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This monograph examines the operational concept of Force XXI, the U.S. Army of the 21st Century, to determine if it will be applicable against an enemy employing an unconventional warfare strategy. The study suggests that the concept, as it is outlined in TRADOC PAM 525-5, will be ill suited to defeating an enemy who shuns conventional force-oriented combat and instead seeks to defeat the U.S. by exhausting its will to continue the conflict.

The study begins by providing a definition for the concept of "unconventional strategy" drawn from TRADOC PAM 525-5. It then examines the nature of future conflict and the likelihood of U.S. involvement in it, in order to establish that the probability of the U.S. Army facing an opponent employing an unconventional strategy necessitates that its Force XXI concept account for this type of conflict. The study then summarizes the Force XXI operational concept using TRADOC PAM 525-5's framework of five battle dynamics: battle command, battlespace, depth and simultaneous attack, early entry, and combat service support. It then establishes likely characteristics of a UW opponent, considering the areas of operations, organization, weaponry, communications, and logistics. Finally, the study compares Force XXI's operational concept against the UW force characteristics to assess whether it is suited to combatting an unconventional opponent.

The study concludes that much of the Force XXI operational concept is based on the ability of technical systems to provide the commander with a timely and accurate picture of the situation that allows him to orchestrate the effects of precision weapons to deliver a paralyzing blow to the enemy. The characteristics of a UW force seem to negate the collection capabilities of Force XXI, as well as providing little susceptibility to precision attack. Force XXI, a high firepower, low manpower force will be ill prepared to effectively deal with the high manpower, low firepower requirements existent in most unconventional conflict.

FORCE XXI VERSUS AN UNCONVENTIONAL WARFARE THREAT

A Monograph
By
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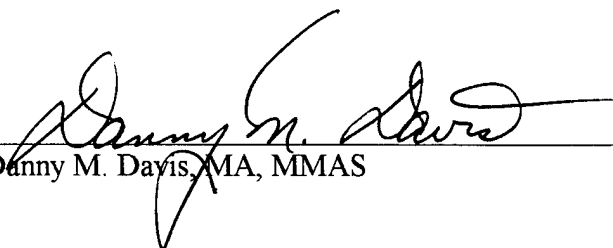
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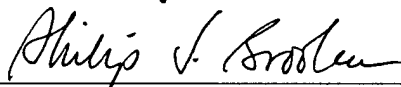
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Chapter I

Introduction

The U.S. Army is currently undergoing a major examination of its organization, equipment, and doctrine. This examination is driven by two factors. The first is the replacement of the bipolar strategic environment of the Cold War with an environment characterized by complex, dynamic and uncertain threats. The second factor is what has been described as the Revolution in Military Affairs, brought on by the advent of Information Age technologies. TRADOC Pamphlet 525-5, *Force XXI Operations*, attempts to address the consequences of both of these factors and, "...describe[s] the conceptual foundations for the conduct of future operations in War and OOTW involving Force XXI - the US Army of the early twenty-first Century."¹ The authors of 525-5 envision Force XXI as a complex, adaptive army, organized and equipped to use information and precision weapons technologies to dominate a given battlespace, control the tempo of a conflict, and overmatch an adversary's capabilities in order to win.² 525-5 states:

Throughout the *full range of military operations*, under both defensive and offensive conditions, *regardless of environment*, future American operations will induce massive systemic shock on an enemy. These operations will be meant to force the loss or deny the enemy any opportunity to take the initiative. Full-dimensional, joint, and often multinational Force XXI Operations will systematically attack opposing force cohesion and destroy the moral will to continue the opposition.³ [emphasis added]

Winning the conventional land battle "remains the absolute priority", despite an acknowledgment that, when faced with a complex, adaptive army, potential foes are likely to follow unconventional strategies such as terrorism, insurgency, or partisan warfare.⁴ Such challenges are considered to be a lesser included case of conventional land warfare; that is, it is believed a force prepared for conventional warfare can transition to other forms of warfare and deliver the "massive systemic shock" referred to above.⁵

Unfortunately, this notion may be based more on a wish than on fact. The results of the Gulf War seem to provide a glimpse of the possibilities of Force XXI warfare against an armor-mechanized foe that accepts battle on U.S. terms. However, there is no indication that the concepts of Force XXI warfare are appropriate for combatting an opponent that refuses to fight along conventional lines and pursues its objectives with a strategy of unconventional warfare. This study will match the concepts of Force XXI operations against an unconventional warfare model in an attempt to determine whether those concepts are indeed applicable across the full range of military operations, regardless of environment.

Research Question

Are Force XXI operations applicable against an enemy employing an unconventional warfare strategy?

Definitions

Joint Publication 1-02, DoD Dictionary of Military and Associated Terms, 1994, provides definitions of terms such as unconventional warfare, guerrilla warfare, and insurgency (see Glossary); yet, as one author recently suggested, our current definitions of these terms reflect the Cold War, East versus West paradigm.⁶ Situations such as Somalia or Bosnia do not fit neatly into the current definitions of unconventional warfare or insurgency, but they do present environments where an opponent has or might counter U.S. forces with unconventional strategies. This paper will use TRADOC PAM 525-5's definition of **unconventional strategies**:

Such unconventional strategies focus on the population while attempting to retain freedom of action by avoiding combat with superior forces. They entail a protracted struggle in which the unconventional force seeks to exploit favorable circumstances to inflict casualties and achieve tactical successes against high-technology opponents while continuing to contest control of the population. In the case of intervention by an external power or coalition, this strategy aims to undermine the enemy's will to continue a seemingly intractable, costly conflict without the necessity of defeating his main forces on the battlefield.⁷

Background

The U.S. Army has been focused on mid intensity conflict for much of the 20th Century. Success in two World Wars seemed to justify this approach, as did the presence of a significant mid- to high- intensity conventional threat for much of the latter half of this century in the form of the Soviet Union. Conventional, Clausewitzian conflict, in which destruction of the enemy's armed force in battle was the ultimate goal, became the standard against which the Army organized, equipped and trained. In his book, The Army and Vietnam, Andrew R. Krepinevich, Jr. argues convincingly that the U.S. Army's failure in that conflict was a result of its leadership trying to apply the Army Concept (Krepinevich's term for the enemy force-oriented, firepower dependent Army doctrine that has been the model since WWII) against an enemy using an unconventional strategy, under the belief that a doctrine suitable for a big war was certainly applicable to a small one.⁸

During the post-Vietnam period, the Army returned to its traditional focus on mid-intensity conflict and reoriented itself on the most dangerous (and most doctrinally comfortable) threat, conventional conflict against the Soviet Union in Europe. The demise of the Soviet Union, the consequent end of the Cold War, and the proliferation of "operations other than war," have created some divergence from the conventional focus of U.S. Army doctrine - enough so that the 1993 version of FM 100-5, Operations, included the concept of operations other than war. However, the Gulf War and the presence of potential conventional enemies in Asia, have been sufficient to maintain the U.S. Army's primary focus on conventional warfare. FM 100-5 and TRADOC PAM 525-5 are both clear that war, defined as the use of force in combat operations against an armed enemy (in other words, conventional conflict), remains the primary focus.⁹ 525-5 states:

The requirement to be trained and ready - to win the land battle - remains the absolute priority. Well-trained and disciplined units, provided with sufficient time and resources to train, can transition to OOTW missions as required.¹⁰

The caveats of sufficient time and resources to train are not insignificant; however, the larger question is whether the concepts upon which Force XXI is being built can transfer to unconventional conflicts when required.

Purpose of the Study

The Army will fight as it is trained, organized, and doctrinally prepared to fight. If its concepts for Force XXI are applicable only to conventional, inter-state (fielded army versus fielded army) warfare, it will develop force structure, equipment, training programs, and most significantly, ideas, that may be ineffective against an enemy who does not choose to fight in the manner that the U.S. Army deems "conventional". This study attempts to evaluate those concepts to determine if they are indeed universally applicable.

Methodology

This study begins by establishing the criticality of addressing an unconventional warfare threat by examining the nature of future conflict and the likelihood of U.S. involvement in unconventional conflicts. Next, it examines the concepts of Force XXI operations as outlined in TRADOC Pamphlet 525-5, *Force XXI Operations* and associated articles. It then establishes an unconventional warfare threat model, patterned largely on the generic Army UW model, but incorporating modern technologies and techniques.¹¹ Finally, it applies Force XXI concepts against the unconventional warfare model to assess the strengths and shortcomings of Force XXI in an unconventional warfare environment.

Delimitation

1. This paper does not question the need for the U.S. Army to be prepared to conduct conventional combat; neither does it attempt to address the efficacy of Force XXI in preparing for that challenge.
2. While this paper does briefly discuss some of the causes of conflict in Chapter II, it does not purport to be a definitive study of future conflict. It is merely an attempt to

demonstrate the likelihood of the U.S. Army confronting unconventional strategies in future conflict.

3. Army doctrine, and conventional wisdom, recognizes that unconventional warfare, with its population focus, is not a one dimensional problem, and is not susceptible to one dimensional (military force only) solutions.¹² In an unconventional conflict, the military is usually supporting other elements of national power which attempt to address the underlying causes of the conflict. While this paper recognizes that fact, its main focus is on the suitability of the Force XXI Army to perform its military role in this type of conflict.

