Without an historical perspective, the theorist of future war is left to dream of things that have not happened without any reference to the real world of human experience and understanding. Those who believe that history offers no useful support to theories of future war would do well to remember Clausewitz's sharp words on the relationship between military theory and history:

> [theory] is an analytic investigation leading to a close acquaintance with the subject; applied to experience—in our case military history—it leads to thorough familiarity with it... [When it does not, the result is that theories become] absolutely useless... in the rules and regulations they offer... they aim at fixed values, but in war everything is uncertain, and calculations have to be made with variable quantities.[10]

**Effects-Based Operations.**

Over the past decade, there has been increasing interest in a concept termed effects-based operations. The actual derivation of the term comes from the design for the initial night of the air campaign at the start of OPERATION Desert Storm. Planners in the Black Hole, the center of planning for the air campaign against Iraq, aimed do something more than simply listing targets and then attacking them one after another, with little regard for the

overall effect. The emphasis of the planners in the Black Hole, harking back to air power thinking in the U.S. Army's Air Corps Tactical School before World War II, was on achieving second and third order effects beyond the simple destruction of targets, which had reflected so much of the U.S. Air Force's approach to air campaigns throughout much of the Cold War.[11]

The end result of this effects-based planning was that a mixture of stealth, precision, and electronics countermeasures destroyed Iraq's integrated air defense system in the opening hours of the Gulf War.[12] To many, that success heralded a new age of air power employment, one characterized by an emphasis on the effects and the outcome rather than the inputs. Unfortunately, that emphasis on air power employment has tended to give the concept itself the flavor of an air force procurement program, which has all too often been justified.

Moreover, advances in conceptual thinking have not matched the advances in technology and precision over the past 2 decades. Instead, much of the thinking about the potential uses of precision to create effects-based operations has focused on the tactical employment of weapons systems, while the emphasis on precision has led most to focus on target destruction instead of on the larger implications of the conduct of effects-based campaign. Yet it would seem that the most significant contribution that effects-based thinking could make to the conduct of American military operations in the 21st century would lie in the strategic realm.

No matter how impressive the conduct of effects-based operations might be at the tactical or operational levels, there is no guarantee that linkages will exist to the operational and strategic unless there is a coherent effort to develop those linkages. The actual planning of an effects-based campaign demands an intellectual effort to think through the potential effects of policy decisions and strategy, as well as the eventual contribution that tactical

actions might make to the achieving of operational or strategic effects. The cruise missile attacks on Osama bin Laden's terrorist camps in the 1990s hit their targets with exquisite precision. Undoubtedly, those attacks killed a number of potential terrorists. However, they achieved little or nothing at the strategic or operational levels—at least as far as America's war on terrorism goes, a fact that the events transpiring on September 11, 2001, underlined all too graphically.

If the political and strategic decisions are the crucial element in the utilization of military power to achieve national goals, then how might strategic decisionmakers use the concept of effects-based operations to further the articulation and conceptualization of strategy?[13] First, the development of a campaign that rests on effects-based operations must begin with development of a realistic set of strategic goals that could lead to an understood political outcome. In other words, policymakers must have a coherent vision of the strategic outcome towards which the employment of military force must aim in order for planners to think through the potential effects their military actions might achieve. Thus, the processes of policy must develop a coherent and adaptable strategic framework that provides realistic guidance to the joint force commander responsible for developing an effects-based campaign.

In the past, the creation of such a vision has often represented a difficulty that has bedeviled policymakers. And yet without some coherent and intelligent strategic vision towards which policy and military action aim, the results, more often than not, have been disastrous. In 1914 none of the major powers embarked on war with a clear idea of the strategic outcome or the potential cost their societies might have to pay.[14] Once committed, they discovered themselves in a conflict, the cost of which was so horrendous they had no choice but to continue. The immediate political price of admitting that the war had been a mistake was so high that European political leaders simply soldiered on,

risking even greater catastrophe, rather than adapt politically to the strategic and military realities.[15]

It is the political and strategic outcome towards which policymakers aim that must exercise the greatest influence over the development of military actions and effects. As Clausewitz suggests in *On War*:

> The political object—the original motive for the war— will thus determine both the military objective to be reached and the amount of effort it requires. The political object cannot, however, *in itself* provide the standard of measurement. Since we are dealing with realities, not with abstractions, it can do so only in the context of two states at war. The same political objective can elicit *differing* reactions from differing peoples, and even from the same people at different times. We can therefore take the political object as a standard only if we think of *the influence it can exert upon forces it is meant to move.* The nature of those forces therefore calls for study. Depending on whether the characteristics increase or diminish the drive towards a particular action, the outcome will vary [italics in the original].[16]

Nevertheless, the devising of an outcome towards which national policy aims is not enough. Policymakers and military leaders must also develop a realistic understanding of the nature of their opponent if they are to determine a sensible strategic course. What might be the enemy's goals? What are his political, economic, and military strengths? What are his weaknesses? How do his culture and his political system influence the choices his leadership will make? What is he willing to sacrifice in the pursuit of his political objectives? What does history suggest about his potential courses of action? And how will he react to actions taken against him? In effect, such questions must connect effects-based operations to some form of net assessment in devising the strategy, means, and ends equation.[17]

The answers to such questions should certainly have suggested to senior policymakers in 1964 that the United States should not involve its military forces in Vietnam.

And there was evidence available to answer such questions. In 1964 the SIGMA II war game:

> Ultimately . . . predicted that the escalation of American military involvement would erode public support for the war in the United States. Continued political instability in Saigon drew into question the worthiness and dependability of America's ally, and the subtlety of the Communist strategy made it difficult for the U.S. government to sustain the case for military intervention . . . [Thus] SIGMA II questioned the fundamental assumption on which graduated response depended.[18]

But in 1964 and 1965, no one in Washington at the highest levels of strategic or military policy was willing to ask such questions, much less hear the dismal answers that such questions would have elicited.

In the 21st century, U.S. policymakers cannot afford to make such mistakes. If effects-based operations can make a difference in the waging of the American "way of war," then military leaders must have a clear understanding of the outcome towards which their military actions are to aim. If they do not, they cannot design an effects-based campaign. To achieve such clarity, military leaders may well have to engage in extensive discourses with policymakers to force political leaders to clarify their aims as well as the ends and purposes for which they wish to employ military forces.

The Joint Advanced Warfighting Program at the Institute of Defense Analyses is at present defining discourses in its briefings on effects-based operations as: "a continuous exchange of ideas or opinions (with feedback), 1) on particular issues, 2) to seek clarity, and 3) with a view to reaching a dynamic agreement." The nature of the discourses that a joint force commander should conduct will "take many forms," "occur at many levels," "should be ongoing (circumstances and environments are ever changing, so agreements are ever changing, end state is rarely [if ever] reached), . . . should be intellectually rigorous

(encourage debate, require honesty between all participants, create effective feedback loops)."[19]

Such discourses, by their very nature, will not be easy or without considerable pain but in the end, they are the only means by which policymakers and military leaders can connect the political ends and the military means that are available to achieve the national objectives. In the evolution of the strategic framework, military leaders must contribute to the understanding of strategic decisionmakers as to the potential costs as well as the limitations on the employment of force. This understanding is in fact a two-way street, for it is the operational commander, the joint force commander in current parlance, who must also gain a clear understanding of the strategic aim that policymakers seek. And in the end, he must translate the strategic and political outcome for which a war is being fought into its operational context, which in turn will determine how military forces will be used.

This translation of strategy into hard campaign plans that seek the creation of effects to achieve the desired outcome and the execution of those plans in the light of strategic guidance is essential to success in war. The discourses between the military and strategic decisionmakers are the essential heart of the process of developing an understanding of the required effects. Only by such discourses can a real understanding of the strategic framework for effects-based operations be developed. Those at the highest levels must begin by asking sharp and penetrating questions as to the possible strategic and political effects that potential military courses of action might have.

Those discussions must never abandon a recognition that the potential enemy may react differently than expected, or that international opinion may exert an unexpected influence over the course of events; or that chance, as always in human affairs, may exercise its baleful influence. Man lives in an uncertain and ambiguous

universe,[20] where chance can affect the best laid strategic and operational plans for military action in the most disastrous way.[21] Clausewitz best described the importance of the interrelationship between the strategic and the operational in thinking about the future conduct of war:

> war plans cover every aspect of war, and weave them all into a single operation that must have a single, ultimate objective in which all particular aims are reconciled. No one starts a war—or rather no one in his senses ought to do so—without first being clear in his mind what he intends to achieve by that war and how he intends to conduct it. The former is its political purpose; the latter its operational objective. This is the governing principle which will set its course, prescribe the scale of means and effort which are required, and make its influence felt throughout down to the smallest operational detail.[22]

To a certain extent, in thinking through the implications of effects-based operations, strategic decisionmakers and military leaders are solving a complex maze. To do so, like the solver of a maze, they must solve their puzzle by starting at the center with the goals they wish to achieve and then work backwards. It is the thinking through of a clear, understandable outcome that provides the road map for the potential uses of military force that can best achieve effects that will contribute to that end.[23] The greater the war and the commitment, the easier will be the designing of the strategic outcome. By 1941 even the democracies were clear on the strategic outcome they sought from the great war they were waging—the complete defeat of Nazi Germany and Imperial Japan. The clarity of that awesome task made the choice of means—massive mobilization of economies and population as well as the projection of military forces into the depths of the Japanese and Nazi Empires—relatively easy to make.[24]

The great strategic conundrum that confronts U.S. policymakers and military-leaders in the 21st century is both an advantage and a disadvantage. It is unlikely that the potential challenges confronting the United States over

the next half-century will be on the scale of World War II, or even some of the conflicts that marked the Cold War. However, the very ambiguity and uncertainty of future threats will make it that much more difficult for policymakers to develop strategic outcomes that are relevant and acceptable to the majority of the American people. And in this regard, it is worth remembering that virtually the entire Democratic Party in fall 1990 saw no reason for the United States to intervene militarily to reverse Saddam Hussein's rape of Kuwait and his potential threat to the world's oil supplies—a tyrant whose nation was on the brink of achieving nuclear capabilities, which only defeat in the Gulf War was to prevent.

There is, of course, no simple, clear framework for establishing effects-based operations at the strategic level. Rather, the aim must be to establish habits of thought and processes that whether, at the onset of some great crisis or in its midst, policymakers and military leaders have the possibility of asking the right questions. What are America's strategic goals? What should the outcome look like? What kind of political as well as military effects do we need to seek? How might military effects best achieve those political ends? What realistic possibilities are open to the enemies of the United States? How can the nation best react to unexpected courses of action by its adversaries? And how might it best adapt, as the context, whether political, strategic, operational, or tactical, proves resistant to its efforts, or even to rest on faulty assumptions and preconceived notions?

**Operational Net Assessment.**

Slightly over a year-and-a-half ago, Joint Forces Command developed the idea that a crucial enabler for effects-based operations to succeed against an adaptive adversary was something its theorists termed "operational net assessment." Unfortunately, the term has not been provided any significant theoretical examination or even an

historical vetting. Nevertheless, it has come to enjoy widespread currency throughout that command, if not throughout the remainder of the American military, or in the world of intelligence agencies. It was given a rather unsuccessful first examination at the command's UV01 war game in May 2001. Significantly, despite the over 30 years that the Pentagon's Office of Net Assessment has existed under the directorship of Mr. Andrew Marshall, there are no indications that anyone in Joint Forces Command has bothered to check with that office as to the complexities and ambiguities involved in performing a net assessment, much less an operational net assessment. Nor is there any indication that its "theorists" have examined the historical record as to how nations and their intelligence agencies have managed to perform net assessment of their opponents in the past.[25]

Yet, however superficial Joint Forces Command's examination of operational net assessment has been thus far, it has at least made the crucial point that traditional methods of intelligence and battle damage assessment are no longer satisfactory. Simply totaling up the number of tanks, armored personnel carriers, numbers of brigades and divisions, number of fighter aircraft by types, etc., in the traditional order of battle yields little useful knowledge on what matters: the enemy's will and staying power. As the Gulf War against Iraq underlined, all of the best Soviet technology was useless in the hands of ill-trained and prepared conscripts led by an officer corps throughout which Saddam's brutal tyranny squelched every sign of initiative.[26] As in Homer's day, Patrocolus was not the equal of Achilles. Similarly, as the planners in the "Black Hole" intuitively understood before the launching of the air offensive against Iraq's integrated air defense system in January 1991, the Air Force's traditional method of wracking up targets and destroying them one at a time made little sense in the era of precision and stealth.[27] The current interest in conducting effects-based operations suggests that a more sophisticated understanding and

picture of the enemy are required on which to base planning. Again, Joint Forces Command has been correct to emphasize that since the enemy will be by his very nature a complex adaptive system, then operational net assessment demands continuous assessment and reassessment of the enemy, as he changes and adapts to U.S. military actions. Finally, the command has performed a real service in underlining that much more than just military actions must form the equation of operational net assessment: the enemy's culture, his political system, and his economic structure, all are factors of considerable importance in the creation of an operational net assessment. That said, Joint Forces Command has not moved much beyond the placing of interesting ideas on the table for examination. Put simply, its theorists are either incapable or unwilling to examine the full implications of what a true operational net assessment might actually involve. To think through how U.S. military forces and intelligence agencies might actually perform operational net assessments requires an understanding of how difficult such estimates have proven in the past and the difficulties that would be involved in gaining not only deep knowledge of the enemy armed forces, but also the mentality and culture that drive his political processes, as well as motivate those who will fight.

The most fundamental problem is that intelligence agencies throughout the 20th century have proven woefully inept at anything more than counting the numbers and suggesting the technological sophistication of potential opponents. In actual fact, more often than not the numbers have proven largely irrelevant to the actual results. What has mattered have been the intangibles such as the enemy's will and the ability of his military organizations to place competently trained and motivated troops on the battlefield and to provide them with competent guidance at the operational level.

Intelligence agencies consistently have proven either enthusiastic worse casers of enemy capabilities, or all to optimistic on the actual balance of military forces. In the

former case, British strategic policy in the late 1930s foundered not only on the misreading of Hitler's aims by leading policymakers, but on the worst casing of military appreciations by their military advisers.[28] By providing the appeasers with specious worst case arguments about the inferiority of Allied military forces, British and French intelligence ensured the surrender at Munich.

On the other hand, there are even more cases where military leaders and their intelligence agencies have posited optimistic prognostications that actual events soon proved to be depressingly off the mark. German estimations as to the ability of Britain to stand up to miliary pressure in summer 1940 represents a particularly good case. At the end of June 1940, Operations Deputy for the *Oberkommando der Wehrmacht* (armed forces high command) General Alfred Jodl calculated that the war was already won.[29] Two weeks later, *Luftwaffe* intelligence produced an assessment of the RAF's capabilities that was wrong in every single one of its estimates, except for the number of *Spitfires* and *Hurricanes* available to Fighter Command at the beginning of the battle.[30] Eleven months later, German intelligence would get virtually everything wrong in estimating the capabilities of the Red Army and Stalin's regime to resist the Wehrmacht in Operation BARBAROSSA.[31] Americans have been no less susceptible to cultural arrogance and overconfidence; in 1965 the U.S. military had so much contempt for the Viet Minh that had defeated the French in the First Vietnam War that the services paid virtually no attention to the French experience.[32]

But the business of net assessment is not just a matter of underestimating one's potential adversary. It can also result in overestimates of enemy capabilities as well as a general lack of understanding of the enemy's historical and cultural framework. A true understanding of the nature of the enemy and his potential to resist requires a real knowledge of his strengths as well as his weaknesses. In the summer and fall of 1990, U.S. policymakers and military

leaders assessed the strength of the Iraqi regime as lying in its military institutions, and its weak points as lying in the stability of Saddam Hussein's regime.[33] That assessment, as events soon proved, was 180 degrees out of kilter. The miscalculation of Iraqi strengths and weaknesses at the political and strategic levels had a serious impact on the conduct of the war, as well as the armistice that U.S. negotiators accepted in February 1991. Simple military defeat, even of the most catastrophic kind, will not, in the end, result in the overthrow of a ruthlessly efficient political tyranny such as that run by individuals like Saddam Hussein.[34]

One should also not forget that during the prolonged 40-plus years of the Cold War, U.S. intelligence agencies had extraordinary difficulty in estimating the actual military and economic strength of the Soviet Union. In fact, they even failed to pick up the deep difficulties that the Soviet regime had fallen into by the 1980s—so much so that they were not able to predict the collapse of the Soviet system until the actual collapse was well under way. Much of the problem lay in the inability of intelligence analysts, military experts, and policymakers to understand the Soviets from any other perspective than that of the United States. Throughout the period of the Cold War, "mirror imaging" was the bane of the U.S. intelligence system, even though there were indications that the Soviets were running their system under fundamentally different measures of effectiveness and calculations than Americans ran their system.

The Office of Net Assessment in the Office of the Secretary of Defense did struggle against the tide, but in the end, futilely, to bring a more coherent understanding of the Soviet Union. It argued that, if one were really to comprehend what the Soviets were doing, then one had to understand how they actually thought in calculating issues such as the military balance, or the strategic competition with the United States. In 1982 Andrew Marshall noted the following about the Soviet methods of assessment:

> Since the major American objective is deterrence of the Soviet Union from a wide range of activities, a major component of any assessment of the adequacy of the strategic balance should be our best approximation to a Soviet-style assessment. . . . But this must not be the standard U.S. calculations done with slightly different assumptions about missile accuracies, silo hardness, etc. Rather it should be, to the extent possible, using those scenarios they see as most likely and their criteria and ways of measuring outcomes. This is not just a point of logical nicety since there is every reason to believe that Soviet assessments are likely to be structured much differently from their U.S. counterparts. The Soviet calculations are likely to make different assumptions about scenarios and objectives, focus attention on different variables, include both long-range and theater forces (conventional as well as nuclear), and may . . . perform different calculations, use different measures of effectiveness, and perhaps use different assessment processes and methods [in reaching their conclusions].[35]

Marshall's understanding of how to think about net assessment, of course, reflected his thinking over the period of more than a decade at the time. There is no reason to believe that this view has changed over the subsequent 2 decades that he has held the position of the Director of the Office of Net Assessment.

The work that the Office of Net Assessment has performed over the past 3 decades suggests how far Joint Forces Command and the U.S. military actually are from realizing an operational net assessment, which aims not just at a direct, current snapshot, but at a rolling operational net assessment that calculates how military actions from both sides affect the actual military balance in war. The ability to perform an operational net assessment will require a fundamental shift in the cultures and focus of America's civil and military intelligence agencies. An operational net assessment requires more than intercepted and translated messages, overhead satellite imagery, calculations of enemy numbers and dispositions.

Instead, it will require a deep understanding of the enemy's cultural and political framework for making decisions, his underlying religious and ideological motivations, his conception of the military options on the table, and, above all, language competency and historical perspective. If American policymakers and intelligence analysts found it virtually impossible to achieve such an understanding of the motivations and rationale of their Soviet opponent in the relative calm of a Cold War that lasted over 40 years, how much more difficult is it going to be to perform a rolling net assessment of an opponent which most likely has only recently appeared to challenge some major American interest?

The basic requirement for the ability to perform operational net assessment must be a revolution in the culture of intelligence. The knowledge of language, culture, and history are going to be as important, if not more so, than the kinds of expertise that American intelligence has been emphasizing over the course of the last half-century. And U.S. intelligence is going to have to move away from the search for the predictive to an emphasis on a broader, intuitive understanding of potential opponents. As one recent commentator has noted about the difficulties involved in the making of strategy in the 21st century:

> Patterns do emerge from the past, and their study permits educated guesses about the range of potential outcomes. But the future is not an object of knowledge; no increase in processing power will make the owl of history a daytime bird. Similar causes do not always produce similar effects, and causes interact in ways unforeseeable even by the historically sophisticated. Worse still, individuals—with their ambitions, vanities, and quirks—make strategy.... Finally, conflict is the realm of contradiction and paradox.[36]

Thus, it would seem the Joint Forces Command has set for itself a difficult agenda—one that most in the command have yet to fathom.

**Conclusion.**

The problems that confront the U.S. military and the Army in particular are daunting. In a time of revolutionary change, driven to a great extent by technological transformation in the external society, the American military at the same time confronts the trying business of preparing for war and carrying the burden of worldwide strategic responsibilities. There is a real reason why the U.S. military became interested in the concept of a potential "revolution in military affairs" at the end of the Cold War.[37] To a great extent, this situation presents challenges that the American military have never before confronted.

Moreover, the onrush of technology has exacerbated the tendency, always present not only in the American military but American society as well, to dismiss the lessons of the past as irrelevant to the challenges of the future. The problem with such approach is that, since military organizations cannot replicate the conditions of war, the past represents the only laboratory available for understanding the actual conditions under which war will always occur. A recent paper on thinking about joint warfare has commented on the implications of the Prussian victories in 1866 and 1870 in the following terms:

> [T]he adaptation of military method to changing requirements and capabilities is neither automatic nor trivial. At stake are not only expensive and difficult to replace weapons and equipment, but also the ingrained mental sets of soldiers and leaders that will give their behavior in battle. And yet . . . even recognition that change is necessary offers no assurance that competing military institutions will adapt to it in the same way or to equal advantage.
>
> Typically, . . . those militaries that have coped with change most effectively have grasped the future from a firm foothold in the past. What many call military revolutions often turn out on closer examination to have been revolutionary only in retrospect, and then only to their victims. From the

> perspective of those making the changes in question, what was taking place was thoughtful and deliberate adaptation.
>
> The crucial difference between adaptive and revolutionary change, in short, is respect for history. War remains above all a violent struggle between independent and hostile human wills, and the essential dynamics of that struggle, however variable the means by which it is conducted, change as slowly as human abilities, desires and fears. . . .
>
> Respect [for history], however, need not mean imprisonment. In 1866 and 1870, the Austrians and French were trapped by history, the Prussians empowered by it. The difference was in the way history was interpreted, evaluated, and applied. The Austrians and the French, having taken little trouble to study the past, were in no position to gauge the effect of new capabilities on the future. Whereas, the Prussians, steeped in a meticulous examination of war's enduring dynamics confidently could estimate how new tools would alter future military operations.[38]

Those thinking about Army transformation over the coming decade would do well not to forget that the past is crucial to understanding the future of combat, no matter what technological changes may occur.

## ENDNOTES - CHAPTER 1

1. Last year's volume: Williamson Murray, ed., *Army Transformation: A View from the U.S. Army War College*, Carlisle Barracks, 2001.

2. The significant milestone in this effort was *Joint Vision 2010* (*JV2010*) which, whatever its defects, represented a serious effort to push transformation to the top of the services' agenda. But the leading intellectual father of the idea of major transformation was Andrew Marshall, whose Office of Net Assessment first developed the idea of potential revolutions in military affairs and encouraged a wide number of individuals to examine the processes of transformation: See in particular Williamson Murray and Allan R. Millett, *Military Innovation in the Interwar Period*, Cambridge, 1996; MacGregor Knox and Williamson Murray, *The Dynamics of Military Revolution, 1300-2050*, Cambridge, 2001; and Thomas C. Hone, Norman Friedman, & Mark D. Mandeles, *American & British Aircraft Carrier Development*, Annapolis, MD, 1999.

3. "[W]e understood that the first year was about building momentum for transformation and then looking for opportunities to keep building it." General Erik Shinseki, quoted in Jason Sherman, "Momentum, Mo' Money," *Armed Forces Journal*, October 2000, p. 46.

4. For an example of how these processes worked properly to develop the Prussian military machine that devastated its opponents in the Seven Weeks' War against Austria and in the Franco-Prussian War against France, see, particularly, Geoffrey Wawro, *The Austro-Prussian War, Austria's War with Prussia and Italy in 1866*, Cambridge, 1996; and Dennis E. Schowalter, *Railroads and Rifles, Soldiers, Technology, and the Unification of Germany*, Hamden, CT, 1975.

5. As a result of this state of affairs, military organizations receive little feedback on how well they are adapting, or not adapting to the changes in technology and tactics that occur during times of peace. The audit of war, however, suggests that all too often military organizations do not do all that well in the crucial processes of transformation and adaptation.

6. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, ed. and trans., Princeton, NJ, 1976, p. 77.

7. For the continuities and discontinuities in Western military history, see, particularly, Victor Davis Hanson, *The Western Way of War: Infantry Battle in Classic Greece*, Berkeley, CA, 1991; and *Carnage and Culture: Landmark Battles in the Rise of Western Power*, New York: Doubleday; Russell F. Weigley, *The Age of Battles: The Quest for Decisive Warfare from Breitenfeld to Waterloo*, Bloomington, IN, 1991; Geoffrey Parker, *The Cambridge Illustrated History of Warfare: The Triumph of the West*, Cambridge, 1995; and William H. McNeill, *The Pursuit of Power: Technology, Armed Force and Society Since A.D. 1000*, Chicago, 1984.

8. That technological revolution in computers and information systems may represent what historians are now terming a "military revolution"—a revolution so all encompassing and vast in its scope that it changes the entire social, economic, and political landscape within which wars occur. Previously such vast revolutions have included the creation of the modern state, the French Revolution, the Industrial Revolution, the symbiosis of those two revolutions during World War I, and the nuclear revolution in 1945. In these great tidal waves of change, military institutions have no chance to mold or determine the course of the revolution. Only in relatively discrete areas, such as the development of armored, mechanized warfare, or the development of carrier war, have military institutions been able to mold the landscape to their advantage. Historians are now terming such occurrences "revolutions in military affairs." For a further examination of these issues, see MacGregor Knox and Williamson Murray, *The Dynamics of Military Revolution, 1300-2050*, Cambridge, 2001, chap. 1.

9. I am indebted to Lieutenant General Paul Van Riper, U.S. Marine Corps (retired), for the formulation of "bumper stickers and slogans."

10. Clausewitz, pp. 136, 141.

11. The reason for this state of affairs had much to do with the nature of the Cold War's strategic confrontation which was largely framed by the threat of thermonuclear weapons. Thus, the planners, preparing for nuclear war did not have to think very long or very deeply about effects—beyond deterrence—because the extent of direct destruction was going to be so great that second and third order effects would be largely irrelevant.

12. For a discussion of the successes as well as the difficulties involved in the air war against Iraq, see Williamson Murray, "Air War in the Gulf: The Limits of Air Power," *Strategic Review*, Winter 1998; see also Williamson Murray, "Operations," Vol. 2, Report 1, *Gulf War Air Power Survey*, Eliot Cohen, ed., Washington, DC, 1993. See also Barry D. Watts, "Effects and Effectiveness," Vol. 2, Report 2, *Gulf War Air Power Survey*.

13. For the complex processes involved in the making of strategy through the ages, see Williamson Murray, MacGregor Knox, and Alvin Bernstein, *The Making of Strategy, Rulers, States and War*, Cambridge, 1994.

14. Winston Churchill commented thusly on the outbreak of the Great War in his masterful history of that conflict published in the early 1930s: "events got onto certain lines, and no one could get them off again. Germany clanked obstinately, recklessly, awkwardly towards the crater and dragged us all in with her." Winston Churchill, *The World Crisis*, Toronto, 1931, p. 6.

15. In the case of the Germans, in one of the few cases of strategic insight by one of their military leaders, General Eric von Falkenhyn, chief of the Greater General Staff and Prussian War Minister, argued in November 1914 that Germany could not win the war, given the failure of the Schlieffen Plan in September 1914, and that it would be advantageous to make peace sooner rather than later. The German Chancellor, Theobold von Bethmann Hollweg, simply refused to consider the proposal and "informed Falkenhyn that he was prepared to fight to the bitter end, no matter how long it might take." Holger Herwig, *The First World War, Germany and Austria Hungry, 1914-1918*, London, 1997, pp. 116-117.

16. Clausewitz, p. 81.

17. During much of the nearly 5 long decades of competition with the Soviet Union, the Office of Net Assessment in the Pentagon struggled to get the DoD and service bureaucracies to understand the

Soviet Union and its military forces in terms very different from the processes of military and strategic decisionmaking in the United States. That office's noble efforts were rarely marked with success, which should suggest how difficult it will be in the 21st century to perform net assessments, much less "operational net assessments" against nations and entities with whom the United States is far less familiar.

18. H. R. McMaster, *Dereliction of Duty, Lyndon Johnson, Robert McNamara, The Joint Chiefs of Staff, and the Lies That Led to Vietnam*, New York, 1997, p. 157.

19. Joint Advanced Warfighting Program, Institute of Defense Analyses Brief: "Discourses and the Joint Force Commander," December 2001.

20. For a clear depiction of why friction and ambiguity will always remain a basic element in not only the conduct of war, but also of the whole international arena, see Barry D. Watts, *Friction in Future War*, Washington, DC, 1996. Clausewitz commented on the role of chance in war in the following terms: "No other human activity is so continuously bound up with chance. And through the element of chance, guesswork and luck come to play a great part in war." Clausewitz, p. 85.

21. Along these lines, it is worth noting that over the night of February 12/13, 1991, planners in the Black Hole had selected a wide variety of targets to impact on the political stability of the Iraqi regime. One of the targets, a newly operating backup bunker for the secret police, the Al Firdos Bunker, also happened to be the air raid shelter for a number of Iraqis. The resulting collateral damage in bombing the bunker—namely the death of several hundred civilians, most with close connections to the regime—sufficed to end the efforts to destabilize Saddam's regime by striking at its political command and control systems. One last effort to strike the political heart of the regime at the end of February was cancelled by a major storm that swept across Iraq during the last night of the war. For the Al Firdos Bunker incident, see Murray, *Operations*, Vol. 2, Report 1, *Gulf War Air Power Survey,* pp. 206-208.

22. Clausewitz, p. 579.

23. This is not to say that the means will not have to be adapted to the actual situation and enemy against which military action is used. As U.S. Grant notes in his memoirs:

> up to [the Battle of Shiloh], I . . . believed that the rebellion against the government would collapse suddenly and soon, if a decisive victory could be gained by any of its armies. [Forts] Donelson and Henry were such victories. An army of more than 21,000 men was captured or destroyed. . . . But when Confederate armies were collected which not only attempted to hold the line farther south, from Memphis to Chattanooga, Knoxville, and on to the Atlantic, but assumed the offensive and made such a gallant effort to regain what had been lost,

then, indeed, I gave up all idea of saving the Union except by complete conquest.

Ulysses S. Grant, *Memoirs,* Vol. 1, New York, 1885, pp. 368-369.

24. See Williamson Murray and Allan R. Millett, *A War To Be Won, Fighting the Second World War*, Cambridge, MA, 2000.

25. For the historical background as to how net assessment was performed in the 20th century, two titles offer useful historical case studies on how to understand exactly what net assessment has or has not been in the past. See Williamson Murray and Allan R. Millett, *Calculations, Net Assessment and the Coming of the Second World War*, New York, 1992; and Ernest R. May, *Knowing One's Enemies: Intelligence Assessment Before Two World Wars*, Princeton, NJ, 1984.

26. For the nature of Saddam Hussein's tyranny and why there was little possibility of military effectiveness in its military forces, see the penetrating study by Samir al Khalil, *Republic of Fear, The Politics of Modern Iraq*, Berkeley, CA, 1989.

27. See Murray, *Operations*, Vol. 2, Report 1, *Gulf War Air Power Survey*, pp. 95-138.

28. The dismal strategic appreciations of the military balance by the British Chiefs of Staff, and French military leaders as well) provided the Chamberlain government and French political leaders with almost irrefutable arguments in summer 1938 that Czechoslovakia could not be defeated. For an examination of this line of argument and why in actuality the situation was not nearly as advantageous for the Germans as British military planners thought, see Williamson Murray, *The Change in the European Balance of Power, 1938-1939, The Path to Ruin*, Princeton, NJ, 1985.

29. Chef WFA, 30.6.40, "Der Weiterführung des Krieges gegen England"; *International Military Tribune,* "Trial of Major War Criminals," Vol. XXVIII, pp. 301-303.

30. Francis K. Mason, *Battle over Britain, A History of the German Air Assaults on Great Britain, 1917-1918 and July-December 1940, and the Development of Britain's Air Defenses Between the Wars*, Garden City, NY, 1969, Appendix K, OKL, 16.7.40, Operations Staff IC, Intelligence.

31. See Williamson Murray and Allan R. Millett, *A War To Be Won, Fighting the Second World War*, Cambridge, MA, 2000, pp. 115-118.

32. In 1964 the French government, aware that the U.S. Government was about to commit its military forces to combat in Vietnam, provided a copy of its top secret after-action report on the defeat of French forces in Indo-China. That report was not only not

translated, but was consigned to the archives of National Defense University where it remained unread throughout the war.

33. Ironically, there were several works available in the academic world that would have suggested how wrong were the initial estimates of the intelligence agencies and policymakers, but none of them appear to have been consulted. Along these lines, Khalil's brilliant *Republic of Fear* would have underlined that, in every respect, Saddam's regime resembled that of Stalin, and consequently military defeat in the desert would have very little impact on the political stability of the regime.

34. The great error of strategic bombing theorists between the two world wars did not lie in their belief that strategic bombing would have a significant impact on the enemy. In fact, it did. What they entirely missed was the ability of not only dictatorships but democracies to control their populations under the stress of wartime conditions. For the impact of the strategic bombing campaign, see Williamson Murray, "Reflections on the Combined Bomber Offensive," *Militärgeschichtliche Mitteilungen*, Heft 1, 1992.

35. Quoted in Barry D. Watts, "`Thinking Red' and the Art of Net Assessment," Thinking Red in Wargaming Conference, National Defense University, Washington, DC, June 20-24, 1988.

36. MacGregor Knox, "Continuity and Revolution in the Making of Strategy," in *The Making of Strategy, Rulers, States, and War*, Williamson Murray, MacGregor Knox, and Alvin Bernstein, eds., Cambridge, 1994, p. 645.

37. For a discussion of the role of military revolutions and revolutions in military affairs over the course of the past 700 years, see MacGregor Knox and Williamson Murray, *The Dynamics of Military Revolution, 1300-2050*, Cambridge, 2001.

38. Richard Sinnreich and Williamson Murray, "Joint Warfighting in the 21st Century," draft paper, Joint Advanced Warfighting Program, Institute for Defense Analyses, April 2002.

# CHAPTER 2

# THE ARMY, TRANSFORMATION, AND MODERNIZATION, 1945-1991: IMPLICATIONS FOR TODAY

**Colonel Arthur W. Connor, Jr.**

> All modern military history is filled with these records of failure in which a nation places its reliance on one single arm and learns too late that that arm will not suffice. It is a tragic lesson and its message is clear, but to date we have not learned it, for we still find political leaders—and plenty in uniform too—forlornly hoping that we can defend ourselves, save ourselves, by choosing what appears to be the easiest, cheapest way.
>
> General Matthew B. Ridgway[1]

From the end of World War II in 1945 until the collapse of the Soviet Union in 1991, the Cold War dominated American strategy and policy. For the U.S. Army, the Cold War defined its roles, missions, and organizational structure. Prior to World War II, the Army was a small and dispersed force of battalion- and company-sized units, scattered throughout the United States. After the war, the exigencies of a changed strategic landscape dictated a large standing army for the first time in the history of the Republic. Throughout the decades bounded by the Cold War, the Army attempted to transform itself several times and fight several conflicts, all the while searching for the proper organizational structure to meet the nation's threats.

By dividing the Cold War into distinct periods that correspond with the changes in the Army and the nation, it

is possible to examine transformation and modernization. There are several themes that are common to each of these periods and how they relate to the Army, including the impact of national strategy, especially nuclear strategy and the concomitant rise of the Air Force; the impact of budget and the economy; technology and its seductive promise of "cleaner war"; and the endless quest within the Army for relevancy.

Since the end of World War II, the Army has not transformed. Transformation refers to dramatic changes in organization, employment, and/or doctrine that affect dramatically structure and purpose. Transformation is not modernization, although technological advances are important to both. In contrast, modernization is the constant process of upgrading current weapons and weapons systems, vehicles, and the general conventional accoutrements of war needed by every army. Technological advances make it possible to produce rifles that are lighter and more accurate, trucks that can haul more cargo farther and more efficiently, tanks that are deadlier, and artillery that is more lethal and accurate. Modernization is a constant imperative for all armies. The history of the Cold War bears stark witness to an army that evolved slowly and carefully through a series of incremental weapon's modernization programs, minor organization changes, and doctrinal changes. Transformation was not needed, nor is it likely to be needed in the future. It is modernization—the introduction of new technologies and upgrades in command and control and weapon's systems—that is the imperative of the future for the Army if it is to remain viable as the primary instrument of the nation's policy decisions.

Therefore, the period from 1945-91 is important as it illustrates the many variegated issues that affected the Army as it tried to transform and modernize during the Cold War. The implications for the future are enormous, as many of the issues facing the Army and transformation today are the same issues faced in the previous 50 years.

**The Post-War Army 1945-1950: Occupation and Malaise.**

On September 2, 1945, the representatives of the Emperor of Japan signed the surrender documents on the deck of the U.S.S. *Missouri*, ending the most devastating conflict in human history. In commenting after the ceremony, General of the Army Douglas MacArthur was succinct: "We have had our last chance. If we do not devise some greater and more equitable system, Armageddon will be at our door."[2] If Armageddon were to come, it would come, of course, in the guise of nuclear bombs and ballistic missiles. For the U.S. Army in September 1945, however, nuclear warfare with all its attendant complexities was not the most pressing issue. Europe, both victor and vanquished, was in ruins. Japan was equally devastated. The territories of the former colonial powers seethed, while an "Iron Curtain" was inexorably descending on Europe. To fill the void created by the war, the Army embarked on a vast system of military government led by Generals Joseph T. McNarney and Lucius D. Clay in Germany, and Douglas MacArthur in Japan.[3] As it had in the aftermath of all previous wars, the Army looked to demobilize its victorious formations that triumphed from the Rhine to Tokyo Bay and treat the war in many respects, as if it were merely an "Indian raid writ large."[4]

Demobilization was a daunting task. On August 15, 1945, General of the Army George C. Marshall made it the Army's primary mission. From a wartime high of more than 8 million soldiers, the Army mustered only 684,000 troops on July 1, 1947.[5] Underpinning this rapid decline was the assumption by Marshall that Universal Military Training would become law, requiring all young men to spend a year in the service after graduating from high school. Universal Military Training would, Marshall hoped, allow for the rapid expansion of the Army in the event of war. Congress and the budget, however, never provided for the cost of such an expensive system, dooming it and clouding even further the structure of the post-war Army. Most congressmen, like

most Americans, assumed that the days of massed armies were a relic of the past.[6]

In making demobilization its highest priority in 1945, Marshall only was reflecting the wishes of President Harry S. Truman. On September 6, 1945, Truman sent Congress eight specific policies he intended to follow in reestablishing the peacetime functions of the nation. The first policy listed is instructive: "Demobilize as soon as possible the armed forces no longer needed."[7] Truman merely was reflecting the mood of most Americans. The real question that remained unanswered was the last part of the policy—"forces no longer needed." To demobilize effectively and retain those forces needed to affect American security aims, the second half of the policy must precede the first. Without knowing what armed forces were needed, more accurately what the national security strategy was, there was no way to judge which forces to demobilize, and which to retain.

From the beginning of the post-war demobilization, Truman faced continuous domestic pressure to "bring the boys home," even while Army strength dropped precipitously. From September 1, 1945, through June 30, 1947, the number of Army divisions fell from a war-time high of 89 to just 12. A year later the Army could muster only ten active divisions on its rolls.[8] Truman and Congress received numerous letters and telegrams pleading for the release of soldiers every day.[9] Even the soldiers themselves, fresh from victories in Europe, gathered in town squares protesting their retention in service. To General Matthew Ridgway, such "disgraceful exhibitions" undermined discipline and caused him nothing but anger and disgust.[10] Disgraceful though they may have been, the soldiers only reflected the desires of the American public to demobilize even faster. Despite his misgivings, Truman empathized with "parents still waiting for their sons, and with the wives and children longing to see their husbands and fathers again."[11] Domestic politics overshadowed any careful examination of the proper size and mission of the post-war

Army by ensuring the demobilization would be frenetic. The failure of Congress to consider funding Universal Military Training exacerbated the difficulties.

Despite the seemingly chaotic activity associated with demobilization, the Army had a sizable task to perform in occupying Germany and Japan. As demobilization played havoc with the divisions and units still on active duty; the Army formed the U.S. Constabulary force from the remaining units in Germany to execute law enforcement responsibilities and to support civil authorities.[12] In Korea and Japan, demobilization had equally deleterious effects. Of the three divisions sent to Korea in 1945, two were deactivated and the third was sent to Japan in 1948, leaving only a military advisory group on the peninsula. In Japan, the 1st Cavalry Division operated at only 25 percent of its authorized strength during its first year of occupation duty, with minimally trained teenagers coming to the division as replacements.[13]

Overwhelmed with demobilization and occupation duties, the Army nonetheless tried to capture the organizational and tactical lessons of the war. The European Theater of Operations established the General Board to examine all aspects of the Army's experience. Its committees focused on the division, with three types recommended for retention in the Army: infantry, armored, and airborne. Over the next 3 years, various conferences, committees, general officers, and the Army staff all tinkered with divisional organizations. In 1948, the Department of the Army published the new tables of organization for each of the three divisional types.[14] The end result was an Army that looked much like its World War II counterpart, equipped with the same weapons, though undermanned, and looking to a future in which it seemed increasingly irrelevant.[15] The newly achieved independence of the Air Force and unification of the Armed Forces in 1947 only served to reinforce this seeming irrelevance.

As the Army continued to help in rebuilding Germany and Japan, Truman faced the harsh reality of Soviet designs in Europe and elsewhere in the world. George Kennan's "long telegram" of February 1946 forced the U.S. leaders to confront their failure to provide a national strategy. Just over a year later, on March 12, 1947, the Truman Doctrine was born with the proclamation by the President that "it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or outside pressures."[16] Yet, how was the United States to do this, when the Army would continue to demobilize through June of that same year? At the same time Truman, a fiscal conservative, was steadily reducing the financial resources available to defense. Defense expenditures declined from $81.6 billion in 1945, to $44.7 in 1946, to a paltry $13.1 billion for 1947.[17] Faith in the Air Force and America's nuclear monopoly allowed Truman to dwell in an unreal world of flawed policy, while the Army continued an inexorable slide into oblivion.

With a dearth of funding and no draft to replenish its ranks, the Army numbered only 538,000 soldiers on June 30, 1948. Congress reluctantly passed the Selective Service Act of 1948, but a difficult budget battle increased Army end strength by only 100,000 troops. With U.S. policy fixed on atomic power, Secretary of Defense Louis Johnson continued to cut defense expenditures below the ceiling set even by Truman for 1949.[18] Johnson's actions precipitated the "Revolt of the Admirals" when he canceled the aircraft carrier *United States*. But his cuts also affected the Army. Facing reality, Army Field Forces Headquarters issued reduced Tables of Organization and Equipment, cutting division strength by a third. The 2nd Infantry Division at Fort Lewis, Washington, numbered only 12,000 men in 1949, but kept every unit in existence by making across-the-board reductions, while overseas commands cut one battalion per regiment.[19] In essence, Truman's contradictory military and foreign policies forced the Army to eat itself. As the 1940s ended, the Secretary of the Army

still considered occupation as the organization's biggest single task. Many problems remained unresolved, including serious shortages of modern equipment and a nonexistent research and development program.[20] World events would not wait for the Army to fix these problems.

**The Shock of the Korean War: 1950-53 .**

When North Korean forces crossed the 38th parallel on June 25, 1950, the U.S. Army numbered 591,000 soldiers out of an authorized strength of 630,201, organized in ten divisions.[21] Containment as a national policy was limping badly, and Truman himself sensed this many months prior to the invasion of the South by the North Koreans. In response to the Soviet Union's explosion of a nuclear device, the victory in China by the communists led by Mao Tse-Tung, and the rising tide of anticommunist sentiment in the Congress, Truman directed the Secretaries of Defense and State to reexamine U.S. objectives and plans on January 30, 1950. The resulting document, National Security Council (NSC)-68, was a watershed in how the United States would prosecute the Cold War.[22] When NSC-68 arrived on Truman's desk in June 1950, it recommended large increases in defense spending to build up the American military and allies in order to balance the Soviet Union's growing world power and ambitions. Characteristically, Truman refused to allow publication of the document and decided to wait until after the November elections before approaching Congress with any budget increase.[23] Truman chose to equivocate; the North Koreans did not.

During the first few days of fighting, the United States struggled to respond. In Washington, Matthew Ridgway observed that senior military and civilian officials hoped air and naval forces alone could contain the North Koreans. The "bright delusion" of scaring the North Koreans with an air and naval display quickly collapsed as the Republic of Korea (ROK) Army crumbled under the hammer blows of

the enemy's far more numerous tanks and better prepared infantry.[24] In Korea, MacArthur cabled Washington in the early morning hours of June 30, asking to commit two divisions to the fighting. Truman authorized the movement of a regimental combat team to Korea immediately, while acceding to MacArthur's full request later that morning.[25] Task Force Smith led the U.S. Army's effort to stop the North Koreans in early July 1950—with disastrous results.[26]

The commitment of this under-strength task force was not the product of rational analysis of the capabilities of the Army in Japan to stop the North Koreans, or a testament to its readiness and ability to deploy quickly. It was, in fact, born of the desperation of domestic politics. American politics in the Spring of 1950 was "infected by [a] sense of betrayal" and by an ugly national mood of the fear of communist conspiracy. Senator Joseph McCarthy of Wisconsin was leading the charge to find communist collaborators at all levels of the government and bureaucracy. Faced with charges that the Democrats had "lost" China to Mao, the explosion of an atomic bomb by the Soviets in August 1949 and their boldness in blockading Berlin, and the convictions of Alger Hiss on perjury and Klaus Fuchs on passing atomic secrets to the Soviets in early 1950, Truman had no choice but to commit America to the defense of Korea.[27]

While the personnel decreases inherent in the penurious defense budgets of the years 1945-50 ended with Task Force Smith, there were many other problems that were not as visible. The most serious problems facing the Army at the start of the Korean War were the twin issues of supply and training. There had been no Army modernization or transformation in the 5 years after World War II; only an attempt to refine the divisional organizations developed during the war, while concentrating on demobilizing the Army during the occupation. Army procurement stopped in 1945 with the exception of food, clothing, and medical supplies. Units had to operate with equipment left over

from the war despite increasing obsolescence. Maintenance became problematic as the Army failed to procure repair parts, leaving equipment of all types in a deplorable state of disrepair. Reductions in personnel and facilities allowed only for minimal maintenance on most equipment, while budgetary restrictions reduced the amount of spare parts and assemblies available. Of the 3,202 medium "Sherman" tanks in the United States in 1950, 1,326 were unserviceable. The vast majority of the Army's motor transport was 6 or more years old, with conditions even worse in Eighth Army in Japan.[28] Since the end of the war, Far East Command had received no new equipment of any kind, including tanks and vehicles. Authorized 221 recoilless rifles, Eighth Army fielded only 21. While 13,780 two-and-a-half-ton trucks were on hand, only 4,441 were in running condition; of the 18,000 "jeeps" in the command, 10,000 were unserviceable.[29] Equally distressing, however, was the state of other classes of supply in the theater.

Ammunition of all types was in short supply, and stocks were out of balance. The vast quantities of ammunition remaining from World War II rapidly declined from training requirements, transfers to allies, and normal deterioration. Since penurious budgets prevented new ammunition acquisitions, there were inadequate amounts of most types.[30] Artillery ammunition, in particular, was always in short supply throughout the Korean War, especially in the last 2 years. As Ridgway (and later General James Van Fleet) emphasized, American firepower was the major counter to the massed attacks of the Chinese Communist Forces. It was not unusual to have numerous artillery battalions firing simultaneously in support of beleaguered U.S. and United Nations (U.N.) soldiers. One battalion fired 11,600 rounds in a 12-hour period, a rate of one round per howitzer per minute. Ammunition for heavy artillery battalions was always insufficient and had to be rationed; this forced commanders to build special ramps for tanks so that they could fire their main guns as artillery.[31] While ammunition was a problem, the lack of training in the

combat units fighting the war was an even bigger problem. The sad tales of the 8064th Heavy Tank Platoon (Provisional) and the 8066th Mechanized Reconnaissance Platoon (Provisional) reflect both the training and equipment problems facing Eighth Army.

Desperate to get some armored force into the fight in Korea to counter the North Korean T-34 tanks, Eighth Army formed the 8064th and 8066th platoons on July 10, 1950.[32] During the nearly 5 years of occupation duty, Eighth Army turned in all of its M-4 "Sherman" medium tanks and reduced the tank battalion of each division to a single company of 17 M-24 "Chaffee" light tanks. When the M-24 tanks proved to be of dubious value in fighting the North Korean T-34s, Eighth Army scoured its depots and found three M-26 "Pershing" heavy tanks. All three tanks suffered from a variety of mechanical problems after 5 years of neglect. Desperate for anything that could stand up to the North Korean tanks, it was decided to rebuild the Pershings, form them into a provisional tank platoon (the 8064th), and crew them with men from the tank company of the 1st Cavalry Division. Additionally, another provisional unit, the 8066th, was formed from men out of Kobe Base, Japan, who had previous armor experience. The platoon consisted of five M-8 "Greyhound" armored cars used by the military police in Tokyo for crowd control. The 8066th arrived in Pusan in the middle of July, with the 8064th following on July 16, 1950.

The 8064th Heavy Tank Platoon went into combat almost immediately, moving northward from Pusan by rail to Chinju in the southern sector of the now rapidly diminishing U.N. perimeter. Arriving at the station in Chinju at 0300 on July 28, the tanks' engines overheated immediately, as their fan belts stretched out of shape after running only a few hours. Since there were no M-26 fan belts in theater, attempts were made to fabricate new belts in Japan. After 3 days, all efforts failed, and Eighth Army ordered the tiny force out of Chinju and back to Pusan. Unfortunately, the North Korean 6th Division beat the

evacuation train into town, forcing the 8064th to fight its way out. After a brief fire fight, the tankers abandoned their overheated machines, leaving 13 men killed or captured.

The 8066th Mechanized Reconnaissance Platoon suffered a similar fate only 2 days later. Attached to the 1st Battalion, 29th Infantry Regiment, the 8066th was ambushed while participating in a reconnaissance in force westward from the village of Chungam-ni back toward Chinju on August 2, 1950. The North Koreans destroyed four of the five armored cars of the platoon and killed the platoon leader.

The two provisional platoons led an evanescent life in combat in Korea. They were the product of a desperate command seeking a solution to the North Korean armored threat. Hastily organized, operating equipment they had never trained on, and haphazardly committed to combat, the 8064th and 8066th failed to achieve even a modicum of success, despite the heroics of individuals. A provisional tank battalion was formed in August, and the Army scoured the old Pacific battlefields in search of any Sherman tanks left over from the war. The 70th Tank Battalion, formed at Fort Knox, Kentucky, actually equipped its C Company with M-26 Pershing tanks sitting on concrete pedestals around the post. All of these problems, and the wastage of men and materiel, were due to the hasty nature of the post-war demobilization.

Building a tank requires a long lead time. Thousands of parts must be manufactured and assembled. Specialized tools and dies are required, as are skilled engineers and workers. Because of the extensive time required to retool and reenergize American tank production during the Korean War, more troops were using the World War II vintage Sherman tank than the newer M-46 "Patton" as late as October 1952. The M-46 was not a new tank from the ground up. It was simply a new turret mated to existing M-26 hulls. Had the Army not been in the process of converting 800 M-26s into M-46s, it is likely that only World

War II era tanks would have reached the battlefield prior to 1953.

Throughout the 5 years preceding the Korean War, the time and quality of basic training provided to the incoming Army private fluctuated wildly depending on funding levels. At the end of World War II, a 17-week training cycle was standard. Within a year, this had dropped to 8 weeks, followed by another temporary cut to a mere 4 weeks in November and December of 1946, as the Army struggled to fill overseas occupation units. In May 1947 the cycle increased to 13 weeks, only to fall once again to 8 weeks less than a year later.[33] The training cycle in the years prior to Korea caused considerable upheavals in the training and readiness of all Army units. Adding to the training deficiencies was the lack of live-fire training. Immediately following the end of World War II, General Jacob Devers, Chief of Army Field Forces, suspended all unit live-fire training, even though the Army had a well-developed, wartime tested series of live fire exercises for squads, platoons, and companies. His rationale, and that of his successor, General Mark Clark, was simple: safety. Safety was a greater concern to the Army's peacetime leaders than training readiness. A mere 12 days after Task Force Smith's destruction, the Army reconstituted live fire training.[34] With the safety of peacetime shattered and the Korean War seemingly validating the tenets of NSC-68, the fiscal restraint of the Truman administration became another casualty. For the Army, innovation and desperation reigned as it struggled to get trained units and more equipment into the fight.

The first order of business was to fill the divisions fighting in Korea, while providing MacArthur the reinforcements needed. The Army evolved a simple strategy: fill the divisions fighting as quickly as possible, while rebuilding the general reserve to meet threats that might arise elsewhere. Eighth Army came up with a similar solution. It cannibalized the 7th Infantry Division both of people and equipment to fill out the three divisions fighting

in Korea. With the Army staff unable to send sufficient replacements to the Far East to replace the heavy losses in the initial fighting, the Army assigned South Koreans to each division. As the fighting increased, MacArthur asked for more and more troops. He received the 2d and 3d Infantry Divisions, the last two divisions in the General Reserve, from the United States. The Army continued to expand piecemeal, and asked for and received permission from Truman to federalize four under-strength National Guard divisions in August 1950. It was not until the Chinese intervention in November 1950 that the President declared a national emergency. Within a year-and-a-half of the war's outbreak, the U.S. Army doubled in divisions from ten to twenty.[35]

Ultimately, the Army mobilized nearly three million men, stopped the combined North Korean and Chinese armies, restored the *status quo ante bellum*, and continued to defend against other threats, most notably in Europe. There was, however, little in the way of transformation or change in the Army. Instead, it adapted the weapons and tactics of World War II to the enemy and terrain of Korea. The division itself changed little, and the tactical innovation of the first year of the war gave way to the enervating tactics of firepower dominance in the positional warfare of the last 2 years of combat. The only real change occurred in a personnel rotation policy that moved individuals rather than units out of Korea. The program, designed by the Army to share the combat burden, did keep experienced staffs in Korea, but left platoons, companies, and battalions bereft of cohesion or *esprit de corps* as soldiers rotated in and out. The average tanker and infantryman rotated back to the States after 9 and 10 months respectively, while service support troops could stay as long as 18 months.[36]

As the war ended in 1953, so too did the Truman administration. For 5 years following the surrender of Japan, Truman tried to wage a Cold War by starving the Army and relying on atomic supremacy. The shock of the North Korean invasion of the South itself was not enough to

loosen Truman's grip on the economy—only the intervention of the Chinese in the war could do that. The end result was a gigantic rearmament program—the building of the hydrogen bomb, many different types of lesser atomic weapons, new supercarriers, the B-52 bomber, and missiles of all types.[37] The Army spent the years 1945-53 in demobilizing initially, occupying Germany and Japan, expanding during the Korean War, reinforcing Europe, and, finally, fighting a limited war. At no time, however, did the Army seriously contemplate more than minor changes to its organization or approach to war. The official position was that there was no need for doctrinal changes.[38] Bereft of ideas and the desire to change, the Army entered the mid-1950s facing the same issues that were extant in the mid 1940s.

**An Uncertain Trumpet: The Pentomic Army, 1954-1960.**

The inauguration of Dwight D. Eisenhower ushered in the end of the Korean War and another national military strategy based on the atomic bomb and airpower. If anyone in the Army hoped for a more sympathetic attitude towards its problems, they were dashed almost immediately by the administration's announcement of the "New Look" defensive policy. Despite reservations from the Army, the Eisenhower administration formalized its policy in July 1953 when it issued NSC-162.[39] There was nothing really that new about the New Look. The basic structure of the policy was an expanded strategic air force and reliance on technology, which allowed for a severe reduction in conventional forces. Reductions in conventional forces also meant lowered defense costs and savings to the nation. To Eisenhower it was simple. "If we should proceed recklessly and habitually to create budget deficits year after year, we have with us an inflationary influence that can scarcely be successfully combated. Our particular form of economy could not endure."[40] Eisenhower was convinced that the kind of force he led across the channel in 1944 offered no use

whatsoever in the world of the atomic bomb. "Now, our most valued, our most costly asset is our young men. Let's don't use them any more than we have to," he told the *Washington Post*.[41]

For the senior leadership of the Army, the lessons and hardships of the Korean War seemed not to matter. When he presented his first budget as Army Chief of Staff to Secretary of Defense Charles E. Wilson in 1953, Ridgway had an epiphany: "[The] military budget was not based so much on military requirements, or on what the economy of the country could stand, but as on political considerations."[42] This is a timeless and important observation that is just as true today. Political considerations, both domestic and external, will always supersede any logic for force structure requirements, especially for the Army. Only the requirements of a "hot war" dull the tendency to find economies in the unglamorous and seemingly nonstrategic role the Army plays in American security. Once the war is over, however, the long knives of the bureaucrat and politician return to carve away excess "fat." To General Maxwell Taylor, now commanding Eighth Army in Korea, the ultimate effect of the Korean War was not to show the weaknesses inherent in the reliance of the United States on airpower and atomic weapons, but just the opposite. Faith in "atomic airpower" was strengthened, not reduced. To Taylor, the New Look was little more than the old air power dogma set forth in Madison Avenue trappings.[43] How would the Army respond?

Facing another series of seemingly endless cuts with no apparent role in national strategy other than civil defense, tested Army leadership. The Army ended the Korean War with 20 divisions and 1.5 million men. By 1955, however, Army strength was 1.1 million, dropping steadily to 859,000 and 11 combat divisions during the last year of the Eisenhower administration.[44] During his 2 years as Chief of Staff, Ridgway fought against large troop cuts by arguing that U.S. commitments to the nascent NATO, South Korea,

and other allies precluded the types of reductions sought by the administration. The French crisis at Dien Bien Phu in the Spring of 1954 gave the New Look its first real test. Sending in an Army survey team, Ridgway argued that five to ten divisions and billions of dollars in infrastructure improvements would be needed to fight and defeat the Viet Minh. The Army did not have that combat force ready in the United States, and Eisenhower was unwilling to drop atomic weapons.[45] Despite the apparent failure of the policy of massive retaliation, the Army budget continued to shrink as did Ridgway's influence. By the end of his 2 years as Army Chief of Staff, Ridgway was *persona non grata* in the Eisenhower administration. His replacement, Taylor, brought a sophistication and understanding of the Washington political landscape his predecessor lacked. He also brought a determination to keep the Army in the public eye.

As Chief of Staff, Taylor faced the mounting problem of an Army with an image problem. The seemingly indecisive nature of the Korean War only further worsened the public opinion of the Army. Taylor decided the olive-drab uniform, worn since World War I, had to go. After a series of "fashion shows," Taylor decided to field a new Army green uniform.[46] An Army spokesman predicted that the newly clad soldier could "appear beside the other services without apology for his appearance."[47] Uniforms, however, were the least of the Army's problems, but Taylor's efforts at least signaled that changes were coming for the senior service. A more tangible effort came immediately from Taylor in the form of a paper entitled "A National Military Program" in which he outlined his ideas that came to be known as "Flexible Response." Taylor proposed giving the limited war forces (the Army and, to a lesser extent, the Navy and Marines) equal priority with the nuclear deterrent forces (the Air Force, specifically the Strategic Air Command).[48]

Taylor presented his program to the Joint Chiefs of Staff in March 1956. It was promptly ignored and led the chairman, Admiral Arthur Radford, to propose his own

program calling for radical reductions in the strength of the Army. Embracing fully Eisenhower's policy of massive retaliation, Radford proposed reducing the Army to 575,000 men, leaving most of the ground combat to the Marines and American allies.[49] Radford's proposal simply fit the outcome of the spring 1956 3-year examination of defense requirements initiated by Wilson. While calling for sufficient deterrence to counter the growing Soviet nuclear arsenal, the study also called for a defense budget ceiling of $38 billion for the next year's budget. By making drastic cuts in personnel in the Army, Radford sought to meet this ceiling.[50] Taylor, faced with these reductions, embarked on an interesting and somewhat disingenuous course of action.

Prior to becoming Chief of Staff, Taylor forwarded a copy of his ideas on flexible response to the Army staff. The document made it into the hands of a small group of five colonels in the Operations Directorate who embraced the Taylor position. The group divided themselves into an "inside team" led by Brigadier General Lyal Metheney, responsible for informing the Army on the aspects and implications of Flexible Response, and an "outside team" led by Colonel George Forsythe, responsible for being Taylor's and the Army's media watchdogs, bringing the Army message to the public and Congress.[51] While Taylor battled with Wilson, Radford, and Eisenhower on the proper role and mission of the Army in official channels, Forsythe and Metheney battled on other fronts. The members of the "colonel's revolt" knew they were on their own but enjoyed the tacit support of Taylor, who emphasized that he wouldn't know them if they were ever uncovered.[52] The first volley from the clandestine group came in the form of a "leak" to Anthony Leviero of the *New York Times*. On July 13, 1956, Leviero published an article detailing the Radford plan and its massive personnel cuts, as well as the reduction of Army units in Germany to small atomic task forces.[53] The resulting uproar in Europe over the implications to NATO in the Radford plan caused Eisenhower to scrap any idea of

reducing the Army to a mere civil defense force, and saved the Army temporarily. Taylor knew he had to do more.

Before he left his post as Chief of Staff, Ridgway started the Army on the path towards its first real transformation since World War I. In April 1954 he directed the development of smaller, more mobile divisions that were capable on the nuclear battlefield. The study, Atomic Field Army (AFTA-1), was ready by the fall of 1954, and tested throughout the next 2 years. Instead of creating smaller units, however, all of the recommendations from the field actually called for larger divisions than those of post-World War II.[54] Discarding AFTA-1, Taylor seized upon the work done at the U.S. Army War College entitled "Doctrinal and Organizational Concepts for Atomic-Nonatomic Army During the Period 1960-1970," PENTANA for short. The PENTANA concept called for small, 8,600-man divisions that were built around five small self-sufficient battle groups. Taylor approved the study in June 1956, and used the newly reactivated 101st Airborne Division as the test bed.[55] Showing his appreciation for the nuances of the political and social climate, Taylor conjured up the "Madison Avenue adjective, 'pentomic,'" to describe the changes to the division.[56]

In September 1956 the 101st Airborne was organized under the pentomic concept, and by December 1956 the Army recommended reorganization of all divisions to both the Secretary of Defense and the President.[57] After a series of unit evaluations, the new design was considered suitable for short duration, and the Army embarked on its most ambitious reorganization since the start of World War I. Over the next 4 months, new tables of organization and equipment were designed and issued, and Taylor himself visited the school commandants to discuss and sell the reorganization.[58] With a glamorous new name for its divsions, Taylor began his second major effort to make the Army more relevant when he created the Strategic Army Corps (STRAC), centered around the XVIII Airborne Corps, the newly formed 101st Airborne Division, and the 82d

Airborne Division at Fort Bragg, North Carolina. STRAC was a mobile reserve for use supposedly on a moment's notice and maintained at a high state of readiness.[59] New divisions and a new strategically employable corps were not enough, however.

Facing a Congress and nation fascinated with all things atomic, Taylor directed the Army to embrace atomic technology. New divisions still did not make the Army budget more glamorous or more palatable, whatever Madison Avenue labels were attached. Earlier, Wilson returned the Army budget to Taylor, directing him to substitute "requests for newfangled items with public appeal," instead of much needed small arms, trucks, and tanks.[60] Accordingly, Taylor embraced the development and employment of tactical nuclear weapons and delivery systems along with missile technology. Soon Army literature was filled with ideas like the convertiplane and flying platforms for the individual soldier. In a briefing on May 12, 1956, by the Army staff to Taylor, he directed the Commander of Continental Army Command to develop an atomic capability for direct support artillery, because it was "increasingly difficult to visualize a general war without the use of tactical atomic weapons."[61] To Taylor the move was clear, given the climate in Washington and the nation. "Nuclear weapons were the going thing, and, by including some in the division armament, the Army staked out its claim to a share in the nuclear arsenal."[62] There was a tremendous price to pay, however, for this move toward atomics, and it came in conventional weapons modernization.

By embracing missiles and battlefield nuclear weapons, Taylor was relegating conventional modernization to the bottom of the Army priority list in the 1950s. Under the guidance of Lieutenant General James Gavin and the engineering team of Werner von Braun at Redstone Arsenal in Alabama, Army missile technology was second to none. A massive continental air defense program gave the Army some relevance, but caused bitter inter-service fighting

with the Air Force over the control of missile technology. At the end of June 1959, there were 62 surface-to-air missile battalions on site around various cities and key installations in the continental United States alone.[63] While the Army won some and lost some of these inter-service battles, the real impact was to see even more of the Army budget drained away from modernization programs.[64] Battlefield atomic weapons also contributed to the Army budget drain. In May 1953, the Army fired a small nuclear shell from the 280-mm cannon and immediately began production of the weapon. Throughout the 1950s, the Army deployed nuclear cannons to Europe even though they were obsolete as soon as they arrived. Weighing 83 tons, the cannon could not be airlifted and took two tractors to move its road-bound bulk. It was a glamorous weapon to be sure, but it did not fit into the Pentomic structure of the Army, and it siphoned off precious funding that the Army desperately needed for modernization.[65]

As the 1950s and the Eisenhower administration came to an end, so too would the Army's great stillborn transformation, the Pentomic Era. Despite the Madison Avenue labels, exciting developments and accomplishments in missile technology, atomic cannon, and even nuclear tipped rockets, the size of the Army continued to decline. Budgets never increased sufficiently, making the Army choose between modernization and transformation. The Army of 1959 was not mechanized, and most soldiers still carried the World War II era M-1 Garand rifle, even though the more modern M-14 was available. In 1957, the Army devoted more than 43 percent of its research and development budget to missiles and nuclear weapons and only 4.5 percent to new vehicles.[66] Conventional weapon and equipment modernization, though desperately needed, could not take place in conjunction with the transformation to the Pentomic design without additional infusions of cash that were not to come from the Eisenhower administration. The end result was an Army more unprepared for limited war than the one Taylor inherited. A fixation with

technology, and rapid organizational changes without possessing the requisite weapons and equipment, was the legacy of the Pentomic era. Changes in Washington were coming, as were changes in the Army.

### The ROAD Army and the Coming of Vietnam, 1961-75.

> I am directing the Secretary of Defense to undertake a complete reorganization and modernization of the Army's divisional structure, to increase its non-atomic firepower, to improve its tactical mobility in any environment, to facilitate its coordination with our major allies, and to provide modern mechanized divisions in Europe and new airborne brigades in both the Pacific and Europe.

So spoke President John F. Kennedy on May 25, 1961, to a joint session of Congress.[67] Embracing the ideas of Taylor and Flexible Response, Kennedy eschewed the Massive Retaliation policy of the Eisenhower administration. The Army was ready. In January 1959 General Bruce C. Clarke, commanding general of Continental Army Command, directed the start of a new study, Modern Mobile Army 1965-70 (MOMAR I). Clarke wanted a design that was capable of fighting anywhere in the world in a nuclear or non-nuclear environment. MOMAR I increased tactical mobility and maneuverability, as well as greater conventional firepower in the division.[68] Optimized for limited war, the forces envisioned under the MOMAR were capable of applying graduated combat power as events dictated from "a fist to a megaton." One of the key features of the MOMAR I field army was the inclusion of separate completely air transportable brigades. These brigades were to be multi-capable and transportable on a minimum number of air force strategic lift aircraft to anywhere in the world in a matter of hours. There were two division designs, medium and heavy, with the medium division also designed to be air transportable.[69] MOMAR I met resistance within the Army and was never tested or adopted, but it served as a

reference point for the next phase—Reorganization Objectives Army Division (ROAD) 1965.

The ROAD concept was approved quickly by the Secretaries of the Army and Defense, followed by Kennedy's approval and announcement of the changes in May 1961. The basic features of the ROAD concept were a common division base, three brigade headquarters, with battalions added in a building block fashion.[70] For the first time in its history, the U.S. Army would field a truly mechanized division that could rapidly assemble and disperse on both the conventional and nuclear battlefield. The three brigade headquarters reflected the influence of the old armored division combat command and had no units permanently assigned. Brigades could control two to five maneuver battalions, and this inherent flexibility meant that the division could task organize brigades and battalions as it saw fit. Although there was some criticism that the ROAD division was too flexible, the Army approved the design without testing. It concluded that the concept was merely a return to a wartime proven design.[71] The ROAD division was merely the logical evolutionary successor to the World War II armored division structure.[72] The only true transformation of the Army since the end of the Second World War, the Pentomic Division, was dead. International events, however, would keep the Pentomic formations alive for a few more months, launch a major transformation with the helicopter, and prove the soundness of structuring the Army to fight non-nuclear wars.

In May 1961 conditions in Laos and South Vietnam deteriorated to such a degree that a presidential task force set up to analyze the situation recommended a massive increase in U.S. forces in South Vietnam. In Laos, Secretary of State Dean Rusk recommended preparations for military action as part of the South East Asian Treaty Organization (SEATO) to defend Indochina. The SEATO plan called for 30,000 combat troops from the treaty signatories, but both Britain and France had no intention of sending troops. Facing increased Soviet intransigence in Berlin, Kennedy

opted not to send any more troops to Southeast Asia.[73] The Army, structured to fight on the nuclear battlefield and suffering from the deleterious effects visited on it by the "New Look," was in no position to operate in Vietnam and in Europe simultaneously, where Soviet Premier Nikita Krushchev once again threatened the security of Berlin. On August 13, 1961, Berliners awoke to find a barbed wire barricades separating the Soviet sector from that of the three Western Powers. Concrete, guard dogs, watchtowers, and land mines followed quickly, as the Iron Curtain took physical form in the historic capital of Germany. The limits of massive retaliation were tested once again, with the Kennedy administration finding their options unpalatable.[74] The need for an Army capable of flexible operations in limited wars became paramount. The Pentomic Army lacked flexibility in its small, untested, tactically immobile battle groups.

On July 25, 1961, JFK asked Congress for additional funding to bring the understrength pentomic divisions up to strength and modernize their equipment. In response to the crisis in Berlin, Robert McNamara authorized the five divisions posted to Europe an additional 1,000 soldiers each, allowing them to finally mechanize completely with armored personnel carriers. Additionally, new M14 rifles replaced the venerable M1 Garand, the new light machine gun M60 made its way to Europe while the production of the M60 main battle tank accelerated.[75] A major deficiency was rectified in the Pentomic divisions with the fielding of the armored personnel carriers, but the divisions were still weak. The Army now modernized with zeal, a process impossible when it transformed to the Pentomic structure just 5 years prior. Although ready to implement the reorganization of its divisions to the ROAD structure, it was not prudent to try and convert in the midst of crisis. Accordingly, McNamara approved the activation of two new Regular Army divisions in January 1962 and delayed the conversion of the rest of the Army until early 1963. On February 3, the 1st Armored Division activated at Fort

Hood, and 2 weeks later the 5th Infantry Division activated at Fort Carson. The discovery of Soviet missiles in Cuba 3 months later caused 1st Armored Division to move to Fort Stewart where it had access to the port of Savannah. "Old Ironsides" conducted a series of amphibious exercises throughout the fall, serving notice that the revitalized ROAD Army was indeed an effective instrument of national policy. The remainder of the Army reorganization was complete by May 1964.[76] A changed national security strategy, coupled with the impetus of international crisis, exposed the weaknesses of the Pentomic Army.

Although the ROAD concept was a return to the traditional divisional concept of World War II and Korea, it was different in scope and structure making it relevant for the 1960s and beyond. The modernization program so desperately needed by the Army accelerated in tandem with the ROAD reorganization. Choked off from money and personnel the previous 10 years, the Army gained strength, tactical mobility, firepower, and relevance in the Cold War arena. In two other areas of major importance, counterinsurgency and air mobility, the Army also advanced. On November 30, 1961, Kennedy summoned all of the Army's major commanders to the White House for an extraordinary summit on counterinsurgency. "I want you guys to get with it," Kennedy admonished the Army officers. Most Army officers thought that the Army could handle guerrilla problems without special emphasis if the funding and manpower issues of the previous administration were rectified. Nothing else was needed outside of the already hard working Special Forces units.[77] While it is debatable if the Army was prepared to fight the type of war it faced in Vietnam, it embraced fully the other area of major emphasis, air mobility.

As early as 1956 the Army was testing the helicopter and the concept of "Sky Cavalry"[78] at Fort Rucker, Alabama. Under the out-spoken leadership of Brigadier General Carl I. Hutton and Colonel J. D. Vanderpool, the Army conducted a series of tests on the utility of the armed helicopter.

Fearing bureaucratic interference from the Air Force, Vanderpool and his troopers conducted the tests with volunteers on the weekends and in the evening. Touring the country, both Vanderpool and Hutton met with industry representatives and managed to get them to provide expertise at no cost to the government. Scrounging through Navy and Air Force depots, weapons and gun-sites made their way to Fort Rucker and Fort Benning. Vanderpool met with Farell T. Mayhood, chief engineer at a General Electric branch plant in Vermont and got the engineer to agree to fabricate a rocket kit for a helicopter at no cost to the Army. The organizational concepts for Sky Cavalry came from the 1936 horse cavalry doctrine manual with helicopters substituting for the horses.[79] The Sky Cav experiment died in 1958, another victim of the struggles of the Army to both modernize and transform during the Pentomic era. The seeds of success, however, were sown by those early sky troopers and needed only a sympathetic person in the administration to flower. McNamara was that unlikely person.

In April 1962 McNamara sent memorandums to Secretary of the Army Elvis J. Stahr in which he argued Army was not doing enough to advance the potential of helicopter aviation. McNamara instructed Stahr to take a "bold new look, divorced from traditional viewpoints and past policies, and free from veto or dilution by conservative staff review."[80] Within a week, Lieutenant General Hamilton H. Howze, commander of XVIII Airborne Corps, was appointed president of the Mobility Requirements Board (Howze Board). For 3 feverish months, the Howze board tested and evaluated every aspect of air mobility.[81] Forty different field tests consumed over 11,000 flying hours at Fort Bragg. At the conclusion of this frenetic effort, the Board submitted its report on August 20, recommending that the Army develop an air assault division following the ROAD division model. Sky troopers would be carried into battle by 459 troop helicopters, while armed helicopters

provided aerial rocket support. The Air Force immediately objected to the Howze Board findings.[82]

The Howze Board was the engine of modernization and transformation in the post-World War II Army. The board recommended a 5-year program whereby the Army would transform into a 16-division force of 11 ROAD divisions, 5 air assault divisions, 3 air cavalry combat brigades, and 5 air transport brigades. Air assault divisions, air transport brigades, and air cavalry brigades were envisioned as extremely mobile reserves for Eighth Army in Korea, counterattack forces in support of NATO in Germany, and as part of the Strategic Army Corps in the United States.[83] The flexibility and utility envisioned by Taylor in developing the Pentomic division now was possible. The helicopter would radically change how the Army moved men and material on the battlefield. Coupled with the new wire guided anti-tank missile technology emerging in the early 1960s, the helicopter had the potential to be a hard-hitting mobile reserve in a general war with the Soviet Union. In the growing war in Vietnam, Howze saw the helicopter providing the "most effective" way to augment the fight in South Vietnam. U.S. forces would be free "from local limitations to surface transportation," and that "their extreme mobility will permit a flexibility of employment much to be desired, perhaps as a counterattack reserve or as a blocking or enveloping force."[84] The Army had answered Kennedy's call to "get with it" in combating guerrillas—and the helicopter would be central to the approach.

