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THESIS

ASSESSING THE U.S. COUNTER PROLIFERATION INITIATIVE: CONSIDERATIONS FOR MILITARY OPERATIONS OTHER THAN WAR

by

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December 2000

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13. ABSTRACT ***(maximum 200 words)***

The proliferation of weapons of mass destruction (WMD) represents a growing threat to the national security interests of the United States. The United States must retain its ability to project power, while providing its forces adequate protection. Military Operations Other Than War (MOOTW) are becoming a primary responsibility and mission of the U.S. armed forces. Evidence indicates that WMD are proliferating precisely in the same regions where U.S. military forces have been called upon to conduct MOOTW. While the United States has developed various measures to confront this growing challenge, most notably the 1993 DoD Counter Proliferation Initiative, additional considerations must be weighed in assessing the overall effectiveness of the U.S. counterproliferation strategy. The level of preparedness of the U.S. military is of particular concern, in ensuring forces are trained, equipped, and prepared to confront WMD-armed adversaries in a MOOTW environment. This study examines the merging confluence of the proliferation of weapons of mass destruction and U.S. military operations other than war.

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ASSESSING THE U.S. COUNTER PROLIFERATION INITIATIVE: CONSIDERATIONS FOR MILITARY OPERATIONS OTHER THAN WAR

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ABSTRACT

The proliferation of weapons of mass destruction (WMD) represents a growing threat to the national security interests of the United States. The United States must retain its ability to project power, while providing its forces adequate protection. Military Operations Other Than War (MOOTW) are becoming a primary responsibility and mission of the U.S. armed forces. Evidence indicates that WMD are proliferating precisely in the same regions where U.S. military forces have been called upon to conduct MOOTW.

While the United States has developed various measures to confront this growing challenge, most notably the 1993 DoD Counter Proliferation Initiative, additional considerations must be weighed in assessing the overall effectiveness of the U.S. counterproliferation strategy. The level of preparedness of the U.S. military is of particular concern, in ensuring forces are trained, equipped, and prepared to confront WMD-armed adversaries in a MOOTW environment. This study examines the merging confluence of the proliferation of weapons of mass destruction and U.S. military operations other than war.

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EXECUTIVE SUMMARY

The proliferation of weapons of mass destruction (WMD) represents a growing threat to U.S. national security. Despite the overwhelming U.S. conventional military superiority, several countries are searching for ways to defeat or at least deter U.S. involvement in regional conflicts. Weapons of mass destruction appear to offer potential adversaries an appealing, inexpensive, and potentially devastating solution to U.S. conventional superiority. Termed asymmetric threats, WMD pose a serious challenge to U.S. military forces.

Two key components of U.S. national military strategy remain the ability to project power and provide adequate force protection. Specifically, military operations other than war (MOOTW) are quickly becoming a primary role and responsibility for U.S. military forces. Ranging from non-combatant evacuations and counter-drug operations to peacekeeping and humanitarian assistance operations, MOOTW is receiving growing attention and accompanied by a dramatically increased devotion of resources.

Unconventional weapons are proliferating in many of the same regions that currently require U.S. MOOTW involvement. This merging confluence of WMD proliferation and MOOTW can no longer be ignored.

While the United States has developed various measures for meeting the growing challenges presented by WMD proliferation, most notably the 1993 DoD Counter Proliferation Initiative (CPI), much work remains to be completed if the United States is serious about its commitment to halt the proliferation of nuclear, biological, and chemical

weapons and their means of delivery. To risk being caught unprepared for a WMD incident during a MOOTW operation is inviting certain disaster.

Although U.S. non-proliferation efforts have achieved much success, the further development and implementation of a counterproliferation strategy has become increasingly necessary. As outlined in the DoD's CPI, current counterproliferation measures are focused on four areas: prevention, deterrence, rollback, and military force preparedness. While no single component by itself can guarantee success, employed together the tenets of the CPI may at least contain global WMD proliferation.

U.S. counterproliferation actions may have far-reaching effects on overall U.S. national security. The U.S. counterproliferation strategy must be assessed in view of both its short-term and long-term consequences. Most pressing are the concerns over the U.S. military's readiness and ability to confront the challenges posed by a WMD-capable adversary. This thesis suggests the immediate necessity to develop more robust counterproliferation strategies, while ensuring U.S. military forces are trained, equipped, and prepared to confront WMD in a MOOTW environment.

I. INTRODUCTION

A. BACKGROUND

The proliferation of nuclear, biological, and chemical (NBC) weapons presents a growing threat to U.S. national security. As nations continue to acquire the technology, expertise, and resources necessary for the development of weapons of mass destruction (WMD), international instability may increase.