CHAPTER II

The Future Environment

Prognostication is a booming business in the post-Cold War era. A wide range of scholars and authors have published a variety of views of what the future will bring. Inevitably, there is a certain amount of disagreement and contradiction. However, there is a significant amount of agreement in the various views, enough at least to attempt to establish a picture of the future threat environment. Most futurists agree that conventional inter-state warfare will remain a threat, but that most conflicts will be of low intensity, unconventional in nature, and centered in Third World countries.¹³ Which type of conflicts will most likely generate U.S. involvement is problematic; however, the National Security Strategy (NSS) offers insights into some of the circumstances that would necessitate U.S. military involvement. In the current National Security Strategy (NSS), President Clinton writes:

We must use military force selectively, recognizing that its use may do no more than provide a window of opportunity for a society - and diplomacy - to work. We therefore will send American troops abroad only when our *interests and our values* are sufficiently at stake.¹⁴[emphasis added]

The NSS goes on to state that:

...the nature of our response must depend on our own long-term national interests. Those interests are ultimately defined by our security requirements. Such requirements start with our physical defense and *economic well-being*. They also include *environmental security* as well as the *security of values achieved through expansion of the community of democratic nations*.¹⁵[emphasis added]

These broad definitions of U.S. security requirements, plus the empirical evidence of recent U.S. involvement in Somalia, Rwanda, Haiti, Kurdistan, and the Balkans, makes U.S. involvement in intra-state conflict seem likely in the future. Additionally, it is inevitable that states such as Iran, Iraq, and North Korea will continue to challenge U.S. interests and policies, possibly igniting inter-state conflicts requiring U.S. participation. The overwhelming victory of the Gulf War will mitigate against direct challenges to

United States by hostile states, but that precedent will not rule out unconventional ventures. As TRADOC PAM 525-5 notes:

... when faced with a large, technologically advanced army [such as the U.S.], they [future adversaries] are likely to attempt to redefine the terms of conflict and pursue their aims through terrorism, insurgency, or partisan warfare.¹⁶

This chapter highlights the likelihood of future unconventional conflict threatening U.S. interests, thus demonstrating that Force XXI must be prepared to fight an unconventional opponent.

Inter-state Conflict

Future state-sponsored threats to U.S. interests will be largely unconventional, indirect, and seek to negate the ability of the U.S. to respond with overwhelming force. One recent study suggests Iran is already applying this strategy, using acts of terrorism, hostage taking and subversion of U.S. allies to counter U.S. influence in Southwest Asia.¹⁷ A key element of such a strategy is to wage a protracted effort, targeting the perceived (or actual) American Achilles' heel of impatience, aversion to long, often indecisive struggles, and a corresponding inability to accept casualties. This strategy seeks to undermine U.S. friends and allies in a region by exploiting institutional, societal or governmental weaknesses to destroy the state, or merely to weaken its effectiveness and reduce its utility as a U.S. ally. The Iranian-supported, Islamic fundamentalist-inspired terrorist activities currently plaguing Egypt provide an example of the approach enemies will take to lessen U.S. influence and increase their own.

U.S. allies, such as the secular government of predominantly Islamic Turkey, or Bahrain, in which the government and the populace are composed largely of different Islamic sects, are vulnerable to externally directed unconventional threats. For example, Syria or Iraq might support an Islamic fundamentalist insurgency in Turkey to advance their position in a dispute about water rights from the Euphrates River, instead of using conventional military force in a more traditional manner. Such a strategy would be less

likely to arouse a response from the U.S. than a conventional military approach, and even if it did engender a U.S. response, would have a better chance of success.

Intra-state Conflict

The most likely, and probably most difficult, challenge in the future will be a tremendous rise in intra-state conflicts. Most of these conflicts will occur in the under-developed states of the world, as these are the areas most afflicted with problems such as overpopulation, resource scarcity, and environmental devastation. Governments in these regions are least able to maintain control over the various groups that will exploit these conditions to further their own monetary, ideological, religious, ethnic, or nationalistic aims. These conditions have already been a source of conflicts. As conditions worsen, the occurrence of intra-state conflict will increase. Certainly not all conflict demands a U.S. military response; however, a variety of factors indicate that the U.S. will need to respond to some of them.

In many areas of the world, the state has lost its monopoly on the use of force, with non-national forces wielding considerable power. Groups such as drug cartels, radical religious, ethnic and nationalist movements, and terrorist organizations, threaten the total breakdown of the nation-state in some areas. Recent U.S. government reports indicate drug lords exercise political control in large parts of Pakistan, Burma, and Afghanistan, to include maintenance of armies. A heroin trafficker in Southeast Asia employs a 20,000 man army that operates in Burma, Thailand, and Laos.¹⁸ Economic problems, environmental devastation, rapid population growth, and other pressures, increase the destabilizing and fragmenting effects of these non-national forces in many Third World countries. Intra-state conflict resulting from these pressures will generate refugees and other humanitarian problems, such as the atrocities in Rwanda and Bosnia. They will threaten regional stability through spill-over violence.

One of the most compelling analyses of the nature of these pressures and their effects was written by Robert Kaplan. In "The Coming Anarchy," he postulates that

Africa serves today as an example of the type of problems that much of the world will be facing in the future. He states:

The political and strategic impact of surging populations, spreading disease, deforestation and soil erosion, water depletion, air pollution, and, possibly rising sea levels in critical, overcrowded regions like the Nile Delta and Bangladesh - developments that will prompt mass migrations and, in turn, incite group conflicts - will be the core foreign-policy challenge from which most others will ultimately emanate...¹⁹

The West African nation of Sierra Leone illustrates the magnitude of some of these problems. The rain forest, which covered 60 percent of the country in 1961, now covers only six percent. This deforestation has led to increased soil erosion, flooding and mosquito population, which in turn has led to high disease rates. As a result of civil war, approximately 400,000 Sierra Leonians are internally displaced, 380,000 have fled to neighboring countries, while 400,000 Liberians have fled that country's internal unrest to seek refuge in Sierra Leone. In addition to the rebel army, there are units from two of the armies involved in the Liberian civil war inhabiting the countryside. Governmental functions such as maintenance of roads, bridges, schools and police forces has ceased. Similar situations exist throughout the other western African nations. Failed economies, overpopulation and urbanization have led to alarmingly high disease (particularly AIDS, hepatitis, and malaria) and crime rates.²⁰

These problems are not unique to Africa. Examples abound in the rest of the Third World. Haiti is another prime example. Overpopulation and deforestation have resulted in erosion and a great reduction in arable land. Pre U.S.-intervention data indicated a mere 11 percent of Haiti's land is arable, with an estimated one percent loss per year. An estimated 70 percent of the children were malnourished - 33 percent seriously so. In addition to the array of illnesses normally associated with malnutrition, Haiti's population is nine percent HIV positive. For a population of six million people, there are 810

doctors.²¹ Needless to say, the situation is not hopeful, even with massive international assistance.

The Case for U.S. Involvement

One might think that the problems plaguing the developing states are nothing new. The situation has been bleak in many of these areas for decades. What has changed the basic nature of the problem is what one author terms, "global transparency".²² The explosion of information technology throughout the world has brought home to the populace of many of these nations just how bad off they are, especially compared to the "have" nations, such as the U.S., that they see in the media. One author suggests the result of this condition will be a drastic increase in conflict. He states:

The rest of the World contains only fragile archipelagoes of success in vast, increasingly stormy seas of failure. Occasionally, the failures attack us at home, staging events, such as the World Trade Center bombing, that are as spectacular as they are statistically ineffective. More often, these unmoderns usually take out their inchoate anger on the nearest targets - rival clans or tribes, citizens of minority religions or ethnicities, or their own crumbling governments. Intermittently, these local rages will aggrieve our extra-territorial welfare - primarily our economic interests - and we will need to intervene.²³

Sometimes, as appears to be the case in Bosnia, the threat of overwhelming U.S. force will be sufficient to prevent opposition to U.S. policy. However, in some instances the threat of force will not suffice. Faced with the false dilemma of submission, or near certain defeat in a conventional struggle with the U.S., opponents may seek to redefine the struggle on their terms and use unconventional means to combat the U.S., as Muhammed Farah Aidid's SNA militia did in Somalia.

The use of unconventional means in conflict is nothing new. Less powerful nations have used them to compete with more advanced states. Insurgents have used them to combat their government, and states have used them to achieve objectives without the risks and costs of conventional war. Throughout the Cold War, the U.S. was on the "giving" and the "receiving" end of this strategy. It employed this strategy against the

Soviet Union in Afghanistan, by supporting the mujahedeen rebels, and the U.S. countered it, successfully in El Salvador and unsuccessfully in Vietnam. Unlike the Cold War period, where almost every conflict carried some level of East vs. West ideological overtones and necessitated some level of U.S. involvement, in the future U.S. involvement likely will be driven by economic, and to a lesser extent humanitarian, concerns.

The current NSS, discussing situations for the use of force states:

In other situations [other than direct threats to vital or survival interests] posing a less immediate threat, our military engagement must be targeted selectively on those areas that most affect our national interests - for instance, areas where we have a *sizable economic stake* or *commitments to allies*, and areas where there is *a potential to generate substantial refugee flows* into our nation or our allies.²⁴
[emphasis added]

Clearly, the writers of the NSS envision economics as a source of U.S. involvement in future conflict. This theme is echoed by a variety of authors who portray a widening gap between the well-off nations (primarily Western and some Asian states) and the rest of the "have nots", who will attempt to use resources as a weapon against the West.²⁵ As one author noted:

Western dependence on diminishing Third World oil supplies and other essential resources increasingly makes free trade an essential Western interest. In the late 1990s and early 21st Century, the West will not long tolerate economically damaging, politically motivated Third World cartels.²⁶

Additionally, the U.S. is likely to become involved in conflicts where its economic interests are indirectly threatened by "spillover" violence. For example, if violence from an insurgency within Saudi Arabia were to reach a level that threatened oil production, the U.S. might become involved to safeguard the free flow of oil, much as it protected Kuwaiti shipping during the tanker-war phase of the Iran-Iraq war.

As recent U.S. involvement in Haiti, Rwanda, Somalia, and Kurdistan demonstrates, media focus on humanitarian concerns can lead to U.S. involvement, in one form or another, in many of these conflicts, despite what seems to be marginal national

interests. As was the case in Somalia, humanitarian operations have the potential to change rapidly into more hostile engagements. As noted earlier in the chapter, the definitions of national interest and security interests are broadening to include concepts such as the "security of values achieved through expansion of the community of democratic nations" and "environmental security".²⁷ Additionally, internal domestic politics influence these decisions as well. Kaplan suggests that domestic racial tensions will force the U.S. government to get involved in Africa.