Despite Air Force objections, McNamara ordered Army Chief of Staff General Earl Wheeler to test the Board recommendations. Wheeler ordered the formation of the 11th Air Assault Division (Test) at Fort Benning in February 1963 under Major General Harry Kinnard. After 2 years of extensive tests, the 11th Air Assault Division exchanged its colors for the 1st Cavalry Division and prepared to deploy to South Vietnam.[85] The tests of the new air assault division did not occur in a cocoon insulated from the events transpiring in Southeast Asia. For several years,

Army helicopter pilots had learned how to handle their machines in a counterinsurgency environment. In fiscal year 1963 alone, Army helicopters flew 100,000 sorties, transported 275,000 Vietnamese soldiers, and 2000 tons of cargo.[86] Many airmobile concepts were combat tested in Vietnam, while the 11th Air Assault Division continued to explore the employment of an air assault division.[87] The "First Team" deployed to Vietnam in the summer of 1965 and fought its first major engagement in the Ia Drang Valley in November 1965, validating the concept of the air assault division.[88]

As the Army turned its full attention to fighting the war in Vietnam, it was the ubiquitous helicopter that came to symbolize American power during the war. The helicopter freed the Army from enervating forced marches, and allowed deep incursions by battalions and brigades into enemy held terrain at nearly a moment's notice. The new national strategy of "Flexible Response," coupled with the support of McNamara, allowed the Army to overcome the deleterious effects of the penurious defense budgets of the 1950s. Transformation, misguided under the PENTOMIC concept, came to partial fruition with the ROAD division and the concepts inherent in the air assault division and the helicopter. The Army could now completely mechanize, field new rifles, machine guns, tanks, and vehicles of all types, as well as integrate the helicopter into every division. Helicopters were vital instruments of war in every division, with entire infantry battalions moving in a single lift of helicopters. Fighting throughout Vietnam in 1966, the 1st Infantry Division regularly had 90 lift helicopters available to it on a daily basis.[89]

But it was the new family of helicopters, specifically the Bell UH-1 series, which facilitated the partial transformation of the Army. Despite the urgings of the Howze Board, the Army never abandoned the traditional divisional design, nor did it replace armored and mechanized divisions with air assault divisions, air transport brigades, or air cavalry brigades. The Vietnam

War required helicopters, air mobile units, and light infantry formations, but the threat to the nation was still in Europe. The same units and helicopters that were so important in operations in Vietnam, were of marginal utility in fighting the massed armored formations of the Warsaw Pact. The Army prudently retained the capabilities of the helicopter as espoused by the Howze Board and demonstrated in war, but rejected a complete transformation to a helicopter based force. The helicopter, like the tank and machine gun before it, was integrated into the Army writ large, making it only a partial transformation. Indeed, the helicopter can be viewed as simply the logical extension of Army modernization to the air medium following the independence of the Air Force in 1947, and not truly transformational at all. The Army and the nation regained the ability to fight limited wars, giving the President more options than simply massive retaliation or capitulation. The war in Vietnam, however, dragged on for the next 10 years, sapping the Army's strength and savagely mauling its morale. The fall of Saigon in April 1975 saw the Army enter a new phase of reflection and search for relevance.

**Cold War Triumph, 1975-91 .**

Even before the first North Vietnamese tank rumbled through the streets of Saigon in April 1975, the U.S. Army was re-examining its roles and structure. As the last Army combat units were departing Vietnam in 1973, the Arabs and Israelis fought the devastating Yom Kippur War of October 1973. The lethality of modern anti-tank weapons supplied to the Arabs by the Soviet Union, and the incredible devastation of the tank battles on the Golan Heights served as a necessary corrective to the enervating years of the war in Vietnam, and as a stimulus to doctrinal change within the Army.[90] The necessity of fighting the war in Vietnam after 1965 stunted the continued modernization of the Army as it required more and more of the nation's budget to fuel the expansion of the war. Consequently, the

Army faced a situation in 1973 where a generation of modernization was "lost" from 1965 to 1972, while the Soviet Union substantially modernized and strengthened its forces.[91] Understanding the severity of the situation, the new Army Chief of Staff, General Creighton W. Abrams, spurred the development of a new tank, a new infantry fighting vehicle, and new cargo and attack helicopters. Supporting combat operations in Vietnam pillaged the Army in Europe. Abrams moved to correct the personnel deficiencies facing these "hollow" divisions. Additionally, he moved to restructure the Army by revitalizing the Army Reserve forces, with the result that the Regular Army could not go to war without mobilizing the reserves.[92]

While the Army sought to modernize and stabilize its manpower, there was a concomitant effort to examine the divisional structure and Army doctrine. The first effort at divisional reorganization was titled the Division Restructuring Group. Under the concept recommended by the group, divisions would still have three brigades, but each would be substantially larger by fielding more tank and mechanized infantry battalions. Anti-tank companies sporting new wire guided missiles and more organic aviation support rounded out the larger divisions. Wanting a rapid force redesign that would improve readiness and improve the capability of the Army's forward deployed forces, Army Chief of Staff General Bernard W. Rogers ordered a 1-year test of the design at the beginning of 1977. The test ended 18 months later without the adoption of the new organization by the Army.[93] As the decade of the 1970s came to end, the Army still searched for an organization that could fight and win on the European battlefield without resorting to tactical nuclear weapons.

In late 1978, General Donn Starry, commander of the Army Training and Doctrine Command, moved to extend the Division Restructuring Group work by initiating a study titled "Division 86." As before, the focus was on the heavy division and the possible fight in Europe. The new division numbered nearly 20,000 soldiers in ten tank and

mechanized infantry battalions. An aviation brigade fielded attack helicopters that could extend the tank killing ability of the division even further. Approved in August 1980, the Army restructured the heavy divisions even though the new M-1 Abrams tank and M-2 Bradley Fighting Vehicle would not be immediately available to every division.[94] The emphasis was on firepower: conventional firepower that could stem the onslaught of Warsaw Pact forces through the Fulda Gap and across the North German plain. Division 86, however, was really nothing more than a retooled and polished ROAD division. It would take the election of 1980 to insure its success.

Inaugurated even as the humiliating Iranian hostage crisis came to end, President Ronald Reagan immediately labeled the Soviet Union as an outlaw empire prepared to go to any lengths to obtain its goals. The national strategy of the United States was no longer détente, but crusade and conversion.[95] As with the election of Kennedy 20 years earlier, the Army's modernization program would have arrived stillborn without the political backing and increased budgets of the Reagan administration.

With the M-1 tank and new helicopters rolling off the assembly lines for the heavy divisions, the Army now directed its efforts toward the "light divisions" (airborne, air assault, and infantry). Initial efforts focused on the 9th Infantry Division and new technologies and organizational concepts in order to design a motorized division capable of being airlifted anywhere in the world.[96] Additionally, a new focus on the infantry division resulted in a truly light 10,791-man light division capable of movement in 550 sorties in less than 4 days. The new light division cost less and was easier to maintain than the old infantry division, and it met the needs of the Army for an easily deployable formation that enhanced strategic response. Under the rubric Army of Excellence (AOE), the conversion of the standard infantry divisions started in 1984.[97] It seems obvious that the AOE light division was really nothing more than the logical extension of the Air Transport Brigade

recommended 20 years prior by the Howze Board. The one division that actually held the possibility of transforming the Army, the high technology 9th Division, languished.

The modernization program of the 1980s was expensive and critical to Army readiness. The high technology experimentation in the 9th Division was time-consuming, however, and not deemed similarly critical. Congress, focused on fielding the weapons systems needed for the AOE division, did not support the expense engendered by the experiments in a high technology motorized division. Despite these obstacles, a heavily vehicle-dependent motorized division design emerged in 1986, but without the technology to support the design. No assault gun or specialized wheeled vehicle was ever developed for the division, leaving the Army to fill it with existing designs that were inadequate to the task.[98] Even though the budgets of the Reagan years were generous, the modernization needs of the Army after the years of combat in Vietnam were more important than any possible technological advantage offered by the experiments of the 9th Division.

The modernization efforts continued apace as the decade of the 1980s came to a close. Coupled with the refined AirLand Battle doctrine, the AOE Army triumphed in the desert in February 1991 in the war with Iraq. The modernization and design efforts begun in 1962 paid off in a war of just 100 hours against a foe armed with the weapons and tactics of a now defunct Soviet Union. The triumph of the desert, however, was fleeting. For the next 10 years the Army would drift, seeking only to maintain force structure and manpower levels. In 1994 General Gordon R. Sullivan initiated the Force XXI efforts in the Army. Force XXI is an attempt to marry digitization and the Army's experimentation under one over-arching process. Doctrine and force design revision along with system development ran concurrently in the test bed 4th Infantry Division at Fort Hood.[99] Despite their efforts, however, there has been no transformation in the Army since the end of the Gulf

War, and more cuts in end strength seem inevitable. What does the future portend for the Army?

**2015 and Beyond: Transformation, Rapid Decisive Operations, and the Objective Force Army .**

One of the first acts of General Eric Shinseki, current Army Chief of Staff, was to replace the standard saucer cap of the Army green uniform with the black beret. His actions are strikingly similar to those of Maxwell Taylor 45 years ago. The green uniform, like the beret, signaled that change was coming. The scope and direction of the type and amount of change that is needed are contentious. Does the Army need to transform into the Objective Force, or does it really need to modernize and adapt the current force structure? Since the end of World War II, it is clearly the latter that served both the Army and the nation best. Whatever the mission—occupation, combat in Korea and Vietnam, interventions in Lebanon and the Dominican Republic, deterrence in Europe—gradual, persistent modernization was instrumental in keeping the Army relevant and ready to fight. There are several arguments used today by those who argue that current Army force structure is increasingly irrelevant in the post-Cold War security environment. These individuals constantly tout the canard that the current armored and mechanized formations, now pejoratively termed the "Legacy Force," are as useless today as the horse cavalry was in the 1930s.

In an address to the Association of the U.S. Army on November 8, 2001, General Shinseki told the audience "we must be able to project power anywhere in the world . . . that goal was critical as we crafted the Army vision over 2 years ago."[100] The Army, however, does not control how it gets to the fight. It is Air Force aircraft and Navy ships that transport each and every soldier. The Army vision may be clear, but the Navy and Air Force may not share a similar view. When the Howze Board recommended the far-reaching application of helicopter technology to the

Army writ large, it still did not solve the problem of the dearth of strategic lift aircraft extant in the Air Force. It took the direct intervention of McNamara to recognize that the modernization of the Army would be for naught without strategic airlift. Consequently, he initiated the development of the C-141 long range transport, and accelerated deliveries of the C-130E turboprop. By 1964, with the 11th Air Assault Division testing and validating the concepts proposed by the Howze Board, Air Force airlift capability had increased 75 percent over what was available just 3 years prior.[101] It is instructive therefore, that recently the largest contract ever awarded by the Department of Defense was for the Joint Strike Fighter, and not a new transport aircraft. The cost of the Joint Strike Fighter would pay for the current program of Army transformation four times over.[102] How does the Army get to the fight quickly if there are not enough transports? Without a synthesizing and unifying concept within Department of Defense, and indeed without a person willing to do this difficult task, there will be no real strategic deployability for the Army.

Deployability is an interesting concept that deserves some discussion. What exactly does the word mean or imply? The Army has sought a force that was easily deployed since the end of World War II. The airborne division seems to meet this demand quite nicely. Why, then, the search for something "more deployable?" The Air Transport Brigades recommended by the Howze Board and the light division of the AOE Army all meet the requirement to deploy quickly and easily. In fact, the ROAD organization was so flexible that the 1st Infantry Division could deploy to Vietnam minus its heavy equipment and fight effectively.[103]

The new Interim Brigade Combat Team is the latest Army initiative to get a force quickly to the fight. Because the heavy forces (tank, mechanized infantry) lack the ability to deploy quickly goes the argument, and light forces lack tactical mobility and survivability, the Army needs a

force mounted in light wheeled armored vehicles that are transportable by C-130 "Hercules" aircraft. Without dedicated assets, however, it does not matter how heavy or how light the Army force is (or the type or number of vehicles). The Interim Brigades still require strategic lift assets to traverse the globe. C-130 aircraft will not move them from the Continental United States to the Middle East or Europe, C-17 jet transports will. These same Air Force aircraft require secure runways and enormous amounts of fuel, if they are available to the Army at all. Many, if not all of the C-17s, will be busy moving Air Force supplies and equipment in order to sustain the Air Expeditionary Force, especially since the air arm has become the initial force used in recent years.[104] To Maxwell Taylor, there was a solution:

> Because of the very high performance of their airplanes, designed primarily to meet the needs of the air battle today, the Air Force is not equipped to discharge its responsibilities to the Army in ground combat. [The Army] should have its own organic tactical air support and tactical air lift....Special restrictions of size, weight, and in the case of weapons, of range should be abolished forever and the Army encouraged to exploit technology to the maximum....Such an Army would take over much of the counterattrition function, which is now split up in many quarters of the defense establishment, to the simplification of our functional budgeting. It would have as its motive force the concept of a hard, mobile striking force ready to move and fight anywhere on the ground.[105]

A second "air force" is not appropriate, but the Army must maintain a hard-hitting, mobile, strike force. It is interesting to observe that the helicopter fulfilled Taylor's vision for tactical air support and air lift on the battlefield. Without strategic lift, however, it does not matter how the Army is structured—light, medium, or heavy. The intervention in Lebanon in 1958 is a perfect example of the problems the Army faces in the future.

As political conditions deteriorated in Lebanon in the summer of 1958, it seemed as if the changes wrought by Taylor in transforming the Army were going to pay off. The

101st Airborne Division was restructured under the Pentomic structure and was part of the Strategic Army Corps, formed by Taylor for just such a contingency operation. Under the general war in Europe scenario, the Army was to receive 80 million ton-miles of air transport from the Air Force's Military Air Transport Service, of the 188 million-ton miles it could deliver. To deliver the 101st to Lebanon would require 143 million ton-miles of airlift capacity, a total the JCS was unwilling to deliver. Consequently, the Strategic Army Corps sat out the operation in Lebanon while Army forces scrambled to get into theater from bases in Germany.[106] Legacy force, interim force, objective force, pentomic force—the type and structure of the force are irrelevant if there is nothing to transport them to the fight.

"Strategy wears a dollar sign," wrote Bernard Brodie in 1959.[107] Although Brodie was referring primarily to nuclear weapons, the cost of conventional weapons today continues to increase exponentially due to the high cost of sophisticated technology. Operations and maintenance (O&M) costs for the Abrams tank and Bradley Fighting Vehicle are double that of their predecessors, and today's combat aircraft cost 30-50 percent more to operate than prior models.[108] Delaying or canceling the modernization programs and upgrades for weapons systems only increases these costs. Both the Truman and Eisenhower administrations insisted on budgetary efficiencies at the expense of the Army. Are we seeing the same indications today?

For the Army there is a clear warning in the Korean War experience. The military is rightfully subordinate to the policies of the president, despite the deleterious effect the policies have on readiness and training. Truman was not going to increase spending on the military despite the explosion of a Soviet nuclear device in August 1949, the triumph of Mao in China, the Berlin blockade, and numerous other international warning signs. How to react and modernize the force under such stultifying conditions is

important. The Army chose to maintain the status quo of the World War II divisional structure, eventually issuing reduced Tables of Organization and Equipment to meet the realities of the penurious defense spending prior to the outbreak of the war. The Army's real mission was occupation, plain and simple, and it carried out that mission with great care and efficiency. Witness the strong and stable nations of Japan and Germany today. More importantly, despite the avowed or assumed national strategy or strategic interest, the Army was the only force that could save the fledgling South Korean government and people from annihilation at the hands of the Communist North Koreans. The "bright delusion" that air or naval power alone will stop or intimidate a determined foe is just as fallacious today as it was in June 1950. Bombing Serbs in Bosnia or Al Quaeda terrorists in Afghanistan worked only because a proxy ground force was used. And the extent of the "victories" in both cases is debatable.

When faced with the increasingly stringent budgets of the mid to late 1950s, Taylor chose to attack the strategy upon which the budget was based. An opponent of the administration's New Look strategy of massive retaliation, he actively organized and succored a clandestine group within the Army Staff as soon as he became Chief of Staff. Intent on disrupting the proposed cuts in Army end strength advocated by Chairman of the Joint Chiefs of Staff Admiral Arthur Radford and Secretary of Defense Wilson, Taylor chose to have this group leak sensitive, indeed classified, information to the press. Furious, Wilson had all the Chiefs publicly proclaim their unity, with Taylor himself averring that there was "no mutiny or revolt" in the Army.[109] Politically adept, Taylor reassigned the group of colonels to great assignments, while the furor over the leaks stemmed the plans of Wilson and Radford to cut drastically the size of the Army.[110] Taylor's example, however, presents an interesting dilemma. His actions saved the Army from becoming merely a civil defense force for use only after a nuclear holocaust, but his method was one of subterfuge and

deceit. Clearly, it is not prudent to sanction this sort of guerrilla campaign now in pointing out the need to fund Army modernization.

Strategy and doctrine provide venues to argue the need to modernize the Army. Doctrine teaches what to think and what to do while serving a vital intermediate function of bridging the gap between strategic theory and war in practice.[111] Currently, U.S. Joint Forces Command is working on a joint operational concept for the next decade titled Rapid Decisive Operations (RDO). RDO is the asymmetric assault of an adversary from directions and dimensions from which the adversary has no counter. It will integrate knowledge, command and control, and operations to achieve the desired effect.[112] The key to understanding this concept is that once deterrence fails and military force is employed, RDO will "provide the capability to rapidly and decisively coerce, compel, or defeat the enemy to accomplish strategic objectives without a lengthy campaign or an extensive build up of forces."[113] It seems obvious that the Army's future Objective Force will provide forces for this doctrine, but what type of force is needed? Will science and technology breakthroughs in the future allow the Army to field the Objective Force? The past 60 years detail the many dangers in this approach. Is it prudent to substitute knowledge and information for protection and combat power? How do you coerce, compel, or defeat an 18-year-old girl intent on blowing herself up in a crowded market without physically dominating the area in which she lives? The end result of the current push to get a lighter Army to the fight quickly is the transformational equivalent of getting Custer to the Little Big Horn faster.[114]

Current operations can easily overcome any impetus to change or modernize as the 5 years immediately following World War II demonstrated. It is entirely possible that current peacekeeping operations in the Balkans and other such operations created by the current "Global War on Terrorism" will consume the Army for the next decade. Even if real transformation is attempted, technological dead ends

and failures will exhaust limited funds and leave the force simply small, as Taylor discovered with the anemic pentomic battle groups. The quest for technology can also lead to legitimizing a weapon system that is patently absurd and unusable, like the Davy Crockett, a 150-pound miniature nuclear rocket devised for use by the battalion commander, while the true engine of modernization, the helicopter, goes untapped.[115] Of course, the greatest obstacle to any change is war—both Korea and Vietnam consumed the Army for years and the Global War on Terror promises the same.

While I have no crystal ball, nor do I claim any degree of prescience, there are solid lessons from the Cold War years. The Army could face a crisis of historic proportions by the year 2010. While the armed forces continue to fight terror wherever it is found in the world, the initial surfeit of funds lavished on the Department of Defense by the Congress could dwindle to pre-war levels as social and domestic fiscal issues reassert themselves. If current decisions are any indication, the Army will continue to cancel modernization programs, extend the service life of older weapons systems, and cut force structure in order to meet the inevitable monetary constraints imposed, all in an effort to continue funding the science and technology experimentation considered crucial to the Objective Force. Many of the technologies needed to make the Objective Force a reality will be delayed, others will be deemed unusable (a la the Davey Crockett), and more still will simply not work. All the while, the Legacy Force will molder in its motor pools and barracks, underfunded and unmodernized.

The current approach to transformation, waiting on technology to show us the way for the Objective Force, will lead to the "Balkanization" of the Army into disparate groupings, a process that has already begun. The 75th Infantry Regiment (Ranger) used to be the elite light infantry of the regular Army. Today, they are classified as a "special" force, for use only in "special" operations. With the signing of the Camp David peace accords in 1982, no one in

the Army envisioned the commitment of 1,000 soldiers to the Sinai for an indefinite period, but the Army is still there, and an infantry colonel is selected every year to command this force. Bosnia and Kosovo continue to require brigade-sized units that rotate every 6 months, keeping the peace with no end to the duty in sight. Nearly 50 years after the truce at Panmunjom, the U.S Army continues to man the defenses in Korea with the 2d Infantry Division. How long will U.S. forces stay in Afghanistan to maintain the peace? Since special operations formations are smaller and cheaper to maintain than conventional forces, and peacekeeping operations do not require sophisticated armored forces, a doctrine based on swift, clean conflicts, and rapid decisive operations will naturally accentuate "special" forces, the use of proxy ground forces, and high technology solutions. The Army will provide either special forces, or specialized peacekeeping/civil affairs brigades—just as Eisenhower envisioned the use of the Army after a nuclear war. The quest for deployability and lightness will only exacerbate this phenomenon.

It is possible to look too far forward as the Pentomic era showed. When General William Dupuy took over TRADOC in 1979, he was convinced the Army spent too much time trying to divine the future.

> . . . people aren't smart enough to see what we'll need in the year 2000. The reason we aren't smart enough to do that is the people we ask in 1979, for instance, to look at the shape of the Army in the year 2000, possess a 1979 mentality. So, the Army they see out there is simply a reflection of the 1979 Army with some gimmicks. They'll say "By then we'll have more lasers, and we may have atomic energy, and we may have this, and we may have that." But the concept is all based on a 1979 consciousness and information. I just don't believe human beings can look to the long-range future that well, so I stopped most of the long range studies. I also tried to make some sense out of the so-called weapons requirement process….Somebody was supposed to sit down and visualize the perfect weapon of the future. Then, after you have visualized and described it, you turned it over to the engineers and the scientists and

> asked them to make one….[but] there isn't anybody in TRADOC or CDC [Combat Developments Command] who can see further than the scientists or the engineers have already seen.[116]

We, of course, possess a 2002 mentality, and Dupuy's advice is sound. Instead of repeating the tired dogma that the current Army force structure is too heavy to get to the fight quickly, should we not ask how quickly does the force really need to be there, and then build the strategic lift needed to meet that goal? The real answer to this question and the others associated with transformation goes back to the reason the Army exists at all—to fight and win the nation's wars by providing sustained ground combat forces. Therefore, as the current legacy systems reach the end of their lifecycle between the years 2010-15, the technologies needed to make the Objective Force a reality could be stillborn, forcing the Army to improvise in a major theater of war, much as it did in 1950 in Korea.

Finally, the history of the Cold War shows clearly that the Army will continue to lose budget battles to the high technology weapons created for doctrines like Rapid Decisive Operations. The current conventional force structure will age and become obsolete. A decade of modernization will be lost, factories closed, engineering and scientific experts diverted to other areas. Congress will look for economies in personnel costs and the force structure, cut programs, and argue with the president on proper "strategy," while the Army continues keeping the peace and fighting terrorism around the globe. And then in an area assumed to be outside U.S interest, it will happen—a conflict that presents no proxy, is not decided rapidly, and with an enemy who is not affected by high technology solutions, or who can counter American high technology weapons with countermeasures of its own. Even in the 21st century, we will discover too late that you still need to physically dominate your foes in order to impose your will, and that this cannot be done by high flying aircraft, smart bombs, unmanned drones, satellites, or information superiority.

## ENDNOTES - CHAPTER 2

1. Matthew B. Ridgway, *Soldier: The Memoirs of Matthew B. Ridgway*, New York, 1958, p. 192.

2. General Douglas MacArthur as quoted in Allan R. Millett and Peter Maslowski, *For the Common Defense: A Military History of the United States of America*, New York, 1984, p. 466.

3. Russell F. Weigley, *History of the United States Army*, New York, 1967, p. 485.

4. *Ibid*., p. 486.

5. William W. Epley, *America's First Cold War Army, 1945-1950*, Arlington, Virginia, August 1999, p. 4.

6. Stephen E. Ambrose, "The Armed Forces and American Strategy, 1945-1953," in *Against All Enemies: Interpretations of American Military History from Colonial Times to the Present*, Kenneth J. Hagan and William R. Roberts, eds., New York, 1986, p. 306.

7. Harry S. Truman, *Memoirs by Harry S. Truman:* Vol.1*, Years of Decision*, Garden City, N.Y, 1955, p. 484.

8. Epley, *America's First Cold War Army*, p. 4.

9. Truman, *Memoirs*, p. 509.

10. Ridgway, *Soldier*, p. 166.

11. Truman, *Memoirs*, p. 509.

12. John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades*, Washington, DC, 1998, p. 211.

13. *Ibid*., pp. 211-212.

14. *Ibid*., pp. 222-225.

15. Weigley, *History of the United States Army*, p. 502.

16. John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy*, New York, 1982, p. 22.

17. *Ibid*., p. 23.

18. Weigley, *History of the United States Army*, p. 501.

19. Epley, *America's First Cold War Army*, p. 17.

20. Department of Defense, Semiannual Report of the Secretary of the Army, July 1 to December 31, 1949, Washington, DC, 1950, pp. 125-126.

21. James F. Schnabel, *Policy and Direction: The First Year*, Washington, DC, 1972, pp. 43-45.

22. Doris M. Condit, *The Test of War, 1950-1953. History of the Office of the Secretary of Defense, Volume II*, Washington, DC, 1988, pp. 5-6.

23. Ambrose, "The Armed Forces and American Strategy, 1945-1953," p. 310.

24. Ridgway, *Soldier*, p. 192.

25. For an outstanding account of the events surrounding the commitment of the U.S. Army to the Korean peninsula, see Joseph C. Goulden, *Korea: The Untold Story of the War*, New York, 1982, pp. 101-105.

26. For an outstanding description of the fighting of Task Force Smith, see Roy K. Flint, "Task Force Smith and the 24th Infantry Division: Delay and Withdrawal, 5-19 July 1950," in Charles E. Heller and William A. Stofft, eds., *America's First Battles, 1776-1965*, Lawrence, KS, 1986, p. 266.

27. Burton I. Kaufman, *The Korean War: Challenges in Crisis, Credibility, and Command*, New York, 1986, p. 36.

28. Schnabel, *Policy and Direction*, pp. 45-46.

29. *Ibid*., p. 59.

30. *Ibid*., p. 46.

31. Robert A. Doughty, *The Evolution of US Army Tactical Doctrine, 1946-76. Leavenworth Paper Number 1*, Fort Leavenworth, KS, 1979, p. 11.

32. The story of these two provisional platoons is adapted from my article, Arthur W. Connor, Jr., "The Armor Debacle in Korea 1950: Implications for Today," *Parameters*, Vol. XXII, No. 2, Summer 1992, pp. 66-76.

33. Epley, *America's First Cold War Army*, pp. 12-13.

34. *Ibid*., pp. 12-13.

35. See Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades*, Chapter 9.

36. T. R. Fehrenbach, *This Kind of War: A Study in Unpreparedness,* New York, 1963, p. 505; Weigley, *History of the United States Army*, p. 510.

37. Ambrose, "The Armed Forces and American Strategy, 1945-1953," p. 317.

38. Doughty, *The Evolution of US Army Tactical Doctrine, 1946-76,* p. 12.

39. Daun Van EE, "From the New Look to Flexible Response, 1953-1964," in *Against All Enemies: Interpretations of American Military History from Colonial Times to the Present*, Kenneth J. Hagan and William R. Roberts, eds., New York, 1986, p. 322.

40. Eisenhower, in a letter to Alfred M. Gruenther, May 4, 1953, in *The Papers of Dwight David Eisenhower. The Presidency: The Middle Way XIV*, Louis Galambos and Daun Van EE, eds., Baltimore, 1996, p. 203.

41. Stephen E. Ambrose, *Eisenhower, Volume II. The President*, New York, 1984, p. 171.

42. Ridgway, *Soldier*, p. 272.

43. Maxwell D. Taylor, *The Uncertain Trumpet*, New York: Harper and Brothers, 1959, p. 17.

44. A. J. Bacevich, *The Pentomic Era: The U.S. Army Between Korea and Vietnam*, Washington, DC: National Defense University Press, 1986, p. 19.

45. Van EE, "From the New Look to Flexible Response, 1953-1964," p. 328.

46. John M. Taylor, *General Maxwell Taylor: The Sword and the Pen*, New York, 1989, p. 197.

47. Bacevich, *The Pentomic Era*, p. 23.

48. Van EE, "From the New Look to Flexible Response, 1953-1964," p. 330.

49. *Ibid*., p. 330.

50. Douglas Kinnard, *President Eisenhower and Strategy Management: A Study in Defense Politics*, Washington, DC, 1989, p. 57.

51. Interview between Lieutenant Colonel Frank L. Henry and Lieutenant General George I. Forsythe, U.S. Army Military History

Institute, Senior Officer's Debriefing Program, Project 74-1, Carlisle Barracks, PA, p. 326.

52. Taylor, *The Sword and the Pen*, p. 209.

53. Kinnard, *President Eisenhower and Strategy Management,* p. 57; Taylor, *Uncertain Trumpet*, pp. 41-42. Taylor writes that Leviero benefited from a "deliberate leak" and astute investigation, when it was actually the inside group of the Operations Directorate who fed him the details.

54. Wilson, *Maneuver and Firepower,* pp. 269-270.

55. *Ibid*., pp. 273-274.

56. Taylor, *Swords and Plowshares*, p. 171.

57. Doughty, *The Evolution of US Army Tactical Doctrine, 1946*-76, p. 16.

58. Wilson, *Maneuver and Firepower,* pp. 277-279.

59. Van EE, "From the New Look to Flexible Response, 1953-1964," p. 332.

60. Taylor, *Swords and Plowshares*, p. 171.

61. U.S. Department of the Army, Deputy Chief of Staff for Military Operations. Briefing for Chief of Staff on Army Organization 1960-70, PENTANA, May 15, 1956. Copy in the Military History Institute archives, Carlisle Barracks, PA.

62. *Ibid*., p. 171.

63. Statement by General Maxwell D. Taylor before the Senate Armed Services committee, January 22, 1959. Copy in the Military History Institute archives, Carlisle Barracks, PA.

64. Bacevich, *The Pentomic Era,* pp. 98-100.

65. *Ibid*., pp. 83-84.

66. *Ibid*., p. 100.

67. E. F. Fisher, *Relationships of the ROAD Concept to Moral Considerations in Strategic Planning*, OCMH Monograph No. 106S, 3. Copy in the Military History Institute archives, Carlisle Barracks, PA.

68. Glen R. Hawkins and James Jay Carafano, *Prelude to Army XXI: U.S. Army Division Design Initiatives and Experiments, 1917-1995*, Washington, DC, 1997, p. 15; Doughty, *The Evolution of US Army Tactical Doctrine, 1946-76,* p. 19.

69. United States Army Continental Army Command, "MOMAR, Modern Mobile Army 1965-70," working papers, June 9, 1959. Copy in the Military History Institute archives.

70. Doughty, *The Evolution of US Army Tactical Doctrine, 1946-76,* p. 21.

71. Hawkins and Carafano, *Prelude to Army XXI*, p. 17.

72. Fisher, *Relationships of the ROAD Concept to Moral Considerations in Strategic Planning*, p. 83.

73. Robert S. McNamara, *In Retrospect: The Tragedy and Lessons of Vietnam,* with Brian VanDeMark, New York, 1995, p. 37.

74. Henry Kissinger, *Diplomacy*, New York, 1994, pp. 583-585.

75. Wilson, *Maneuver and Firepower,* p. 305.

76. Wilson, *Maneuver and Firepower,* pp. 306-308; Van EE, "From the New Look to Flexible Response, 1953-1964," p. 336.

77. Kennedy, as quoted in Andrew F. Krepinevich, Jr., *The Army and Vietnam,* Baltimore, 1986, p. 31. The entire thrust of the Krepinevich book is that the Army did not prepare to fight a counterinsurgency in Vietnam, hence the roots of the defeat.

78. See Lieutenant General James Gavin, "Cavalry, And I don't Mean Horses," *Armor* 68, May-June 1954.

79. Frederic A. Bergerson, *The Army Gets an Air Force: Tactics of Insurgent Bureaucratic Politics*, Baltimore, 1980, pp. 70-76.

80. McNamara as quoted in Hawkins and Carafano, *Prelude to Army XXI*, p. 17.

81. Wilson, *Maneuver and Firepower,* p. 314.

82. Hawkins and Carfano, *Prelude to Army XXI*, pp. 17-18.

83. U.S. Army Tactical Mobility Requirements Board, Final Report, Fort Monroe, Virginia: Continental Army Command, August 20, 1962, p. 6. Copy in the Military History Institute archives.

84. *Ibid*., p. 15.

85. Bergerson, *The Army Gets an Air Force,* pp. 115-116.

86. Department of Defense, Annual Report for Fiscal Year 1963, including the Reports of the Secretary of Defense, Secretary of the

Army, Secretary of the Navy, Secretary of the Air Force, Washington, DC, 1964, p. 111.

87. Doughty, *The Evolution of US Army Tactical Doctrine, 1946-76,* p. 29.

88. For the definitive account of that first fight in the Ia Drang see LTG (Ret) Harold G. Moore and Joseph L. Galloway, *We Were Soldiers Once and Young: Ia Drang—The Battle That Changed the War in Vietnam,* New York, 1992.

89. Senior Officer Oral History Program, *Changing an Army: An Oral History of General William E. Dupuy*, interviewed by Lieutenant Colonel Romie L. Brownlee and Lieutenant Colonel William J. Mullen III, Carlisle Barracks, PA: U.S. Army Military History Institute, 1986, p. 148.

90. John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982*, Fort Monroe, VA: United States Army Training and Doctrine Command, June 1984, p. 2.

91. Doughty, *The Evolution of US Army Tactical Doctrine, 1946-76,* p. 41.

92. Harry G. Summers, "The Army After Vietnam," in *Against All Enemies: Interpretations of American Military History from Colonial Times to the Present*, Kenneth J. Hagan and William R. Roberts, ed., New York, 1986, pp. 362-363.

93. Hawkins and Carfano, *Prelude to Army XXI*, pp. 19-20.

94. John L. Romjue, *The Army of Excellence: The Development of the 1980s Army*, Fort Monroe, VA: U.S. Army Training and Doctrine Command, 1993, pp. 9-11.

95. Kissinger, *Diplomacy*, pp. 766-767.

96. Wilson, *Maneuver and Firepower,* p. 391.

97. *Ibid*, pp. 391-394.

98. Romjue, *The Army of Excellence*, pp. 75-77.

99. Hawkins and Carafano, *Prelude to Army XXI*, pp. 27-28.

100. General Eric Shinseki, address to the Association of the United States Army, Washington, DC, November 8, 2001.

101. Department of Defense, Annual Report for Fiscal Year 1964, including the Reports of the Secretary of Defense, Secretary of the Army, Secretary of the Navy, Secretary of the Air Force, Washington, DC, 1966, p. 3.

102. See Greg Schneider, "Lockheed Martin Beats Boeing for Fighter Contract," *The Washington Post*, October 27, 2001, Section A, page A01.

103. Wilson, *Maneuver and Firepower,* pp. 323-324.

104. Earl H. Tilford, *Halt Phase Strategy: New Wine in Old Skins*, Carlisle Barracks, PA: Strategic Studies Institute, July 23, 1998.

105. Taylor, *Uncertain Trumpet*, pp. 169-171.

106. Roger J. Spiller, *Not War But Like War: The American Intervention in Lebanon*, Leavenworth Paper No. 3, Fort Leavenworth, KS: Combat Studies Institute, January 1981, pp. 8-9.

107. Bernard Brodie, *Strategy in the Missile Age*, Princeton NJ, 1959, Chapter 10.

108. Michele A. Flournoy editor, *QDR 2001: Strategy Driven Choices for America's Security*, Washington, DC, 2001, p. 121.

109. David T. Fatua, "The Inconsonant Culture: Ridgway, Taylor and the Proper Role in Civil-Military Relations" A Paper Presented to the Conference of Army Historians, 1996, June 19, 1996.

110. Taylor, *The Sword and the Pen*, pp. 209-210.

111. Colin S. Gray, *Modern Strategy*, New York, 1999, p. 36.

112. U.S. Joint Force Command, *A Concept for Rapid Decisive Operations*, Final Draft, Washington, DC: J9 Futures Lab, October 25, 2001, p. v.

113. *Ibid*., p. 11.

114. This idea comes from a discussion with my faculty advisor, Dr. Conrad Crane, who heard Dr. Andrew Krepinevich make a similar comment to the media. For a plausible scenario, see John A. Antal's essay "Battleshock XXI," in *Digital War: A View From the Front Lines*, Robert L. Batemen III, ed., Novato, CA, 1999, p. 81.

115. Bacevich, *The Pentomic Era,* p. 96.

116. Dupuy Oral History, p. 181.

# CHAPTER 3

## EFFECTS-BASED OPERATIONS: THE END OF DOMINANT MANEUVER?

**Colonel Gary Cheek**

> Airpower is an unusually seductive form of military strength because, like modern courtship, it appears to offer all the pleasures of gratification without the burdens of commitment.[1]
>
> Eliot Cohen

To many senior leaders in the U. S. Army, the concept of effects-based operations is another attempt by strategic bombing advocates to line Air Force coffers at the expense of land forces. They see effects-based operations as old wine in new skins—catchy phrases with a technological twist to make air power "unusually seductive" to decisionmakers. Recent efforts by the Joint Advanced Warfighting Program at the Institute for Defense Analysis have "hijacked" the term by seeking to expand the original concept into the realm of strategic planning. This new version of effects-based operations represents an effort to anticipate intended and unintended effects, either to mitigate or exploit effects for advantage: an approach "that has been the foundation of a number of air, land, and naval campaigns" throughout history.[2] Nevertheless, while adding to the intellectual debate, such an approach exacerbates the problem of understanding effects-based operations, since it suggests an almost universal applicability for the concept from strategic to tactical levels. However, like it or not the concept of effects-based operations is gaining momentum and legitimacy. Joint

Forces Command is presently developing a conceptual basis for effects-based operations as a precursor to future experimentation and potential inclusion in joint doctrine. [3] To that end, this chapter will investigate effects-based operations from an Army perspective. It will examine the origins of the concept, conduct a theoretical and historical assessment, and determine the concept's applicability to ground operations and dominant maneuver. Finally, the chapter's goal is to see whether effects-based operations can provide the strategic "gratification" air power enthusiasts so ardently advocate, as well as determine the implications for dominant ground maneuver.

**The Origins of Effects-Based Operations.**

Air Force Colonel John Warden laid the intellectual foundation for effects-based operations with his depiction of the enemy as a system and future war as parallel warfare. In the early 1990s, Warden argued that technology would allow the United States to attack multiple, vital targets simultaneously at the strategic level, and thus collapse an adversary's system, leaving him with no means to respond. Warden contended that this "makes very real what Clausewitz called the ideal form of war." One can assume that Warden would argue that proper execution of parallel warfare would result in a near simultaneous capitulation as well.[4]

The genesis of Effects-Based Operations began with an analysis of the Gulf War air campaign's targeting, outlined in a monograph by then Brigadier General David A. Deptula, entitled *Effects-Based Operations: Change in the Nature of Warfare*. One of the leading planners in the famed "Black Hole" planning group for strategic targeting during the Gulf War, Deptula asserted that stealth technology and precision-guided munitions have ushered in a new form of warfare:

> War colleges teach two principal forms of warfare—attrition and annihilation. The Gulf War demonstrated another—

> control, through the application of parallel war. The strategies of annihilation and attrition rely on sequential, individual target destruction as the ultimate method of success and measure of progress—generally measured in terms of forces applied, or input. Using effects-based operations, the determinant of success is effective control of systems that the enemy relies upon to exert influence— output. Changing the way we think about the application of force may produce more effective use of force. . . . The combination of stealth and precision redefines the concept of mass. Mass, in the sense of an agglomeration of a large number of forces, is no longer required to achieve a devastating effect upon a system of forces, infrastructure, government, or industry. No longer do large numbers of surface forces require movement, positioning, and extensive preparation before we can achieve dominant effects on the enemy. . . . Surface forces will always be an essential part of the military, but massing surface forces to overwhelm an enemy is no longer an absolute prerequisite to impose control over the enemy.[5]

Under the moniker of effects-based operations, Deptula's argument took parallel warfare further. His notion was that it is the projection of force rather than the presence of force that achieves effects. In some circumstances the projection of force can replace deployed forces and achieve the same effect.[6] He clearly implies that technology has decreased the relevance and necessity for ground forces. In the end one can assume he would advocate a reduction in the Army's budget to resource an expansion of Air Force stealth and precision capabilities.[7] While this is no doubt where the Army's "visceral hatred"[8] of effects-based operations arises, it reveals the core issue at hand: can effects-based operations, using stealth, precision, and parallel warfare, "compel the enemy to do our will?"[9] Do effects-based operations signal the end of dominant ground maneuver? Clausewitz would suggest that the answer lies in a theoretical assessment—one that casts aside the "visceral hatred" and objectively utilizes theory to "study the ways and means" of effects-based operations.[10]

**Effects-Based Operations: A Theoretical Assessment.**

Among the first theorists on the use of air power was Guilio Douhet, who developed his theory against the backdrop of World War I's stalemate. Completing his work in 1921, Douhet's *Command of the Air*, argued for a number of simple and direct propositions:

> (1) Modern Warfare allows for no distinction between combatants and noncombatants; (2) successful offensives by surface forces are no longer possible; (3) the advantages of speed and elevation in the three-dimensional arena of aerial warfare have made it impossible to take defensive measures against an offensive aerial strategy; (4) therefore, a nation must be prepared at the outset to launch massive bombing attacks against the enemy centers of population, government, and industry—hit first and hit hard to shatter enemy civilian morale, leaving the enemy government no option but to sue for peace; (5) to do this an independent air force armed with long-range bombardment aircraft, maintained in a constant state of readiness, is the primary requirement.[11]

Billy Mitchell, an American airman in World War I, while adopting Douhet's strategic views, emphasized all forms of air power. In particular, he argued that the Air Force's first task must be to defeat the enemy's Air Force. He also strongly argued for the ability of air power to dominate ground and naval forces. To Mitchell, the overarching importance was not strategic bombing. Rather, it was "centralized coordination of all air assets under the control of an autonomous air force command, freed from its dependency on the army. If that goal could be achieved, he felt, everything else would fall into its proper place."[12]

These two theorists have had considerable impact: their strongly held beliefs in an independent air force under the command of an airman and their emphasis on strategic attacks that break the enemy's will to fight remain in current Air Force Doctrine.[13] They also form the starting blocks for effects-based operations, systems thinking, and

parallel warfare. That their ideas still permeate Air Force doctrinal thinking lends credence to the relevance of Douhet and Mitchell and suggests that with the advance of technology, the strategic "brass ring" draws ever nearer to their 80-year-old vision. Thus, effects-based operations are not just an idea that emerged from precision weapons and stealth. They represent a manifestation of historic air power theory coupled with the advance of air power technology that seemingly promises the vindication of strategic bombing. What is missing is the view from outside that paradigm—what insights can traditional land warfare theory and doctrine provide in assessing the potential of effects-based operations?

**Effects-Based Operations and the Elements of Combat Power.**

FM 3-0 *Operations* outlines the elements of combat power as firepower, maneuver, leadership, protection, and a recent addition—information.[14] Effects-based operations utilize multiple facets of these elements: information for target location, leadership for execution, stealth for protection, precision engagement for firepower, and airborne maneuver to gain positional advantage. The elements of combat power provide a useful construct in assessing the components of effects-based operations and insights into its claim to represent a new form of warfare.

*Information, Leadership, and Decisionmaking.* Information is key to successful execution of effects-based operations. The proper utilization of precision guided munitions demands virtually perfect target information on the enemy. This "know your enemy" requirement is not entirely far fetched. Sensors, imagery, and computer technology promise to yield considerable information advantages to U.S. forces over potential adversaries. Sun Tzu would applaud such technological efforts:

> And as water shapes its flow in accordance with the ground, so an army manages its victory in accordance with the situation

> of the enemy. And as water has no constant form, there are in war no constant conditions. Thus, one able to gain the victory by modifying his tactics in accordance with the enemy situation may be said to be divine.[15]

Indeed, this technological edge could provide a level of information superiority enjoyed by no other force in history, leaving U.S. forces well-positioned to execute effects-based operations.

However, unfamiliar with current advances in technology, Clausewitz would most likely disagree. He cynically commented about intelligence in the past, stating:

> Many intelligence reports in war are contradictory; even more are false, and most are uncertain. . . . one report tallies with another, confirms it, magnifies it, lends it color, till [the commander] has to make a quick decision—which is soon recognized to be mistaken, just as the reports turn out to be lies, exaggerations, errors, and so on. In short, most intelligence is false, and the effect of fear is to multiply lies and inaccuracies. As a rule most men would rather believe bad news than good, and rather tend to exaggerate the bad news. . . . This difficulty of *accurate reflection* constitutes one of the most serious sources of friction in war, by making things appear entirely different from what one had expected.[16] [italics original]

While most modern commanders or military commentators would not share Clausewitz' pessimistic view of intelligence, they would also recognize that it is not a panacea of success. U.S. military forces were unable to stop SCUD launches during the Gulf War, nor could they find and destroy all of Iraq's nuclear and chemical sites.[17] Incomplete intelligence led to the bombing of the Al Firdos bunker in Iraq and inaccurate intelligence to the bombing of the Chinese embassy in Kosovo.[18] Not much has changed in the last decade. Targeting errors and incorrect information about rival groups in Afghanistan have resulted in a number of attacks on unintended targets and in friendly casualties.[19] While such incidents do not invalidate the concept of effects-based operations, they suggest that the U.S. military will never achieve perfection in knowledge of

the enemy. Effects-based operations will always contain a human dimension that will introduce risk and error and ultimately limit advances in technology. Clausewitz would also suggest that in war the enemy reacts, and will no doubt take actions to deceive sensors and imagery, or disperse in a manner to mitigate vulnerabilities to acquisition and attack.[20]

By itself, information is only a stream of data, of no value unless acted upon. Leadership is the mechanism that provides the necessary direction, manifested in the commander and his ability to assess information and make decisions. Effects-based operations must follow a similar cycle to properly assess the enemy system, select the vulnerable nodes, and then attack to collapse the enemy's system. However, the information age brings with it additional issues that challenge the decision cycle: dependency on information, potential for massive overload of information, and over-centralization of command. As Michael Handel has argued:

> We now know more, but this makes us more, not less uncertain. In the final analysis, intelligence problems are human—problems of perception, subjectivity, and wishful thinking—and thus are not likely to disappear no matter how much the technological means of intelligence improve. Therefore the suggestion that war since the time of Napoleon and Clausewitz has lost much of its "friction" is baseless.[21]

Michael Handel concludes:

> Thus while friction and uncertainty continue to exist, their causes and origin have changed with time. Another modern danger is that less-important decisions will be made at higher echelons as political and military leaders attempt to centralize the management of war by removing authority from lower-level commanders on the battlefield. Field commanders will thus become agents inspecting the implementation of orders from the rear, rather than military decision-makers grappling with the dangers and uncertainties of war. Technology has changed the nature of intelligence by eliminating some of the problems while creating others.[22]

Thus, theory and science suggest the necessity for perfect information and rapid decisionmaking is a major weakness in the execution and assessment of effects-based operations. While such an approach will do well using precision munitions on known, fixed targets, such attacks are less likely to succeed against dispersed, hidden, mobile, or politically sensitive targets. Effects-based operations depend on human intelligence assets to determine the real effects on the enemy's overarching system and will. If such precision attacks do not produce immediate strategic decision, enemy reactions could circumvent effects. This may explain the unending controversies about the strategic air campaign's effectiveness in World War II and subsequent campaigns.[23] In each of these conflicts the challenges of assessing battle damage, the enemy's reaction to attack, his resolve to continue, and the impact of strategic attacks on the enemy's political decisionmaking still elude final resolution. Indeed, accurate intelligence may well be the Achilles heel of all effects-based operations. A thesis presented to the School of Advanced Airpower Studies at Maxwell Air Force Base concludes:

> Due to the fog of real-world operations, complete and perfect intelligence will never exist. Even if perfect knowledge of the physical battlespace did exist, many of the most sought-after effects reside only in the enemy's mind and will never be fully known. We must be ever cognizant that the logical beauty of effects-based theory tends to mask its practical limitations at the higher levels of war.[24]

*Protection*. Stealth technology as a component of protection is less controversial. Today stealth technology is an asymmetrical advantage that allows certain U.S. aircraft to strike enemies with virtual invincibility. Deptula, in his arguments for changes in force structure, makes the point that despite the increased cost of stealth, the cost per target hit is far less because such aircraft require virtually no supporting aircraft.[25] However, one must remember that the bombers in the age of Douhet were

also "stealthy," only to have scientists develop radar. Stealth technology may yet prove not to be invincible.

Protection also applies to the target, and the enemy will take every action possible to inhibit attacks and protect his vulnerable points. This includes historical actions such as camouflage, dispersion, and movement, as well as locating critical capabilities among innocent civilians or structures such as churches and hospitals.[26] Nevertheless, the advantages of protection lie with proponents of effects-based operations as stealth at present has no countermeasures, while sensor technology can do much to defeat the traditional protective actions of adversaries.

*Firepower***.** U.S. Army Field Manual (FM) 3-0 *Operations* defines firepower as "the destructive force essential to overcoming the enemy's ability and will to fight."[27] In its purest form, firepower is without direction and contributes only the potential attrition of the enemy. Used with other elements of combat power, firepower attrition gains focus and timing to produce a synergistic output far greater than firepower alone. This is central to employment of effects-based operations, as information, stealth, and maneuver are what allow the precision munitions to strike appropriate targets and generate desired synergistic effect. The distinction, however, is not the application of firepower or its relationship with the other elements of combat power. It is the level of war at which that firepower seeks effect. For the advocates of effects-based operations, it is its ability to immediately strike at the strategic level of war that sets it apart from other concepts of warfare.

Strategic attacks that either bypass, circumvent, or negate ground combat are appealing to political leaders, since such attacks could minimize casualties, expenses, collateral damage, and conflict duration, while still achieving the strategic and political objectives. The Air Force defines strategic attack as:

> those operations intended to directly achieve strategic effects by striking at the enemy's [centers of gravity]. These

> operations are designed to achieve their objectives without first having to necessarily engage the adversary's fielded military forces in extended operations at the operational and tactical levels of war. . . . Strategic attack objectives often include producing effects to demoralize the enemy's leadership, military forces, and population, thus affecting an adversary's capability to continue the conflict.[28]

Strategic attack follows the historic influence of Douhet and Mitchell with its notion that air power can unilaterally attack strategic centers of gravity to meet national objectives. However, history has not been kind to such thinking, as the course of World War II's air campaign might suggest:

> By claiming so much for air power before the war (and after the war as well), airmen created false perceptions that documentary and historical evidence simply does not support. The strategic bombing offensives contributed to Allied victory because they supported and were supported by the efforts of Allied ground and naval forces.[29]

While strategic bombing played a crucial role in Nazi Germany's defeat, a number of pre-war assumptions proved wrong: industrial infrastructure proved resilient, immensely flexible, and adaptable "in the face of incredible hardships and difficulties." Civilian morale was an elusive target, more prone to anger rather than panic or collapse. Regimes—whether democratic or totalitarian—proved adept at providing the necessary stiffening needed to maintain political stability.[30] Five years of strategic bombing over the course of World War II killed hundreds of thousands of German civilians, destroyed entire cities, curtailed industrial output, and crippled transportation nodes: *all with immense effect*. Yet such effects-based operations still failed to render a strategic decision. What can make current analysts so bold as to argue that stealth and precision munitions will render such a decision in a more media critical environment with arguably more political restrictions on the application of force? Indeed, effects-based operations using stealth and precision

munitions may be a quantum leap in efficiency, but the nature of strategic targets have changed little and the likelihood of strategic success based on new weapons seems dubious. There is a fundamental difference between military efficiency and military effectiveness. However, at the operational level, effects-based operations seem to offer much greater promise.

*Operational Fires***.** Army FM 3-0 defines operational fires as "the operational level commander's application of nonlethal and lethal weapons effects to accomplish objectives during the conduct of a campaign or major operation."[31] Operational fires also need application of the other elements of combat power to increase effects. In the Korean War, this was certainly the case.

> General O. P. Weyland, commander of the U.S. Far East Air Forces, [commented that] the greatest level of effort by the air forces was devoted to interdiction of enemy supplies and reinforcements. Here the lesson of northern Italy in 1944 and 1945 had to be learned all over again: for air interdiction to be effective, the surface forces had to be in control of the tactical initiative.[32]

Current Army doctrine echoes Weyand's point:

> [O]perational maneuver does not necessarily depend on operational fires. However, operational maneuver is most effective when commanders synchronize it with, and exploit opportunities developed by, operational fires. Combining operational fires with operational maneuver generates asymmetric, enormously destructive, one-sided battles, as the Desert Storm ground offensive showed.[33]

Air Force doctrine agrees that "interdiction and surface-force maneuver can be mutually supporting." Nevertheless, unlike Weyland, it leaves room for effects by air power only.[34] This belies the historical lessons that underline the synergistic effects generated by combining operational fires with operational maneuver: Neither is as effective in the absence of the other. In this case, U.S.

warfighting doctrine would suggest that inclusion of ground maneuver enhances effects-based operations; and that "parallel war" using air power alone would be less effective than combining those effects with a ground maneuver force. It also insinuates that application of combat power at the strategic and operational levels is somehow different than at the tactical level and that while persuasive, "parallel war" lacks the compelling force of close combat. It begs the question: Why?

## To Compel: Effects-Based Operations or Close Combat?

Clausewitz defines war as "not merely an act of policy but a true political instrument, a continuation of political intercourse, carried on by other means."[35] He describes war as a true chameleon, a paradoxical trinity composed of the government, the armed forces and the people—three human forces that continuously interact.[36] To Clausewitz, war is a human endeavor, comparable to commerce as opposed to an art or science.[37] While he recognizes that political constraints limit the use of force and prevent war from achieving its absolute state,[38] he underlines that war is "an act of force to compel our enemy to do our will." His choice of words is important—*compel* leaves no alternative for the enemy; he must conform to our will. Had he chosen "coerce" or "persuade," he would have left the final decision with the enemy. This is the critical difference between the "control" warfare of effects-based operations and the compelling force of close combat, born of fire and maneuver.

FM 3-0 states that "tactical fires destroy or neutralize enemy forces, suppress enemy fires, and disrupt enemy movement. Tactical fires create the conditions for decisive close combat."[39] It notes that close combat is:

> [I]nherent in maneuver and has one purpose—to decide the outcome of battles and engagements. Close combat is combat carried out with direct fire weapons, supported by indirect fire, air delivered fires, and non-lethal engagement means. *Close*

> *combat defeats or destroys enemy forces, or seizes and retains ground*. The range between combatants may vary from several thousand meters to hand-to-hand combat. [emphasis in the original][40]

In essence, close combat is the final arbiter of war. It combines ground maneuver with firepower to render the enemy's reactions ineffective and eventually drives him to defeat. It forces resolution of the political issue on contested terrain in the only possible way: through interpersonal, human-to-human contact. From the perspective of the U.S. Army,

> Close combat is necessary if the enemy is skilled and resolute; fires alone will neither drive him from his position nor convince him to abandon his cause. Ultimately, the outcome of battles, major operations, and campaigns depends on the ability of Army forces to close with and destroy the enemy.[41]

By virtue of human interaction, continuous presence in close proximity, and certainty of destructive force, close combat *compels* the enemy to do our will—leaving him no choice but capitulation. By contrast, effects-based operations and its fires approach is impersonal, fleeting in nature, and from the enemy's eye, indiscriminate. While persuasive, such fires *leave the decision with the enemy*—he may decide to capitulate, or may decide to prolong the conflict to the last man.[42] This does not mean the United States should pursue a "close combat only" approach; it means that strategic policymakers must recognize that it is the essential end to successful warfighting in conjunction *with* strategic attack, *with* operational fires, and *with* tactical fires. The assertion that effects-based operations and "control warfare" have ushered in a new era in warfare defies history, theory, and misreads the changes technology offers. Some within the Air Force community agree, as a recent article in the *Airpower Journal* concluded:

> U.S. Air Force aerospace-power doctrine should be more coercively oriented than idealistically decisive. Coercive airpower is the most likely reality in future wars (outside

> nuclear conflict). . . . Current aerospace-power doctrine is a two-edged sword. One edge utilizes doctrine as a marketing tool to compete in the joint service arena for future military programs, while the other edge attempts to guide airmen in sound warfighting principles. The challenge is to minimize the marketing utility of doctrine and maximize the operational relevance to the warfighter.[43]

Thus, while air power is alluring because it does not require American soldiers on the ground, by itself it lacks the compelling force that ensures decision in conflict. Those who advocate strategic attack for future wars will bear the same burden as their predecessors: video effects which titillate the media but which are painfully unable to produce strategic decisions without a dominant ground maneuver component. The greatest lesson is not the emergence of effects-based operations to vindicate strategic attack and control as a "new form of warfare," but the vast power of orchestrated joint operations utilizing the combat power of all the services. Indeed, by cloaking strategic attack under the mantel of effects-based operations, air power purists do a disservice to a more joint oriented mainstream Air Force.[44] Yet, if the technological advances of stealth, sensors, and precision munitions are not by themselves decisive, are there implications for the essence of dominant maneuver?

**Decisive and Coercive Power: A Model.**

Dividing the use of military power into component parts of compelling and coercive force provides a model to illustrate the use of such forces in war. The model begins with compelling and coercive forces in being. A conflict arises, requiring the use of force. A decision cycle must assess the nature of the conflict and determines how to apply both coercive and compelling force. During the conflict, a reassessment process redirects the use of force enroute to meeting policy objectives. Figure 1 illustrates this point.

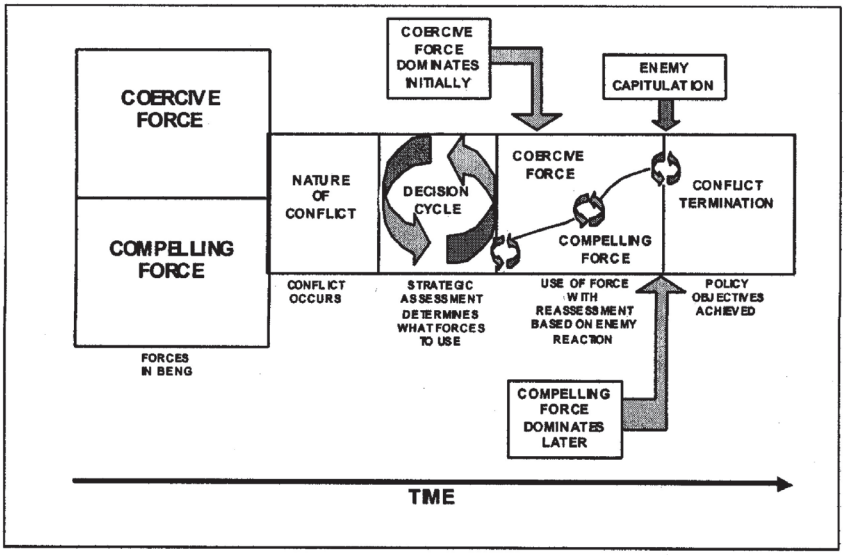



**Figure 1.**

Early in the conflict, coercive force dominates the application of power. It sets the conditions for the use of compelling force. It also offers the adversary an opportunity to capitulate, should this coercive use of force persuade him that defeat is inevitable. If the adversary refuses to surrender, continuous reassessments must adjust the use of force, shifting emphasis to compelling force, ultimately imposing policy and strategic objectives on the enemy.

One can extend the model to substitute fires such as air power and fire support for coercive force and ground maneuver that uses physical presence and direct fire weapons as compelling force to complete a mental picture of warfare. This gives a more tangible application to the model and allows for detailed analysis of the relationship between fires—a coercive force, and maneuver—a compelling force. It ultimately identifies the true impact of stealth, sensors and precision munitions on dominant maneuver, outside the paradigm of effects-based operations.

## Stealth, Precision, and Information Enter the Empty Battlefield.

That the concept of effects-based operations and control warfare has emerged from the stealth and precision of air power misreads an age-old trend of ever increasing lethality in *all* aspects of warfare—a trend that has affected combatants since the beginning of time. While U.S. military forces have achieved technological leaps in stealth, sensors, and precision munitions, ground warfare has also become more lethal with its own precision munitions, nonline-of-sight weapons, forward-looking infrared radar and thermal imaging, and ever increasing ranges for weapons. Through it all warfare has not changed; but it is just the same, *ever-changing*. It is here that Clausewitz likened war to a duel; and he reminds us that war "is not the action of a living force upon a lifeless mass" but the "collision of two living forces" that interact.[45]

Indeed, warfare continues to become more and more lethal and man *responds* to that lethality. Lethality, be it an air-launched cruise missile or a Javelin anti-tank weapon, has produced reactions such as the "empty battlefield"[46] and strategies such as Mao's "protracted war."[47] Advocates of effects-based operations misread this trend in lethality, as if enemies will not be able to react to the use stealth and precision weapons. Indeed, they will react—and much as the U.S. military would wish for enemies like Iraq, such wishful thinking is just what the next "Ho Chi Minh" is hoping for. But it is in this reaction that we can envision the impact of precision fires on dominant ground maneuver.

## Precision Fires and Their Impact on Dominant Maneuver.

As part of the increasing trend in weapons lethality, precision fires have the potential to cause significant changes in the employment of maneuver forces. Because these munitions offer greater destructive effects on the enemy prior to maneuver contact, they have potential for

early exploitation and less emphasis on attrition for maneuver forces. This, in turn, would also allow for lighter, more dispersed maneuver forces that could cover increased portions of the battlespace. It would require a new tactical mindset; increased fighting in depth with a clear emphasis on engagements out of contact. This match of precision engagement with dominant maneuver will have significant implications for Army objective force development and operations. It suggests that lighter, more deployable forces fighting on a dispersed battlefield with precision weapons can be lethal, survivable, and effective.[48]

The larger the lethality gap with the opponent, the greater the opportunity for precision engagement to enable exploitation operations instead of traditional forms of maneuver. This will be particularly true when U.S. forces are fighting industrial age mechanized forces. But it will be less true at the low end of the conflict spectrum in guerrilla wars with few, if any, targets suitable for precision munitions. Full spectrum operations demand flexible forces capable of fighting many potential foes. Indeed, the likelihood of low intensity operations becomes ever greater, given the vulnerabilities of industrial age mechanized forces to precision engagement and dominant maneuver. Thus, as the Army transitions to the objective force it must maintain a full spectrum capability and not rely upon precision fires as a panacea. To that end, there is another version of effects-based operations; one that looks beyond precision weapons and stealth and instead focuses on decision cycles at the tactical, operational and strategic levels of war.

## A New Version of Effects-Based Operations.

> We shall always win by reason of pluck: and, if it is not the only cause of victory, it is always the most essential factor and the one without which we cannot hope to succeed.[49]
>
> Sir Douglas Haig

Haig's argument speaks volumes about the mindset that resulted in the bloodbath of World War I. Despite overwhelming evidence that defensive firepower would dominate the next battlefield, the British fixated on the élan or "pluck" of the offense. Clinging to this notion gave rise to extraordinary casualty rates for gains of mere yards of terrain, as generals failed to adapt to the lethality of the modern battlefield.[50] Yet faith-based operations, such as these, typify military units entering combat. Military leaders combine their experience, doctrine, history, and wargames to develop "rules" to guide operations. They combine these rules with assumptions regarding the enemy, environment, and themselves to produce a plan of action.[51] These plans equate to Haig's "pluck-based" operations; unfortunately plans that might be successful, but without adaptation, produce excessive costs. One does not have to look far for other examples of faith-based operations. Bomber Command and the Eighth Air Force in World War II clung to their peculiar strategic bombing theories that "the bombers would always get through" despite crippling losses from German Luftwaffe.[52] Likewise, the United States fought 10 years of attrition warfare in Vietnam against an enemy whose will to fight and his tenacity to stay the course ultimately prevailed despite enormous disadvantages in every measurable element of national power.[53] Of greater importance, the United States may well be *unavoidably* building the foundations for new, but similar faith-based operations today, awaiting the crucible of war for resolution. What, then is the solution? A new variant of effects-based operations from the Joint Advanced Warfighting Program at the Institute for Defense Analysis provides a wholly new and different perspective on effects-based operations with implications for all services.

*Adapting From Faith-Based Operations***.** Historically, successful commanders have always transcended faith-based operations by understanding the enemy and his intentions through a process of analyzing, assessing,

adapting their force, and by executing based upon effects and reality rather than hope and belief.[54] It is here that the Institute for Defense Analysis has advanced the concept of effects-based operations into the realm of strategic and operational decisionmaking. Its concept seeks to utilize effects-based thinking to filter the vast amounts of information provided by sensors into decision superiority to produce decisive effects in combat. This strategic and operational version of effects-based operations is not tied to stealth and precision munitions capabilities, but provides a theoretical foundation to maximize new and future information technologies. It seeks to alter an enemy's actions by affecting his capabilities and decisionmaking while avoiding undesired effects and mitigating or exploiting unexpected effects.[55] It does not claim to lift the fog of war,[56] but may serve to improve information management challenges by focusing sensors on specific areas to match decisions, much like current Army doctrine posits the Commander's Critical Information Requirements. It also highlights two long-standing tenets of Army operations: Agility and initiative.

FM 3-0 defines agility as "the ability to move and adjust quickly and easily." It further states that "agility is not merely physical; it requires conceptual sophistication and intellectual flexibility. . . . Agile commanders quickly comprehend unfamiliar situations, creatively apply doctrine, and make timely decisions."[57] This is the essence of the version of effects-based operations developed by the Institute for Defense Analysis. It emphasizes the use of intellectual adaptability to comprehend what has changed in warfare, adjust to new realities, and re-enter battle with new methodologies to generate greater positive effects. Like agility, this version of effects-based operations keys on the ability to react to opportunity, make decisions more rapidly, and exploit opportunities. Its nature is generally reactive; coupled with the initiative, it is proactive—the greatest challenge for effects-based operations.

By its nature, an effects-based operation is an analytical form of warfare; it anticipates events and enemy reactions, then acts, assesses, and acts again. It is analogous a chess match; methodical and deliberate—a contest of action and reaction. Like the grand master, those who conduct effects-based operations must strive to see many moves into the future—anticipating the enemy and setting conditions for friendly forces. However, such a concept becomes increasingly more difficult to implement as one transcends the levels of war from the strategic, to the operational, and finally to the tactical level. At the tactical level, war more closely resembles a boxing match than a game of chess. The boxer strives to deliver a rapid series of blows to weaken, then knock out his adversary, all while avoiding or absorbing the blows of his opponent. There is some respite between rounds, but the boxer must adapt to an environment of blood, sweat, pain, and exhaustion—an atmosphere that does not forgive faith-based operations, but one that requires clear doctrine and established tactics, techniques, and procedures.

When the bell sounds, the boxer must take advantage of fleeting opportunities or the effects of his punches diminish. He must rely on instinct, intuition, and training as much as analysis and adaptation. Only such an approach allows him to retain the initiative, a tenet FM 3-0 defines as follows:

> *initiative is setting or dictating the terms of action throughout the battle or operation*. Initiative implies an offensive spirit in all operations. To set the terms of battle, commanders eliminate or reduce the number of enemy options. They compel the enemy to conform to friendly operational purposes and tempo, while retaining freedom of action . . . In the offense, initiative involves throwing the enemy off balance with powerful, unexpected strikes. It implies never allowing the enemy to recover from the initial shock of an attack. To do this, commanders mass the effects of combat power and execute with speed, audacity, and violence. They continually seek vulnerable spots and shift their decisive operation when opportunities occur. To retain the initiative, leaders press the fight tenaciously and aggressively. They accept risk and push soldiers and systems to their limits.

> Retaining the initiative requires planning beyond the initial operation and anticipating possible events. The higher the echelon, the more possibilities the commander must anticipate and the further in advance the staff must plan. [emphasis in original][58]

It would seem that initiative and effects-based operations create an operational paradox: one utilizes instinct and intuition to seize opportunity, while the other applies intellectual analysis and reassessment in a more cautious and efficient application of power. Indeed, effects-based operations can diminish initiative in favor of more careful analysis: more of a surgical approach than Clausewitz's blunt instrument. While well-intentioned, they may serve to paralyze operations, in a search of intellectual perfection to the detriment of good enough. Likewise, ingrained instincts, intuitions, and training born of flawed pre-war practices can lead to deadly initiatives at the hands of an adaptive enemy. In the final analysis, initiative and effects-based thinking are not incompatible; effects-based thinking can assist determining the best actions to maximize effects on the enemy and minimize collateral effects that detract from desired outcomes. But the environments of effects-based thinking are considerably different at the tactical and strategic levels of war.

**Effects-Based Tactics: Where Battles Are Won.**

Army officer and military historian Michael Doubler outlined in his works the innovative actions of the U.S. Army to improve its operations in North Africa and Europe during World War II. These include how tactical elements adapted to the challenges of hedgerow country, air-ground integration, urban fighting, river crossings, the Hûrtgen Forest, and defense actions during the German Ardennes offensive. Doubler notes:

> Commanders learned to apply doctrine flexibly or to ignore it altogether, as they sought ways to defeat a tenacious enemy defending from inhospitable terrain and employing unique

> tactics. Combat revealed a number of shortcomings in organization and capabilities. Americans implemented an unusual variety of tactical and technical innovations, and commanders altered both branch-specific combat techniques and combined arms tactics to overcome different types of enemy defenses under varying conditions of weather and terrain.[59]

In each case, innovation came from identification of a problem, a reassessment of doctrine, experimentation with various ideas, disseminating what worked, and training the new technique. Sergeant Curtis Culin's "rhinoceros" hedgerow cutter coupled with the 29th Division's hedgerow tactics in the Normandy breakout is one such example.[60] Thinking about tactical level effects and innovation requires time and experimentation to develop. Rarely is it the product of fragmentary orders or the commander's initiative in combat, but can clearly result from the pressures of war. It can be a deliberate or informal process that solicits solutions from all quarters to deal with near term objectives and then allocates resources to accomplish the mission. It requires positive and open command climates in tactical units to encourage innovative thinking from soldiers and junior leaders—not autocratic leadership styles that engender fear and inhibit initiative. Tactical success will not be a product of catchy rhetoric or claims to being "effects-based," but only the product of detailed doctrine, hard training, and practiced battle drills.

## Conclusion: The End of Dominant Maneuver?

There are many versions of effects-based operations—a dangerous proposition when leaders agree to a concept that has several different methodologies. As Joint Forces Command develops the conceptual basis for effects-based operations, its analysts would perform a great service to the joint community by defining the parameters of effects-based operations and its associated relevance to each level of war. To that end, Joint Forces Command should consider the three aspects of effects-based operations discussed in this chapter.

First, attempts to vindicate Guilio Douhet and strategic bombing under the mantel of strategic attack, effects-based operations, and control warfare have little basis in theory and represent a risky proposition upon which to base national defense. This version of effects-based operations may be an effective strategy for air power procurement, but is the antithesis of joint warfighting. Above all, it discounts the considerable synergies that joint forces can generate. Indeed, such thinking taints the term "effects-based operations" to such an extent that Joint Forces Command will face considerable resistance to their work based on the origins of the concept, not the final quality of the product.

Second, effects-based targeting as part of strategic attack and operational fires *in conjunction with* dominant ground maneuver shows more promise. It has historical precedents and can match those precedents with more efficient and effective precision engagement. The use of "Centers of Gravity and Critical Vulnerabilities" would be an excellent theoretical foundation upon which to develop such a construct. Such a methodology using center of gravity, critical capabilities, critical requirements, and critical vulnerabilities, would provide direction to effects-based strategic and operational targeting.[61] It would allow such attacks to set the conditions for exploitation focused dominant ground maneuver.

Finally, effects-based thinking does have meaningful insights to offer ground operations. Such a conceptual approach provides a means to transcend faith-based operations. It forms a useful paradigm for leadership, professional schooling, wargaming, and experimentation. But it is at the same time a dangerous concept to promote at the tactical level. The analytical nature of effects-based operations makes it foreign to tactics where battle drills, standard operating procedures, and hard training are more important to success. Indeed, the use of "effects-based" terminology within tactical doctrine is most likely a smoke screen for "no doctrine, tactics, techniques or procedures."[62] Such a clean slate approach at the tactical level would likely

cause extreme friction in execution and lead to battlefield disaster.

The many faces of effects-based operations make it a difficult concept to understand. As well, the proliferation of "effects-based" terminology into doctrinal products without regard to a defining construct makes it even more problematic, if not dangerous. However, there is one conclusion that is constant for every version of the concept: effects-based operations will not end the requirement for dominant ground maneuver. As T. R. Ferehenbach said, "If free nations want a certain kind of world, they will have to fight for it with courage, money, diplomacy—and legions."[63] Like the Romans, it will be the legions of dominant ground maneuver that compel the enemy in war.

## ENDNOTES - CHAPTER 3

1. Eliot A. Cohen, *Revolution in Warfare? Air Power in the Persian Gulf*, Annapolis, MD, 1995, p. 213.

2. Williamson Murray, *et al.*, "An Historical Perspective on Effects-Based Operations," Draft Working Paper, Joint Advanced Warfighting Program, Institute for Defense Analysis, July 2001, p. 5.

3. U.S. Joint Forces Command J-9 Concepts Department, "Effects-Based Operations White Paper Version 1.0," Norfolk, VA, October 18, 2001, p. ii.

4. John A. Warden III, "The Enemy as a System," *Airpower Journal*, Spring 1995, p. 54.

5. David A. Deptula, *Effects-Based Operations: Change in the Nature of Warfare*, Washington, DC, 2001, p. 18.

6. *Ibid.*, p. 19.

7. *Ibid.*, pp. 23-26.

8. The reference to the Army's "visceral hatred" of effects-based operations was a remark made by a speaker participating in the Commandant's Lecture Series.

9. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, trans. and eds., Princeton, NJ, 1976, p. 75.

10. *Ibid.*, pp. 141-142.

11. David MacIsaac, "Voices from the Central Blue: Air Power Theorists," in Peter Paret, ed., *Makers of Modern Strategy*, Princeton, NJ, 1986, p. 630.

12. *Ibid.*, p. 631.

13. Department of the Air Force, "Air Force Basic Doctrine," Air Force Doctrine Document 1, Washington DC, September 1997, pp. 51, 54. Referred to hereafter as "Air Force Basic Doctrine."

14. Field Manual 3-0, "Operations," Washington DC: Department of the Army, June 14, 2001, pp. 4-3 - 4-11. Referred hereafter as FM 3-0.

15. Sun Tzu, *The Art of War*, Samuel B. Griffith, trans., Oxford, England, 1963, p. 101.

16. Clausewitz, *On War*, p. 117.

17. Cohen, *Revolution in Warfare?* pp. 66-78; 119.

18. For details concerning bombing of the Al Firdos bunker, see Eliot A. Cohen, *Gulf War Air Power Survey*, Washington DC, Vol. II, 1993, p. 89. For details concerning bombing of the Chinese Embassy in Kosovo, see Wesley K. Clark, *Waging Modern War*, New York, 2001, pp. 296-297.

19. Larry Kaplow, Don Melvin, "A Tricky Time in Afghanistan U. S. Accused of Bombing Convoy of Friendly Leaders," *Atlanta Constitution*, December 22, 2001 [database on-line]; available from UMI Pro Quest, Bell & Howell. Accessed February 10, 2002. See also Paul Richter, "RESPONSE TO TERROR; THE AFGHANISTAN CONFLICT; 'Friendly Fire' Still a Factor in Battles; Weapons: Despite Better Bombing Precision and Battlefield Identification, Military Officials Say, Inadvertent Casualties are Difficult to Avoid," *The Los Angeles Times*, December 6, 2001 [database on-line]; available from UMI Pro Quest, Bell & Howell. Accessed February 10, 2002.

20. Clausewitz, *On War*, p. 77.

21. Michael I. Handel, *Clausewitz and Modern Strategy*, Ilford, Essex, 1986, p. 69.

22. *Ibid.*, p. 70.