American decision-makers have devised various measures to preserve U.S. national security interests, while attempting to offer protection to their allies. Among the various policies and agreements aimed towards preventing the proliferation of WMD, perhaps the most aggressive and robust measure is the 1993 Department of Defense (DoD) Counter Proliferation Initiative (CPI). This document contains four primary components that outline the DoD's strategy for combating the proliferation of WMD: (1) prevent acquisition; (2) roll back proliferation; (3) deterrence; and, (4) adapt U.S. military forces and planning considerations.

B. THESIS

This study addresses the U.S. counterproliferation strategy in terms of the DoD's CPI and in Military Operations Other Than War (MOOTW). To assess the relationship between the CPI and MOOTW, the thesis identifies empirical evidence that suggests the growing convergence of these types of operations.

Many scholars as well as military leaders generally agree that MOOTW will continue to be a dominant aspect of current and future military operations. In the relatively unstable setting of the post-Cold War international environment, the United States has found itself conducting MOOTW throughout the world. Involvement ranges from humanitarian assistance operations in various regions of Africa and South East Asia, non-combatant evacuations in Albania and Sierra Leone, to large-scale peacekeeping operations in the Former Republic of Yugoslavia.

The United States enjoys an overwhelming conventional military force superiority. But its military superiority propels potential adversaries to seek alternative ways to deter or defeat U.S. forces. It is these alternative solutions – asymmetric threats – that the United States is most likely to be forced to confront in the near future. It is only natural to consider that U.S. MOOTW efforts and counterproliferation operations may become intertwined in the future. As WMD continues to proliferate globally, U.S. military power projection and force protection capabilities conducted within the MOOTW arena will be affected.

The National Defense Panel recently reported that weapons of mass destruction challenge the U.S. ability to project combat power. It is the use, or threat of use of WMD, which could deter the United States from establishing forward operating areas and degrade or impede the ability of U.S. military forces from completing their mission.[1] Despite much testimony certifying the primary threat presented by WMD proliferation, MOOTW doctrine fails to incorporate counterproliferation operations or tactics. This

[1] Report of the National Defense Panel, *Transforming Defense: National Security in the 21st Century* (Washington, D.C.: Government Printing Office, 1998), 16.

thesis demonstrates the need for U.S. MOOTW strategy and doctrine to include counterproliferation strategy, specifically the tenets of the CPI.

The thesis examines the inherent risks and benefits associated with counterproliferation activities. Also discussed is how the United States can optimally apply its counterproliferation strategy to ensure that its power projection and force protection capabilities are retained, while simultaneously mitigating the risks of conflict escalation.

The importance of this issue lies in the outcomes of U.S. unilateral actions taken against specific states or non-state actors attempting to develop or acquire WMD capabilities stemming from acts of proliferation. The proliferation of WMD is accelerating. It is critical for U.S. civilian and military officials to understand the implications of counterproliferation operations. Although the risk of conflict escalation is omnipresent, the likelihood of confronting WMD threats during future military operations other than war must be acknowledged. There is a natural relationship between counterproliferation strategy and MOOTW. This thesis will explore this relationship and identify the importance of incorporating counterproliferation strategy in MOOTW doctrine.

C. METHODOLOGY

This paper uses academic research and sourced intelligence, portions of which have recently been de-classified and made available to the public. While an entirely unclassified thesis was desired, it would be myopic and naïve to ignore the alarming

empirical evidence which currently exists at the classified levels. In an effort to produce a thesis that can be freely disseminated, unclassified information was used exclusively.

It would be nearly impossible to answer within the scope of this analysis every conceivable outcome of U.S. force application in counterproliferation operations. It would be equally difficult to provide a conclusive examination of the entire realm of U.S. non-proliferation strategy. For this reason, the thesis will focus on the CPI while examining certain scenarios within the MOOTW arena that are judged to be the most probable applications of U.S. military force in countering the proliferation of WMD.

D. ORGANIZATION

The thesis is organized into seven sections. First, the thesis topic is introduced and a preface is provided to highlight the importance and relevance of associating MOOTW and CPI strategies. Second, the relatively brief history of preemption and counterforce operations is discussed to provide an historical context for the current situation of counterproliferation activities. Third, the concepts contained in the Counter Proliferation Initiative are defined, while the U.S. counterforce strategy is identified. Fourth, the legal and moral ramifications of the CPI are discussed to estimate international reactions to U.S. unilateral counterforce preemptive military actions.

Fifth, U.S. military force structure is examined in terms of its capabilities and limitations to identify various counterproliferation constraints. Any U.S. military actions conducted towards counterproliferation objectives would likely be undertaken under the guidelines and procedures established by Joint Military Operations Other Than War (MOOTW). Joint doctrine for MOOTW is investigated to identify possible concepts of

operations and potential schemes of maneuver. Prospective applications of military forces employed towards counterproliferation operations in a MOOTW setting are discussed. Also examined is the impact on U.S. military forces when confronted with a potential WMD threat during the conduct of a particular MOOTW mission.