Africa may be marginal in terms of conventional late-twentieth century conceptions in strategy, but in an age of cultural and racial clash, when national defense is increasingly local, Africa's distress will exert a destabilizing influence on the United States.²⁸

Economic interests, humanitarian concerns, domestic politics, a broadened definition of national interest, and the sheer frequency of conflict throughout the developing world, will generate challenges and conflicts that the U.S. must address, some with the military instrument of national power. As Martin van Creveld, a well known war theorist, noted in *The Transformation of War*,

The cold, brutal fact is that much present-day military power is simply irrelevant as an instrument for extending or defending political interests over most of the globe; by this criterion, indeed, it scarcely amounts to "military power" at all.²⁹

Clearly, the future holds the likelihood that the U.S. Army will be called upon to "extend or defend" U.S. interests against enemies employing unconventional strategies. The question remains whether Force XXI will be a suitable instrument for that purpose.

CHAPTER III

Force XXI Concepts

TRADOC PAM 525-5 describes the U.S. Army's concept for change to meet the twin challenges of an altered strategic environment and the Revolution in Military Affairs. It envisions a force, "...defined by five characteristics: *doctrinal flexibility, strategic mobility, tailorability and modularity, joint and multinational connectivity, and the versatility to function in War and OOTW.*"³⁰ It uses a framework of five battle dynamics (battle command, battlespace, depth and simultaneous attack, early entry, and combat service support) to describe how the Army will change, and how it will fight in the future. This chapter will highlight key aspects of the five battle dynamics drawn from TRADOC PAM 525-5 and supporting literature, to establish the basic nature of Force XXI for evaluation purposes later in the paper.

Battle Command³¹

Technological advances in information collection, transmission, storage, retrieval and display, are the focus of changes in battle command in Force XXI. They are seen as key to Force XXI in general. TRADOC PAM 525-5 states:

The main imperative guiding future operations, from full war to domestic support operations, will be to gain information and continued accurate and timely shared perceptions of the battlespace.³²

The centerpiece of Force XXI battle command will be the Army Battle Command System (ABCS), a combination of computer hardware and software that will receive and integrate information from a variety of sources to form a common, relevant picture of the battlefield, and transmit it throughout the force.³³ Digital sensors will provide the ability to track every friendly weapon system and soldier, reducing coordination requirements and fratricide problems. Advanced theater and national level intelligence systems, such as JSTARs, UAVs, satellites, etc., will detect and track enemy forces and feed intelligence databases within the ABCS. Former Army Chief of Staff, GEN Gordon R. Sullivan,

described the essence of the Army's vision of the effect of technology on battle command when he wrote:

Advanced technological and human intelligence systems will continue to expand the commander's detection range, improve the resolution of information gathered, and disseminate the data to the proper levels via near real-time, digital transfer. The battlefield will become more transparent to the commander of such a force and more opaque to his adversary.³⁴

Battlespace³⁵

According to TRADOC PAM 525-5, Force XXI will be able to dominate an expanded battlespace by being more lethal, more survivable, and able to operate at a greater tempo than the enemy. Force XXI will exercise this dominance with a minimum number of troops, although operations necessitating control of terrain or populations will be more manpower intensive than those that do not. As with battle command, the impetus for change is technological. Advances in optics, digital electronics, metallurgy, propulsion, stealth, and other technologies will result in weapons systems that are faster, more lethal and more survivable. The ABCS will provide the commander with a situational picture that allows him to determine the proper place to employ his lethal weapons systems and set an operating tempo that his adversary cannot match.

Battlefield expansion, "...achieved through dramatic improvements in manned and unmanned target-acquisition systems and precision direct- and indirect-fire capabilities" will provide Force XXI with three advantages over the enemy:

- (a) By a variety of reconnaissance means, identify, disrupt, or destroy enemy forces before they can effectively engage friendly forces.
- (b) Reduce friendly force vulnerability by increasing the dispersion and numbers of the friendly force. Physically mass only when absolutely necessary, but be capable of doing so rapidly and in varying combinations of combat, combat support, and combat service support.
- (c) Conduct maneuver by use of both fires and rapid physical mass and dispersion of ground forces to sense and dominate a greater battlespace and achieve a staying power effect (control) only possible with land forces.³⁶

TRADOC PAM 525-5 notes that force protection will be an essential element in maintaining dominance over the expanded battlespace - once again technology is the focus of this effort.

The use of improved reconnaissance, surveillance, and target acquisition (RSTA) sensors and unmanned vehicles will aid in this objective...Passive force protection capabilities will include low-observable technology, improved electronic countermeasures, and multispectral camouflage.³⁷

Depth and Simultaneous Attack

The ability for a Force XXI commander to attack the enemy simultaneously throughout the depth of his battlespace is a result of the battle command and battlespace dominance technologies discussed earlier. The ABCS will provide the commander both the information and the integrative tool he requires to coordinate the lethal and nonlethal effects of the entire joint force, throughout his battlespace. A significant element of this attack will be information warfare measures designed to deny the enemy access to information, while defending friendly access, so that "...adversaries will be forced to exercise command through nineteenth century means, while US forces operate state-of-the-art, twenty-first century systems."³⁸

Early Entry

Force XXI will continue the current focus on the requirement to project force to the area of operations. As a result of the increases in combat power of organizations due to technological advances, early entry forces will be smaller and lighter placing less demand on the nation's strategic mobility assets per unit of combat power. Force XXI early entry forces will attempt immediate and "...simultaneous application of force or control throughout the operational area..." whenever possible, using its lethality, survivability, and situational awareness gained through information dominance.³⁹ TRADOC PAM 525-5 highlights that low level, tactical early entry operations can have strategic impact as a result of worldwide, instantaneous media coverage, establishing or

losing U.S. credibility. Failure, or the mere perception of it, can seriously affect or prevent subsequent U.S. action.⁴⁰

Combat Service Support

TRADOC PAM 525-5 recognizes that Force XXI operations are likely to occur in immature theaters, with limited infrastructure. Strategic lift constraints will force more emphasis on putting the correct mix of logistics units and the right amount of supplies into the area of operations. Additionally, Force XXI will be increasingly reliant on DOD civilians, contractors, and host nation personnel to perform logistics support tasks.

TRADOC PAM 525-5 states:

A concerted effort must be used to identify those missions and functions that can be satisfied by the private sector, versus military forces, when operating in these areas [austere environments]. The future Army cannot afford to use infantryman as longshoreman. Capitalizing on available host nation support will be a major means of resolving support shortfalls without placing additional demands for deployment of additional logistics units.⁴¹

Summary of Force XXI Operational Characteristics

Force XXI is intended to be an extremely lethal, survivable, and low-manpower force. By leveraging information age technologies, such as precision weapons, sensors, and information integration tools, it is designed to deliver an immediate and pervasive systemic shock on the enemy, inducing a paralysis that renders him helpless. GEN Sullivan, writing of the potential of such a force declared:

Regardless of how land combat forces are used, they will be capable - operating as part of a joint force - of detecting the enemy at extended, over-the-horizon distances while remaining invisible to the enemy; delivering fires - also over the horizon - to facilitate maneuver; thus destroying the enemy force and disintegrating his cohesion throughout the depth of the theater or battlefield.⁴²

Force XXI is an offensive tool, designed to locate, attack, and destroy the enemy rapidly in order to achieve the quick and decisive victory at minimal cost that has become the national standard for military operations. Consistent with what has been characterized

as the American way of war, Force XXI is designed to be "...employed in an overwhelming way..."⁴³ It is in almost every way the antithesis of the type of warfare discussed in the following chapter - unconventional warfare.

CHAPTER IV

UW Force Characteristics

The opening chapter of this paper provided a definition for unconventional strategies drawn from TRADOC PAM 525-5. In essence, such strategies are focused on contesting control of the populace, fighting only on favorable terms, and seeking to inflict casualties on the opponent through asymmetrical attacks intended to negate technological or general numerical superiority in order to exhaust the opponent's will to continue the struggle. This chapter describes the characteristics of a potential UW force by examining the areas of operations, organization, weaponry, communications, and logistics. It incorporates aspects from a variety of historical unconventional conflicts, and addresses the possible impacts of new technologies, to provide a model for subsequent evaluation against the Force XXI operational concept.

Operations

Unconventional strategies disregard the Western, Clausewitzian notion that the focus of the effort in war is the destruction of the enemy's army. In the framework of *ends, ways, and means*, the UW force seeks the *end* of exhausting its opponent's will, through *ways* of time, survival, and attrition, by *means* of attaining support of the populace. Popular support provides the UW force with the means to continue the fight, by providing logistical, financial and intelligence support, a recruiting base, and a place to hide from the conventional force. As one author suggested, both sides in this type of conflict have two tools in the struggle for control and support of the populace: "popular perceptions of legitimacy and a credible power to coerce."⁴⁴ He goes on to note that coercion is defined by the target, in this case the populace, not by the employer of the threat; consequently, conventional military power does not necessarily equate to credible coercive power.⁴⁵ The conventional force may possess state of the art weaponry, with overwhelming destructive power, yet if the populace believes it will not or cannot be used against them it has limited coercive value - particularly if the UW force has demonstrated

the ability to locate and punish noncompliant members of the populace, and reward supporters.