23. Robert A. Pape, *Bombing to Win*, Ithaca, NY, 1996, pp. 314-331. Pape provides a historical assessment of various air campaigns. His conclusions about the viability of strategic attack are discussed in the pages above. Pape asserts that air power is coercive, not decisive, as an element of military power.

24. T. W. Beagle, "Effects-Based Targeting: Another Empty Promise?," MA Thesis, Maxwell Air Force Base, AL, June 2000, p. 110.

25. David A. Deptula, "Effects-Based Operations: Change in the Nature of Warfare," April 23, 2001, video webcast available from *http://www.connectlive.com/events/afa/*; Internet. Accessed December 11, 2001.

26. Robert H. Scales, *Firepower in Limited War*, Novato, CA, 1995, pp. 235-238. Scales describes the actions of an Iraqi field artillery firing battery that eluded destruction by air power by burning tires, only to have U. S. counterfire destroy the battery after its first mission.

27. FM 3-0, p. 4-6.

28. *Air Force Basic Doctrine*, p. 51.

29. Williamson Murray, "Reflections on the Combined Bomber Offensive," *Militargeschichtliche Mitteillungen* 51, 1992, Heft 1, p. 92.

30. *Ibid.*, p. 93.

31. FM 3-0, p. 4-6.

32. MacIsaac, *Voices from the Central Blue: Air Power Theorists*, p. 643.

33. FM 3-0, pp. 4-6 - 4-7.

34. *Air Force Basic Doctrine*, p. 49.

35. Clausewitz, *On War*, p. 87.

36. *Ibid.*, p. 89.

37. *Ibid.*, p. 149.

38. *Ibid.*, pp. 602-604.

39. FM 3-0, p. 4-7.

40. *Ibid.*, p. 4-5.

41. *Ibid.*, p. 4-6.

42. The reference to leaving the decision with the enemy was in reference to the nonuse of ground forces during NATO operations in Kosovo as part of remarks in a USAWC briefing. The leader contended that the single issue that prolonged the conflict was the absence of a viable ground threat, thereby leaving the decision to end the conflict with Slobodan Milosevic.

43. Paul C. Strickland, "USAF Aerospace Power Doctrine Decisive or Coercive?" *Airpower Journal Online*, Fall 2000; available from *http://www.airpower.maxwell.af.mil/airchronicles/apj/apj00/fal00 strickland.htm*; Internet; accessed January 11, 2002.

44. This idea reflects remarks made by a speaker in the U.S. Army War College Commandant's Lecture Series. The remarks noted those that advocates of air power as a unilateral force do not reflect the main stream U.S. Air Force perspective.

45. Clausewitz, *On War*, pp. 75, 77.

46. James J. Schneider, "The Theory of the Empty Battlefield," *Journal of the Royal United Service Institution*, September 1987, pp. 37-44.

47. Mao Tse-Tung, *Selected Military Writings of Mao Tse-Tung*, Peking, China, 1967, pp. 211-214.

48. Coupling small maneuver forces with precision weapons is the subject of much study in current operations in Afghanistan. Use of special operations forces in conjunction with indigenous forces and air power, both precision and conventional weapons, has thus far been tactically successful. However, one must take great care in drawing general lessons from a single conflict—particularly one that has not run its course. But it seems logical to conclude that when one force has a significant lethality advantage over an adversary, he would be able to have greater effect with smaller forces.

49. Tim Travers, *The Killing Ground*, London, 1987, p. 89.

50. CS Forrester, *The General*, Annapolis, MD, 1947.

51. Gwen Linde, *et al.*, *New Perspectives on Effects-Based Operations: Annotated Briefing*, Washington, DC: Joint Advanced Warfighting Program, Institute for Defense Analysis, June 2001, p. 16.

52. Murray, *An Historical Perspective on Effects-Based Operations*, p. 32-48.

53. Andrew Krepinevich, *The Army in Vietnam*, Baltimore, MD, 1986, pp. 258-260. See also Harry Summers, *On Strategy*, Novato, CA, 1982, pp. 83-91.

54. Linde, *New Perspectives on Effects-Based Operations*, pp. 17-18.

55. *Ibid.*, p. 18.

56. *Ibid.*, p. 14.

57. FM 3-0, pp. 4-16 - 4-17.

58. *Ibid.*, p. 4-15.

59. Michael D. Doubler, *Closing with the Enemy*, Lawrence, KS, 1994, p. 5.

60. *Ibid.*, pp. 45-50.

61. Joe Strange, *Centers of Gravity & Critical Vulnerabilities*, 2nd ed., Quantico, VA, 1996, p. 43.

62. "Fires and Effects," Chapter 8, IBCT Organizational and Operational Concept, July 31, 2000, p. 1; available from *http://www.lewis.army.mil/transformation/O&O%20brief/8.pdf*; Internet; accessed February 13, 2002.

63. T. R. Feherenbach, *This Kind of War: A Study in Unpreparedness*, New York, 1963, p. 659.

# CHAPTER 4

# EFFECTS-BASED OPERATIONS: A NEW OPERATIONAL MODEL?

**Lieutenant Colonel Allen Batschelet**

## Preparing for an Uncertain Future.

The U.S. *Quadrennial Defense Review Report*, published on September 30, 2001, described the critical importance of adapting the national security apparatus of the United States to new challenges.[1] It also emphasized the need for U.S. military forces to maintain the ability to assure allies, dissuade adversaries, deter aggressors, and defeat any adversary, if deterrence were to fail, while modernizing the force and exploiting the revolution in military affairs.[2] The successful addressing of these challenges requires an appreciation of the environment in which U.S. military forces will operate in the 21st century.

While there is considerable uncertainty in the emerging U.S. security environment, several trends have appeared. First, America's geographic position offers diminishing protection, as the events of September 11, 2001, demonstrated. Second, the United States is not likely to face a peer competitor in the near future. Third, regional powers increasingly have the ability to threaten the stability of regions critical to U.S. interests. Fourth, weak and failing states provide a haven in which nonstate actors can operate with impunity to acquire power and military capabilities. Fifth, developing and sustaining regional security arrangements ensures the ability of the United States to operate with its allies in a manner consistent with common interests. Moreover, there is an increasing diversity in the

sources and unpredictability in the locations of conflict.[3] Finally, as influential as these trends, the rapid advancement of military technologies is providing the U.S. military with new tools and capabilities.[4]

Meeting the demands of an ever changing strategic context demands that the U.S. military develop forces capable of achieving what *Joint Vision 2020* describes as "Full Spectrum Dominance."[5] Achieving such dominance requires the integration of service core competencies at the operational level. The building of effective military forces for 2020 requires joint integration, intellectually, operationally, organizationally, doctrinally, and technically.[6] At present, much of the responsibility for such integration falls to the U.S. Joint Forces Command. In keeping with this charter, that command is examining the concept of effects-based operations.

Effects-based operations, as a "new" concept, emerged following the Gulf War. From their observation of the 1990-91 Gulf War, some in the U.S. defense community argued that the war in South West Asia demanded fundamental changes in the "American way of war."[7] These advocates posit that recent conflicts in Bosnia and Kosovo have demonstrated a maturation of this concept. According to the argument, rather than relying on old approaches of annihilation or attrition, this new way of conducting operations will focus on generating desired effects, rather than on objectives or the physical destruction of targets. Examination of this idea by J9 Joint Forces Command resulted in the publication of a White Paper on October 18, 2001, titled "Effects Based Operations." The White Paper is, according to its authors, "a result of pre-concept topic area exploration and subsequent command decision to proceed with concept development."

What is this concept called effects-based operations? Is this a new concept or is it an old idea in a new wrapper? Such questions form the basis of this study, which begins by defining effects-based operations. Then, in an attempt to

determine whether or not the idea is new, it examines the historical basis of effects-based operations, eventually comparing the concept with a component or enabling idea of the Army's AirLand Battle Doctrine, namely, target value analysis.[8]

**Defining Effects-Based Operations.**

Current discussions of effects-based operations involve various definitions and descriptions of the concept. According to J9, effects-based operations are "a process for obtaining a desired strategic outcome or effect on the enemy through the synergistic and cumulative application of the full range of military and nonmilitary capabilities at all levels of conflict." Furthermore, an "effect" is the physical, functional, or psychological outcome, event, or consequence that results from specific military or non-military actions.[9] The defining elements in the J9 description include emphasis on effects-based operations as a process, beginning with developing knowledge of the adversary, viewed as a complex adaptive system, the environment, and U.S. capabilities. Knowledge of the enemy will enable the commander to determine the effects he needs to achieve to convince or compel the enemy to change his behavior. The commander's intent plays a central, critical role, in the determination and explicit linking of tactical actions to operational objectives and desired strategic outcomes. Execution of the plan follows, the aim or task being the use of all applicable and available capabilities, including diplomatic, information, military, and economic.

The purpose then is to create a coordinated and synergistic operation that will produce the desired effects. Continuous assessment must measure and evaluate the impact of the desired effects. Assessment includes determining if military actions achieved the desired effects, produced unintended effects, the overall impact of the effort, and if tactical actions contributed to achievement of the desired outcome. Finally, continuous assessment of the

enemy, U.S. military and political actions as well as the friendly situation will enable the commander to adjust his course of action to reach his desired endstate efficiently and rapidly.[10]

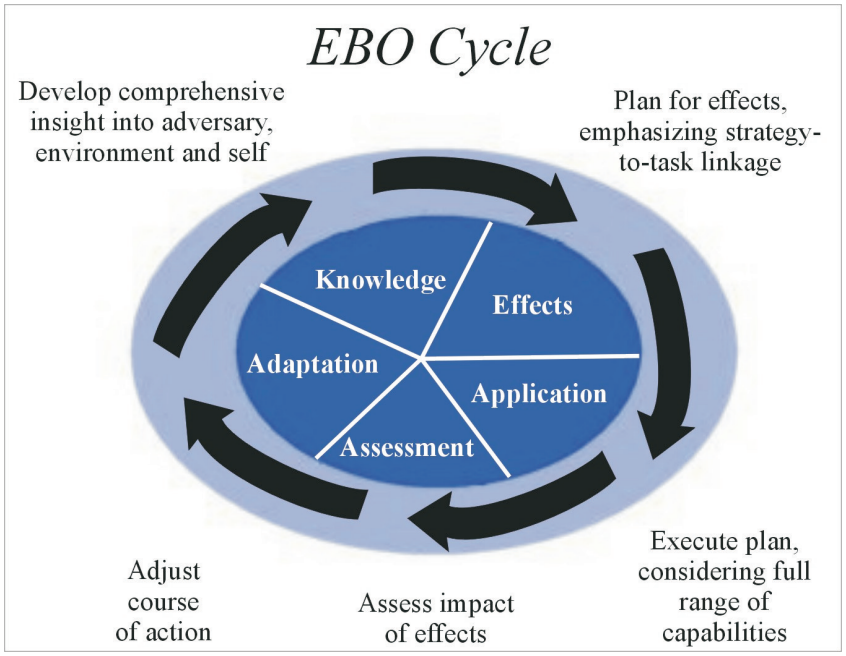



**Figure 1. Effects-Based Operations Cycle.**[11]

Effects-based operations, according to Air Force Major General David Deptula, a prominent advocate, reflect a fundamental change in the nature of warfare. He asserts that the conduct of warfare has changed from campaigns designed to achieve objectives through sequential attack, to what he describes as parallel warfare, or simultaneous attack against all the enemy's vital systems.[12] In Deptula's concept, prosecuting parallel warfare requires precision weapons, the ability to suppress enemy air defenses, and an operational concept that focuses principally on effects rather than only on aggregate destruction to achieve military objectives.[13] The operational concept is effects-based operations. Deptula acknowledges that current doctrinal manuals include words about targeting to

achieve effects. However, he argues that the present focus is on physical target destruction with little concern for the outcome. This focus on destruction comes from two traditional concepts of war, he argues, annihilation and attrition.[14]

Citing Sun Tzu and B.H. Liddell Hart, Deptula advances an alternative concept of warfare based on control—the idea that an enemy organization's ability to operate as desired is ultimately more important than destruction of its military forces. He views destruction as a means to achieve control over an enemy. Destruction, then, should aim at achieving effects on enemy systems, not necessarily at destroying the system but preventing its intended use as the adversary desires.[15] From the Gulf War examples that Deptula offers, one can infer the importance of knowing the enemy, understanding the commander's intent, and achieving the desired effects or outcomes. While he focuses more on selection and employment of means, than on defining effects-based operations, Deptula places the concept at the heart of his study. He asserts that effects-based operations will achieve desired effects through the successful application of force to gain control of systems on which the enemy relies.

A study done by the Institute for Defense Analyses offers a third interpretation of effects-based operations. It begins by arguing that effects-based operations rest on an explicit linking of actions to desired strategic outcomes. It is thus about producing desired futures. Moreover, effects-based thinking must under grid the concept by providing a focus on the entire continuum (peace, pre-conflict, conflict, and post conflict), and not just on conflict.[16] Understanding how to think in this manner enables effects-based operations. This study also emphasizes the need to understand and model an adversary as a complex, adaptive system driven by complex human interactions, rather than just collections of physical targets. Therefore, one should be able to focus operations more coherently.[17] Furthermore, effects-based operations have seven attributes: the need to focus on

decision superiority, applicability in peace and war (full-spectrum operations); a focus beyond direct, immediate first-order effects; an understanding of the adversary's systems; the ability of disciplined adaptation, the application of the elements of national power; and the ability of decisionmaking to adapt rules and assumptions to reality.[18] This study also emphasizes that effects-based operations must use a continuous process of analyzing and understanding, planning, executing, assessing, and adapting. Of note, this study places great importance on communications between decisionmakers at the strategic, operational, and tactical levels, and underlines the criticality of "commander's intent" for ensuring focused efforts and effects.[19] Finally, this work offers that those engaging in effects-based operations must continuously adapt plans, rules, and assumptions to existing reality, in other words, effects based-thinking and operations help the commander to fight the enemy and not the plan.

The above theories of effects-based operations share some common ground. Each starts with an emphasis on the importance of knowledge, knowledge of the enemy, viewed as a complex adaptive system, and knowledge of self. A greater understanding of the enemy enables commanders to think in terms of outcomes expressed through his intent. It allows planners and staffs to determine the tactical actions necessary to accomplish those objectives and desired outcomes. Clearly, the focus is on achieving an effect rather than target destruction. Expression and communication of the commander's intent plays a unifying, focusing, and essential role in ensuring the integration and use of available capabilities to include elements of national power other than military. Moreover, the commander's intent proves critical to the flexibility and adaptability of the plan when the situation changes, a crucial acknowledgement of the interactive nature of war.

Finally, continuous situational assessment measures success or failure in achieving the desired effects against the benchmark of the commander's intent. Given the

predominant ideas in these theories, one might produce the following definition: effects-based operations represent the identification and engagement of an enemy's vulnerabilities and strengths in a unified, focused manner, and uses all available assets to produce specific effects consistent with the commander's intent. Potentially then, the concept of effects-based operations can serve as a common conceptual denominator, or language, for executing joint operations in a unified, holistic approach. Having provided a general definition for effects-based operations, this chapter will examine the historical and theoretical foundation of such operations.

**Theoretical and Historical Perspective .**

As is the case with "new" ideas, theory and history can offer a perspective on the future usefulness and thinking about effects-based operations. Some believe that the concept of conducting effects-based operations is new. However, as this chapter will show, it is not. History provides many examples of theorists arguing for and commanders planning and executing military operations focused on outcomes, in essence effects-based operations. In fact, one can reach back to antiquity to see that classical theorists advocated the efficacy of combining all elements of power to compel an enemy to do one's will and achieve one's aims.

Sun Tzu, the classical Chinese theorist, emphasized the use of force as a last resort: ". . . those skilled in war subdue the enemy's army without battle" and "the best policy in war is to take a state intact."[20] Michael I. Handel, in *Masters of War*, interprets these statements as reflecting Confucian idealism and a belief in the primacy of mental attitudes in human affairs. Thus Sun Tzu, according to Handel, possessed an idealistic preference for employing all other means short of war, be they political, diplomatic, or economic to compel an enemy to submit.[21] Clausewitz, the Prussian theorist, stated that:

> Destruction of the enemy forces is the overriding principle of war, and, so far as positive action is concerned, the principal way to achieve our object. Such destruction of forces can *usually* be accomplished only by fighting.[22] . . .
>
> We are not interested in generals who win victories without bloodshed.[23]

Certainly, Clausewitz focused on the primacy of military means and physical destruction of the opponent's forces as the best way to achieve desired ends. However, these statements reflect acknowledgement of the potential of defeating an opponent with means other than military force. Clausewitz recognizes, more explicitly, the importance of using all the elements of power, not just military force, to create desired outcomes. In a discussion of how to disrupt the alliances of an enemy, he argued:

> But there is another way. It is possible to increase the likelihood of success without defeating the enemy's forces. I refer to operations that have direct political repercussions, that are designed in the first place to disrupt the opposing alliance, or to paralyze it, that gains us new allies, favorably affect the political scene, etc. If such operations are possible it is obvious that they can greatly improve our prospects and that they can form a much shorter route to the goal than the destruction of the opposing armies.[24]

More recent theorists and advocates of effects-based operations emerged in the 1920s and 1930s. Among others, they include Guilio Douhet, Admiral Henry E. Eccles, who discussed the need to view the enemy as a system, and J.C. Slessor, eventually a Marshall of the Royal Air Force, who lectured at Britain's Army Staff College in the 1930s.

In 1936, Slessor published "Air Power and Armies." In this work, he argued that one must view the enemy as a system. Moreover, he emphasized the attainment of desired effects over physical destruction.

> This then is the object of attack on production, the dislocation and restriction of output from war industry, not primarily the material destruction of plant and stocks.[25]

> . . . The method of attack on production . . . demands a detailed and expert knowledge of the enemy's industrial system, of the communications linking the different parts of the system, and of the installation supplying it with power and light. Detailed intelligence about the enemy must be supplemented by expert technical advice from representatives of our own supply and transport services . . .[26]

Closer to home, the U.S. Army's Air Corps Tactical School gave serious thought to the concept of conducting effects-based operations during the interwar period. Established in 1926, the school functioned in no small measure as a tool for those airmen who sought to develop an independent service.[27] However, it did teach its students to think in terms of creating effects given that "interlaced social, economic, political, and military divisions of a nation acquire a state of absolute interdependence during war."[28] Furthermore, without entering the debate over the efficacy or proper use of air power, the school underscored the importance of viewing the enemy as a system and creating desired effects against that system, primarily the enemy's will to fight. Its instructors argued that, "the resources of a nation for the waging of war are contained in its social, economic, political, and military systems. Pressure or the threat of pressure, against these systems will break down the morale and cause the defeat of the nation."[29] Clearly the Air Corps Tactical School gave much thought to achieving functional, desired effects, with air power in this case, and not only to unfocused material destruction. More recently, vocal promoters of effects-based operations have included Colonel John Warden III, a retired Air Force officer, and Air Force Major General David Deptula. Departing from the realm of theory, a cursory review of history reveals clear examples of commanders employing the concept of effects-based operations. For a familiar example, but

certainly not the first, of effects-based operations, this chapter turns to the American Civil War.

The Union and Ulysses S. Grant conducted effects-based operations against the Confederacy beginning in 1862. While the Anaconda policy, a strategy aimed at isolating the Confederacy from external support, was in reality an effects-based strategy, in practice it proved ineffectual and too slow, given the time constraints under which the Union was operating.[30] Upon his appointment as commander in chief of all Union Armies in 1864, Grant embarked on an effects-based based campaign. By design, he chose to pursue the destruction of the main Confederate armies, force the Confederacy to disperse its limited resources as much as possible, and strike against the war resources of the south, depriving it of the economic means to maintain armies simultaneously.[31] This idea of depriving an enemy of his economic resources was not new. Sherman's march through Georgia, destroying the Confederacy's industrial war making capacity and agricultural heartland was the most obvious example of this concept. Moreover, Sherman's operation evolved another aim besides destruction of the enemy's infrastructure. Sherman also directed his effects against the minds of Southerners. ". . . we are not only fighting hostile armies, but a hostile people," said Sherman, "and must make old and young, rich and poor, feel the hard hand of war, as well as the organized armies."[32]

An Alabama-born major on Sherman's staff provides a more insightful description of Sherman's operation.

> But, while I deplore this necessity daily and cannot bear to see the soldiers swarm as they do through fields and yards . . . nothing can end this war but some demonstration of their helplessness . . . This Union and its Government must be sustained, at any and every cost; to sustain it, we must war upon and destroy the organized rebel forces, must cut off their supplies, destroy their communications . . . [and] produce among the people of Georgia a thorough conviction of the personal misery which attends war, and the utter helplessness and inability of their "rulers," State or Confederate, to protect them ...

> If that terror and grief and even want shall help to paralyze their husbands and fathers who are fighting us . . . it is mercy in the end.[33]

Clearly, Grant and Sherman saw the enemy as a system, rather than the armies as the sole embodiment of the Confederacy. They sought to achieve combined and mutually supporting effects by attacking the enemy's armies, resources, and will.

A more modern example of the potential extent of effects-based operations lies in World War II. Early in 1941, the allies decided to focus on the defeat of European Axis powers first, concentrating against Germany. Planning efforts undertaken by the Army produced plan RAINBOW-5 and as an adjunct, the Air War Plans Division of the Army Air Forces' Staff wrote Air War Plans Document One. The basic thrust of these plans called for direct confrontation with German forces via land power, while simultaneously conducting a sustained air offensive against the Reich's industrial war-making capacity and will. These plans reflected the clear strategic focus provided by President Franklin Roosevelt and Secretary of War Henry L. Stimson. Further validating the plan and commander's intent, General George C. Marshall and Stimson approved Air War Plans Document One on September 1, 1941. While specific strategic bombing targeting priorities would change during the campaign, the focus remained on disrupting German electric power, armament production, transportation systems, and oil and petroleum infrastructure.[34] According to Albert Speer, Hitler's Minister of Armaments and Munitions, "The American attacks, which followed a definite system of assault on industrial targets, were by far the most dangerous. It was, in fact, these attacks which caused the breakdown of the German armaments industry." [35]

While some continue to debate the various contributions played by land and air power in World War II, what is clear is that simultaneous ground and air attacks prevented the

Germans from devoting adequate resources to counter either effectively. Without the initial threat of an amphibious assault and subsequent reality, the Germans might have successfully countered the Allied bombing effort, placed their jet fighter into earlier production, and prosecuted their own bombing campaign against Britain. In turn, the diversion of the Luftwaffe to combat the allied bomber campaign contributed decisively to the successful invasion of France and final land campaign against Germany.[36] The synergistic results produced by this effects-based operation are clear in retrospect and hastened the defeat of Germany.

One final, and most recent, example serves to describe the potential efficacy of effects-based operations. Evidence of effects-based thinking and operations show up clearly in the planning and execution of the Gulf War in 1990-1991, primarily in the use of air power. General H. Norman Schwarzkopf, Commander in Chief, U.S. Central Command, developed a four-phased operation to achieve President George Bush's objectives. A portion of his commander's intent stated:

> We will initially attack into the Iraqi homeland using air power to decapitate his leadership, command and control, and eliminate his ability to reinforce Iraqi ground forces in Kuwait and Southern Iraq. We will then gain undisputed air superiority over Kuwait so that we can subsequently and selectively attack Iraqi ground forces with air power in order to reduce his combat power and destroy reinforcing units.[37]

From this commander's intent, emerged six theater objectives: attack Iraqi political/military leadership and command and control; gain and maintain air superiority; sever Iraqi supply lines; destroy chemical, biological, and nuclear capability; destroy Republican Guard forces; and liberate Kuwait City.[38] Clearly, the commander's intent reflected a view of the enemy as a system and the effects desired against that system. According to the planners of the strategic air operation, they employed an effects-based

approach towards achieving the stated objectives. Apparently, air planners continually thought through how they could best employ force against enemy systems so that every tactical strike contributed toward achieving a desired effect on the system. Constant monitoring and assessment of the engaged enemy system resulted in some targets on the list going unserviced as an attack achieved the desired effect prior to the exhaustion of the target list.[39] A good example of this approach comes from the attack of Iraqi air defense sector operations centers. Initially air planners determined that destruction of the facilities would require eight F-117s delivering four 2,000 pound bombs against each of the hardened underground facilities. Resource constraints made this approach infeasible. However, planners argued that to achieve the effect desired, the facilities had only to be rendered inoperative. Therefore, complete destruction was not necessary; forcing the operators to abandon the facility and cease operations would achieve the desired effect. This approach reduced the number of required F-117s to one per sector operation center, and freed up the reminder of the aircraft to attack other targets. In this case, effects-based thinking and operations produced the most efficient and effective way to employ force, achieve the commander's intent, and increase flexibility and responsiveness, by freeing up scarce assets for use elsewhere. One can see therefore that effects-based thinking and operations are nothing new.

But why does the current debate on effects-based operations appear to center mostly on discussions of air power? Why does it seem that the leading writers and thinkers regarding effects-based operations seem to be primarily airmen? The answer is found in the Army's AirLand Battle doctrine and the most current joint operations manual Joint Publication 3.0, *Doctrine for Joint Operations*.

AirLand Battle doctrine evolved from the mid to late 1970s to the early 1980s. It culminated in the publication of the Army's Field Manual (FM) 100-5, *Operations*, in 1982

and in a revised version in 1986. Experiential observations and thinking about modern combat by senior field commanders in the 1970s, including General Don Starry, moved the process of doctrine development from the central battle, to the integrated battlefield, to the extended battlefield, and, finally to AirLand Battle. General Glen Otis, just prior to the official publication of the doctrine, described AirLand Battle in *Military Review*:

> AirLand Battle is now the doctrine of the United States Army. It states that the battle against the second echelon forces is equal in importance to the fight with the forces at the front. Thus, the traditional concern of the ground commander with the close-in fight at the forward line of own troops (FLOT) is now inseparable from the deep attack against the enemy follow-on forces. To be able to fight these simultaneous battles, all of the armed services must work in close cooperation and harmony with each other. If we are to find, to delay, to disrupt and kill the enemy force, we will need the combined efforts of the Air-Army team.[40]

In its discussions, the 1982 version of FM 100-5 *Operations* explains:

> The Army's basic operational concept is called AirLand Battle doctrine. This doctrine is based upon securing or retaining the initiative and exercising it aggressively to defeat the enemy. Destruction of the opposing force is achieved by throwing the enemy off balance with powerful initial blows from unexpected directions and following up rapidly to prevent his recovery. The best results are obtained with initial blows struck against critical units and areas whose loss will degrade the coherence of enemy operations.

AirLand Battle, thus, contains the key components of effects-based thinking and operations. Further examination of the doctrine reveals a methodology that enables the idea of creating and achieving desired effects: target value analysis.

The target value analysis process is an adjunct to the Army's current military decisionmaking process, a single,

established, and proven analytical process for solving problems. The purpose of the process is to produce an integrated, coordinated, and detailed operational plan. This process was the cornerstone methodology for the practical application of AirLand Battle and remains so, as "the estimate process" found in *Doctrine for Joint Operations*, Joint Publication 3.0.[41] Joint doctrine describes targeting as the analysis of enemy situations relative to the mission, objectives, and capabilities at the commander's disposal, to identify and nominate specific vulnerabilities that, if exploited, will accomplish the commander's purpose through delaying, disrupting, disabling, or destroying critical enemy forces or resources.[42] In turn, target value analysis offers the commander the means to identify effects criteria, prioritize the engagement of targets, and plan for contingencies based on the enemy's likely adaptations when his operation fails and enables the estimate of friendly unit capabilities.[43] Numerous planning, execution, and decision aid products result from this methodology.

As a methodology, target value analysis assists is the determination of assets critical to the enemy commander's likely strategy. Furthermore, it examines and anticipates the enemy's critical nodes and potential decision points and suggests what might happen if the enemy commander's plan fails and what actions make up his failure options. Evaluation of the potential and likely enemy strategies results in identification of critical enemy functions and determines where and when the commander can selectively apply and maximize his combat power against the enemy to achieve desired effects. Additionally, the process seeks to identify specific enemy activities or events that confirm or deny potential enemy strategies, thereby enabling assessment of friendly desired effects and ultimately, as necessary, adaptation of friendly actions.[44] Decide, Detect, Deliver, Assess serves as familiar shorthand for this targeting and targeting value analysis process.[45]

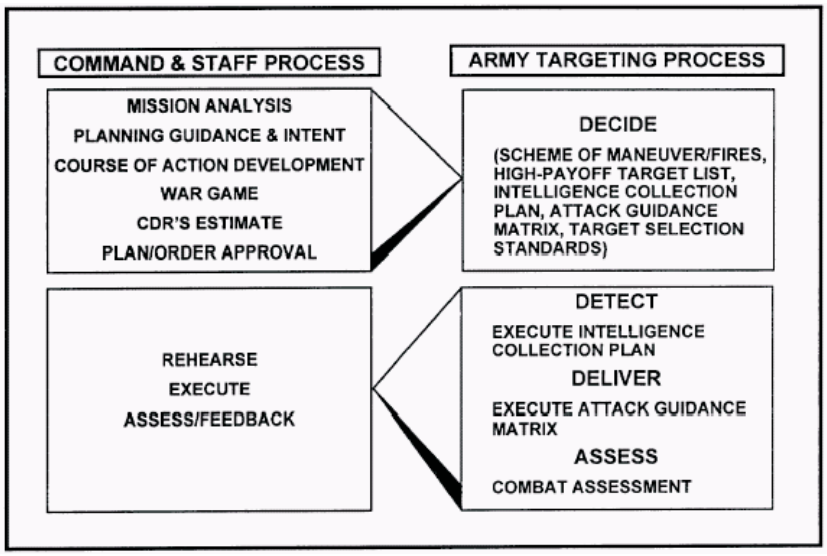



**Figure 2. Targeting Methodology.**

Current joint doctrine explains this process in much the same manner. It prescribes a six-phase process: the commander determines his objectives, guidance and intent; develops, nominates and prioritizes targets; analyzes friendly capabilities; decides on a course of action; plans and executes the mission; and finally, assesses action taken.[46] If, as this study has proposed, effects-based operations are operations that identify and engage an enemy's vulnerabilities and strengths in a unified, focused manner, using all available assets to produce a specific effect consistent with the commander's intent, then this concept should look very familiar. Certainly it does not look new to practitioners of AirLand Battle doctrine. Because this is the case, the Army is singularly well suited to lead the debate on effects-based operations and may have a fleeting opportunity to shape the conceptual foundation for implementation of *Joint Vision 2020*.

**Conceptual Implications.**

Most of the Army's recent conceptual work on effects-based operations originates from Training and Doctrine Command's Depth and Simultaneous Battle Lab at Ft. Sill, Oklahoma. Technological developments and maturation of the idea of effects-based operations spurred Ft. Sill to look for ways to increase the effectiveness of fires. One of the emerging concepts, the fires and effects coordination center, focuses more on organizational changes designed to employ fires, lethal and nonlethal, to create effects efficiently and successfully. The initial brigade combat team at Ft. Lewis, Washington, is testing this organizational design. Naturally, the Depth and Simultaneous Battle Lab's core competency is thinking about the employment of fires with a complementary professional expertise in targeting and target value analysis processes. And because fire supporters have shaped the nature of the Army's discussion of effects-based operations, the result has been a narrow interpretation of the concept compared to the current analysis. Many in the joint community perceive the Army's position on effects-based operations as limited to discussions of creating effects solely with fires. Nothing however could be further from the truth. Because the Army has adopted effects-based operations and codified the concept in its AirLand Battle doctrine, the idea and current debate appear to many as the "same candy bar—different wrapper." There are however, some critical differences between effects-based operations and AirLand Battle's target value analysis methodologies.

Like AirLand Battle doctrine and the enabling methodology of target value analysis, effects-based operations cause practitioners to think in terms of desired outcomes and the importance of using all available assets. The concept of effects-based operations differs in that it places more emphasis on understanding the enemy, and determining the linkages between cause and effect. It also demands a greater capability to assess and adapt to the

vagaries and unknowns of warfare. Thus, effects-based operations, as a concept, is a refining and broadening evolution of current Army doctrine. It offers the potential for improving the Army's ability to achieve desired effects through a more holistic and systematic approach to planning, executing, and assessing results of military actions across the entire spectrum of conflict.

AirLand Battle doctrine and the Army's approach to effects-based operations focuses on the concept as the most effective way of applying lethal and nonlethal force to achieve objectives and ultimately the commander's intent. Clearly, this is an attack-based approach that views the opponent as an enemy to be defeated and perhaps destroyed, making it most useful for the upper end of the spectrum of conflict. Effects-based operations lend themselves to a broader application—one that encompasses more than just military operations. They incorporate all the applicable elements of national power—diplomatic, economic, military, and information— for a given situation and are relevant across the full spectrum of operations. More so than current Army doctrine, effects-based operations require commanders and staffs to link tactical actions to operational objectives and desired strategic effects. The interrelated focus at every level of command is the achieving of a desired effect commensurate with the commander's intent.

Despite the emphasis on achieving a better understanding of the enemy there are practical limits to knowing an enemy's capabilities and intentions. Assuredly, adversaries will react and adapt to actions taken against them. Therefore, commanders and staffs must recognize that uncertainty, friction, and adaptive adversaries may cause friendly actions to trigger additional effects beyond those predicted and anticipated. Rather than trying to eliminate such factors, successful commanders have always accepted them and learned to work through an ambiguous environment and adapt. The strengths of effects-based operations include predicting, controlling, and achieving

desired effects and the understanding that the goal is not always achievable. Acknowledging this reality leads to the requirement for adaptation in planning and decisionmaking. The requirement to adapt and seize opportunity relies on a thorough understanding of the commander's intent and leader's ability to make sound decisions that will achieve the desired effect without creating unwanted or unpredicted second and third order effects. However, it is not enough to say U.S. forces will operate in an effects-based way.

Commanders and staffs must think in an effects-based fashion, if they are to operate successfully. It may no longer suffice to tolerate a subordinate's cursory understanding of the commander's intent two levels up. Leaders everywhere along the chain of command must have a clear understanding of national security and campaign objectives and at least a basic understanding of those actions necessary to create effects that cumulatively result in the desired end-state. Moreover, commanders must develop and subordinates understand clear measures of success that explain why the operations will work (planned actions, causal linkages, desired effects). This requirement, along with a thorough understanding of the commander's intent, provides the two elements that will enable subordinates to exercise initiative and seize fleeting opportunities. Most would agree that this emphasis on adaptation is a great strength of effects-based operations. It also exposes a critical vulnerability. The viability of effects-based operations becomes questionable, if commanders fail to provide clear intent or measures of success to subordinates. Moreover, commanders must have trust and confidence in their subordinates' ability to exercise initiative and operate within the intent. If they become overly concerned with the need to control second and third order effects, the potential exists for them to "reach into the turret" and personally direct operations, negating the advantages of effects-based operations.

A key strength of effects-based operations is that they do not focus exclusively on using target destruction to achieve desired effects and outcomes. Moreover, the concept imposes discipline on operational and strategic commanders and staffs, requiring them to focus on linking effects at one level to the achievement of objectives at the next, negating the tendency to concentrate on tactical-level actions. In turn, and despite no few technologists' claims, the aim of the concept is broader than just precision engagement or targeting. Precision engagement of targets is only one tool that might achieve effects. Effects-based operations provide a powerful, unifying and holistic conceptual methodology that commanders and staffs can apply to all operations across the spectrum of conflict. They are an evolutionary refinement and broadening of current doctrine, a full dimensional concept. Furthermore, focused by the stated intent, commanders and staffs must think in an effects-based manner in order to plan, develop courses of action, analyze, execute and assess effectively, while adapting their actions in an interactive environment. Finally, the underlying requirement exists to focus on outcomes and the critical linkage of achieved effects to accomplish objectives.

**Practical Challenges of Implementation .**

The differences found in the evolution, refinement, and broadening of current doctrine and the conceptual dynamics of effects-based operations will have practical implications for leader training, organizational changes, and training strategies. Implementing effects-based operations as a concept described in this chapter will provide challenges, all of which are surmountable. Implementing effects-based operations in the Army should prove relatively easy. However, leading the transition to effects-based operations in the joint community is likely to be problematic and will require a culture change within all the services. Perhaps the most explicit challenge will be to overcome service parochialism and the rejection of the concept due to the "not

invented here" prejudice. Changing the culture will take many years as leaders and staffs become familiar with the concept and effects-based thinking becomes inculcated in service and joint educational programs and institutions. Despite AirLand Battle's doctrinal focus on achieving effects, experience has shown that commander's and staffs often focus more on process and destruction vice achieving desired effects. One example serves to illustrate this point.

Recently, the Air Force conducted an exercise called Global Engagement IV that examined, as one goal, effects-based operations. During the exercise, evaluators found that effects-based operations were effective when decisionmakers and planners stayed focused on their implementation. Unfortunately, it appeared difficult for them to remain focused due primarily to their unfamiliarity with effects-based thinking and processes. This resulted in many of the players reverting to their previous operational experiences and caused them to become distracted by the details and routines of the Air Operations Center. The second difficulty was a tendency to focus on the input part of the process rather than output. Specifically, members concentrated on the mechanics of weapons systems employment almost to the exclusion of other important considerations. They placed little emphasis on the output part of the process, which was aimed at achieving the desired effects. In particular, the functional, systemic, and psychological effects, which were considered critical and key to success during the planning process, were largely ignored during the execution phase of the war game.[47]

This Air Force experience and example are not unique. The Army's Battle Command Training Program, the Training and Doctrine Command's organization responsible for training division, corps, and selective joint commanders and staffs offers similar observations. After action reviews and observations provide a compilation of perceptions common to most Army commanders and staffs. Most exercise observations include the admonition to commanders and staffs to "fight the enemy and not the

plan," and for the need to "keep the staff and subordinate commanders focused during the preparation, synchronization, and execution of a plan." Here again, one sees the tendency to focus on inputs instead of desired effects and outcomes. Importantly, these same perceptions and observations point out the successes that result when commanders and staffs focus on outcomes and achieving desired effects. The criticality of and benefits from a clear and unifying commander's intent provide the framework and touchstone for the maintenance of focus.[48]

The evident utility but inconsistent application of effects-based operations point out the potential power of the concept. To explain fully the promise inherent in effects-based operations will require modifying both Army and joint doctrine. While this chapter proposed a definition of the concept, it is apparent that an agreed upon definition, incorporated into service and joint doctrine, is necessary before the methodology can be of use. The definition offered in this chapter is one of only many extant in the current debate. The crucial point is that the further development of effects-based operations as a joint concept cannot productively proceed without a formally codified definition.

Almost as important as agreeing on a definition is the need to establish a commonly accepted language. The Army has an extensive but not always well-understood language to define effects. A familiar example involves the use of the terms disrupt, delay, limit, and destroy, which are so nebulous as to be of little use.[49] These terms have primarily served to describe effects associated with the kinetic attack of a specific target. Moreover, their intended use is to provide guidance to those involved with providing fire support to operations. In this context, effects-based operations take on a narrow definition of the effects of fires in support of maneuver. This limited viewpoint fails to address other areas where effects are important, such as the effects created by maneuver. On the other hand, the view that associates effects-based operations as achieving effects without fires or maneuver fails to address the concept in the

holistic manner, in which its value is found. There are many interpretations of the concept, employing unique descriptions and terms of references. Clearly defining effects-based terminology can go far in framing the debate and creating a mutual understanding of the concept. A key step in implementing any effects-based concept, then, would be to get all the services and the joint community to agree on usage of the relevant terms. Having demonstrated the need for a common joint definition and language, this chapter can move on to the development of organizations and training of individuals necessary to apply effectively the concept.

The application of any concept demands the certain knowledge and expertise of those charged with its implementation. The holistic nature of effects-based operations with its comprehensive reliance on the commander's intent and linkage of action to desired effects requires leaders at all levels, not just commanders, who can think in effects-based terms and remain focused on the broad perspectives. Of most importance is the need to field organizations with a physical makeup that enables commanders and their staffs to cooperate in dynamic and orchestrated ways. Instead of having linked, but separate centers for intelligence, operations, logistics, and information operations among others, a combination of generalist operators, functional area specialists, including intelligence analysts, and technical equipment operators, is needed. Maintenance of functional area awareness wrapped in a comprehensive understanding of operations will facilitate achievement of the desired effects and ensure rapidity of decisions necessary to successful adaptation. This team of experts, with an awareness of the desired effects, linkages between objectives, and commander's intent, will be able to understand the why of changes in policy goals, which inevitably occur during operations. More importantly, they will be able to adapt to the new realities, given the shared knowledge and cooperation derived from the proposed organizational design. In this instance, the

Army is well on its way toward the proposed command and control organizational redesign.

Having experimented with command and control issues connected to digitization and Force XXI, the Army has moved forward in innovative and varied ways, including conducting tests with effects coordination centers and deep operation coordination centers. Supporting these organizational initiatives are those system programs involving the Army's Battle Command System, which provides digital communications among strategic, operational, and tactical headquarters, down to the individual soldier/weapon system level. This point is critical to the successful use of effects-based operations, because of the cyclic, nested nature of the concept. Determining correct organizational design by itself is a necessary condition for enabling effects-based operations and so too is the requirement to develop leaders with the broad background needed to apply the concept.

For reasons other than developing proficiency in effects-based operations, the Army has initiated a new way of conducting initial entry officer training, the basic officer leadership course at Ft. Benning, Georgia. Designed to expose every Army officer to basic war fighting fundamentals, this training ground could provide an institutional starting point for developing effects-based operations as a common conceptual denominator, a way of thinking, for the Army's future leaders. The holistic, nested, and integrated nature of effects-based operations places a premium on leaders who understand the big picture and the potential impact that their decisions may have on achieving desired effects guided by the commander's intent. Coupled with the increased emphasis on rapid adaptation, leaders of the future will have to think in new ways that are more comprehensive. They will have to have the confidence to deal with uncertainty, the willingness to bridge gaps with thinking, the desire to take insightful calculated risks, and the ability to visualize an abstract battlespace and think in

nonlinear dynamic ways, incorporating multiple perspectives—no small challenge!

The conceptual thinking skills required by practitioners of effects-based operations will change the way the Army must develop and train leaders. The Army's current approach to leader training focuses too much on process to the detriment of outcome. Battle drills, situation lane training, rote teaching of the military decisionmaking process, all contribute to the development of leaders who are able to apply proven, but limited responses to battlefield realities. Faced with complex challenges, leaders often resort to executing conditioned, practiced battle drills with little regard to current realities. This technique offers predictability of response, an important component for success at the tactical level, but one that is increasingly less useful in operational and strategic level decisionmaking. Incorporating an effects-based approach to operations calls into question the future utility of this approach even at the tactical level of decisionmaking.

Effects-based operations demands that the Army develop leaders capable of conceptual thinking. They must be able to admit what they do not know, recognize patterns, spend more time in problem identification and determination, and ultimately be adaptable. Educating leaders with these skills will require a shift in training emphasis from process to outcome. Leaders of tomorrow, employing effects-based operations must train in environments that center on the student, not the instructor, in situations where complexity is maintained, not removed; checklists and process will remain important but the focus must be on outcomes instead of getting the procedures right.

Of course, there is no substitute for leaders having a complete knowledge of the art and science of military operations. Implementation of effects-based operations will expand the requirement for leaders to develop and maintain, if not expertise, then a minimum competency in areas previously deemed outside the purview of military

leaders. For example, proficiency in politics, domestic and international, culture, diplomacy and economics will prove critical to successful application of effects-based operations. Leaders will rightly focus on being experts in the realm of military art and science while developing the depth of knowledge in other elements of power to effectively employ them to achieve desired effects. Developing future leaders with the right specific and general skills to use effects-based operations will begin from the moment they enter the service. The broader education requirements demanded by this concept are achievable if instilled in leaders beginning with their initial entry into service. Effects-based operations demand that the Army produce leaders able to think and execute conceptually, leaders who focus on outcomes vice process and are able to integrate all elements of national power to achieve desired effects.

**Recommendations**.

Successful leaders and commanders have always focused on achieving effects and not on destruction for destruction's sake. The Army's development of AirLand Battle doctrine and its associated enabling methodology of targeting and target value analysis reflect the recognition of the value of focusing on effects, commensurate with the commander's intent. The concept of effects-based operations therefore is not new. Rather, effects-based operations amounts to an evolutionary refinement and broadening of previous doctrine. Importantly, there are conceptual differences that offer clear advantages for not only the employment of military power but the extension of the concept that offers the potential to achieve a comprehensive, synergistic application of all elements of national power.

The Army has an unparalleled familiarity and understanding of effects-based operations. It is best suited to "show the way" in the development of the concept as a joint common conceptual denominator. This will require

moving forward on two fronts simultaneously, one service specific and the other, joint. First, the joint community and the services must agree on a common definition of effects-based operations. Realizing the potential of the concept will require the Army to expand its current "fires centric" notion of effects to a more comprehensive definition such as the one suggested in this chapter. This should be a relatively simple task, given the Army's desire to focus on creating effects with all means available. At the same time, an agreed upon definition will require the concurrence of the joint community and subsequent adoption into joint doctrine. Agreeing upon a joint definition will enable the development of joint terms of reference or the language to be used in expanding the concept.

Hampering the debate over effects-based operations is the ambiguity of the language in the many varied descriptions of the concept, each employing unique descriptions and terms of reference. Before going forward, the services must reach consensus in defining effects-based terminology. There is no small amount of danger inherent in this requirement. Without a clear understanding provided by jointly codified terms of reference, development of the concept may deteriorate into service-centric views, ultimately negating the unifying potential of effects-based operations. Approved definitions and language will provide the means to expand and begin the institutionalization of effects-based operations.

Effects-based operations places a premium on leaders with specific expertise in military art and science and a working knowledge of the characteristics of the other elements of national power. Necessarily, practitioners of the methodology will use conceptual thinking, focused by internalized and well-understood guidance in the form of the commander's intent. Institutionalizing the training and education of leaders must begin at the outset of their careers and continue for the duration. The same must be true for each service. For the Army, the basic officer leadership course is the place to start. However, service specific

training and education alone will not suffice. If the concept is to serve as common to the joint community it must also be taught as part of Joint Professional Military Education.

These leaders, educated to employ effects-based operations, must have facilities and communications networks that enable their skills. Here too, each service must develop and field organizations designed to take advantage of the inherent potential of the concept. The Army's fires and effects coordination center is a step in the right direction. While currently narrow in focus, the idea brings together operators, intelligence analysts, as well as system technicians to employ more efficiently and successfully lethal and nonlethal fires. Easily expandable, this idea provides a start point for the creation of a more all-inclusive organization designed to orchestrate all effects, not just fires. The bilateral command and control relationship of Battlefield Coordination Detachments that the Army resources in cooperation with the Air Force could serve as a start point to expand the concept to Joint Task Force organizational design. This proven command and control tool, designed to synchronize and integrate fires, air power and ground maneuver-effects, is expansible. And, given the evident interests shown by both services in effects-based operations, could serve as a platform for the joint development of the concept as well as needed experimentation.

As with any new idea, testing and proving the theory through experimentation, practice, and limited application are perquisites to specific service and joint adoption. The U.S. Joint Forces Command has already begun experimentation that includes looking at effects-based operations. The command will do so again in August 2002 at an exercise named "Millennium Challenge 2002."[50] Beyond this initiative, separate service experimentation must occur. In the Army's case numerous venues and organizations exist that could conduct experiments with effects-based operations. Training and Doctrine Command should task a specific battle lab with the lead. While the

Depth and Simultaneous Attack Battle lab is most familiar with the issue, it may not be the right organization to lead the Army's effort. As this chapter has discussed, effects-based operations represent more than effects created by lethal and non-lethal fires. Experimentation must examine the process, or the how, of effects-based operations implementation, determination of correct organizational design, and leader skills necessary to successfully execute. The process of target value analysis and the organizational design of the fires and effects coordination center provide a useful departure point.

So, finally, we must ask is effects-based operations something new and better than the current approach? If so, what does it promise? Clearly, effects-based operations are not new. However, only a select few successfully employed the concept in the past. The renewed interest in the idea provides an opportunity to expand effects-based operations to the joint community. Most importantly, effects-based operations require a focus on outcomes helping to enforce a discipline in planning and execution of determining the endstate and objectives before initiating action. It asks, what is the task and purpose, what effects do U.S. forces want to achieve? It can improve the application of military power and can serve as a common conceptual denominator for the coordinated, synergistic application of that power. The Army is uniquely suited to take the lead in the further development of the concept through a collaborative effort involving all services. The evolutionary, refined, and broadened concept of effects-based operations has large potential to improve our way of employing Army forces and using military power. Finally, it may provide the enabling idea needed to achieve the goals of joint intellectual, operational, organizational, doctrinal and technical integration set out in *Joint Vision 2020*.

## ENDNOTES - CHAPTER 4

1. Donald H. Rumsfeld, *Quadrennial Defense Review Report*, Washington, DC: U.S. Government Printing Office, 2001.

2. *Ibid*., p. iv.

3. *Ibid*., p. 6.

4. *Ibid*., p. 7.

5. Henry H. Shelton, *Joint Vision 2020 America's Military: Preparing for Tomorrow*, Washington, DC, 2000, p. 3.

6. *Ibid*., p. 2.

7. David A. Deptula, "Firing for Effect: Change in the Nature of Warfare," *Defense and Airpower Series,* August 24, 1995, p. 4.

8. Department of the Army, *Tactics, Techniques, and Procedures for the Targeting Process,* Field Manual 6-20-10, Washington, DC, p. A-1.

9. U.S. Joint Forces Command, "Effects-based Operations White Paper Version 1.0," Norfolk, VA, Concepts Department J9, 2001, p. 5.

10. *Ibid*., p. 6.

11. Brigadier General David A. Deptula, *Effects-Based Operations: Change in the Nature of Warfare,* Arlington, VA, 2001, p. iii.

12. *Ibid*., p. 4.

13. *Ibid*., p. 7.

14. Peter Paret, ed., *Makers of Modern Strategy from Machiavelli to the Nuclear Age,* Princeton, NJ, 1986, pp. 341-345.

15. Deptula, *Effects-Based Operations: Change in the Nature of Warfare,* p. 11.

16. Institute for Defense Analyses, "*New Perspectives on Effects-Based Operations*" Alexandria, VA, Institute for Defense Analyses, June 30, 2001, pp. 2-3.

17. *Ibid*., p. 4.

18. *Ibid*., p. 10.

19. *Ibid*., p. 8.

20. Sun Tzu, *The Art of War*, Samuel B. Griffith, trans., New York: Oxford University Press, 1971, p. 79.

21. Michael I. Handel, *Masters of War: Classical Strategic Thought*, Portland, OR, 2001, pp. 136-138.

22. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, trans. and eds., Princeton, NJ, 1976, p. 258.

23. *Ibid*., p. 260.

24. *Ibid*., pp. 92-93.

25. J. C. Slessor, *Air Power and Armies,* London, 1936*,* p. 66.

26. *Ibid*., p. 89.

27. Williamson Murray and Allan R. Millett, eds., *Military Innovations in the Interwar Period*, New York, NY, 1998, p. 123.

28. T. W. Beagle, "*Effects-Based Targeting: Another Empty Promise?,*" Maxwell Air Force Base, School of Advanced Airpower Studies, June 2000, p. 19.

29. *Ibid*., p. 19.

30. Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy,* Bloomington, IN, 1977, p. 128.

31. *Ibid*., p. 145.

32. *Ibid*., p. 149.

33. James M. McPherson, *Battle Cry of Freedom*, New York, 1988, p. 811.

34. *Ibid*., pp. 319-359.

35. *Ibid*., p. 358.

36. *Ibid*.

37. T. W. Beagle, "*Effects-Based Targeting: Another Empty Promise?*" p. 59.

38. Thomas A. Keaney and Eliot A. Cohen, *Revolution in Warfare? Air Power in the Persian Gulf,* Annapolis, MD, 1995, pp. 1-2.

39. David A. Deptula, "Firing for Effect: Change in the Nature of Warfare," p. 7.

40. General Glen Otis, "The AirLand Battle," *Military Review*, Vol. 5, 1982, p. 2.

41. Joint Chiefs of Staff, *Doctrine for Joint Operations,* Joint Publication 3-0, Washington, DC: U.S. Joint Staff, 2001, p. B-1-3.

42. Joint Chiefs of Staff, *Department of Defense Dictionary of Military and Associated Terms*, Joint Publication 1-02, Washington, DC: United States Joint Staff, 2001, p. 429.

43. Department of the Army, *Tactics, Techniques, and Procedures for the Targeting Process*, Field Manual 6-20-10, Washington, DC: Department of the Army, May 8, 1996, p. A-9.

44. *Ibid*., p. A-1.

45. *Ibid*., pp. 1-5.

46. Joint Chiefs of Staff, *Doctrine for Joint Operations*, pp. III-28.

47. Department of the Air Force, *Global Dynamic Operations*, Maxwell Air Force Base, AL, 2001.

48. Department of the Army, *Battle Command Training Program Perceptions*, Fort Leavenworth, KS, 1995-2001.

49. Department of the Army, *Tactics, Techniques, and Procedures for the Targeting Process*, Field Manual 6-20-10, Washington, DC: U.S. Department of the Army, 1996.

50. United States Joint Forces Command, "Millennium Challenge 2002," available from *http://www.acom.mil/About/ experiments/ mc02.htm*; Internet; accessed January 23, 2002.

# CHAPTER 5

# EFFECTS-BASED OPERATIONS: THEORY, APPLICATION, AND THE ROLE OF AIRPOWER

**Lieutenant Colonel Brett T. Williams**

The concept of effects-based operations is unfairly criticized in the joint community. Critics contend that the concept relies on perfect information, advanced technology, and precise air attack; therefore they argue, it represents an unachievable, narrowly focused warfighting panacea that ignores the fog and friction of war. This chapter proposes an alternative view. Effects-based operations represents a theory that should help determine how to use the various elements of power to attain national security objectives. Effects-based operations does not depend on information dominance, high-end warfare, or even precision strike to make it useful. Additionally, because it is not an operating concept like "Rapid Decisive Operations," effects-based theory is applicable across the spectrum of conflict.[1] The first section of this chapter defines effects-based operations theory and explains how it helps to develop and assess strategy within the constraints of information analysis and acceptable risk. Section two describes how to use effects-based operations at the operational level with emphasis on interagency coordination, effects-based mission planning, and continuous assessment. The third section addresses how the Air Force should use effects-based operations to better define airpower's role in joint warfighting. It also argues that effects-based operations is the only way to use airpower effectively in a context of gradual employment.

**The Theory of Effects-Based Operations.**

Major General David Deptula, an active advocate for effects-based operations, has argued that during Operation DESERT STORM, technological advances in airpower—specifically stealth aircraft and precision guided munitions—enabled the first application of the concept. As the leading air planner in the war, he encouraged the Joint Force Air Component Commander's staff to change their targeting paradigm and focus on desired effects instead of just on target destruction. For example, achieving air superiority meant disabling the Iraqi integrated air defense system. Traditional operations would have focused on destroying missile launchers, radars, and air defense control centers. Instead of doing this, stealth aircraft, armed with precision-guided munitions, attacked critical links and nodes in the air defense system. The attacks achieved the effect of functional system breakdowns and did so with minimal operational risk and lower cost in terms of sorties and weapons, when compared to traditional methods. Deptula has bolstered his arguments by using results from air operations in Bosnia and Kosovo. Based on his analysis of these operations, he has defined effects-based operations as a tool to support parallel attacks on critical targets to cause paralysis in an enemy's "system of systems." The desired effect is to control an enemy by eliminating his capability to employ forces. Effects-based operations improves on current warfighting methods, because it reduces force requirements, casualties, forward-basing needs, and conflict duration.[2] Not surprisingly, Deptula argued precision air attack is the best way to exploit effects-based operations and, therefore, the Air Force should be the decisive element of American military power. Unfortunately, his strong advocacy for airpower caused some critics, notably soldiers, to ignore the valuable insights he offered.

U.S. Joint Forces Command is also a proponent of effects-based operations, particularly at the strategic and

operational levels of war. Like Deptula, Joint Forces Command's focus is on achieving desired effects, not processing through target lists. Effects-based operations, according to Joint Forces Command, is a knowledge-based process that predicts enemy reactions. By predicting enemy behavior and understanding his system, effects-based planning can direct attacks against critical nodes and links that should cause a breakdown in cohesion and destroy the adversary's ability to resist. Put "simply" according to Joint Forces Command, effects-based operations generate strategic effects "through the synergistic, multiplicative, and cumulative application of the full range of military and nonmilitary capabilities at the tactical, operational, and strategic levels."[3] The result should be a quicker, cheaper victory especially when compared against a strategy of annihilation or attrition. Not surprisingly, Joint Forces Command's views have received considerable criticism, especially from land power advocates.[4]

Both Deptula and Joint Forces Command have emphasized the need to use national power to achieve a particular strategic outcome. They also correctly identified the synergies to be gained from integrating military with nonmilitary instruments of power. Problematically, critics have ignored the positive aspects of their arguments because Deptula and Joint Forces Command have linked effects-based operations to the emerging operational concept called "Rapid Decisive Operations."[5] The concept of "Rapid Decisive Operations" evolved from Joint Vision 2020 and has been the subject of sharp critiques. Criticisms have included its narrow focus on high-end, small-scale contingencies; reliance on near perfect information; an enemy that operates as a compensating adaptive system of systems with vulnerable critical nodes; and the assumption that speedy execution will always achieve the political aim.[6] Tying effects-based operations to "Rapid Decisive Operations" has unfairly denigrated the potential benefits of effects-based operations. The concept of "Rapid Decisive Operations" relies on the ability to predict enemy reactions

using effects-based operations, but effects-based operations is more than an enabler for one specific operational method. Effects-based operations provide a general guide for employing national power to achieve strategic objectives in almost any scenario.

Defining effects-based operations as theory is the first step in divorcing it from specific operational concepts. Clausewitz once noted, "The primary purpose of any theory is to clarify concepts and ideas that have become, as it were, confused and entangled."[7] Additionally, "[t]heory will have fulfilled its main task when it is used to analyze the constituent elements of war…to explain in full the properties of the means employed and their probable effects…"[8] Effects-based operations, correctly explained, fits the Clausewitzian definition of theory. For the purpose of this argument then, effects-based operations theory is a method of determining the correct application and integration of national power to achieve specific effects and outcomes within the bounds of acceptable risk. Effects can physically, functionally, or psychologically impact the enemy and coerce or compel him to change his behavior and eventually lead to desired outcomes.[9] Although effects-based operations can enable strategic, operational, or tactical outcomes, this chapter focuses on strategic and operational outcomes, where effects-based operations offer the greatest advantages over current planning and execution methods.

Effects-Based Planning and Execution. A major shortfall of traditional objectives-based planning is that it assumes a linear relationship between action and objective; the correct action executed perfectly will attain the desired objective. (See Figure 1)

**Figure 1. Traditional Objectives-Based Planning.**

Unfortunately, war is not linear. Instead, it is a nonlinear activity, where military actions produce multiple reactions that are difficult to predict.[10] Current chaos theory captures the nonlinear nature of war. The theory states that within complex systems nearly all inputs will "lead to unpredictable, irregular behavior." In other words, war is not proportional or additive.[11] Even small, seemingly insignificant actions can cause large and frequently unforeseen effects. In addition, at the same time an action generates effects on one objective, it can produce unpredicted effects on a different objective. Thus, there is not a linear relationship between actions and objectives. Instead, actions produce a variety of effects, and the effects determine whether or not the objective is achieved. Figure 2 adds the concept of effects to the traditional linear planning model.[12]

In the event strategic aims are clear, the enemy is politically isolated, and military force is the dominant instrument, linear planning may succeed. Encountering such a simple environment, however, is unlikely. Instead, a host of complicating military and political factors will nearly always exist. Most adversaries will take advantage of such factors by adapting, substituting, and compensating to overcome operational problems. They will try to change the strategic environment by attacking alliances, manipulating international opinion, or influencing U.S. domestic politics. Saddam Hussein, for example, used messengers to compensate for Iraq's disrupted

communication system, and he tried to bring Israel into the war in an effort to weaken the U.S.-led coalition. Effects-based operations offer commanders a methodology to cope with the nonlinear nature of war.

The first step in effects-based planning is to determine the effects that will attain the desired strategic outcome. This step begins with the political aim as articulated by the civilian leadership. The Joint Force Commander then develops supporting theater objectives and selects the physical, functional or psychological effects that might generate the desired change in an enemy's behavior. Optimally, the Joint Force Commander and his component commanders will reach agreement on the key strategic and operational effects necessary for success. Typically though, individual experience, service culture, and differences of opinion will lead senior leaders to alternative solutions. Operation ALLIED FORCE provided an example of how debate over desired effects can cause friction at the highest levels.

Operation ALLIED FORCE evolved into a 78-day NATO air operation, in which one of the objectives was to stop Yugoslav President Milosevic from using violence against ethnic Albanians in Kosovo.[13] U.S. Army General Wesley Clark, Supreme Allied Commander Europe, led NATO forces, and U.S. Air Force Lieutenant General Michael Short was the Air Component Commander. The generals agreed on the strategic objective—stop the ethnic cleansing—but they disagreed on the effects needed to achieve that end. Clark wanted a physical effect: attack the armed forces committing the atrocities. Short wanted to generate functional and psychological effects targeted directly at Milosevic. He believed that attacking command, control, and key infrastructure targets would cause Milosevic to accept NATO's demands.[14] The debate was never resolved, NATO attacked both target sets, and Milosevic gave in. Success came from a combination of factors that did not include unity of effort at the highest

levels of command. Above all, the operation highlighted the difficulties involved with determining appropriate effects.[15]

Once the senior staff determines desired effects, planners can begin analyzing potential courses of action. Proper analysis begins with a net assessment of the strategic, operational, and tactical environment and the analysis extends beyond military capabilities. Analysts must consider culture, religion, economics, and diplomacy, as such factors will impact on the conduct of the war as much as the military balance of power, if not more. Other aspects of the assessment must include the objectives of the participants and the value they attach to their objectives. The analysis must estimate enemy capabilities in all four areas of power: diplomatic, economic, information, and military. The military assessment should measure organizational strengths and weaknesses in doctrine, training, leadership, and equipment for both friends and enemies. Finally, the assessment must determine what peripheral allied interests could influence the course of the war.

The quality of the net assessment and the commander's ability to use the net assessment to make decisions will determine the ability to predict effects. Since net assessments depend on collecting and analyzing information, information is a critical enabler for effects-based operations. Critics understand this dynamic and perceive information as a limiting factor, because they think information superiority is a requirement for effects-based operations. Information superiority is a key component of *Joint Vision 2020*, the Department of Defense's roadmap for developing future warfighting capabilities.[16] Information superiority, according to detractors, is not attainable because no amount of technology will deliver complete information. The proliferation of information technology serves the enemy as well as it serves the United States, and even infinite information is useless without quality analysis. These criticisms have merit, but they do not apply to effects-based

operations. Effects-based operations do not require perfect information, information superiority, or information dominance. What effects-based operations require is analysis sufficient to support decisionmaking. Excellent information coupled with superior analysis helps in predicting effects, but limited information and incomplete analysis do not invalidate effects-based theory. Commanders simply need to account for the quality of the net assessment in evaluating courses of action. They need to realize that poor net assessments will lead to a wider variety of unpredicted effects.

Armed with a net assessment, effects-based planners can evaluate courses of action. Planning doctrine requires the selected course of action to be adequate, feasible, acceptable and consistent with joint doctrine.[17] Planners can ensure the selected course of action meets these four criteria only after considering that every action will produce as many as four differing effects: predicted-desired effects, predicted-undesired effects, unpredicted-desirable effects, and unpredicted-undesirable effects. It is also important to understand that a single action will impact the objective at hand as well as other objectives in the campaign. (See Figure 3.)

The Joint Force Commander would like to select a course of action that generates only predicted effects. Predicted effects, even if not desired, make a cost-benefit analysis possible and allow the commander to select courses of action, where advantageous desired effects outweigh undesired effects. Unfortunately, there will always be unpredictable effects; war is inherently unpredictable because it occurs between animate adversaries who interact within complex environments subject to constant friction. Clausewitz correctly observed:

> [e]verything in war is simple, but the simplest thing is difficult. The difficulties accumulate and end by producing a friction…This tremendous friction…brings about effects that cannot be measured, just because they are largely due to chance.[18]

There are three sources of friction, one of which is the chaotic, nonlinear nature of war. The second is the unpredictable nature of human behavior, a factor exacerbated by the pressures and dangers of war. The third source is information uncertainty. Useful information is lost in the system noise, incorrectly interpreted or analyzed, and not always available to the commander in time for making decisions.[19] These three sources of friction produce chance events that are a basic reality in war, regardless of advances in technology.[20] The existence of friction and chance does not mean there is no predictability in war; it just means there will always be surprises. The commander must use his intuition, experience, training, and common sense to compensate for unpredictable events because they will frequently determine strategy's success or failure.[21] He can never eliminate friction and chance; instead, his goal is to be less affected by such elements than is the enemy.[22]

Understanding that combat will always be unpredictable helps the Joint Force Commander assess risk. In effects-based operations, risk is measured by the potential for an action to produce unpredicted outcomes. When the probability of unpredicted effects is low, risk is

low. Conversely, when the probability of unpredicted effects is high, risk is high. Allies, coalitions, and wide international interest create complex strategic environments in which the possibility of significant unpredictable effects increases. Military parity also increases risk because the operational outcome is less certain. Additionally, risk is higher when one side is willing to use an asymmetric capability like chemical weapons or direct attacks on civilians. These factors all increase risk because they increase the probability of unpredicted effects. Figure 4 and the following three examples further illustrate the relationship between unpredictable effects and risk.

An example of low risk is Operation JUST CAUSE, the 1989 U.S. invasion of Panama. The strategic environment was benign because international interest in Panama remained limited to regional actors, while events leading up to the invasion put the U.S. on moral high ground.[23] The net assessment was accurate due to similar cultures, as well as long-term U.S. presence in the country. These factors, combined with overwhelming military force and no requirement for allied support, meant the selected course of action would likely produce predictable-desirable effects.

**Figure 4. Unpredictable Effects and Risk .**

Operation DESERT STORM is an example of moderate risk. The strategic environment was complex due to wide international interest in the conflict and vastly different cultures among the allies. The spectrum of potential unpredicted effects was wide because of the ongoing Arab-Israeli conflict, the uncertain roles countries like Iran, Syria, Jordan, and Russia might play, and the possibility that Iraq might use chemical or biological weapons. Factors that mitigated risk included extended U.S. involvement in the region, a marked military advantage, a brazen act of Iraqi aggression, and an effective coalition that produced political will, basing access, and a common strategic endstate. The selected course of action, remove Iraqi forces from Kuwait, promised to generate mostly predictable effects and the desired effects outweighed the undesired effects. The array of possible unpredictable effects included coalition problems relating to Israel and the unknown effects that would have resulted from Iraq's use of chemical or biological weapons. The political isolation of Iraq and persistent attacks against weapons of mass destruction facilities kept potential risk from unpredictable effects within an acceptable range.

An example of high risk would have been the continuation of Operation DESERT STORM. Continued operations into Iraq would have increased the potential for unpredicted and undesired effects. Limited Arab support for further offensive operations would have increased risk by threatening the coalition's political cohesion and reducing military and logistic support to forces continuing the attack. Destroying the Iraqi army or taking down the Iraqi regime would have had unpredictable effects on regional stability. Threatening Saddam Hussein's survival might have created a catalyst for Iraqi chemical or biological attacks. More extensive friendly casualties and collateral damage might have turned popular opinion against the operation. In sum, the potential array of unpredictable effects created an unacceptably high risk level, and the United States halted offensive operations.

After the commander selects a course of action that meets the risk criteria, he must establish measures of effectiveness to determine if operations are producing the predicted effects. Measures of effectiveness typically consist of objective data points, evaluated numerically to determine progress. It is sometimes difficult to define useful measures because what to measure is not apparent or the best thing to measure is unmeasurable. Additionally, information is frequently sparse, there is limited time available for analysis, and analysts looking at the same data can reach different results based on personal experience and organizational bias. Additionally, the fog and friction of war introduce "noise" into the system, making it difficult to discern valid data from spurious, random events. Lastly, measuring effects does not always lend itself to numerical evaluation. Nevertheless, commanders must measure something, if they are going to make meaningful adjustments to the campaign plan.[24]

Choosing the correct measures of effectiveness is critical because evaluation against those measures will determine resource allocation, movement between campaign phases, and strategic and operational changes. Commanders must devote personal attention to determining the correct measures as component commanders with the same operational objectives can select different measures of effectiveness. For example, during the Vietnam War, the Army and Marines had the same objective of eliminating Viet Cong and North Vietnamese influence in South Vietnam. The Army measure of effectiveness was dead enemy soldiers, and this drove search and destroy tactics with no long-term presence in any specific area. The Marines measured effectiveness using rice crop production. Increased rice production came from social, economic, and political stability, which was only possible if the villagers were free to live in peace. To drive their measures of effectiveness, Marines established protected positions and long-term presence with small teams to discourage enemy action in their sectors. The theater commander was not

measuring rice production; instead he was counting dead enemy soldiers. The result was the Marines were forced to change their tactics to show progress against the Army measure of effectiveness. This example demonstrates how measures of effectiveness can drive strategy and adversely affect unity of effort. In addition, it demonstrates how the wrong measures of effectiveness can distort the whole operational effort.[25]

Once combat operations are underway, effects-based operations theory facilitates the reassessment process. Reassessment has two components: continuously evaluate combat operations against established measures of effectiveness and adjust strategy as required to generate the desired effects. Good measures of effectiveness allow the staff to evaluate predicted effects, both desired and undesired. Assessing unpredicted effects will be more difficult for several reasons. First, analysts may be slow to recognize unpredicted effects because the post-attack evaluation process will naturally look for indicators of predicted effects. Second, preplanned measures of effectiveness may not be helpful in evaluating unpredicted effects. Third, unpredicted effects may impact not only on the planned objective, but also on other operational or strategic objectives. Finally, the time available for analysis and reaction will always be constrained.[26] These factors call for an adaptive, flexible command structure that can evaluate and react to unpredictable effects. Commanders must take advantage of unpredicted-desirable effects and minimize the adverse impact of unpredicted-undesirable effects.

The presence of second and third-order effects will complicate the process of assessing effects. Such effects are commonly termed indirect effects, because they do not result from direct actions taken, but instead result from the cascading or sequential nature of effects within a complex system.[27] Multi-order effects are hard to evaluate because they occur separately from the action in either time or space, which makes it difficult to determine which action

generated the effect. Without identifying the generating action, it would be impossible to adjust the campaign plan to leverage desirable effects or prevent additional undesirable effects. Planners can predict some indirect effects, but analysis will always be difficult even with accurate measures of merit. Nevertheless, it is essential that commanders account for multi-order effects because they may impact friendly operations as much as they do enemy operations.

The inevitability of unpredicted effects and the chaotic nature of multi-order effects are factors which drive the second component of reassessment: adjusting the campaign plan to achieve the desired outcome. After the commander evaluates results against pre-planned measures of effectiveness and determines the source and impact of unpredicted effects, he must be willing to change the original plan, drastically if necessary. Before he makes major adjustments however, he must have confidence that the post-attack analysis was as specific and multi-faceted as the original net assessment. The analysis must go beyond simple battle-damage assessment and look for the physical, functional, and psychological effects necessary to achieve the desired outcome. If the desired effects are not forthcoming or if it appears operations are exceeding the limits of acceptable risk, the commander must change some component of his strategy. Effects-based operations is a process of net assessment, action, reassessment, adjustment, and action. It is a continual process and, properly implemented, should keep operations oriented on the original aim; not on processing target lists or securing decisive points. In addition, if the cycle is timely, it also will generate a compounding positive effect because friendly forces will act and react inside the enemy's decision cycle.[28]

*Bismarck and Effects-Based Operations*. Effects-based operations do not rely on technology, precision strike, airpower, perfect information or other 21st century warfighting tools. To prove this point, the following case study illustrates how an effects-based campaign, employed

at the strategic level, was instrumental to Prussian victory in the 1866 Austro-Prussian War.

The Austro-Prussian War was the final chapter in the struggle between Prussia and Austria for control of the German Confederation. The German Confederation consisted of 39 states and was formed in 1815 by the five European Powers (England, France, Russia, Austria, and Prussia) following the defeat of Napoleon. The purpose of the confederation was to maintain the European balance of power in two ways. First, the confederation joined Austria and Prussia with the small German states in order to prevent outside powers from annexing German territory for economic and military gain. Second, while Austria and Prussia had the most influence within the confederation, the nature of the governing federal bureaucracy prevented either of them from consolidating political control by dispersing influence throughout the member states. After 1848, Austria and Prussia engaged in a number of attempts to gain control of the confederation by forming alliances among the various smaller states.[29] The war's precipitating event was a disagreement over control of two recently acquired northern provinces, Schleswig and Holstein. Austria and Prussia had gained control of these provinces as a result of the 1864 Danish War.

Otto von Bismarck, Prussia's Chancellor, saw the dispute over Schleswig and Holstein as an opportunity for Prussia to gain complete control of the German Confederation.[30] With the strategic aim established, Bismarck conducted a net assessment of the diplomatic and military situation in Europe. Both diplomatic and military courses of action were available, but Bismarck's assessment led him to select a military option with limited objectives: defeat the Austrian Army and dictate terms. Bismarck determined this course of action could produce significant risk from unpredictable and undesirable effects unless he could do two things. First, he needed to reduce the chances that France or Russia would enter the war on behalf of Austria. He accomplished this through a series of deft

diplomatic maneuvers.[31] Second, Bismarck had to ensure a military advantage for Prussia because an indecisive or prolonged conflict would not have forced Austria's hand. The Prussians had a significant military advantage in three areas. First, they had the world's only true General Staff; its officers were trained, tested, and eminently capable of commanding and controlling large military organizations. Second, the Prussian commander-in-chief, Helmut von Moltke, was militarily superior to the Austrian commander Field Marshall Ludwig Benedek. Moltke was confidant, willing to take calculated risks, and had the support of a competent staff. Additionally, Moltke had trained the Prussian army using various war-gaming scenarios that prepared them to take the initiative on the battlefield. In contrast, Benedek was "a hesitant, weak-willed pessimist" who was slow to make decisions and unwilling to delegate authority. Prussia's third advantage came from superior weapons, tactics, and training.[32]

Because Prussia's strengths were not widely recognized, Bismarck was able to enhance Prussia's military prospects by reinforcing the sentiment that Prussia was militarily inferior to Austria. Bismarck further complicated Austria's problems by taking advantage of existing tensions between Austria and Italy. He secured a military alliance with Italy to open a second front along the Austrian-Italian border.[33] Bismarck's proactive approach at the strategic level controlled risk and reduced the probability of unpredictable effects generated by operational actions. His diplomacy allowed Moltke to exercise operational art, and achieve a decisive Prussian victory at Königgrätz.

The victory demonstrated that success as well as failure requires a reassessment process. Prussian King Wilhelm, despite his initial reluctance to attack Austria, wanted to take advantage of the situation and march on Vienna. Moltke, recognizing the need to end the war before Russia or France could intervene, pressed the offensive south towards the Austrian capital. At this point, Napoleon III proposed an armistice that forced a strategic pause. Prussia could not

ignore France's interest in the conflict for fear of French military action against its Rhine provinces—a dangerous proposition with the Prussian army deployed so far east. French intervention also bought the Austrians time and opened up the possibility of an armistice between Austria and Italy that would have freed Austrian forces to move north and participate in the war against Prussia.[34] Finally, disease and logistics began to threaten Moltke's strength.[35] Bismarck conducted a reassessment that covered all military and nonmilitary factors and subsequently convinced Wilhelm that it was time to negotiate a settlement. He argued that further offensive actions would have generated unpredictable effects—most significantly, outside power involvement that might have threatened achieving the original strategic war aims. Bismarck clearly understood that the character of the war had changed and "nearly all the parameters had shifted in ways that were too complicated, diffuse, and basic to be calculated with confidence."[36] Bismarck had used effects-based thinking to stay focused on the strategic outcome as well as effects.