Finally, the conclusion summarizes the thesis and offers a pragmatic appraisal of future U.S. military actions in enforcing the provisions established within the CPI. Three appendices also are included which illustrates regions confirmed and/or suspected of containing one or more forms of WMD. Together with an overview of recent U.S. MOOTW involvement, trends in WMD proliferation provide a foundation for a fuller understanding of U.S. counterproliferation strategy.

The goal of this thesis is to highlight the merging confluence of WMD proliferation and U.S. involvement in MOOTW. Towards this end, the CPI is examined in terms of its strategic, operational, and tactical application in the U.S. military's conduct of MOOTW. Today, operating tempos for military operations other than war are at historically high levels. Equal to this hectic pace is the international proliferation of WMD. The merging and eventual confrontation of WMD and MOOTW is bound to occur in the very near future. The U.S. military must be prepared, trained, and equipped to meet this challenge if the United States is to ensure the preservation and protection of its national interests, both domestically and abroad.

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II. HISTORY OF COUNTERPROLIFERATION OPERATIONS

A. COUNTERPROLIFERATION AS STRATEGIC THEORY

Counterproliferation provides military options to counter the acquisition and use of WMD by regional adversaries.[2] Some critics contend that counterproliferation measures undermine other more diplomatic non-proliferation efforts, but DoD officials stress otherwise. Although the most recent U.S. counterproliferation strategy does contain a strong emphasis on military options, most notably raising the possibility of conducting preemptive/preventive attacks against WMD adversaries; counterproliferation is not intended to replace non-proliferation.[3]

While counterproliferation terminology is somewhat of a neologism, its historical strategic context is not unique. Preemptive military attacks have been a significant part of the history of warfare. The objective of achieving a strategic advantage through the employment of tactical surprise remains a primary tenet of modern warfare.

The strategic theory of employing preemptive military attacks against the proliferation of WMD is a relatively recent development. This preemption strategy is accompanied by significant moral, legal, and diplomatic considerations that will be discussed in a following chapter.

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[2] Angus McColl, "Is Counterproliferation Compatible with Nonproliferation." *Airpower Journal*, (Spring 1997): 100. Online at [http://www.airpower.maxwell.af.mil/airchronicles/apj/spr97/mccoll/pdf].

[3] Ibid.

The focus within this section centers on five historical examples of military force being employed to counter the suspected proliferation, acquisition, and/or development of WMD. The first two examples occurred during a wartime setting, but they involved deliberate military force devoted towards countering a specific WMD threat. While the targeting operations in the first two examples may not be preemptive in the purest sense, the fact remains that deliberate attacks were planned and conducted to eliminate identified WMD threats.

The final three examples were clear preemptive attacks intended to counter WMD proliferation that occurred during periods of peace. The conduct of preemptive strikes against WMD targets during peacetime suggests a willingness to accept the inherent risks of conflict escalation to neutralize and eliminate potential WMD threats. This "risk versus gains" argument serves as a central theme of counterproliferation strategy.

Strategic planners and military decision-makers must understand the risks and benefits associated with preemptive military strikes. Aside from the moral and legal repercussions, there are other factors that must be considered. Should a preemptive strike against a particular WMD target fail, or is less than 100 percent successful, the possibilities and dangers of counter-attacks or reprisal actions may outweigh the original assessed risks posed by the presence of the respective weapon of mass destruction. The risks versus gains argument is especially applicable in the MOOTW environment because U.S. military forces are expected to operate in dynamic settings and can expect to confront a multitude of challenges.

B. WORLD WAR II

During World War II Germany was suspected of manufacturing chemical and biological weapons for use against allied forces. Allied intelligence efforts also suggested that German scientists were developing the A-bomb. The allied strategic bombing campaign included the deliberate targeting and destruction of German factories suspected of developing these weapons of mass destruction. Despite the tremendous amount of ordinance devoted towards this objective, the allied bombing campaign failed to destroy the German nuclear research effort. More important to the counter-WMD effort was the destruction of the Norwegian heavy-water production plant that was required for the German nuclear production.[4] Barry R. Schneider claims that the allies were able to prevent Germany from completing the development of their A-bomb, thereby saving the lives of millions of allied servicemen, not to mention preventing massive collateral damage and civilian casualties. The continued strategic bombing campaigns against Germany, as well as the sabotage efforts in Norway, were the first antinuclear counterforce operations in history.[5]

While the Allied attacks against suspected German WMD sites cannot be considered preemptive, it certainly qualifies as forceful military actions aimed at countering the obvious lethal effects of WMD. The strategic objective of eliminating or at least neutralizing German WMD capabilities continues to serve as a legitimizing factor and historical precedent for counterproliferation operations.