Time, survival, and attrition of the conventional opponent are the UW force's ways to the ultimate end. As historian John Shy noted:

The keys, if there are any, to modern revolutionary warfare are time and survival: hope remains as long as revolutionary organization survives, and the very passage of time can convince the most skeptical subject and sap the will of the most determined government.⁴⁶

Implicit in Shy's commentary is an attritional component. The UW force must exact a toll on its opponent in order to achieve his moral or physical exhaustion. At the tactical level this translates into the raids, ambushes, terrorist attacks, and assassinations, commonly associated with guerrilla warfare. Operationally, these actions must be linked with a two-pronged information campaign. First, the campaign must destroy the credibility and legitimacy of the opponent and enhance that of the UW force in the eyes of the populace and the international community. Secondly, it must convince the opponent's leadership that their goals are either unattainable or too costly.⁴⁷

In the recent conflict in Chechnya, the rebels tried to use tactical actions to demonstrate the inadequacies of the Russian government to protect its populace and to defeat them. After taking dozens of hostages from a city in Russia-proper, a Chechen rebel force was encircled by a sizable Russian force. In the aftermath of his force's escape from the encircled village of Pervomaiskoye, despite heavy casualties, a Chechen rebel leader stated in an interview, "We beat the strongest army of the biggest country in the world. Look how powerless the Russian army is."⁴⁸ After a similar hostage-taking action in the town of Budennovsk, timed to coincide with President Yeltsin's participation in a "Big Seven" summit, a Russian newspaper questioned the ability of the Russian government to respond:

Why in these dark days did the head of state manage to telephone from Halifax to Belgrade and gain the freedom of UN hostages from Serbian captivity, but did not make the very same attempt to save his own citizens from the face of ruthless terror?⁴⁹

Unable to oppose Russian military strength on the battlefield, the Chechen rebels are attempting to gain their objectives by exhausting the will of the Russians to continue the fight. In a successful unconventional strategy, actual tactical success or failure of a particular combat action is less relevant than its informational use or moral effect.

Organization

To pursue an unconventional strategy, as opposed to merely conducting random acts of violence in opposition to the government or an intervening power, the UW force must organize itself to conduct and support operations. Traditional, rural-based UW forces normally organize into three elements, the underground, the auxiliary, and the guerrilla force. In urban-based UW forces, the functions of the guerrilla element often merge into those of the underground.⁵⁰ While each UW force tailors its organization to meet its particular circumstances and needs, the triangular structure of the traditional UW force provides a framework for understanding the functions of its elements.

The underground is a clandestine, primarily operational, element of a UW force. It normally has a cellular structure to enhance its survivability. That is, it is organized into small elements, operating independently from other elements and unaware of the identities of UW members outside of the cell. Consequently, if the opposition succeeds in capturing an underground member, the damage is limited to the cell of which he is a member. The underground conducts acts of sabotage, subversion, and terrorism against the opposition. Because of the small, clandestine nature of its elements, the underground usually attempts to create a psychological impact on the opponent, or in the media, with its actions, although it may achieve tactical or operational effect against particularly critical, yet vulnerable targets.

A prime focus of the underground is intelligence collection. Underground members, indistinguishable from the rest of the civilian populace, will perform roles in society that allow them access to useful information, such as government workers, dock workers, airport workers, bartenders, waitresses, etc. For example, in Somalia, Somali civilians, working at UN and US facilities, provided intelligence to support operations of the Aided faction.⁵¹

The auxiliary is similar to the underground. It is usually cellular in structure and clandestine in nature; however, it performs, primarily, a support function. Like the underground, auxiliary members are indistinguishable from the populace. They perform an essential role for the UW force by tapping into the resources of the community to provide the operational elements with food, medical supplies and care, transportation, funding, recruits, and intelligence. They can also be an important PSYOP tool, helping spread the UW force's themes throughout the community.

The guerrilla force is usually the main operational element of a UW force. It is organized along more traditional military lines and usually operates in a relatively open or overt manner, though its members may blend into the civilian populace to escape capture from opposition forces. Traditionally, the guerrilla force operates from restricted terrain in order to hide from its opponent and negate his mobility advantage, such as the Viet Cong use of the jungle in Vietnam or the mujahideen use of mountainous terrain in Afghanistan.

Increasingly, remote, restricted terrain provides fewer advantages to the guerrilla. Recent reports from Chechnya indicate that the withdrawal of Dudayev's forces into the mountainous region eased the Russians' difficulties in fighting the rebel forces by separating them from the logistic support and the "concealment" of the populace.⁵² Similarly, in Somalia, guerrilla elements were most effective when they operated in urban areas amongst the civilian populace. Technological advances in sensors, infrared and thermal imagers, and other technical collection means increasingly should deny remote

areas to the guerrilla, and cause him to remain amongst the populace for concealment. Additionally, the urban areas contain the majority of the facilities, installations, and people that provide the target set for the UW force, especially as worldwide demographics tend towards ever increasing urbanization.⁵³ These factors indicate future UW forces will be more urban-based; consequently, the guerrilla force and the underground elements are likely to merge, as the guerrilla force relies on clandestine operations and cellular organization for survival, instead of concealment in the countryside. The Algerians fighting against the French in Algiers, as well as the IRA's struggle against the British in the urban areas of Northern Ireland, provide examples of this type of urban-based UW force.

Weaponry

Many of the major advances in weapons technology will not be exploitable by UW forces, at least in the near term, simply because of the level of technical sophistication, funding, and manufacturing capability required (stealth technology for example). Some technologies, such as Global Positioning System receivers, or night vision devices, could enhance the tactical effectiveness of a UW force; however, the overall effect of these type of technologies against a powerful conventional force is probably minimal. Two areas of weaponry that could have a much more significant effect are weapons of mass destruction (WMD) (particularly nuclear and biological) and shoulder-fired surface to air missiles (SAMs).

It is becoming increasingly apparent that controlling the proliferation of WMD technology is nearly as futile as stopping the flow of illegal drugs into the U.S. through interdiction. Between 1991 and 1994, the German government detected over 350 attempts to smuggle nuclear material through the country, with 60 actual seizures of material. When Kazakhstan asked the U.S. to store their stockpile of enriched uranium, U.S. officials recovered 104% of the declared inventory. As Senator Richard Lugar aptly stated, "Consider the implications of a 4 percent error margin in Russian inventory

accuracy."⁵⁴ The information required to build a crude nuclear device is available in open source documents. Consequently, the possibility exists that a UW force could construct or acquire a small nuclear device. Just prior to the Russian invasion of Chechnya, Dudayev requested U.N. forces to protect WMD within Chechnya from possible attack by Russian forces, in an apparently deceptive attempt to convince Russian authorities that he possessed nuclear weapons.⁵⁵ The potential psychological effects of a UW force using even a small, tactical nuclear weapon are enormous.

Although there is a possibility of a UW force acquiring an explosive device, the nuclear materials themselves pose a significant, and the most likely, potential threat. A UW force could use a variety of means to broadcast the material to achieve psychological or operational effects. For example, a UW force could use radioactive material and conventional explosives to construct a radiation dispersal device (RDD). While it would not achieve the destructive effects of a nuclear weapon, the use of an RDD could contaminate critical facilities such as APODs and SPODs and limit their use, while achieving a significant psychological effect on the opponent.

The problem is not limited to nuclear technology. Iraq recently admitted to having developed numerous biological agents, to include anthrax and botulism; 5500 pounds of anthrax, theoretically enough to kill 50 million people, remains unaccounted for.⁵⁶ Biological agents could be used to contaminate critical nodes and limit their use, or released within an opponent's population centers. The use of biological weapons might achieve tremendous psychological impact on the opponent and weaken his will to continue, especially if his interests in the conflict are limited ones. Although production of biological weapons are beyond the means of most groups likely to execute an unconventional strategy, they could be provided by a third party such as Iraq. It seems increasingly likely that a state or group that is committed to acquiring WMD, will be able to do so, despite diplomatic efforts to halt their proliferation. If the entity's existence is threatened, it is likely to use every available means, to include WMD, to survive.

Shoulder-fired (SAMs) are another technology that a UW force could use to great effect against a conventional force. Although its effects on the overall course of the war are probably overrated, the introduction of the Stinger missile into the war in Afghanistan certainly had an impact on the Russian use of air power, particularly its helicopters.⁵⁷ Shoulder-fired SAMs have had limited effectiveness against Russian forces operating in Chechnya, with reports of total air losses being less than two dozen fixed and rotary wing aircraft. One report indicates, however, that the low losses were primarily a result of the Chechens inability to reprogram the IFF of their missiles, which recognized Russian aircraft as "friendly".⁵⁸ Shoulder-fired SAMs could be particularly effective against a force deploying into theater. Possessing limited or no countermeasures, cargo aircraft and passenger aircraft are particularly vulnerable, especially on approach to the airfield. By executing one or two "SAM ambushes", UW elements could delay a deployment significantly, as well as deliver a tremendous psychological blow to its opponent if it could kill a couple hundred soldiers in an aircraft in an instant.

Communications

UW forces have relied traditionally on relatively primitive communications equipment and techniques to control their organization, conduct tactical and psychological operations (PSYOP), and to communicate with external support groups or states. Courier, radio, telephone, and non-technical communications techniques have long been the mainstay of UW forces.⁵⁹ As the Somali use of drums to coordinate operations against U.S. and U.N. forces demonstrates, such "primitive" methods will often be more than adequate - yet the UW force need not be limited to such means.⁶⁰ The worldwide spread of information technologies will provide additional capabilities to a UW force that were previously the sole province of well equipped conventional forces. Transnational communications, facilitated by such technologies as the Internet, computer communications tools, and small affordable commercial satellite communications systems,

provide a UW force the ability to communicate within its organization worldwide, as well as to spread the messages of its PSYOP campaign.

Computers linked into telephone lines provide access to the Internet and the capability to influence people worldwide.⁶¹ In a recent article on what the authors termed "postmodern conflict", they noted:

Last year, when the authors were looking to analyze the Mexican Zapatista rebels, we didn't find them in Chiapas, we found them on a home page at Swarthmore. There we could read the sub-comandante's dispatches, send money to the cause--or condolences to a sick Capitana.⁶²

Bulletin boards on the Internet provide an open forum for a movement to tell its story, solicit support, or merely communicate with organization members or sympathizers. Additionally, the Internet provides the UW force access to virtually unlimited amounts of information that can be beneficial in prosecuting its tactical or PSYOP operations, as well as a means of transmitting intelligence or orders to elements worldwide.