Bismarck determined an achievable political aim and established supporting objectives. He conducted a net assessment, determined desired effects, evaluated courses of action, assessed risk, and shaped the environment to enable Prussian success. After the initial victory, he reassessed the situation against pre-planned measures of effectiveness and determined there was no need to change the plan. Instead, it was time to declare victory and move on to France. Thanks in large part to Bismarck's use of effects-based operations, Prussia was successful despite its inability to conduct precision air attack under the umbrella of information superiority.

**Effects-Based Operations in Theater.**

Effects-based operations can help commanders better plan and execute campaigns. To achieve that end, Joint Force Commanders first need a theater-level interagency

coordination element; and second, they must form an Effects Assessment Board to ensure the campaign remains oriented on generating the effects necessary to attain the operational and strategic objectives.

*Interagency Coordination*. The Secretary of Defense noted that the commander of U.S. Central Command was "left alone" by Washington to conduct military operations in Afghanistan.[37] On the surface, such autonomy seems desirable when comparing Vietnam, where there was significant guidance from Washington, with Operation DESERT STORM, where the commander was relatively free to conduct operations. Conflicts since Operation DESERT STORM, however, including those in Somalia, Bosnia, Kosovo, and Afghanistan, have been like Vietnam. Commanders in these conflicts confronted unclear military objectives and discovered that political, diplomatic, and coalition issues heavily influenced operational decisions. By implication, when objectives are limited, the use of force remains constrained and political considerations determine military options. In such cases, the commander has no choice but to work closely with Washington in order to integrate military and non-military actions within a single coherent strategy. Effects-based operations provide the framework to coordinate diplomatic, information, economic, and military actions, but to do so commanders require interagency participation with their staffs.

Recently, several regional commanders have asked for civilian agents to be assigned to their commands to improve interagency coordination.[38] Placing civilian representatives on all combatant staffs is unlikely due to limited manning within civilian agencies as well as organizational barriers. Additionally, there may not be sufficient work for such representatives in day-to-day operations. A better option aligns itself with the Standing Joint Task Force headquarters described in the 2001 *Quadrennial Defense Review*. The review envisions standing headquarters assigned to each of the regional commands. Their mission would be to provide uniform operating procedures, utilize

adaptive mission planning tools, and provide the capability to move expertise among the commands. [39] One element of such standing headquarters should be responsible for interagency coordination. Since assigning an interagency element to each region is infeasible, the Joint Staff could stand up one element in a central location. Joint Forces Command would be a logical place to facilitate interagency coordination, because the element would be in close proximity to joint exercises, experiments, and doctrine development.

The standing interagency coordination element would enhance effects-based operations in three ways. First, it would allow individuals who do not typically work together an opportunity to develop personal relationships, share expertise, and explore innovative ways to combine the elements of national power to achieve operational and strategic effects. This is important because organizations tend to develop new and better ways of doing things when they routinely work together. An example of this occurred when U.S. special forces developed techniques for providing close air support from high altitude bombers in support of Afghan fighters on horseback.[40] The impetus to develop new tactics and techniques would come from the element's second mission, which would be to help develop and review theater war plans. The interagency element would periodically travel to the regional headquarters and actively participate in various stages of planning to include mission analysis, course of action evaluation, and strategic concept development. Additionally, the element would serve as the conduit between the regional headquarters and the interagency element during the plan review and approval phase. Performing these functions would provide the interagency element with regional expertise and ensure each command an equal voice in the interagency coordination process. The third mission of the interagency element would be crisis response. The element would have to be deployable, trained, and able to integrate with the rest of the combat staff in theater. Its mission would be to help

the Joint Force Commander mass effects by integrating diplomatic, economic, and information activities with military force.

The interagency element will only be effective if civilian and military organizations provide capable people and give them the authority to act on behalf of their respective agencies. That authority will have bounds, and on occasion the National Security Council will have to resolve contentious issues that cross agency boundaries. Creating an interagency element that is sufficiently staffed and empowered to perform the mission outlined here is certain to meet numerous organizational roadblocks. However, they must be overcome if Joint Force Commanders are to realize the benefits of effects-based operations.[41]

*Effects-Based Missions.* Using traditional objectives-based planning, the commander analyzes the political aim and develops supporting theater objectives. The staff develops sub-objectives and supporting military tasks that they assign to various component commanders for execution. The process relies on a linear strategy-to-task relationship focused on the intended results.[42] The process can produce "stove-piped" campaigns that do not generate synergistic joint, interagency operations. This traditional approach fails to maximize desired effects, and it allows for the possibility that actions taken by one component may work at cross-purposes to other ongoing military or nonmilitary missions. Effects-based mission planning and execution can correct such shortfalls.

Joint Force Commanders need staff elements that always address effects. During deliberate and crisis action planning, it is not difficult to focus on effects because planners have time to evaluate actions and analyze the possibilities. Once operations begin, a continued focus on effects becomes a challenge. There is a tendency for senior commanders to focus on operations and subsequently equate tactical results with achieving the strategic or operational objective.[43] In Vietnam for example, body count

became the primary focus without connecting that metric to the desired outcome. More recently, during a 1999 war game emphasizing effects-based operations, the Air Force found that planners had a difficult time staying oriented on effects. Once the campaign started, their attention drifted to operational details, and they lost focus on the effects needed to attain campaign objectives.[44] A reoriented and renamed Joint Targeting and Coordination Board could help overcome such tendencies.[45] The board requires reorientation to focus on strategic and operational effects instead of just targeting issues. The Deputy Joint Force Commander should continue to chair the board. Board members typically include senior representatives from the component and functional commands. To assess effects fully, however, the interagency element would need to be represented. Using the joint targeting board as an effects board has two advantages. First, as currently structured, the board has the seniority necessary to recommend major changes to the campaign, if required. Second, the board's activities are already part of the staff's battle rhythm. The joint targeting board should be renamed the "Effects Assessment Board."

The "Effects Assessment Board" would have two tasks: generating effects-based missions and overseeing the reassessment process.[46] In its first role, the board would use effects-based operations theory to generate effects-based missions. These would be broad missions focused on generating high-level operational effects that would directly influence strategic objectives. The board would designate a lead element for each mission, based typically on who controlled the preponderance of force for that particular action. In cases where the selected action is primarily nonmilitary, the supported element may have no military force, but is best positioned to integrate military and nonmilitary actions. The effects board would also allocate forces, and apportion priority for air support to the lead element. Creating effects-based missions would drive

joint force integration and encourage interagency cooperation as the following two examples illustrate.

In the first example, the desired effect might be to isolate the enemy from a third country's logistical support. The land component commander would be the supported element. He would deploy ground forces to block lines of communication, use airpower to interdict choke points, and integrate these actions with diplomatic efforts targeted at those providing support to the enemy. The diplomatic coordination would be critical to determine the acceptable scope of military force. Could the commander direct attacks inside a third country or against outside assets operating within enemy territory? Additionally, coordination would allow optimum timing between military actions and diplomatic activity. The State Department could issue a demarche against providing support in the morning, and that afternoon military forces could destroy a supply convoy that failed to reverse course after being warned. The second example could be a mission to create an effect where the enemy leader is unable to maintain popular support for continued resistance. An information operations cell would be the lead element. It would task military forces to provide humanitarian assistance, destroy selected communication nodes, and conduct attacks to diminish civilian or military morale. Special operations forces would conduct psychological operations in coordination with a State Department public diplomacy campaign. Finally, diplomatic efforts would focus on internationally isolating the current leadership and supporting a replacement regime. Such examples suggest how effects-based operations could generate synergistic effects by integrating and synchronizing military and non-military force applications.

The second function of the Effects Assessment Board would be to oversee the reassessment process. Reassessment determines what mission changes are needed. One reason changes may be a necessity is because actions are not producing predicted effects or actions are

producing unpredicted effects that put the strategic or operational objectives at risk. To rectify these problems, the effects board would look for the causal linkages between actions and effects. In other words, why did a given action produce a particular effect?[47] An example of this concept comes from the World War II combined bomber offensive. British strategic bombing doctrine, at the beginning of the war, called for air attacks against the enemy's industrial centers, economic infrastructure, public utilities, and transportation networks. Air planners hoped these attacks would generate "war weariness" and destroy the nation's will to fight.[48] They also suspected the attacks would generate a popular revolution that might end the war.[49] When it became apparent the Royal Air Force could not bomb with sufficient precision to destroy the original targets, the British took to bombing urban centers, especially worker housing. The intent was to destroy the industrial tools and instill such fear in the workers that they would stay home.[50] In effects-based operations terms, strategic bombing was the selected action and reduced industrial output or popular revolution was the desired effect. Lower morale and war weariness was the postulated causal link between action and effect. While there is evidence that by 1943 the bombing was affecting German morale, industrial output continued to increase and popular discontent focused on the attackers not the Nazi regime.[51] These facts suggest British actions did not produce the desired effects, because they failed to identify the correct causal link.

This analysis is not meant to imply that British strategic bombing did not contribute to Allied victory. The bombing generated unpredictable-desirable, multi-order effects. In an attempt to retaliate against England, the Luftwaffe wasted the majority of its bomber fleet in futile attacks on Britain. In addition, the Germans diverted enormous resources into the V-series rocket program. The rocket attacks had no significant impact on the Allies. Yet the diverted resources could have produced an additional

24,000 German fighters.[52] The end result was British bombing diverted German resources into an area that had minimal impact on Allied operations. The multi-order desirable effects generated by their strategic bombing would have been impossible for the British to predict. The fact that 50 years later historians continue to debate the effects of the Combined Bomber Offensive highlights the difficulties in linking actions and effects.

Although it is difficult, the reassessment process must attempt to identify causal linkages. Identifying causal linkages will help determine why an action failed to generate the desired effect or why it produced an unpredicted effect. The problem could have been in tactical execution or in the integration and synchronization of military and nonmilitary means. It could have been because second or third order effects from seemingly unrelated actions were producing counterproductive effects. Another possibility is that the strategic or operational environment may have changed, and the original course of action is now invalid. Perhaps the original net assessment underestimated the enemy's capability to adapt. Maybe the problem was temporal, and the effect was not evident as quickly as predicted, or maybe it was just the fog and friction of war. These are all possibilities commanders could accept, but there is another significant consideration. Maybe the strategy was ineffective because it was based on invalid doctrinal assumptions. This last case is potentially the most dangerous, because military forces are typically slow to acknowledge poor strategy or doctrine, even in the face of contrary and sometimes overwhelming evidence.[53] Identifying causal links, understanding the nature of indirect effects, and having the courage to admit their doctrine may be wrong will all help commanders make the right adjustments and stay focused on the strategic goal.

**The Role of Airpower in Effects-Based Operations.**

The Air Force is a strong proponent of effects-based operations and airmen have contributed significantly to the concept's development. Unfortunately, Air Force contributions have been eclipsed by arguments over the source of decisive effects. Airmen must shift the debate from which service is decisive, to airpower's role in effects-based operations. The Air Force must also better integrate effects-based operations into its doctrine. Specifically, the doctrine must acknowledge that effects-based operations are key to making gradual airpower effective.

*Is Airpower Decisive?* Joint Doctrine states "any dimension of combat power can be dominant—and even decisive—in certain aspects of an operation or phase of a campaign," but victory will come from the commander's ability to synchronize and integrate joint force capabilities.[54] The most important part of this statement is the emphasis on synchronization and integration. Yet soldiers and airmen have a propensity to argue needlessly over which service is dominant, or decisive. Soldiers contend that since people live on the earth, that it is where decisive events occur. Until a force takes and holds ground, marches victoriously through the enemy capital, and dictates terms to the king, the war was not been won, at least not decisively. Thus the Army's contention that its soldiers "fight and win our Nation's wars."[55]

One problem with this line of argument is that without the other elements of military power, most notably airpower, this scenario will not play out. Another problem is that just because people on the ground make decisions, the Army is not the only element of force capable of compelling or coercing an enemy. Finally, decisive victory is not always the political aim. Since the end of World War II, the United States has not sought to occupy the enemy capital and force unconditional surrender. Instead, military force has provided a means of coercive diplomacy in support of limited strategic objectives. For their part, airmen since World War

I have argued airpower can force enemy capitulation by attacking enemy morale, destroying key industries, and paralyzing enemy systems. Achieving success with these methods relies heavily on second and third-order effects and the ability to identify causal linkages. Since proving the benefits of indirect effects is difficult, airmen are constantly on the defensive trying to link air attack to enemy capitulation.

The debate over decisiveness is counter-productive, and it reinforces the unfair stereotype that airmen think they can win wars alone. It is difficult to find proof that any senior Air Force leader believes this, but the existence of the myth makes advocating effects-based operations problematic. However, senior Air Force leaders could disarm many detractors of effects-based operations by focusing on airpower's role within joint operations. Recent publications reflect an effort to do just that. *Air Force Vision 2020* states that the Air Force is a "partner in our nation's security" and "dominates the aerospace domain to facilitate the effectiveness of the Joint Team."[56] Other support is found in Deptula's writings. His effects-based operations article published early in 2001 was airpower dominant and described the concept mostly within the context of "Rapid Decisive Operations." His more recent article, however, on Air Force transformation, described effects-based operations as the method in which "[a]erospace forces operate as part of a joint, interagency, and coalition team."[57] The best evidence that the Air Force sees the big picture comes from general officers who recognize that airpower advocates can be their own worst enemies by arguing that airpower is the dominant force. In public presentations as well as private conversations, senior leaders are now stressing that the Air Force is only part of a larger effort. They all firmly believe in the tenets of airpower and its ability to be the critical component in many scenarios, but they also argue it is not a stand-alone solution to national security challenges.[58] This attitude will allow airmen to

help promote effects-based operations and properly define the role of airpower in future joint doctrine.

*Effects-Based Operations and Gradual Airpower*. Limiting the use of force traditionally has been anathema to war fighters. Airmen, in particular, despise the concept of limited or gradual airpower.[59] They cite Vietnam's "Rolling Thunder" operation as the perfect example of how airpower was marginalized as a result of political restrictions. How these limitations may have contributed to the failed Vietnam strategy continues to fuel debate, but air operations during Operation ALLIED FORCE suggest gradualism may have warfighting value. From the outset, airpower planners wanted to go "downtown" and "cut off the head of the snake." Post-war analysis suggests such aggressive attacks might have had undesired effects, fractured the NATO coalition, and actually extended the war. One reason is the time element. Early attacks directed at the most valuable target sets might have short-circuited ongoing diplomatic efforts directed at convincing Russia to support NATO. Another reason is that attacking downtown Belgrade from the outset might have convinced many Serb leaders they had nothing further to lose and reduced their incentive to cooperate. In addition, evidence suggests constant air raid warnings had a cumulative effect on civilians that resulted in war weariness and established a political climate that permitted Milosevic to negotiate. Lastly, the potential casualties might have overshadowed the implications of Milosevic's ethnic cleansing in the eyes of international public opinion.[60] Given these are all second and third order effects, causal linkages are difficult to define and gradualism's value is hard to prove. Perhaps one reason gradualism succeeded in Kosovo lies in the fact Milosevic had almost no way to strike back at NATO, militarily or otherwise. Even if Air Force planners do not accept this evidence as a reason to investigate the value of gradualism, it is clear political restraints will force airpower into limited and gradual roles. The only way to leverage airpower's capability in a limited or gradual application is by using

effects-based operations. Limited airpower, combined effectively with other instruments of military and nonmilitary power, can still be a powerful coercive instrument. The Air Force needs to write doctrine for employing airpower in a limited or gradual fashion and the doctrine must be grounded in the theory of effects-based operations.[61]

**Conclusion .**

Critics who reject the emerging doctrine of effects-based operations do so at their own peril. If they fail to embrace the concept, Joint Force Commanders may be unable to combine all the elements of power effectively. The theory of effects-based operations offers the strategic and operational artist a guide for organizing his thoughts and applying available resources to the challenge at hand. The theory can help commanders evaluate courses of action, analyze risk, and conduct continual reassessment. Implementing effects-based operations at the theater level requires organizational changes to better integrate interagency actions and ensure campaigns stay focused on operational and strategic effects. The Air Force is a logical advocate for effects-based operations because airpower theory rests on many of the same concepts, particularly the ability to generate and leverage second and third-order effects. Unfortunately, overemphasis of airpower's role in effects-based operations has served to alienate portions of the joint community. Air Force leaders must continue to stress airpower as part of a joint, interagency team, and they must update their doctrine to take advantage of effects-based operations. The complexity of today's international environment will continue to challenge the skills of those charged with using American power to protect the nation. Effects-based operations are the key to bringing that power to bear.

## ENDNOTES - CHAPTER 5

1. A Joint Operating Concept in development at U.S. Joint Forces Command.

2. David A. Deptula, "Effects-Based Operations: Changes in the Nature of War," 2001, available from *http://www.aef.org/pub/psbook.pdf*, Internet, accessed January 8, 2002.

3. U. S. Joint Forces Command, "A Concept Framework for Effects-based Operations," Draft White Paper, J9 Concepts Department, Norfolk, VA, August 1, 2001, p. ii.

4. This assertion is based on views expressed by fellow Army War College students. In addition, see Antulio J. Echevarria, *Rapid Decisive Operations: An Assumptions-based Critique*, Carlisle Barracks, PA: Strategic Studies Institute, 2001.

5. The concept of "Rapid Decisive Operations" is defined

> as a joint operational concept for future operations. A rapid decisive operation will integrate knowledge, command and control, and effects-based operations to achieve the desired political/military effect. In preparing for and conducting a rapid decisive operation, the military acts in concert with and leverages the other instruments of national power to understand and reduce the adversary's critical capabilities and coherence. The United States and its allies asymmetrically assault the adversary from directions and in dimensions against which he has no counter, dictating the terms and tempo of the operation. The adversary, suffering from the loss of coherence and unable to achieve his objectives, chooses to cease actions that are against US interests or has his capabilities defeated.

See: U.S. Joint Forces Command, "A Concept for Rapid Decisive Operations Coordinating Draft, version 2," available from *http://www.saclant.nato.int/cde/Whitepapers/RDO.doc*, Internet, accessed October 14, 2001.

6. Echevarria, p. vi.

7. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, eds. and trans., Princeton NJ, 1976, p. 132.

8. *Ibid.*, p. 141.

9. This definition is similar to Joint Forces Command's, but somewhat simpler. The use of "coerce" or "compel" is important. Many see effects-based operations as a tool of coercion where the enemy is

persuaded to change his behavior while he still has the means to resist. In other words, he loses the will to continue. Effects-based operations are equally useful to compel. The enemy is compelled, when he has no choice but to comply with demands, because he no longer has the capability of resisting.

10. Alan Beyerchen, "Clausewitz, Nonlinearity, and the Unpredictability of War," *International Security*, Vol. 17, Winter 1992/1993, p. 73.

11. *Ibid.*, p. 66.

12. U. S. Joint Forces Command, "A Concept Framework for Effects-based Operations," p. 8.

13. Earl H Tilford Jr., "Operation Allied Force and the Role of Air Power," *Parameters*, Winter 1999-2000, p. 25.

14. John A. Tirpak, "Short's View of the Air Campaign," *Air Force Magazine Online*, September 1999, available from *http://www.afa.org/magazine/watch/0999watch.html*, Internet, accessed February 13, 2002.

15. For a balanced analysis of why Milosevic surrendered when he did, see Stephen T. Hosmer, *The Conflict Over Kosovo. Why Milosevic Decided to Settle when He Did*, Santa Monica, CA, 2001; and Benjamin S. Lambeth, *NATO'S Air War For Kosovo: A Strategic and Operational Assessment*, Santa Monica, CA, 2001.

16. Information superiority is defined as the capability to collect, process, and disseminate an uninterrupted flow of information while exploiting or denying an adversary's ability to do the same. It is a key enabler to achieve full spectrum dominance. See Chairman of the Joint Chiefs of Staff, *Joint Vision 2020*, Washington, DC, 2000, pp. 8-10.

17. Chairman of the Joint Chiefs of Staff, *Doctrine for Planning Joint Operations*, Joint Publication 5.0, Washington, DC, 1995, p. x.

18. Clausewitz, pp. 119-120.

19. Barry D. Watts, *Clausewitzian Friction and Future War*, Washington, DC, 1996, p. 123.

20. *Ibid.*, p. 21.

21. Edward N. Luttwak, *Strategy, The Logic of War and Peace*, Cambridge, MA, 1987, pp. 4-5.

22. Watts, pp. 131-132.

23. There had been attacks on U.S. servicemen and their families, and the United States had made a case in the media for Noriega's involvement in drug trafficking and other corruption.

24. Scott Sigmund Gartner, *Strategic Assessment in War*, New Haven, CT, 1997, pp. 1-5.

25. *Ibid.*, pp. 148-149.

26. For other considerations that impact on the ability to evaluate effects, see U. S. Joint Forces Command, "A Concept Framework for Effects-based Operations," pp. 9-10.

27. Cascading effects result from the synergy generated from a combination of effects smaller in scale. Cascading effects ripple through the system usually from a higher to lower level of war. See U. S. Joint Forces Command, "A Concept Framework for Effects-based Operations," p. 9.

28. This phenomenon is referred to as operating inside the enemy's Observe, Orient, Decide, Act (OODA) loop. See Grant T. Hammond, *The Mind of War, John Boyd and American Security*, Washington, DC, 2001, pp. 141-142.

29. Geoffrey Wawro, *The Austro-Prussian War, Austria's War with Prussia and Italy in 1866*, New York, 1996, pp. 36-37.

30. *Ibid.*, p. 41.

31. Richard Smoke, *War: Controlling Escalation*, Cambridge, MA, 1977, pp. 80-146.

32. Arden Bucholz, *Moltke and the German Wars, 1864-1871*, New York, 2001, pp. 104-105.

33. Wawro, p. 42.

34. Bucholz, p. 137.

35. Wawro, p. 276.

36. Smoke, p. 142.

37. Donald H. Rumsfeld, Press Conference, Arlington, VA: Pentagon, November 15, 2001.

38. Eric Schmitt, "4 Commanders Say They Want Civilian Agents," *New York Times*, November 20, 2001, sec. A, p.1.

39. Office of the Secretary of Defense, *Quadrennial Defense Review Report*, Washington, DC, 2001, pp. 34-35.

40. Jim Garamone, "Wolfowitz Shares Special Forces' Afghanistan Dispatches," November 15, 2001; available from *http://www.defenselink.mil/news/Nov2001/n11152001_200111155.html*, Internet, accessed March 4, 2002.

41. The interagency element would not be effective without support from the National Security Council. The National Security Council is typically the focal point for coordinating government actions in the event of a national security crisis. The Chairman of the Joint Chiefs of Staff serves as a statutory advisor and the Vice-Chairman serves on the Deputies Committee. In these capacities, they coordinate the efforts of the warfighting commander with the rest of the interagency. Given the Chairman and Vice-Chairman's scope of responsibility however, it is reasonable to assume they cannot always conduct the necessary coordination for effects-based operations. The Defense Strategy, Force Structure, and Planning Policy Coordination Committee should serve as the link between the interagency element and the National Security Council. A senior Department of Defense official chairs the committee and answers to the Secretary of Defense. During day-to-day operations, the interagency element would elevate issues requiring high-level attention to the committee through the Joint Staff. During crises, the Policy Coordinating Committee would support the interagency element in theater. Because crisis management is not a normal role for the committees, the regional commander's Deputy Director for Plans and Policy should augment the committee. His knowledge of the war plans and familiarity with the region's political issues would facilitate coordination between the Policy Coordinating Committee and the deployed interagency element. See George W. Bush, "National Security Presidential Directive, Subject: Organization of the National Security Council," memorandum for the Vice President, et al, Washington, DC, February 13, 2001.

42. U.S. Joint Forces Command, "A Concept Framework for Effects-based Operations," p. ii.

43. Williamson Murray, "Reflections on the Combined Bomber Offensive," *Militärgeschichtliche Mitteilungen*, Vol. 51, 1992, p. 94.

44. Edward C. Mann III, Gary Endersby, and Thomas R. Searle, "Dominant Effects: Effects Based Joint Operations," Airpower Research Institute Paper, Maxwell AFB, 2001, p. 2.

45. Joint Force Commanders will typically form Joint Targeting and Coordination Boards to review target information, develop targeting guidance and priorities, and prepare and refine joint target lists. See Chairman of the Joint Chiefs of Staff, "Doctrine for Joint Fire Support," Joint Publication 3-09, Washington, DC, 1998, p. I-4.

46. Concept for effects-based missions based on: Robert Schmidle, "Dominant Maneuver Operational Concept," briefing slides with scripted commentary, Pentagon, Joint Staff J-8, 23 October 2001.

47. Timothy J. Sakulich, "Precision Engagement at the Strategic Level of War: Guiding Promise or Wishful Thinking?" Maxwell AFB, 2001, p.14.

48. Phillip S. Meilinger, "Trenchard and 'Morale Bombing': The Evolution of Royal Air Force Doctrine before World War II," *The Journal of Military History*, Vol. 60, April 1996 [database on-line]; available from UMI ProQuest, Bell & Howell, accessed January 23, 2002.

49. Murray, "Reflections on the Combined Bomber Offensive," p. 74.

50. Meilinger, "Trenchard and 'Morale Bombing.'"

51. Murray, "Reflections on the Combined Bomber Offensive," p. 81.

52. *Ibid.*, p. 81.

53. Williamson Murray, "Strategic Bombing, The British, American and German Experiences," in *Military Innovation in the Interwar Period*, Williamson Murray and Allan R. Millett, eds., New York, 1996, p. 143.

54. *Joint Publication 3.0*, pp. III-10-11.

55. "The Army VISION: People, Readiness, and Transformation," available from *http://www.army.mil/vision/default.htm*, Internet, accessed January 17, 2002.

56. "Global Vigilance, Reach & Power, America's Air Force Vision 2020," available from *http://www.af.mil/vision*, Internet, accessed on March 9, 2002.

57. David A. Deptula, "Air Force Transformation, Past, Present and Future," available from *http://www.airpower.maxwell.af.mil/airchronicles/apj/apj01/fal01/phifal01.html*, Internet, accessed on January 17, 2002.

58. These assertions are based on statements by three Air Force generals speaking in a nonattribution environment at the Army War College.

59. Airpower is limited when certain target sets are excluded or the attack intensity is limited by the number of platforms or ordnance made available. Gradualism is pre-planned increases in intensity of air attacks over time in response to enemy actions. The intensity may be in the form of timing, i.e., more frequent attacks or in target types; for example, moving from targets with little civilian impact to those with more potential to produce collateral damage.

60. Hosmer, pp. 128-129.

61. Dr. Phillip Meilinger helped me think through the concept of gradualism following a seminar he led on December 17, 2001, at the U.S. Army War College as part of the Advanced Strategic Arts Program curriculum.

# CHAPTER 6

# RAPID DECISIVE OPERATIONS: THE EMPEROR'S NEW CLOTHES OF MODERN WARFARE

**Lieutenant Colonel James L. Boling**

## What's Past is Prologue.

At the dawn of the 21st century, the United States has emerged as the only global superpower controlling what are arguably the most powerful military forces in history. Yet even as the United States occupies this pinnacle of power, many speculate that a military preeminence based on perfected industrial age warfare will have dubious value in the new information age. Reacting to these and other concerns, the U.S. military has embarked on an ambitious attempt to prepare for an uncertain future by inculcating and exploiting emerging technologies. This quest to maintain its qualitative military edge has triggered a comprehensive redesign of the joint force that will enhance, evolve, and ultimately transform its warfighting capabilities.[1]

Fundamentally changing the military during peacetime under conditions of reduced resources is not a new experience for America's military.[2] When the Great War ended in 1918, forward thinking military professionals began to consider the likely shape of the next major war. These officers had to envision and then vigorously promote innovative warfighting concepts that relied on embryonic technological capabilities to address speculative shortfalls in military capability within the uncertain strategic context of possible future warfare. Their pioneering efforts

overcame an entrenched conservatism and austere resourcing to produce the vital operational pillars of mid-20th century warfare—strategic bombardment, armored warfare, carrier-borne naval aviation, submarine warfare, close air support, radio and radar systems, and amphibious warfare.

Each of these innovation success stories had a common beginning as a warfighting concept that was a vision of the future ". . . balanced and well connected to operational realities"[3] and alert to "[changes in] . . . national purposes and the international security environment."[4] These initial concepts were then passed through a rigorous gauntlet of competing ideas under ". . . merciless institutional scrutiny."[5] Accepting this interwar innovation methodology as a touchstone for success, what is the assessment of transformation's operational concept?

This question is not simply an idle academic inquiry. Rather, the fidelity and completeness of a nation's vision of future warfare is a matter of extraordinary importance. A flawed conceptual foundation skews a nation's military strategy and creates second and third order effects on every facet of force development, deployment, and employment throughout the strategic, operational, and tactical levels of war. The probable consequences of ill-disciplined conceptual thinking are severe.[6] At its worst, allowing a contentious and ill-defined warfighting "concept" to mushroom into doctrine without serious intellectual challenge and reassessment is an error likely to prove unrecoverable in crisis and fatal in war—as the French learned so painfully in the opening campaign of World War I.

The lack of rigorous professional scrutiny of the operational concept of the offensive induced the French Army to develop *"l'offense a l'outrance"* (offense to the limit) as its warfighting doctrine in 1914. This doctrine permeated the entire officer corps and embedded its tenets in Plan XVII, the only French war plan at the eve of World War I. Plan XVII sought a swift strategic victory over Germany

through the psychological impact of a bold offensive stroke culminating in decisive battle. Unfortunately for the French, Plan XVII's operational concentration for an offensive into Alsace-Lorraine inadvertently enhanced the success of the German Schlieffen Plan's deep right wheel through Belgium. The result was a French military disaster in the opening battles of August 1914 that nearly forfeited Paris and lost the war.[7] The operational concepts that drive doctrine matter; and it matters where they come from.

This chapter aims to provide a fresh look at Rapid Decisive Operations (RDO) by examining it from theoretical and the strategic perspectives. A comprehensive treatment of this admittedly broad area would quickly exceed the scope of a paper of this length. Therefore, this study concentrates on selected aspects of RDO within the context of conventional, state-to-state warfare.[8] Section One investigates the feasibility of RDO from a theoretical viewpoint, using the *RDO Whitepaper's* baseline description. This is followed by Section Two which examines the strategic context of the execution of counter factually ideal RDO. Section Three concludes by providing an assessment and recommendation for RDO.

**Theoretical Aspects of RDO.**

U.S. Joint Forces Command was established in October 1999 to centralize development and experimentation of joint-force operational concepts and to explore the most critical warfighting challenges at the operational level of war.[9] As a starting point, the command distilled and grouped selected operational concepts culled from *Joint Vision 2010, Concept for Future Joint Operations, Joint Vision 2020,*[10] and the April 2000 *Defense Planning Guidance,*[11] and coined the term "Rapid Decisive Operations," for these collected and fused concepts. In August 2001, the Joint Forces Command published a 66-page *RDO Whitepaper Version 2.0* to define and explain the RDO concept.

**Defining and Describing the Concept.**

Dale Carnegie once said, "If you can't write your idea on the back of my business card, you don't have a clear idea." Using this standard, the RDO concept has an identity crisis. The *RDO Whitepaper* presents a 117-word paragraph as its "definition" of RDO.[12] This is a superfluous five-fold expansion of the *Concept for Future Operations* definition of decisive operations: "Application of an overwhelming joint capability, by the proper balance of the four new operational concepts in any specific operation."[13] These 20 words just might fit on Carnegie's business card.

The *Whitepaper's* lengthy definition is accompanied by a sweeping catalog of ambiguous and conflicting statements that attempt to explain just what exactly RDO are supposed to accomplish. The authors see a place for RDO "across the range of military operations," in "striking terrorism directly or to influence or coerce a regional power, or to defeat or replace a regime."[14] However, except for perhaps the most insignificant states, defeating and replacing regimes is unlikely to be rapid and the forces designed and calibrated to execute RDO would likely prove entirely inadequate for the duration, magnitude, and character of tasks involved. How does a lightweight strike-focused RDO force execute "one massive counter-offensive to occupy an aggressor's capital and replace his regime" as envisioned by the Secretary of Defense? [15] The *Whitepaper* goes on to assert that RDO "creates the desired outcome itself or it establishes the conditions to transition to [major regional contingency] or security and stability operations."[16] But if it fails to achieve the desired outcome itself, how can it still be considered "decisive?" Later the document describes the purpose of RDO as intended to ". . . contain, resolve, or mitigate the consequences of a [high end SSC] conflict . . ."[17] Again, if it's only containing or mitigating, how is it "decisive?" "If deterrence fails, RDO provide[s] . . . "[18] indicates that RDO is not envisioned as a deterrent, yet it claims to have utility across the spectrum of operations, of

which flexible deterrent options are one. Moreover, if RDO ". . . establishes the conditions to transition to [major regional contingency] or security and stability operations"[19] is this not essentially a flexible deterrent option? "Rapid resolution is accomplished by intense unrelenting operations or the threat thereof."[20] How exactly would one "threaten" intense unrelenting operations? "Putting what the adversary values most at risk of being threatened, rendered unusable, or destroyed altogether"[21] is an acknowledged aim of RDO. However, endangering or destroying these valued items is problematic when they are not Centers of Gravity or have protections under the Law of War. Additionally, how would one place intangible values, such as "freedom" or "sovereignty" or "faith" at risk? "Also, RDO can, if necessary, simultaneously defeat [adversary] ability to conduct effective operations by destroying the forces [or] the source of the adversary's power."[22] It is questionable whether forces organized, equipped, trained, and deployed to optimize effects against "networks" and "systems," while minimizing their size and decrementing their sustainment, are coincidentally capable of destroying forces and centers of gravity.

Outright destruction may seem like a quaint obsolescent idea in the information age, but the *Whitepaper* goes on to say: "While achieving effects is our primary method of influencing the enemy, in some cases the attrition of his forces may in fact be a primary means of producing the desired effect."[23] Said another way: if the precisely-calibrated, information-centric RDO fails to work, the force can resort to the discredited legacy practice of wholesale kinetic destruction, which, since it is admittedly attrition, takes considerably longer, rendering RDO neither rapid nor decisive.[24] In the end, the *RDO Whitepaper* casts a wide but poorly constructed net for RDO, presenting it as the fabled milk-giving, egg-laying, wool-producing pig-able to do it all.

In execution, Joint Forces Command's vision of RDO calls for the military services, acting jointly, to execute coordinated, distributed, multi-dimensional interagency

(offensive) actions under conditions of America's choosing within the first hours of a crisis, focused against targets designed to achieve specific effects against the enemy's "critical capabilities."[25]

> . . . RDO [RDO] provides the capability to rapidly and decisively coerce, compel, or defeat an adversary in order to accomplish our strategic objectives without a lengthy campaign or extensive build-up of forces.[26]
>
> [RDO] coerces . . . the adversary not to use military force by disrupting the coherence of his efforts in such a way that he becomes convinced that he cannot achieve his objectives and that he will ultimately lose what he values most.[27] The adversary, suffering from the loss of coherence and unable to achieve his objectives, chooses to cease actions that are against US interests or has his capabilities defeated.[28]
>
> [And in a disturbing echo of 1914] The rapid unfolding of operations and the actual and perceived loss of coherent capability will combine to break the will of the adversary.[29]

## Theoretical Foundations of Force, Compellence, and Victory .

Military doctrine is a cultural, historical, and technological blend of theory, practicality, and reality. Any rational military doctrine must be derived from and thoroughly embrace military theory.[30] Without a firm theoretical and historical underpinning, doctrine becomes a castle built on the sands of wistful speculation rather than on the bedrock of exhaustive observation and rigorous analysis. Even in the present era of revolutionary digital high technology, it would be intellectually dishonest to discount historical example as an essential ingredient in theory. Colin Gray has noted: ". . . the relevance of historical example does not decline arithmetically, geometrically, or indeed at all, with time."[31] He believes that there is a timelessness to war and victory; ". . . an essential unity to all strategic experience in all periods of history because nothing vital to the nature and function of war and strategy

changes . . ."[32] Yet sound military theory provides not so much a retrospective "how to" formula, but a forward thinking and intellectually reasoned examination of "how war works." "The chief utility of a general theory of war and strategy lies in its ability not to point out lessons, but to isolate things that need thinking about. Theory provides insights and questions, not answers."[33] This suggests that if RDO is to properly perform its role in experimentation or aspire to candidacy for promotion to doctrinal status, then it too must demonstrate a sound theoretical base firmly grounded in history.

## RDO—Coercion or Compellence?

Despite innumerable critics pronouncing its demise, *On War* remains the acknowledged theoretical and doctrinal foundation of every modern army. Advances in technology may have eclipsed some portions of *On War*, but its fundamental conclusions about the nature and conduct of war at the national level are eternal. *On War* provides a concept for the application of force that supports arguments in favor of RDO.

The fundamental purpose of any national military organization is to achieve the state's political objectives through the use or threat of armed force. More often than not, international politics is about seeking revisions in the domestic or international behavior of other states. There are two fundamental methods to achieve political objectives through military force—compellence and coercion.

A state's overall capacity to wage war is the product of a dynamic interaction between its means and its will.[34] Compellence occurs when a state annihilates its adversary's means to resist and can impose its will entirely through the application of force without the consent or acquiescence of the vanquished. Victories of compelling annihilation are spectacular and decisive, but difficult to achieve and historically rare. Achieving quick decisive victory has more often turned out to be a serendipitous fluke, rather than the

result of artful deliberate planning for such an outcome. Napoleon's crushing defeat of the Prussians at Jena-Auerstadt in 1806, the French humiliation in June 1940, and Scipio Africanus' obliteration of the Carthaginian threat at the Battle of Zama in 202 BC are examples of such victories.

On the other hand, coercion is the modern plan and method of choice. Coercive strategies achieve victory when, although a state retains the means to fight, it lacks the will to continue its resistance and so accepts its adversary's objectives either in tacit agreement or through a formally negotiated settlement. Coercion is not about the defeat of military forces, but about the defeat of the enemy's will. Virtually every armed conflict since World War II has ended in this manner, including everything in scale and intensity from the Korean War to NATO operations in Kosovo.

**Decisions for War and Peace—Clausewitz's Rational Calculus.**

State warfare represents the tangible expression of the choice by national leaders to initiate or continue combat in pursuit of political objectives. Their choice is the end result of deliberate, but complex, collective mental processes that weigh the cost of victory against the value of the political objective sought.[35] Modern commentators, especially in the discipline of political science, often refer to this evaluation and decision as the "rational calculus."

*On War* offers two possible conclusions from the rational calculus that could precipitate an enemy decision not to fight. First, national leaders may conclude that the probability of victory is so low that the human and materiel cost of fighting is not worth the likely end result. Alternatively, the state's leaders may determine that, although achievable, the cost of victory is greater than the value of the political objective. Therefore, the proper intent of coercion is to so strongly influence the enemy's perceptions of cost and likelihood of victory that his rational

calculus drives him to abandon his will to fight. RDO attain coercive victory over an adversary when ". . . he becomes convinced that he cannot achieve his objectives and that he will ultimately lose what he values most[36] [and through rational calculus he] . . . chooses to cease actions that are against U.S. interests . . ."[37]

Unfortunately, getting the enemy to do your will clearly requires at least the grudging acceptance of the enemy's national leadership. Babe Ruth once commented, "It's hard to beat a man who won't quit." If a nation at war refuses to accept the changes in its affairs desired by its adversary, the war cannot truly end and the adversary's will is thwarted. Many of America's recent adversaries have demonstrated a strategic vision that equates victory with extending the duration of conflict by simply avoiding or refusing to acknowledge defeat.[38] However, when faced with either the improbability or unacceptable cost of victory an adversary state *should* choose peace.[39]

**The Will of the Enemy—The Irrational Calculus.**

The key word in this discussion is "should," because in practice even when an adversary strategic reassessment points to peace as the rational course of action, states do not always choose it. The improbable Finnish decision to resist "overwhelming" Soviet aggression in 1939 and the Melian's mulish insistence on defense against Athens in 416 BC are classic cases of an "irrational calculus."[40] History indicates that the international environment and the internal workings of foreign governments are unpredictable, largely because the rational calculus is never a purely scientific and dispassionate "equation." Not only are such calculations largely guesswork on the adversary's part, but they are influenced internally by the psychological profile and ideology of the national leadership and externally by real or perceived actions, intentions, and capabilities of other states, especially the enemy.

Clausewitz believed that the actions of chance, friction, human nature, passion, uncertainty, and politics skewed rational decision and, especially when combined with the inherently interactive nature of warfare, made any conflict unpredictable.[41] Modern technology has not diluted the strength of Clausewitz's argument. Writing for the National Defense University in 1996, Barry D. Watts concluded that no technology could ever succeed in eliminating friction in war, and that this friction was the foundation of war's persistent unpredictability.[42] This is affirmed in U.S. Air Force Lieutenant General Jay W. Kelly's summary assessment of the air operations against Bosnia in 1995.

> For all the capabilities of modern information technology, the scale, pace, human factors [of] leadership, culture, and conceptualization, and other non-technical elements of [Operation] Deliberate Force ensured that Clausewitz's trilogy of fog, friction, and chance remained important in its ultimate outcome.[43]

**Chaos and Clausewitz.**

General systems theory and chaos theory, from which the transformation catch phrases "system-of-systems" and "complex adaptive system" are derived, support Clausewitz's view of the unpredictability of war. Although RDO advocates enthusiastically endorse these modern systems concepts, this is a self-contradictory position since general systems and chaos theories state emphatically that the predictability within such systems is impossible. [44] Accepting systems theory requires abandoning linearity and its neatly ordered predictability. One cannot have it both ways. Commenting on Clausewitz and nonlinear theory, Alan Beyerchern observed:

> In a profoundly unconfused way [Clausewitz] understands that seeking exact analytical solutions does not fit the nonlinear reality of the problems posed by war, and hence that our ability to predict the course of any outcome of any given conflict is severely limited.[45]

But is it? RDO advocates might assert that the power of knowledge that is broadly and speedily disseminated and then acted on by self-synchronizing autonomous military units can tame war's chaos and unpredictability by eliminating, or anticipating and averting, its friction and chance.[46] The term "knowledge" rather than its sub-component "information" is important. Information is factual data, or at least it is what is accepted as factual. Knowledge is the enlightened understanding that comes with an individual's correct contextual association of information with objective reality.[47] How does information become knowledge in support of RDO? Enter the Operational Net Assessment, upon which RDO's seductive promise of rapid decisive victory rests.

## The Operational Net Assessment—The Labor of Sisyphus.[48]

The planning and execution of RDO require detailed knowledge of the multidisciplinary cause and effect linkages that describe the causal relationships that ultimately join attaining military objectives to the psychological effects their accomplishment has on an opposing nation's leadership. For RDO, such knowledge is resident in the Operational Net Assessment.

> The [Operational Net Assessment] is a critical enabler for achieving [RDO]. It is a process that uses a coherent knowledge base to link national objectives and power to apply integrated diplomatic, information, military, and economic options that influence [an] adversary's perceptions, decisionmaking, and elements of national will . . . It produces an operational support tool that provides the [Joint Force Commander] visibility of effects-to-task linkages based on a system-of-systems analysis of a potential adversary's political, military, economic, social, infrastructure, and information elements of national power. . . . Analysis includes key links and nodes within systems and proposes methods that will influence, neutralize, or destroy them to achieve a desired effect. The [Operational Net Assessment] is prepared pre-crisis and is continually updated during crisis response.[49]

Other than occasional ill-fated heroes of ancient Greek tragedies, omniscience is rarely a trait attributed to mortals. Yet, the *Whitepaper's* discussion of the Operational Net Assessment suggests that future United States planners and decisionmakers will know even more about the enemy than he knows about himself. Confidence in the Operational Net Assessment is predicated on a fundamental faith in the ability to see with absolute clarity what the enemy thinks, how he thinks, why he thinks that way, and the criteria, timing, and intent of the future decisions he will make. Embedded in this is the foreknowledge that identifies with precision which of the endless series of branches of the action-reaction-counteraction cycle will precipitate an adversary's decision to abandon his desires and accept the political will of the United States.[50]

**Strategic Intelligence and the Science of Guessing Wrong.**

The past is littered with examples of nations that failed miserably in their efforts to understand and predict the actions and intentions of their enemies despite their best efforts to do just that. The Germans failed to predict the allied invasion of Normandy in 1944 and for some time afterward persisted in their belief that the "actual" invasion would occur at the *Pas de Calais*. Stalin refused to acknowledge the indicators of the impending German invasion of the Soviet Union in 1941. The Egyptian assault across the Suez and the Syrian attack into the Golan Heights in 1973 surprised the Israelis, just as the Japanese carrier strike at Pearl Harbor in 1941 and the North Vietnamese Tet Offensive in 1968 surprised the Americans. And the list goes on. While the preceding examples are from nations already at war or anticipating warfare, true "bolts from the blue" are found in the cases of the Argentinean attack of the Falklands in 1982, the Iraqi invasion of Kuwait in 1990, and the series of terrorist attacks against the

United States from Beirut in 1983, through to the World Trade Center and the Pentagon in 2001.

These strategic surprises demonstrate a pattern of failure that is the result of parochial bureaucratic influences within competitive parallel intelligence communities and the personal agendas and idiosyncrasies of senior intelligence officers and decisionmakers.[51] These chronic problems are generally immune from techo-informational solutions and argue against the drafting of a document with the attributes of an Operational Net Assessment. In fact, the growth in data collection enabled by the information age has exacerbated these problems by creating its own kind of "needle in the haystack" dilemma of trying to find the important among the dross.[52] "The blend of inefficiency, internal feuding and underestimation of potential adversaries produces a consistent result . . . the big intelligence organizations can always be relied on for one thing—to get it wrong."[53] "Does the information revolution really change anything in intelligence at the top? The answer is still probably not."[54]

Another intelligence issue that undermines Operational Net Assessment is the fundamental inability of anyone to really know in the requisite detail any other nation, leader, or people. This is especially true for states whose benign aspect, lack of international power, or distance from American strategic interests have traditionally relegated them to military and academic obscurity. Operational Net Assessments developed from a narrow range of inputs, some perhaps tainted by parochial interests and agendas, may frustrate the intent to be "prepared pre-crisis"[55] and "continually updated during crisis response"[56] by limiting the depth or skewing the analysis of nonquantifiable social, cultural, and political aspects of an adversary. In his comprehensive analysis of great power national intelligence estimates before the two world wars, Earnest R. May concludes ". . . attempts by one government to see things from the standpoint of another government were invariably failures."[57] Williamson Murray and Allan Millett observed

in their work on net assessments, "If it is difficult to calculate one's own strength, then how much more difficult it is to calculate the strengths of others whose culture, language, and nationality are so different?"[58]

**The Systems View of the Operational Net Assessment.**

The Operational Net Assessment's contribution to RDO is entirely dependent on a systemic view of the adversary that it claims it can capture in its most minute and continuously updated detail.[59] However, there is absolutely no indication that this is an achievable goal; particularly since the tenets of general system theory invalidate the Operational Net Assessment's promise of absolute predictability. Yet even if a belligerent could achieve 100 percent accuracy in his pre-conflict estimates, simply taking action against the enemy would invalidate these predictions through the workings of the complex adaptive system of systems which describes the aggressor, the defending enemy, and the international environment in which each exists. Under the stress of armed conflict the adversary may adopt forms of decisionmaking and behavior unanticipated under pre-crisis conditions because outside pressure or intervention in complex political-military situations alters both the situation and its dynamics.[60]

Operational Net Assessment advocates might argue that, although it may fall short of its desired predictive power, the Operational Net Assessment may still have significant utility. A truncated Operational Net Assessment might provide a sufficiently accurate view of the adversary's system of systems to enable identification of key nodes and critical vulnerabilities, whose degradation would yield disproportionate systemic or psychological results. However, experience indicates that modern national systems are too diverse, complex, and adaptive to yield to analytic assessment regardless of how persistent, well-resourced, or dedicated the analysis.

World War II's strategic bombing concepts evolved from their crude World War I outlines into more solidified doctrinal precepts in the 1920s and 1930s. In a train of thought familiar today, a 1926 text at the U.S. Air Service Field Officer's School observed that industries consisted of a "complex system of interlocking factories" and that " . . . it is necessary to destroy certain elements of the industry only, in order to cripple the whole."[61] Although systemic bombing for industrial incapacitation possessed an undeniable simplicity and elegance, the "industrial bottleneck" turned out to be an elusive target for the allies in World War II.

Together the British and Americans dropped hundreds of thousands of tons of bombs on Germany and struck every important target within the German society and economy that a formidable and dedicated intelligence apparatus could identify. Oil, steel, cities, aircraft production, shipyards, industrial centers, ball bearings, and transportation all received the attention of Britain's Bomber Command and the U.S. Eighth and Fifteenth Air Forces. Although significantly hindered by Allied bombing, German war production actually peaked at the height of the bomber offensive in 1944, and the German Army continued to resist house-by-house amid the ashes of Berlin. "By February 1945, the Americans targeted just about everything they could think of, hoping to hit upon some means of affecting enemy behavior, either directly or indirectly."[62] Despite the tremendous pressure from 3 years of virtually unrestricted aerial bombardment the German society, military forces, government, and economy proved to be a frustratingly adaptive, durable, and enigmatic system of systems.

During the Kosovo air operation in 1999, NATO planners searched in vain for the key pressure point for limited strikes with low collateral damage that would coerce Serbian strongman Slobodan Milosevic into abiding by his previous commitments to curb ethnic cleansing in Serbia and resume negotiations.[63] Many were hopeful of a quick 3-day operation that would demonstrate allied resolve and

capability while threatening the Milosevic regime through key target destruction. Yet with every modern intelligence and operational capability available, it still took a surprising 10 weeks of ever intensifying bombing, including wide scale attacks in Belgrade itself, before NATO reached its objectives.

**Strategic Context of RDO.**

The description and explanation of RDO presented by the *RDO Whitepaper* do not establish a strategic context for the execution of RDO. A comprehensive assessment of the suitability of RDO as an operational concept requires the consideration of the circumstances and environment that influence the conduct of such operations.

**Domestic Political Context.**

The trend in U.S. foreign policy is a search for consensus followed by incrementalism and the employment of every other mean of persuasion short of armed conflict.[64]

> Politicians, by virtue of their craft, perceive or fear wide ramifications of action, prefer to fudge rather than focus, and like to keep their options open as long as possible by making the least decision as late as feasible.[65]

This assessment is echoed by the Rand Corporation's *Report on the Army Transformation Wargame 2000*, which decried the wargame's portrayal of proactive and timely Presidential decisions as ". . . unlikely . . . in advance of hostilities, even in the face of unambiguous warning."[66] This indicates that although a rapid operational capability may exist, delays in executive decisionmaking may forfeit the optimum window of opportunity for its employment. Conversely, if the ultimate promise of RDO is realized, the low operational risk involved in its execution may prompt hasty military action in dubious enterprises similar to the Clinton administration's conduct of missile-only strikes in Afghanistan and Sudan in 1998.[67]

Additionally, the overarching need to gain and maintain domestic support may dictate compromises on military action that influence timing, the nature and size of forces employed, and specific operational matters such as targeting and rules of engagement. Presidential approval of individual targeting recommendations remains a feature of American armed intervention as seen in Operations DESERT STORM in 1991, DESERT FOX in 1998, and Kosovo in 1999.[68]

Although a slow pace in decisionmaking enables the open policy debate common to democratic policymaking, it may inadvertently dilute the credibility of political warnings and military deterrent efforts. In the ramp up to operations in Kosovo, Milosevic misinterpreted the delay required to gain support for intervention as timidity and lack of resolution that hardened his policy position and increased the pace and aggressiveness of his actions.[69]

The United States has not fought a well-led, evenly matched conventional military opponent in over 50 years. In the future, America may not have the gratuitous advantage of fighting ill-equipped nations that are "leadership impaired."[70] Efforts to build political consensus for military operations may provide more competent future adversaries time to begin aggressive information operations, gain extra-national support, muddy the regional political waters, and take action to reduce their vulnerabilities and prepare for combat. Combined, these actions would likely increase operational risk, lessen the psychological impact of RDO, and increase the duration of operations by requiring additional time to achieve similar effects against a now alerted and prepared adversary.[71]

**International Political Context.**

The *RDO Whitepaper* correctly observes that "Multinational operations . . . will be a key strategic feature of future operations."[72] Coalitions are a political and military necessity for the international legitimacy, regional

access, and host nation support they bring. Unfortunately, building a coalition within the complex and dynamically interactive international system is typically a difficult and time-consuming process. Regional states have different perceptions of threats, different national objectives, different visions of the endstate, different motives, and a broad spectrum of conditionally based contributions to provide or withhold. Simply obtaining agreement that "something must be done" is often a significant diplomatic accomplishment.

Just as the time required to build domestic consensus plays into the hands of the adversary, so, too, does the time required to develop a regional coalition. Building a coalition quickly enough to support RDO may require concessions and compromises that would degrade operational effectiveness, extend the duration of operations, and increase operational risk. Even after its formation, the inherent friction of coalition operations may alter desired operational practices through concerns over image, interoperability, and rules of engagement. The cumulative effect of these constraints and restraints may decrement the speed or decisiveness of operations.

From a regional perspective, there is such a thing as "too fast." America could execute RDO unilaterally to avoid the delays associated with building a robust coalition. However, this would deny international legitimacy for U.S. actions, encourage adverse international reaction to "irresponsible, provocative, and destabilizing" American intervention, seriously degrade U.S.-regional relationships, and severely complicate post-hostility operations. Regional states contemplating active support of American RDO may not have adequate time in which to mobilize and deploy their own forces to defend against potential adversary conventional, missile, or asymmetric counterstrikes. In this case, the "price of admission" to these states for basing or even overflight may be the deployment of U.S. forces or defensive weapons systems. Such deployments would extend operational timelines, place additional stress on

American strategic lift, and likely divulge friendly intent thereby increasing operational risk. Unlike conventional operations, RDO leaves no luxury of time between initiation of decisive operations and the need for post-hostility consensus. The likelihood of the regional spillover effect of unintended consequences that may flow from RDO complicates coalition building for post-hostility operations. The Operational Net Assessment's focus on adversary states may degrade its understanding of regional dynamics, nonstate actors, and transnational issues. Refugees, ethno-religious autonomy, economic disruption, consequence management, and balance of power are regional concerns that endure beyond the execution of RDO and whose lasting effects may resonate in U.S.-regional political relationships for decades, including denial of future access to U.S. forces.

Regional access is absolutely critical to RDO.[73] RDO must originate from somewhere. Unless this "somewhere" is U.S. territory or a naval vessel in international waters, the forces involved must obtain overflight rights for deployment and also permission to occupy and use a regional basing location that provides sufficient operational reach to attack adversary targets. The *Whitepaper* downplays regional basing needs and coalition support by assuming short duration operations with extremely small supply requirements, and then couching its presentation of deployment and logistics concepts in language that implies forced entry forces and their sustainment flow directly to an area of operations in the adversary's territory.[74] Yet it simultaneously highlights the advantages of intermediate staging bases,[75] forward presence, intra-theater lift, the build-up of forces and sustainment, and prepositioned equipment and supplies[76]—all of which require regional overflight and basing.

**The Anti-Access Threat—Capability and Countermeasure.**

The *Whitepaper's* description of deployment and sustainment offers a blurred and contradictory vision of an adversary who is:

> . . . expected to employ anti-access or area denial capabilities such as long-range [surface to] surface missiles, undersea minefields and salvoes [*sic*] of anti-ship missiles; robust, widely distributed surveillance and targeting against air and sea forces; unconventional forces; integrated air defense systems; long-range strike aircraft; and [Weapons of Mass Effects].[77]

Perhaps too conveniently, a home station-to-combat deployment ". . . landing fully combat-ready . . ."[78] negates adversary anti-access capabilities that, if allowed to interfere with operations, would require too much time to defeat. Conversely, the *Whitepaper* states "Increased anti-access threat . . . may preclude rapid direct insertion of forces into the objective area . . ."[79] and "Dimensional superiority . . . localized in time and space . . . is a necessary condition for maintaining friendly access."[80] What exactly is the concept—direct deployment, indirect deployment, or transient dimensional superiority? Moreover, what adversary who possesses these formidable anti-access capabilities is still a suitable target for RDO to accomplish effects-based strategic tasks in "high-end SSCs" from simple strike operations through regime change?

**Conclusions.**

This chapter began by presenting the historically successful interwar innovation experience as a touchstone to assess RDO as an operational concept. This same brief historical example provided the evaluation criteria of balance, connection to operational realities, sensitivity to changes in national purposes and the international security environment, and submission to merciless institutional scrutiny. Measured against these criteria, the only

reasonable conclusion is that RDO is a fundamentally flawed operational concept.

The *RDO Whitepaper's* description of RDO is unbalanced. It is a one-sided narcissistic "glossy sales brochure" of the concept's hoped for capabilities, permeated with deterministic absolutism and over-simplified mirror imaging. Its hollow theoretical foundation avoids historical precedent, and treats *On War* and systems theory as a buffet line of ideas, selecting and incorporating only those that support its arguments. The *Whitepaper's* unsupported characterization of RDO as an appropriate operational method across the spectrum of operations, from deterrence through counterterrorism to regime change, is ludicrous. The document's dogmatic tone and disingenuous explanatory method fail to present a balanced, intellectually honest, critical assessment of RDO and thereby call the entire concept into question.

RDO does not appear to be adequately grounded in operational realities; rather, it appears to be a "faith-based" concept. The Operational Net Assessment is *the* critical enabler of RDO. However, its self-contradictory position regarding systems theory versus predictability invalidates its specious promise to provide the omniscience and predictive foreknowledge of adversary decisionmaking and societal adaptation necessary to support RDO. The gulf of the unknown that exists between knowing a lot and knowing everything is vast. Without the predictive power of the Operational Net Assessment, RDO cannot perform as described.

Above all, the *RDO Whitepaper* appears insensitive to the international security environment. It presents RDO as a unilateral capability, whose execution is divorced from strategic context. This technique gilds the concept with an unwarranted patina of feasibility by ignoring the potential imposition of delays and operational restrictions, whose cumulative effect would reduce whatever inherent advantage rapidity may impart and attenuate the

operation's desired decisiveness. RDO executed without regard for specific regional factors and concerns may preclude effective coalition development, deny key regional support to operations, and seriously damage future American international influence and prestige.

Although the RDO concept is being tested by Joint Forces Command, this falls short of the criteria's comprehensive, repetitive, rigorous, and independent "institutional scrutiny." The *Whitepaper's* consistent deprecation of "legacy" planning and operational methods and of kinetic annihilation-focused conventional combat automatically excludes the concept's greatest potential challenger from consideration. No intellectual examination of alternative concepts is possible without a sound contending idea, which the *RDO Whitepaper* does not provide.

Despite these serious flaws, RDO is still a worthy candidate operational concept. But to continue to vie successfully for consideration as a warfighting paradigm it must be redesigned to reconcile its internal contradictions and establish solid theoretical underpinnings. It must realistically reappraise its aspirations to sweeping capabilities and refine and align its characterization of supporting deployment and sustainment concepts. Lastly, it must embrace the strategic context of its execution and honestly reevaluate the capabilities and criticality of the Operational Net Assessment. In the aftermath of such a rigorous reexamination unresolved issues may severely truncate the concept, revealing it as a marginal improvement over existing capabilities suitable only against weak and fragile threats for which the opportunity costs required to develop RDO can not be justified. Alternatively, if this reassessment and redesign is not conducted and the concept is allowed to mutate unchanged into doctrine, then the fate of the Republic and the lives of its servants are in jeopardy.

Perhaps one might excuse loose definitions, broad assertions of capabilities, and a degree of incoherence in a document that is intended as an exploratory effort rather than doctrine. However, the *Whitepaper* claims to provide commanders with "a way to . . . determine and employ the right force in a focused, nonlinear campaign to achieve desired political/military outcomes.[81] This doctrinal resemblance is more striking when the *Whitepaper* stands as the only documentation of ". . . an evolving concept for conducting . . . missions,"[82] and a ". . . concept for future joint operations."[83]

If the United States is going to retain its military dominance into the 21st century, then developing well-reasoned, theoretically sound, and realistic warfighting concepts and doctrine is of the utmost importance. Colonel David Fastabend, co-author of the 1997 edition of Army *Field Manual 100-5, Operations*, has excoriated the lack of mental rigor in current warfighting concepts and sounds a clear warning of the grim consequences of ill-disciplined near-doctrinal thinking.

> The term operational concept has been hijacked and colloquialized. At the joint level, pseudo-concepts occupy the place of something far more important—a real visualization of the future of joint combat. . . . If we do not offer a simple, clear picture of how we will fight, our concept will be supplanted by simpler, narrower images that are easy to sell but impossible to execute.[84]

## ENDNOTES - CHAPTER 6

1. David S. Alberts, John J. Garstka, and Frederick P. Stein, *Network Centric Warfare: Developing and Leveraging Information Superiority*, Washington, DC, 1999, Chpt 4. The authors provide an outstanding summary of the military and commercial implications of the Information Age, although focused on C4ISR issues. See also Sam J. Tangredi, "The Future Security Environment, 2001-2025: Toward a Consensus View," and Michael E. O'Hanlon, "Modernizing and Transforming U.S. Forces: Alternative Paths to the Force of Tomorrow." in *QDR 2001: Strategy-Driven Choices for America's Security*, Michele A, Flournoy, ed., Washington, DC, 2001, for excellent insights, albeit pre-September 11, 2001, into 21st century security challenges and transformation.

2. This brief synopsis of interwar innovation is drawn from Barry Watts and Williamson Murray, "Military Innovation in Peacetime," in *Military Innovation in the Interwar Period*, Williamson Murray and Allan R. Millett, eds., New York, NY, 1996, especially pp. 406-415.

3. *Ibid.*, p. 407. See also James S. Corum, *The Roots of Blitzkrieg: Hans von Seeckt and German Military Reform*, Lawrence, KS, 1992; and Robert M. Citino, *The Evolution of Blitzkrieg Tactics*, New York, NY, 1987.

4. Watts and Murray, p. 406.

5. *Ibid.*, p. 411. See also Maj Bruce H. McClintock, "Transformation Trinity: Vision, Culture, Assessment," *Joint Force Quarterly*, Autumn 2000, Washington, DC, 2000. The author provides a supporting commentary on the elements of successful innovation and highlights the requirement for ". . . military culture [that] allows advocates of the vision to develop competing theories that are openly assessed," p. 31. See also Mark A. Johnstone, Stephen A. Ferrando, and Robert W. Critchlow, "Joint Experimentation: A Necessity for Future War," *Joint Force Quarterly*, Autumn/Winter 1998-99, Washington, DC, 2001, pp. 15-24, for observations on historically successful innovation and options for future U.S. joint experimentation.

6. Williamson Murray, ed., *Army Transformation: A View from the U.S. Army War College*, Carlisle Barracks, PA, 2001, p. 18.

7. Barry Posen, *The Sources of Military Doctrine: France, Britain and Germany Between the World Wars*, Ithaca, NY, 1984, pp. 14-15. See also Jack Snyder, *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914*, Ithaca, NY, 1984, especially chapters 1 through 3.

8. United States Joint Forces Command, *A Concept for RDO: RDO Whitepaper Version 2.0,* U.S. Joint Forces Command, 2001. Although the "Whitepaper" claims that RDO are effective across the spectrum of operations including counterterrorism and regime replacement, the document is clearly focused on conventional state-to-state warfare. This chapter retains the same orientation.

9. Thomas M. Cooke, "Reassessing Joint Experimentation," *Joint Force Quarterly*, Spring/Summer 2001, Washington, DC, 2001, p. 103.

10. *Ibid.* A quick synopsis of *JV 2010's* joint operational concepts in execution, as well as the putative intellectual beginning of RDO can be found in David B. Haight, "Operation JUST CAUSE: Foreshadowing Example of Joint Vision 2010 Concepts in Practice," Research Paper, U.S. Naval War College, February 13, 1998. Transition from *JV 2010* to *JV 2020* is also addressed by Major General Pete Osman, "*JV 2020*," briefing; available from *dtic,mil/jv2020*.

11. U.S. Joint Forces Command, *Whitepaper*, p. i. See also Major General Tim Peppe, "Joint Experimentation Program," briefing slides, April 25, 2000; available from *http://www.vcds.dnd.ca/dgsp/dda/presentation/07-Peppe-1_e.ppt.;* Internet; accessed January 14, 2002.

12. *Ibid.*, p. 11.

13. U.S. Joint Chiefs of Staff, *Concept for Future Joint Operations: Expanding Joint Vision 2010*, Washington, DC, 1997, p. 83.

14. *Ibid.*, p. iii.

15. Donald Rumsfeld, Secretary of Defense, text of speech to students of U.S. National Defense University, February 2002; available from *http://www.defenselink.mil/speeches/2002/s20020131-secdef2.html*; Internet; accessed February 10, 2002.

16. U.S. Joint Forces Command *Whitepaper*, p. v.

17. *Ibid.*, p. 1.

18. *Ibid.*, p. 11.

19. *Ibid.*, p. v.

20. *Ibid.*, p. 12.

21. *Ibid.*, p. 35.

22. *Ibid.*, p. 12.

23. *Ibid.*

24. Lieutenant Colonel Steven J. Eden, "Three Cheers for Attrition Warfare," *ARMOR*, March-April 2002, pp. 29-31. Eden provides an exceptionally insightful commentary on the modern merits of "old style" kinetic warfare. See also Richard Hart Sinnreich, "The Limits of Lightness," *Washington Post*, September 26, 2000, p. 27. See also "Intervening in Short-Warning Conflicts," Rand Research Brief; Available from *http://www.rand.org/publications/RB/ RB7110/;* Internet; Accessed January 14, 2002. This Rand product states, "In many plausible military interventions along the ill-defined spectrum of small-scale to large-scale conflicts, long-range precision fire alone would not be sufficient, and the JTFs would need ground-maneuver forces . . ."

25. U.S. Joint Forces Command *Whitepaper,* p. 16. These sentiments are ably addressed from an Air Force perspective in David A. Ochmanek, et al., *To Find and Not to Yield: How Advances in Information and Firepower can Transform Theater Warfare*, Santa Monica, CA, 1998.

26. U.S. Joint Forces Command *Whitepaper*, p. v.

27. *Ibid.*, p. 12.

28. *Ibid.*, p. 11.

29. *Ibid.*, p. 16.

30. Dr. James J. Schneider, "How War Works: The Origins, Nature, and Purposes of Military Theory," School of Advanced Military Studies Course One Syllabus AY 96-97, Ft. Leavenworth, KS, 1996, p. 10. This paper was written in June 1995 and later included in the U.S. Army Command and General Staff College AY 96-97 syllabus.

31. Colin S. Gray, *Modern Strategy*, New York, 1999, p. 15.

32. *Ibid.*, p. 1. Gray's observations on the eternal nature of war are also reflected in George and Meredith Friedman, *The Future of War: Power, Technology and American World Dominance in the Twenty-First Century*, New York, 1998, p. xi.

33. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, eds. and trans., Princeton, NJ, 1976, p. 141.

34. *Ibid.*, p. 92.

35. *Ibid.*, p. 77.

36. U.S. Joint Forces Command *Whitepaper*, p. 12.

37. *Ibid.*, p. 11.

38. Major General Robert H Scales, Jr., "Adaptive Enemies: Achieving Victory by Avoiding Defeat," *Joint Force Quarterly*, Autumn/Winter 1999-2000, Washington, DC, 2000, p. 13.

39. Clausewitz, pp. 80-81.

40. Robert B. Strassler, ed., *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*, New York, 1998, pp. 351-357.

41. Clausewitz, p. 139.

42. Barry D. Watts, "Clausewitzian Friction and Future War," *McNair Papers #52*, Washington, DC, 1996, p. 108.

43. Colonel Robert C. Owen, ed., *Deliberate Force: A Case Study in Effective Air Campaigning*, Maxwell AFB, AL, 2000, p. xii.

44. Colonel Robert Schmidle, "Dominant Maneuver Operational Concept," briefing slides and commentary, Carlisle Barracks, PA, October 23, 2001.

45. Alan Beyerchern, "Clausewitz, Nonlinearity, and the Unpredictability of War," *International Security*, Vol. 17, No. 3, 1992, p. 61. This notion of the nonlinear unpredictability of war is strongly supported by Watt's *Clausewitzian Friction and Future War*. Indeed, Watt's draws heavily from Beyerchern's work. Watt's Chapter 10 is especially significant.

46. U.S. Joint Forces Command, *Whitepaper*, p. 35.

47. *Ibid.*, p. 20.

48. Sisyphus is a character from Greek mythology; also found in Albert Camus' *The Myth of Sisyphus*. "The Gods had condemned Sisyphus to ceaselessly rolling a rock to the top of the mountain, whence the stone would fall back of its own weight. They had thought with some reason that there is no more dreadful punishment than futile and hopeless labor."

49. U.S. Joint Forces Command, *Whitepaper*, pp. 20-21.

50. *Ibid.* This is a synthesis of the characteristics attributed to Operational Net Assessment.

51. Colonel John Hughes-Wilson, *Military Intelligence Blunders*, New York, 1999, pp. 353-355. See also Williamson Murray and Allan R. Millett, *Calculations: Net Assessment and the Coming of World War II*, New York, 1992, p. 3.

52. Scales, p. 13.

53. Hughes-Wilson, p. 355.

54. *Ibid.*, p. 358.

55. U.S. Joint Forces Command, *Whitepaper,* pp. 20-21.

56. *Ibid.*

57. Ernest R. May, ed., *Knowing One's Enemies: Intelligence Assessments Before the Two World Wars*, Princeton, NJ, 1984, p. 538.

58. Murray and Millett, *Calculations: Net Assessment and the Coming of World War II*, p. 4. This notion of chronic inability to understand other national leaders is echoed throughout Richard E. Neustadt and Earnest R. May, *Thinking in Time: The Uses of History for Decision Makers,* New York, 1986.

59. U.S. Joint Forces Command, *Whitepaper,* p. 20.

60. General Wesley K. Clark, *Waging Modern War: Bosnia, Kosovo, and the Future of Conflict*, New York, 2001, p. 167.

61. Dr. Tami Davis Biddle, "Spaatz, Harris, and Tedder," Formal Lecture, U.S. Army War College Military History Institute, January 16, 2002. Quotation is taken directly from lecture notes presented by Dr. Biddle and used with permission.

62. *Ibid.* See also Tami Davis Biddle, *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas About Strategic Bombing, 1914-1945*, Princeton, NJ, 2002, pp. 253-254.

63. Clark, p. 423.

64. *Ibid.*, pp. 419-420. Concerning Afghanistan, it can be argued that, even as late as his address to a joint session of Congress in late September 2001, President Bush provided an opportunity for Taliban submission to the will of the United States that would have avoided war.

65. Colin S. Gray, "Why Strategy is Difficult," *Joint Force Quarterly*, Summer 1999, Washington, DC, 1999, p. 11.

66. Walter Perry, *et al., A Report on the Army Transformation Wargame 2000*, Santa Monica, CA, 2001, p. 19.

67. General John A. Shaud, Retired, "From JUST CAUSE to Kosovo and Beyond," Air Force Association Symposium; Available from *http://www.afa.org/library/reports/ausa.html;* Internet; accessed January 14, 2002.

68. Clark, p. 178.

69. *Ibid.*, p. 421.

70. Scales, pp. 12-14.

71. Clark, p. 178.

72. U.S. Joint Forces Command, *Whitepaper*, p. 34.

73. *Ibid.*, p. 39.

74. *Ibid.*, pp. 38-43.

75. *Ibid.*, pp. 41, 42, 43.

76. *Ibid.*, p. 42.

77. *Ibid.*, p. 39.

78. *Ibid.*, p. 42.

79. *Ibid.*, p. 43.

80. *Ibid.*, p. 39.

81. *Ibid.*, Preface.

82. *Ibid.*, p. iii.

83. *Ibid.*, p. v.

84. Colonel David A. Fastabend, "That Elusive Operational Concept,", Unpublished Journal Article, June 2001, p. 8.

# CHAPTER 7

# OPERATION JUST CAUSE: CONCEPTS FOR SHAPING FUTURE RAPID DECISIVE OPERATIONS

**Lieutenant Colonel James H. Embrey**

> So what in the nature of the world and warfare is so different? The difference is that the world has shrunk in the satellite era and war has become extremely lethal. We also are now a force primarily based in the Continental United States. In the next ten years, we will be asked to assemble and rapidly deploy to distant target areas, fight decisively and precisely to achieve the nation's goals with a minimal loss of life, injury or damage. We will be expected to conclude operations rapidly and to redeploy to CONUS—all of these in the light of public scrutiny.[1]

Shortly before his death, General Maxwell Thurman penned the above quotation. To a considerable extent, his view of the future reflects the way the United States wages war at the beginning of the 21st century. Under emerging concepts such as Rapid Decisive Operations (RDO), American armed forces, in synchronization with other elements of national power, will seek to dominate their opponents rapidly and decisively. Through the precise application of force, they will aim to achieve overwhelming power against an enemy's critical weaknesses or sources or power, i.e., his "systems" in order to collapse his resistance cataclysmically. If successful, "RDO" would terminate conflict on favorable terms to the United States and its allies, while limiting violence and minimizing noncombatant casualties and collateral damage.[2]

**RDO: Old Wine in New Bottles.**

However, in no sense is this concept new. Commanders and heads of state have always sought to achieve overwhelming success with the least expense of time, resources and power. No nation would willingly pursue protracted, expensive conflict, when rapid, decisive, and cost-effective methods are available. As Hans Delbruck noted, of the two strategies of war, exhaustion and annihilation, the latter is most usually the way stronger powers seek a rapid conclusion to conflict. They do so not only to overthrow the enemy by the most effective means, but to conserve their power for future use while minimizing the destruction, which might ultimately lead to future conflict.[3] Power is infinite when used for persuasion and coercion, but finite and limited once committed to use. Thus, the United States must make judicious use and conserve its national resources in facing a diversity of complex, ambiguous threats.

RDO are a method to this end. However, the concept is over a decade old. Thurman, former Commander in Chief of United States Southern Command, described the challenges of future conflict in similar terms. In all, the rapid, decisive, and simultaneous military operations employed during Operation JUST CAUSE (the invasion of Panama) provide salient lessons and challenges that are relevant to the development of the current concept of RDO.

JUST CAUSE was a complex, joint operation that yielded both rapid and decisive military results. In the wake of failed diplomatic and economic pressure to remove the corrupt Panamanian dictator Manuel Noriega from power, a joint force, over 20,000 strong, deployed from both the United States and Panama. It struck 27 separate locations simultaneously to overwhelm its adversary. In the process, U.S. forces secured the Panama Canal unharmed, protected 30,000 U.S. nationals, and caused the total collapse of the Panamanian Defense Forces. It thereby enabled the elected government of President Guillermo Endara to assume

power and re-establish democracy in Panama. Such a rapid and decisive defeat of Noriega's Panamanian Defense Force and paramilitary "Dignity Battalions" also limited civilian casualties and the destruction of property. Even more importantly, it prevented any prolonged resistance or insurgency by the dictator's "loyalists." In all, within 30 hours the Panamanian Defense Forces had been eliminated as a threat to U.S. forces; within 16 days as a threat to the civilians of Panama. Six years after the difficulties encountered in Grenada, U.S. forces had affected major structural changes that enabled the head of the House Armed Services Committee, Representative Les Aspin, to characterize the operation as one where the "planning was sound, . . . thoroughly prepared and rehearsed, and well-executed."[4]

In April 2000, the "Defense Planning Guidance" tasked U.S. Joint Forces Command to develop new joint warfighting concepts and capabilities. These capabilities should provide the U.S. military by 2015 both the ability to defeat an enemy rapidly and decisively. Focused on winning high-end, small-scale contingencies (such as the Panama operation), "fully networked and coherent joint forces" will employ superior knowledge, precision, and mobility against an enemy's critical functions to "create maximum shock and disruption, defeating his will and ability to fight."[5] In all, Operation JUST CAUSE, conducted over a decade ago, accomplished those same results. This chapter will examine how Southern Command and its warfighting Joint Task Force-SOUTH (JTFSO) organized, planned, prepared, and executed joint operations that resulted in the total, cataclysmic collapse of Manuel Noriega's Panamanian Defense Force. Using the factors that provided success, the final section of this chapter will suggest elements that should provide a guide to developing of future concepts and structure for RDO.