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[4] For a complete discussion of the allied counter-WMD efforts against Germany during WWII, see Gardner and Waller in *1943 and 1991*, which offers a thorough insight into German WMD production and the allied counter-WMD strategy.

[5] Barry R. Schneider, *Future War and Counterproliferation* (Westport: Praeger, 1999), 150.

Also during World War II, Japanese nuclear laboratories in Tokyo were specifically targeted by allied bombing planners to eliminate the threat of a Japanese nuclear weapons program. By early 1945, U.S. bombs had destroyed nearly the entire Japanese nuclear infrastructure; thereby terminating Japan's most advanced nuclear research project.[6] As a testament to the nascent but growing threat of international proliferation of WMD science and technology, Schneider notes that some evidence exists identifying German and Japanese cooperation towards missile and radiological weapons.[7]

C. PERSIAN GULF WAR: 1991

Another example of military actions directed against an adversary's suspected WMD capabilities occurred during Desert Shield/Desert Storm. The U.S.-led coalition specifically sought out Iraqi WMD sites to destroy and eliminate this threat. The coalition conducted approximately 970 air strikes against nuclear, biological, and chemical targets.[8] Although the United States was criticized for inflicting civilian casualties and causing collateral damage in targeting these particular objectives, Iraq failed to employ any weapons within its WMD arsenal.

It is difficult to determine whether it was the direct result of the allied attacks against identified Iraqi WMD sites or if the threat of nuclear retaliation forced Iraq to withhold from employing WMD. It may be the United States adoption of a "purposeful ambiguous" strategy, deliberately not ruling out the possibility of employing its arsenal

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[6] Geoffrey Brooks, *Hitler's Nuclear Weapons: The Development and Attempted Deployment of Radiological Armaments by Nazi Germany* (London: Leo Cooper, 1992), 191.

[7] Barry R. Schneider, *Future War and Counterproliferation* (Westport: Praeger, 1999), 151.

[8] Ibid., 155.

of nuclear weapons in response to Iraqi NBC attacks. For certain, the United States could not rely on the tradition of nuclear diplomacy and its deterrence value alone to ensure that Iraq did not use its WMD capabilities against the allied forces in Desert Shield/Desert Storm. Considering Iraq's unwillingness or more probably its inability to deploy its arsenal of WMD, the allied coalition appears justified in its goals.

Despite the tremendous amount of ordinance expended on targeting suspected Iraqi WMD sites, post-war inspections concluded that the allied bombing effort was at best marginal in neutralizing Iraq's WMD capabilities. But this thesis is not concerned with statistical data results of effectiveness, but rather the particular aspect and strategy of military forces being devoted towards counter WMD operations. What becomes very clear is the U.S. assessment of the threat posed by Iraq's WMD capabilities. Whether or not one can consider allied actions during Desert Shield/Desert Storm as preemptive is not important. Similar to allied actions against Germany during WWII, the application of military force specifically directed towards countering an opponent's (in this case Iraq) WMD capabilities indicates a strategic and operational trend in force protection and targeting, commonly referred to as *counterforce* operations.

The attacks against German and Iraqi WMD sites occurred during the wartime settings of the Second World War and the Persian Gulf War, which mitigates some of the risks of further conflict escalation. The ability to ignore risks of conflict escalation is at best a rare luxury, and as the next three examples illustrate, consideration of risks dominates political decision-making. Weighing the expected gains versus potential risks will remain prevalent in future decisions to employ military forces against proliferation

efforts. The following three examples of preemptive military operations targeting WMD occurred during peacetime, which may foreshadow things to come.

D. OSIRAK: 1981

The Israeli decision to launch a preemptive military strike in June 1981 against the Iraqi Osirak nuclear reactor is the first example of military force being applied to counter a WMD threat during peacetime. This successful attack, resulting in the destruction of the Iraqi nuclear reactor, was preceded by an unsuccessful Iranian attack in September 1980 against the same reactor during the Iran-Iraq War. Although the Israeli attack derailed the Iraqi nuclear program, the strategic importance of that attack would not be fully realized until 1991. Had it not been for the Israeli preemptive attack it is likely that Iraq would have had a nuclear weapon arsenal by the time of the Persian Gulf War.[9]

While the risks of initiating a full-scale war with Iraq affected Israeli decision-making, it was the assessed threat of the prospect of an Iraqi nuclear capability that influenced the ultimate decision to launch a preemptive strike. Any Arab effort to develop or acquire nuclear weapons was regarded as a "casus belli;" thereby supporting military preemption.[10] Politics clearly played a significant part in influencing the Israeli decision; however, the future risks of confronting a nuclear weapon-armed regional adversary vastly outweighed the risks of complacent inaction.

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[9] Barry R. Schneider, *Future War and Counterproliferation* (Westport: Praeger, 1999), 152.