Satellite communications are another technology over which the powerful militaries no longer own a monopoly. In the recent fighting in Chechnya, the Chechen leader Dudayev reportedly used SATCOM radio to coordinate actions against the Russian forces.⁶³ Motorola Corporation is currently planning a global cellular telephone network supported by 66 satellites that will be partially operational beginning in 1998, and fully operational by 2000.⁶⁴ Such a system will provide a UW force an instantaneous means to coordinate operations over a large area and receive real time intelligence from assets worldwide. The ease of international communications has increased the likelihood of cooperation between disparate groups seeking mutual benefit. The ties between politically-oriented guerrilla movements in Latin America and narco traffickers, and ethnic factions in the conflict in the former Yugoslavian Republic involved with drug smuggling operations, provide two of many current examples of this phenomenon.⁶⁵

The ability to manipulate information sources electronically will also enhance a UW force's ability to employ PSYOP effectively. In Chechnya, Chechen rebels used

relatively portable Sony equipment to override the Russian television signal being received in a certain area. They then broadcast messages to the populace denouncing the accuracy of Russian news reporting, and providing the "reality" of the situation to the populace.⁶⁶ Technology of this kind could become extremely significant by denying sole control of the electronic media to the conventional force and aiding the UW force in its prosecution of its information operations.

All of these technologies could create vulnerabilities for the UW force as well as capabilities. Any electronic transmission can be detected, monitored, or traced - yet as the number of transmitters, emitters, etc. increases even in relatively undeveloped regions of the world, sifting through the mass of information will become more and more difficult. As a former head of French Intelligence noted:

Such an incredible amount of electronic 'traffic' is generated by such monitoring that important information often remains on unmonitored tape recordings until some incident causes them to be replayed by an analyst.⁶⁷

Computers and "intelligent" software may eventually alleviate some of this difficulty. However, the proliferation of information and communication technology makes it seem very likely that a UW force will be able to use these systems to its advantage, relying on their use being mere droplets hidden in a vast ocean of electronic traffic.

Logistics

As any military, a UW force must have a support structure to sustain the force and enable it to continue the fight. As noted earlier, logistical sustainment is one of the key functions of the auxiliary. The auxiliary provides the UW force with access to civilian sources of food, medicine, fuel, clothing, transportation, and other basic consumables.⁶⁸ The materials of war - arms, ammunition, explosives - are usually another issue. In some circumstances the opponent's military provides some of these materials. In Vietnam, battlefield recovery provided a significant source of supply to the Viet Cong.⁶⁹ In

Chechnya, Russian soldiers have been known to trade ammunition for vodka, produce and other commodities.⁷⁰ In general, while such sources may assist the UW force in arming itself, what they can provide will not prove sufficient. Some sort of external supply is necessary, though it may occur prior to the conflict. One author recently noted that in most of the current low-intensity conflicts, stockpiling of weapons and munitions by the involved forces actually began 2-5 years prior to the actual outbreak of hostilities.⁷¹

The proliferation of arms trading is such that a continued supply is virtually assured, particularly if the UW force has the money to purchase munitions, or if it has an outside patron who is supplying it. Recent events in the former Yugoslav republic demonstrate that halting the flow of arms is difficult indeed, despite an international embargo enforced by a powerful array of conventional military forces. The smuggling of arms to the UW force is aided greatly if it can establish a reciprocal arrangement with an organization with an established smuggling network, such as drug cartels or organizations involved in illegal immigration. The efficacy of external sources will be dependent largely on favorable situational factors, such as a high volume of commercial traffic and favorable geographic considerations.

Summary of UW Force Characteristics

The UW force of the future will, in many respects, be unchanged from the past. It will seek to defeat a superior conventional force by carefully chosen tactical engagements designed to inflict casualties and gain psychological leverage, as part of an overall effort to exhaust the physical and moral capability of the opponent to continue. Changing demographics, particularly in the developing world, indicate that UW conflicts will be increasingly urban-centered, which suggests increased reliance on cellular, clandestine organization and operation. Finally, the availability of advanced technologies will allow a UW force to enhance its operational capabilities, particularly in PSYOP, command and control, and the ability to deliver a severe psychological blow against a conventional opponent with advanced weaponry. As a recent RAND study on the impact of

information age technology on the future of land warfare commented, "Perhaps the more important variable to consider on the battlefield is not the use of the new technology, but the facilitation by technology of asymmetric doctrines and strategies for U.S. opponents."⁷²

CHAPTER V

Force XXI vs UW

As noted earlier, conflict against a UW opponent is not a singularly military task. The military force supports an interagency effort aimed at alleviating the causes of conflict and enhancing the legitimacy of the supported government, faction, or policy. The military's role in such a conflict is to reduce the ability of the UW force to influence the populace and provide the time necessary for the interagency effort to succeed. This role might take the form of a presence operation, in which the military effort is mainly defensive, merely seeking to prevent the UW force's access to the populace, or offensive operations that seek destruction or removal of the UW force. Either role can bring Force XXI into conflict against a UW force. In a recent article examining the strategic implications of the RMA, the authors warned that the U.S. military must guard against what they termed a "band-width" problem, a military force "...so focused on one particular type of opponent that it can be defeated by a different kind."⁷³ They argue that despite caveats about the changed nature of war, "...most descriptions of how the 'digitized' Army of the 21st century expects to fight sound suspiciously like armored combat against the Warsaw Pact with new technology grafted on."⁷⁴ This chapter will compare the Force XXI operational concept against the UW force characteristics developed in chapter IV, using the five battle dynamics of Force XXI to assess whether there is indeed a "band-width" problem, or if Force XXI is suited to performing the military role required of it in unconventional conflict.

Battle Command

As noted earlier, the focus of Force XXI battle command is a shared, common relevant picture of the battlefield, developed largely from technical collection means, and distributed throughout the force by the ABCS. Unfortunately, the benefits of such a system will be largely negated by the organizational, operational, and communications characteristics of a UW force.⁷⁵

The cellular nature of a UW force makes intelligence collection against it primarily HUMINT-dependent. As a RAND study noted, developing the required intelligence is largely a police-type function, relying heavily on informers, agents, and the active cooperation and participation of the civilian populace.⁷⁶ This is particularly true of a UW force that maximizes the use of non-technical communications methods between cells and accepts the inherent slowness of such methods in order to minimize the vulnerability of its organization to electronic collection methods. As noted in the previous chapter, the sheer volume of electronic traffic (telephone, radio, and computer) in most urban areas, even in the developing states, can make timely collection EW against a UW force difficult, should it choose to use electronic communications. In some circumstances, Force XXI will be supporting host nation forces in a conflict environment, and can rely to some extent on the host nation to provide HUMINT intelligence support. In operations such as Somalia and Haiti, there may not be a host nation HUMINT capability. In such instances, Force XXI will rely on its own limited HUMINT capability and whatever may be provided by other governmental and nongovernmental organizations. Developing reliable and effective sources is time consuming and difficult, especially as the UW force will anticipate such attempts and counter the effort by providing false sources.

Technical means can have some effectiveness against a UW force operating away from the populace. Space-based, aerial and ground sensing systems will be able to locate and track UW elements operating in remote, normally uninhabited areas; however, the UW force will quickly realize this and learn that the best concealment from high technology sensors is blending in with the populace. It appears that the Chechens have already learned this lesson, as the rebels are apparently infiltrating back into Grozny hidden amongst refugees, in order to wage GW against the Russians.⁷⁷ Chechen snipers have been particularly effective against the Russians, mostly targeting officers. The use of women snipers in civilian clothes, has made it very difficult for the Russians to locate and identify the snipers before they fade into the populace.⁷⁸ As a result, Russian forces have

resorted to manpower intensive techniques, learned from their experience in Afghanistan, to identify guerrillas among the populace, such as looking for shoulder bruises from rifle firing, powder residues and odors on clothing, etc.⁷⁹ Such manpower intensive operations are likely to tax the capabilities of a Force XXI combat unit which was designed as a low manpower, high firepower force.

A UW force is likely to exploit Force XXI's reliance on high technology battle command systems in two ways - by attacking the system itself, and by attempting to manipulate it. Much as Iraq's extensive use of SCUD missile decoys and dummies in the Gulf War caused Coalition air assets to waste their efforts and increased the survivability of the actual systems, a future UW adversary will attempt to mislead Force XXI commanders by fooling their technical collection systems. If the force is attempting to locate and destroy communications nodes, the UW force might establish a decoy and then position forces to ambush the Force XXI units as they attempted to destroy it, or put the decoy in an area whose destruction can be manipulated for PSYOP purposes.

The battle command architecture will be targeted by the UW force as a point of leverage, where small tactical actions can achieve tremendous results. For example, one author noted recently the crippling effect that could be realized should an adversary be able to disrupt or alter the computerized Air Tasking Order (ATO).⁸⁰ The ABCS seeks to digitize many similar processes, such as fire support, army airspace command and control, orders dissemination, etc. A sophisticated UW force might attempt to use computer viruses, electromagnetic pulse weapons, or iron filing dust to disrupt Force XXI's battle command system.⁸¹ A less sophisticated force will attempt to destroy critical nodes, such as large, fixed satellite down link systems by direct attack or sabotage.