**Operation JUST CAUSE .**

In 1985, American-Panamanian relations began a steady decline. Noriega, head of a narco-militaristic regime that controlled all facets of Panama, systemically violated the American Panamanian Canal treaties and harassed American nationals and military forces stationed in the Canal Zone. When the United States declared drugs a major threat to American society in 1988, a Florida federal court indicted Noriega for drug trafficking and money laundering. With this indictment, relations further deteriorated. [6]

The Reagan administration hoped that a Panamanian solution, such as a *coup d'etat* or election, would end Noriega's rule. However, the use of both overt and covert operations to start popular uprisings and coups by assisting the opposition failed. Other measures such as negotiations, economic and diplomatic sanctions, and military threats also failed, largely due to mismanagement within the administration's interagency process, bureaucratic infighting, mixed messages, and incompetency. In all, Noriega received mixed messages which led to his distrust of U.S. intentions. The dictator's defiance also strengthened his position in Panama and made him more difficult to remove, as he systemically eliminated his opposition. After he invalidated the national election of May 1989 and installed his own officials, Noriega felt immune from American reprisals. In all, American political and diplomatic failures in the mid- to late 1980s resulted in confusing messages that undermined credible military threats and made the direct use of military force (to remove Noriega) more rather than less likely.

*Planning and Preparation for the Operation.* With rising tensions, Southern Command began preparing for military action. The existing plans for the defense of the canal zone and U.S. citizens, Operation BLUE SPOON, was one portion of the standard, off the shelf, set of contingency plans in the PRAYER BOOK series. Operation BLUE SPOON envisioned that in the face of a threat to American

interests, the U.S. military would land military forces at Howard Air Force Base, which would then move out to deal with conflict across the country.[7] However, emerging threats underlined that sequential operations would not be possible. With the rise in tensions in June 1989, it became clear that Noriega and the Panamanian Defense Force aimed at maintaining power at any cost. Thus, a sequential buildup of forces over time could not occur because, "the tensions were already too high and things were already developing in ways that wouldn't make [deliberate deployment] a very feasible notion.[8]

Moreover, the replacement of General Fred F. Woerner with a more aggressive Thurman dictated a change in plans. Upon notification in June that he would most probably assume command, Thurman initiated a series of studies and briefs in Washington, Ft. Bragg, and other locations that led him to conclude that a sequential buildup was neither acceptable nor feasible. A slow moving plan ran the high risk of interdiction/preemption by Noriega and Panamanian Forces who might not only block the buildup, but move quickly to seize American hostages and facilities, most critically the canal and its supporting facilities. Consequently, even before Thurman's arrival, Operation BLUE SPOON was evolving into a more rapid, complex operation focused on fixing Noriega and his henchmen. If the initial moves could strip away the leadership and command structure of the Defense Force, Noriega's troops would be incapable (and, most thought, unwilling) of moving against and inflicting damage or injuries on U.S. and Panamanian citizens and infrastructure.[9] Thus, from mid-1989 operations took a distinctive shift from the methodical and sequential to the rapid, overwhelming, and decisive.

*The Direct Approach: "Noriega Must Go."* Inheriting a deteriorating situation, the new president decided to take a firmer approach. Following Noriega's overturning of elections in May, George Bush announced that the United States had enough of the corruption and disregard for

democratic process in Panama. He proclaimed that "Noriega must go."[10] Key also was the change in SOUTHCOM's leadership: the president was sending the signal that America would take a tougher stance. During a series of briefings and discussions in Washington prior to assuming his duties as CINC, Thurman worked in conjunction with the new Chairman of the Joint Chiefs, General Colin Powell, to define American goals and objectives. These objectives would be the basis for theater level planning, and eventually became the operational guidance by the president. American objectives would be to:

1. Create an environment safe for Americans;

2. Ensure the integrity of Panama Canal;

3. Provide a stable environment for the freely-elected Endara Government; and,

4. Bring Noriega to justice.[11]

Using these goals, Thurman began a major reassessment of the situation in September. He calculated that the enemy's center of gravity was not Noriega but the Panamanian Defense Forces' leadership, of which the general was only a critical part. The head of the serpent could be removed, but the systemic corruption in the defense forces had built second and third layers of corrupt leadership that would keep the snake functioning and dangerous. Unless those too were removed, the Panamanian Defense Forces would undermine any movements toward democracy. Additionally, leaving remnants in place would provide a possible basis for an insurgency that would draw the United States into a protracted, Vietnam-like conflict. Therefore, decisive action required a broader approach—the decisive target would be the destruction of the Panamanian Defense Forces and its command structure.

*Joint Task Force SOUTH as a Warfighting Headquarters.* In addition to this reorientation, Thurman believed he needed a simple, but effective subunified

command to plan the action. His initial assessment was that his in-house Joint Task Force PANAMA (JTFPN) lacked the planning and robust warfighting capabilities needed for planning an intricate operation. Additionally, both U.S. Army South (USARSO) and his headquarters focused on the close fight of performing the routine security, political, and military requirements of day-to-day operations. Thurman requested and received permission from Powell to use the Army's XVIII Airborne Corps as the planning and execution nucleus of JTF-SOUTH. That organization would focus on the preparing for the use of military force; they would focus on planning, rehearsing and command all joint forces during strike operations.[12]

CINCSOUTH

In addition, Thurman obtained as his standing Joint Task Force commander Lieutenant General Carl W. Stiner, a seasoned, experienced warfighter whom Thurman trusted to handle preparation and execution of the complex operation. Most important, Thurman felt the original concept of Operation BLUE SPOON for the standing up a joint task force as the operation began was inadequate. In a fluid, ill-defined environment, he might have to launch operations at short notice to meet political "triggers" and to achieve operational surprise. Execution of rapid, simultaneous operations, with many dispersed, complex

pieces, required a headquarters that was already functional, situationally aware of both friendly and enemy forces, coherently joint capable, and ready to execute on short notice without appreciable standup or shakeout time. Consequently, he wanted a separate, detached joint headquarters to focus specifically on developing an in-depth picture of the Panamanian threat and prepare detailed, synchronized, joint military operations to eliminate Noriega's organization.

*Development of the Concept for an RDO*. Key to Thruman's approach was the development of superior knowledge of his enemy's capabilities, dispositions, and potential actions. To this end, SOUTHCOM focused on intensive intelligence and information gathering efforts. Intelligence preparation for military operations would prove to be a critical factor in overall success. Both in-country and forces deploying from the United States developed a detailed lay-down of Panamanian troop locations and dispositions, key facilities within the canal zone, and approximate locations of major groups of U.S. nationals who might be targets for kidnapping or terrorist attacks.[13]

The information gained through SOUTHCOM Headquarters at Quarry Heights, American units training in Panama, and U.S. contacts with the Panamanian Defense Forces and government proved crucial. These sources provided in depth knowledge of terrain, road networks, and unit capabilities, which then fed the planning process to select the targets and objectives. The intelligence picture further improved with the failed coup on October 3, which provided accurate information on the units loyal to Noriega, as well as the capabilities of Panamanian Defense Forces to move rapidly with air and armored forces. Among such units were the 7th Infantry Company, which rescued Noriega through airmobile movements, and Battalion 2000, with its armored vehicles, which could move quickly to counter light infantry strikes into Panama City. Also, intelligence revealed growing

numbers of paramilitary "Dignity Battalions," which conducted pro-Noriega terror attacks. Quickly locating, neutralizing, and preventing their escape and linkup with Defense Force elements would be critical to safeguarding Americans and preventing dispersed enemy units from building up mass.[14]

However, there were also several critical gaps in intelligence. There was a vague picture of the precise strength and locations of many of Noriega's Dignity Battalions, a shortfall that led to an under-estimation of their threat. Second, the lack of targetable intelligence on Noriega's location and activities would result in the failure to capture the Panamanian dictator early in the operation—a result which then turned the operation into a manhunt that ended in his embarrassing escape to the Papal Nuncio's residence.[15] Although these shortfalls prolonged the operation, they did not detract from its overall success. In all, American forces entering Panama on December 20 had a well-defined picture of the major enemy strengths, dispositions, and capabilities that they needed to strike in order to defeat Panamanian forces rapidly and decisively, and, in the end, dismember Noreiga's grip on power.

Critical to successful preparation and execution was not only the gathering of information, but the development of superior knowledge of enemy intentions. Knowledge superiority came through the selection of the right leaders, with the background, experience, and intellect to interpret the myriad of information and intelligence and develop a clear picture of the enemy and the effects intended actions might achieve. The selection of Brigadier General William Hartzog as the J3 provided an officer with such qualities and insight. Hartzog was not only experienced in the theater, with a number of prior assignments to Panama, but he had the ability to visualize the enemy's centers of gravity and key vulnerabilities and develop an integrated plan for enemy destruction. As a result, the plan for simultaneous, rapid action could promise decisive results, so much so that

after receiving the briefing for the proposed operation the Joint Chiefs approved it as written.

The plan, BLUE SPOON 1-90, included two scenarios. For the no-notice, "reactive execution" scenario based on triggers such as the seizure of hostages or threats to the canal, Joint Task Force PANAMA forces already on the ground would secure key facilities, defense sites, and the housing of U.S. nationals, isolate the canal and the Panamanian Defense Force headquarters at La Comandancia from reinforcement, and prevent Noriega's escape. Air support would strike key Panamanian facilities, while special forces—under a Joint Special Operations Task Force—would capture Noriega and interdict or destroy Panamanian forces in the areas outside Panama City and Cologne. In the mean time, U.S. forces would flow rapidly through American-controlled airfields and ports to reinforce and expand operations.[16]

The more preferable "deliberate" option was the one eventually executed as Operation JUST CAUSE.[17] This scenario used overwhelming air and land forces from both the United States and Panama to strike simultaneously at all critical military and political vulnerabilities. With at least 60 hours notice, joint special operating forces would conduct reconnaissance and surveillance of key targets such as Fort Cimarron, Tinajitas, Panama Viejo, and the Pacora River, while other Delta elements attempted to locate Noriega. During this same period, Forces Command would position more armor and aircraft in Panama, while Transportation Command (TRANSCOM) would prepare to airdrop over 5,000 assault troops and airland an additional 13,000 soldiers.

Special Operations forces would prepare the way. Task Force GREEN, the Army Special Mission Unit (Delta) would rescue U.S. citizens imprisoned near La Comandancia, while Task Force BLACK would protect opposition leaders. Task Force GREEN and BLUE of Army Special Mission Unit and Navy SEALs would rescue other

hostages, while Task Force WHITE's Navy Special Warfare Units would interdict enemy naval forces at three separate harbors. Finally, Task Force RED made up of the Army Ranger Regiment would make airborne assaults on key Panamanian Defense Forces' concentrations removed from the Canal area, at Rio Hato in the west and at Torrijos Tocumen Airport in the east.

Following these opening moves, the operation would proceed in four phases. In the first phase, three of the four conventional Task Forces would swing into action at H Hour. In the northwest, Task Force ATLANTIC, made up of a brigade of the 7th Infantry Division (Light) with a battalion from the 82nd Airborne Division,[18] would strike the Panamanian Defense Forces in Colon and secure by air assault the Madden Dam and El Renacer Prison, both in the center of the Isthmus. At the same time, Task Force BAYONET of the Panama-based 193rd Infantry Brigade along with mechanized infantry under Task Force 4-6 Infantry would secure the embassy and other U.S. national population centers and seize key sites in Panama City and its environs, to include the Panamanian Defense Forces nerve-center at La Comandancia. Finally, the Marine infantry battalion Task Force SEMPER FI supplemented by Army military police would secure the key airhead at Howard AFB and block any enemy movements into the city across the Bridge of the Americas. This "inner ring" of strikes would secure the Panama Canal, protect Americans against Dignity Battalion retribution, and decapitate the Panamanian Defense Force's command system and security.

Closely following these strikes across the Canal Zone, Army Rangers would airdrop to seize Torrijos-Tocumen Airport. Task Force PACIFIC with the remainder of the 82nd Airborne Division would follow at H+45 minutes to relieve the Rangers. At H+90 airborne forces would airmobile aboard helicopters to destroy the Panamanian Defense Force's strongholds at Tinajitas, Fort Cimarron, and Panama Viejo. Following these initial strikes, the

remainder of the 7th Infantry Division (Light) and the 16th Military Police Brigade would deploy from the U.S. to reinforce on Day 2. In the final phase of the operation (D+3 through D+30 days) the 7th Division would relieve all airborne forces and, together with forces stationed in Panama, execute civil-military operations in support of the new Panamanian government, Operation BLIND LOGIC.[19]

Overall success depended on a joint forces effort. In support of the 23,000 man Army-Marine ground force would be over 3,400 Air Force personnel, mostly from the 830th Air Division. Their operations would be critical to success not only in providing airlift/airdrop, but also in providing electronic jamming, refueling, and most importantly precision strikes in support of ground operations in urban areas. Six F-117 stealth bombers would bomb barracks and other locations to stun and disorganize the Defense Force while AC-130 gunships directed precision fires to prepare drop-zones, interdict counterattack, and strike specific buildings, such as La Comandancia in the midst of populated areas, where collateral damage from bombing was not acceptable. Naval forces would control sea approaches, stop all ships from entering the canal during the operation, and prevent reinforcements or supplies from Noriega's supporters in Cuba. In addition, Naval Special Warfare forces would disable the Panamanian Defense Forces naval forces and conduct special boat and countermine operations to keep sea lanes open.

With Stiner to answer questions, Hartzog provided what Joint Staff Director of Operations Lieutenant General Kelly characterized as the best operations briefings he had ever heard.[20] Armed with experience and the answers based on in depth planning, Hartzog convinced Powell that the plan was flexible and detailed enough to ensure success across a complex and complicated operation. Powell agreed on the use of overwhelming force to decimate the Panamanian Defense Forces and preclude their ability to wage a prolonged insurgency. On November 3, the Joint Chiefs approved the plan as written.

*The Plan Moves Into Action*. Rehearsals over the next 6 weeks reinforced understanding at all levels, perfected the eventual execution, and provided feedback for further improvements. By hostilities in mid-December, the joint force was well-prepared to execute the invasion after events spiraled out of control.[21] In mid December, the Panamanian national assembly proclaimed Noriega the country's "supreme ruler," and under his direction issued a declaration of war against the United States. Marked increases in violence against Americans culminated on December 17 with the abuse of a Navy couple and the killing of a Marine officer. These provocations presented President Bush with the imperative to act decisively.

Thurman saw four options available.[22] First, the United States could do nothing and continue to let diplomatic and economic pressure work. This option was unlikely to work, especially given the support of Noriega by Nicaragua and Cuba, as well as illegal funds from South American drug cartels. The second option was to use a series of special operations to seize Noreiga and his supporters. Third, the United States could use conventional and special forces already in country to seize the Panamanian Defense Force's headquarters and capture Noriega. However, both promised to be less than decisive; while they might have captured of Noriega and his key supporters, they would fail to eliminate the second-order of corrupt leaders, who might well seek revenge against U.S. personnel and assets. They also left open the possibility of a prolonged conflict by Panamanians who were either loyal to Noriega or spurred by nationalist impulses to resist foreign aggression. Such a prolonged "Vietnam-like" conflict would have opened the Bush Administration to both domestic and international criticism and pressure during a long campaign.

The greatest promise for decisive success was in the fourth option of using decisive and overwhelming force. A broad, comprehensive and simultaneous strike at all principal enemy installations, along with Noreiga's key control and administrative nodes could cataclysmically

collapse the capability and will to resist of regular and paramilitary forces, and prevent a protracted insurgency. However, the risk of failure was also high. The operation would be extremely complex in striking multiple, dispersed targets, with a joint force of over 23,000 based in Panama and the United States, and occur at night to maximize surprise and minimize collateral damage. Bush chose the path of most promise and risk; on December 17, he ordered American forces to execute a complex, rapid, and decisive strike to destroy the Panamanian Defense Forces. D-Day would occur less than 60 hours later: 1:00 a.m. on December 20.

*Operation JUST CAUSE: Deployment and Opening Moves*. Upon notification, U.S. forces began final preparations by putting air and ground units in the United States and Panama on alert. Military Airlift Command positioned active and reserve aircraft at seven airlift sites, while flying the final ground elements into Panama. Special Operations forces, including Army Green Beret and Navy SEAL teams, deployed to augment Task Force BAYONET (193rd Infantry Brigade), watch Panamanian forces, and locate Noriega. In the United States, ranger and airborne units began movements under the guise of conducting a "deployment readiness training exercise" as CBS television broadcast footage of C-141s departing from Fort Bragg and other locations. Additional Marines from the 6th Regiment and the First Fleet Antiterrorism Security Team deployed to flesh-out the remainder of Task Force SEMPER FI. By sunset on December 19, an overwhelming force was in motion to deal the Panamanian Defense Forces a crushing blow.

Inside Panama, Army and Marine Task Forces began moving in the Panama City and Cologne areas that comprised an inner-ring of Panamanian forces and facilities all within easy reach. Their attacks focused on eliminating the Panamanian Defense Forces' hold on major population centers and government facilities, while simultaneously destroying the centralized command at the La

Commandancia headquarters in Panama City. However, success here would not be decisive. The elite, armored "Battalion 2000" and the 6th and 7th Companies of the Panamanian Defense Force were stationed outside the Canal Zone and would have to be taken down at the same time to prevent counterattacks from outlying areas or a withdrawal to fight a guerilla war. Frontal attacks by task forces in the Canal Zone could not cut off and destroy these forces, so rapid, surprise airborne and air assault operations were aimed at overwhelming the enemy before he could escape to the jungles. When Stiner arrived in Panama on December 18 to make last minute adjustments, he knew that both sets of objectives had to be taken simultaneously to fragment the enemy physically and psychologically.

*Special Forces Open the Operation*. As Stiner arrived in country, Task Force BLACK was moving into position. Special Forces teams watched all major Panamanian Defense Forces locations for signs of troop movements, while Delta Force elements assaulted the Carcel Modelo Prison to free captive American Kurt Muse whom Noriega had threatened to execute if the United States attacked Panama. Delta struck so quickly that the prison guards never shouldered their weapons. However, machine guns from a nearby barracks shot down the extraction helicopter and forced rescuers to escape by an armored personnel carrier brought in for support. In all, the raid lasted only 6 minutes.[23] Army special forces also seized control of the Pacora River Bridge and blocked armored counterattacks into Ranger drop zones around Torrijos/Tocumen Airport. As armored vehicles from Battalion 2000 moved down the road to attack the airborne assault, special forces teams called in AC-130 gunship fires that decimated the first ten vehicles in the column. In response, Noriega's "elite" unit fled back to Fort Cimmaron and escaped into the jungles, offering no further resistance.[24]

BAY OF PANAMA

In addition to setting the stage for ground forces, special operations forces focused on locating and capturing Noriega. Teams watched seven different locations and raided four places frequented by Noriega, but he avoided capture and remained on the run for the next 5 days.[25] However, the Navy SEAL attempt to destroy Noriega's personal jet ran into difficulty. Just before the operation, their orders were changed from destroying the plane to disabling the landing gear to prevent collateral damage if the plane exploded in its hanger at Patilla Airport. The combination of last minute changes and inaccurate intelligence proved fatal when 48 SEALS moved across the open runways toward the plane. While intelligence had reported only lightly armed civilian security, the SEALs met heavy fire from some of Noriega's hand-picked security detail. After taking heavy fire, the SEALs destroyed the plane and the surrounding hanger using an anti-tank missile, but at the cost of four dead and three severely wounded.[26]

*The Inner Ring: Simultaneous Strikes by Conventional Forces*. As special operations forces moved at H-hour, conventional forces struck simultaneously along the inner-ring of objectives along the Colon-Panama City axis of the Canal Zone. On the Pacific side, Task Force BAYONET (centered around the 193rd Infantry Brigade) advanced rapidly from staging areas around Quarry Heights and Fort Clayton through the streets of Panama City. They simultaneously struck the Panamanian Defense Forces barracks at Fort Amador, the National Departments of Investigation and Transportation, and the central nerve-center of the Panamanian Defense Forces at La Commandancia. Violent action eliminated resistance at the first three sites, with the enemy attempting to escape Fort Amador by swimming away, only to be picked up by Navy forces in the bay.

However, the fight for the Commandancia typified the fierce resistance that the Panamanian Defense Forces put up when they found themselves trapped inside Panama

City. Located inside the run-down El Chorillo neighborhood, the 40-year-old headquarters was made of reinforced concrete several feet thick. Inside its walls, Dignity Battalion and Panamanian Defense Forces companies used small arms, anti-tank, and anti-aircraft weapons to block the assault of three infantry companies of the 193rd Brigade. Fighting their way through sniper fire and road-blocks to reach the headquarters, Task Force BAYONET's infantry, supported by armored personnel carriers and Sheridan tanks, breached the outer walls but were unable to carry the headquarters. While armored forces ringed the perimeter to prevent counterattack, AC-130 gunships pounded the Commandancia with machineguns and 105mm fire that obliterated the building's third floor. Panamanian forces retreated from the main building, and were pursued by U.S. infantry in a house-to-house fight that continued into the afternoon. By sundown, Task Force BAYONET had eliminated resistance, but withdrawing enemy set fires that destroyed much of the El Chorillo district. Although media initially blamed U.S. forces for starting the fires with tracers, the Task Force had exercised extreme caution to limit local casualties. Throughout the fight, American commanders withheld attack helicopter, tank, artillery, and mortar fire to limit collateral damage and civilian casualties that could have incited popular support for Noriega's forces.

In conjunction with these operations, the Marine-based Task Force SEMPER FI secured the area southwest of Panama City. It consisted of 600 Marines from the 6th Marine Regiment, armored vehicles from the 2nd Light Armored Infantry battalion, and the First Fleet Antiterrorism Security Team. At H-Hour, the force secured Naval Station-Rodman, the Arraijan (Fuel) Tank Farm, and Howard Air Force Base, the critical airhead for American reinforcement and sustainment. In addition, they secured the Bridge of the Americas and blocked the Inter-American Highway to prevent enemy reinforcements from relieving La Commandancia or escaping from Panama

City. The major challenge was securing the single fuel depot, the "Tank Farm," which supported all air refueling operations out of Howard AFB. Enemy compounds in and around Arraijan controlled the area, but antiterrorism teams overwhelmed Panamanian forces overlooking the "Farm," while a company of infantry with light armored vehicles destroyed an enemy roadblock and platoon-sized compound in the town.

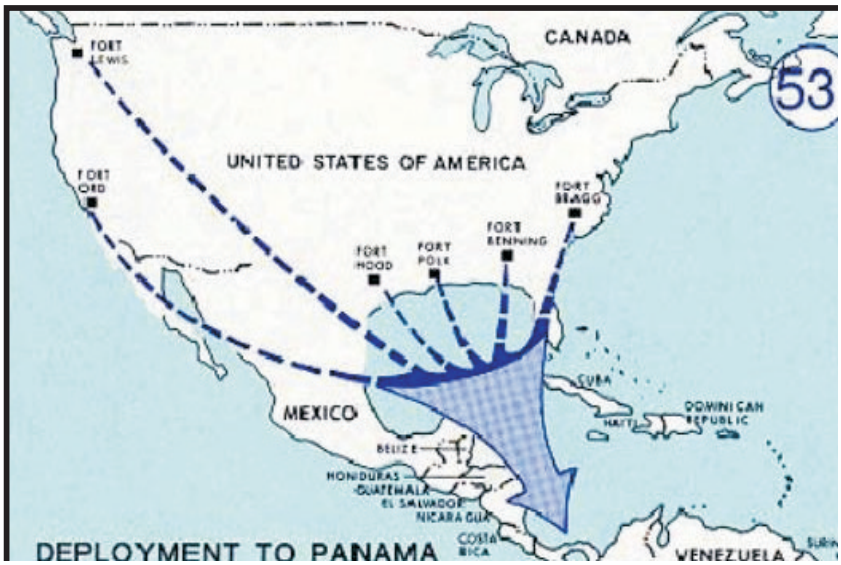
On the other side of the Canal Zone, Task Force Atlantic was equally successful in rapidly destroying enemy resistance. In Colon a combined force of 7th Infantry Division and 82nd Airborne[27] overwhelmed the 8th Panamanian Defense Forces Company and overcame stiff resistance from a naval infantry unit at Coco Solo. Task force elements air assaulted into the center of the canal zone to attack the barracks at Gamboa and seize the El Renancer Prison before guards could kill opposition leaders. In addition, these forces safeguarded the operating capabilities of the Canal by air assaults that secured the Cerra Tigre electrical complex and Madden Dam. The later provided the power and water essential to operation of the Canal. If these sites had been destroyed, the canal could have been disabled for a year or more.[28]

*The Outer Ring: Simultaneous Strikes by U.S. Based Airborne Forces*. By the next day, the simultaneous attacks by conventional Task Forces eliminated all major resistance inside the Canal Zone. Airborne assaults by the 75th Ranger Regiment and the 82nd Airborne Division ensured the final defeat of Noriega and the Panamanian Defense Forces by destroying capabilities to counterattack or continue resistance from remote areas. While the inner-ring strikes came from forces within Panama, the most challenging attacks were made by forces moving over 5 hours by air from three different airfields in the United States to strike within an hour of one another. Although the Ranger assaults went forward on time, incomplete intelligence and poor weather impeded the 82nd Airborne's drops. These factors delayed night air assaults on other

targets into the early daylight hours. However, leader flexibility and good training overcame many of these difficulties and provided decisive results.

The Ranger Regiment's Task Force RED (minus 1 battalion) dropped onto the airfield at Rio Hato, home to the 7th Panamanian Defense Company. Just prior to the jump, two F-117A "Stealth" bombers dropped 2,000 pound bombs within 300 meters of the barracks to intimidate and disorganize the sleeping defenders. Despite this, the enemy recovered enough to direct small arms and machine gun fire at approaching C-130s. This fire forced the Rangers to jump from 500 feet instead of 800 feet to reduce exposure to ground fire. After quickly assembling on the ground, the Rangers fought their way into the barracks complex as AC-130 gunfire suppressed the Panamanian defenders. Through often facing fierce resistance, the Rangers fought through successive buildings to surround the enemy and induce his surrender after special operations personnel arrived with Spanish speakers to talk them out. An incident during the assault displayed the high level of training and restraint on the part of U.S. forces, when a young ranger captain leading a small squad burst into a room where over 180 unarmed trainees were huddled against the back wall. Amid much confusion and shouting in English and Spanish, neither the captain nor the troops following him fired, thus avoiding what could have been a disastrous situation.[29]

While Task Force RED cleared the barracks, C-130s air landed additional forces from the 7th Infantry Division to reinforce the Rangers. After the fight, U.S. forces found indications that their decisive takedown of the airfield averted what could have been a more costly operation. Surrounding the airfield were four, multi-barreled Soviet-style ZPU-4 anti-aircraft guns, the same type that were so effective against slow, low-flying aircraft in Vietnam. In addition, they found 48 rocket-propelled grenades, 55 machine guns, 8 mortars and 16 armored cars, all of which could have decimated Task Force RED, if U.S. forces had not surprised and overwhelmed their enemy. In




all, units sustained light losses of only 4 dead and 44 wounded, with 41 of these injured in the low level jump.[30] Within a few short hours at Rio Hato, U.S. forces had eliminated one of the two elements that Noriega had counted on for salvation during the October coup.

As operations unfolded on the other side of the canal, Noriega's hopes disappeared as U.S. forces dropped onto Tocumen-Torrijos Airport to the northeast of Panama City. At H-Hour, AC-130 gunfire completed their preparations of enemy positions just minutes before the 1st Ranger Battalion jumped onto the airfield. Fighting through light resistance, the Rangers capitalized on a combination of aggressive assault and psychological operations to surround Panamanian forces in the terminal and coerced their surrender. Closely following the Rangers, lead elements of the 82nd Airborne Division's Task Force Pacific parachuted onto the airfield at 1:55 a.m. to reinforce and

expand operations into other enemy strongholds east of the Canal Zone.

Unfortunately, an ice storm delayed over half of the 20 C141 transport aircraft that carried the 3,300 paratroopers from Fort Bragg.[31] Heavy equipment fell on drop zones offset from the runways into grassy areas so as not to block aircraft landing. Unfortunately, air reconnaissance and satellite photography of the drop zones failed to recognize the head-high grass, poor drainage, and soft soil that swallowed heavy equipment in mud, separated troops and delayed move-out to objectives. The combination of transport delays with problems assembling on the ground meant that Task Force PACIFIC had to delay operations over 3 hours until after the last chalks landed at 5:15 a.m.[32] This meant that air assaults onto Panamanian positions at Fort Cimarron, Tinajitas, and Panama Viejo were daylight attacks without the advantage of surprise and concealment of darkness and with a greater risk of casualties. After taking losses to AC-130 gunfire directed by special forces elements, Battalion 2000 scattered, and the air assault into Fort Cimarron went in unopposed. However, the 7:00 a.m. assaults onto the Panamanian company at Tiajitas and cavalry squadron at Panama Viejo met fierce resistance. Intense fire damaged several helicopters as the 2nd Battalion, 504 Airborne Infantry assaulted from two landing zones around the Cuartel.[33] As the battalion cleared the area, Defense Forces and the local Dignity Battalion fought on throughout the day. Nine cars were stopped or destroyed as they attempted "drive by" attacks with automatic weapons, while paratroopers destroyed a PDF V300 light armored vehicle with an AT-4 light anti-tank round. [34]

*The Critical Role of Air Forces*. Although Operation JUST CAUSE was an Army-centric fight, air forces were essential in providing strategic transport for the airdrops and reinforcements, as well as the firepower, observation, and command and control capabilities critical to the success of ground operations. As in every conflict since Korea, U.S.

forces enjoyed air superiority, with the ability to use the air as an unchallenged platform for mobility and fires. Navy fighter "caps" from offshore carriers protected troop transports against interdiction from Cuban or Nicaraguan aircraft. Complex, well-orchestrated air operations that integrated strategic lift for air drops and supporting suppressive fires in an extremely limited airspace (the size of that over Washington, DC) were critical to projecting decisive force. Military Airlift Command, using C-130s, C141s, and C-5s, supported by Strategic Air Command tankers, lifted 9,500 troops for a rapid buildup. A total of 82 aircraft from 27 units at 21 bases flew 3,500 miles to drop over 3,700 paratroopers with heavy equipment into drop zones at night, all synchronized within 1 hour's time. In all, over 7,000 troops arrived at H-Hour. In addition, a total of 274 subsequent sorties completed the rapid buildup of over 24 battalions by the end of the first day and provided the capability to backhaul casualties and evacuate civilians.[35]

Air support was critical in providing more to the joint force than a ride to the fight. Because ground units operated in urban areas and lacked artillery, gunship fires provided critical precision fires that avoided fratricide and kept civilian casualties low. C-130 "Spectar" gunships along with fighters and Army attack helicopters supported the initial airdrops and urban operations, often within only a few hundred yards of U.S. troops.[36] Such precision firepower enabled Thurman and Stiner to limit weapons effects and reduce Panamanian casualties without significantly raising U.S. casualties. They felt the "measured application of force" would preclude stiffening resolve or inciting resistance among the Panamanian Defense Force and populace. For example, Stiner decided to direct F-117 bombing strike near and not on the barracks at Rio Hato to induce the Panamanians to surrender instead of retreat into the jungles. Likewise, U.S. forces substituted highly accurate AC-130 gunship fire for artillery in urban areas. Through this they limited destruction and civilian casualties that would have fueled support for the Dignity

Battalions. In all, the use of precision fires paid off: when faced with focused destruction the Panamanian Defense Forces chose to surrender rather than fight because the populace distanced themselves from supporting their fellow countrymen.[37]

*Transition to Stability Operations: A Failure to Prepare*. Operation JUST CAUSE proved once again the old axiom of military operations that a military force "performs well what it plans and rehearses in depth." While intensive rehearsals by Joint Task Force SOUTH produced highly successful combat operations, planning and preparation shortfalls ensured difficulties in the transition to stability operations. As the Panamanian Defense Force disappeared, with it disappeared the iron grip that had kept order and suppressed opposition and crime. Rioting and looting filled the streets, while residents of the Chorillo barrio, burned out of house and home, needed urgent supplies and assistance. SOUTHCOM secured and supported President Endara's moves to establish a government, but he assumed control of a bureaucracy dominated at all levels by Noriega's Panamanian Defense Force cronies. After 22 months of contingency planning, there was no coherent plan or civil-military operations task force deployed to assist the transition to a new government as the old regime fell. Neither SOUTHCOM nor the XVIII Corps was prepared for the transition, the breakdown of social order, and the temporary escape of Noriega.

In essence, both headquarters underestimated the complex threat that would emerge as the Panamanian Defense Forces dissolved and devoted little preparation for civil-military operations. Throughout the final 3 months of intensive planning, Thurman thought the stabilization phase would be "the least of my problems" and focused entirely on "putting together the campaign plan for Operation JUST CAUSE and . . . not spend[ing] enough time on the restoration."[38] SOUTHCOM's Director of Policy and Strategy (J5) completed some contingency planning, but Thurman saw the Army Reserve's 361st Civil Affairs

Brigade playing only a transitory role in civil operations. After Noriega's hold was broken, Thurman saw the U.S. Embassy assuming primary responsibility for assisting a functioning Endara government.

This approach was unworkable. First, success in Operation JUST CAUSE depended on totally dismantling the Panamanian Defense Forces, but made no provisions for organizing governmental administration and security once the Defense Force disintegrated. In retrospect, Thurman acknowledged that the depth of civil government corruption "was not well understood" and that its broad reach "complicated the restoration of government . . . and hampered a cogent post-conflict resolution approach."[39] Second, in order to maintain operational security and surprise, little pre-operations planning ever moved outside military channels. Consequently, there was little coordination with the State Department or U.S. Embassy for the agencies to assume the restoration mission. Therefore, there was no broad, interagency approach to follow military victory with political and economic support for rebuilding Panama.[40]

As a result, civil-military operations became the only tool for establishing a functioning government and were an ad-hoc, Army-led program at best. There was no military organization given primary responsibility to plan or execute civil-military operations. Initially, SOUTHCOM J5 took responsibility, but on December 12, only days before the operation, Thurman gave U.S. Army South the lead since it would provide the residual forces in country after XVIII Corps redeployed. The result was confusion: on December 20, the final version of BLIND LOGIC went to the JCS for approval as violence and disorganization gripped Panama. Compounding the lack of planning was the fact that no specialized, trained forces executed the operation to restore a functioning government. The plan depended on presidential authorization to call-up reservists of the 361st Civil Affairs Brigade. When the President refused a call-up, Thurman formed an ad hoc Civil-Military Operations Task

Force out of the SOUTHCOM J-5 and detailed it to the Embassy (reduced to only 43 personnel during the crisis) to expedite establishment of the government. Eventually, a civil-military task force formed around the Civil Affairs Brigade, which used short-term volunteer civil affairs reservists who arrived after Operation JUST CAUSE was already underway. [41]

This was too little and too late to prevent the anarchy in the streets. American forces transitioned from combat to stability operations but were unable to prevent looting that caused between $500 million to $2 billion in damages to the commercial districts of Panama City.[42] Bolstered by the 16th Military Police Brigade and the 7th Infantry Division reinforcements, American forces across the country gradually subdued the crowds and secured the 142 sites that provided the city's sanitation, power, water, telephones, and other public services. U.S. forces reinstated order after what Panamanians called "three days of anarchy."[43] Concurrently, U.S. forces reformed and retrained a national police force to maintain public order, re-established public services, and planned for rebuilding the infrastructure and an economy wrecked by years of graft and corruption.

A number of ad hoc organizations hastily stood up to deal with the collapse of government and security. U.S. Army South, under Major General Marc Cisneros, organized the U.S. Forces Liaison Group to advise, train and equip a police force out of the remnants of the Defense Forces. Unlike Thurman, Cisernos saw the looting and destruction as an immediate, vital concern that had to be remedied before violence cycled out of control and complicated conflict termination and withdrawal.[44] The Liaison Group quickly vetted, trained, and returned a workable police force to the streets, where they re-established basic police functions by the end of January. Building upon the J-5's hasty work, on January 17 SOUTHCOM created the U.S. Military Support Group (USMSG) to "conduct nation building operation to ensure democracy, . . . and professional public services . . ."[45]

This group headed by Latin-American specialist Colonel James Steele formulated a strategy for restoring basic government, security, and services, and orchestrated joint military support for the U.S. Embassy in rebuilding Panama. By the end of January, civil-military efforts were taking shape and security returned to the point that U.S. military forces could re-deploy to the United States.

Operation JUST CAUSE accomplished the total, decisive defeat of the enemy and set the conditions for the return of freely-elected government to Panama. By the time the early morning news began coverage on December 20, U.S. forces had taken all primary objectives. Initiated less than 60 hours after the President's decision, Operation JUST CAUSE accomplished a coordinated, highly complex series of missions during darkness by utilizing well-integrated joint forces in a swift, precise manner. In less than 48 hours of operations, joint forces destroyed or captured strategic positions across the breadth of Panama, dismembered the Panamanian Defense Forces, broke the control of dictator Manuel Noreiga, installed a previously elected Panamanian government, and mopped up remnants of the "Dignity Battalions" and stray Panamanian Defense Forces. Although ill-prepared for the transition to stability and civil-military operations, U.S. forces adapted to emerging security and nation-building challenges quickly. Critically, given U.S. concerns, a continued, lingering insurgency which would have fixed international attention and tied down U.S. forces to a protracted conflict did not emerge. In military terms, Operational JUST CAUSE was truly rapid and decisive in bringing the total, systemic collapse of enemy resistance.

**Lessons Relevant to RDO .**

Future RDO will seek the same type of results. The April 2000 Defense Planning Guidance tasked U.S. Joint Forces Command (JFCOM) to develop joint warfighting concepts and capabilities that would enable U.S. forces to conduct

rapid decisive operations across a broad spectrum by 2020. Operations (such as those fought in Panama) will focus on winning a "high-end, small scale contingency" that achieves:

> rapid victory by attacking the coherence of an enemy's ability to fight. It [will accomplish] the synchronous application of the full range of our national capabilities by a fully networked and coherent joint force in timely and direct effects-based operations against the adversary as a system of systems. RDO employ our asymmetric advantages in knowledge, precision, and mobility of the joint force against an adversary's critical functions to create maximum shock and disruption, defeating his will and ability to fight.[46]

While the United States will use all elements of national power in a synchronized manner to influence or deter, military forces will conduct "powerful, overwhelming, unrelenting combat operations to rapidly [sic] achieve our strategic objectives." Operations will be "rapid" by accomplishing campaign objectives in days or weeks rather than months, and without an extensive buildup of forces. They will be "decisive" by destroying the coherence of the enemy's ability to fight by striking his critical functions from dimensions and directions against which he has no counter. The objective will be to rapidly break an opponent's will to fight and, as necessary, destroy his ability to conduct coherent operations. Key "enablers" within RDO will be obtaining and maintaining knowledge superiority, conducting well-focused effects-based operations, and employing coherently joint and fully networked forces for synchronized action.

The successes and shortcomings of Operation JUST CAUSE provided a number of insights for charting a future course. However, historical assessments have been confusing and misleading. Critics of the operation have noted that Operation JUST CAUSE was a "special case," where SOUTHCOM and Joint Task Force SOUTH enjoyed advantages that would never be possible in future contingency operations. The United States had been in

Panama for over 80 years with military forces, thereby developing an extensive knowledge of the area and the threat. Second, approximately half the operational forces were already in the country where they trained and prepared extensively. Third, planners and leaders enjoyed good intelligence, extensive planning time and in depth reconnaissance, all of which produced a detailed plan that was well-rehearsed and constantly updated across all components. Moreover, the operation was not without fault, as shown in the rough transition to stability and civil-military operations. Major planning and preparation shortfalls threatened to turn military success into slow, indecisive reconstruction operations, while chaos reigned and the Endara government struggled to establish control over Panama.

On all counts, true. However, these criticisms also reveal a number of key elements that must be present if U.S. forces are to conduct future RDO. Regardless of how they were obtained, the elements that led to decisive success will be the same ones that must be present in future RDO. Without the ability to replicate success in these areas through knowledge-centric operations, well-calculated effects-based operations, and superior strategic deployment, future operations will have little chance of attaining the level of success achieved in an operation conducted over a decade ago.

**Thurman's Assessment: Five Critical Factors .**

Many of the factors that enabled successful rapid and decisive operations in Panama mirror those demanded in future rapid decisive operations. In Thurman's post-operations analysis entitled "Simultaneity," the general argued that success rested on:

> . . . the use of superior military force in very precise applications against an enemy in order to achieve overwhelming power at all potential "centers of gravity" or sources of power within a very short time span in order to

> collapse resistance cataclysmically. This confines the violence of the conflict in time and space and permits rapid conflict termination on favorable terms with minimum collateral damage and minimizes casualties.[47]

He noted that forces achieved overwhelming mass even though they were geographically dispersed: "actions whose effects were concentrated to achieve a specific aim . . . [such as] to paralyze the enemy's decision process and create indecision"[48] provided overwhelming power against an adversary. The application of "focused mass" through the "concentration of force in time and space . . . [generated] simultaneous effects which combine[d] to create overwhelming and focused power relative to enemy sources of power (i.e., their centers of gravity)."[49] In focusing force at these critical vulnerabilities, limited force achieved decisive effects with "minimum collateral damage and rapid decisive conflict termination, both very important in any use of military force today."

In all, Thurman and Hartzog's "simultaneity" concept spoke dramatically to concept developers about what RDO must be. Many of the factors that enabled success in Panama must be present in the future to move past sequential, incremental approaches to achieve rapid, decisive results through the focused, simultaneous use of force. In their assessment, they noted there were five essential conditions for rapid and decisive success: 1) good intelligence, 2) clearly articulated, broadly supported, and universally understood end states, 3) the opportunity for creating surprise, 4) sufficient force of the right types, and 5) decisive leadership.

*Requirement for Good Intelligence*. First, good intelligence was the cornerstone in identifying the enemy's center of gravity and key vulnerabilities, i.e., "the places, people, weaponry, information nodes or conditions that if controlled take away the enemy's flexibility,"[50] that, if decisively engaged, provided decisive results. An in-depth and critical analysis identified the Panamanian Defense

Forces' leadership and not just Noriega as the enemy center of gravity, because corruption was so widespread that removing only the head would not disable the system that controlled Panama. More importantly, SOUTHCOM's detailed analysis of the enemy system—its leaders, locations, capabilities and tendencies—developed a reasonably accurate picture of the enemy's system and key nodes. This detailed picture is similar to the future baseline required for an "Operational Net Assessment." This initial assessment drove specific targeting and determined which leaders and units had to be destroyed or defeated in the initial, simultaneous strikes. In all, SOUTHCOM's net assessment was accurate and drove specific strikes. Amid the myriad of possibilities, the 27 chosen for destruction completely disorganized and dismembered the Panamanian Defense Forces' will and ability to resist in a coordinated fashion.

However, the price for this level of clarity was time and preparation in developing the operational assessment. SOUTHCOM required months for intelligence collection and analysis, much gathered through third party discussions with Panamanian leaders or through physical reconnaissance by planners who drove or flew objective areas. National intelligence such as imagery and electronic listening provided critical information on objectives, areas and communications between key leaders, but much was derived on a "pull" basis through specific requests to agencies. In all, the process of developing the picture was an extensive, manual process.

In future environments where time is short and direct access not possible, intelligence planners and analysts must have ready access to a interconnected, multiagency/source data base. Such data bases must reduce the need to manually search for specifics by providing a well-cataloged system that groups imagery, electronic (to include cellular phone and internet monitoring), and human intelligence in subject/topic based categories, and which can be searched readily from dispersed locations. In addition, the system

must provide analysts the ability to compare assessments of enemy strengths, vulnerabilities, and systems structure with subject area experts in other agencies or the academic community who are knowledgeable of the culture, background, and tendencies of the key actors and organizations. The system which supported the Panamanian invasion was time and effort intensive; future systems must interconnect analysts with the full spectrum of sources across multiple disciplines/mediums and allow them to collaborate from dispersed locations to achieve and maintain a common intelligence picture. This picture must extend to the interagency to facilitate policy formulation that will enable civil-military planning and an effective transition to the stability phase of operations.

Knowledge superiority in both enemy and friendly force capabilities was also a powerful enabler during Operation JUST CAUSE. Throughout the planning, rehearsal, and refinement process, units provided feedback constantly to joint planners on their capabilities, challenges and difficulties that were used to refine and improve synchronization. By D-Day, Joint Task Force SOUTH had developed and implemented a simple command and control process whereby units avoided routine, time-phased reporting and submitted only final mission accomplishments or challenges that required additional support. In all, joint forces obtained basic levels of "Knowledge Superiority," the level of specific knowledge of enemy and friendly factors, that enabled widely-dispersed, but precise, focused applications of force.

*Decisive End State*. The second essential for success was clearly articulated goals for the use of force. Before operations begin, Thurman felt there must be "clearly articulated, broadly supported and universally understood end states" for the use of force. By beginning with the end in mind, political and military leaders possessed both a "guidepost and rally point" for sustaining the will to act decisively throughout the operation. To achieve rapid, decisive, and simultaneous action, all leaders had to have:

> a clearly-articulated vision of the "day after battle . . . articulated in some detail and commonly held by national, theater and tactical leaders . . . [which] must be consistently reviewed and, if still valid, defended throughout the execution. Ever-changing conditions pressure leaders, commander and warriors at every level that could lead to unwarranted changes and the loss of simultaneity. In this case, it was useful to frequently review the concept against the intent of the national command authority.[51]

Thurman had observed how badly the Reagan Administration had bungled its attempts to persuade and coerce Noriega to leave power. The United States had sent a series of disjointed and confusing signals which convinced the dictator that America lacked the resolve to act and may have encouraged even more boldness on his part.[52] Following Bush's lead, the administration took a more coordinated and consistently hard-line approach that "Noriega must go," under which the interagency process moved in support of the commander in chief. In addition, the Secretary of Defense and Chairman united in supporting decisive, unified military action and supported Thurman and Stiner's approach of rapid, simultaneous, and overwhelming force as the path to success.

In all, successful RDO and precise effects-based operations originate and must be sustained from a similar basis—common goals that are well-thought out, properly articulated, commonly understood and broadly supported at all levels of planning and execution. Equally important must be the will to stay the course to generate and achieve the violent, sometimes controversial effects that will cause an opponent's capitulation. Amid critique and criticism by media, domestic politicians and diplomats on the international stage, and political and military decisionmakers, particularly in the interagency process, must work in unison and be willing to endure short-term criticism and second guessing in order to achieve success. Without these two elements—clear intent and perseverance—the employment of all elements of national

power will not produce decisive, synergistic effects, when one or two elements decide in mid-stream to alter their course.

Critical to success will be the development of effective systems that tie together political policy and objectives with military planning and execution. Better organization and procedures must be developed within the interagency to deal with the complexities of quickly reaching and articulating objectives. The Clinton administration attempted to articulate a workable interagency process for "Complex Contingencies" through Presidential Decision Directive (PDD) 56, and the current Bush administration continues to try to harness the process. However, both efforts have met with little success. The problem is not one of guidance, but one of unity of purpose: the interagency process must provide *timely parameters and guidance* for the effects desired, and then *persevere* in exercising national power in a coherent, focused and determined manner. Key will be the linkages and lines of communications between the interagency, joint staff, and unified command staffs. There must be continuous dialogue and feedback exchanged between actors and policymakers, supported by common situational awareness links, to tie the interagency process to the unified commands in planning and synchronized execution. The most difficult obstacle to overcome will be the interagency culture of cautious calculation, followed by conference and consensus building, prior to arriving upon policy. Without timely, clearly articulated guidance and ongoing, accurate reassessments, operations will have little chance of being either rapid or decisive. Future conflicts must move beyond the traditional Moltkean paradigm of politics, followed by military action, to achieve a decision that can then be handed over to policymakers after the fight is finished. Future situations will demand talking and fighting nearly simultaneously so the actions of one generate the effects that enable the actions and achieve the purposes of the other. As Thurman noted, decisiveness came not only through rapid military action that eliminated

a corrupt and oppressive regime but from the effects these operations created through removing the threat of violence and retribution that would have strangled future democratic progress in Panama.

*Operational Surprise*. A third critical factor in Operation JUST CAUSE was achieving surprise that enabled success, while reducing risk and loss of life. Although Thurman noted that "surprise was increasingly difficult in the satellite age" amid the mass of instantaneous media reporting, both operational security and deception remained key factors in carrying out strikes in a manner that the enemy would not anticipate or could not counter without significant preparation.[53] Tight security among deploying units, night movements of equipment, and night assaults involving airborne forces from over 6,000 miles away achieved overwhelming surprise at a time when the enemy was most likely to be away from their posts and least prepared. No preparatory bombing and no visible, methodical buildups meant the enemy was unprepared for the decisive blow. Deception played a key role as well. Extensive troop movements throughout the country and "routine," large-scale combined arms training in the United States served to desensitize the enemy to American capabilities and dispositions. In all, the Panamanian leadership knew the United States had the overwhelming capability to act, but was misled by its own misperceptions and misreadings of U.S intent.

The same will be true for RDO in the future. Enemies are beginning to recognize patterns in U.S. operations, such as bombing strikes and the use of Naval and Marine forces for the opening phases, asymmetric action through special operations or direct ground strike. While the United States may "signal" potential opponents through options such as deploying forces for training in areas adjacent to a crisis region, such forces must be ready to transition into rapid, focused, and lethal joint operations. Deception through false signals and information operations will dissuade and confuse an enemy on the focus of U.S. operations. Extensive

communication and media monitoring will reveal how and what sources the enemy will use to develop its perceptions of American intent, thus identifying the critical nodes that information operations will use to coerce, persuade, or dissuade the enemy as to U.S. intentions. In all, tactical, operational, and strategic surprise, through deception and security, will be key enablers for achieving perceptual effects and impairing the enemy's situational awareness to facilitate RDO.

*Tailored Joint Forces*. A fourth factor that Thurman noted was that rapid, decisive, and simultaneous operations required "sufficient forces of the right sort to do the job—overwhelming, prepared to operate jointly, well rehearsed, [and employable in a] timely [manner]." Critics of Operation JUST CAUSE pointed to the fact that over half the troops in the operation were already in country at the start of the operation. However, this ignores the key fact that the decisive strikes against the elite units of the Panamanian Defense Forces—at Tocumen-Torrijos and Rio Hato—came from bases in the United States. Forces located outside the isthmus provided air, naval, and special operations support (and superiority) such as the F-117 and AC-130 gunships operating from the United States. Over 7,000 soldiers who struck at H-hour came from six U.S. bases using 182 sorties of heavy lift aircraft, supported by an extensive in-flight refueling effort. Within 24 hours, over 13,000 additional soldiers were in country, providing the rapid buildup of forces that enabled a rapid consolidation and transition to stability operations.[54] Following were sustainment flights that evacuated wounded and brought in time-critical supplies. In all, superior strategic agility and interoperability of U.S. forces generated a significant element of decisive force.

The quantity and availability of strategic lift was critical to rapid, simultaneous success. However, over the last decade American forces have lost the capability to conduct such a rapid strike due to the deterioration of the lift capabilities. In 1999, a study by the Association of the

United States Army of strategic mobility noted that the ability to transport military forces rapidly across intercontinental distances was at severe risk due to a combination of aging fleets, retirement of C-141s (which were backbones of deployments in the 1990s) and less than adequate procurement of replacements (with only one C-17 for every two C-141s retired).[55] A major concern for future RDO will be the numbers and availability of airlift to support rapid strikes such as these. The opening phases to secure access and lodgments through asymmetrical airborne and airland strikes will be lift-intensive. Additionally, rapidly landing an Army Interim Brigade Combat Team behind the airborne forces will be critical in areas with light armored threats (such as with the Battalion 2000 in Panama) to add medium armored vehicles and infantry strength rapidly to the fight. However, these viable and valuable options are dependent upon strategic airlift to mass forces rapidly. The continued degradation of strategic lift will eliminate options such as Operation JUST CAUSE and force more deliberate, predictable options.

The key to success in Panama was not only rapid deployment but the use of all capabilities in a synchronized, effective action—what future concepts call a "coherently joint force." The rapid, effective joint operations of Operation JUST CAUSE came from hard, battle-focused training across all services in the 1980's. For Army forces, intensive small unit training at the National Training Center and Joint Readiness Training Center produced both highly effective ground forces and leaders capable of facing rapidly changing, complex situations and developing adaptive, mission-focused results. Navy, Air Force, and Marine units and leaders were developed through similar large-scale, demanding training experiences within their own services. In essence, the force which fought Operation JUST CAUSE had already faced similar situations before in both field and simulations training. Leaders at all levels, across all services, were prepared for a complex, adaptive fight. Forces honed their capabilities through intensive

rehearsals, many joint in nature, to ensure Joint Task Force SOUTH was fully prepared. The feedback process was also key, with each rehearsal producing lessons to both components and planning headquarters that fed their reassessment and revisions of plans.

Joint rehearsals were integral to success and warrant consideration in future training approaches at the combat training centers. Most training centers continue to be service-centric, i.e., focused on a single service with a few joint add-ons. Simply adding a naval gunfire liaison officer or a tactical air control team to Army training does not make it "joint" and consequently does not contribute to mutual understanding and interoperability across services. The extensive inter-service planning and rehearsals prior to this operation illustrates the success that can be, and must be, achieved in the future. Consequently, joint focus should be an integral part of training center approaches across all the services. In the future, with compressed time sequences for rapid and decisive action, forces will not have the extensive preparation time found here to build and solidify joint interoperability. Units fought effectively in the joint arena at battalion and brigade levels because they trained that way. Future forces must be trained to the same or better levels on a recurring basis to be ready on short-notice.

The linchpin of success in effectively launching 20,000 soldiers from over a dozen locations, via air and ground to strike *simultaneously* 27 dispersed locations was built on the high level of training among each of the service components, combined with the familiarity and teamwork produced through extensive rehearsals. No matter how sophisticated and capable equipment may become, effectiveness will rest upon the ability of soldiers, marines, sailors, and airmen to operate the equipment as well as to envision and achieve the intent their leaders. No matter what else may change, rapid decisive operations will ultimately depend on an extraordinarily high level of leader, unit, and staff competence that is produced through realistic, demanding, and increasingly joint training.

*Decisive Leadership*. A fifth factor that Thurman noted was the requirement for decisive leadership at all levels. "Leadership that understood not only the explicit order but the implicit challenges; who were able to persevere regardless of the vagaries of rapidly changing conditions" enabled decentralized, aggressive action to achieve the objectives selected.[56] Across 27 different objectives at H-hour, leaders acted in unison based on their leader's intent and not on incremental instructions. In the future greater connectivity and communications capabilities will enable senior leaders to see the same picture as the small unit leader at the forward edge of the battlefield. However, greater awareness should not mean more centralized direction of those at the point of the spear. Rapid, decisive results in Panama rested on every member of the joint forces knowing and performing their duties simultaneously. Tactical level commanders accomplished the close fights, while the Joint Task Force commander ensured synchronization and CINCSOUTH dealt with political-military challenges: simultaneous actions across all levels produced the "self-enabling" operational results needed across a complex operation. Future concepts must capitalize upon and not constrain simultaneous action: while forces are networked and become more situationally aware, they must still focus on decentralized, intent-based decision making by leaders in contact with the challenges. Senior leaders must resist the temptation of controlling battle through "squad leaders on a wire"; the ability to see more should not lead to the temptation to directly control more. *In all, operations in Panama were successful across a vague, complex and dispersed battlefield in which simplicity of command and control, mission based orders and decentralized decision making by leaders on the spot proved the measure of success*. Future knowledge-centric capabilities must focus on enhancing and not replacing such a process.

*Joint Task Force SOUTH as a Separate Warfighting Headquarters*. A final key element of Operation JUST

CAUSE's rapid success was the establishment of a Joint Task Force well in advance of the execution date for the operation. While SOUTHCOM and U.S. Army South focused on the crisis unfolding in Panama, Thurman needed a subunified headquarters separate from SOUTHCOM that could focus on the planning and execution of strike operations. Establishing Joint Task Force SOUTH early on enabled focused, synchronized, joint planning across four separate major headquarters. The Joint Staff in Washington worked policy and strategy among the interagency, while specific strategic planning at SOUTHCOM focused on containing the crisis in Panama. The XVIII Airborne Corps as Joint Task Force SOUTH accomplished campaign planning and coordination among the service components and the Joint Special Operations Command. U.S. Army South's Joint Task Force PANAMA at Fort Clayton accomplished in-country planning, preparations and operations leading up to the invasion. Finally, the air component at 830th Air Division and Twelfth Air Force completed planning for airlift and close air support.[57] In all, a complex plan was coordinated among a number of dispersed sites and constantly updated to take advantage of lessons learned from rehearsals as well as intelligence on the constantly changing Panamanian Defense Forces' threat.

Simultaneous planning and coordination from dispersed locations was similar to the RDO concept of distributed, integrated planning. However, continued synchronization and common awareness came only through extensive planning time, travel and face-to-face contact. Future contingencies will not allow the luxury of extensive time, so future planning must be done to the same level of precision, but on more compressed time sequences and without extensive travel and physical reconnaissance. During preparation for Operation JUST CAUSE, Hartzog observed that synchronization and concurrent planning with the Joint Staff in Washington was almost nonexistent:

> To my knowledge there was no significant planning about that operation that went on in Washington anywhere. I believe that all of it was done, it's fair to say, in Panama and Fort Bragg and that it was briefed to Washington for approval. There were a considerable amount of briefings that were given in Washington to make Washington familiar with all the parts of it and to seek their approval. That, in fact, was one of the great processes; the whole way that thing was done.[58]

While the lower headquarters enjoyed significant latitude in planning, this lack of situational awareness in Washington led to sequential and not simultaneous planning between the Joint Staff and the forward headquarters. This approach to sequential development of objectives and proposed effects, followed by briefings to attune Washington to the plan, and then revising the plan based on guidance significantly increased the friction and time needed to gain guidance and approval.

Prior detailed preparation at all levels provided success, but as operations moved past the first 48 hours, both SOUTHCOM and Joint Task Force SOUTH began to run into the frictions of American hostages, large-scale civil disturbances, and Noriega's taking refuge in the Papal Nuncio's compound. Media and diplomatic pressures in Washington caused divergence in approaches with Thurman and Stiner who continued a hard-line approach. The most famous instance was Thurman's use of rock music for psychological operations against Noriega in the Nuncio residence—an action that resulted in embarrassment in Washington and Powell's order to Thurman to cease this tactic.[59] Also indicative of the divergence in perspectives amid a fast-moving situation were the civil disturbances and rioting, which erupted as former Dignity Battalion members dispersed among the populace. Situational awareness in Washington suffered as policymakers in Washington dealt with national and international media through sparse reports, partial dispatches, and CNN-live reports. Disconnects also inhibited dynamic and proactive planning. As SOUTHCOM and Joint Task Force SOUTH

became immersed in the close-fight, staff officers were unable to get ahead of operations to conduct an operational net reassessment to drive future force requirements for emerging civil-military challenges. Since the Joint Staff was separated from the situation, it lacked the specific situational awareness to feed the interagency synchronization process and allow Washington to anticipate future policy and force requirements during the stand-up of the Endara government.

These are not indictments of SOUTHCOM or Joint Task Force SOUTH, but are facts of life in fast moving operations. Units must deal with the "here and now" to ensure effective execution and take chances with the future. However, the forces and policies future success depended upon had to be anticipated and coordinated simultaneously—rapidity depends on this nonsequential approach. However, better situational awareness tools that did not require "push to talk" technology would have provided a Common Reference Operational Picture (CROP) and enabled the interagency process to be more proactive. Future planning tools must provide integrated situational awareness and collaborative planning nets using secure communications to tie together military headquarters with the interagency. In place of face-to-face coordination, lower-level VTC and interneted collaborative tools with networked white-board capabilities will allow planners to discuss alternatives without time-consuming travel. Equally important is integration into this of real time intelligence and media perspectives that fuse fact and perceptions about events as they are unfolding in order to gauge the success of operations and the effects they generate.

**Conclusions.**

Operation JUST CAUSE demonstrated that the Army has a critical role to play in RDO. Although in recent years the Army has been relegated to "large" missions such as major theater conflicts in Operations DESERT

SHIELD/DESERT STORM and "long" missions such as peacekeeping and humanitarian support in Somalia, Bosnia, and Kosovo, while the other members of the joint force were left to deliver precise, rapid and decisive defeat upon adversaries in Kosovo and Afghanistan. However, these missions were only successful when there was time for effects to become decisive, and where bombs and small packets of special operations forces supplemented the direct actions of surrogate forces such as the Kosovo Liberation Army or Afghan fighters. These surrogates assumed the ground force role and presented a direct, viable threat that showed defeat would follow the bombs and cruise missiles if the enemy did not yield.

Operation JUST CAUSE also showed that dominant maneuver, applied in a coherently joint, overwhelming and focused manner, could achieve rapid, decisive results in medium- to small-scale contingency situations. Through Ranger, Airborne, and emerging Interim Brigade Combat Team forces, the Army will have the capability to execute long-range, precision strike operations to deliver forces against an adversary, followed by rapid reinforcement to build and sustain an overwhelming force. Army forces can and will provide short-term, broad scale expeditionary warfare capabilities in littoral areas as well as in a diversity of inland terrain and population areas, utilizing precision maneuver and fires where the pure destruction of enemy infrastructure and facilities will not produce decisive results. Lastly, Army forces will provide the ready, in-place capability to quickly stabilize conditions and support establishment of a favorable government through sustained civil-military operations. As Operation JUST CAUSE illustrated, Army forces can provide future RDO with the full range of capabilities to create a larger, potent, and overwhelming joint force that optimizes the capabilities of other services. Additionally, Army forces at the center of a coherently joint operation will provide overwhelming land-centric strikes, followed by the immediate capabilities for complete, continued domination of an adversary's

territory, major population centers, and resources. These contributions create decisive effects beyond physical destruction of infrastructure which are less a factor in underdeveloped regions. Army forces focused on dominant, decisive maneuver present the enemy with the possibility (and eventual reality) of total defeat and replacement of the enemy's regime.

Concept developments must focus on retaining the best of the old as well as finding new capabilities that were lacking during Operation JUST CAUSE. Hard, battle-focused, joint training that develops flexible and adaptive lower-level leaders who act on intent and not instructions must remain the centerpiece of future developments. In all, it was "the quality of the boys and not the toys" that provided rapid, decisive victory in Panama, and it will be so in the future. In turn, the structures enabling RDO must be shaped around the imperative to enhance and empower timely, focused planning and decisionmaking that are distributed, decentralized, and simultaneous at all levels. Second, as Thurman noted, simultaneous operations will not fit all situations. RDO will not be a "one size fits all" remedy for smaller contingencies, and must be centered around a focused, demanding intelligence and policy assessment and reassessment process which indicates that RDO provide the greatest likelihood of success given the time, place, and situation presented for the United States, its coalition partners, and the enemy. Thurman's five criteria for successful "simultaneous operations"—accurate intelligence, well-articulated and broadly supported end-states, the opportunity for surprise, sufficient joint forces of the right type, and decisive, focused leadership—are excellent guidelines for assessing whether decisive operations are a feasible, suitable, and acceptable method for employing national power.

Finally, RDO will not be low-risk warfare. Throughout much of the last decade, the Clinton administration committed U.S. forces to a variety of valuable, but

resource-consuming peacekeeping missions, most often with imprecise or unclear guidance on the end-states desired. Through these operations, the Army acquired a penchant for casualty avoidance and risk aversion. During peace operations where end-states are often vague or articulated in terms of "maintaining a safe and secure environment" and "forwarding the process of peaceful development," operations revolved around cautious, calculated actions which focused heavily on reducing the risk of injury to American servicemen so as not to subject the mission to Congressional scrutiny or media criticism. This process and mindset runs directly counter to that required for decisive operations. A redesigned interagency process must provide clear and concise guidance for the use of national, and most specifically military, power. In turn, military force must focus on accomplishing the overwhelming defeat of the enemy through dominant, decisive land operations, and not on producing calculated, low-risk operations. Where the President and the nation demand rapid and decisive results, the Army must plan, prepare, and act quickly to provide rapid and decisive victory.

## ENDNOTES - CHAPTER 7

1. General Maxwell Thurman and Lieutenant General William Hartzog, "Simultaneity", unpublished draft, Maxwell Thurman Papers, Military History Institute (MHI), Box 217, p. 16.

2. Thurman, "Simultaneity," p. 17; U.S. Joint Forces Command, "A White Paper for Rapid Decisive Operations," U.S. Joint Forces Command (USJFCOM): J9 Joint Futures Lab, January 2002, pp. 2-4.

3. Peter Paret, ed., *Makers of Modern Strategy*, Princeton, NJ, 1986, pp. 341-342.

4. Honorable Les Aspin, "Operation JUST CAUSE: Lessons and Warnings in the Future Use of Military Force," U.S. Congress: House Committee on Armed Services, January 12, 1990, p. 3; Maxwell Thurman Papers, "JUST CAUSE," MHI, Box 217.

5. USJFCOM, "White Paper," pp. 3-5; USJFCOM, "Executive Summary: A White Paper for Rapid Decisive Operations", USJFCOM: J9 Joint Futures Lab, January 2002, p. 1.

6. Eytan Bilboa, "The Panama Invasion Revisited: Lesson for the Use of Force in the Post Cold War Era," *Political Science Quarterly*, Vol. 110, No. 4, p. 539; Walter LaFeber, *The Panama Canal: The Crisis in Historical Perspective*, Oxford, 1989, pp. 42-47.

7. Major General William Hartzog, "Oral History Program: JUST CAUSE," Fort Clayton, Panama: History Office, Headquarters, U.S. Army South, p. 7; Ronald H. Cole, *Operation JUST CAUSE: The Planning and Execution of Joint Operations in Panama*, February 1988-January 1990, Washington, DC, 1995, pp. 12-25.

8. Hartzog, "Oral History," pp. 7-8.

9. *Ibid*. Hartzog noted a "gradualist approach" had already begun under General Woerner in June in response to rapidly deteriorating events; in all he appraised the change that brought new urgency under Thurman, as "a revolution within an evolution." On the threat, Hartzog noted that "we never felt the PDF was an enemy. . . . It was only that Noriega and his immediate henchmen were the problem."

10. "Lead-Pipe Politics," *Time*, May 22, 1989.

11. General Maxwell Thurman, "Brief Given to National Defense University, January 31, 1990: Operation JUST CAUSE—Mission Accomplished," Thurman Papers, "CINC SOUTHCOM-JUST CAUSE," MHI, Box 217; Execute Order, CJCS, 182325ZDec89, Thurman Papers, "CINCSOUTHCOM-JUST CAUSE," Box 217, MHI.

12. This was not meant to be a condemnation of USARSO who formed the nucleus of JTF-Panama, but they were concerned with the day-to-day security, training, and stability within the country, especially given the increased tensions and buildup of U.S. forces in country. JTF-South would be able to stand-back from the situation and focus on the planning and synchronization of such a complex operation, without alerting the enemy to U.S. intentions. Cole, pp. 9-17. Major General Marc Cisneros, Commander U.S. Army South, takes the opposite opinion, that JTF-SO came too late to the fight to be fully functional, but does not acknowledge the workload and diversity his small headquarters suffered under. David Adams, "An Overlooked Hero and the forgotten Victims," *New York Times*, December 21, 1999, pp.1-4.

13. Just before the invasion, a PDF informant reported that Cuban advisors assisted the PDF in forming a 250-man militia force to terrorize and possibly kidnap U.S. citizens living in the canal zone with the idea of preempting U.S. military action and discrediting the Bush Administration. Subsequent attacks on U.S. servicemen, to include the killing of Lieutenant Paz on December 17, 1989, tended to confirm these reports. Michael E. Seitz, "Command, Control, Communications and Intelligence Factors," in Bruce Watson and Peter G. Tsouras, eds., *Operation JUST CAUSE: The U.S. Intervention in Panama*, Boulder, CO, 1991, pp. 105-114.

14. Robert R. Ropelewski, "Planning, Precision, and Surprise Led to Panama Success," *Armed Forces Journal International*, February 1990, pp. 25-26.

15. "The Architect of 'JUST CAUSE'," *Army Times*, March 12, 1990, p. 18; Bruce B. Auster, "Military Lessons of the Invasion," *U.S. News and World Report*, January 8, 1990, pp. 22-24.; Seitz, "Command, Control, Communications," pp. 109-110.

16. Thurman Brief; Cole, "Operation JUST CAUSE," p. 20.

17. Cole, pp. 20-21.

18. The battalion, 3/504 Airborne Infantry, was one of the units rotating through the Jungle Operations Training Center at Ft. Sherman; it would not drop along with the remainder of its regiment but remain under control of the 7th ID(L throughout). Dennis Steele, "Operation JUST CAUSE," *Army*, February 1990, p. 41; Cole, "Operation JUST CAUSE," p. 21; Thomas Donnelly, *et al., Operation JUST CAUSE: The Storming of Panama*, New York, 1991, pp. 236-267.

19. Cole, "Operation JUST CAUSE," p. 21.

20. *Ibid*.

21. Donnelly, *et al., Operation JUST CAUSE*, pp. 93-97.

22. Thurman Brief to NDU; Cole, "Operation JUST CAUSE," p. 28.

23. Donnelly, *et al., Operation JUST CAUSE*, pp. 130-159; Lorenzo Crowell, "The Anatomy of JUST CAUSE," in Bruce Watson and Peter G. Tsouras, eds., *Operation JUST CAUSE: The U.S. Intervention in Panama*, Boulder, CO, 1991, pp. 84-85.

24. Donnelly, *et al., Operation JUST CAUSE*, pp. 122-130.

25. Crowell, "The Anatomy of JUST CAUSE," p. 84. Special Operations teams were watching a total of seven sites that Noriega had been known to frequent, but his mistress later said that he was actually in a hotel outside the Torrijos Airport when the Rangers made their assault. Although he was not captured initially, the combined actions of special forces ensured that he had no way of escaping the country.

26. *Ibid*., p. 87. This also exposed a problem in depending on air evacuation for the wounded. As the SEALs were pinned down, they were unable to evacuate their wounded for several hours until relieved by elements of the 82nd Airborne.

27. This element of the 82nd was initially deployed for training at the Jungle Operations Training Center and did not jump in the airborne assault with the remainder of the division.

28. Crowell, "The Anatomy of JUST CAUSE," p. 89.

29. *Ibid*., p. 90.

30. *Ibid*.; Donnelly, *et al., Operation JUST CAUSE*, pp. 192-213.

31. Crowell, p. 91. The departure airfield at Pope Air Force Base had only enough de-icing equipment to handle six aircraft at a time. The troops loaded the aircraft on time, but sat waiting while aircraft were de-iced and the aircraft were launched in several serials, with all drops finally completed just before dawn at 5:15 a.m.

32. Dennis Steele, "Operation JUST CAUSE," *Army*, February 1990, p. 41.

33. Crowell, p. 91. The late arrival of Task Force PACIFIC forced a daylight assault that made the helicopters very vulnerable to ground fire; most of the 45 helicopters hit by hostile fire during the operation were hit during daylight operations on the first day.

34. Daniel P. Bolger, *Death Ground: Today's American Infantry in Battle*, Novato, CA, 1999, pp. 48-60; USAWC Department of Strategy, Planning and Operations, "Case Study: Operation JUST CAUSE, Panama, 1989," Carlisle Barracks, U.S. Army War College, 2002, p. 27.

35. Institute of Land Warfare, *Strategic Mobility, and Responsive Power Projection,* Washington, DC, 1999, pp. 1-3; Crowell, "The Anatomy of JUST CAUSE," p. 75; Norris Lyn McCall, "Assessing the Role of Air Power," in Watson and Tsouras, *Operation JUST CAUSE*, pp. 115-121.

36. Crowell, "The Anatomy of JUST CAUSE," pp. 75-81.

37. *Ibid*., p. 81.

38. Richard H. Shultz, *In the Aftermath of War: U.S. Support for Reconstruction and Nation-Building in Panama Following JUST CAUSE*, Maxwell AFB, AL: Air University Press, 1993, p. 16.

39. U.S. Army War College, "Case Study: Operation JUST CAUSE," p. 28; Shultz, *In the Aftermath of War*, pp. 16-19.

40. *Ibid*., p. 44. In all, there was little nonmilitary involvement in the preintervention planning process. The Secretary of Defense was undoubtedly briefed on the plan, but it remains unclear as to whether the Under Secretary of Defense for Policy or the Assistant Secretary of Defense for Special Operations/Low-Intensity Conflict, both charged by Goldwater-Nichols to review military planning, were involved in the planning process. Additionally, there is no indication that any non-Defense Department agencies, particularly the State Department, had enough knowledge of the operation to do their own contingency

planning. In all, there is no indication in developing a rapid and decisive military option that the interagency process was energized to develop a plan for following military victory with political-economic action to emplace and support a new Panamanian government that replaced Noriega and the PDF.

41. Shultz, *In the Aftermath of War*, pp. 15-22; Cole, "Operation JUST CAUSE," pp. 66-67. The first civil affairs reserve personnel did not arrive until 6 days after the start of the operation; 25 civil affairs reservists arrived on December 26, with 120 more on January 1, 1990, and 155 on January 15, 1990. However, the key here is that most were reservists on short tours of duty, 30 days or less, which led to a problem of "revolving door" forces that were constantly transitioning through, thus inhibiting any capability for civil-military operations to develop continuity or build relationships with the Endara government.

42. Aspin, "Operation JUST CAUSE: Lessons and Warnings in the Future Use of Military Force," pp. 7-8.

43. *Ibid*.

44. Major General Marc A. Cisneros, "Oral History Program: JUST CAUSE," Fort Clayton, Panama, History Office, Headquarters, U.S. Army South, June 12, 1990, pp. 9-13; David Adams, "An Overlooked Hero and the Forgotten Victims," *New York Times*, December 21, 1999, pp. 1-4.

45. Shultz, *In the Aftermath of War*, p. 33; John T. Fishel, "The Fog of Peace: Planning and Executing the Restoration of Panama," Carlisle Barracks, PA: Strategic Studies Institute, Army War College, 1992, p. 7.

46. Department of Defense, *Defense Planning Guidance,* Washington, DC, 2000.

47. Thurman, "Simultaneity," p. 18.

48. *Ibid*., p. 4.

49. *Ibid*.

50. *Ibid*., pp. 8, 18.

51. *Ibid*., pp. 16-17.

52. Gilboa, "The Panama Invasion Revisited," pp. 539-560.

53. Thurman, "Simultaneity," pp. 21.

54. Institute of Land Warfare, *Strategic Mobility and Responsive Power Projection,* pp. 1-4.

55. *Ibid*., pp. 7, 18-19.

56. Thurman, “Simultaneity,” p. 14.

57. *Ibid*.