[10] Avner Cohen, "The Lessons of Osirak and the American Counterproliferation Debate," in *International Perspectives on Counterproliferation*, Working Paper No. 99, eds. Mitchell Reiss and Harald Muller, (January 1995), 80.

Israel justified its preemptive attack citing "anticipatory self-defense."[11] Israel's attempt to establish its moral and legal legitimacy for the attack was met with international condemnation, although the U.S. response was restrained. The lessons of Osirak are significant in that the preemptive attack serves as a precedent for counterproliferation strategy and operations involving military force. Aside from a direct threat of a WMD attack on the American homeland, it will be difficult for the United States to establish justification for preemptive attacks aimed at thwarting proliferation through citing anticipatory self-defense as in the Israeli case.

E. SUDAN: 1998

Another example of military force employed to counter the proliferation of WMD is the U.S. attack against Sudan in August 1998. U.S. intelligence sources revealed the Sudanese were developing a biological and chemical weapons capability at the al-Shifa pharmaceutical plant in Khartoum. Intelligence also indicated that the Sudanese WMD developments were the direct result of proliferate actions, sponsored by the Osama bin Laden terrorist organization. U.S. officials stated that the bombing of the Sudanese facility "was necessary to prevent bin Laden from acquiring deadly nerve gas precursors that were being produced [at al Shifa]." [12] Together with near simultaneous attacks against a terrorist training complex in eastern Afghanistan, the U.S. Navy launched

[11] Ibid., 87.

[12] Michael Barletta, "Chemical Weapons in the Sudan: Allegations and Evidence," *The Nonproliferation Review* (Fall 1998): 115.

between 75 and 80 Tomahawk cruise missiles intended to destroy the suspected terrorist and WMD targets.[13]

The U.S. attacks against the sites in Sudan and Afghanistan occurred shortly after terrorists bombed two American embassies in Kenya and Tanzania. The American retaliation attacks against these particular targets suggest a similar relationship between counterproliferation and counterterrorism strategies. The proliferation of WMD enables both state and non-state actors (i.e. terrorists) to present a greatly increased threat to U.S. national security interests. Due to their relatively inexpensive costs and low technological requirements, chemical and biological weapons appeal to those in search of asymmetric advantages.[14]

Weapons of mass destruction allow conventionally weak states and non-state actors to counter and possibly thwart America's overwhelming conventional superiority.[15] If the United States is to protect its national security interests while preserving its power projection and force protection capabilities, countering the proliferation of WMD is a critical strategic objective.

F. DESERT FOX: 1998

In December 1998, the United States conducted a series of military strikes against suspected Iraqi WMD sites during operation Desert Fox. This operation serves as the most recent example of the United States using force as an element of its

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[13] Online at [http://news.bbc.co.uk/hi/english/world/newsid_155000/155526.stm].

[14] H. Allen Holmes, "Looking into DoD's Geopolitical Future" *Defense Viewpoint* Volume 10, Number 74. Online at [http://defenselink.mil/speeches/1995/di1074.html].

counterproliferation strategy in peacetime. Over a period of 70 hours U.S. fighter aircraft conducted more than 650 strike sorties, while Air Force B-52 bombers dropped approximately 90 cruise missiles.[16] Additionally, the U.S. Navy launched more than 325 precision-guided Tomahawk cruise missiles, each costing nearly $1 million and delivering a high-explosive yield of 1000 pounds.[17] Following the successful attack, Secretary of Defense Cohen stated that "we've diminished [Iraq's] ability to deliver chemical and biological weapons." The Desert Fox operation is further testament to the American resolve to counter the proliferation of WMD, particularly among nations that are considered hostile, dangerous, and pose a threat to U.S. national security interests.

Certainly, the attacks against Iraqi and Sudanese WMD targets can be considered forceful testaments to the American concern and resolve towards the international proliferation of WMD. Although the United States would later admit with some reluctance to the possibility that it erred in its attack against Sudan, the U.S. military action clearly was a direct reflection of its counterproliferation strategy as outlined in the 1993 Counter Proliferation Initiative (CPI) discussed in detail during the following section. As the analysis of the CPI will demonstrate, the United States estimates its greatest threat to be posed by the increased proliferation of WMD. As "rogue" states continue to pursue and develop the capability to employ WMD against critical U.S. national interests and security, the U.S. power projection and force protection capabilities will be degraded.

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[15] Report of the National Defense Panel, *Transforming Defense: National Security in the 21st Century* (Washington, D.C.: Government Printing Office, 1998), 16.

[16] Linda D. Kozaryn, "Four Nights; 100 Targets," *American Forces Press Service*. Online at [http://defenselink.mil/news/Dec1998/n12211998_9812212.html].