Battlespace

As noted in Chapter III, TRADOC PAM 525-5 envisions that Force XXI will dominate an expanded battlespace with overwhelming and decisive power. It notes that:

Overwhelming, decisive power is *not solely firepower*[emphasis in original]. For example, in OOTW, it may be food delivered to starving civilians or a demonstration of joint military capability so decisive that an adversary modifies its behavior to meet friendly goals. Regardless, *U.S. force capabilities will define the battlespace*, regulate tempo, ensure initiative, and promote quick, decisive operations with the minimum force necessary."[emphasis added]⁸²

Several aspects of the concept of battlespace dominance are problematic. The first, that it relies heavily on a situational awareness developed through technical collection means, has already been addressed. Second, there is the issue of whether U.S. force capabilities will truly define the battlespace. Finally, there is the question of whether a force oriented approach like Force XXI can dominate the battlespace in a UW environment, where the populace is the true focus of the conflict. Since the focus of an unconventional strategy is exhaustion of the opponent's will to fight, rather than destruction of his military capability, the UW force is not limited to striking at Force XXI within the area of operations. With an ability to communicate worldwide, a UW force can strike at whatever point in the Force XXI system it determines is most vulnerable if it seeks to achieve tactical or operational effects, or at symbolic targets if it seeks to gain a moral effect. To achieve tactical or operational effects, the UW force might attack targets in the CONUS support base that are providing essential intelligence or logistical support to the deployed Force XXI element. Such attacks could be carried out by U.S. resident aliens, infiltrated elements, or criminal organizations within the U.S. providing a contract service to the UW force. Perhaps even more difficult to prevent, would be attacks by these same elements against symbolic targets, such as the recent attacks against the World Trade Center and the Oklahoma City Federal Building, since it is a greatly expanded and less secure (and securable) target set. As the Chechen's have demonstrated to the Russians with attacks in Russia-proper, and the Irish Republican Army has demonstrated with its attacks in England, the UW force has the capability and often the will to expand the battlespace well beyond what is defined by the conventional force's technical capabilities or operational concept. One would expect such an expansion of the

battlespace to become more prevalent as a result of "global transparency" and the increased connections between disparate organizations brought on by information technologies.⁸³ In essence, attacks of these kinds can allow the UW force to ignore the battlespace defined by Force XXI capabilities, and shift the conflict into the battlespace of potentially less capable governmental agencies (e.g., CIA, FBI, civil authorities). While this may not be a strictly military problem, it will likely limit the adequacy of Force XXI to "...promote quick, decisive operations..." against the UW force.⁸⁴

Although TRADOC PAM 525-5 states that overwhelming power is not solely firepower, most of its discussion of battlespace dominance is force oriented. Yet, when faced with an opponent pursuing an unconventional strategy, the true battle is the one for populace support, or at least compliance.⁸⁵ The UW force derives logistical and intelligence support, recruits, and concealment from the populace. As the U.S. Army discovered in Vietnam, and the Soviet Army learned in Afghanistan, search and destroy or sweep operations alone, prevent a UW force from using an area for only so long as it is occupied by physical force. Once the conventional force leaves, the UW element may emerge from hiding and reassert control over the populace. Additionally, as one author suggests, focusing on physical destruction of UW forces as an operational concept draws attention away from the true main effort, denying popular support to the UW force.⁸⁶

Battlespace dominance in a UW environment requires long term presence. The populace must be assured that the conventional force is committed to providing for its security from the UW element until local forces can do so.⁸⁷ Concurrently, political, economic, and diplomatic elements must attempt to address the underlying causes of the conflict and reduce the attractiveness of the UW force's goals to the populace. Force XXI, with its low manpower, high firepower approach, will be ill-equipped and undermanned to provide security for the populace through presence operations. Its doctrine, emphasizing quick and decisive application of overwhelming force, will be

frustrated in an environment where the victor achieves his aims through patience and persistence.

Depth and Simultaneous Attack

Force XXI is designed to attack the enemy simultaneously, throughout the depth of the battlespace, and induce paralysis in him by overwhelming his ability to respond to meet a multitude of threats from multiple dimensions. Enhanced situational awareness creates the conditions for Force XXI to conduct simultaneous attack throughout the battlespace and provides the level of fidelity needed for precision attack of critical targets. As discussed earlier, the difficulty of achieving the required level of fidelity in intelligence will be great. HUMINT operations are time intensive, and achieve results incrementally - rarely, if ever, will they develop the quantity and quality of information about a UW force that allows Force XXI to deliver a multitude of simultaneous, paralyzing blows against it - particularly as that force may be distributed beyond the Force XXI theater of operations. Lacking the opportunity to deliver a rapid, decisive blow against the UW force, Force XXI will be forced to conduct numerous sequential operations that attrit the UW force over time, if it is to be successful in reducing the UW force's influence. Once again, a doctrine and an organization developed around the concept of quick and decisive operations will be ill suited to a time consuming, incremental campaign.

The Force XXI emphasis on precision attack may prove to be a double edged sword against a UW opponent. The use of precision weapons should aid Force XXI in achieving tactical effects with minimal collateral damage and low impact on the populace. Indiscriminate use of firepower tends to destroy the credibility and legitimacy of the concurrent political and economic efforts to address root causes of the conflict, as experience in Vietnam and Afghanistan demonstrates, and frequently causes increased popular support for the UW force.⁸⁸ The psychological effect of precision weapons, when supported with the required precision targeting information, can be expected to achieve tremendous psychological effect on the UW force by creating an aura of omnipotence

about Force XXI. However, as the Russians have discovered in Chechnya, the expense of advanced precision weaponry may be deemed too great to "waste" on the type targets presented by a UW force.⁸⁹ While the U.S. Army can afford to be less cost conscious than most armies, the issue of appropriateness is an important one. Precision weapons are designed to attack the critical, discrete targets that exist in advanced Western societies and in their militaries. Most of the conflicts where opponents employ an unconventional strategy will be in places, and against forces, that lack such targets, or at least lack such targets in the area of operations. The capability to fly a missile hundreds of kilometers into a specific window on a particular building is rendered irrelevant when you cannot determine which window to fly it into or when there is simply no discrete target important enough to the enemy to be worth destroying.

Early Entry

Force XXI seeks to gain immediate and complete control of its battlespace during early entry operations. TRADOC PAM 525-5 recognizes the criticality of early entry operations to the overall effort; a UW opponent will recognize it as well. The early entry phase will probably be Force XXI's most vulnerable point, as it has not fully developed its information acquisition system, nor had an opportunity to learn and understand its opponent. A UW opponent is likely to take advantage of this vulnerability and attempt to demonstrate to the U.S. that the cost of the operation will be prohibitive. If it possesses the capability, the UW force may employ WMD to deny use of critical air and sea ports, and inflict a high number of casualties. Shoulder-fired SAMs may be used to destroy troop transport aircraft in order to inflict a large number of casualties early on in an operation, at the point when American support may not be fully rallied behind an operation. During the Gulf War, it took a concerted effort by the Bush Administration, during the six months prior to commencement of hostilities, to convince the American public and the Congress that Kuwait was important enough to fight for. That effort might have been much more difficult had Iraqi agents killed several hundred American soldiers as

their aircraft descended into Saudi Arabia. Despite the array of technical information gathering systems available to Force XXI, locating individuals with SAMs or a truck carrying a radiation dispersal device will be a near impossibility. Inability to risk use of local airstrips may extend the entry and set up time, as forces are required to deploy overland or over the beach.⁹⁰

Combat Service Support

The Force XXI combat service support concept, like the use of precision weapons, will prove to be a double edged sword. The emphasis on split based operations will serve to remove potential targets from the area of operations. Additionally, by minimizing the support structure brought into theater, Force XXI will reduce its base security requirement, leaving a greater proportion of the force available to conduct operations. On the other hand, split based operations may render the logistics base more vulnerable, as facilities based out of theater will not, at least initially, be perceived to be at risk, and may fall victim to UW force attacks on the worldwide expanded battlefield.

Reliance on host nation, civilian, and contractor logistics support is also a potential weakness. As discussed earlier, the UW force will infiltrate its members into positions of access under the guise of host nation laborers, translators, etc. An increased reliance on such support merely increases the opportunity for the UW force to gain access to critical information or facilities. Civilian and contractors performing essential logistics support may be perceived by the UW force as being less willing to sustain casualties and will likely be targeted. As a result, they will require more security than an army unit performing that function would have, or they may simply withdraw, forcing the army to fulfill the function "out of hide". Either option will reduce the force available to conduct critical presence operations.

Summary

The operational concept of Force XXI, as defined by the five battle dynamics, is highly dependent on technical intelligence collection systems to provide the commander

with a detailed, accurate, and timely picture of the situation. In theory, this picture will allow him to orchestrate the effects of his precision weapons systems and achieve a quick and decisive victory by delivering an overwhelming blow against the enemy from which he cannot recover. Unfortunately, the characteristics of a UW force seem to negate many of the capabilities upon which the concept is based. Against an urban-based, cellular UW force locating discrete, critical targets will be difficult. It will be particularly difficult to locate sufficient numbers of targets simultaneously, so that their destruction can paralyze the UW force; rather, operations will tend to be incremental, time consuming, and indecisive. Finally, Force XXI is a low manpower, high firepower force designed to defeat an opponent whose center of gravity is his military. Its ability to transition to manpower intensive presence and security operations to counter a UW force, whose center of gravity is popular support, is questionable.

CHAPTER VI

Conclusions

TRADOC PAM 525-5 lays the groundwork for the operational, organizational, and doctrinal concept for Force XXI, the U.S. Army of the 21st Century. It attempts to account for both the Revolution in Military Affairs, caused by the Information Age, as well as a radically altered security environment resulting from the collapse of bipolarism caused by the disintegration of the Soviet Union. Despite numerous caveats about its applicability to the full range of conflict, TRADOC PAM 525-5 leaves no doubt that its main focus, and Force XXI's prime purpose, is war - the interstate, Western conception of war. As one author recently wrote "...what current Army doctrine defines as a conflict environmental state for OOTW is actually a non-Western war environmental state..."⁹¹ The Western, Clausewitzian concept of war remains a valid one, and one which Force XXI must be prepared to meet - but it is not the only one.