58. Hartzog, *Oral History*, p. 8.

59. Cole, “Operation JUST CAUSE,” pp. 57-63.

# CHAPTER 8

# TRANSFORMING THE INTELLIGENCE COMMUNITY

**Lieutenant Colonel Steven L. Salazar**

> The challenge to the Intelligence Community is to harvest the vast amounts of information and ensure commanders are not overwhelmed or deceived during their decisionmaking process.
>
> Lieutenant General Robert W. Noonan
> U.S. Army Deputy Chief of Staff for Intelligence[1]

President George W. Bush has set the United States on a course to eradicate transnational terrorism. The U.S. Army will clearly play a major role in this effort at home and abroad. Essential to success will be the support provided by the national intelligence community. Unfortunately, America's intelligence efforts, although well-meaning and well-funded, are not organized to support national security effectively. The Central Intelligence Agency (CIA) is "central" in name only. It does little to coordinate an overall intelligence effort by the government's different agencies. As a result, the nation needs a restructuring of the roles and responsibilities of the numerous and varied agencies that conduct intelligence operations. Legislation is the only feasible means to effect the changes necessary to provide America with the security that a $30 billion budget for intelligence should buy.[2]

Following the attacks on the World Trade Center and the Pentagon, Bush declared war on terrorism. He and his administration made clear they will use all the resources of the national government, including diplomatic, military,

informational and economic, to destroy transnational terrorism. The effort has begun in Afghanistan against the Al Queda network and the Taliban regime. But Bush has stated that operations in Afghanistan are only the beginning. There are indications the military focus will move to Somalia, while some call for direct action to eliminate Sadam Hussein's regime in Iraq. In his 2002 State of the Union address, Bush argued there were at least a dozen countries which harbored terrorists and mentioned Iran, Iraq, and North Korea specifically.

Meanwhile, the U.S. Government is taking unprecedented measures to ensure the security of the Homeland. Bush has designated former Pennsylvania Governor Tom Ridge as the first director for Homeland Security, and the Department of Defense (DoD) has proposed to modify the Unified Command Plan to establish a new regional Commander in Chief (CINC) responsible for defense of the homeland. In any case, the role of Army forces in the continental United States has changed for the foreseeable future. Soldiers patrol the nation's airports and guard nuclear power plants and other critical infrastructures. The President himself has announced a $48 billion increase in the defense budget to provide, among other things, defense of America's borders.

The Army has a role in both aspects of this new war—the elimination of transnational threats and homeland security. In neither will the Army act alone. In each case, it must operate supported by, in support of, or in coordination with other services, agencies and, in some cases, other national partners. In the strategic framework, the Army may have to support the U.S. Government's or coalition's diplomatic, military, informational, or economic efforts.

America has declared war on terrorism, but increasingly the U.S. Government and Americans are realizing that the threat, and the effort to eradicate it, are much greater than initially thought. Terrorism itself is one of a group of transnational threats, along with drug trafficking, weapons

of mass destruction (WMD), international organized crime, and attacks on computer networks. One can characterize such threats by their geography. Yet, they truly represent asymmetric ways for groups, subnations, and even nations to achieve their political aims. Regardless of how distorted and legitimate those aims may seem, asymmetric means will be an integral part of 21st century warfare. These new and emerging threats have appeared at the same time that a new American way of war has appeared—one in which, although the undisputed world power, the United States pays great deference to international and domestic opinion. Collateral damage, civilian casualties, fratricide, and the risk of casualties have all become major considerations in the use of force.

The Army has begun its transformation to meet the security requirements of the 21st century. Information dominance is key to transformation success. The Army's intelligence transformation campaign plan describes a future where "Army Intelligence will be a globally focused, rapidly deployable, knowledge-based force,"[3] with its basic tenets "see first, act first, and finish decisively."[4] It aims to link intelligence experts with decisionmakers and their staffs. Its goal is an Army "that meshes with the intelligence community as a whole to fill future requirements in its multimission [sic] agenda."[5] Unfortunately, the intelligence community is not on course to meet the Army's requirements.

The emergence and proliferation of asymmetric threats, combined with the complex and accepted American way of using force, creates unprecedented demands on intelligence. No longer does American national security depend on monitoring a single evil—the Soviet Union. But, America's intelligence community was organized, albeit not well, to counter the Soviet threat. In the post-Cold War security environment, intelligence requirements have become increasingly complex, making the business of identifying requirements, establishing priorities, collecting, analyzing, and disseminating intelligence significantly

more challenging. Yet the Intelligence Community has failed to transform itself to meet the challenges of the 21st century.

The 13 organizations that comprise the intelligence community are barely a community, much less a tightly structured organization serving national security. They are a community, and like neighbors, sometimes they share valuable information—and sometimes not. The Director of Central Intelligence has the responsibility for managing collection priorities and the coordination and the analysis of information to provide intelligence for decisionmakers. But he has no statutory authority beyond the CIA itself to accomplish these tasks. Instead, the Director must rely on a network of collaboration and his powers of persuasion with organizations larger and better funded than his. Management of collection priorities and coordination of information is a complex business. Moreover, the threats facing America in the 21st century are complex and multifunctional. These features alone would make analysis a challenge. But to make matters worse, there is no central collection or analysis function.

The poorly organized intelligence apparatus has resorted to a conglomeration of ad hoc committees, cells, centers, and studies that attempt to pull together a myriad of intelligence functions and issues. In recent years, the community has successfully consolidated some functions under the DoD. The National Reconnaissance Organization and National Imagery and Mapping Agency have integrated functions formerly performed across various governmental departments and agencies. As a result, they have become the preeminent organizations in their fields. The National Security Agency is already the world's preeminent signals, electronic, and communications intelligence organization. Although preeminent in their fields, none of these agencies answer directly to the Director of Central Intelligence. The relationship between the Director of Central Intelligence and DoD intelligence organizations is exacerbated by the Director's position as

the head of the CIA. The National Security Agency and the CIA have developed cultures with a general disdain or at best distrust of one another. The current situation is worse than that faced by Dwight D. Eisenhower when he realized that each of the military service's intelligence agencies was operating independently. The fix came in 1961 with the formation of the Defense Intelligence Organization that brought together each service office and a number of functional offices within a single organization.

It took an act of Congress to create the intelligence community, and it will take Congress to fix it. The National Security Act of 1947 created the National Security Council, the Joint Chiefs of Staff, and the CIA. Each, as originally organized, represented compromises between Congress, the executive branch, and the military services. None possess the organization and authorities warranted by their mandated missions. The National Security Council has evolved by presidential decree (Presidential Decision Directives, or PDDs) and the Joint Chiefs of Staff through Congressional oversight, debate, and, most significantly, the Goldwater-Nichols Defense Reorganization Act. Yet Congress has failed to address organizational and statutory authorities necessary to make the CIA the coordinating body that it was originally intended to be. Whether the solution is to give more authority to the Director of Central Intelligence, transform the CIA into a true central intelligence and analysis agency, or create new organizations while eliminating others, Congress must transform the intelligence community to meet the challenges of the 21st century. The security threats of the 21st century require an intelligence apparatus that can efficiently and effectively manage collection priorities, conduct analysis, and disseminate intelligence to national and tactical decisionmakers alike in a usable and timely manner.

**Transnational Threats.**

A quick look at the extent of those threats suggests why Congress must address the issues involved in a fundamental reorganization of U.S. intelligence. America's war on terrorism has quickly broadened to include other transnational threats. The Defense Intelligence Agency (DIA) defines transnational threats as "any transnational (across international borders) activity that threatens the national security."[6] Terrorism, drug trafficking, and the proliferation of WMD represent the predominant threats. The Bush administration has made clear that each of these, along with nations that support them, is a target for the war on terrorism. These threats present a more complex intelligence challenge than that posed by the former Soviet Union.

U.S. law defines terrorism as "premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience."[7] A recent National Intelligence Council report assessed that terrorism:

> . . . will be directed at the United States and its overseas interests. Most anti-US terrorism will be based on perceived ethnic, religious or cultural grievances. Terrorist groups will continue to find ways to attack U.S. military and diplomatic facilities abroad. Such attacks are likely to expand increasingly to include U.S. companies and American citizens.[8]

International terrorist organizations such as Al Queda are sophisticated in their use of legitimate and illegitimate means to execute asymmetric attacks. Smuggling, drug trafficking, international crime organizations, computer networks, and in some cases sovereign nations provide the means for terrorist organizations to achieve their aims. The National Security Strategy states that additional transnational threats include "other criminal activities, and potential threats to critical infrastructure such as computer

network attacks."[9] The Federal Bureau of Investigation (FBI) defines International Organized Crime as a "continual criminal conspiracy having a firm organizational structure."[10] It operates by "fear and corruption." Some such organizations are powerful enough to influence nations and provide a means for the financing, equipping and transportation of terrorists. President William J. Clinton's PDD-42 calls transnational criminal syndicates a "threat to U.S. national security"[11] and to countries and regions all over the world. Such criminal activity includes narcotics trafficking, illegal immigration, money laundering, smuggling of nuclear and chemical weapons material, assassinations, and bribery of government officials. "Criminal enterprises now move large sums through the international financial system that dwarf the gross national product of some nations."[12]

While illegal narcotics trade undermines U.S. society and costs America "over $110 billion per year,"[13] it also provides substantial financial support for terrorist organizations. Drug trafficking in Afghanistan, and Latin and South America provides funds for terrorist organizations that target America. There often is a nexus between terrorism and organized crime, including drug trafficking. Links between terrorist organizations and drug traffickers take many forms, ranging from facilitation or protection, transportation, and taxation to direct trafficking by the terrorist organization itself in order to finance its activities. Traffickers and terrorists have similar logistical needs in terms of material and the covert movement of goods, people, and money.

Relationships between drug traffickers and terrorists benefit both. Drug traffickers benefit from the terrorists' military skills, weapons supply, and access to clandestine organizations. Terrorists gain a source of revenue and expertise in illicit transfer and laundering of proceeds from illicit transactions. Both groups corrupt officials whose services provide mutual benefits, such as greater access to

fraudulent documents, including passports and customs papers.

Drug traffickers may also gain considerable freedom of movement when they operate in conjunction with terrorists who control large amounts of territory. In the past, state sponsors provided funding for terrorists, and their relationships with terrorist organizations secured territory or provided access to arms networks. Lately, however, as state sponsorship of terrorism has come under increased scrutiny and greater international condemnation, terrorist groups have looked increasingly at drug trafficking as a source of revenue. But trafficking often has a two-fold purpose for the terrorists. Not only does it provide funds, it also furthers the strategic objectives of the terrorists. Some terrorist groups believe that they can weaken their enemies by flooding their societies with addictive drugs.[14] Cracking into these organizations and their connections requires sophisticated and tightly orchestrated intelligence efforts, employing a variety of collection functions and agencies.

The threat posed by WMD presents the greatest concern to U.S. officials. That threat includes the employment of chemical, biological, nuclear, and high explosive weapons. Thus far, the United States has witnessed the effects of both biological (anthrax) and high explosive (commercial aircraft) weapons. PDD-39 gives the WMD strategy with "four elements: intelligence and warning; prevention and deterrence; crisis and consequence management; and acquisition of equipment and technology."[15] Information obtained from caves in Afghanistan indicates the intent and willingness of Al Queda to use WMD.

Unfortunately, both the technology and materials are available. Following the demise of the Soviet Union, there have been some indications of the smuggling of unsecured fissile materials. There have been reports in 1993 of "tons of weapons grade material and thousands of warheads in Russian facilities" with rudimentary to nonexistent security. Moreover, Russian counterintelligence reported

"90 thefts from military and nuclear camps and 700 of related technology."[16] Tracking these materials requires a vast effort across intelligence functions and in cooperation, wittingly or otherwise, with a variety of actors.

Terrorist organizations themselves have become increasingly adept at the use of modern technology. In a recently released *Al Jazeera* interview conducted in October 2001, bin Laden scoffed at U.S. concerns that he might use secret signals on media releases. In the interview, he wonders how Americans could underestimate his use of modern communications systems; saying, "as if we were living in the time of mail by carrier pigeons, when there were no phones, no travelers, no internet, no regular mail, no express mail, no electronic mail."[17]

In the 21st century, computer network attacks are already a growing concern. Although merely a nuisance so far, they could threaten the disruption of critical services and economic systems. The Final Report of the President's Commission on Critical Infrastructure Protection, "estimates that by 2002, a worldwide population of approximately 19 million will have the skills to mount a cyber attack."[18] A recent public report by the DoD (the National Communications System), indicates that currently at least ten countries possess offensive information warfare capabilities comparable to our own. Moreover, the Government Accounting Office reports that approximately 120 nations have some sort of computer attack capability.[19]

Each of these represents a transnational threat based on their geo-strategic nature. Yet, each represents an asymmetric threat as well. Asymmetric means are "any unconventional or inexpensive method or means used to avoid our strengths, and exploit our vulnerabilities."[20] It is more valuable to view transnational threats not as a distinct set, but merely another approach for other nations, sub-nations, or groups to achieve their objectives with the available means. It would be naive to think that nations

such as Iraq and China are not clever enough to recognize they cannot match America's conventional military strength. Thus, it is in their interest to pursue asymmetric methods. So, perhaps these threats should not be characterized on the basis of their geographic nature, but rather on their characteristics. The U.S. Government's approach to dealing with transnational threats should be no different than that used to counter any threat to national security. The National Security Strategy requires the capacity to shape the environment, deter such threats, detect and interdict activities, protect forces and civilian population, and mitigate consequences should an attack occur.[21] In any case, the intelligence community is critical to the implementation of strategy. Yet, the U.S. Intelligence Community remains organized for the last war—the Cold War.

**The Intelligence Challenge.**

> Accurate intelligence significantly enhances the effectiveness of diplomatic and military undertakings; while good intelligence cannot guarantee good policy, poor intelligence frequently contributes to policy failure.[22]

Intelligence requirements to support the National Security Strategy and the Bush administration's war on terrorism and meet the challenges presented by transnational and asymmetric threats are complex, multifunctional, interagency, and multinational. The effort requires intelligence functions from high-tech to human intelligence and analysis of open sources; it requires a variety of communications and interpretation systems; and it challenges compartmentalization and civil liberties. Requirements range from identifying Taliban or Al Queda targets in Afghanistan to assessing the stability of the Pakistani government; from protecting Americans abroad to tracking WMD materials, or investigating illegal immigrants. The intelligence challenge is complicated by the way the U.S. Government employs the elements of its national power—especially the use of force. Rather than

transform the U.S. intelligence community to meet these requirements, the national security establishment continues to create ad hoc organizations to face new and emerging threats.

Intelligence is "information not publicly available, or analysis based at least in part on such information, that has been prepared for policymakers or other actors inside the government."[23] The ultimate purpose of U.S. intelligence is to enhance national security by informing policymakers and supporting military operations. To perform this function, the intelligence community must identify intelligence requirements, prioritize collection, conduct analysis, and package it into a timely and useful product. The functions of intelligence are generally identification of requirements, prioritization, collection, analysis, and dissemination. Requirements are what one needs to know to support policy or operations. Prioritization involves the allocation of resources to obtain information. Collection is the act of obtaining information from open or protected sources using active or passive means in various mediums such as human, signals, electronic, or measures and signatures. Analysis is the process of turning raw data or information into usable intelligence. And, dissemination is the distribution of intelligence in a timely and usable form to the customer.

In his article "Projecting Intelligence, Surveillance, and Reconnaissance in Support of the Interim Brigade Combat Team," Lieutenant Colonel Stephen P. Perkins has identified intelligence requirements for tactical units in the future combat environment. He notes that it will require a "coordinated effort by the Intelligence Community (services, joint, and national/interagency) to provide an Army or Joint Strike Force with the ability to achieve intelligence superiority throughout the battle space." He anticipated before the events of September 11 that "the most challenging scenario for American forces and the Intelligence Community lies in a nonlinear, asymmetric battlefield that encompasses America, its allies, and a geographic command's area of operations." The current

effort includes each of these, but with operations in nearly every regional command.

Army Deputy Chief of Staff for Intelligence Lieutenant General Robert Noonan notes that "the Army will require a vast amount of information from a wide variety of intelligence sources and needs to find new and better ways of operating." He argues that, the Army is "trying to integrate what we call 'space to mud,' which is an architecture that can leverage everything that pertains to the commander's requirements." The accomplishment of such an objective requires "a collaborative environment that allows [the commander] to grab information that resides within the intelligence community."[24] The ability to reach back to this fusion of intelligence is essential for success in the war on terrorism. Unfortunately, the intelligence community Noonan wants to reach back to is not organized to provide the "fused" intelligence he needs—particularly given the complex way in which America uses force.

The new American way of war pays deference to world opinion and carefully considers the risk of casualties. Collateral damage and the inadvertent killing of non-combatants have strategic implications. Perkins notes that intelligence can support such rules of engagement by providing situational and cultural understanding. Consideration of risk must be a key aspect of how the American government operates. Many perceive Americans and especially the military as risk averse. Risk to forces and consequences of action are considerations, but should not be obstacles to action. Nonetheless, such considerations demand a high level of resolution and certainty in intelligence, whether to support the execution of dominant maneuver and precision engagement or to defend the homeland.

As the U.S. Government becomes increasingly sophisticated in its use of the elements of national power, intelligence requirements become likewise more

sophisticated and complex. The orchestration of these elements is the purview of the National Security Council. Clinton added the National Economic Council to focus government efforts on the economy. The attacks of September 11 prompted Bush to establish the Office of Homeland Security on a par with the National Security Council. Further, National Security Advisor Dr. Condoleezza Rice called on retired General Wayne Downing to serve as Deputy Director for Counter Terrorism. Together, these organizations are responsible for orchestrating each element of the Government toward the common security objective. The intelligence community now must respond to the requirements of each of the national offices. In recent years, the line between national and tactical activities has become less distinct. In fact, national and tactical capabilities are increasingly complementary. Unfortunately, the U.S. Intelligence Community is not effectively organized to coordinate intelligence and create the fused, reach-back sources of intelligence that Noonan hopes to get, nor is it optimized to serve the increasing array of national level organizations. Reorganization of the intelligence community must be the basis for transforming U.S. intelligence. Organizational changes are necessary to bring coherence to collection functions, eliminate duplication in noncritical areas, and integrate administrative activities. [25]

**The Intelligence Community.**

> The organization and leadership of the intelligence community is a structural oddity.
>
> Report of an Independent Task Force on *Making Intelligence Smarter: The Future of U.S. Intelligence*[26]

The U.S. intelligence community, although the largest and most expensive in the world, is not organized to effectively support national security requirements. The

National Security Strategy states that the intelligence community provides:

> Critical support for the full range of our involvement abroad. Comprehensive collection and analytic capabilities are needed to provide early warning of threats to U.S. national security, give analytical support to policy, law enforcement, and military communities, enable near-real time intelligence while retaining global perspectives, identify opportunities for advancing our national interests, and maintain our information advantage in the international arena. [27]

The intelligence community is a concept through which the intelligence functions of national agencies and government departments coordinate and share intelligence. It comprises 13 organizations representing various functions and departments of government loosely tied together under the auspices of the Director for Central Intelligence.

**Figure 1. The Intelligence Community.**

One can divide national intelligence into broad categories that include 1) strategic—supporting policy decisions, 2) operational and tactical—supporting military commanders, 3) foreign intelligence—the charter of the Director for Central Intelligence, and 4) domestic—the purview of the Director of the FBI. Additionally, the intelligence community supports national security requirements by conducting clandestine, covert, counterintelligence and counterterrorism operations. The U.S. Government's intelligence apparatus performs one or more of these functions, to a greater or lesser extent, in each of the 13 organizations. The Intelligence Community's efforts are tied together through community cells and centers such as the Crime and Narcotics Center, the Nonproliferation Center, and the Counterterrorism Center, all managed by a series of 32 panels, committees, groups, and boards.[28] Congress provides operating funds through the six different departments and agencies with oversight from up to eight different Senate and House committees. Finally, the Director of Central Intelligence is responsible for coordinating the intelligence community's effort to provide the nation's intelligence; he is the head of the community and is responsible for "directing and conducting all national foreign intelligence and counterintelligence activities."[29]

*The Director of Central Intelligence***.** The Director of Central Intelligence is responsible, as head of the intelligence community, for carrying out intelligence activities for the conduct of "foreign relations and U.S. national security" to include the "production and dissemination of finished intelligence."[30]

> Despite his title, the director of Central Intelligence neither by law, directive, or otherwise, is the central director of the total intelligence effort of the government. Actually, his control of intelligence operations is restricted to those of the CIA. On the other hand, he does have a broad responsibility for the correlation, evaluation and dissemination of intelligence related to national security.[31]

Without statutory authority, the Director of Central Intelligence's "effectiveness in carrying out these activities largely depends on continuous and effective communication between personnel of the intelligence and policymaking elements of the government."[32] Former Director of Central Intelligence Richard Helms, in the wake of a series of bureaucratic defeats, gave up on attempts at managing the intelligence community. He later observed to his staff that, while he

> was theoretically responsible for 100 percent of the nation's intelligence activities, he in fact controlled less than 15 percent of the community's assets—and most of the other 85 percent belonged to the Secretary of Defense and the Joint Chiefs of Staff.[33]

Under such circumstances, Helms concluded, it was unrealistic for any Director of Central Intelligence to think that he could have a significant influence on U.S intelligence resource decisions or the shaping of the intelligence community.

The original intent behind creation of the CIA was to serve as a coordinating body for government intelligence activities. But, from the "outset no department was willing to concede a centralized intelligence function to the CIA."[34] The National Security Act of 1947 established the Joint Chiefs of Staff, the National Security Council, and the CIA. As with most things American, each represented a compromise of the optimal roles, responsibilities, and organization. Legislation, particularly the Goldwater-Nichols Defense Reorganization Act of 1986, has improved coordination between the military services. The National Security Council has been able to modify itself to the requirements of each president. Unfortunately, the CIA remains an organization without the authority to perform its intended role of coordinating the American intelligence effort.[35]

In fact, the CIA has focused its efforts on the Cold War requirement for clandestine operations at the expense of

analysis and is "considered one of the weakest links in our national security."[36] It is really two organizations in one. The Directorate of Intelligence is responsible for directing and analyzing intelligence, while the Directorate of Operations conducts covert and clandestine operations. Each has evolved and operates now "with separate personnel, vastly different cultures and missions . . . [within] rigid organizational barriers."[37] Initially, the Directorate of Operations flourished without ever having been authorized by the National Security Act or any subsequent legislation and with little Congressional oversight because presidents wanted it too. It has conducted operations "solely on the basis of presidential orders, memos and directives."[38] Covert action is fundamentally different from intelligence collection and analysis. It is intelligence used as an instrument of foreign policy. Such actions seek to influence the political, economic, or military situation in a foreign country without revealing American involvement in the activity."[39] While the clandestine role of the agency flourished, its coordination efforts—those for which it was created—have floundered.

Cultural problems in the intelligence community are serious, but are most severe at the CIA. Former Director of Central Intelligence Robert James Woolsey, Jr., was the first to state publicly that culture was a problem at the CIA, "but he showed little understanding of it and its manifestations."[40] He also did little to change it before his departure. Director of Central Intelligence John Deutch noted the importance of changing the culture of the Directorate of Operations during his confirmation hearing.[41] The Directorate of Operations "jealously guards its information holdings, including those that could be of use to the analytic community."[42] Robin W. Winks, distinguished Yale University historian who served in the Office of Strategic Services during World War II and in its successor, the CIA, concluded, "research and analysis are at the core of intelligence. [Most] 'facts' are without meaning; someone must analyze even the most easily obtained

data."[43] Analysis organizations filter and evaluate raw intelligence information for consumers. The Directorate of Intelligence has, "in aggregate, [the] finest analytic capabilities in the Intelligence Community, as well as the broadest range of responsibilities and consumers."[44] The overall performance of intelligence depends critically on good analysis.

The National Security Act was a compromise that arose from intense bureaucratic conflict. Formation of the CIA challenged the roles within the State, Defense, and Justice departments. The price was statutory provisions that created a CIA that was incapable of centralizing intelligence. So Truman did not get the centralizing function he had hoped for and executives since "have developed alternative ways of centralizing and analyzing intelligence."[45] Consequently, 32 ad hoc organizations (panels, committees, groups, and boards) manage national intelligence and represent executive, legislative, or administrative fixes to perceived problems or emerging threats. The CIA receives "just over 10 percent of the resources the United States spends on intelligence."[46] And, it is the only one of the four "national" level intelligence agencies not operated by the DoD.

Department of Defense.

> At DIA and the military services, there is an element anti-CIA feeling that probably reflects portions of jealousy, lack of understanding, turf consciousness, and animosity toward civilians doing national security work. At the same time, in my experience, most uniformed personnel have little understanding of CIA's capabilities. If anything, the military's view of INR is even more negative—for even less reason. [47]

The preponderance of national intelligence resides within DoD. Defense Department elements of the intelligence community include the National Security Agency, the National Reconnaissance Office, the National Imagery and Mapping Agency, DIA, and the intelligence components of each of the four military services—Army,

Navy, Air Force, and Marine Corps Intelligence. DIA is the senior military intelligence component of the Intelligence Community.

Established in 1961, DIA's primary mission is to provide all-source intelligence to the armed forces of the United States. Its creation was intended to consolidate intelligence "activities duplicated in each of the military services and at major military commands."[48] Yet each service has retained its intelligence roles to support its unique requirements. Each, in turn, operates an intelligence center such as the Army's National Ground Intelligence Center. The National Ground Intelligence Center provides "scientific and technical intelligence (S&TI) and general military intelligence (GMI) on foreign ground forces in support of the warfighting commanders, force and material developers, DA [Department of the Army], DOD, and National-level decisionmakers."[49] The other service centers perform similar medium based functions. In carrying out its missions, DIA coordinates and synthesizes military intelligence analysis for Defense officials and military commanders worldwide, working in close concert with the intelligence components of the military services and the U.S. unified commands.[50] According to a Georgetown University study in early 1995, DIA and the services had some 13,000 people conducting analysis, versus 1,500 analysts at the CIA.[51]

Truman directed the establishment of the National Security Agency in 1952 as a separately organized agency within the DoD. It is responsible for planning, coordinating, directing, and performing foreign signals intelligence and information security functions. In its signals intelligence role, the National Security Agency intercepts and analyzes foreign electromagnetic signals—many of them protected by codes, ciphers, and complex electronic, countermeasures—to produce intelligence information for decisionmakers and military commanders. A fundamental mission and core competency of the National Security Agency is the ability to understand foreign

communications, while protecting its own. The United States leads the world in this capability. It confers a unique competitive advantage, but maintaining this advantage requires preservation of a healthy cryptological capability in the face of unparalleled technical challenges. Unfortunately, the valuable functions provided by the National Security Agency are not as closely coordinated with the CIA as they could be. Opportunities to achieve synergistic effect between signals, communications or electronic, and human intelligence are often missed. Each agency operates in its own way, with different communications networks, separate analysts, and unique cultures.

The National Imagery and Mapping Agency was established October 1, 1996, by the National Imagery and Mapping Agency Act of 1996. The creation of the National Imagery and Mapping Agency centralized responsibility for imagery and mapping, representing a fundamental step toward achieving the DoD vision of "dominant battle space awareness." The National Imagery and Mapping Agency was created to exploit the potential of enhanced collection systems, digital processing technology, and the prospective expansion in commercial imagery than its separate predecessor organizations. The creation of National Imagery and Mapping Agency brought together the Defense Mapping Agency, the Central Imagery Office, and the Defense Dissemination Program Office in their entirety, as well as the mission and functions of the CIA's National Photographic Interpretation Center.[52]

The National Reconnaissance Office is the single national program to meet U.S. Government needs through spaceborne reconnaissance. The National Reconnaissance Office's assets collect intelligence to support such functions as indications and warning, monitoring of arms control agreements, military operations and exercises, and monitoring of natural disasters and other environmental issues.

The Intelligence Community also includes the agencies or offices that perform disparate intelligence functions in governmental departments and agencies. The Department of State's Bureau of Intelligence and Research (INR) supports the development of intelligence community products and provides daily summaries, regional and functional summaries, and longer more substantive reports on specific issues for the Secretary of State. It has no collection capability, but analyzes information from other agencies and U.S. diplomatic posts. It is a small organization that focuses on conducting political analysis. A larger organization with tasking authority could take advantage of the information available to State Department officers posted abroad. The Department of Treasury's Office of Intelligence Support is responsible for overt collection of financial and monetary information in countries where treasury officers are assigned. The Department of Energy's Office of Intelligence is responsible for intelligence on nuclear proliferation, foreign nuclear weapons materials, science and technology, international fossil and nuclear energy safety and waste developments, and economic and environmental assessments relevant to energy issues.[53] Other departments performing intelligence functions, but which are not formally members of the intelligence community, include the Department of Commerce's Office of Executive Support and its Office of Export Enforcement Intelligence and the Transportation Department's Office of Intelligence and Security Division. Neither has collection capability. They each analyze information derived by overt means and produce reports relating to their functional areas.

Federal Bureau of Investigation.

> The . . . terrorist attacks on our homeland proved that our efforts at intelligence collecting, breaking up terrorist cells, and limiting their movement, planning and organization are not up to par. In spite of the fact that the FBI counterterrorism budget and number of FBI agents assigned to counter-

terrorism had more than doubled since the bombing of the World Trade Center in 1993.[54]

Law enforcement organizations also interact with the Director of Central Intelligence through specific boards or centers. The Drug Enforcement Administration's Intelligence Division supports counternarcotics and interacts with the intelligence community through the Director of Central Intelligence's Crime and Narcotics Center. The FBI is the law enforcement component of the intelligence community. Its intelligence community functions which support the war on terrorism include counterterrorism, counterintelligence, counternarcotics, and organized crime.

The FBI is responsible for protecting America from terrorist attacks. Its counterterrorism mission is to "identify and neutralize the threat in the United States posed by terrorists and their supporters, whether nations, groups, or individuals."[55] Although the preeminent criminal investigative organization, the FBI is hamstrung in its efforts to protect America from terrorist attacks. It has dedicated considerable resources to develop a strong response to the threats posed by domestic and international terrorism. Between fiscal years 1993 and 2003, the number of special agents dedicated to the FBI's counterterrorism programs grew by approximately 224 percent (to 1,669—nearly 16 percent of all FBI special agents).[56] The major challenge facing the FBI is keeping pace with the explosion and complexity of information derived from multidimensional terrorist activities. Senator Richard C. Shelby, Republican-Alabama, the ranking minority member of the Senate Select Committee on Intelligence, has said that the intelligence agencies were "caught flat-footed" and insisted that "there had to be some evidence, somewhere, of something being planned." He has referred to the events of September 11 as "a stunning intelligence failure."[57]

Without an investment in personnel, analysis will continue to lag significantly behind the rapid flow of information. The number of analysts available to support the FBI's requirements in the Counterterrorism Program is not sufficient to provide in-depth analytical coverage. For fiscal year 2003, the FBI is requesting 110 new analytical positions and $7,731,000 to address tactical and strategic intelligence gaps.[58] But the FBI is woefully short of qualified linguists. After September 11, it "had to make a public appeal for people fluent in Arabic, Pashtun, and other languages."[59] These shortfalls give merit to the argument for a reserve force of skilled analysts, academics, and linguists that can be recalled to the payroll as required.

The FBI interacts with the intelligence community through a variety of centers. These ad hoc organizations are staffed by intelligence community members, and in some cases the directors rotate between the FBI, CIA, and DoD. The Director of the FBI takes his orders from the Attorney General, not from the Director of Central Intelligence. Nevertheless, President Ronald Reagan designated the FBI as the lead agency for countering terrorism in the United States. Congress expanded the FBI's counterterrorism responsibilities in 1984 and 1986 when it passed laws permitting the Bureau to exercise federal jurisdiction overseas when a U.S. national is murdered, assaulted, or taken hostage by terrorists, or when certain U.S. interests are attacked. Since the mid-1980s, the FBI has investigated more than 500 extraterritorial cases. In addition to the investigation into the September 11 attack, the FBI's other ongoing extraterritorial investigations include the 1996 bombing of Khobar Towers in Saudi Arabia, the bombings of the U.S. Embassies in Kenya and Tanzania, and the bombing of the USS *Cole*. Established in 1996, the FBI Counterterrorism Center combats terrorism on three fronts: international terrorism operations both within the United States and in support of extraterritorial investigations, domestic terrorism operations, and countermeasures relating to both international and

domestic terrorism. Eighteen federal agencies maintain a regular presence in the center and participate in its daily operations including the CIA, the Secret Service, and the Department of State, among others.[60]

The FBI's National Security Division supports its counterintelligence function—a role that has expanded greatly in recent years. In 1994, PDD-24 established the National Counterintelligence Policy Board. The establishment of the National Counterintelligence Center quickly followed to coordinate national level counterintelligence activities. The staff of the National Counterintelligence Center includes members from the FBI; CIA; Departments of Defense, Energy, and State; and the National Security Agency. Its directorship rotates every 2 years. With respect to counterintelligence, the FBI is responsible for detecting and counteracting foreign intelligence activity that gathers information that adversely affects U.S. national interests of security. Each of these functions requires close cooperation with the entire intelligence community. Each crosses the boundary between domestic and foreign jurisdiction. The requirement for cooperation between law enforcement and the intelligence community is greater than ever. Unfortunately,

> . . . in the security realm, the conflict between CIA and the FBI is legendary. It goes back years, and has major cultural elements. CIA is mainly "offensively" oriented—that is, toward the recruitment of agents and the gathering of information—while the FBI is mainly "defensively" focused. The mind sets of the functions are very different.[61]

**Intelligence and Law Enforcement.**

Today there is no clear primacy for either the law enforcement or intelligence communities in the realms of international terrorism, narcotics, and proliferation (as well as, in some cases, counterintelligence). Still the law enforcement and intelligence communities remain designed and operated in fundamentally dissimilar manners,

retaining different legal authorities, internal modes of organization, and governing paradigms. [62]

On October 26, 2001, Bush signed an antiterrorism law known as the U.S.A. Patriot Act to provide the U.S. Government the means with which to fight the war on terrorism. The bill effectively tears down legal fire walls erected 25 years ago during the Watergate era, when the nation was stunned by disclosures about presidential abuses of domestic intelligence gathering against political activists. The new legislation foreshadows an end to that separation by making key changes to the law underpinning it, the Foreign Intelligence Surveillance Act of 1978. The law empowers the government to shift the primary mission of the FBI from solving crimes to gathering domestic intelligence. The intent is to have a FBI that combines intelligence with effective law enforcement.

The law provides authority for the CIA to access domestic investigative information through direct liaison with the FBI. The CIA will have the authority for the first time to influence FBI surveillance operations inside the United States and to obtain evidence gathered by federal grand juries and criminal wiretaps. The Treasury Department has been charged with building a financial intelligence-gathering system, whose data can be accessed by the CIA. The new law permits the FBI to give grand jury information to the CIA without a court order, as long as the information concerns foreign intelligence or international terrorism. The information can also be shared widely throughout the national security establishment. Congress also authorized a secure, nationwide communications system for the sharing of terrorism-related information with local police.

These new authorities provide an opportunity for the fusion of domestic and international intelligence. Unfortunately the intelligence community is not structured to integrate domestic and international intelligence requirements, collection, and analysis. Again, the fused

effort is dependent on the working relationship between the Director of the CIA and the Director of the FBI. Recognizing the challenges associated with the merging of law enforcement and intelligence functions, a recent congressional report observed that:

> [coordination] sounds simple in concept. In reality, it is likely to prove very difficult, challenging constitutional limits on law-enforcement activity while drawing intelligence officers ever closer to proceedings that could compromise sources and methods of intelligence collection. The momentum is clearly headed toward something like a merger between the two worlds. [63]

The merging of law enforcement and intelligence is fundamental to meeting today's security requirements. This integration will require more than legal authorities—it requires a transformation of the intelligence community. There must exist a clear authority for prioritizing intelligence requirements, tasking collection across the apparatus functions, and thorough analysis.

**Role of Congress.**

> Agencies do not respond naturally or easily to changing international events, conditions and problems. They do not adapt to their environment. National Security agencies are likely to be poorly designed and built to stay that way.[64]

Immediately following the September 11 attacks, the Senate Intelligence Committee termed the intelligence community the Nation's "first line of defense" against "transnational threats" like terrorism, and authorized a first "installment of a 5-year effort to correct serious deficiencies that have developed over the past decade."[65] Although the 2002 intelligence budget is classified, the committee indicated it provided a "substantial" budget increase for overall intelligence activities.[66] But, money alone will not limit the potential for another national intelligence failure. Congress has historically avoided intelligence oversight. Not until 1974, "after press reports of

CIA domestic surveillance activities, did the House and Senate begin to create an oversight structure."[67] The only major reform legislation following the organization of the national security structure by the National Security Act of 1947 has been the Goldwater-Nichols Defense Reorganization Act of 1986.[68] Congress "authorizes the various instrumentalities [sic] of U.S. policy, appropriates funds, and conducts oversight."[69] This responsibility, the emergence of new threats and the failure of the intelligence community, require Congress to act decisively. There are two fundamental problems that Congress must address. First, it must redesign the organizations created by the National Security Act of 1947 for the Cold War for the challenges of the 21st century. Second, it must optimize its organization for oversight of the national security establishment.

Since its inception the CIA has evolved with minimal Congressional involvement. Congressional oversight was limited prior to 1974 and since has been ineffectual in that it has not addressed the central issue of organization and coordination. "In the U.S. governmental system, the budget is usually the focal point of policy. The budget process for intelligence is overwhelmed by detail and unable to deal with basic issues."[70]

Oversight of law enforcement, foreign policy and intelligence is undertaken by different sets of committees with different agendas. The way Congress oversees law enforcement and intelligence is not optimized.

> Congressional oversight of the intelligence community is essential in a democracy. Such oversight is more constructive when it focuses on policy initiatives, such as reorganizing the intelligence community, and evaluation of existing programs and policies, rather than on attempting to manage current operations.[71]

Law enforcement is overseen by the two judiciary committees. However, the FBI's intelligence activities are under the purview of the Senate Select Committee on

Intelligence and the House Permanent Select Committee on Intelligence. These two organizations oversee intelligence activities. However, there is shared jurisdiction with the House and Senate Armed Services Committees because DoD conducts the preponderance of intelligence. Such an arrangement makes it difficult, at best, to provide seamless oversight of intelligence, military, and law enforcement activities.[72] The intelligence and Armed Services committees often focus on procurement of advanced technologies and the links between intelligence and the military services rather than on operational practices."[73]

**Transforming Intelligence.**

> Intelligence is like air. You don't realize you are using it until you don't have it.
>
> National Security Advisor Anthony Lake

First, the disparate intelligence organizations cannot be a community. Only a hierarchical organization with clear roles, responsibilities, and lines of communication can hope to meet the intelligence requirements of the 21st century. The intelligence community is even less an organization than were the military services prior to the Goldwater-Nichols Defense Reorganization Act of 1986; well-intentioned in most cases, collaborative in others, but never fully coordinated to the optimal benefit of national security. Rather than trying to wrap his arms around a "community," the head of national intelligence must have authority commensurate with his responsibilities. There must be a central organization to support prioritization of requirements and able to manage collection tasking in support of analysis. Transformation will be difficult. In his book on transforming organizations, *Leading Change*, John P. Kotter notes that effective change requires, among other things, a sense of urgency, a clear vision and strategy, empowerment, and a managing coalition.

The attacks of September 11, Bush's declaration of war on terrorism, and ongoing U.S. Government efforts should provide sufficient sense of urgency. Clearly, it represents a challenge to transform, while supporting current efforts. But the end state for the "War on Terrorism" is a long way off. U.S. National Security can not afford to wait for this fight to end before transforming for the next challenge. The Army has begun a transformation, not based on the September 11 attacks, but on the changing post-Cold War environment. The Army's Intelligence Transformation Plan observes that the "transformation extends far beyond the Army," and identifies the requirement to articulate its needs "into the national intelligence community so that we [the Army] are able to shape the development of both theater and national intelligence capabilities."

The vision should begin with the requirements articulated in National Security Strategy 2000 and the pending Bush National Security Strategy. Key should be the formation of a hierarchical organization that gives authority along with responsibility. Effective development of intelligence requires an organization—perhaps, the National Intelligence Agency—that can identify and prioritize requirements, and then has the authority to task specific collection agencies—regardless of who owns them. This effort must be supported by and work directly with an analysis organization with experts from each field capable of conducting comprehensive analysis of information fused from multiple sources. The CIA's Directorate of Intelligence should form the nucleus of the new organization. It could be titled The National Intelligence or Analysis Center and be augmented by analysts from each of the current intelligence community agencies. The CIA should continue to conduct covert and clandestine operations in support of the National Intelligence Agency and in coordination with other collection sources. This central analysis center could provide the fused intelligence that would support national level decisionmaking while providing the source for the reach back capability Noonan envisions.

The position of the Director of Central Intelligence should be strengthened and renamed so that the Director can wield direct control over the various components of the intelligence apparatus. "Greater centralization promises to bring about high-quality, coordinated analysis and make resource decisions that reflect national priorities, not choices driven largely by those who oversee the technical collection programs or who are concerned with military programs alone."[74] The new head of the National Intelligence Agency must have budget authority and should hire the directors of the National Security Agency, the National Reconnaissance Office, and the National Imagery and Mapping Agency, and have primacy in operational assignments for these three agencies in consultation with the Secretary of Defense.[75]

In May 2001, former national security adviser Brent Scowcroft was appointed head of the White House's Foreign Intelligence Advisory Board. He has formed a commission to examine the restructuring of the intelligence community and the results are widely anticipated. According to commission participants, chief among the recommendations is a proposal that would move the National Security Agency, the National Imagery and Mapping Agency, and the National Reconnaissance Office, from under the DoD to the control of the Director of Central Intelligence. [76]

Historically, the elements of tactical intelligence were ceded to the military, while political intelligence had been the purview of other organizations. This separation has become increasingly awkward. This is a major issue in the Defense Department's transformation. The new emphases on jointness, long-range operations, precision strike, and global positioning system targeting are generating enormous pressures on the defense intelligence infrastructure. (Defense intelligence carves a new niche.)

This reduced level of Pentagon intelligence would come as little surprise in some circles. Early last year a commission headed by former senators Gary Hart and

Warren Rudman argued that national security is no longer just a military issue, and, as a result, the Pentagon may not be the best steward of agencies that now gather a wider variety of intelligence. They observed in their final report that "the U.S. intelligence community is adjusting only slowly to the changed circumstances of the post-Cold War era. . . . While the economic and political components of statecraft have assumed greater prominence, military imperatives still largely drive the collection and analysis of intelligence."

Transformation will require vision, empowerment, and oversight. Congress is the body that must perform this function. Comprehensive legislation, similar to that applied to defense by the Goldwater-Nichols Act, necessary to begin transformation. Congressional oversight is key. Additionally, Congress must also reorganize its oversight of intelligence functions. Intelligence committees should be standing and not select committees. Service on intelligence committees should not be subject to term limits. These changes would make the intelligence committees more like other committees and "more representative of the House and Senate as a whole and less reflective of the leadership." The intelligence committees should be given jurisdiction over all components of the intelligence community—not only the CIA. This will mean reducing the power of other committees such as the Armed Services and Judiciary committees.[77]

## Conclusion.

> The Nation cannot afford uncoordinated approaches among the domains of strategy—military, economic, diplomatic, or informational which often manifests themselves as institutional and bureaucratic barriers to unity of thought and action.
>
> Richard A. Chilcoat[78]

Intelligence supports decisionmaking at all levels. It is essential to national security. And the intelligence challenges posed by today's threats are more complex and multifunctional than ever. Combined with the unique way in which the U.S. Government uses the elements of national power and the way in which its military employs force, demands on the intelligence organizations are significant. To meet these demands, the government's intelligence apparatus must be transformed from the existing community of cooperating agencies into an efficient organization equipped with the means to effectively prioritize requirements, collect information utilizing all available means, perform comprehensive analysis, package, and disseminate intelligence efficiently. The creation of a modern intelligence capacity in the United States predated the Cold War. More than anything else, "the desire to avoid another Pearl Harbor led to the creation of a centralized intelligence apparatus in 1947."[79] The legacy of the Pearl Harbor attack and the recognition of the importance of intelligence to national security following World War II led to the creation of the intelligence community. And, although poorly designed, with numerous failures and embarrassments over the last 50 years—"the intelligence community failed to predict the end of the Cold War and the collapse of the Soviet Union"[80]—it got us through the Cold War. It is now time to take those lessons and the forcing function of the September 11 attacks to transform the intelligence community to support national security requirements for the 21st century.

The Army Intelligence Transformation Campaign Plan describes a future where "Army intelligence will be a globally focused, rapidly deployable, knowledge-based force." The plan describes its basic tenets as "see first, understand first, act first, and finish decisively." These basic principles hold fast despite the events of September 11 and the ensuing global war against terrorists. Traditional national assets now have applicability to the tactical commander, and many tactical intelligence assets are now

useful to strategic decisionmakers. The key to making optimum use of all these assets lies in establishing strong relationships with other members of the intelligence community. Clearly, this is essential without a true "central" intelligence organization.

The task is "not to politicize intelligence, but to make it relevant."[81] Intelligence supports policy. American policy from here on out will be influenced by the events of September 11. The U.S. Government will use the elements of its national power—diplomatic, economic, informational, and military to provide national security. National intelligence must support each element of the effort in a complex world of competing requirements, priorities, and capabilities. The intelligence community must transform to more effectively support U.S. policy goals. More money and more people will help, but a complete transformation—including reorganization—is necessary.

## ENDNOTES - CHAPTER 8

1. In an interview, Lieutenant General Noonan discussed the Army's intelligence requirements and noted that 51 percent of today's population resides in China and India—an area of major arms proliferation, both in conventional weapons and weapons of mass destruction. By 2020, four of the five most populated nations of the world (China, India, Pakistan, and Indonesia) will be in Asia. Marc Strauss, "Army Intelligence to Shift Focus to Urban Battle in Asia," *Defense Daily International,* August 17, 2001.

2. The intelligence budget is classified, but various sources give a figure of approximately $30 billion. Walter Pincus, "Senate Clears Bill Raising Intelligence Spending 7 percent; Graham Calls for Reorganization of Collection Agencies," *The Washington Post*, November 9, 2001.

3. Keith J. Masbach, "Army Intelligence Deals with Two Transformations," *Signal,* January 2002, p. 2.

4. *Ibid*.

5. *Ibid.*

6. John T. Chenery, "Transnational Threats 101: Today's Asymmetric Battlefield," *Military Intelligence Professional Bulletin*, July-September 1999, p. 2.

7. *Ibid*.

8. National Foreign Intelligence Board, "Global Trends 2015: A Dialogue About the Future With Nongovernment Experts," December 2000.

9. William J. Clinton, *A National Security Strategy For a Global Age*, Washington, DC: The White House, December 2000, p. 9.

10. Chenery, p. 3.

11. Arnaud de Borchgrave, "Clinton Targets Global Organized Crime As Security Threat," *The Washington Times*, November 3, 1995.

12. *Ibid*.

13. Clinton, p. 25.

14. Rand Beers, Assistant Secretary for International Narcotics and Law Enforcement Affairs, and Francis X. Taylor, Ambassador-At-Large For Counterterrorism, "Narco-Terror: The Worldwide Connection Between Drugs and Terror, Testimony Before the Senate Committee on the Judiciary Subcommittee on Technology, Terrorism and Government Information," Washington, DC, March 13, 2002.

15. Aaron Weiss, "When Terror Strikes Who Should Respond?," *Parameters*, Autumn 2001.

16. Chenery, p. 2.

17. Despite objections from the Arabic-language television network *Al-Jazeera*, CNN broadcast an exclusive interview that *Al-Jazeera's* correspondent in the Afghan capital Kabul conducted with Osama bin Laden in October 2001. The Qatar-based network had never aired the interview and had denied its existence at first. *Al-Jazeera* told CNN in December 2001 that it would not air the interview because it did not meet the network's standards and was not newsworthy. CNN made the decision after a meeting in October 2001 between U.S. Vice President Dick Cheney and emir of Qatar Sheikh Hamad Bin-Khalifah Al Thani. During that meeting, Cheney aired U.S. complaints about *Al-Jazeera's* broadcasts of tapes provided to it by bin Laden's organization. bin Laden's interview is available from the internet at *http://www.cnn.com/SPECIALS/2001/ trade.center/binladen.section.html*.

18. Center for Strategic and International Studies, Transnational Threats Resource Center, available from the internet at *http://www.csis.org/goc/threatsrc.html*.

19. *Ibid*.

20. Chenery, p. 4.

21. Clinton, p 22.

22. Council on Foreign Relations, *Making Intelligence Smarter: The Future of U.S. Intelligence*, New York, 1996, p. 2.

23. *Ibid*., p. 8.

24. General Noonan's comments can be found in Strauss, p. 2.

25. Dr. John Hollister Hedley, *Checklist for the Future of Intelligence*, Gaithersburg, MD, 1995, p. 29.

26. Council on Foreign Relations, p. 25.

27. Clinton, p. 9.

28. Central Intelligence Agency, "A Consumer's Guide to Intelligence," Washington, DC, 2000, p. 30.

29. *Ibid*., p. 29.

30. *Ibid*.

31. Jeffrey T. Richelson, *The U.S. Intelligence Community*, Cambridge, 1985, p. 339.

32. Central Intelligence Agency, p. 29.

33. Victor Marchetti and John D. Marks, *The CIA and the Cult of Intelligence*, New York: Dell Publishing, 1974, p. 95, available from the internet at *http://www.fas.org/irp/cia/ciastaff.htm*.

34. Amy B. Zegart. *Flawed by Design: The Evolution of the CIA, JCS and NSC*, Stanford, 1999, p. 190.

35. *Ibid*., p. 185.

36. *Ibid*.

37. *Ibid*., pp. 185-186.

38. *Ibid*., p. 186.

39. Council on Foreign Relations, p. 10.

40. John A. Gentry, "A Framework for Reform of the U.S. Intelligence Community," June 6, 1995; available from the internet at *http://www.fas.org/irp/gentry/index.html*.

41. *Ibid*.

42. *Ibid*.

43. *Ibid*.

44. *Ibid*.

45 Zegart, p. 186.

46. According to specialists, the combined intelligence budget, while classified, hovers around $30 billion a year. They estimate that about half goes to the NSA, the NIMA, and the NRO, while the CIA receives less than $4 billion annually for its entire operation. Bryan Bender, "U.S. Weighs Overhaul of Spy Services To Fight Terror," *Boston Globe*, November 9, 2001.

47. Gentry.

48. *Ibid*., p. 4.

49. National Ground Intelligence Center, available from the internet at *http://www.fas.org/irp/agency/inscom/ngic.html*.

50. Director of Central Intelligence, "United States Intelligence Community," available from the internet at *http://www.odci.gov/ic/functions.html*.

51. Walter Pincus, "Military Espionage Cuts Eyed," *The Washington Post*, March 17, 1995, p. A1.

52. Central Intelligence Agency, *A Consumer's Guide to Intelligence*, p. 8.

53. *Ibid*., p.10.

54. Gerry Alexander, "Focus," *Retired Officer Association National Security Report*, pp. 23, 30.

55. Director of Central Intelligence.

56. Louis J. Freeh, "Threat of Terrorism to the United States," statement for the record, Director Federal Bureau of Investigation before the United States Senate Committees on Appropriations, Armed Services, and Select Committee on Intelligence, May 10, 2001, available from the internet at *http://www.fbi.gov/congress/congress01/freeh051001.htm*.

57. R. W. Apple Jr., "Reticence on a Failure of Intelligence May End," *New York Times*, December 14, 2001.

58. FAS Intelligence Resource Program, "Intelligence Community Budget Structure," available from the internet at *http://www.fas.org/irp/budget/structure.htm*.

59. *Ibid*.

60. Dale L. Watson, Executive Assistant Director, Counterterrorism and Counterintelligence, Federal Bureau of Investigation, Statement for the Record, "The Terrorist Threat Confronting the United States," Before the Senate Select Committee on Intelligence, Washington, DC, February 6, 2002.

61. Gentry.

62. Richard A. Best, Jr., "Intelligence and Law Enforcement: Countering Transnational Threats to the U.S.," *CRS Report for Congress*, Washington, DC, January, p. 2.

63. Quoted in *Ibid*., p. 3, by Jim McGee and Brian Duffy, "Main Justice: The Men and Women Who Enforce the Nation's Criminal Laws and Guard Its Civil Liberties," pp. 373, 374.

64. Zegart, p. 228.

65. Frank Morring, Jr., "Intelligence Community Struggles to Transcend Cold War Roots," *Avaition Week and Space Technology,* September 24, 2001.

66. *Ibid*.

67. Zegart, p. 227.

68. *Ibid*.

69. Best, p. 4.

70. FAS Intelligence Resource Program.

71. Council on Foreign Relations, p. 6.

72. *Ibid*., p. 4.

73. Best, p. 4.

74. Council on Foreign Relations, p. 4.

75. Gentry.

76. Bryan Bender. "U.S. Weighs Overhaul of Spy Services To Fight Terror," *Boston Globe,* Boston, November 9, 2001.

77. Pat M. Holt, *National Insecurity: U.S. Intelligence After the Cold War*, Philadelphia, 2000, p. 210.

78. Comments by Richard A Chilcoat in "USAWC Selected Readings, Course 1 Strategic Leadership," p. 19.

79. Council on Foreign Relations, p. 12.

80. Holt, p. 209.

81. Council on Foreign Relations, p. 16.

# CHAPTER 9

## THE ARMY'S ROLE IN HOMELAND SECURITY

**Lieutenant Colonel Daniel J. Shanahan**

Homeland security, in light of the events of September 11, 2001, has not received the attention—either critical intellectual thought or resource allocation—to prevent future asymmetrical attacks of the magnitude of what took place at the World Trade Center and Pentagon. Over the last several years, a number of reports have identified critical vulnerabilities pertaining to homeland security. Nevertheless, the federal government had allocated resources to meet the threat. But in each case these vulnerability assessments and resources failed to prevent the tragedies in New York, Pennsylvania, and Washington, DC. Secretary of Defense Donald H. Rumsfeld noted in his foreword to the *2001 Quadrennial Defense Review (QDR)* Report:

> On September 11, 2001, the United States came under vicious, bloody attack. Americans died in their places of work. They died on American soil. They died not as combatants, but as innocent victims. They died not from traditional armies, but from the brutal, faceless weapons of terror. They died as the victims of war—a war that many had feared but whose sheer horror took America by surprise.[1]

How Americans react to this terror should define who they are as a people. Earlier generations defined themselves by their resolute actions against, for example, Hitler and Nazi Germany. It will be in the future actions of Americans, how they organize to solve the problems that terrorists pose to American homeland security, and how they confront adversity that will define these times.

The questions surrounding how the United States will organize to solve homeland defense becomes clearer each day. On October 8, 2002, former Pennsylvania Governor Tom Ridge, the new chief of the Office of Homeland Security, took control of an office whose mission was to develop a comprehensive strategy to combat domestic terrorism by strengthening preparedness and security at federal, state, and local levels.[2] Domestic policies for homeland security are already taking shape at all levels of government. Nevertheless, questions about how the federal, state, local, and private institutions will organize to support homeland defense are under debate. In all likelihood, that debate will continue well into the future. As these debates continue, the various levels of government are making decisions on an incremental basis—defining how the United States will act with regard to homeland security.

The Army's role in homeland security falls within the larger context of the Department of Defense (DoD)'s role of protecting the nation. With the declaration of Secretary of the Army Thomas White as the Department's executive agent for homeland defense, the Army will work directly with Ridge to develop plans for addressing threats to domestic security.[3] White highlighted his tasks during an October 12 press conference: "there are 11 million first responders in this country that have the primary duty to deal with emergencies, and we are a back-up for them."[4] This insight underlines that the Army will largely have a support role in homeland defense. The external defense of the nation remains its preeminent mission.

This chapter will examine what the potential role of the Army should be in homeland security. The chapter will define the current problems of homeland security and its subcomponents and break out the homeland security mission areas for the Army. And in so doing, it will set a historical context and suggest relevance in what was already in place for homeland security prior to September 11. The Hart-Rudman Commission Reports indicated that the strategic environment had changed sufficiently over the

recent past to demand that the federal government needed to address threats to American soil; and called for paying greater attention to homeland security. Those reports called for the paying of greater attention to homeland security. The final portion of the chapter will address the potential impacts of the Hart-Rudman recommendations on the Army, the security needs following the tragedies of September 11, and a future role for the Army in the daily business of homeland security.

At this time, it appears that the Army National Guard will have a major share of the Army's contribution in homeland security. However, in its present state of training readiness, the National Guard is unable to perform many homeland security support tasks, while its combat tasks do not directly support civil assistance. In the future, the Army National Guard should change and build organizations that support civil authorities for homeland security. Such a transformation includes dedicating military organizations to the sole mission of supporting civil agencies in domestic security.

**Historical Setting.**

The need to defend one's society lies at the heart of human political institutions, a fact that Thomas Hobbes underlined in his work, *The Leviathan*. Hobbes asserted that it was the banding together of individuals for mutual defense that was the essence of the appearance of human society.[5] For Hobbes, society must combat evil, both internal and external, that always threatens the social structure. From the earliest days of the American colonies, the militia provided basic protection. The colonies stood up the militia to defend themselves against local threats. Individuals could raise the collective security of the community by banding together for the mutual defense of their land, property, and livelihoods. This concept was similar to those developed in most societies throughout the world and for the same reasons. Since then, the defense of the United States

has matured into a system that relies on federal, state, local, and private organizations working together for the mutual defense. Starting with the British colonies, the struggle to determine the right force and strategy to meet the problems of defense of the homeland has continued.

The National Defense Act of 1916 "provided an increase in strength for the Regular Army, enlarged and validated the role of the National Guard, authorized a reserve force and a Volunteer Army."[6] The legislation coincided with threats along the Mexican border occasioned by Pancho Villa's raids. By raising the size of the Army, the federal government had a growing force in place for the creation of expeditionary forces to deploy to France for World War I.[7] Additionally, the Army wanted provision for a reserve force separate from state control that would contain a pool of trained volunteers ready for immediate service.[8] The supporting legislation was the origin of the active, reserve, and National Guard forces of today.

The Army's large standing forces throughout the Cold War were necessary to support a national strategy directed toward deterring the Soviet Union from either a conventional or nuclear war. The collapse of the Soviet threat in the late 1980s brought about reduction in Army forces in the 1990s. However, the dilemma remains as to how much force is necessary to defend the nation.

The U.S. military, as a whole, is transforming to meet future challenges. "As this transformation effort matures—and as it produces significantly higher output of military value from each element of the force—DoD will explore additional opportunities to restructure and reorganize the Armed forces."[9] In the most recent *QDR* report, the Department has acknowledged that it may have to make changes in force structure and organization in preparing forces for domestic security missions. The report calls a reexamination of the roles and responsibilities of active and reserve forces to ensure these forces are properly trained, organized, manned, and equipped to defend the

continental United States.[10] Transformation is inevitable, but making the right changes for the right reasons by anchoring the change in the culture of the Army will be a critical component of success.

**Homeland Security Defined**.

While definitions of homeland security may continue to evolve, the DoD's definition is used for clarity within this chapter. It serves as a starting point for determining the role and scope of Army support to homeland security:

- Homeland Security—the prevention, deterrence, and preemption of, and defense against aggression targeted at U.S. territory, sovereignty, population, and infrastructure, as well as the management of the consequences of such aggression and other domestic emergencies.

- Homeland Defense—the prevention, deterrence, and preemption of, and defense against aggression targeted at U.S. territory, population, and infrastructure.

- Civil Support—DoD support to civilian authorities for natural and manmade domestic emergencies, civil disturbances, and designated law enforcement efforts.

- Emergency Preparedness—planning activities undertaken to ensure DoD processes, procedures and resources are in place to support the President and Secretary of Defense in a designated National Security Emergency. [11]

DoD's definition possesses three subareas that focus on the important aspects of the issues of security. The definition points to decisions made within the department respective to allocation of resources to confront the challenges of domestic security. There are clearly no

independent actions. Homeland security will remain under civil authority with military in support. Requirements to assist with defense of the United States, support to civil authorities in special circumstances, and a planning requirement to prepare for future national emergencies are the three areas the department will resource in this endeavor.

A critical part missing from the DoD definition is language to address the need to protect from inside or outside the United States. Protection from inside raises questions of legal authority in view of *posse comitatus*, when using federal forces. Military forces under state control are not affected by the limits of *posse comitatus*. But the attacks of September 11 demand a reexamination of many basic laws. The protection from outside the United States is more in line with traditional military defense definitions. The military has a major role in protecting the United States outside the borders. The definition is broad enough to consider both active and passive measures to protect the United States, but clarification of the point on protecting from inside or outside the United States will give greater focus to roles for the military. Unfortunately, the definitions are only a starting point. An analysis of homeland security requires breaking out the mission areas and associated tasks to better determine the right role for the Army. The discussion will focus on the Army: likely missions and separate tasks for Army forces.

**Homeland Security Mission Areas.**

Homeland security includes three broad mission areas: homeland defense, civil support, and national emergency preparedness.[12] These Army mission areas further break down into distinct operations, where forces trained to provide support capabilities have to conduct the operations. Homeland defense missions respond to acts or threats against United States sovereign territory. The threats associated with these mission areas include the following:

- Missile Attack;
- Air, Land, and/or Sea Sovereignty Incursion;
- An attack using Weapons of Mass Destruction (WMD); and,
- Cyber Attack.[13]

Domestic support missions require anticipation of major disasters, acts of civil disturbance, or assistance with national-level events. The missions associated with domestic support include assistance to the following areas:

- Disasters;
- Civil Disorder; and,
- Special Events.[14]

The Army does not separate combating terrorism, the protection of critical infrastructure, and force protection from the above mission areas. Instead, it recognizes that these are inherent missions within all mission areas.[15] This is an important distinction—important because it was a different version of a terror attack on September 11, one that falls outside the homeland defense threats noted above.

National Emergency Preparedness is a potentially new mission area still under debate. In time, this area may develop from a planning effort into assigning specific tasks and forces to support the federal emergency system. Currently, much of the emergency preparedness effort is within the consequence management arena; dealing with national emergencies after the event happens.

When one compares and contrasts the first two broad areas, homeland defense aligns with providing trained and ready soldiers to deter or defend against threats, whereas civil support relates to providing Army capabilities that address a specific problem. Homeland defense addresses

specific individual technical skills or specific unit military technical skills to deter or defend against a given threat. Civil support is more generic in nature. The capability of the existing structure requires augmentation to support a civil structure overwhelmed by a terrorist or natural disaster. The Army, in this case, would have provided excess capability to meet the needs of the existing civil structure. It has the forces and capability to support the two broad mission areas, but the Army must balance domestic security with the other operational demands of defending the United States and its interests abroad.

The *QDR* clarifies the balance required in homeland security by placing "new emphasis on the unique operational demands associated with defense of the United States and restoring the defense of the United States as the [Defense] Department's primary mission."[16] This shift in policy from an emphasis on offensive overseas capabilities to domestic defense capabilities confronts the Army with the need to find the best ways to fulfill these new obligations. The policy shift does not detract from the mission to have forces trained and ready to win the nation's wars, but it does speak to the necessity for the Army to place greater emphasis on a traditional role. "The Army has a wide range of capabilities that are supportive of homeland security, but with the exception of selected specialty units, it is not sized, designed, trained, nor equipped specifically for homeland security missions."[17] A discussion of the mismatch of organizational structure, personnel, training, and equipment will follow later in this chapter. Let us now turn to an examination of the changes and implications of the emerging strategic environment.

**Hart-Rudman Commission**.

The United States Commission on National Security/21st Century, popularly known by the last names of its chairmen, released three reports.[18] The first examined the strategic environment of the upcoming quarter century.

The second looked at national strategies to address the upcoming strategic environment. The commission's final report, *Road Map for National Security: Imperative for Change*, recommended changes in America's existing security structure to deal with the challenges of the future. Overall, the reports concluded that changes in the security environment since the end of the Cold War demand changes in the structure and processes of U.S. national security.[19] Additionally, it also posited a rise in threats with the increased likelihood of attacks on the United States resulting in thousands of casualties.[20] The third report recommended organizational change in five areas of the federal government:

- *ensuring* the security of the American homeland;
- *recapitalizing* America's strengths in science and education;
- *redesigning* key institutions of the Executive Branch;
- *overhauling* the United States government personnel system; and,
- *reorganizing* Congress's role in national security affairs.[21]

The call for domestic security was aimed at a better utilization of the U.S. homeland security capabilities. Many portions of this community are already in place. First, the responders and regional partnerships are in place. Some of the defense structure remains as a holdover from the threats of nuclear war with the Soviet Union. Moreover, since September 11 the nation has moved quickly in response to new security challenges. The military components already exist and many support connections with civil authorities in training and through actual military assistance have also developed over past decades. The maturation of the security apparatus will occur as a U.S. national security plan comes to fruition. It will

necessarily evolve toward a truly national program extending well beyond the federal government.[22] The timing of the Hart-Rudman Commission's report is hauntingly reminiscent of warnings on the possibility of a Japanese attack on Pearl Harbor. However, the structure failed to act on those warnings: the result, an attack on American soil that inflicted thousands of casualties. However, the United States does have a history of rapidly responding to security challenges and, undoubtedly, will continue to change to meet an uncertain strategic environment.

The implications of the commission's report on the Defense Department and the Army are considerable. There is a ground swell of support for increased security at home. The current budget reflects a focused attention on securing the nation. At the same time, there is also a call for political, economic, and military change. The third Hart-Rudman report asserts that the Army must adopt a balanced strategy. It must win wars, deter aggression, provide homeland security capabilities, provide humanitarian relief, and provide constabulary capabilities.[23] The basic suggestion is that the Army needs to do it all. The Army can no longer focus solely on activities outside the United States, but rather must maintain a balance of support between domestic and worldwide requirements. As the Secretary of Defense's *QDR* suggests, there is support for adopting a greater role in homeland security. Not surprisingly, the Army is already modifying its defense strategy and looking to alter its organizational structure to meet the new environment.

There is little doubt that change must take place. The reaction of the military to support the war on drugs underlines its ability to adapt to changing environments and integrate itself into new roles. The passage of the National Defense Authorization Act of 1989 created the counterdrug roles and missions for DoD.[24] The need for military involvement came at a time when law enforcement was perceived as loosing the war on drugs. The Army

readily accepted its new roles and missions, with results that continue today. The bottom line for the Army is that adapting appropriately to meet the changes in the strategic environment defines success.

**Army Task Areas.**

A useful construct in analyzing what contributions the Army needs to make for homeland security is to begin by addressing what the Army has provided to homeland security since September 11, 2001. Identifying the resultant tasks the Army performed is a useful starting point. These tasks can be compared and contrasted with a systematically developed list of homeland security tasks. Such a comparison will assist in defining future roles and missions for the Army. Additionally, defining homeland security is an evolving process with changes in support roles expected over time for the Army. The critical point is to start immediately. One can chart a way ahead using a deliberate process—a process likely to achieve a solution as close to a desired endstate as possible.

The U.S. Army has had a visible role in supporting homeland security. Overall, the DoD provides forces from each of the military services throughout the United States to assist with support activities. Within the first month following the attacks on the World Trade Center and the Pentagon, more than 7,750 soldiers in 87 National Guard and reserve units reported for active duty service under President George W. Bush's partial mobilization for Operation NOBLE EAGLE, the support to civil authorities in the United States.[25] The units included military police companies to augment force protection at military installations and airports, infantry battalions and companies, military history detachments, transportation units, an ordinance company, a supply company, an air defense artillery command, military intelligence units, engineer units, a special operations command element, and others. In total, 48 National Guard units and 39 army

reserve units reported for federal service from 20 states, the District of Columbia, and Puerto Rico.[26] In addition, approximately 30,000 troops had deployed overseas by early October for Operation ENDURING FREEDOM, military operations in Afghanistan, and against terrorism.[27]

Thousands of other National Guard soldiers called to state active duty supported their governors in recovery operations and domestic defense. New York State Governor George Pataki called out the New York National Guard to fulfill consequence management duties with state and local authorities. The governor used National Guard forces to assist in securing portions of New York City.[28] State and federal authorities used Army forces to secure critical infrastructure throughout the United States. Pennsylvania Governor Mark Schweiker used National Guard forces to bolster security at the Three Mile Island Nuclear facility.[29] The federal government used National Guard troops to increase security at 422 civil airports to boost the country's confidence in its aviation industry.[30] Trained in Federal Aviation Administration security procedures, Army forces "monitor and reinforce airport security checkpoints, monitor alertness and performance of the civilian screeners, and assist screeners and supervisors and the airport police as required."[31] Additional future calls from the Bush administration to secure the Mexican border will put soldiers in a border protection role.[32] Each of these tasks are observable deployments of American soldiers since September 11.

Breaking the Army support tasks since September 11 into categories, the Army provided support in four areas: point or border defense, recovery, administrative, and missile defense. A fifth area, WMD protection, represents a critical capability that the Army provides, but will not be addressed here. The five support tasks serve as the "resultant tasks" the Army performed following September 11. These resultant tasks will be compared with a list of

tasks systematically developed from a study of threats to American homeland security.

An Arroyo Center study for the United States Army evaluated the range of threats facing homeland security and the definitions of homeland security. Analysis of the problem with an emphasis on preparing the Army for homeland security was at the center of RAND's work. The study suggests five critical Army task areas:

- WMD domestic preparedness and civil support;
- Continuity of government (operations to ensure and restore civil authority);
- Border and coastal defense, including prevention of smuggling of WMD into the United States and management of large-scale refugee flows that can create threats to national security;
- Continuity of military operations, including force protection—primarily for deploying units—protection of mission-critical facilities and systems, and protection of higher headquarters operations; and
- National missile defense.[33]

These task areas encompass the types of tasks the Army would likely fulfill in homeland security. The RAND study task areas are similar to the homeland security mission areas defined earlier in this chapter, but there are some differences. The RAND study points to five homeland security tasks for the Army: domestic preparedness, continuity of government, border and coastline defense, continuity of military operations, and missile defense. The first three task areas are supporting tasks to civil authorities, meaning that requesting agencies can receive military assistance in these task areas. The last two areas are military responsibilities for protection of personnel and infrastructure that is part of military and specialized

military capability for missile defense of the United States. The differences include a greater specificity for the homeland security mission areas emphasizing, for example, cyber, missile, or WMD attack. Regardless, the distinctions are slight, but important in capturing the entire security issue. Let us now compare and contrast the actual Army tasks being performed with the theoretical task areas from the RAND study.

A review of the task lists in Table 1 shows many similarities to the actual and theoretical tasks Army soldiers perform in homeland security.

| Current Tasks | Theoretical Tasks |
|---|---|
| Point/border defense | Domestic preparedness |
| Recovery | Continuity of government |
| Administrative | Border and coastal defense |
| Missile defense | Continuity of operations |
| WMD protection | Missile defense |

**Table 1. Task Lists.**

The current tasks the Army provides in support of homeland security are included in the theoretical list with the exception of continuity of government. If the challenge were a vast build-up of refugees in Mexico along the U.S. border that would outstrip local civil capabilities, then the Army could perform continuity of government tasks. The theoretical list is broad enough to support federal, state, and local leaders, and agencies with the types of military

capability that leaders and agencies would need to train first responders and support consequence management.

This review demonstrates that the Army is fulfilling the tasks required in homeland security. From disaster relief to civil disorder, the Army has met the traditional roles of assisting in the security of the United States. The Army has soldiers to perform an endless variety of tasks that could support homeland security, but the question remains as to whether the Army should drastically transform itself to meet the growing need for homeland defense forces. Another option is for civil or even paramilitary organizations to fulfill most security responsibility.

Secretary of the Army Thomas White sent a letter to Transportation Secretary Norman Mineta on January 23, 2002, requesting relief of the National Guard security duties within 60 to 90 days. The approximately 6,000 soldiers patrolling more than 400 airports would be replaced by Transportation Security Administration enforcement officers in a transition plan.[34] The transportation administration will ultimately hire 25,000 to 30,000 people to ensure safety in airports and other transportation infrastructures, while, in White's words, the guard "needs to get back to back to its core mission."[35] For the transportation administration, a large civil workforce will fill the security role. Other agencies facing similar problems may come to the same solution or use various other approaches. To secure America's airports rapidly, the Army was brought in to stabilize the situation and restore confidence in air safety. With a new transportation structure in place and a security situation stabilized, the Army can return to preparing for its wartime missions.

**Army Role in Homeland Security .**

This chapter has come full circle back to ask the question as to what should be the Army's role in homeland security. There is little doubt the Army has made a significant impact in securing America since the birth of the Republic. Army

roles, prescribed in law, have evolved over time.[36] The current wave of popular support in the country and trends in Defense Department correspondence will lead to legislation that will outline roles for the Army in homeland security. The key will be achieving the right roles with the right levels of involvement. It is unwise to change the entire structure of the Army in reaction to the events of September 11, but Army leaders can use the momentum for change in a positive manner to transform the Army to better meet future challenges.

Using the homeland security mission areas and task lists, it is possible to discern a number of observations that should be of assistance in determining roles for the Army. First, there is a need for specialists in homeland defense. These specialists fall into many groups: intelligence analysts; police forces; nuclear, biological, and chemical specialists; and engineers. Such specialists have utility both in the Army and in support of homeland security. There is a need to designate specific Army specialties and corresponding detachments or units to possible use in homeland security tasks. Other capabilities, for example, national missile defense specialists perform a homeland defense function already, but the capability and missions fall primarily within the DoD. These specialists will support homeland security from within the military, as the DoD has the lead agency responsibility.

Second, there is a generic requirement to provide military support to civil authorities. America's first responders have the primary responsibility for homeland security, but the Army needs to have a surge capability to meet both homeland defense requirements and domestic support requirements. In this case, generic military manpower can meet mass response necessities.

Third, there is a need for a single authority to provide military support to homeland security. The command and control issues are critical to meeting the needs of civil authorities and accomplishing military missions. In an

attempt to reduce friction caused by competing requirements, there is a pressing need to establish a single authority within the military for homeland security.

Specialized units in the Army benefit from homeland security support missions, because of the obvious advantage to training in their main competencies.[37] Soldiers in medical units supporting a homeland security mission have an advantage in that their skills are enhanced in performing the mission. This is not always true, but there is a greater likelihood of a benefit for specialized units, as opposed to an infantry battalion deployed to perform an airport security mission. An infantry battalion trained to perform security tasks by the Federal Aviation Administration gains training in airport security skills, but infantry soldiers take little away from the airport experience to translate into combat mission essential tasks. Each unit welcomes the chance to support homeland security, but the specialized unit, used in their military specialty, gains more from the experience.

The trade-off for military units performing security missions involving tasks outside their mission essential task list is a lower level of training proficiency. The fundamental question is what training is the unit not performing in order to support homeland defense. Generic unit taskings are becoming more of an issue with the Army in a period of high operational tempo. These taskings affect Army National Guard units to a higher degree due to the limited number of days available for training. There is less time available to support homeland security missions and prepare for wartime mission support. It is understood that the Army will fulfill these homeland security tasks with trained units. For Army National Guard units performing homeland security tasks, this means, in many cases, not being able to train to support their combat mission tasks.

A homeland security role for the Army National Guard is possible with a diminished role in supporting the traditional back-up to the active force. Could another Army

organization be utilized or created to accomplish this mission? Certainly. Many organizations could be leveraged to fill the homeland security role. But it is the right role for Guard soldiers. The Army National Guard by assuming the priority support for homeland security frees the active Army to focus on defending U.S. interests abroad.

The Hart-Rudman Commission Report, *Road Map for National Security: Imperative for Change*, made the following recommendation: "The Secretary of Defense, at the President's direction, should make homeland security a primary mission of the National Guard, and the Guard should be reorganized, properly trained, and adequately equipped to undertake that mission."[38] This is a bold recommendation, but a suggestion that has distinct advantages. The National Guard has a nationwide span of nearly 3,300 locations in 2,700 communities across the country. They are the "existing" forward-deployed military force.[39] The National Guard possesses an existing command structure that could be stepped up to command and control a national level organization for homeland defense. Major General (Retired) Don Edwards, a Vermont National Guard Adjutant General for 16 years, states "the National Guard is so well-suited to this mission that, if it did not exist, the United States would have to create an organization like it to assume this mission."[40] Additionally, there is the prestige for the National Guard in the possible creation of a four-star general billet for the command.[41] In a practical sense this idea does have some merit, but there are difficulties.