[17] Linda D. Kozaryn, "Four Nights; 100 Targets," *American Forces Press Service*. Online at [http://defenselink.mil/news/Dec1998/n12211998_9812212.html].

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III. THE U.S. DOD COUNTER PROLIFERATION INITIATIVE

A. ORIGINS OF THE CPI

The proliferation of weapons of mass destruction provokes regional instability and presents significant challenges to the interests of the United States.[18] The United States is an international leader in developing and sustaining global norms and standards against the proliferation of WMD. The Department of Defense (DoD) states that the United States is actively engaged in dialogues with several states to persuade them not to acquire these capabilities or to eliminate capabilities they might have already developed. The United States also is working with other nations to combat proliferation by assisting them in gaining and assuring greater control over their dual-use equipment and technology.[19]

States that gain weapons of mass destruction are able to pose significant military threats to the interests of the United States and its allies. The growing pervasiveness of the threat posed by proliferating WMD prompted President Clinton to proclaim to the United Nations in September 1993 that, "If we do not stem the proliferation of the world's deadliest weapons, no democracy can feel secure."[20]

The United States began to shift its policy against the development and production of weapons of mass destruction from a nonproliferation stance toward a more

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[18] U.S., Department of Defense, *Proliferation: Threat and Response*, (Washington D.C.: Government Printing Office, April 1996). Online at [http://www.defenselink.mil/pubs/prolif/response.html]

[19] Ibid.

[20] N. Lewis and W. Happer, "Counter Proliferation" *The MITRE Corporation* (January 1998): 3.

forceful counterproliferation strategy. This transition was prompted by a number of factors.

First, some of the lessons learned from the Persian Gulf War demonstrated U.S. vulnerability and inability to locate, identify, and destroy Iraq's well-developed and protected chemical and biological weapons architecture. Had Iraq employed its arsenal of WMD, the U.S.-led coalition surely would not have enjoyed its relatively easy victory.

The second instrument used to shape and implement U.S. counterproliferation strategy was the 1993 Bottom-Up Review that identified post-Cold War military requirements. With the collapse of communism and the subsequent break-up of the Soviet Union, the primary threat facing the United States during the Cold War was gone. In response to new threats, the United States needed to restructure its military to cope with new challenges.

As the relatively stable bipolar world of the Cold War gave way to the increasingly unstable multipolar international environment of today, new and potentially more dangerous threats have emerged. The United States has determined that the principle threat of this period continues to be the proliferation of WMD. Figure 1 illustrates the proliferation of WMD since the Second World War. Despite a near opprobrium on nuclear and biological weapons, the proliferation of these types of WMD has increased substantially over the past fifty years.

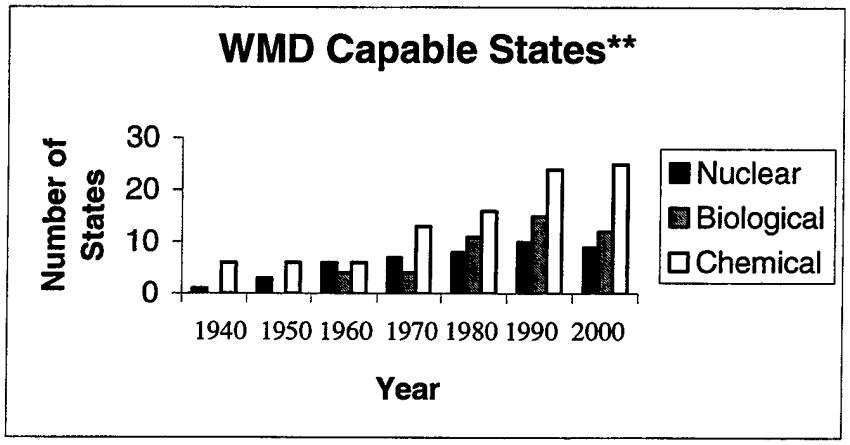

Figure 1. Proliferation of WMD* Since World War II

To counter this threat, in 1993 the DoD developed the Counter Proliferation Initiative (CPI). Specific objectives of the Counter Proliferation Initiative are to: (1) prevent the acquisition of nuclear, biological, and chemical (NBC) weapons and their delivery systems; (2) roll back proliferation where it has occurred; (3) deter the use of NBC weapons and their delivery systems; and (4) adapt U.S. military forces and planning to respond to regional contingencies in which U.S., allied, and coalition forces face NBC threats.[21]

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* WMD is defined as "weapons that are capable of a high order of destruction and/or being used in such a manner as to destroy large numbers of people." WMD usually refers to nuclear, biological, and chemical (NBC) weapons. Department of Defense, *Department of Defense Dictionary of Military and Associated Terms* (Washington D.C.: GPO, 23 March 1994), 412.