Various indicators lead to the conclusion that the developing regions of the world will be the source of much of the conflict in the near- to mid-term future. While U.S. interests will not be endangered in many of these conflicts, an expanded view of what constitutes national interest will dictate U.S. involvement in some of them. The United States' overwhelming conventional power, or simply the nature of the conflict, will lead some of these opponents to resort to unconventional strategies that rely on popular support and seek to exhaust the will of the U.S. to continue the struggle, rather than attempting to defeat U.S. military forces in open combat. This alternative concept of war is neither quick nor decisive - nor does one gain much benefit in it from a firepower and maneuver oriented military. Despite its experience in Vietnam (or maybe because of it) the U.S. Army continues to consider non-Western forms of war/unconventional war as something less than "real" war - thus terms like "operations other than war" and "low-intensity conflict". Since it is something less than the "true" Army mission, it is accorded

minimal emphasis in organizing, training, and equipping Army forces and in writing doctrine for it.

Clearly, the United States cannot afford two armies; nor can it afford to build a force that is maximized for only one type of war, or it risks being prepared for "a war" but not "war". Despite its acknowledgment that future opponents are likely to use unconventional strategies, TRADOC PAM 525-5 pays such strategies only superficial attention. Based on an examination of its operational concept and the characteristics of a potential unconventional opponent, this study concludes that Force XXI is ill suited to defeat this threat. As the U.S. Army transforms itself into Force XXI, the Army of the 21st Century, it should not abandon its conventional warfare focus, but it must pay unconventional conflict due attention or pay the price of unreadiness.

Glossary

Army Battle Command System (ABCS): Migration of all fielded and developmental Army C2 systems into one fully integrated and interoperable system with seamless connectivity from the NCA to the foxhole. (TRADOC PAM 525-5)

foreign internal defense: Participation by civilian and military agencies of a government in any of the action programs taken by another government to free and protect its society from subversion, lawlessness, and insurgency. Also called FID. (Joint Pub 1-02)

guerrilla warfare: Military and paramilitary operations conducted in enemy-held or hostile territory by irregular, predominantly indigenous forces. Also called GW. (Joint Pub 1-02)

insurgency: An organized movement aimed at the overthrow of a constituted government through the use of subversion and armed conflict. (Joint Pub 1-02)

irregular forces: Armed individuals or groups who are not members of the regular armed forces, police, or other internal security forces. (Joint Pub 1-02)

low intensity conflict: Political-military confrontation between contending states or groups below conventional war and above the routine, peaceful competition among states. It frequently involves protracted struggles of competing principles and ideologies. Low intensity conflict ranges from subversion to the use of armed force. It is waged by a combination of means employing political, economic, informational, and military instruments. Low intensity conflicts are often localized, generally in the Third World, but contain regional and global security implications. Also called LIC. (Joint Pub 1-02)

unconventional warfare: A broad spectrum of military and paramilitary operations conducted in enemy-held, enemy-controlled, or politically sensitive territory. Unconventional warfare includes, but is not limited to, the interrelated fields of guerrilla warfare, evasion and escape, subversion, sabotage, and other operations of a low visibility, covert or clandestine nature. These interrelated aspects of unconventional warfare may be prosecuted singly or collectively by predominantly indigenous personnel, usually supported and directed in varying degrees by (an) external source(s) during all conditions of war or peace. Also called UW. (Joint Pub 1-02)

ENDNOTES

¹U.S. Army, TRADOC Pam 525-5, Force XXI Operations, (Fort Monroe, VA: Headquarters, U.S. Army Training and Doctrine Command, 1994), 525-5, iii. Hereafter cited as TRADOC Pam 525-5.

²Ibid, 2-5.

³Ibid, 3-21.

⁴Ibid, 2-5 and 3-2.

⁵Ibid, 3-2.

⁶Dr. John W. Jandora, "Threat Parameters for Operations Other Than War," Parameters XXV, no. 1(Spring 1995): 55-56.

⁷TRADOC PAM 525-5, 2-5.

⁸Andrew F. Krepinevich, Jr., The Army and Vietnam, (Baltimore: John Hopkins University Press, 1986), 4-7, 33, 117. The idea that the Army's failure in Vietnam was a result of trying to apply a conventional war concept unsuited to the unconventional war it faced is addressed throughout the book, since it is essentially Krepinevich's thesis.

⁹U.S. Army, Field Manual 100-5, Operations, (Washington, DC: Department of the Army, 1993), 2-0 and 13-0. GEN Gordon R. Sullivan and LTC James M. Dubik, Land Warfare in the 21st Century, (Carlisle Barracks, PA: Strategic Studies Institute, 1993), 9, state: "The concept of 'war' is usually understood in terms of conventional combat: the armies of one nation-state or alliance of nation-states fighting those of another."

¹⁰TRADOC PAM 525-5, 3-2.

¹¹The generally accepted UW model, based largely on the Maoist model of a UW force is described in U.S. Army, Field Manual 31-20, Doctrine for Special Forces Operations, Washington, DC: Department of the Army, 1990), chapter 9.

¹²Sam C. Sarkesian, Unconventional Conflicts in a New Security Era: Lessons from Malaya and Vietnam, (Westport, CT: Greenwood Press, 1993), 20 discusses the concept that UW is rarely susceptible to a single component strategy or orthodox approach, and must be addressed with a strategy that incorporates military, economic, political and psychological components.

¹³TRADOC PAM 525-5's, analysis of the future environment essentially concurs with these conclusions; in fact its analysis of the nature of future conflict is largely drawn from authors such as Kaplan and Peters.

¹⁴The White House, A National Security Strategy of Engagement and Enlargement, (Washington, DC: U.S. Government Printing Office, February, 1995), ii.

¹⁵Ibid, 7.

¹⁶TRADOC PAM 525-5, 2-5.

¹⁷Jeffrey Record, Ready For What and Modernized Against Whom?, (Carlisle Barracks, PA: U.S. Army War College, Strategic Studies Institute, 1995), 8. The author postulates that future threats to the U.S. will be indirect, and cites Iran as already following such a strategy.

¹⁸The information on the drug war is from R. Jeffrey Smith, "Drug War is Lagging," The Kansas City Star, 10 July 1995, A-6.

¹⁹Robert D. Kaplan, "The Coming Anarchy," The Atlantic Monthly, July 1993, 58.

²⁰The information on the problems facing Sierra Leone is from Ibid, 46, 48.

²¹The statistics about Haiti are from Donald E. Schulz and Gabriel Marcella, Reconciling The Irreconcilable: The Troubled Outlook For U.S. Policy Toward Haiti, (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 1994), 3-5.

²²MG (Ret.) William A. Stofft and Dr. Gary L. Guertner, "Ethnic Conflict: The Perils of Military Intervention" Parameters XXV, no. 1 (Spring 1995): 31, 37.

²³Ralph Peters, "The Culture of Future Conflict," Parameters XXV, no. 4 (Winter, 1995-1996): 20.

²⁴The White House, 13.

²⁵See for example Peters, "The Culture of Future Conflict," Parameters XXV, no. 4 (Winter, 1995-1996): 18-27. See also GEN Gordon R. Sullivan and LTC James M. Dubik, Land Warfare in the 21st Century, (Carlisle Barracks, PA: Strategic Studies Institute, 1993), 6, who state that:

...U.S. military strategists can expect that their political leaders will seek ways in which to use the military element of national power - in conjunction with, and

usually subordinate to, other elements of national power - to promote an environment conducive to political and economic stability abroad.

²⁶Rod Paschall, LIC 2010: Special Operations and Unconventional Warfare in the Next Century, (Washington: Brassey's (US), Inc., 1990), 115.

²⁷The White House, 7.

²⁸Kaplan, 76.

²⁹Martin van Creveld, The Transformation of War, (New York, NY: The Free Press, 1991), 27.

³⁰TRADOC PAM 525-5, 3-1.

³¹TRADOC PAM 525-5, 3-3 to 3-4 defines battle command as "...the *art* of decision-making, leading, and motivating informed soldiers and their organizations into action to accomplish missions at the least cost to soldiers." The focus of its discussion about this art is technological - improvements in the paintbrush.

³²TRADOC PAM 525-5, 3-2 to 3-3.

³³TRADOC PAM 525-5, 3-4 to 3-5 discusses the Army Battle Command System.

³⁴GEN Gordon R. Sullivan and LTC James M. Dubik, 23.

³⁵While never truly defining battlespace TRADOC PAM 525-5, 3-8 offers these comments:

Since battlespace is not confined by time, boundaries, graphics, countermeasures, or other physical constraints, it offers the commander a means to look at conditions beyond his traditionally defined area of operations that may affect or influence events within that area.

Battlespace involves the ability to visualize the area of operations and the way that forces interact, be it in combat or in a humanitarian relief mission. The size, shape, and density of a unit's battlespace are variable and influenced by mission, enemy, troops, terrain, and time available (METT-T).

FM 100-5, Operations, 6-12, states: "Battlespace is a physical volume that expands or contracts in relation to the ability to acquire and engage the enemy. It includes the breadth, depth, and height in which the commander positions and moves assets over time."

³⁶TRADOC PAM 525-5, 3-9.

³⁷Ibid, 3-10.

³⁸Ibid, 3-11.

³⁹Ibid, 3-12 and 3-13.

⁴⁰Ibid, 3-12.

⁴¹Ibid, 3-15.

⁴²GEN Gordon R. Sullivan and LTC James M. Dubik, Land Warfare in the 21st Century, (Carlisle Barracks, PA: Strategic Studies Institute, 1993), 24.

⁴³GEN Gordon R. Sullivan and LTC James M. Dubik, 7, define decisive use of force as:

Decisive use of military force does not necessarily entail total war. Rather, it means overwhelming use of the military element of national power relative to the strategic aims, military mission, specifics of the situation, and threat conditions. While preserving the principle of proportionality, decisive force is the opposite of incrementalism or gradualism. Thus, in those crises or conflicts involving U.S. military forces, the action will be characterized by military power employed in an overwhelming way with as much precision as possible to complete the mission in the shortest time possible and - again - at the least cost in lives and resources.