The Army National Guard is inextricably linked with the active force by providing 54 percent of combat units, 45 percent of combat support units, and 33 percent of combat service support units.[42] Some, like Edwards, believe that the National Guard can fulfill the homeland security mission and provide supplemental units to active component forces.[43] This is an attractive alternative, but one that must fit in an overall DoD plan. Under no circumstances should the National Guard be the lead federal agency for homeland security, but there is a role for a

coordinating headquarters to assist the Office of Homeland Security. Whether or not the National Guard is placed in charge of Northern Command is not relevant. What is important is that the National Guard does have a capacity to support the mission of homeland security in the country, as it has since the National Guard's inception.

The lack of an overall national command structure of the National Guard will hurt any effort to synchronize its support. Each state has its own individual command authority, with the National Guard Bureau managing the federal resources. Any centralized plan seems hopeless at the national level, but a regional planning effort, pooling resources of many states, does make sense. The capabilities state governors need from the Army could be available in regions aligned with Federal Emergency Management Agency regions for enhancing coordination. The perception of an equal dissemination of resources and an equal overall focus would assist in pacifying local, state, and federal levels in the homeland security arena.

The establishment of Northern Command, a four-star joint military headquarters responsible for coordinating military support for defense of the continental United States, will provide a unity of effort and better grasp of military requirements for homeland security.[44] This change to the national military strategy will provide a central authority to plan for and execute military support and military operations, as directed by the Secretary of Defense or the President. The greatest contribution of Northern Command may be the development of a theater strategy—a strategy that brings all elements of power together; a strategy that addresses all threats to domestic security.

Transforming the Army National Guard to support homeland security, while retaining a role in supporting and supplementing the active component force, is a significant challenge. In order to do both at the level of expertise expected by the American people, the Army National Guard needs to shift effort from a primary support role for the

active force to homeland security. Optimizing the Army's commitment in homeland security is the marker to define the future Army National Guard. Any change to the National Guard will take political action, and here the role of the state governor in picking all senior guard officers in the state should play a big part in pushing the National Guard to assuming responsibility for homeland security. As there is a valid requirement for military homeland security forces, balancing the politics and the security needs will add to the challenges of transforming the Army National Guard.

The Army National Guard can best support homeland security in filling three critical roles: population control, physical security, and logistical support.[45] In each case, the tasks of the National Guard will be to support the civil authority's request for military assistance. Other capabilities like engineering or chemical and biological protection should be shared between civil and military. States will have responsibility inside their borders with additional regional military capabilities they share in common. Such an approach will provide the auxiliary manpower that civil authorities require together with specialized capability that neighboring states can share to keep the necessary capability, but reduce overall costs. Recruitment will come from within the communities the soldiers protect.

The Army National Guard, at a reduced level, will support the active component force with combat capability. The fact that the National Guard is inextricably linked to the active force is a positive and productive relationship. Shifting Army National Guard capability from their most recent role to a focus on homeland security will streamline the mission profile and permit the Army National Guard to train its forces to the highest levels of proficiency.

Simply saying the Army National Guard will change to assume the major portion of the Army's contribution to domestic security is much different than the Army National Guard actually changing. Change is always difficult. The

political sensitivities that surround the National Guard are tremendous. It must be politically feasible to make the changes to the Army National Guard. The addition of a four-star billet, growth in size of the organization, growth in prestige for the Army National Guard, reduction in costs to maintain equipment (tanks to trucks), and training to a higher level of proficiency in tasks that are germane to security are possible issues that are politically palatable.

There are questions of how much of the National Guard will need to serve in homeland security and how much National Guard structure is dedicated to back up active and reserve forces. These are valid requirements for research by the Center for Army Analysis. What is critical for this chapter is the understanding that a global view needs to be maintained in terms of Army forces for homeland security and warfighting abroad. The Army can support both mission sets. Changing the National Guard to support homeland security with certain forces and backing up active and reserve forces with certain other forces streamlines the Guard support. This action allows active and reserve forces to better focus on the war on terrorism abroad. In the final analysis, a political process will determine a final homeland security role for the Army. The momentum for change is present for the National Guard, using domestic security as the driver.

**Conclusion .**

The Army must fulfill its promise to support and defend American society. Since September 11, 2001, the Army's role in homeland security has been evident and ever changing. In the near future, organizations within the DoD will be apportioned to a "Homeland Commander in Chief" to plan for and execute the defense of the United States. The theater defense strategy will have a central controlling authority and civil as well as military components. Homeland security issues are being acted upon in the country in a deliberate, calculated manner. The security

community will continue to work toward an unattainable perfect solution, but we will be successful. Today's Americans define this time as a positive one in American history.

The Army National Guard will be most effected by the homeland security mission. Politics aside, it is the right organization. Other Army organizations could do the mission, but as Edwards puts it "the National Guard is so well-suited to this mission that if it did not exist, the United States would have to create an organization like it to assume this mission."[46] The National Guard will need to change organizations, personnel, training, and equipment to fill this new role. Simultaneously, the Army, active and reserve, will change to meet this need and transform to meet the needs of the future. The momentum is present—the Army *will* adapt to the changing strategic environment.

## ENDNOTES - CHAPTER 9

1. Donald H. Rumsfeld, *Quadrennial Defense Review Report*, Washington, DC, 2001, p. III.

2. Shelly Davis, "Ensuring Domestic Tranquility," *The Retired Officer Magazine*, December 2001, pp. 55-56.

3. Secretary of the Army Thomas White was named on October 2, 2001, to represent the military in the mission of homeland defense. Mathew Cox, "White: New Top Guardian of U.S. Turf," *Army Times*, October 22, 2001, p. 13.

4. *Ibid*.

5. Thomas Hobbes, *Leviathan*, Part I, Chicago, 1956, pp. 9-10.

6. Brigadier General Harold W. Nelson, Major General Bruce Jacobs, and Colonel Raymond K. Bluhm, Jr., *The Army*, Arlington, VA, 2001, p. 307.

7. *Ibid*., pp. 307-308.

8. *Ibid*., p. 306.

9. Rumsfeld, p. 23.

10. *Ibid*., p. 19.

11. The definitions come from a briefing by Lieutenant Colonel Antulio J. Echevarria II and Bert Tussing: "CSA STUDIES: Homeland Security," Carlisle Barracks: Strategic Studies Institute, March 12, 2002.

12. *Ibid*.

13. Deputy Chief of Staff for Operations and Plans, "Army Homeland Security Strategic Planning Guidance," Coordinating Draft, Washington, DC, 2001, p. 6.

14. *Ibid*.

15. *Ibid*.

16. Rumsfeld, p. 17.

17. Deputy Chief of Staff for Operations and Plans, p. 7.

18. Phase I concluded in September 1999 with the publication of *New World Coming: American Security in the 21st Century* Washington, DC, 1999; Phase II produced in April 2000, *Seeking a National Strategy: A Concert for Preserving Security and Promoting Freedom* Washington, DC, 2000; Phase III, *Road Map for National Security: Imperative for Change,* Washington, DC, 2001.

19. Gary Hart and Warren B. Rudman, *Road Map for National Security: Imperative for Change*. *The Phase III Report of the United States Commission on National Security/21st Century*, Washington, DC, 2001, p. viii.

20. Ian Roxborough, *The Hart-Rudman Commission and Homeland Defense,* Carlisle Barracks, 2001, p. V.

21. Hart and Rudman, p. viii.

22. Admiral James M. Loy and Captain Robert G. Ross, U.S. Coast Guard, "Meeting the Homeland Security Challenge: A Principled Strategy for a Balanced and Practical Response," *Journal of Homeland Security*, September 2001, available from *http://www.homelandsecurity.org/journal/Articles/Ross_Loy_USCG.htm*, p. 7.

23. Roxborough, p. 20.

24. Department of Defense, *Joint Publication* 3-07.4, Washington DC, 1998, p. I-1.

25. Gary Sheftick, "Army Guard, Reserve Units Called Up," *Army News Service*, October 4, 2001.

26. *Ibid*.

27. *Ibid*.

28. David Finkel, "Four Planes Go Up the Usual Way And Come Down in Sheer Terror; As Day Unfolds, A Stunned Nation Realizes It's One Like No Other," *The Washington Post*, September 12, 2001, p. A8.

29. Brett Lieberman, "Bush Speech Raises Nuclear Concerns," *The Patriot News*, January 31, 2002, p. A12.

30. George W. Bush, "Remarks to Airline Employees in Chicago, Illinois," *Weekly Compilation of Presidential Documents*, Vol. 37, No. 39, Washington, DC, September 27, 2001, p. 1385.

31. Master Sergeant Bob Haskell and Specialist First Class Eric Wedeking, "Guardsman Patrol National Airport," *Army News Service*, October 5, 2001.

32. Ken Ellingwood, "Guard Troops to Be Assigned to Mexican Border," *The Los Angeles Times,* February 23, 2002, p. B1.

33. Eric V. Larson and John E Peters, *Preparing the U.S. Army for Homeland Security: Concepts, Issues and Options*, Santa Monica, CA, 2001, pp. xvii-xviii.

34. Jane McHugh, "Guard's Airport Duty May End Soon," *Army Times*, February 4, 2002, p. 10.

35. *Ibid*.

36. Department of the Army, "Organization of the United States Army," Department of the Army Pamphlet 10-1, Washington, DC, 1994, p. 3.

37. Larson and Peters, p. xx.

38. Hart and Rudman, p. 25.

39. Jeff Greenspan, "What is Homeland Security? Info from Government Websites . . .," September 27, 2001, available from *http:www.lewrockwell.com/orig2/greenspan1.html*, p. 4.

40. Major General (Retired) Don Edwards and Colonel (Retired) Richard Dunn, "The National Guard's Enhanced Role in Homeland Security," *Journal of Homeland Security*, March 2001, available from *http://www.homelandsecurity.org/journal/Articles/Edwards_Dunn.htm*, pp. 5-6.

41. Colonel Michael P. Fleming, "National Security Roles for the National Guard," *Journal of Homeland Security*, August 2001, available from *http://www.homelandsecurity.org/journal/Articles/Fleming.htm*, p. 10.

42. *Ibid*., p. 3.

43. Edwards and Dunn, p. 6.

44. The ideas of Northern Command providing unity of effort and better grasp of military requirements comes from Echevarria and Tussing briefing.

45. John R. Brinkerhoff, "Restore the Militia for Homeland Security," *Journal of Homeland Security*, November 2001, available from *http://www.homelandsecurity.org/journal/Articles/Brinkerhoff_Nov01.htm*, p. 9.

46. Edwards and Dunn, pp. 5-6.

# CHAPTER 10

# MILITARY TRANSFORMATION FOR WARFARE IN THE 21st CENTURY: BALANCING IMPLICATIONS OF URBAN OPERATIONS AND EMERGING JOINT OPERATIONAL CONCEPTS

**Lieutenant Colonel Chuck Taylor**

> The overarching focus of *Joint Vision 2020* is full spectrum dominance—achieved through interdependent application of dominant maneuver, precision engagement, focused logistics, and full dimensional protection. Attaining that goal requires the steady infusion of new technology and modernization…Of greater importance is the development of doctrine and organization, training and education, leaders and people that can effectively take advantage of the technology.[1]

> For the Germans, Stalingrad was the single most traumatic event of the war. Never before had one of their elite armies succumbed in the field. Stalingrad was a mind-paralyzing calamity to a nation that believed it was invincible.[2]

*Joint Vision 2020* establishes an objective of dominance across the spectrum of military operations; it is a goal for a new kind of warfighting enabled by information and technology. But as the German Army discovered in Stalingrad during World War II, a dominant force in one form of warfare may not dominate in all environments. Victory or defeat involves the ability to adapt operational and tactical concepts, balancing technologies, concepts, and organizations across the spectrum of conflict within the strategic context. For Germany and the German Sixth Army in Stalingrad, the "enemy at the gates" was as much the urban environment and the inability to innovate and

adapt as it was the will and intensity of interests displayed by Russia. The lack of understanding, preparation, and execution for operational level urban warfare proved catastrophic to a German Army oriented on firepower and maneuver in open terrain.

In a similar manner, the joint operational concepts that are emerging today aim to integrate information and application of precision fires and maneuver based on experiences in relatively open terrain against conventional adversaries. Yet every war the United States has fought over the past 60 years has involved urban operations to some degree, usually not by choice, but as a result of the adversary's actions or the nature of the mission.[3] Moreover, based on increasing population densities and global urbanization patterns, the United States and its allies will continue to confront military operations on urban terrain ranging from the potential of regime replacement to increased peacekeeping operations.[4] Without joint operational concepts that address this urban environment, whether operations other than war, small-scale contingencies, or major theater combat operations, it will not be possible for the United States to achieve the full spectrum dominance of *Joint Vision 2020* for offensive, defensive, stability, and support operations.

The result is a two-fold challenge confronting the U.S. military in the 21st century. The first is to field forces capable of domination in complex urban environments against varying adversaries across the entire spectrum of conflict at both the tactical and operational levels of war. The challenge of urban warfare is currently focused on a complex, close ground maneuver tactical level fight. Both the Army and Marine Corps have invested considerable effort to achieve tactical dominance in the urban environment through the means of increased small unit capabilities. Nevertheless, such operations remain costly in terms of ground maneuver force commitment and sustainment in all types of military operations. Moreover, the risks in casualties, both combatant and noncombatant,

increase significantly in urban environments.[5] As U.S. operations in Somalia emphasized, the requirement to isolate, seize, and/or secure urban areas and noncombatants can be costly. Moreover, the larger the urban environment and forces employed, the more significant the shortfalls that exist to accomplish even operations at the low end of the spectrum.

The second challenge is to develop and define requirements for a joint operational concept that integrates service tactical capabilities and competencies into a fully interoperable joint force to achieve theater level objectives. Current evolving joint operational concepts rely heavily on information for control and surveillance to develop intelligence and employ precision fires. In particular, the concept of Rapid Decisive Operations (RDO) with its emphasis on immediate, overwhelming standoff precision fires is emerging as a preferred American way of war. It could become the equivalent of the Army concept of Air-Land Battle for joint integration. Such fires proved effective in shaping the operational level of war in the relatively open terrain of Kuwait, Iraq, and the initial phase of Afghanistan. Unfortunately, the evidence of both Kosovo and the latter phases of Afghanistan suggest that as adversaries use complex terrain, there is a corresponding increase in the complexity of targeting which causes a decrease in the success of using fires without maneuver. Furthermore, in complex environments like urban terrain, where noncombatants and collateral damage affect rules of engagement, the limitations to joint integration of control, surveillance, and precision fires become more apparent. All this notwithstanding, whatever joint operational concept the services develop, it must define requirements to ensure integration and interoperability for full spectrum dominance. The current approaches to solving these challenges pose divergent concepts concerning 21st century warfare.

The purpose of this chapter is, first, to examine these two challenges, looking for relationships that can illuminate the

operational and strategic issues involved in defining requirements for transformation of the military. Second, by focusing on solutions to the complex environment of joint urban operations, the chapter will provide insights that could help to enable emerging joint operational concepts to achieve the necessary synergistic organizational and technological means to achieve dominance in all environments. It is essential to remember that the United States may not get the war it wants; thus its military must develop new ways and systems to address old challenges. Combining these challenges to develop a balanced joint operational concept of maneuver and fires should provide important opportunities to achieve full spectrum dominant capabilities.

**The Strategic Context of the Urban and Joint Operational Concept Challenges.**

The nature of war in the 21st century will not differ greatly from previous centuries. Conflict will remain about people: their interests and intentions, will, and means. Clausewitz's depiction of friction and chance interacting within the paradoxical trinity will remain relevant in defining virtually all possible strategic contexts. The trinity of the government, the people, and the military influenced by rational, irrational, and nonrational behaviors and tendencies will create a strategic environment that is adaptive, complex, and nonlinear.[6] Clausewitz highlighted the importance of the trinitarian concept in understanding the environment of war by adding that "a theory that ignores any one of them or seeks to fix an arbitrary relationship between them would conflict with reality to such an extent that for this reason alone it would be totally useless."[7] The strategic context that confronts the United States shapes and affects the challenges to developing an urban and joint operational concept. Illumination of the key strategic issues that shape the U.S. strategic context provides the basis for understanding the potential effects and risks of the challenges on military transformation.

Three major areas frame the U.S. strategic context. First, the government, in the form of the national military strategy, defines the scope of strategic ends. Second, the emerging American way of war provides military ways and means. Last, the public provides an important context to the strategic culture. The nature of the urban environment dynamically affects these three areas through friction and chance.

The National Military Strategy is placing greater emphasis on broader capabilities in the 21st century. The 2001 *Quadrennial Defense Review* has framed the new military strategy; it lists four essential goals that will guide the development, deployment, and use of military forces: "Assuring allies and friends; dissuading future military competition; deterring threats and coercion against U.S. interests; and if deterrence fails, decisively defeating any adversary."[8] Essential to the 2001 *Quadrennial Defense Review* is a shift from a current threat-based approach to a future capability-based force that could deter and defeat emerging threats. However, with the initiation of the world campaign on terrorism reaching every regional combatant commander, the ability to balance strategic ends, ways, and means focuses attention not on the future, but on the present to accomplish a broad range of military operations.[9] And yet there is risk inherent in not balancing current capabilities against future requirements. The reality for the U.S. military is that many new capabilities are needed now to defeat the current unconventional adversaries. The ability to "adapt . . . existing military capabilities to new circumstances, while experimenting with the development of new military capabilities" sets the basis for the new U.S. strategic context.[10]

How the military wages war will also impact on the strategic context. The roots of an American way of war go all the way back to the Revolutionary War, a war waged by attrition out of necessity due to a lack of resources.[11] The Civil War combined the vast resources and technology of the North with a strategy of total war that aimed to destroy the

Confederacy. From this conflict emerged an American preference for a strategy of annihilation with the coupling of overwhelming force with the moral will to accomplish unlimited aims (unlimited means plus will).[12] The realities of limited war have only emerged in the aftermath of World War II. The new version of the American way of war has focused on the contention that past wars with unlimited aims were an anomaly based on the national and international context.[13] Yet, with the end of the Cold War and the success of coalition warfare in the Gulf War, the United States has again shifted back to annihilation strategy with a preference, as one analyst has noted, for "the use of overwhelming force to achieve decisive military results without exposing American forces to protracted or indecisive conflict."[14] The result is a military preference for rapid, overwhelming force to accomplish limited political objectives.

Public support has also emerged as a key factor in the new American way of war. Limitations on duration, scope, and attainment of stated limited objectives are crucial to sustaining this support. All this has fueled an evolution towards increased reliance on standoff precision fires. One result has been a public expectations that technology, providing increasingly precise standoff fires, offers a new approach to war and that close combat with ground forces can be minimized or eliminated. Current doctrinal publications coupled with *Joint Vision 2020's* goal of full spectrum dominance embody this new approach to war with a reliance on force projection, information superiority, and standoff precision fires, while minimizing maneuver forces. Emerging joint operational concepts, in short, orient on the effects of these characteristics accomplished rapidly and decisively.

The nature of the urban environment, on the other hand, affects the strategic context by countering the American preference for RDO. It conjures perceptions of not only protracted conflict and casualties, but also the old American way of war centered on mass and firepower concepts. The

density of noncombatants in urban areas coupled with the complexity of the terrain presents significant challenges to the way America prefers to fight because of the increased risk of casualties and collateral damage with the commitment of ground forces into such an environment. The strategic significance of urban conflict, then, is that it poses a barrier to achieving full spectrum dominance. Since the national military strategy requires such dominance, it is incumbent on the U.S. military to orient transformation initiatives to address urban capabilities that remain virtually unchanged since World War II.[15] Initiatives must provide for urban capabilities across the spectrum of operations to ensure that developing concepts, doctrine, technologies, and organizations can meet the challenges of even the urban environment.

At issue for the preferred strategy is the reality that neither the political aims nor the adversary may fit this strategy across the spectrum of operations. The strategic culture or confluence of political, social, and military viewpoints and intensity of interests will shape the aims.[16] Adversaries know the preferred American approach to war and are already adapting to use anti-access, area-denial, and complex terrain to shape their strategies.[17] These adversaries can capitalize on time because the longer the conflict, the greater the interplay of friction and chance on the strategic context. From a political perspective, the making of policy at the strategic level should not rest on military preference for a strategy already constrained by military limitations. From a military perspective, therefore, the United States needs to develop and integrate a set of broader capabilities.

The strategic culture inevitably shapes the ends, ways, and means that comprise a national strategy. The military may desire unlimited means for specific limited objectives; but other key factors, both internal to the United States and abroad, may expose forces to protracted or indecisive conflicts. The degree of risk in any strategy depends on the balance between the political objective and the means in the

form of national elements of power that are available and how they are employed.[18] The basis of the acceptability of risk relates to the intensity of interests as well as the desire to display credible support for assurance, dissuasion, deterrence, and defeat. In terms of the national elements of power, the development of a balanced joint operational concept demands solving the urban challenge that confronts the United States and will shape military transformation in the 21st century.

**The Urban Challenge: Trends and Threats.**

Numerous studies since 1994 have highlighted several major points about urban operations: first, urbanization around the world is increasing; second, the likelihood of U.S. military operations in urban terrain remains high; and third, the U.S. military does not have dominance in the urban environment, particularly in the area of joint command, control, communications, computers and intelligence, surveillance, and reconnaissance (C4ISR).[19] Within the next 10 years, 75 percent of the world's population will live in urban areas, creating both geographical and social effects with a significant impact on military operations.[20] In addition, the United States possesses a strategic culture that demands quick, decisive results. From a political standpoint, military leaders advise political leaders that urban operations are costly in terms of friendly and civilian casualties, and inevitably lead to collateral damage. When political leaders visit military urban training exercises and view tactical operations, they see the complexity and dynamics of close combat. Such experience may actually develop negative views about the employment of ground forces in urban warfare. For the public, memories of Somalia provide images of angry crowds of noncombatants, prolonged operations, and casualties. For the military, although there is increasing reliance on deep strike to mitigate requirements for forward basing, the need to control decisive terrain and choke points remains critical to the accomplishment of operational and strategic

objectives. This is increasingly important for regime replacement and security of noncombatants. Although joint forces can isolate urban areas, air interdiction alone in complex terrain cannot find, fix, or finish an adversary or secure noncombatants without ground support.[21] The situation is clear: urban operations are complex and costly in people, material resources, and time, but necessary to support full spectrum military operations.

The result is that potential adversaries may select the urban battle space to counter U.S. technology and approaches to warfare. "If an opponent can force the fight onto complex urban…terrain," one defense analyst has observed, "sensors and weapons accuracy will be degraded, and potential for U.S. casualties will rise. Choosing the right ground may well prove to be the most significant advantage available to an adversary."[22] One important aspect of urban terrain involves enemy political and military techniques in terms of anti-access and area denial. Noncombatants and complex urban terrain around airfields, ports, or centers of command and control often provides adversaries the initiative and the ability to prolong the campaign. Ultimately, because of the growing U.S. deep strike capability and continued emphasis on precision fires, potential adversaries face a strategic and pragmatic choice:

> opponents have a growing incentive to avoid massed formations in the open and emphasize dispersed operations. The costs of dispersion in complex terrain are far lower than slaughter in the open by U.S. air and missile strikes.[23]

In the end, the primary strategic problem with the urban environment combines a strategic culture optimized for major combat operations using increased precision fires with the rise of competitors using complex terrain to their advantage. As the force structure continues to orient on capabilities for major theater war between nation states, a likely fallacy emerges.[24] The ideal form of major theater war may be the least likely to occur because of U.S. military dominance in terrain suitable for precision engagement and

nation-state threats.[25] The Gulf War's success has fueled this fallacy. The emergence of precision fires overshadowed the contribution and necessity of ground maneuver forces to assure coalition cohesion and create operational and tactical opportunities by finding, fixing, and destroying Iraqi forces, and securing/exploiting sensitive sites. It was also a cultural factor in underlining to the world the defeat of Iraqi forces, with the potential for complete destruction. The cautionary strategic dilemma is that rarely will the threat, environment, and scope be in harmony with the new American way of war.

Increasingly, this situation will be the case as competitors perceive the value of using attrition/exhaustion strategies to erode American will and counter RDO and stand off precision effects. To mitigate this possibility, the U.S. military must dominate the urban environment, or at least balance precision fires with close combat precision maneuver without becoming decisively engaged.[26] Strategic credibility depends on operational and tactical capabilities, a fact noted by the Defense Science Board's Urban Operations Task Force:

> Our (U.S.) current military capability was developed in large part for a massive, rural war in Central Europe. Since the future looks much different, new capabilities will need to be developed. To do less risks highly visible casualties and corresponding loss of military credibility and National prestige.[27]

Joint Publication 3-0 states that Joint Urban Operations are "joint operations planned and conducted across the range of military operations on, or against objectives on, a topographical complex and its adjacent terrain where manmade construction and the density of noncombatants are the dominant features."[28] The identification of Joint Urban Operations in joint doctrine acknowledges emerging trends and the unique requirements for specialized organizations, training (leader and people), and material in urban environments.

In the wake of the October 1993 Mogadishu battle, in which 18 U.S. soldiers and hundreds of Somali fighters and noncombatants died, serious questions surfaced about U.S. tactical concepts for meeting a wide variety of urban requirements. These questions led to a series of RAND studies in the 1990s that identified the scope and complexity of not only the tactical urban environment, but also the operational level of urban conflict.

The studies concluded that there were limited examples of joint operations in urban environments and virtually no significant interagency coordination for urban operations.[29] Instead, most urban operations resulted from ground-centric Army or Marine Corps tactical approaches. In addition, urban operations require decentralized, smaller, task-organized, combined-arms teams for direct support fires. At the same time, however, the density of friendly, enemy, and noncombatants in urban environments results in joint fire support targeting challenges between operational and tactical level effects. Added to this are dramatic reductions in C4ISR capabilities due to structures and line of sight difficulties. Of particular significance is that, in operations aimed at the replacement of hostile regimes, planning and execution for operational level urban operations is complex and dynamic in scope, duration, and use of all elements of national power. In numerous case studies, the character of urban warfare is very different from that envisioned in the new American way of war.[30]

The RAND studies drew their most significant conclusion from the 1999-2000 operational urban experiences of the capable, experienced, and relatively modern Russian force in Chechnya. The Russians returned to Chechnya in 1999 after their disastrous defeat in 1994 with policy and strategy aligned, operational and tactical plans focused, improved training, combined arms synchronization, technology, including unmanned aerial vehicles, precision munitions, and a successful media campaign for public support.[31] However, the key lesson the

Russians took away from 1994 proved nearly fatal again: avoid urban close combat. As a consequence, the Russians bypassed towns and used indigenous forces in urban areas to minimize combat by Russian forces. The Russian approach was reliant on surrogate forces and fires to achieve objectives at the operational and tactical level.

If they could not persuade a town's leadership by money or threat of force to succumb, the Russians would attempt to isolate the city, mass fires on "key" targets (local government, power sources), and wait until submission. Some bombardments lasted for weeks, pulverizing towns and causing heavy collateral damage and civilian casualties.[32] Ultimately, commitment of Russian ground forces was necessary to seize, secure, and maintain stability in order to accomplish the strategic mission. The result was protracted operations with heavy Russian and noncombatant casualties and the virtual destruction of every city in Chechnya.

The major lesson from all this for the United States is that the new strategic environment may not be in consonance with the American strategic context for the preferred way of war. Full spectrum operations, ranging from regime replacement to peace enforcement, will require close combat capabilities in complex urban terrain to counter asymmetric threats. How the U.S. military applies or ignores lessons learned for transformation and the development of joint operational concepts can have profound effects on future capabilities. The capability shortfalls identified by RAND, as well as the Russian lessons from their recent experience at the operational level in urban conflict, pose important issues for these emerging concepts. The first lesson is that avoiding close combat may actually prolong the conflict with all the attendant implications for achieving the political ends. There is an essential need to connect the tactical search for urban dominance to new concepts and systems at the operational level.[33] In the urban environment, tactical shortfalls are magnified in a way that creates disproportionate levels of

friction and complexity at the operational and strategic levels. A critical goal must focus on how to build on the tactical base by identifying and defining operational level joint requirements that can bridge the current tactical shortfalls with the desired joint operational capabilities.

**The Joint Operational Concept Challenge: Joint Transformation Synchronization .**

The urban environment provides a pressing and relevant venue for refining not only joint operational concepts, but also the joint information architecture to support employment of joint fire support and maneuver. Developing a new operational framework and applying expanded joint means with interagency elements in urban operations presents an important opportunity for military transformation. The challenge is to link the new American way of war with core Service competencies and emerging technologies to achieve a synergistic joint operational concept. The new joint operational concept must serve as the catalyst to fuse doctrine, technology, and organization development. However, there is no standard definition of an operational concept for either scope or purpose; neither current joint nor service publications address the definition. At the same time, there are innumerable emerging joint and service operational concepts. The Joint Staff J-8 is using the following working definition of an operational concept: "An end-to-end stream of activities that defines how force elements, systems, organizations, and tactics combine to accomplish a military task."[34] This definition defines neither the scope nor purpose of an operational concept. Colonel Douglas Macgregor, on the other hand, has added a key component by defining a joint operational concept as "the integration of service core tactical capabilities on the operational level to achieve unity of purpose and action in the conduct of military operations."[35] From this perspective, the real challenge is to describe how the services can integrate at the operational level to fight and win across the

conflict spectrum in order to define the requirements for training, systems, and organizations.

This is easier said than done. The strategic concept that is shaping 21st century military operations is *Joint Vision 2020*. The document lists four operational concepts: dominant maneuver, precision fires, focused logistics, and full dimensional protection.[36] The key enablers of information superiority coupled with human and technology innovation form the general framework for achieving full spectrum dominance. However, this is not a operational concept that describes how joint forces will fight, but rather it represents a generic framework for desired capabilities. Defining requirements for such a concept largely rests not only on service capabilities and competencies, but on the need for long-range precision fires as well. The balance between fires, maneuver, and information requirements is significant as the U.S. Army struggles with developing new training, organizations, and systems acquisition to achieve a new objective force. At the core of this struggle are problems associated with the nature of close combat and maneuver, the synchronization of operational joint fires, and the definition of responsibilities and capabilities between the Services.

Such is the case in the development of a joint operational concept for full spectrum dominance as a part of the larger military transformation process. The Joint Staff is developing operational concepts of RDO and Effects Based Operations. There is increasing reliance on using precision information and operational fires to paralyze the enemy and achieve endstates with minimum ground maneuver. Moreover, RDO for full spectrum operations require a joint network-centric communications architecture to support information dominance across the services at levels below division, battle groups, squadrons, and Marine Corps expeditionary forces in order to support "plug and play" Joint Task Force organizations. However, there is still no consensus on defining how low the joint communications

infrastructure needs to extend, and how the services can integrate and couple joint fires and maneuver.

At the same time, service transformation efforts are moving in accordance with tactical concepts within the broad strategic vector of *Joint Vision 2020*. For Army transformation, Major General James Dubik has summarized the challenge in the following terms:

> We know we will not get it precisely right. But our job is to not get it so wrong that we hamstring the next generation of leaders. We have to get it right enough, so in 2015, when the nation asks the Army to do something, it is flexible enough to accomplish any potential mission.[37]

A joint operational approach to get *Joint Vision 2020* "right" hinges not on service transformation, but on the development of, and service orientation toward, a joint operational concept that addressees and overcomes old challenges.

Developing balanced capabilities to address and improve strategic, operational, and tactical weaknesses in urban environments presents opportunities for such an orientation. Both the Air Force and the Navy have a stake in what the Army and Marine Corps require at the tactical level because integration of fires through a common communications architecture supports precision fires at the theater-operational level. Moreover, a strategy that fuses service efforts to shape a new joint operational concept balancing precision fires and maneuver in close combat urban operations will support U.S. political and military flexibility. Joint transformation, in short, must be more than the sum of the service transformation processes. There must be a top down joint operational concept that defines overarching requirements for the services to train, equip, and organize.

Innovation is the key to the success of this complex endeavor, as it was in the military transformations that occurred in most of the great powers between World Wars I

and II. Bold changes marked that period ranging from armored warfare and carrier based aviation to amphibious warfare. All resulted from an overarching operational concept. In this context, military innovation "is more than the incorporation of equipment and technical change into current doctrine, practices, and tactics. Innovation in tactics and operational concepts can prove as important on the battlefield as changes in equipment."[38] Success in innovation during the interwar years involved two major influences.[39] The first, specificity in the operational concept, relates to the scope of the problem and the commitment of the institution to solving the problem. For major innovation, the scope extends to national strategic problems. The second element of innovative success deals with how the military culture adapts. A baseline definition of military culture involves the intellectual, professional, and traditional values of the officer corps. The military culture determines the assessment of the environment and how solutions are derived under civilian control.[40] An expansion on this definition leads to subcultures within the military that relate to service, branch, and even niches within branches that affect views on roles, missions, and operational concepts to solve challenges. An example of the impact of military culture is the transformation of the German Army after World War I which, through changes in leader training, equipment, concepts, and technology, transformed the operational context of maneuver warfare. The cultural commitment to change, coupled with strategic interests requiring change, is a powerful combination.

Urgency and necessity also influence innovation. The services have historically transformed out of necessity to survive, from lessons-learned due to failure, or from the need to face new threats, but always shaped by the strategic context. But lessons from the interwar years also bring a distinct warning about ignoring asymmetric capabilities. The lack of innovation in submarine warfare for offensive exploitation or defensive countermeasures by the United States, Britain, and Germany after World War I created

costly lessons relearned during World War II. The confusion of submarine polices, coupled with the absence of coherent concepts concerning operational employment, created a strategic context that minimized or ignored both the potential capability and threat posed by submarines.[41] In the end, submarine warfare, both offensively and defensively, was guided by urgency and necessity regardless of the attempts to operationally constrain or politically restrain their employment.

On a more modern note, all of the concepts of innovation were demonstrated at the service level by the evolution of AirLand Battle. The Soviet Union posed a national threat, creating urgency for the U.S. military to innovate based on a receptive military culture. How the Army, in turn, initiated approaches to defining the external environment captured the scope of evolving operational concepts. To begin with, the impact of fighting in Vietnam, coupled with a dominant conventional Soviet threat, shaped the strategic context of the Army in the 1970s. By 1982, after significant debate and analysis, a fundamental definition of AirLand Battle had emerged, one that emphasized initiative and attacks on key debilitating nodes across the depth of the battlefield.[42] At the same time, the Army culture was also open to change. The result was the evolution of a new Army, ranging from new uniforms to virtually every major weapon system. Most important, the new concept caused a top-to-bottom revitalization of the Army's educational system and creation of unit combat training centers and programs to inculcate the new doctrine at every level. In the 1986 Army Field Manual 100-5, *Operations*, Airland Battle defined the Army's approach to generating and applying combat power at the operational and tactical levels of war. The key to this success was that AirLand Battle served as the capstone operational concept to generate changes in organization, weapons system research/development/selection, and training.[43]

Defining an integrating capstone joint operational concept could provide the same effect for the joint operations

that AirLand Battle served for the Army. It must be specific and build on a broad foundation of military culture, if new ways are to be developed for combining core tactical capabilities to achieve operational effects. With numerous operational concepts in the current environment, the joint force commander confronts the daunting challenge of how to integrate and synchronize air, land, sea, space, and special forces literally "on the fly." The result is usually a broad service-oriented division of the battlespace in developing of the campaign plan. To develop a joint operational concept that drives the warfight and the requirement process, one must address the issue from a joint warfighting perspective.

In this regard, one way of addressing the challenges of information fusion, precision fires, and maneuver at the operational level in emerging joint operational concepts is to focus on capabilities in the joint urban environment. Dominance in this environment can provide the basis to focus service efforts on achieving a better balance between precision fires and maneuver. The key is to provide each service with a stake in achieving that balance. For example, how the Army shapes joint transformation rests not on service dominance in the complex urban areas and terrain, but rather on illumination of the joint operational level challenges to support anti-access and area denial operations in order to refine emerging joint operational concepts such as RDO.

Innovation and integration in the essential areas of doctrine, organization, training, and technologies must start with a new joint operational concept. But this concept needs focus. Shifting the urban environment challenge from the tactical level to the joint operational level can provide focus to the essential areas in the services in order to define and develop the capabilities required to achieve decisive operations by fusing joint information, precision fires, and ground maneuver. In addition, joint urban operations present significant opportunities for applying focus to emerging joint concepts, combining new means with new systems.

**Joint Urban Operations and the Joint Operational Concept: Connecting Strategic Ends, Ways and Means.**

An innovative joint operational concept could be the catalyst for military transformation, fusing service initiatives. Since the focus of the Department of Defense (DoD) has shifted from threat-based to capability-based, urban operations can help shape the new operational framework. Yet, the challenges of both the urban and joint operational concept are being addressed separately and at different levels. The origins of this dysfunctional approach begin with the current DoD policy on joint urban operations.

Current DoD policy on urban operations has evolved over the past 5 years and focuses on improving service and joint urban warfighting capabilities. Three main strategic documents form the basis for this policy. The Fiscal Year 01 Defense Authorization Act directed the Secretary of Defense "to designate an appropriate executive agent with the authority to develop and coordinate a master plan for a DoD-wide strategy, with milestones, for improving service and joint capabilities to conduct military operations in urban environments."[44] The *Defense Planning Guidance 2000* directed the Chairman of the Joint Chiefs of Staff and the Assistant Secretary of Defense (Science and Technology) to "develop a road map that integrates all Department activities relating to military operations on urban terrain."[45] Finally, the *Quadrennial Defense Review 2001* report orients on developing a capability-based force to address a broad range of challenges. It emphasizes that threat-based geographic focus cannot address the probability of intervention in "distant regions where urban environments . . . present major operational challenges."[46]

Although the Department's policy on urban operations recognizes the need for improved capabilities, there is considerable debate about the level of effort and strategy required to achieve joint urban improvements. The key aspects in the debate focus on the likelihood, scope, and

intensity of U.S. forces operating in urban environments. To begin with, the Department's desired endstate of "improving service and joint capabilities in the urban environment" poses significant issues in terms of defining measures of effectiveness.[47] And while a Government Accounting Office Review in February 2000 praised service level initiatives, it also stressed the lack of joint urban concept of operations development, experimentation, and interoperability.[48] In addition, the Office of the Secretary of Defense's Urban Working Group identified numerous policy issues for coordination among intra-service, inter-service, and even inter-agency elements.[49] A primary concern for DoD is that there is no overarching joint operational concept or joint C4ISR architecture that defines an end-to-end combination of actions and information flowew

A defining of the information architecture is just one example of how service requirements in urban environments can meld into joint imperatives. The need to illuminate various service requirements and integration of command, control, communications, and computers with intelligence, surveillance, and reconnaissance systems in the joint urban environment is essential to understanding the performance parameters for a truly joint C4ISR operational architecture. The implications of solving real time control and surveillance challenges in the complex urban environment, as opposed to open terrain, provide the framework for balancing joint precision fires and maneuver in any environment. Without a defined joint C4ISR architecture, the services are developing and implementing "stove-piped" tactical transformation plans based on core capabilities, while failing to expand joint interoperability or have joint mission requirements for the Joint Requirements Oversight Council to evaluate for validation and recommendation. Despite the Department's concern in this matter, it is the lack of a defined endstate for joint urban operations improvement that has severely hampered service unity of effort.

The J-8 Dominant Maneuver Joint Warfighting Capability Assessment team has the responsibility to build the road map for the Department's urban policy and reports to the Joint Requirements Oversight Council. In addition, J-8 is developing the emerging joint operational concept, while the Joint Requirements Oversight Council approves priorities, assigns responsibilities, and measures progress.[50] The latest update of this organization's charter empowers it to develop and validate joint operational concepts and architectures at the front end of the Joint Requirements Process. The charter further incorporates Joint Forces Command's experimentation efforts into the Joint Requirements Oversight Council's process. The new authorization also shifts the focus of the Joint Warfighting Capability Assessment teams to the broad based joint requirements of *Joint Vision 2020*. In particular, it requires the J-8 assessment teams to develop and monitor a mix of evolving joint and service concepts and technologies to improve joint urban capabilities.[51] The challenges of identifying numerous systems, combinations of systems, and other enablers in a synchronized fashion to improve joint urban capabilities will be almost impossible without in-depth operational level joint experimentation. Already, the Joint Warfighting Capability Assessment teams have conducted numerous studies, assessments, and experiments to define *Joint Vision 2020* joint mission areas without achieving service consensus.

This lack of operational concept consensus has serious implications. The Joint Warfighting Capability Assessment teams have proposed several narrow operational concepts varying from general mission areas (e.g., Deep Strike) to specific tasks (e.g., Attack Operations Against Critical Mobile Targets) relating to combatant commanders' integrated priority lists. For example, the Dominant Maneuver Joint Warfighting Capability Assessment team is now working on the concept of RDO. But the RDO concept is still an emerging joint operational concept and has not been accepted by the services. At the same time, with no

overarching joint C4ISR architecture, the services are procuring a variety of systems with various levels of interoperability. In all this, the impact of an overarching joint operational concept on the service acquisition plans would be enormous. Identification of key performance parameters for an enabling joint C4ISR architecture, and other Acquisition Category I systems to focus the Joint Requirements Process must shape service transformation plans. But the absence of an accepted joint operational concept is affecting the Joint Requirements Oversight Council's ability to validate service operational requirements documents and link them to combatant commander requirements in the midst of many service visions. Finally, there remains the daunting challenge of focusing and synchronizing joint experimentation.

The means of achieving an improved tactical urban endstate currently hinge on service investments in time and money. Applications of evolving joint urban operational doctrine using simulations are intended to evaluate emerging concepts of operations and identify requirements for Joint Requirements Oversight Council investment approval. The challenge is that no military operations on urban terrain simulations exist at the operational level; in fact, few urban simulations are available above the tactical battalion level.[52] In addition, the next Congressionally mandated exercise, "Joint Experiment Millennium Challenge 02," will take place in the open desert terrain of the National Training Center, which has no sizable site for even battalion level urban operations.[53] The combination of service transformation efforts, the Millennium Challenge joint experimentation process, and the lack of operational level urban simulations ensure that developing requirements for a joint force to dominate an enemy in an urban environment will be a challenge.

The risks of continuing the Department's current urban policy with such strategic ends, ways, and means imbalances are fourfold. First, without a defined endstate for urban capability improvement, no unity of effort among

the services and government agencies can occur. Second, the current concept of building an urban road map lacks the integration of broader joint and interagency linkages to joint experimentation that is necessary for a full dimensional approach. Third, many current requirements focus on ground forces at the tactical level. This limits development of a joint operational concept and identification of joint requirements. Finally, because of differing service visions, even if breakthrough technologies are identified, funding would not be available for their incorporation into the joint transformation process. In any event, urban combat initiatives over the past 5 years have only identified requirements on the margins of the problem. The overall result of these strategic imbalances is that there has been minimal increase in joint operational level capabilities for decisive operations above a city block, let alone a small town or major city.

The Russian solution in Chechnya of avoiding the close fight and of relying on fires to wage siege warfare is a prime example of the cost to be paid in the urban environment for strategic, operational, and tactical imbalances. By not developing different ways to approach close combat in urban areas, the Russians had to revert to World War II techniques of systematic destruction of the city, all of which produced lasting socio-military problems in the region. Emerging evidence from Afghanistan is demonstrating similar shortfalls in urban and complex terrain that have strategic and operational implications. What is clear is that the combination of precision fires with ground force pressure is highly effective. The reality of the war in Afghanistan is that the closer the fighting to the cities or other complex terrain, the more requirements increase for close combat forces to isolate, seize, and secure as well as gain intelligence and ensure destruction of the enemy.

The Afghan War has also demonstrated again that the United States cannot always depend on coalition partners for the close fight. In other words, what would have been the American option had the coalition been unwilling or unable

to seize the cities occupied by the Taliban and al Qaeda? Moreover, the dependence on local allies meant that U.S. forces did not achieve, for the most part, the key objective of isolating and seizing enemy leaders during the "decisive" phase of the operation, primarily because of the lack of ground force pressure and the lack of a C4ISR architecture that could focus at the urban or complex terrain level. The resulting prolonged operations to search for and attack dispersed al Qaeda cells in remote villages and complex terrain is increasing force numbers and casualties. Finally, there is the challenge of control since the actions of coalition forces may affect policy and strategy. For example, public opinion, and therefore policy support, may not remain intact if coalition fighters systematically destroy cities or kill combatants and noncombatants.

As these recent examples demonstrate, continuing to use only incremental, evolutionary, and tactical approaches to solve the challenges of urban combat will not achieve operational dominance in that environment. If a joint operational concept is to emerge, as Macgregor has pointed out in a larger context, there has to be "the integration of service core capabilities on the operational level to achieve unity of purpose and action in the conduct of military operations."[54] The joint requirements for C4ISR interoperability between the services will not be achieved with a bottom-up approach. The lessons learned from previous Army and Marine Corps experiments and combat experience demonstrate the need for joint operational concepts to refine new ways as well as new systems. The lessons from Chechnya and Afghanistan only reinforce these points. Using current and emerging service tactical approaches with technology to resolve shortfalls in the close combat urban environment will not take fully into account joint operational capabilities and thereby will not identify new requirements for the joint force.

There is, in short, little joint momentum for urban operations because they are not considered at the operational level, or even beyond the tactical level of brigade

operations. There is equally little momentum by the services for a joint operational concept because of a general over-reliance, fueled by the new American way of war, on technology and long range fires, while minimizing the importance and interdependence of joint fires with maneuver.

**The Way Ahead: Connecting the Challenges.**

The fusing of joint urban operations into a joint operational concept concerns not just Army but joint transformation. The Navy, for instance, may require the seizure of choke points for littoral entry or sustainment operations. This central mission for the Marine Corps illuminates the need for joint close combat capabilities, since urban centers dominate most ports and airfields throughout the world. Furthermore, the Air Force and even Special Operations Command require access and forward basing, necessitating seizure or security of operating bases in or near major urban environments to accomplish full spectrum operations.

From these requirements flow the manifold advantages of using joint urban operations as the linchpin to develop the overarching joint operational concept. First, defining an overarching joint operational concept using complex urban terrain would bring together the joint implementation master plan and service transformation plans for requirements and experimentation with the Congressionally-mandated urban roadmap. In particular, defining levels of interoperability and responsibilities for procuring a joint C4ISR architecture would synchronize service efforts to create a common relevant operational picture needed for battlespace dominance in any environment. This architecture, in short, could provide a common picture in complex urban environments that will enable a similar focus for joint requirements in other areas. Secondly, if the joint operational concept and joint C4ISR architecture remain ill-defined or focused on open terrain,

the services will develop concepts and forces that divide battlespace rather than integrate joint capabilities in all environments.

With a joint operational concept and joint C4ISR architecture, experiment assessment can focus joint requirements to achieve an overarching system of systems for full spectrum capabilities. Without a joint operational concept and joint C4ISR architecture, the current joint experimentation plan will continue to deal with a mix of near-term combatant commander integrated priority list tasks and long-term partial operational concepts. The result will leave numerous requirements and concomitant capability gaps that no single service can address. Finally, with no joint operational concept and joint C4ISR architecture to assess joint requirements, the Joint Requirements Oversight Council can only analyze service procurement as parts of a puzzle that may combine as a joint force without achieving full synergy. In terms of resource efficiency, the joint operational concept and joint C4ISR architecture can focus service procurement efforts to achieve unity of effort for *Joint Vision 2020*.

For any approach using joint urban operations to succeed, the DoD Urban Working Group must first establish a definition orienting on joint force operational level military operations on urban terrain improvement relating to lethality, collateral damage, and survivability. Next, the selection of a designated lead must include the authority and responsibility to develop and link joint urban requirements and a joint operational concept to overall service transformation plans and joint experimentation. Currently, the Army and Marine Corps have been de-facto co-leads in developing initial urban tactical requirements; but they lack the funding, authority, and responsibility for joint operational requirements or integration. Unlike the current system, the Department's executive agent must have the responsibility to work with the Joint Requirements Oversight Council to pursue required technologies regardless of which service provides the capability,

particularly in the area of C4ISR. Finally, the J-8 and Department's Urban Working Group must continue to coordinate with all military and interagency elements to exploit joint urban capability improvements.

From the Department's perspective, it is also important to exploit Congressionally-mandated joint experimentation over the next decade, using the "Millennium Challenge" experiments to fuse emerging service transformation units to drive capability-focused joint interoperability requirements.[55] Synchronization of the Department's emerging Urban Operations Road Map with the "Millennium Challenge" experiments would align the resourcing and requirements processes. At the same time, exploiting these joint experiments in the urban environment can serve as a measure of effectiveness for the emerging joint operational concepts that establish the framework for *Joint Vision 2020*. Integrating the joint C4ISR operational architecture into complex urban terrain could enable new approaches with both unmanned air and ground systems employed by lower levels. The capabilities for precision fires coupled with ground maneuver can also be synchronized with logistics and force protection within the joint operational concept.

In all these efforts, the responsibility for balancing operational precision fires and maneuver coordination between the services should continue to rest with the Joint Staff and Joint Forces Command. Both organizations are working to define the specifics of a new joint operational concept with enabling joint C4ISR architecture. Focusing these initial efforts on the close combat joint urban environment would provide critical analysis of the current C4ISR system to help define required capabilities. At the same time, further developing a joint synchronized urban road map would integrate service joint experimentation, and shape individual service transformation procurement through the Joint Requirements Oversight Council based on capability requirements. This approach would not only address disconnects in the strategy to achieve the

Department's urban policy objectives, but would also establish the key performance parameters and requirements for the most difficult environment that potential adversaries can exploit.

By focusing efforts on the urban environment from a joint perspective, joint planners can develop lessons learned to influence all elements of the force to develop new operational frameworks for organizing, equipping, and training. The J-8 can then work with the services to develop a capstone joint operational concept document with the greatest potential to create a DoD policy with a joint vision based on sufficient authority and means to integrate the efforts under Joint Forces Command into the "Millennium Challenge" joint experiments. In this manner, synchronization between joint and service experiments can be defined for long range planning and resourcing.

The key to this process would be to focus on evolution of joint force capabilities to achieve full spectrum dominance and synchronization within the Joint Requirements Process. Joint Forces Command must synchronize the development of the joint operational concept and joint architecture through experimentation with service transformation plans, initially focusing on joint warfighting requirements in complex urban environments. In this regard, building on the tactical requirements defined by the initial urban advanced concepts technology demonstrations conducted by the Army and Marine Corps would provide crucial input for any joint operational concept as well as an interoperable joint C4ISR operational architecture. The assessment of required operational level capabilities should then be compared to current doctrine, organization, training, materiel, leader development, personnel, and facilities followed by appropriate recommended changes submitted to the Joint Requirements Oversight Council. The Joint Requirements Oversight Council validation must include service procurement responsibilities for the joint C4ISR architecture as well as any new systems to support the joint operational concept. The J-8 could then integrate

the joint operational concept and joint C4ISR architecture into a *Joint Vision 2020* implementation master plan as the principal means to synchronize service transformation initiatives and the Joint Requirements Oversight Council determination of near and long-range joint requirements to support combatant commanders. Finally, the Joint Requirements Oversight Council would prioritize and recommend to the Defense Acquisition Board the necessary systems and system of systems for procurement based on the joint operational concept and joint experimentation.

From the service perspective, this process would offer significant opportunities to develop dominant joint capabilities in the urban environment. To begin with, both the Army and the Marine Corps have benefited from tactical level urban experimentation. By shifting to the operational level, the services could refine and develop requirements for synchronizing multiple air assets and maneuver options to achieve isolation, seizure, and security of urban areas. As the services identify requirements, new ways and systems could shape development of the Army Interim Brigade Combat Team and Marine Corps expeditionary forces and refine the joint strike fighter and naval surface fires. The key is unity of effort with the other services, which is crucial for identifying both a joint operational concept and interdependent requirements. Understanding the synergy of joint integration and interdependence is the foundation for developing a joint force. The lessons learned from developing the required joint technologies and concepts for dominating the complex environment of urban operations can be applied to dominate both asymmetrical as well as symmetrical threats across the spectrum of conflict. In identifying the current urban challenge approach, a new strategy option emerges to accomplish the Department's desired objectives for increased urban capabilities, increased joint interoperability, and, in turn, significantly increased capabilities for full spectrum dominance. Identifying linkages to the Department's policy for these challenges would provide the strategic issues and choices

for Army transformation and *Joint Vision 2020* to align ends, ways, and means to achieve full spectrum dominance.

**Conclusion .**

Winston Churchill once noted of the outbreak of World War I that "the terrible 'ifs' accumulate."[56] This is no less true when examining the potential role that urban operations might play in the formulation of a new, effective joint operational concept for full spectrum dominance. If the DoD aims to improve joint urban operational capabilities, it needs a new strategy. If transformation plans of the services are to create synergistic joint operational level capabilities, then they require a new joint operational concept to guide their efforts. The use of the complex physical and social environment of urban operations could provide an essential litmus test for emerging joint concepts to balance information, fires, and maneuver to address the complex and dynamic nature of war.

America's strategic culture is shaping an evolving American way of war centered on overwhelming force used to achieve decisive and rapid results across the operational spectrum. At the same time, however, the U.S. military lacks this ability in urban environments across that spectrum, primarily because the nature of urban warfare mitigates the effectiveness of long-range precision fires and intensifies the difficulties of ground maneuver. The most probable result in such an environment is a protracted strategy of exhaustion that is unacceptable to the American public and thus to American policymakers. Moreover, the nature of this problem virtually ensures that adversaries in the future will attempt to use urban environments to limit American political and military options.

The status quo is not an acceptable solution. The Urban environment is much more challenging than other environments. Service focus at the tactical fringe of the urban challenge risks dramatically different evolutionary solutions that intensify the chasm between precision fires

and ground maneuver. These approaches limit joint, interagency, and multinational integration. On the other hand, by changing the context for urban operations to a joint operational perspective, future training, organization, and technology development would be able to exploit joint precision fires using maneuver to seize positional advantage. The resultant success in the most difficult of all combat environments can have even larger consequences. For by making urban combat the cornerstone of the joint operational concept and by integrating joint urban operations into the joint experimentation process, the Joint Chiefs of Staff will be able to shape service transformation plans in the overall joint image of that process.

Maturing the emerging joint operational concept and C4ISR architecture required for full spectrum dominance in urban operations is the *sine qua non* for achieving the *Joint Vision 2020* goal of operating decisively in any environment. The key ingredients for innovation are present in the military culture. The time is now for a joint operational concept that addresses urban dominate maneuver to drive doctrine, organizations, training, and material, and thus ultimately the joint requirements process in order to ensure that the United States can rapidly and decisively defeat any enemy, regardless of the environment.

## ENDNOTES - CHAPTER 10

1. Chairman, Joint Chiefs of Staff, *Joint Vision 2020*, Washington, DC, 2000, p. 3.

2. William Craig, *Enemy At The Gates: The Battle for Stalingrad*, New York, 1973, p. xv.

3. For example, Manila, 1945; Seoul, 1951; Saigon and Hue, 1968; Panama, 1989; Mogadishu, 1993. Lessons about both U.S. as well as the experiences of other countries can be found in Michael Dewar, *War in the Streets: The Story of Urban Combat from Calais to Kafji*, Newton Abbot, UK, 1992. MOUT has been a concern for the U.S. military since World War II. Doctrine of avoidance permeates military manuals, FM 100-5, 1976, through the 1980s, largely because of the complexity and large troop requirements for deliberate systematic clearing of urban areas and a focus on open maneuver warfare against the former Soviet Union.

4. Max Neiman, "Urban Operations: Social Meaning, the Urban Built Form, and Economic Function," and Barry R. Posen, "Urban Operations: Tactical Realities and Strategic Ambiguities," in *Soldiers in Cities: Military Operations On Urban Terrain*, Michael C. Desch, ed., Carlisle, PA, 2001, pp. 139, 157.

5. The corresponding friendly and noncombatant casualty figures from historical examples can be found in Russell Glenn, *Denying the Widow Maker*, Santa Monica, CA, 1998, p. 6.

6. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, eds. and trans., Princeton, NJ, 1976, pp. 89, 75-119. See also Alan Beyerchen "Clausewitz, Non-linearity, and the Unpredictability of War," *International Security*, Winter 1992/1993, pp. 69-70.

7. *Ibid*., p. 89.

8. Department of Defense, *Quadrennial Defense Review*, hereafter *QDR 2001*, Washington, DC, 2001, p. 11.

9. Arthur F. Lykke, Jr., "Toward an Understanding of Military Strategy," Arthur F. Lykke, Jr., ed., *Military Strategy: Theory and Application*, Carlisle Barracks, PA, 1989, pp. 3-8. The Army War College uses a base definition of strategy as ends plus ways plus means.

10. *Ibid*., p. iv.

11. There is much discussion about an American way of war. Hans Delbruck defines two types of strategy: annihilation and attrition. See Gordon A. Craig, "Delbruck: The Military Historian," in Edward Mead Earle, ed., *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler*, New York, 1966, pp. 272-275. Russell Weigley used this theory to expand on the American way of war with a preference towards annihilation with unlimited means. See Russell F. Weigley, *The American Way of War, A History of the United States Military Strategy and Policy*, Bloomington, IN, 1973, p. xxii.

12. Weigley, *The American Way of War, A History of the United States Military Strategy and Policy*, p. xxii.

13. The lessons from Vietnam and Lebanon led to the "Weinberger-Powell Doctrine" for guides to use of force. The basic premise of overwhelming force, coupled with identification of national interests and public support to achieve limited objectives, was applied to Panama and the 1990 Gulf War.

14. F. G. Hoffman, *Decisive Force: The New American Way of War*, Westport, CT, 1996, p. 99.

15. Russell W. Glenn, *Corralling the Trojan Horse: A Proposal for Improving U.S. Urban Operations Preparedness in the Period 2000-2025*, Santa Monica, CA, 2001, p. 1.

16. Hoffman,p. 2

17. Sam J. Tangredi, "The Future Security Environment, 2001-2025: Toward a Consensus View," in Michele A. Flournoy, ed., *QDR 2001: Strategy-Driven Choices For America's Security*, Washington, DC, 2001, pp. 56-59.

18. Lykke, pp. 3-8.

19. Anatol Lieven, "Nasty Little Wars," *National Interest*, No 62, Winter 2000/2001, pp. 65-76; and Glenn, *Corralling the Trojan Horse,* p. vii.

20. Michael C. Desch, "Why MOUT Now?" in Desch, pp. 4-5.

21. *Ibid*., p.16; and Gerald Yonas and Timothy Moy, "Emerging Technologies and Military Operations In Urban Terrain," in *Ibid*., pp. 131-132.

22. Kenneth F. McKenzie, Jr., "The Rise of Asymmetric Threats: Priorities for Defense Planning," in Flourney, p. 88.

23. Stephen Biddle, "Balancing Deep Strike and Close Combat Capability," Carlisle, PA, unpublished paper, p. 1.

24. See Robert W. Komer, "Future of U.S. Conventional Forces: A Coalition Approach," in John Glenn, Barry E. Carter, Robert Komer, eds., *Rethinking Defenses and Conventional Forces*, Washington, DC, 1983, p. 45.

25. Tangredi, p. 47.

26. The ability to dominate complex terrain, like urban environments, balances the use of precision fires with precision maneuver. See Robert H. Scales, Jr., *America's Army in Transition: Preparing for War in the Precision Age*, Carlisle, PA, 1999, p. 27.

27. Defense Science Board, "Report of the Defense Science Board Task Force on Military Operations in Built Up Areas," 1993, p. 9.

28. Chairman, Joint Chiefs of Staff, "Joint Publication 3-0," p. #II-22-23.

29. The RAND Arroyo Center, in support of the Army, provides some of the most prolific researchers on doctrine, organization, training, and technology advancements to improve urban capabilities. See Russell W. Glenn's: *Marching Under Darkening Skies*, Santa Monica,

CA, 1998; *Denying the Widow Maker*, Santa Monica, CA, 1998; and *The City's Many Faces*, Santa Monica, CA, 2000. See also Michael C. Desch. The research is based on lessons learned, current urban operations capability, and the trends illuminating the likelihood of future urban conflict. In numerous case studies ranging from unlimited aims and means operations in World War II, Stalingrad and Berlin, through the post-World War II environment of limited aims and means operations; Hue: 1968; U.S. Marines in Lebanon: 1982-84; Panama: 1989; Somalia: 1993; and Russia's Chechen Wars: 1994-1999, the themes of operational and strategic balancing of ends, ways, and means were found to be as important as the tactical requirements.

30. Barry R. Posen, "Urban Operations: Tactical Realties and Strategic Ambiguities," in Desch, p. 157.

31. Olga Oliker, *Russia's Chechen Wars 1994-2000: Lessons from Urban Combat*, Santa Monica, CA, 2001, pp. 84-85.

32. *Ibid*., p. 85.

33. Glenn, *Corralling the Trojan Horse: A Proposal for Improving U.S. Urban Operations Preparedness in the Period 2000-2025,* pp. 1-5.

34. J-8, The Joint Staff, "Dominant Maneuver Operational Concept," Briefing for the Joint Requirements Oversight Council, 2001.

35. Douglas A. Macgregor, *Resurrecting Transformation for the Post-Industrial Era*, Washington, DC, 2001, p. 8.

36. *Joint Vision 2020*, p. 20.

37. James Dubik, "IBCT at Fort Lewis," *Military Review*, Vol. LXXX, NO. 5, September–October 2000, p. 18.

38. Williamson Murray and Allan R. Millett, eds., *Military Innovation in the Interwar Period,* New York, 1996, p. 306.

39. *Ibid*., p. 311.

40. Samuel Huntington, *The Soldier and the State, The Theory and Politics of Civil-Military Relations*, Cambridge, MA, 1957, pp. 59, 85-89.

41. Holger H. Herwig, "Innovation Ignored: The Submarine Problem," in Murray and Millett, p. 261. The American, British, and German naval establishments were firm in the belief that submarines could not be decisive for sea control or denial. By ignoring the problem, over 1.5 million tons of shipping was lost off the U.S. coast in 1942. The Battle of the Atlantic raged well into the summer of 1943 when operational concepts, coupled with technical and tactical procedures, defeated the German U-Boat campaign. On the other hand, Japan never disrupted the U.S. submarine campaign, which was initiated out of

necessity and ultimately accounted for the complete disruption of Japanese supply lines.

42. David A. Fastabend, "That Elusive Operational Concept," *Army*, Vol. 51, No. 6, p. 37. See also Jeffrey J. Becker, "Operational Concept Found: Rapid Decisive Operations As a Joint Operational Concept," *Army*, Vol. 52, No. 2, pp. 49-57.

43. For a review of the impact of AirLand Battle on the evolution of Army operations, see Fredrick M. Franks, "Full Dimensional Operations: A Doctrine for an Era of Change," *Military Review*, Vol. LXXIII, No. 12, January-December 1993, p. 5. See also Don A. Starry, "A Perspective on American Military Thought," *Military Review*, Vol. LXIX, No. 7, July 1989, p. 3.

44. "Defense Authorization Act," *U.S. Code*, Vol. 106-398, secs. 113, 2001.

45. Office of the Secretary of Defense, "Defense Planning Guidance, Fiscal Year 2000-2005," Washington, DC, 2000, p. 86.

46. *QDR 2001*, p. 6.

47. "Defense Authorization Act," Sec. 113.

48. U.S. Government Accounting Office, "Military Operations: Status of DoD's Efforts to Develop Future Warfighting Capability" in "Report to the Chairman, Committee on Armed Forces," U.S. Senate, Washington, DC, 1999.

49. Office of the Secretary of Defense, "Urban Working Group Meeting," May 2001, Notes and summary.

50. The Joint Staff, J-8, Dominant Maneuver Joint Warfighting Capability Assessment, "Joint Urban Operations Assessment Phase II Decision Brief," 2000, slide 15. The JROC is the primary means to assist the Chairman, Joint Chiefs of Staff to identify and assess joint requirements and acquisition programs to meet existing and future capabilities to support Combatant Commanders. The Joint Warfighting Capability Assessment teams are the primary source to conduct analysis for the Joint Requirements Oversight Council.

51. Chairman, Joint Chiefs of Staff, "Chairman of the Joint Chiefs of Staff Instruction 5123.01: Charter of the Joint Requirements Oversight Council," Washington, DC, 2001, p. 2.

52. "Dismounted Battlespace Battle Lab," MOUT ACTD Briefing, Fort Benning, GA, 1999.

53. John W. Hendrix, "Warfighting Readiness Is the Highest Priority," *Army Green Book*, Vol. 51, No. 10, Washington, DC, 2001, p. 64.

54. Macgregor, p. 8.

55. "Defense Authorization Act," 2001, Sec. 213. Although a Standing Joint Task Force is discussed in the *Quadrennial Defense Review 2001* report, synchronizing both the Defense Planning Guidance directive of a Joint Urban Operations roadmap with the Millennium Challenge joint experiment roadmap is not discussed. See *QDR 2001*, p. 34.

56. Winston S. Churchill, *The World Crisis: 1911-1914*, New York, 1928, p. 274.

# CHAPTER 11

## A U.S. GOVERNMENT INTERAGENCY STRUCTURE TO COMBAT TRANSNATIONAL TERRORISM

**Lieutenant Colonel George J. Woods III**

Terrorists viciously attacked the United States on September 11, 2001, and killed thousands of Americans and foreign workers in near-simultaneous attacks on the World Trade Center and the Pentagon. Another 44 Americans died in Pennsylvania when they took action against the terrorists aboard United Airlines Flight 93 destined for an unknown target. Nineteen terrorists, supported by an unknown number of cells, secretively planned and executed these attacks for several months, maybe even years. They caught the U.S. Government, its intelligence community, law enforcement agencies, and the American people by complete surprise. Yet, the terrorist threat is not new. Terrorists have been a serious threat the past 30 years, but these attacks clearly awakened the American people and convinced them that America's most critical national interest—the welfare of its citizens and homeland—is threatened by the diabolical threat of terrorism.

Since these events, the George W. Bush administration has reacted quickly to the crisis, garnering international cooperation and making initial headway in defeating Usama bin Laden's network of Al Qaeda terrorists. However, Bush has said on numerous occasions that this will not be a short war on terrorism. While U.S. and allied actions have made significant progress in disrupting bin Laden's network, the President must organize the United States for a sustained war on international terrorism. This

requires attacking the terrorist networks where they live, while protecting the American homeland from terrorists ready to attack from within its borders. Fighting terrorism is a complex matter. It is not a fight that can be delegated to one agency of the U.S. Government and be reasonably assured of success. It is a fight that will require the focused efforts of numerous federal agencies.[1]

The current U.S. national security structure, based on the National Security Act of 1947, was enacted to coordinate national security strategy against the threat raised by the Soviet Union at the start of the Cold War. It is a system that has expanded to handle a variety of broad and highly complex national security issues. Nonetheless, the world has changed dramatically and the national security structure has not kept pace to deal with emerging threats. Clearly the recent attacks demonstrate the need to reexamine how the national security system is structured relative to this new threat and make needed changes to prevent more Americans from perishing at the terrorists' hands. There is no single, correct answer that guarantees the prevention of any more terrorists attacks on the United States, but the government must act to eliminate deficiencies when they are discovered. The purpose of this chapter is to examine the current threat that terrorism presents, assess our current preparedness to deal with this problem and recommend organizational interagency structural changes required to sustain a prolonged war to defeat international terrorism.

**The Environment—Terrorism .**

To find solutions to the problem, one must define the terrorist threat and its components. The following questions must be asked and answered. What is the nature of the terrorist threat? How have modern terrorists adapted in this changed world? How are these changes different in practice—the introduction of networks and netwar? These

questions must be addressed before the national security systems can reorganize to defeat them.

*What is the Nature of the Terrorist Threat?* Terrorism is "the process of using terror, violence, and intimidation to achieve an end."[2] In more recent articles this definition has been more clearly linked to a political agenda by defining terrorism as "politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents."[3] Gregory Copley takes exception to this definition because he believes that terrorism can "infuse military as well as civilian targets; terror can paralyze or distort the minds of professional leaders as well as the minds of 'innocent bystanders'."[4] International or transnational terrorism is the conduct of terrorist acts that span national borders and are committed against nation's facilities or people abroad such as embassies, ships, bases or aircraft, and U.S. citizens.[5] They can also be acts committed on a country's homeland like those that occurred against the World Trade Center and the Pentagon.

The United States is the sole "super" power that survived the Cold War. Its global reach and influence have grown while other nations in the world have struggled with regional instability as nations redefine themselves in terms of their interests, objectives, and internal forms of government. Meanwhile, the United States, and particularly its military although smaller in size, have grown in global capability across the entire spectrum of war—from low intensity conflicts to major theater war. The Gulf War and other conflicts over the past decade have shown the relative impotence of other nations to oppose the United States militarily or by any other instrument of national power. Since *states* (nations) with opposing agendas have been unable to influence U.S. policy and interests, *non-state organizations* have emerged in their place to oppose U.S. policy.

*How Have Modern Terrorists Adapted in this Changed World?* These nonstate organizations, including terrorist

organizations, are not by themselves capable of directly defeating the United States with similar means (symmetrically); therefore, they have had to adopt other strategies to disrupt systems or influence the political will of the United States. Transnational terrorists have several options. They can appeal to the rest of the world as a weapon used on behalf of the weak attacking nation-states asymmetrically (attacking means with unlike means). They can use media-grabbing terrorist acts to assert their identity, command attention, and damage the reputation of the nations they attack. They may also use terrorism as a strategy to destroy the current world political structure for the purpose of creating a new order.[6] With the United States being the strategic center of gravity for world democracy and global trade, their aim is increasingly directed towards U.S. targets. Their purpose is to create enough fear, destruction, and disruption to defeat the American will to continue to prosecute policies that oppose the terrorists' objectives, whether those objectives are political or religious ones. And what better way to terrorize and discredit the powerful world leader than to attack targets within its borders by killing thousands of its own people with "weapons" (fuel-filled commercial aircraft) made in the United States itself?

But to prosecute this asymmetric strategy, terrorist organizations have had to adapt. They have increasingly become more amorphous and less hierarchical. They are more likely inspired by religious or ideological agendas. Technology and the information age have enabled terrorist organizations to be more decentralized as well as more effective and lethal. Sharing information has enabled them to coordinate activities and learn the lessons from successful terrorist acts as well as unsuccessful acts. Cell phones and the Internet are key technological enablers for them. These technological enablers have also allowed the organizations to grow larger, admitting more "amateur" terrorists—terrorists with less training. These amateurs attain the level of knowledge they need to operate and build

weapons. Weapons have become simpler to build and are more frequently composed of legal products purchased commercially, such as fertilizer.

In order to survive to move to their targets and achieve surprise, terrorist organizations must remain invisible and undetected to authorities and law enforcement agencies. Yet they must be able to congregate to train, prepare, and gather the resources they need. Further, for the most part, terrorists still need support from state-sponsors to provide these resources to train, sustain and operate their organizations.[7] State sponsorship increases their effectiveness and reach. Terrorist organizations with accessible resources increase their technical and tactical capabilities. State-sponsored terrorists have an increased chance of developing the technical knowledge and materials to build weapons of mass destruction such as nuclear, biological, or chemical bombs. They have increased technological means to share this knowledge and develop new tactics for employing these weapons in a secure environment. Therefore, they are better trained, better equipped, harder to detect, and deadlier. Network-centric strategists have given their strategy and tactics a name—netwar.

*How are These Changes Different in Practice—the Introduction of Networks and Netwar?* Two experts on network-centric warfare define netwar as an:

> emerging mode of conflict (and crime) at societal levels, involving measures short of war, in which the protagonists use—indeed, depend on using—network forms of organization, doctrine, strategy, and communication. These protagonists generally consist of dispersed, often small groups who agree to communicate, coordinate and act in an internetted manner, often without a precise central leadership or headquarters . . . It differs from traditional modes of conflict and crime in which the protagonists prefer to use hierarchical organizations, doctrines, and strategies as in the past efforts to foster large, centralized mass movements.[8]

The revolution of technology in the information age has enabled this new form of warfare to develop. They further describe how networked organizations remain widely dispersed and secretive, while seeking targets to act upon. Then, once identified and targeted, the netwarriors attack stealthily from multiple approaches to "swarm" against their target.[9]

Terrorists will become further diversified, decentralized, and flexible in applying such techniques. They will rely on networks enabled by information age technology and will attempt to exploit weaknesses in U.S. defenses.[10] Network cells will remain secure by their dispersion, assimilation into existing societies, and virtual invisibility. Gaps created in U.S. defenses, such as those areas not covered by law enforcement agencies, the military, or other government agencies, will create the infiltration lanes and battlespace for these terrorists and those who support their operations. Terrorists will also seek support and assistance from other terrorist groups, failed states, or international crime organizations for the resources they need to survive. Additionally, they will continue to exploit the seams created by the U.S. Government's lack of cohesive and integrated policy and structure to detect and arrest or attack these terrorist organizations. What do these shifts in tactics and strategies mean for U.S. national security?

John Arquilla and David Ronfeldt listed several implications nation-states must consider. First, hierarchically-structured organizations have a difficult time fighting networked organizations. Hierarchical ones are too slow to locate and coordinate actions against netwarriors. Second, the authors believe networks must be used to defeat other networks. Adopting the principles of network structures is essential in defeating the terrorists' decentralized, agile capabilities. Finally, they conclude that the one who masters the network form first and best will gain a major advantage.[11] The inability of U.S. intelligence to detect and stop the terrorist networks became evident on

September 11. How is the U.S. Government presently structured to handle networked terrorists and how must it adapt to defeat these netwarriors?

**The Current U.S. National Security Structure and Issues.**

*Current U.S. Strategic Organization*. The U.S. Governmental structure at the strategic level is derived from the National Security Act of 1947, as well as the Bush administration's own design before and in response to the attacks on September 11. Shortly after assuming office in January 2001, Bush published his National Security Presidential Directive (PDD)-1 and organized his National Security Council. His purpose was for the council "to advise and assist the President in integrating all aspects of national security policy as it affects the United States—domestic, foreign, military, intelligence and economics *[in conjunction with the National Economic Council]*." He stated that the National Security Council system is a "process to coordinate executive departments and agencies in the effective development and implementation of those national security policies."[12] He organized the council system around interagency meetings of principals and deputies where decisions could be made and issues resolved below the presidential level. Policy Coordination Committees (i.e., interagency working groups), conduct the day-to-day interagency coordination and "shall provide policy analysis . . . and ensure timely responses to decisions made by the President."[13]

As a result of the attacks on September 11, the Bush administration took quick action to respond to the threat to U.S. security. First, he appointed former Pennsylvania Governor Tom Ridge to a cabinet level position. As the first-ever Director of Homeland Security (also known as the Assistant to the President for Homeland Security), Ridge had to advise the President on the creation of a completely new organization. Homeland Security requires the

coordination of activities involving more than seventy agencies within the U.S. federal government.[14] Coupled with the state and local agencies that would respond first in subsequent attacks on the United States and the numerous agencies required to prevent these attacks from occurring again, the task has proven to be a daunting one. Second, the administration looked at the National Security Council system for handling national security issues as a template for a new Homeland Security Council system. On October 29, 2001, Bush issued his first Homeland Security Presidential Directive. This document, like National Security PPD-1, created a Homeland Security Council system similar to the National Security Council system structure to "ensure the coordination of all homeland security-related activities among executive departments and agencies and promote the effective development and implementation of all homeland security policies."[15] Additionally, Bush created two new positions. For protection of information systems, the President appointed a Special Adviser for Cyber-security. To coordinate and integrate all other counterterrorism-related actions, he appointed a Deputy National Security Adviser for Counterterrorism. Both advisors report to the National Security Adviser and the Homeland Security Director to integrate all national security actions to combat terrorism.[16] Between the National Security Council and Homeland Security Council systems, an integrated national security strategy is supposed to emerge, but it has not. Instead, he has established duplicate and competing systems.