** WMD capable states are defined as states that are confirmed or highly probable of possessing one or more forms of nuclear, biological, or chemical weapons according to open source literature.. Excluded in these figures are states such as Libra, Syria, Iraq, and others that are suspected of pursuing or development WMD.

[21] U.S., Department of Defense, *Proliferation: Threat and Response*, (Washington D.C.: Government Printing Office, April 1996). Online at [http://www.defenselink.mil/pubs/prolif/response.html

B. PREVENT ACQUISITION

A 1997 National Defense Research Institute paper sponsored by RAND stated that preventing the spread of NBC weapons constitutes the main goal of nonproliferation.[22] It is axiomatic to conclude that if nonproliferation efforts were one hundred per cent effective, a counterproliferation strategy would be irrelevant. Despite continued nonproliferation efforts, a counterproliferation strategy has become increasingly necessary. Table 1 depicts the broad array of nations that are known, or in some cases suspected, of possessing various forms of weapons of mass destruction. At least thirty countries fall into this category of WMD-capable states.

But the perception that preventing acquisition of WMD appears to be a losing battle is not to suggest that U.S. decision-makers have abandoned efforts towards this objective. A number of U.S. sponsored programs and activities are designed and committed to preventing acquisition of WMD science and technologies. Efforts such as the Cooperative Threat Reduction Program, which is designed to provide funds and technical expertise in assisting a number of former Soviet Union republics in dismantling and destroying WMD arsenals, prevents potential proliferation of WMD.

The Wassenaar Arrangement announced in December 1995 provided an international regime to "increase transparency and responsibility of trade in conventional arms and dual-use goods and technology."[23] Since enforcement is voluntary, much criticism has been levied against the agreement's effectiveness at preventing WMD proliferation. But similar to other multilateral programs designed to impede proliferation,

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[22] Gregory F, Treverton and Bruce W. Bennett, "Integrating Counterproliferation into Defense Planning," *RAND Defense Issues*, 4. Online at [http://www.rand.org/publications/CF/CF132/].

[23] Robert W. Chandler, *The New Face of War* (McLean, Virginia: AMCODA Press, 1998), 105.

the Wassenaar Arrangement has failed to meet expectations mainly due to its inability to enforce compliance with non-proliferation standards.

Table 1. Countries Possessing One or More Forms of WMD

	WEAPON OF MASS DESTRUCTION		
COUNTRY	NUCLEAR	BIOLOGICAL	CHEMICAL
Afghanistan	U	U	P
Argentina	Suspended	N	N
Belarus	N	N	N
Brazil	Suspended	N	N
Burma	N	N	P
Chile	N	N	S
China	C	P	P
Cuba	N	N	S
Egypt	N	S	P
Ethiopia	N	P	P
France	C	Destroyed	S
India	C	P	N
Iran	S	P	C
Iraq	S	S	C
Israel	P	N	P
Kazakhstan	N	N	P
Libya	S	S	S
North Korea	P	P	P
Pakistan	C	P	S
Russia	C	C	C
Somalia	N	N	S
South Africa	Suspended	Suspended	N
South Korea	Suspended	N	S
Syria	N	P	N
Taiwan	Suspended	P	P
Thailand	N	N	S
Ukraine	N	N	P
United Kingdom	C	Destroyed	N
United States	C	Destroyed	C
Vietnam	N	N	S

LEGEND

C: confirmed
P: probable
S: suspected
U: unknown
N: none

Source: John M. Collins, Zachary S. Davis, and Steven R. Bowman, *Nuclear, Biological, and Chemical Weapon Proliferation: Potential Military Countermeasures*, Congressional Research Service report for Congress, The Library of Congress, 28 June 1994, 2.

The Non-Proliferation Treaty (NPT) originally established in 1968 and which entered into force in 1970 was aimed at arresting the spread of nuclear weapons beyond

the established five nuclear powers.[24] Recently 186 nations signed the NPT, indefinitely agreeing to restrict the right to maintain nuclear weapons to the "big five" – Britain, China, France, Russia, and the United States. The NPT helps to maintain the status quo, thereby ensuring international stability. Stability is achieved by preventing less-than-great powers from obtaining nuclear weapons and potentially using or threatening to use their weapons as bargaining chips in order to elicit concessions from the "big five."[25]

Preventing the acquisition of WMD continues to be a primary goal of U.S. counterproliferation strategy. But it also is recognized that efforts towards preventing countries from acquiring WMD capabilities will not be one hundred per cent effective as current evidence indicates. Overall, U.S. efforts to prevent acquisition through its non-proliferation strategy have achieved some positive results. Only four countries (India, Pakistan, Israel, and North Korea) have developed nuclear weapons outside of the non-proliferation regime. Unfortunately, stemming the proliferation of other forms of WMD, namely chemical and biological weapons, has not met with the same success. Additional measures must be taken to reinforce and augment the U.S. goal of containing and eliminating WMD proliferation.