⁴⁴Dr. Larry Cable, "Reinventing The Round Wheel: Insurgency, Counterinsurgency, and Peacekeeping Post Cold War", 2, unpublished article distributed at the Marine War College by the author prior to a 26 Oct 1994 lecture. The author is an Associate Professor of History at UNC, Wilmington. The article has been submitted for publication to the Journal of Small Wars and Insurgency.

⁴⁵Ibid, 4.

⁴⁶John Shy, "The Military Conflict Considered as a Revolutionary War: A People Numerous and Armed" course reprint (Ft. Leavenworth, KS: School of Advanced Military Studies), 6.

⁴⁷Brian Nichiporuk and Carl H. Builder, Information Technologies and the Future of Land Warfare, (Santa Monica, CA: RAND, 1995), 59, suggest the following metaphor for war in the information age:

War in the future may take on many of the characteristics of improvisational theater. The military will find itself on a stage with other actors, before a watching

world and domestic audience, without a shared script, and little control over the other actors or the audience reaction.

UW forces have historically understood extremely well the concept that how well an action plays on the "theater stage" is critical, and consequently successful UW forces place great emphasis on the informational effort.

⁴⁸Carlotta Gall, "Defiant Raduyev Calls Mission 'Success'" The Moscow Times, 23 January 1996, p.2.

⁴⁹V. Ivanov, "Notes of a Military Columnist: At the Final Line" in Sevastopol Flag Rodiny, 21 Jun 95, 3, translated FBIS-UMA-95-148-S, 2 Aug 95, 21.

⁵⁰See Field Manual 31-20, Doctrine for Special Operations Forces, 9-4 to 9-5 for a brief description of traditional UW organization.

⁵¹Nichiporuk and Builder, 50.

⁵²See Dr. Pavel Felgenhauer, "The Chechen Campaign", 50, an unpublished article provided to the author by LTC (Ret) Timothy Thomas, Foreign Military Studies Office, Ft. Leavenworth, KS. Various reports from Russian press address the problem of separating the combatants from the populace. This is a difficult (perhaps the most difficult) aspect of combatting a UW force and is certainly not unique to Chechnya.

⁵³Taw, Jennifer Morrison, and Bruce Hoffman. The Urbanization of Insurgency, (Santa Monica, CA: RAND, 1994), 18 discusses the issue of target locations. Discussion of worldwide demographics is on 1.

⁵⁴Statistics and Senator Lugar's statement are from George F. Will, "Perot's allure, Lugar's alarm," The Kansas City Star, 19 August 1995, C-7.

⁵⁵LTC (Ret) Timothy L. Thomas, The Caucasus Conflict and Russian Security: The Russian Armed Forces Confront Chechnya (Ft. Leavenworth, KS: FMSO, undated), 47.

⁵⁶Christopher Dickey, "Plagues in the Making," Newsweek, 9 October 1995, 51.

⁵⁷LTC (Ret) Lester Grau, interview by the author, at FMSO, Ft. Leavenworth, KS, 22 February 1996. LTC (Ret) Grau, a recognized expert on tactics in the Afghanistan war, has extensive data on aircraft losses, by type for the Soviets and their Afghan allies which shows that the highest levels of losses occurred before introduction of Stinger. Stinger did cause the Soviets to stop using helicopters far beyond the areas controlled by friendly forces.

⁵⁸Felgenhauer, 19-20.

⁵⁹Barton Whaley, "Guerrilla Communications," Research Program on Problems of International Communication and Security, Massachusetts Institute of Technology, 1967. Non-technical communications refers to the use of "dead drops" and other clandestine means of passing information and messages. Edgar O'Ballance, Malaya: The Communist Insurgent War, 1948-60, AMSP Course 4 reprint (Ft. Leavenworth, KS: School of Advanced Military Studies), 145 provides an excellent description of non-technical communications, a jungle "letter boxes" system, used in Malaya.

⁶⁰LTC Mark Clodfelter and LTC John M. Fawcett, Jr., "The RMA and Air Force Roles, Missions, and Doctrine," Parameters XXV, no. 2 (Summer 1995), 27 discusses the use of drums for signaling in Somalia.

⁶¹Nichiporuk and Builder, 20 provides 1994 data on Internet availability worldwide; however, all that is really necessary to access the Internet from anywhere is a computer, and access to a phone line.

⁶²William W. Mendel and Geoffrey Demarest, "U.S. Strategy: Wired for Pomo Conflict?" draft article (Fort Leavenworth, KS: Foreign Military Studies Office, 1996), 2.

⁶³LTC (Ret) Timothy Thomas, Foreign Military Studies Office, lecture at School of Advanced Military Studies, 09 February 1996, used with permission.

⁶⁴LTC Charlie Brown, USSPACECOM, lecture at School of Advanced Military Studies, 27 Feb 96, used with permission.

⁶⁵Nichiporuk and Builder, 34.

⁶⁶LTC (Ret) Thomas lecture.

⁶⁷Count de Marenches and David A. Andelman, The Fourth World War: Diplomacy and Espionage in the Age of Terrorism, (New York, NY: William Morrow and Co., Inc., 1992), 224.

⁶⁸Ronald H. Spector, After Tet, (New York, NY: The Free Press, 1993) 81-82, 103.

⁶⁹Spector, 82.

⁷⁰Alexander Zhilin and Dmitry Ukhlin, "Contract Soldiers in Chechnya Regret their Pledges," Moscow News no.31 (11-17 August 1995), 3.

⁷¹Lyman A. Shaffer, "Illegal Arms Traffic," in New Dimensions in Transnational Crime, ed. Donald E. J. McNamara and Philip John Sted (New York: Jahn Jay Press,

1982), p. 115, quoted in Jandora, John W. "Threat Parameters for Operations Other Than War." Parameters XXV, no. 1 (Spring 1995): 64.

⁷²Nichiporuk and Builder, 48.

⁷³Steven Metz and James Kievit, Strategy and the Revolution In Military Affairs: From Theory to Policy, (Carlisle Barracks, PA: Strategic Studies Institute, 1995), 29. The authors provide several examples such as knight vs knight warfare being defeated by formerly insignificant types of soldiers (archers, pike men, etc.) at Agincourt.

⁷⁴Ibid, 29.

⁷⁵LTC (Ret) Lester Grau, ed., The Bear Went Over The Mountain, (Washington, DC: National Defense University Press, 1995), 204, discusses the ineffectiveness of the Soviet intelligence system in Afghanistan in providing useful tactical intelligence.

⁷⁶Hoffman, Bruce, Jennifer M. Taw, and David Arnold. Lessons for Contemporary Counterinsurgencies: The Rhodesian Experience. (Santa Monica, CA: RAND, 1991), 19. See also O'Ballance, 108, 123-124.

⁷⁷MAJ Ivan Muchak, "From Reports of the Press Service of the Russian Ministry of Internal Affairs Internal Troops", Moscow SITUATSIYA no. 23-4, 1995, 2-3 translated in FBIS-UMA-95-153-S, 9 August 1995, 10.

⁷⁸COL Oleg Mikhaylov, "A Rare and Unpopular Specialty: About One Lesson of the New War," Moscow Armeyskiy Sbornik, March 1995, 38-41, translated in JPRS-UMA-95-021, 9 May 95, 22-23. See also Grau, The Bear Went Over The Mountain, 35, for a vignette from Afghanistan of surrounded UW elements "melting" back into the populace.

⁷⁹COL Oleg Namsarayev, "Sweeping Built-Up Areas," Moscow Armeyskiy Sbornik no. 4, April 1995, 35-37, translated in FBIS-UMA-95-139-S, 20 July 95, 22.

⁸⁰Clodfelter and Fawcett, Jr., 26.

⁸¹Agents within coalition forces, HN workers, or others with access to electronic systems might be used to infect computerized systems with viruses. Iron filing dust might be introduced through air conditioning/filtration systems. The particles can be attracted by magnetic computer drives and damage the system. A recent article, William Matthews, "Susceptible to Sabotage," Army Times (5 February 1996), 28, highlighted the vulnerability of many of the Army's communications and information systems to sabotage, jamming, and tapping. The fact that 90% of the Army's information travels through commercial communications systems exacerbates the vulnerability.

⁸²TRADOC PAM 525-5, 3-3.

⁸³Nation of Islam leader Louis Farakhan's recent meetings with Iranian and Libyan leaders is one potential example of cooperation between U.S. adversaries and a U.S. interest group.

⁸⁴TRADOC PAM 525-5, 3-3.

⁸⁵Cable, 2 and Krepinevich, 273.

⁸⁶Sam C. Sarkesian, Unconventional Conflicts in a New Security Era: Lessons from Malaya and Vietnam (Westport, CT: Greenwood Press, 1993), 170.

⁸⁷Vitaliy Strugovets and Sergey Babichev, "Those People Who Are Shooting Us in the Back," Moscow Krasnaya Zvezda, 5 November 1995, 2, translated in FBIS 95-239-S discusses the activities of Chechen guerrillas in pressuring the populace in the absence of security forces. See also O'Ballance, on how effective presence operations and relocation programs in Malaya separated the guerrillas from popular support.

⁸⁸See Grau, The Bear Went Over The Mountain, 46, 207-208 on this occurring with the Soviets in Afghanistan and Krepinevich, 225-226, for examples of the same problem with the US Army in Vietnam.

⁸⁹"Russian Military Assesses Errors of Chechnya Campaign," International Defense Review 4, 1995, 6.

⁹⁰In extreme cases, such action might be sufficient to deter U.S. deployment. For example, an operation in Central Africa might be considered impracticable without use of local airfields due to the remoteness of the area.

⁹¹Robert J. Bunker, "Rethinking OOTW" Military Review LXXV, no. 6 (Nov-Dec 1995), 37.

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