This lack of integration and competing interagency processes stemming from the President's directives create, at the strategic level, the opportunities that terrorists could take advantage of. As Frank Hoffman, a member of the Hart-Rudman commission, aptly states,

> . . . the Bush administration has taken a different tack. The implication is that Ridge will coordinate domestic security, while Dr. Condoleeza Rice and the National Security Council

> continue to focus on foreign policy, international relations and defense. It is difficult to see how a comprehensive national security strategy that incorporates the various components relevant to homeland security—nonproliferation, threat reduction, diplomatic efforts to limit terrorism, intelligence, special operations, law enforcement, border security, and economic interests—is going to be produced. *The administration divorced the defensive side of homeland security from the international dimension potentially confounding security priorities, confusing accountability and diffusing responsibility*. The National Security Council and Homeland Security Council have competing staffs, with overlapping responsibilities for directing intelligence, contingency planning, exercises and investments that contribute to homeland security. (italics added)[17]

Furthermore, the placement of the Counterterrorism and Cyber-security Advisers within the structures further confuses the lines of responsibilities. Hence, at the strategic level, U.S. national security solutions intent on combating terrorist networks begin to break down. Furthermore, the problem is exacerbated by a reliance on traditional bureaucratic and hierarchical systems in our executive branch of government. This structure developed over time and has established a proven track record that helped make the United States the global power it is today. However, this structure requires adaptation to defeat the networked terrorist threat.

**Bureaucracies and Hierarchical Organizations**.

Although not ideal for combating new terrorist organizations, bureaucracies and hierarchical organizations are not completely without merit in determining foreign policy or recommending national security decisions. First, bureaucracies entail a division of labor that provides for organizing and assigning tasks. This, in turn, creates experts within those assigned fields. Second, competing organizations with different tasks ensure that different ideas or perspectives are considered in the decisionmaking process (at least theoretically). Third,

they provide for clear lines of responsibility and chains of command to govern the execution of tasks. Fourth, rules and standard operating procedures exist to regulate and govern behavior of large organizations. Fifth, written records document the bureaucracies' activities. Sixth, personnel within these organizations are compensated and promoted allowing the "best and the brightest" within their fields to rise to the top of the organizational ladder. Finally, the expertise inherent in these organizations conditions exist to promote proactive planning—the anticipation of events rather than merely reacting to events that happen.[18] These characteristics describe the "*theoretical* basis for the view that bureaucracies contribute to the rational decisionmaking" process.[19] Some of these benefits organizations *actually* experience in practice as well. But there is a negative side to hierarchical bureaucracies that many organizations including the U.S. Government experience in how they deal with each other and how they shape the behavior of their people.

Some academics describe organizations that exhibit parochial behavior promoting their self-interests and placing them before national interests. They also describe bureaucracies as competitive organizations vying for resources and decisions that favor their own agenda. These organizations, seeking more resources and acting out of self-interest, also seek to expand their roles in order to establish their importance and value. Bigger budgets, expanded roles, and missions usually translate into larger organizations that wield more power and promote their long-term survival. Bureaucracies develop cultures centered on accomplishing their mission but also preserving their existence and influence. Many of these behaviors manifest themselves in organizational cultures that promote exclusiveness and secrecy, conformity among its members, deference to convention, and reliance upon traditional solutions to solve new problems. Consequently, these factors combine to create bureaucratic organizations that, in practice, resist change, compete outright with other

governmental organizations, and sometimes, willingly commit "bureaucratic sabotage" of presidential decisions.[20]

Somewhere between the extremes of the theoretical organizations and those in practice is the "ideal" bureaucratic organization that needs development to ensure U.S. security and well-being, both domestically and abroad. Key to organizing the U.S. national security structure for the purpose of protecting the nation from future attacks will be to harness the advantages of "theoretical" bureaucratic organizations and minimizing the disadvantages described in "practicing" bureaucratic structures. It will be necessary to restructure the U.S. Government's interagency bureaucracy to avoid traditional solutions to combating the new terrorist threat and to ensure coordination and cooperation exists at all levels—from the strategic through the tactical level—to defeat terrorism. The reorganization should take advantage of institutional specialization that has proven its worth and developed a core of seasoned veterans. Further, these new structures must incorporate these experts and combine them with others to solve the new and very complex interagency problems the terrorists pose to U.S. national security. Said another way,

> . . . because their functions are different, military officers, spies, diplomats, and lawyers see problems and their solutions differently. No one of these different approaches is expendable. To succeed, the U.S. government needs them all and needs vigorous advocates for each. The best way to increase interagency coordination will be the one that promotes coordination while respecting these differences and enhancing their forceful expression.[21]

Fixing the problem requires two major steps. First, clear definitions of roles and responsibilities must be assigned to existing hierarchical organizations to take advantage of their size, procedures, and expertise. Second, interagency structures must be inserted throughout these hierarchical organizations to create the interagency networks that will

optimize the U.S. Government's ability to combat terrorist networks. These interagency networks will have to be established at all levels: strategic, operational, and tactical, to ensure that strategic objectives and policy are translated into tactical missions executed by operators at the grass roots level.

## How Should the U.S. Government Organize for the Sustained Fight Against Terrorism?

*Defining Functions to Combat Terrorism*. The fight against terrorism is a complex problem involving numerous agencies and departments at the national, state, and local levels. It is both a domestic problem and an international one. To protect U.S. national interests requires the defense of the homeland and attacking the terrorist threat at its source. The first step in reorganizing the U.S. Government to achieve unity of effort is to establish clear definitions of roles and responsibilities, and then assigning them to organizations with "strategic" responsibilities. These organizations would be responsible for coordinating and integrating U.S. strategic policy across multiple organizations to achieve the desired effect and successfully combat terrorism. Joint Doctrine helps define the crucial functions involved in combating terrorism—the offensive and defensive ones.

"Antiterrorism" encompasses the defensive measures taken to protect America and Americans. These defensive measures aim to reduce vulnerability to terrorist acts by including training and other measures that balance the protection of assets with the mission, infrastructure and available manpower and resources.[22] Antiterrorism measures occur at home and abroad. These measures involve the protection of infrastructure, citizens, and systems in the United States and those national assets abroad, most commonly U.S. embassies and consulates, military installations, and other facilities worldwide. Offensive measures taken to combat terrorism are called

"Counterterrorism" measures. These measures prevent, deter, and respond to terrorist acts and occur within the United States and abroad. They include preemptive, retaliatory, and rescue operations.[23] They can involve attacking terrorist cells located within the United States and attacking terrorist sanctuaries worldwide, such as those recently conducted in Afghanistan.

Two additional areas of importance help define roles and responsibilities. To defeat terrorism, the U.S. Government must also consider the offensive and defensive components of informational warfare, or cyber-warfare.[24] The U.S. Army War College's *Information Operations Primer* defines these aspects. It states that Information Operations are:

> . . . those actions taken to affect an adversary's information and information systems while defending one's own information and information systems. Information operations also include actions taken in a noncombat or ambiguous situation to protect one's own information and information systems as well as those taken to influence target information and information systems.[25]

Information operations will have to be conducted internationally and within the United States. Information Operations, in the context of this chapter, focus solely on the aspects of attacking and defending information systems and refer exclusively to cyber-security measures, not the full aspects of all information operations. Finally, the President defined "Incident Management" as one of the responsibilities that require policy and actions in order to respond to terrorist acts that could not be prevented. Again, terrorist incidents will occur within the United States and abroad. These measures, because they span various agencies, require one organization to define policy, devote resources and monitor policy execution to ensure a *coherent* national strategy exists for each of these functions. Keeping these four functions in mind, the next step is to assign responsibilities. Table 1 proposes an alignment of respon-

ibilities for functions required to combat terrorism and is ırther explained below.

NSA and NSC Staff - Coordinate/Advise President on Global War on Terrorism

| | Antiterrorism (AT) | Counterterrorism (CT) | Incident Management (IM) | Information Ops |
|---|---|---|---|---|
| ithin the USA | HLS (DoD lead agency) | HLS (DoJ lead agency) | HLS (FEMA lead agency) | CySA (DoJ lead agency) |
| cternal to USA | CTA (DoS lead agency) | CTA (DoD lead agency) | CTA (DoS lead agency) | CySA (DoD lead agency) |

DOJ - Department of Justice
DOS - Department of State
DoD -Department of Defense
FEMA - Federal Emergency Management Agency

**Table 1. Functions and Assignment of Roles and Responsibilities.**

*Achieving Unity of Effort at the Strategic Level*. First and foremost, the President should eliminate the dual structure currently in effect as a result of National Security Presidential Directive and Homeland Security PDD-1, and require a single organization and system rather than two with shared responsibility. Additionally, the President should expand the National Security Council's role to include homeland security. This will effectively assign all four functions required at the strategic level to conduct the global war on terrorism under one organization. The National Security Council would be responsible for advising the President on actions or policies to combat terrorism, establish objectives and priorities to meet requirements, and develop a coherent, integrated national security strategy intent on protecting America and eliminating the terrorist threat. The National Security Council and the National Security Council system are best suited for this responsibility because of the established interagency network and inherent presidential or strategic viewpoint the National Security Council system takes regarding national security issues.[26] Though it has its shortcomings, the National Security Council system has proven effective since 1947 with its well-established multiagency connections and reputation for successfully managing national crises.

Next, the President should reassign the Homeland Security Adviser, the Cyber-security Adviser, and the Counterterrorism Adviser to the National Security Council staff. These advisers would be responsible for coordinating, recommending, and supervising strategic policy with regard to the functions shown in Table 1. The Homeland Security Adviser would be responsible for policies within the United States. The Counterterrorism Adviser would be assigned responsibility for policy external to the U.S. The Cyber-security Adviser would have responsibility for integrating both the domestic and international policies regarding cyber-security aspects of information operations since this area tends to span international borders.

The National Security Council staff is relatively small and would become ineffective if too large, and so the complexity of integrating policy on each of the four functions would overwhelm the existing structure. Therefore, within these assigned functions, the National Security Council would rely upon currently configured hierarchical organizations with sufficient staffing and traditional expertise to assist in coordinating, staffing, and supervising policy decisions. They would also manage the resources and execute budget integration and supervision for those responsibilities. How might this concept look in practice?

*Assignment of Responsibilities*. Antiterrorism measures would fall under the Homeland Security Adviser. He would coordinate with Department of Defense (DoD) and its newly established Northern Command (as well as other Federal agencies) to plan, supervise, and resource interagency activities. Specifically, these activities would be associated with defending the national borders, protecting critical U.S. infrastructure, ensuring the safety of U.S. airspace, and directing national intelligence or law enforcement agencies to collect intelligence against terrorists entering the country or those already within it. Counterterrorism measures, on the other hand, would be the Department of Justice's responsibility under the Homeland Security Adviser, since attacking terrorist cells within the United

States has primarily been a law enforcement issue. Identifying terrorist activities and havens and arresting suspected terrorists before they act is a role for which the Federal Bureau of Investigation and other law enforcement agencies at the local or community level are best suited. The Homeland Security Adviser would depend on the Federal Emergency Management Agency for its expertise in organizing, training, and coordinating incident management measures. This agency has evolved into an effective structure within the United States for responding to natural disasters and minimizing the effects of natural disasters and other large-scale catastrophes.

External to the United States, the Counterterrorism Adviser would have similar tasks coordinating and supervising strategic policy for the global war on terrorism, relying upon the Departments of Defense and State primarily as his supporting agencies for coordinating, supervising, and resourcing functional activities overseas. For instance, the State Department would be responsible for antiterrorism and incident management measures overseas (except on military installations). Ambassadors and their country teams already exist to represent the interests of all U.S. personnel and facilities located in numerous countries throughout the world. They would also be responsible for coordinating host-nation support efforts to respond to terrorist incidents that occur to U.S. personnel or facilities countries where there is a U.S. presence. They would establish policies to ensure the safety of U.S. personnel and coordinate with U.S. and foreign intelligence and law enforcement agencies of the host countries to gather intelligence designed to identify and detect threats. Attacking the sources of terrorism would be a DoD responsibility. The Defense establishment, with its regional focus, is best structured (than any other existing organization) with the existing Joint Staff and regional combatant commanders to devise strategy and implement policy internationally to identify, detect, seek, and destroy

or neutralize sources of terrorism, either unilaterally or in cooperation with other nations.

As stated earlier, information operations would come under the auspices of the special Adviser to the President for cyber-security as the lead for coordinating national policy regarding information operations security measures. For support, the cyber-security adviser would rely on the Justice Department in its operating of the National Infrastructure Protection Center. The National Infrastructure Protection Center has been established within the Federal Bureau of Investigation and is charged with "developing information resources and working relationships with infrastructure owners and operators and providing a mechanism for information sharing between the public and private sectors. The National Infrastructure Protection Center will develop all necessary assets and capabilities to support operations aimed at disrupting and defeating threats to critical infrastructures."[27] For information operations outside the United States, DoD has already assigned Space Command responsibility for information operations within the military structure for both defensive and offensive measures.[28] Space Command has made significant progress in developing measures to protect information security and has developed the means of attacking threats through this medium. It is also a supporting command for the regional combatant commands worldwide and can leverage this existing relationship to integrate Information Operations into the established DoD structure. This would enhance integration of cyber-security policy and, with additional interagency assistance, should enable it to be broadened to include designing policy and developing measures to protect all governmental systems located overseas.

*Establishing the Interagency Network from Strategic to the Tactical Levels*. Responsibilities for activities would be centrally coordinated and integrated at the National Security Council level with staff support and expertise from "lead agencies." However, none of these departments can do

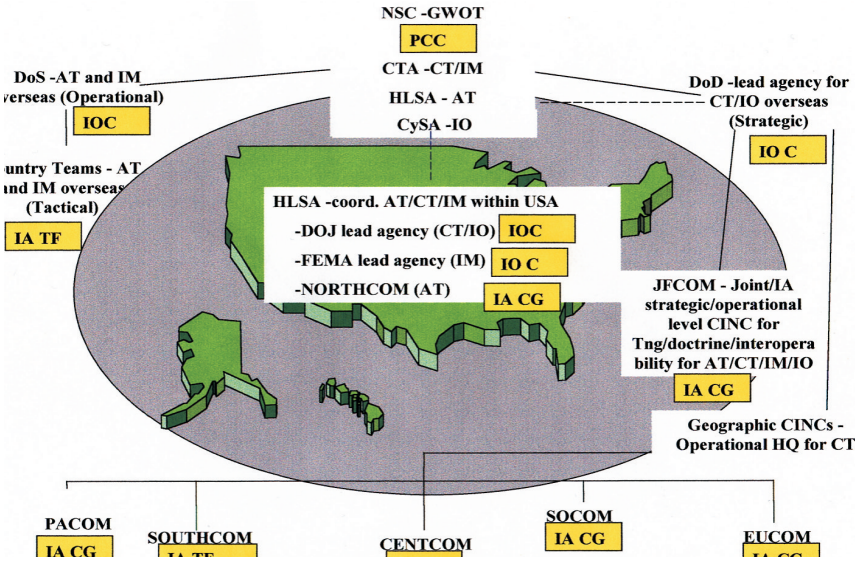
it all alone and accomplish the strategic goals without interagency support. Combating terrorism requires a "diplomatic component, a law enforcement component, an intelligence component, a financial component and a military component as well."[29] Network-centric advocates promote the concept that an interagency network must be applied to the national security structure at all levels in order to eliminate the terrorists' freedom of movement, limit their space, and seize the initiative. Netwar advocates recommend using networks to combat networks. Several types can work. However, the most effective is the all-channel network. This type of network exists when all participants of a network or node are connected to each other. Although the most effective, they are also the most difficult to establish and to sustain.[30] They require robust, integrated packages of information-sharing technology to function effectively. They also require heavy investments in human capital. Robust information-sharing technology packages require people to use the equipment and make decisions to use the shared information.

Policy Coordination Committees established by the President's National Security PPD-1 are interagency structures by their nature and serve as the networked system as the strategic level. However, combining and reorganizing Policy Coordination Committees created by both national security and homeland security presidential directives will be necessary to achieve further efficiencies. Additionally, interagency operations centers should be established within appropriate executive branch departments to effectively coordinate and close the strategic level gaps within our current "stovepiped" system. Lastly, establishing interagency networks at the operational and tactical levels will be essential in order for the numerous departments to carry out interagency policy and translate strategic goals and objectives into operational and tactical missions conducted by interagency organizations at the lowest levels.

Applying an all-channel network structure to current forms within the U.S. Governmental structure will be no easy task. Converting completely to a flat, decentralized, and highly responsive structure that some suggest, especially in the midst of fighting the current war on terrorism, could be disastrous. Adding all-channel network structures to augment current hierarchical organizations, rather than dismantling and replacing existing structures in the midst of the conflict, is the optimal solution. In some cases, all-channel network principles are already being applied within current government organizations below the strategic level. In other cases, augmenting existing organizations can be done with relatively minor difficulty. How might the United States apply some of these principles at the operational and tactical levels?

Use of interagency coordination groups and task forces could augment existing structures to enable current systems to adopt a networked structure to operate as part of the counter-netwar Arquilla and Ronfeldt describe. Figure 1 depicts a proposed structure for organizing the U.S. Government to combat terrorism. The depiction shows interagency operations centers, interagency coordination groups and interagency task forces imposed on existing organizations and aligned functionally in accordance with Table 1. The structure depicts organizations at the strategic, operational and tactical levels. Interagency coordination groups would exist primarily at the operational levels while interagency task forces exist at the tactical levels to execute interagency operations in the form of an attack, an arrest or some other action requiring the coordination and synchronization of multiple agency actors.

The interagency coordination groups would provide expertise and advice to the commander or leader regarding capabilities that each organization can apply to assist in achieving desired operational objectives. They would provide policy recommendations and engage in planning for campaigns and major operations. Further, they would share information with and coordinate the support of their parent




agency actors to achieve the interagency result desired. An example could be an interagency coordinating group working for a combatant commander. This group would consist of representatives from the Departments of Justice, State, Treasury, Commerce, Agriculture, and the Central Intelligence Agency to synchronize the activities of their respective departments to identify, detect, target, and destroy, or arrest terrorists within a combatant commander's area of responsibility. They would also assist planners in establishing appropriate additional interagency organizations within an area of responsibility

such as a subordinate unified or functional command or Joint Task Forces.

Interagency task forces, on the other hand, would be interagency organizations that conduct tactical missions much like those that the Joint Interagency Task Force-East does in executing counterdrug tasks in support of the SOUTHCOM area of responsibility. Their mission to conduct

> detection, monitoring, and handoff of suspected drug trafficking events; coordinate counterdrug operations; conduct counterdrug engagement; and support country team and participating nation LEA (law enforcement agencies) initiatives to achieve an effective and coordinated multinational counterdrug effort in the U.S. Southern Command area of responsibility.[31]

The task force supports the nation's counterdrug strategy as an interagency organization. Joint Interagency Task Force-East is an organization that is relatively permanent because of the sustained counterdrug effort the United States has been performing. Congressional directives and the 1994 National Interdiction Command and Control Plan established the Task Force. Since 1994, Joint Interagency Task Force-East has made significant inroads not only in intercepting drugs smuggled into the United States, but also in developing a viable working interagency organization to serve as a model for other such undertakings. Over the years, the organization has developed bonds of trust and confidence among agency actors and the department chiefs they represent to develop effective interagency procedures that support achieving tactical and operational objectives.[32] One could reasonably assume that similar organizations created in other regional combatant commands and organizations, whether they are coordinating groups or task forces, would have the same success in overcoming parochial departmental agendas to achieve national interests rather than parochial ones.

Figure 2 depicts how the interagency structure would interconnect consistent with the requirements to conduct counter-netwar activities to defeat the terrorists. Shared information networks and databases would have to be created to speed the exchange of information and establish an all-channel network. The all-channel interconnectivity this augmentation offers could leverage the strength of existing traditional hierarchical structures, while establishing the interagency coordination and action required to identify, find, and take action against terrorists before they act or minimize the effect of their actions with rapid incident response. In effect, with structures in place to affect interagency coordination and action, the freedom of movement enjoyed by current terrorists would shrink and restrict their options. But structures alone are insufficient to ensure success. Procedural practices must be established to create a common language among multiple organizational cultures to aid in effectively and rapidly assigning tasks and defining priorities.

*Procedural Changes Required*. At the strategic level, the National Security Council should develop procedures that dictate how the interagency process should work.[33] Although not a panacea, PDD-56, which served as the Clinton administration's process for conducting complex contingency operations, could serve as a starting point. Admittedly an imperfect process for conducting interagency operations at the strategic level, it does have its advantages. PDD-56 provided a framework and planning tools under the auspices of an executive committee answerable to the National Security Council Deputies' supervision. The framework also provided for a fully integrated political-military plan that, in theory, synchronized all elements of national power in complex interagency contingency operations. Additionally, rehearsals, after action reviews, and training became standard practices in conducting contingency operations. One report cited the combination of these practices showed a significant improvement in interagency effectiveness.[34] However, it had drawbacks as well.

Not all aspects the framework called for manifested themselves in execution. One study identified areas where improvement could be made to enhance the effectiveness of PDD-56. First, the directive was best suited for the strategic level. When applied below that level, it ceased to be effective. Second, it functioned best with a strong leader who championed the process. Third, the framework needed to provide for more flexibility in the plan to achieve versatility and acceptability. Finally, to be effective PDD-56 required dedicated funding to support training.[35] Using this analysis and developing procedures that the agencies can agree upon while leveraging the advantages of this directive and minimizing its drawbacks is useful. It increases the probability that the National Security Council staff can develop an effective framework to energize and focus interagency planning to synchronize all elements of national power into a coherent, integrated strategy to prosecute the global war on terrorism. Since PDD-56 did not

apply below the strategic level, what about the operational and tactical levels?

The Joint Staff has recently developed a generic political-military plan template that lists the key components of an interagency plan for contingency operations. Both PDD-56 and the generic plan focus primarily on humanitarian assistance operations or peacekeeping operations. However, these plans can easily be applied to operations to combat terrorism, since interagency unity of effort is the desired outcome. To complete the development of the standardized interagency doctrine and interoperability procedures, the National Security Council should task DoD with this responsibility. Joint Forces Command in Norfolk, Virginia, has already been assigned as DoD's headquarters for capturing joint lessons learned, conducting joint exercises and training, assessing joint interoperability, and publishing joint doctrine. This headquarters could readily adapt itself to an interagency perspective with augmentation from the various departments creating an interagency cell. Initiatives along these lines are already underway. *Millennium Challenge 2002*, an interagency exercise, is planned for April 2002, with the goal of assessing and improving interagency operations at the operational level.[36] The Joint Forces Command coordination group should consist of senior representatives from the various departments who have had operational experience serving on either an interagency task force or a regional interagency coordination group. With experienced augmentation, Joint Forces Command would better be able to execute the assigned role of creating interagency doctrine at the operational and tactical level.

**Conclusion.**

This chapter analyzed the current status of the interagency system and processes vis-à-vis the current terrorist threat. It identified how new terrorist

organizations are different. It described as well how their organizational structures can take advantage of traditional U.S. hierarchical structures. Finally, it proposed a potential method of defining the problem and organizing the U.S. Governmental structure to respond to this new threat.

The proposal recommends an organizational concept using networks to combine the traditional strengths of existing departmental expertise within the U.S. Government with the advantages of interagency cells to enhance connectivity and coordination. This concept is designed to deal with the interagency complexity of operations we confront as well as sustain the long-term U.S. effort to conduct the global war on terrorism. By no means a perfect or easy solution, it provides a realistic option to consider for organizing the U.S. Government's response to international terrorism, with the ultimate goal of achieving unity of effort in defeating transnational terrorists that threaten the globe while protecting America's homeland and its citizens.

## ENDNOTES - CHAPTER 11

1. Ivo Daalder and I. M. Destler, "Organizing for Homeland Security," Statement Before the Committee on Governmental Affairs, U.S. Senate, October 12, 2001. Internet site *http://www.brook.edu/views/testimony/daalder/20011112.htm.*

2. William Morris, ed., *American Heritage Dictionary*, Boston, MA: Houghton Mifflin Company, 1976, p. 1, 330.

3. Raphael F. Perl, "Terrorism, The Future, and U.S. Foreign Policy," Washington, DC: Congressional Research Service, Library of Congress, September 2001, p. 3.

4. Gregory Copley, "Defining Terrorism," *Defense and Foreign Affairs Strategic Policy*, Vol. 29, No. 10, November 6, 2001, p. 4.

5. Ian O. Lesser, Bruce Hoffman, John Arquilla, David Ronfeldt, Michele Zanini, "Countering the New Terrorism," Santa Monica, CA, 1999, p. xii.

6. *Ibid*., pp. 39-40.

7. *Ibid*., p. 15.

8. John Arquilla and David Ronfeldt, *The Advent of Netwar*, Santa Monica, CA, 1996, p. 5.

9. John Arquilla and David Ronfeldt, *Swarming and the Future of Conflict*, Santa Monica, CA, 2000, p. 5.

10. Arquilla and Ronfeldt, *Countering the New Terrorism*, p. 54.

11. *Ibid*., pp. 47-55.

12. George W. Bush, "National Security Presidential Directive Number 1: Organization of the National Security Council System," Washington, DC: The White House, February 13, 2001, p. 2.

13. *Ibid*., p. 4. The regional committees include Europe and Eurasia, the Western Hemisphere, East Asia, South Asia, Near East and East Africa, and Africa. The eleven functional committees include: 1) Democracy, Human Rights and International Operations, Assistant to the President for National Security Affairs being the lead); 2) International development and Humanitarian Assistance, led by the Secretary of State); 3) Global Environment, co-led by the Assistant to the President for National Security Affairs and the Assistant to the President for Economic Policy); 4) International Finance, led by the Secretary of the Treasury); 5) Transnational Economic Issues, led by the Assistant to the President for Economic Policy); 6) Counter-Terrorism and National Preparedness, led by the Assistant to the President for National Security Affairs); 7) Defense Strategy, Force Structure, and Planning, led by the Secretary of Defense); 8) Army Control, led by the Assistant to the President for National Security Affairs); 9) Proliferation, Counterproliferation, and Homeland Defense, led by the Assistant to the President for National Security Affairs); 10) Intelligence and Counterintelligence, led by the Assistant to the President for National Security Affairs); 11) Records Access and Information Security, led by the Assistant to the President for National Security Affairs).

14. Daalder and Destler.

15. George W. Bush, p. 1.

16. The White House, "New Counter-Terrorism and CyberSpace Security Positions Announced," Washington, DC: Office of the Press Secretary, Official Press Release, October 9, 2001, The White House Internet site, *http://www.whitehouse.gov*.

17. Frank G. Hoffman, "Homeland Security: Impossible?" *Proceedings*, U.S. Naval Institute, November 2001, pp. 40-41.

18. Charles Kegley and Eugene R. Wittkopf, "The Process of Decision Making: Roles, Rationality and the Impact of Bureaucratic Organization" *American Foreign Policy*, New York, 1996, pp. 475-476.

19. *Ibid*., p. 476.

20. *Ibid*., pp. 477-488.

21. David Tucker, "The RMA and the Interagency: Knowledge and Speed vs. Ignorance and Sloth?" *Parameters*, Vol. 30, Autumn 2000, p. 71.

22. Department of Defense, "Joint Doctrine for Military Operations Other Than War," *Joint Publication 3-07*, Washington, DC: U.S. Joint Staff, June 16, 1995, p. III-2.

23. *Ibid*.

24. Bush, p.1. The President established the position of Special Adviser for Cyber Security.

25. *Information Operations Primer*, Course Four CD-ROM entitled *Implementing National Military Strategy*, Carlisle Barracks, PA: U.S. Army War College, Academic Year 2001-2002, p. 2.

26. Christopher C. Shoemaker, *The NSC Staff: Counseling the Council*, Boulder, CO, February 1991, p. 43.

27. Department of Justice, "Strategic Plan 2001-2006," found at Internet site *http://www.usdoj.gov/05publications/05_04.html*.

28. The ideas in this paragraph are based on remarks made by a speaker participating in the Commandant Lecture's Series.

29. White House Press Release, October 9, 2001.

30. Arquilla and Ronfeldt, *Countering the New Terrorism*, p. 49.

31. Joint Interagency Task Force—East unclassified briefing comparing and contrasting the counterdrug and counterterrorism and related interagency issues.

32. Conversations with a former Joint Interagency Task Force-East operator.

33. Edward J. Filiberti, "National Strategic Guidance: Do We Need a Standard Format?" *Parameters*, Vol. 25, Autumn 1995, p. 2. Filiberti says that the interagency coordination at the strategic level is a White House responsibility that therefore falls on the National Security Council to develop.

34. National Defense University, "Improving the Utility of Presidential Decision Directive 56—A Plan of Action for the Chairman of the Joint Chiefs of Staff" *Institute for National Strategic Studies* pp. I, 16-19.

35. *Ibid*.

36. Joint Forces Command, "Improving U.S. Interagency Operational Planning and Coordination," White Paper Version 1.0, January 2001.

# CHAPTER 12

# RAPID DECISIVE OPERATIONS: THE SEARCH FOR THE HOLY GRAIL OF JOINT WARFIGHTING

**Lieutenant Colonel David R. Hogg**

> There can be little doubt that the [Holy] Grail is an elusive idea. It has taken, and will continue to take, many different forms in people's minds. No one theory as yet has been able to explain all the details in the Grail mystery.[1]

Much like the search for the coveted Holy Grail, nations and armies have historically searched for the means to fight quick, decisive battles that result in a painless victory, while minimizing the expenditure of national resources in terms of both men and equipment. Sun Tzu in his book, *The Art of War*, written over 2,000 years ago, states plainly that "those skilled in war subdue the enemy's army without battle. They capture his cities without assaulting them and overthrow his state without protracted operations."[2] However, history is saturated with examples of nations planning for decisive victory, only to become bogged down in a combination of annihilation and attrition type battles due to the complex nature of warfare. Clausewitz, in *On War*, explains that war is not merely "an act of force to compel our enemy to do our will," but a more complicated affair because of its role "as an instrument of policy."[3] It is because of this necessary interaction between war and political objectives that the U.S. current system of developing a National Security Strategy (NSS) is directly linked to how the United States conducts warfare and, in turn, develops its military force to achieve these political goals when other means fails. "War is never an isolated act."[4]

**The National Guidance.**

The "National Security Strategy" published in December 2000 and signed by Former President William J. Clinton states that the United States "must transform [its] capabilities and organizations"[5] to meet the challenges of the future and ensure that the nation can secure its vital, important, humanitarian, and other interests. The most recent *Quadrennial Defense Review Report* (QDR) acknowledged the need to transform the military and has established four distinct pillars for the transformation of U.S. military forces. Those four pillars are:[6]

- Strengthening joint operations though standing joint task force headquarters improved joint command and control, joint training, and an expanded joint force presence policy.

- Experimenting with new approaches to warfare, operational concepts and capabilities, and organizational constructs such as standing joint forces through wargaming, simulations, and field exercises focused on emerging challenges and opportunities.

- Exploiting U.S. intelligence advantages through multiple reconnaissance and enhanced exploitation and dissemination.

- Developing transformational capabilities through increased and wide-ranging science and technology, selective increases in procurement, and innovations in Department of Defense (DoD) processes.

The challenge in executing these four pillars is essentially joint in nature. The implementation of the four pillars represents a challenge in dollars, service parochialism, and priorities. It is a challenge of shaping the U.S. armed forces for the future while still dealing with the present threats the nation faces.

*Joint Vision 2020* has attempted to explain what military capabilities are required for the future. Hence, it represents a driving document in the process of transformation. *Joint Vision 2020* details three important areas for the transformation, areas it tasks each of the services to follow. The first is establishment of a common framework and language to drive Service doctrine and concepts to explain how they contribute to the joint fight. The second lies in the processes of joint experimentation and training to test new concepts and ideas. The third is the process to manage transformation in terms of doctrine, organization, training, materiel, leader development, personnel and facilities (DOTMLPF).[7] *Joint Vision 2020* establishes a goal for future forces in terms of their capabilities and concepts. It develops the broad concepts and relies on each service to develop a transformation campaign plan to bring into fruition the concepts it envisions. The executive agent for joint transformation is the U.S. Joint Forces Command. It is this command that must bridge the gap between the individual Services, the CINCs, and the joint environment. If U.S. Joint Forces Command receives sufficient authority and congressional support, the U.S. military should be able to make *Joint Vision 2020* a reality and ensure the transformation of the U.S. military.

Joint Forces Command has a functional mission to act as "the chief advocate for Jointness and leading edge of transformation."[8] In addition to its role in transformation, it also must provide forces to the CINCs and support domestic missions in support of Homeland Defense. In its transformation role, the command has recently adopted a concept of joint warfighting called Rapid Decisive Operations (RDO). The concept developers believe RDO is the warfighting concept of the future—one which will allow U.S. forces to achieve full spectrum dominance.

**The Nature of the Problem.**

The development of the RDO concept is an attempt by Joint Forces Command to execute joint transformation. In the words of Commander General William F. Kernan, RDO aims at infusing "our joint forces with new ideas that change the way we [as a Nation] fight."[9] RDO rests not on the concept of "holding out for silver bullet scientific breakthroughs,"[10] but instead looks at a new concept for fighting. It depends on warfighting and not "any particular array of technologies."[11] It aims at developing a warfighting concept so powerful that the U.S. armed forces can "win a war in one blow."[12] The question, then, is whether or not RDO is the "Holy Grail" of Joint Warfighting.

**Direction of Research Effort.**

RDO represents a new and evolving concept that continues to change and adapt as issues are defined and resolved. Its developers present new terms that may or may not be old concepts renamed and dressed up to support the ideals of RDO. On the other hand, one must admit that selling new concepts to well-entrenched audiences is tough; there are more doubters then supporters when significant change is involved. At present, the joint community is attempting to address future issues, especially those of interservice compatibility and capabilities, while developing a common, acceptable doctrine of joint warfighting. The reality of service Title X responsibilities makes developing joint warfighting doctrine, and then forcing the services to transform themselves in accordance with that joint doctrine, a formidable task. There is a general lack of linkage in the documentation to historical analysis and a theoretical base. Part of this may be due to over-reliance on technology or capabilities to address enemy threats. But lacking in virtually all of the studies is the human dimension of warfare: the harsh reality that future U.S. adversaries may not be rational actors.

This chapter will focus on a number of issues dealing with the future doctrine of Joint warfare and transformation. The initial focus is on dissecting RDO, using as its primary source material from Joint Forces Command. It will examine what RDO are, what they hope to accomplish, and the important assumptions associated with RDO. Then this chapter will focus on the viability of RDO based on the criteria of acceptability, feasibility, suitability, and risk. Finally, it will provide an analysis and conclusion on the future of RDO.

The U.S. armed forces are at a critical stage in their evolution. Emerging technologies, fiscal constraints, an increase in the number of failed states, international terrorism, and the lack of a true peer competitor are some of the many issues confronting the United States today. In light of these issues, the military is attempting to transform or evolve its capabilities to defeat any and all threats rapidly and decisively in a Joint and Combined environment. RDO is the catalyst used by Joint Forces Command to address these issues. When looking at warfighting doctrine, capabilities, and force structure, the important issue is not so much in getting it absolutely right, as it is to make sure that military analysts and planners do not get it too wrong.[13] Close should be good enough, and such an approach allows for adaptation as future threat capabilities emerge.[14] However, if this focuses on force structure and capabilities too narrowly, then the U.S. military may in fact reduce its options, capabilities, and ability to deal with a peer competitor in the future. This chapter will focus on both the good and the bad, with its final analysis directed at what may be major weaknesses in the RDO concept.

**RDO— The Envisioned Concept .**

RDO is a concept designed to take *Joint Vision 2020* from a vision into reality. It aims at the integration of Dominant Maneuver, Precision Engagement, Focused Logistics, and Full Dimensional Protection to establish "Full Spectrum

Dominance." RDO envisions taking the old "linear" tenants of joint operations (phasing, preparation, predictability, and synchronization) and developing new tenants (simultaneity, adaptivity, initiative, and cohesion) in order to execute "nonlinear" joint operations.[15] RDO envisions being able to "to impose our will on the enemy, gaining a decision in a week or so for a [small-scaled contingency operation], or turning a [major theater of war] in our favor in that same time frame."[16] The power of simultaneity will lie in the massing of "effects in time, not space" to have the maximum impact on breaking not only the enemy's coherence, but also his will, ending the war or conflict in a single stroke.[17] Along with adaptivity, initiative, and cohesion, RDO aims to take advantage of the range of joint capabilities and information technologies to develop a joint team that has a "shared training, education, and military culture."[18] In short, RDO is looking at the future of warfare from the U.S. perspective as a fully integrated "purple fight," capable of overwhelming enemy forces across the spectrum of conflict without an over-reliance on technology, but also willing to absorb new technologies as they become available. The concept developers at Joint Forces Command argue that RDO might be the "equivalent of the 1980s Army/Air Force *Airland Battle*, a capstone concept that can be applied to the entire spectrum of military operations."[19]

According to the authors, RDO is an operational concept that envisions being able to "rapidly and decisively coerce, compel, or defeat the enemy in order to accomplish our strategic objectives" by overwhelming, unrelenting combat operations. [20] RDO has an explicit aim of avoiding lengthy campaigns or having to conduct extensive buildup of logistical bases and forces. Instead, RDO looks to accomplish its objectives using a concept that looks quite similar to the decisive battle of Napoleonic times. Those advocating RDO do, however, acknowledge that the decisive battle may not in fact resolve the conflict. As such, RDO is a concept that aims to win the initial battles of a conflict and in doing so "establish the conditions to transition to a higher

(e.g., major regional contingency) or lower (e.g., security and stability operation) level of commitment."[21] Another refreshing factor in RDO is the recognition of the other elements of national power: specifically the ability to attempt to resolve a conflict before the commitment of military forces by diplomatic, economic, and/or information operations.

The current White Paper on RDO, dated October 25, 2001, defines both rapid and decisive operations. A rapid operation is the ability to "accomplish the objectives of the campaign with speed and timing that is superior, absolutely and relatively, to the speed of the adversary."[22] Decisive is defined as "imposing our will on the enemy by breaking his coherence and defeating his will and ability to fight."[23] Decisiveness, according to the White Paper, is accomplished by attacking an adversary using the full range of national capabilities to destroy the coherence of his ability to fight by striking his critical functions from dimensions and directions against which he has no counter. The overall objective is to break rapidly his will to fight and, as necessary, destroy his ability to conduct coherent operations. RDO are designed to attack and break the enemy's will to fight by demonstrating that he "cannot achieve his objectives and that he will ultimately lose what he values most if he does not concede."[24]

The functional concepts of RDO are divided into three categories: knowledge, command and control, and operations. These functional concepts and their supporting tenets encompass the anticipated characteristics or enablers of future joint operations, which are defined as knowledge-centric, effects based, fully networked, and coherently joint.[25]

The first and most important enabler is referred to as knowledge-centric. Knowledge-centric demands that U.S. forces achieve and maintain information superiority over their adversaries. Information superiority, according to joint doctrine is "the capability to collect, process, and

disseminate an uninterrupted flow of information while exploiting or denying an adversary's ability to do the same."[26] This is a modern adaptation and expansion of Sun Tzu's statement of "know your enemy and know yourself; in a hundred battles you will never be in peril."[27] RDO assumes that the United States will have complete knowledge of its enemy because of its ability to conduct a full and sufficient Operational Net Assessment (ONA).[28] Knowledge-centric operations will rely on technology to provide the United States informational advantage over its adversaries in order to facilitate strategic and operational decisions before the enemy can react to them or conduct their own counteroperation. A complete and flawless ONA will be critical in the ability of U.S. forces to execute RDO.

Effects-based operations is an enabler that allows the United States to attack the enemy's systems with both military and nonmilitary means to produce "a desired strategic outcome or effect."[29] The effects in this case can be physical, functional, and/or psychological, and will allow planners to predict second, third, and fourth order consequences resulting from these operations.[30] The United States, because of its informational and technological advantages, will be able to clearly identify the enemy's decisive points, links and critical path to the enemy's centers of gravity. Understanding the linkages between the leadership, their warmaking capabilities and critical vulnerabilities will allow the elements of national power to apply leverage within the system to collapse the enemy system and subsequently defeat the capability and the will of the enemy, thus ending the conflict. Executing effects-based operations will depend on a networked force that is able to share both military and nonmilitary information simultaneously, which is currently a major shortfall in the execution of Joint operations.

Developing a fully networked joint force is another key enabler to the execution of RDO. A "fully networked joint force" implies a joint force that has a common relevant operational picture referred to as CROP. The ability of

ground, air, space, sea and nonmilitary assets to share the same information and thus provide the strategic planners and warfighters with a common operational picture is a critical issue.[31] Just as important will be the ability to integrate this common operational picture with the other elements of national power. As a major enabler of RDO, developing a fully networked joint force also addresses the issue of joint and interagency interoperability, a major weakness in the current joint military environment.[32] Without the enabler of a networked force, it will be difficult, if not impossible, to conduct the envisioned, synchronized operations, or be able to exploit rapidly the use of knowledge and effects-based operations.

The realties of current and future operations is that they will all be joint. The enabler of "inherently joint" highlights this fact. This enabler, once again, focuses on the issue of joint interoperability and the need to centrally drive service procurement, training, leader development, and doctrine so that they will support not only RDO but *Joint Vision 2020*. Inherent in this process is Doctrine, Organization, Training, Materiel, Leader Development, Personnel and Facilities (DOTMLPF).[33] This is the construct used for analysis that each service currently conducts in system development or when directed by Congress in support of the joint effort. What impact a joint DOTMLPF analysis will have in shaping each of the service's support in joint transformation and RDO is an issue and may necessitate a Congressional mandate to have a true effect.

**RDO and *Joint Vision 2020* Linkage .**

The objective of RDO is the "operationalizing of *Joint Vision 2020* in order to achieve full spectrum dominance."[34] To achieve this objective, Joint Forces Command has established near-, mid-, and long-term objectives in order to develop integrated joint operations capable of achieving RDO. The near-term objective is to develop and exercise selected forces capabilities needed to execute RDO. This

phase should be completed by 2005. The success of the near-term objectives should reinforce, and provide the motivation to the services and the DoD to accept the RDO concept. Mid-term objectives go from 2006 to 2010 and are designed to give selected elements of the armed forces *Joint Vision 2020* capabilities. Finally, the long-term objective (2011-20) sees the U.S. armed forces achieving full spectrum dominance as described by *Joint Vision 2020*. The overall role of Joint Forces Command will be in the integration of joint concepts, which includes RDO as the centerpiece.

**The Way Ahead for the Continued Development of RDO.**

The Joint Transformation campaign plan is centered around the concept of CETA—Concept/Experimentation/Training/Assessment cycle, and what is referred to by Joint Forces Command as the "Big Three"—or the three experiment/exercises which will incorporate "training objectives of subordinate commands and Service components" in 2-year cycles. [35] The "Big Three" consists of Major Field Experiments (*Millennium Challenge* and *Olympic Challenge*) conducted during the even years. Scoping Limited Objective Experiments (*Unified Vision*) will be conducted during the odd years, and, finally, the integration of Joint Task Force Command Exercises (*Unified Challenge*, *Unified Endeavor*, *Roving Sands*, etc.) into the field experimentation cycle (even years). Based on the outcomes of the first 2-year cycle, Joint Forces Command will continue to relook and redefine RDO until they are able to achieve *Joint Vision 2020's* goal of full spectrum dominance.

**Assumptions Critical to the Success of RDO.**

Assumptions according to joint doctrine are those "supposition[s] on the current situation or a presupposition on the future course of events . . . assumed to be true in the

absence of positive proof, necessary to enable the commander . . . to . . . make a decision on the course of action."[36] If an assumption is proven wrong, then it will either negate the current course of action or result in a branch plan or sequel to the overall operation. In the case of the concept of RDO, a bad assumption may, in fact, negate the concept as a whole and potentially lead to disaster for the U.S. military, if alternative solutions are not planned or accounted for. In the case of the concept of RDO, the critical assumptions are as follows:

- Future U.S. forces will develop the capability for perfect "knowledge" and subsequent analysis of an adversary.
- The United States will retain its current dominance in military technology and information superiority.
- Future adversaries will not develop the capability to conduct an asymmetrical attack that will undermine or cripple current and future U.S. military advantages.
- Winning decisive, simultaneous battles will result in overall victory and/or regime changes.
- If any of the above assumptions prove to be wrong, then it will undermine the concept of RDO.

In the case of the first assumption, perfect "knowledge" is a relative issue that must be addressed based on the adversary's abilities and speed to process information faster than the United States. It also assumes that the analysis of that information will be accurate and complete. The second assumption implies that U.S. intelligence agencies must continue to develop and implement future technologies into U.S. military forces ahead of potential adversaries. This will require continuous research and development and forward thinking by both military and industrial complexes. The third assumption is directly related to the U.S. ability to

conduct a thorough ONA on the current and future capabilities of potential adversaries. It may also require the United States to conduct preemptive, potentially unilateral operations against an adversary to eliminate their capability to conduct a crippling asymmetrical attack against the United States—a politically dangerous path to follow with potentially adverse results throughout the international community. The fourth assumption addresses the theory of winning wars through decisive battles. If war was nothing more then battles, this theory has potential. However, war is not a simple affair, and it continues to become more complicated, especially in light of globalization.

**Acceptability—The American Way of War.**[37]

Acceptability, for the purpose of this chapter, is whether or not the concept of RDO is consistent with the American strategic culture which subsequently defines the American way of war.[38] The strategic culture of a nation is a driving factor in determining how a nation fights and how it interacts with other nations. Strategic culture consists of traits that define a nation (country, state, tribe, or other organized groups) and gives them a distinct identity. It rests on historical growth, geographic location, international influence, traditional hates and fears, national quirks or flaws, strengths and weaknesses, and economy, to name the major pieces. Combine all of these traits, and one begins to establish the strategic culture of the nation. America over the years has developed a specific strategic culture that, in turn, has defined the American way of war.

In looking at American strategic culture, one only needs to examine its history—long term, not short term. America is a nation of compromise, give and take. However, when the American way of life is threatened or attacked, Americans will respond in force until they achieve the desired objective. America likes being seen and needs to been seen as standing among the good guys. Americans expect their military

forces to be dominant, and, subsequently, technology is an important factor. Nevertheless, Americans will take and accept casualties if they perceive the cause to be just. Examples of this are the American Civil War, World War I, and World War II. Americans are not afraid to fight, but expect their leadership, military and political, to be responsible when using military force, and only after other elements of national power have failed to resolve the issue. Americans, as a democratic nation, believe in the rights of others, often to the extreme. If a nation attacks America, then Americans are willing to suspend some of those rights to protect their way of life. The passion of the American people can never be underestimated. It will, and has in the past, guided the reasoning of the government and, in the event of an attack or atrocity, will demand justice (some would also say vengeance) through the decisive use of military force.

Based on the American strategic culture, America has developed a unique way of war that is unprecedented in modern times and is a direct reflection of geographic positioning; economic, technological, and industrial strengths; history; and democratic values. The American way of war is thus defined as follows:[39]

- Emphasis on the use of overwhelming or decisive force,
- Defined, clearly stated military objective,
- Emphasis on technological superiority,
- Risk and casualty adverse (for political reasons),
- Standing, professional, apolitical force (but not politically naive).

The concept of RDO conforms to the American way of war on a variety of levels. First, the concept envisions using all elements of national power to overcome and defeat an adversary quickly. It offers to the civilian leadership and

strategic planner clearly defined objectives based on information superiority and knowledge-centric based operations. RDO offers to the American leadership and public, the idea of quick, decisive battles that are technology based, especially in terms of information superiority, precision engagement, rapid deployability, and future projected technological improvements in equipment and capabilities. It is a concept that is based on using detailed, precise overwhelming force that potentially will reduce the overall risks and casualties to military force. And, finally, it addresses the issue of maintaining a standing professional force with its emphasis on establishing a joint based DOTMLPF.

**Suitability—Historical and Theoretical Basis for RDO .**

Suitability, for the purpose of this chapter, is whether the employment of RDO will actually accomplish the mission when carried out successfully. Successfully means well planned, prepared, rehearsed, and executed. Does RDO have a historical and theoretical basis for success?

On the theoretical issue, there are a number of theorists who ideas support those envisioned by the authors of the RDO concept. The first of these theorists is Sun Tzu. Throughout Sun Tzu's writings, there are a number of points he highlights that directly relate to RDO. The first one, previously mentioned, was the idea that generals who were skilled in war could position themselves in such a way that the enemy had no choice but to surrender or die.[40] A complete victory, without having to fight as a result of a force's disposition, was possible in the era of Sun Tzu. It was possible because the warring factions in China were of similar cultures and values. It consisted of a society or culture where the military was the absolute power of the warlords. To lose the army was to lose power, and, subsequently, when the army was put in a precarious position, it was best to retire from the field of battle in order

to retain power. Today's world is much more complicated, more global, than it was in the time of Sun Tzu. Today, the military is just one critical element of national power. Sun Tzu also talked about the need for complete information and knowledge about oneself, the enemy, and the environment. RDO expresses a modern day version of this concept, using information superiority and knowledge-centric operations which includes an ONA.

Sun Tzu was a believer in rapid, decisive operations. He states that "[v]ictory is the main object in war. If this is long delayed, weapons are blunted and morale depressed . . . [f]or there has never been a protracted war from which a country has benefited."[41] Thus the idea of rapidly defeating your enemy is at least as old as the writing of Sun Tzu. However, the theories of Sun Tzu must be put into proper perspective when one relates them to modern day warfare. First and foremost, the emperors of Ancient China maintained their position through the strength and effectiveness of their army. When an army was defeated on the field of battle, it was much more decisive in terms of regime changes and cost with respect to human life than today's modern democratic societies. There were no war crime tribunals, and the power of the emperor was absolute. These same criteria do not exist in American democratic society. Fortunately, these conditions have existed in other areas in which we have fought. An example used by the proponents of RDO is the 1989 invasion of Panama, referred to as Operation JUST CAUSE. By applying Sun Tzu's writing in absolute terms to today's modern world, Operation JUST CAUSE is an example of a well-planned and rehearsed operation that successfully accomplished its initial military objectives. However, Operation JUST CAUSE is not a good example to use in supporting the concept of RDO, because it did not adhere to the basic tenets of RDO as described by Joint Forces Command.

On December 20, 1989, the United States executed Operation JUST CAUSE, the invasion of Panama. Tensions between the United States and the Panamanian dictator

Manuel Noriega had been growing ever since Noriega forced elected Panamanian President Dr. Nicolas Ardito Barletta from office in 1985 and replaced him with then Vice President Eric Arturo Delvalle.[42] The following is a synopsis of the critical events that ultimately lead to the decision to invade Panama by the United States.[43]

- 1986. The Reagan administration cuts aid to Panama by 85 percent and sends national security advisor John M. Poindexter to meet with Noriega and warn him to stop dealing in illegal narcotics.

- 1987. Noriega is publicly accused by former chief of staff Colonel Roberto Diaz Herrera of the murder of Dr. Spadafora (a critic of Noriega who was found dead in 1984) and in the manipulation of the 1984 Panamanian elections. These allegations caused a series of riots and ultimately led to the arrest of Herrera by Noriega's Panamanian Defense Force.

- 1987. The U.S. Senate passed a resolution demanding the removal of Noriega from power. This results in the U.S. Embassy in Panama being targeted by rioters who were supporters of Noriega.

- 1988. The U.S. Department of Justice charges Noriega with supporting the illegal drug trade. Noriega removes President Delvalle from office.

- March 3, 1989. Panamanian Defense Forces stop 21 DoDo school buses full of school children because the bus drivers were driving buses with U.S. Government license plates.

- April 5, 1989. Alleged Central Intelligence Agency (CIA) operative Kurt Muse is arrested by Panamanian Defense Forces.

- April 18, 1989. Noriega requires that all U.S. citizens traveling to Panama must have visas to enter the country.

- May 7, 1989. Panamanian elections are held.

- May 8, 1989. Panamanian Defense Forces raid vote-counting sites and usurp the election process, declaring Duque the winner.

- May 9, 1989. Noriega annuls the elections because of "obstruction by foreigners."[44]

- May 10, 1989. Opposition leaders Endara, Ford, and Arias, along with their supporters, stage a demonstration against Noriega which is brutally dispersed by members of Noriega's Dignity Battalion.

- October 3, 1989. Members of the Panamanian Defense Force attempt a coup against Noriega, which fails and leads to the execution of several members of the Panamanian Defense Force.

- December 15, 1989. Noriega announces that a state of war exists between the United States and Panama. Noriega announces himself as the "Maximum Leader."

- December 16, 1989. Marine Lieutenant Paz is shot and killed by Panamanian Defense Forces. That same day a Navy officer and his wife are arrested and abused by Panamanian Defense Forces.

- December 20, 2989. Operation JUST CAUSE is executed.

Operation JUST CAUSE was designed as a campaign with specific and limited military objectives. Those objectives were:[45]

- Protect U.S. lives and key sites and facilities.
- Capture and deliver Noriega to competent authority.
- Neutralize PDF forces.
- Neutralize PDF command and control.
- Support establishment of an U.S.-recognized government in Panama.
- Restructure the Panamanian Defense Force.

A vital requirement of the campaign plan was the simultaneous neutralization of 27 Panamanian Defense Force objectives throughout Panama. Planing for Operation JUST CAUSE had actually began as early as 1988 and was originally called Operation BLUE SPOON. JUST CAUSE was a joint operation with elements from every service participating to one degree or the other. It was deliberately planned and rehearsed, and targeted Noriega and his defense forces. At the time of the operation, Noriega's support from the general population was low, and his center of gravity was his security forces and members of his elite circle. With this in mind, the United States executed a quick, decisive military operation that effectively defeated the Panamanian Defense Forces and ultimately led to the capture of Noriega and the restoration of basic democratic values.

The analysis of Operation JUST CAUSE suggests that the advocates of RDO must address a few key issues. First and most important is the fact that the simultaneity of the operation was critical in the effects that it had on Noriega and the Panamanian Defense Force. It shows that the effects of simultaneity as expressed by RDO are possible, but specific conditions existed that allowed for such simultaneity. Secondly, the United States had a permanent presence in Panama that, in effect, was a forward logistics base for the operation. The build up and pre-positioning of

logistics and forces of United States began as early as 1987 and continued until the actual execution of the operation. In addition, the operation was rehearsed for 3 months prior its actual execution. The United States fought an enemy that allowed them to deliberately plan, execute, and control the overall tempo of the operation. The enemy in this case did not have a real vote, nor did it have the military or political means to defend itself from the overwhelming forces introduced into its country.

Joint operations worked because of a well-developed and rehearsed plan. Its "knowledge" of the enemy came from the experience of the men and women who had been stationed in Panama and from the numerous contacts that had developed over the years. However, even with collection assets, both technical and human, the United States was unable to initially track the location of their prime target, Noriega. Four days after the invasion, the United States was notified that Noriega was at the Papal Nuncio under political asylum.[46]

Thus, Operation JUST CAUSE is a poor example of effects-based operations. While the political leaders and strategic planners understood the key to Noriega's power was his defense forces, they failed to take into consideration the effects of eliminating the country's security forces, which resulted in wide spread looting until U.S. forces were able to stabilize the situation. Effects-based operations based on a total ONA might have identified this issue, but this level of reasoning and analysis was not done. Understanding second and third order effects of military operations is critical, and Operation JUST CAUSE provided many lessons for future operations of this nature.

The ability to remove a regime with a series of simultaneous operations is one of the stated attributes of RDO. But, as Operation JUST CAUSE suggests, unless conditions are perfect, it cannot be done. Even when the situation is ideal, as it was in Operation JUST CAUSE, military forces still must contend with the human element

of conflict and most importantly the fog of war or friction. As Clausewitz states, "[f]riction is the only concept that more or less corresponds to the factors that distinguish real war from war on paper."[47]

The suitability of RDO is questionable. Sun Tzu provides some theoretical basis for the concept, but the world is much more complicated than during his times. Today, decisions to go to war and the political objectives are more complicated because of advances in technology, the interactions of both national and international governments, and the world community as a whole. Perhaps the greatest difference is that modern wars, fought by established nation-states, involve limited conflicts that do not provide for ruthlessly prosecution of war, as did the emperors of ancient China. Thus, while Sun Tzu offers some imaginative theories, these theories are not practical in the current strategic environment of limited warfare.

Operation JUST CAUSE suggests that it is possible to conduct simultaneous joint operations with overwhelming forces and effect a regime change, but that is all it shows. The build up of forces, establishment of a forward logistics bases, coupled with the friction of war, all point to the fact that the suitability of RDO accomplishing what it advertises is questionable.

### Feasibility—A Realistic Expectation of Future Technologies and Capabilities?

In discussing the feasibility of RDO, the key issue is whether or not future technology and capabilities will realistically achieve the desired end state. The end state in RDO is the ability to "rapidly and decisively coerce, compel, or defeat the enemy in order to accomplish [the United State's] strategic objectives without a lengthy campaign or an extensive buildup of forces."[48] The first issue is one of technology, and the second issue is the ability to accurately analyze the collected information. Is it possible to defeat an adversary with a series of simultaneous attacks, both lethal

and nonlethal, to include the leveraging of all elements of national power?

In the area of technology, the primary requirement is to establish the network that enables a "knowledge-centric" capability. This supposedly would allow the United States to "know more about the enemy, the operational environment, and [themselves], and the interrelationship of each" as compared to future adversaries.[49] The technical means to gather and distribute information in terms of a common relevant operational picture is within the reach of the United States and currently exists, in limited capabilities, at certain levels and within certain organizations. What still must be accomplished is the fusing of information between service and government agencies. This, too, is work in progress. The technical ability to collect and distribute information is not the issue. The issue is the ability to accurately analyze, understand, and predict future second and third order effects of all operations, and the will of the enemy to continue to resist. This ability is a critical concept in the success of RDO. An over reliance on technology for the collection of information at the expense of trained human collectors is a deficiency that has already been identified at the national level, but not yet rectified. Technical collectors cannot tell an organization what is in the adversary's mind, what the adversary is thinking, or what the adversary is hiding. It cannot predict the future second and third order effects of operations on the opponent. For that one needs trained analysts with practical experience in the region(s) to provide an element of ground truth to the assessment.[50] This task becomes even more difficult, especially when dealing with an irrational actor or an adversary with a different set of values and/or objectives then those of the United States.

The ability to defeat an adversary with a series of simultaneous attacks both lethal and nonlethal, to include the leveraging of all elements of national power is a concept that needs to be pursued. Fully integrating all elements of national power, along with symmetrical and asymmetrical

capabilities, might give the United States the *ability* to fight and win and/or prevent future wars. However, without the establishment of a national strategic policy or strategy, the U.S. military is developing future warfighting capabilities in a vacuum. War is not an isolated act. As Clausewitz so elegantly states, "war should never be thought of as something autonomous but always as an instrument of policy."[51] Without that policy, and without a national strategy, then the capabilities potentially offered by RDO will only succeed in winning battles and not wars.

**Risks.**

First and foremost is the fact that RDO is an evolving concept designed to bring the tenets of *Joint Vision 2020* into reality. RDO is not designed for long-term warfare. It is designed to fight high-end smaller scale contingencies. It is designed to fight and win battles and engagements quickly, and, when situations are ideal, end a conflict early by overwhelming adversaries through full spectrum dominance. A major risk is that the U.S. military will restructure itself to accomplish quick strikes, using high technology elements that possesses little staying power when fighting a peer competitor. The alternate risk is that the United States will continue to work technology as a sole solution to warfighting problems and forget that it still takes troops on the ground to occupy territory and win wars. Secondly, there are the assumptions that the military will have perfect knowledge of the enemy, everyone will have the same operational picture, and everyone will interpret that information the same way. Friction or the fog of battle is real. Warfare is and always will be a human endeavor that cannot be replaced by technological solutions.

Finally, future warfare will involve the cooperation and participation of coalition forces. The cooperation of allies may be nothing more than providing basing and overflight permission. Their participation could cover a wide variety of assets from individuals to divisions and corps. The U.S.

military possesses the most advanced forces in history and as it continues to push the technology envelope, it will continue to overmatch future coalition partners.[52] The methods and techniques used by the United States are not the same as those of the allies that U.S. forces might cooperate with in future conflicts. This is an issue that will continue to be a problem for potential allies in terms of cost, training, doctrine, force development, and political will. This fact alone will stress the issue of knowledge-centric operations, the establishment of a common relevant operational picture, and, more importantly, inter-operability in future coalition operations. Moreover, allies will want to have a vote, both politically and militarily. RDO will not fix this issue and, as such, must be a consideration as Joint Forces Command continues to develop the future warfighting concepts of the United States.

**Final Analysis and Conclusions .**

RDO represents an evolving concept designed to transform the way the United States currently conducts military operations. It is an emerging concept, with a goal of taking the best that each service and civilian industry has to offer and mold the whole into a cohesive warfighting program that will provide the United States full spectrum dominance. The problem is that RDO is focusing on a specific area of warfighting, high-end smaller-scale contingencies. If RDO are unable to accomplish the nation's objectives, then RDO must rely on other forces to finish the mission.

RDO as a concept appears to be acceptable when compared to the American way of war. It is what Americans want—quick, decisive, overwhelming battles with few casualties. However, if those expectations are not met, then the United States faces the problem of losing public and political support. Without those two elements, the United States will not be able to win. As Clausewitz states, "war is never an isolated act." [53] It takes the will and passion of the

people, the reasoning of the political powers, and, finally, the capabilities of an army to prosecute war to its fullest. [54]

RDO is questionable, when compared to the feasibility of winning wars with a decisive blow. Panama was an operation that fully demonstrates the effects of simultaneous joint operations, but the conditions were ideal, to include the advantages afforded to the American forces by existing logistical bases, forces prepositioned, and the time to plan and deliberately rehearse an extremely complicated operation. Even with those advantages, the problem of post-hostility operations was a major issue in the overall execution of Operation JUST CAUSE. The concept RDO does not address this aspect of war. The biggest assumption and requirement of RDO is that the U.S. military will maintain its technological superiority over potential enemies. As long as the United States is able to maintain air, sea, information, and ground superiority, it will continue to be able to dominate its adversaries militarily. However, enemies will work hard to find a way to attack the United States asymmetrically and indirectly, to counter our current and future advantages. As potential adversaries turn to commercial technology to solve their information requirements, the United States may not be able to maintain information superiority.

In the area of suitability, the technology issues are being worked and will become a reality in the near future. However, technology is only a small part of the solution to future warfare. The technology associated with knowledge-centric operations will provide commanders information near simultaneously and in theory will allow the commander to make decisions and execute operations much faster then his adversary. What is not considered is that commanders may become reluctant to make quick decisions because they do not have the 100 percent solution. Instead of making quick decisions with 80 percent of the information, commanders may opt for the 100 percent solution, losing valuable time and thus negate whatever advantage they have over their opponent's decision cycle.

The underlining message is that future warfare will be conducted in a joint environment. In order for the military to remain relevant in the future, it must adapt a doctrine that is based upon a "purple concept," and RDO does provide the basis for that concept. It could be the start for the transformation of the U.S. military.

The concept of RDO is a potential catalyst to force interoperability between the services and other agencies of the U.S. government. It focuses on attacking the enemy asymmetrically with all assets available to the United States. To accomplish RDO, the force must have a structure that emphasizes adaptivity, initiative, and cohesion, and is able to take advantage of an entire range of joint capabilities and information technologies. It must have a force that is capable of operating in remote and austere environments, physically isolated from other forces, but virtually connected through the use of a common operating picture, provided by joint capabilities.

To achieve RDO, the services must be more accountable to the joint community. Currently each service is responsible for providing trained and equipped forces to the warfighting CINCs and the associated Joint Task Forces. This will require interoperability, it will require service members to understand a common language, and it will require a common training base in order to develop cohesive fighting units. In order to achieve *Joint Vision 2020's* objectives and RDO capabilities, a major adjustment in how the U.S. military trains, equips, and mans the force must occur. It may come to the point that the services are eliminated or at least marginalized so that the U.S. military eventually becomes a truly "purple" force.

RDO represents the beginning of a new joint doctrine/concept of warfighting that has the possibility of developing a joint team with a shared training, education, and military culture. It is a doctrine/concept that will drive the development of new technologies to support warfighting. It is a doctrine/concept that should embed

jointness within all of the services as the United States continues to transform its military forces to meet the threats of the 21st century and beyond. But, much like the search for the elusive Holy Grail, RDO is an ideal or goal that nations and theorists have searched for since the early days of warfare: a way to end a conflict with one decisive blow.

Unfortunately, today, modern war is more complicated. Just winning battles will not win wars or effect regime changes. Clausewitz states that, to have victory in war, one must first destroy the enemy's army or force; second, one must occupy his country; and, third, one must destroy the enemy's will to fight.[55] RDO envisions being able to defeat the enemy's force, addresses breaking the will of the enemy to continue to fight, but it does not discuss occupying the enemy's territory. To occupy a country or territory one needs troops on the ground. All the technology in the world cannot replace the effects, both locally and internationally, of a nation committing its treasure, its youth, and its future, to a potential life and death endeavor.

## ENDNOTES-CHAPTER 12

1. Mariano Tomatis, "All the Theories about Grail," October 18, 1997; available from *www.geocities.com/thens/Delphi/3636/teoriee.htm*; Internet; accessed November 10, 2001.

2. Sun Tzu, *The Art Of War*, Samuel B. Griffith, trans., New York, 1971, p. 79.

3. Carl Von Clausewitz, *On War*, Michael Howard and Peter Paret, trans., Princeton, NJ, 1976, p. 75.

4. *Ibid.*, pp. 78-89.

5. William J. Clinton, "A National Security Strategy For A Global Age," Washington, DC, December 2001, p. 3.

6. Donald H. Rumsfeld, "Quadrennial Defense Review Report," Washington, DC, September 30, 2001, p. 32.

7. The Joint Chiefs of Staff, "Joint Vision 2020," Washington, DC, 2000, p. 4.

8. U.S. Joint Forces Command, "Toward Transformation 2001," Norfolk, VA, 2001, p. 5.

9. *Ibid*., p. 2.

10. *Ibid*.

11. *Ibid*., p. 23.

12. *Ibid*., p. 2.

13. Based on classroom discussions and the study of the history of the development of Strategic Art. The idea of "not getting it too wrong" is based on comments discussions led by Colonel Michael R. Matheny, the director of the Advanced Strategic Arts Program at the Army War College.

14. *Ibid*.

15. U.S. Joint Forces Command, "Toward Transformation 2001," p. 18.

16. *Ibid*.

17. *Ibid*., p. 23.

18. *Ibid*., p. 25.

19. *Ibid*., p. 26.

20. U.S. Joint Forces Command, "A Concept For Rapid Decisive Operations," Norfolk, VA, 2001, p. v.

21. *Ibid*., p. 17.

22. *Ibid*., p. 12.

23. *Ibid*.

24. *Ibid*..

25. *Ibid*., p. 8.

26. The Joint Chiefs of Staff, "Joint Vision 2020," p. 8.

27. Sun Tzu, p. 84.

28. U.S. Joint Forces Command, "A Concept for Rapid Decisive Operations," p. 19.

29. *Ibid*., p. 9.

30. *Ibid*.

31. *Ibid*., p. 10.

32. Based on the author's discussions and observations with members of the interagency, joint staff, and other military planners throughout the course of the academic year at the Army War College and past joint experiences in both SOUTHCOM and SHAPE.

33. U.S. Joint Forces Command, "A Concept for Rapid Decisive Operations," p. 9.

34. U.S. Joint Forces Command, "Toward Transformation 2001," p. 29.

35. *Ibid*., p. 38.

36. Joint Forces Staff College, "The Joint Staff Officer's Guide," JFSC Pub 1, Washington, DC, 2000, p. G-18.

37. The discussions and analysis presented in this section of the study is based on the author's interpretations of class room discussion as part of the Advance Strategic Arts Program of the U.S. Army War College. During these class discussions, the author has had the opportunity to listen to and interact with fellow classmates, instructors. and noted historians. such as Russell F. Weigley and F. G. Hoffman. Additional endnotes are used to delineate from the author's own interpretation to those of others.

38. F. G. Hoffman, *Decisive Force. The New American Way of War*, Westport, CT, 1996, p. 1.

39. Author's interpretations of class room discussion as part of the Advance Strategic Arts Program of the United States Army War College.

40. Sun Tzu, p. 79.

41. *Ibid*., p. 73.

42. Edward M. Flanagan, Jr., *Battle for Panama*, New York, 1993, p. 9.

43. *Ibid*., pp. 9-20.

44. *Ibid*., p. 15.

45. The Center For Army Lessons Learned, "Operation Just Cause Lessons Learned Volume I. Soldiers and Leadership," Bulletin No. 90-9,

September 25, 1997; available from *http://call.army.mil/products/ctc bull/90-9/9091toc.htm*; Internet; accessed March 10, 2002.

46. Malcolm McConnell, *Just Cause: The Real Story of America's High-Tech Invasion of Panama*, New York, 1991, pp. 267-271.

47. Clausewitz, p. 119.

48. U.S. Joint Forces Command, "A Concept For Rapid Decisive Operations," p. v.

49. *Ibid*., p. 13.

50. Robert Baer, *See No Evil: The True Story Of A Ground Soldier In The CIA's War On Terrorism*, New York, 2002, pp. 74, 81.

51. Clausewitz, p. 88.

52. Based on the author's experience in SHAPE and as the G3 of Multi-National Brigade East in Kosovo, working with over eleven different coalition partners.

53. Clausewitz, p. 78.

54. *Ibid*., pp. 75-89.

55. *Ibid*., pp. 90-91.

## ABOUT THE AUTHORS

ALLEN W. BATSCHELET, a lieutenant colonel in the U.S. Army, is a field artillery officer and a member of the U.S. Army War College Class of 2002. He has served in a variety of command and staff positions in Europe and CONUS. Most recently, he commanded the 3rd Battalion, 82nd Field Artillery in the 1st Cavalry Division, Fort Hood, Texas. Lieutenant Colonel Batschelet holds masters' degrees from various institutions. He currently serves on the Joint Staff.

JAMES L. BOLING, a lieutenant colonel in the U.S. Army, is a Strategic Plans officer and a 2002 graduate of the U.S. Army War College. He has held a variety of positions in Germany and the United States over the last 23 years. Most recently, he served as the Major Theater War Branch Chief in the Plans and Policy Directorate of U.S. Central Command. Lieutenant Colonel Boling holds masters' degrees in Political Science from the University of Louisville and in National Security and Strategic Studies from the U.S. Navy War College.

GARY H. CHEEK, a colonel in the U.S. Army, is a Field Artillery officer and a member of the U.S. Army War College Class of 2002. Commissioned from the U.S. Military Academy in 1980, he has served in a variety of command and staff positions in the United States, Germany, Canada, and Kuwait. Most recently, Colonel Cheek served as the Senior Fire Support Trainer at the National Training Center, Fort Irwin, California. He also commanded 1st Battalion, 9th Field Artillery, 3rd Infantry Division, Fort Stewart, Georgia, and will be the commander of the 25th Infantry Division Artillery, Schofield Barracks, Hawaii, in June 2002. Colonel Cheek holds a Master's degree in Military Arts and Sciences from the School of Advanced Military Studies, Fort Leavenworth, Kansas.

ARTHUR W. CONNOR, JR., a colonel in the U.S. Army, is an armor officer and a member of the U.S. Army War College Class of 2002. He has served in a variety of command and staff positions in CONUS and Europe over the past 21 years. Most recently, he commanded 1st Battalion, 12th Cavalry at Fort Hood, Texas. Colonel Connor holds a master's degree in History from Temple University, Philadelphia. He currently serves as the commander of 1st Brigade, 1st Infantry Division, Fort Riley, Kansas.

JAMES H. EMBREY, a lieutenant colonel in the U.S. Army, is an infantry officer and a member of the U.S. Army War College Class of 2002. He currently serves as the Director, Army Planning, in the Department of Military Strategy, Policy and Operations, United States Army War College. Lieutenant Colonel Embrey has served in a variety of command and staff positions in Europe and CONUS. Most recently, he commanded the 1st Battalion, 6th Infantry (Mechanized) in the 1st Armored Division, Baumholder, Germany, during Task Force Hawk and initial entry into Kosovo, and served as G-3, Task Force Falcon/USKFOR in Kosovo. Lieutenant Colonel Embrey holds a master's degree and doctorate in Military History from the University of Kentucky.

DAVID R. HOGG, a lieutenant colonel in the U.S. Army, is a member of the U.S. Army War College Class of 2002. An armor officer, he has held a variety of positions in the United States and Europe. His most recent assignments include commander of 3-37 AR and G3 of the Multinational Brigade (E) in Kosovo. Following graduation, he will be serving with the G3, Army Staff.

WILLIAMSON MURRAY is currently professor emeritus of history at Ohio State University. He has served as the Harold Johnson Professor of Military History at the U.S. Army War College. Dr. Murray is also the author and editor of a number of major works, the most recent of which is *A*

*War To Be Won, Fighting the Second World War*, published by Harvard University Press.

STEVEN L. SALAZAR, a lieutenant colonel in the U.S. Army, is an infantry officer and member of the U.S. Army War College Class of 2002. He has served in a variety of command and staff positions in CONUS and Germany. He has served as a Crisis Action Planner at the U.S. European Command and J3 of a Joint, Interagency Task Force. Most recently, he commanded 1st Battalion, 8th Infantry at Fort Carson, Colorado.

DANIEL J. SHANAHAN, a lieutenant colonel in the U.S. Army, is an Army aviator and a member of the U.S. Army War College Centennial Class of 2002. He has served in a number of command, staff, and training assignments in CONUS and Europe. Most recently, he commanded 2nd Battalion, 4th Aviation Regiment at Fort Hood, Texas. Lieutenant Colonel Shanahan holds a master's degree in Public Administration from Central Michigan University.

CHARLES L. TAYLOR, a lieutenant colonel in the U.S. Army, is an infantry officer and member of the U.S. Army War College Class of 2002. He has served in a variety of command and staff positions in CONUS, Hawaii, and the Republic of Panama. His most recent assignments include command of 5th Battalion 87th Infantry in the Republic of Panama, and G3, 10th MTN DIV, Fort Drum, New York. Lieutenant Colonel Taylor holds a master's degree from Central Michigan University.

BRETT T. WILLIAMS is a lieutenant colonel in the U.S. Air Force and a member of the U.S. Army War College Class of 2002. Colonel Williams was commissioned through ROTC at Duke University in 1981. He is an F-15C pilot with more than 3,300 flight hours, and most recently commanded the 94th Fighter Squadron at Langley Air Force Base, Virginia. Colonel Williams also served at U.S. Central Command as a planner in J5. He is a graduate of the Air Command and Staff College, the School of Advanced Aerospace Studies, and holds a master's degree from Webster University.

Following graduation, Colonel Williams will take command of the 363rd Expeditionary Operations Group at Prince Sultan Air Base, Saudi Arabia.

GEORGE J. WOODS, III, a lieutenant colonel in the U.S. Army, is an infantry officer and a member of the U.S. Army War College Class of 2002. Commissioned in 1980, he has served in a variety of command and staff positions in CONUS and Germany. Most recently, he commanded 1st Battalion, 41st Infantry at Fort Riley, Kansas, and was the G3, 7th Infantry Division, Fort Carson, Colorado. Lieutenant Colonel Woods holds a masters' degrees in Organizational Psychology from Columbia University and in Military Art and Science from the Command and General Staff College at Fort Leavenworth, Kansas.

**U.S. ARMY WAR COLLEGE**

**Major General Robert R. Ivany**
**Commandant**

*****

**STRATEGIC STUDIES INSTITUTE**

**Director**
**Professor Douglas C. Lovelace, Jr.**

**Director of Research**
**Dr. Steven Metz**

**Editor**
**Dr. Williamson Murray**

**Director of Publications**
**Ms. Marianne P. Cowling**

**Publications Assistant**
**Ms. Rita A. Rummel**

*****

**Composition**
**Ms. Kimberly A. Rockwell**