C. ROLL BACK PROLIFERATION

In cases where preventing acquisition of weapons of mass destruction has failed, direct offensive measures may be undertaken. Rolling back WMD proliferation where it

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[24] T.V. Paul, "Power Influence, and Nuclear Weapons: A Reassessment," in *The Absolute Weapon Revisited*, T.V. Paul, Richard J Harknett, and James J. Wirtz, eds. (Ann Arbor: University of Michigan Press, 1998), 22.

[25] Ibid, 39.

has already occurred represents an important element of the U.S. counterproliferation strategy. Rollback consists of both voluntary and involuntary measures designed to destroy existing WMD capabilities. Cases such as Sweden, Taiwan, South Korea, South Africa, Brazil, and Argentina as well as the former Soviet Republics of Kazakhstan, Belarus, and Ukraine, all voluntarily and peacefully decided to terminate their nuclear weapons programs and eliminate existing nuclear weapon arsenals. Although financial incentives and other economic factors motivated their decisions, bilateral and multilateral diplomacy played a large role in rolling back these WMD programs.

To this point, there have been only two instances of states being involuntarily forced to roll back their WMD programs – World War II Nazi Germany and present day Iraq. Numerous others have been involuntarily restrained through the application of trade sanctions, embargoes, and other forms of export controls designed to prevent further WMD proliferation.

Peaceful diplomacy will continue to serve a primary role in U.S. non-proliferation efforts, but a counterproliferation strategy allows the United States the flexibility to adopt a more offensive and proactive stance in combating the proliferation of WMD when diplomacy and other more peaceful means fail. Forcefully rolling back proliferation where it has already occurred is the most controversial aspect of the U.S. CPI. Whenever military force is applied to achieve a decisive solution outside of a wartime context, concerns of legitimacy and justification will surface. Following its most recent attacks against the suspected WMD sites in the Sudan, the United States witnessed international condemnation for its perceived eagerness to use military force.

Rolling back proliferation as the second component of the CPI is closely linked to the other aspects of U.S. counterproliferation strategy. If the United States consistently demonstrates its willingness to use force when necessary in preventing WMD from proliferating, countries that might be contemplating pursuing a WMD program may be deterred from acquiring unconventional weapons.

D. DETERRENCE

The third core objective in the counterproliferation policy is to convince potential and actual proliferants that NBC weapons will be of no value because the United States and its allies have the capability to deny or limit the political and military utility of WMD. In an article sponsored by the National Defense University, Mitchell Wallerstein argues that a key to deterring the use of [nuclear], biological or chemical weapons lies in developing counterproliferation capabilities that negate the value of using WMD against U.S. or allied forces.[26] Deterrence is simply a product of capability and credibility. In other words, deterrence will succeed if the expected costs of punishment multiplied by the estimated probability that the deterrent threat will be implemented exceed the expected gains from the aggression.[27]

Deterrence capabilities also may consist of both active and passive measures, such as individual protective gear, sensors and detection instruments, and other equipment designed to reduce the effectiveness of WMD. A 1997 RAND paper noted that passive defense capabilities consist of four primary measures: (1) individual and collective

[26] Mitchell B. Wallerstein, "Responding to Proliferation Threats," *National Defense University Strategic Forum* Number 138 (May 1998). Online at [http://www.ndu.edu/inss/strforum/forum138.html].
[27] Scott D. Sagan, "The Commitment Trap," *International Security* 24:4 (Spring 2000), 97.

protection; (2) medical treatment; (3) facility and equipment protection; and (4) decontamination.[28] A synergy of these four elements may provide an effective deterrent against potential threats. This concept of adequately preparing, equipping, and training U.S. military forces to withstand a WMD attack can be categorized under the rubric of deterrence, since opponents capable of employing WMD against U.S. forces may be deterred from actually using their WMD arsenal. In this case, deterrence may result from the increased readiness and preparedness of U.S. military forces to continue to operate after being attacked by unconventional weapons.

Additionally, the awareness of the damage inflicted by U.S. and coalition forces in response to a WMD attack may far outweigh any potential benefits of its use in the perception of U.S. opponents. It is within this category of counterproliferation, which calls for offensive actions, and in certain cases, preemption, that deterrence is given special meaning.

In the case of the Gulf War, it was the U.S. strategy of "calculated ambiguity" which possibly provided the greatest deterrent against Iraq's arsenal of WMD. By implicitly threatening to employ nuclear weapons in response to Iraqi chemical and/or biological attacks, the United States significantly influenced Saddam Hussein's costs versus benefits calculus for utilizing WMD. Iraq's perception that U.S. forces were better prepared and equipped to operate in a chemical/biological environment also may have served to deter Iraq from employing WMD. Whatever the reason for deterrence,

[28] Gregory F, Treverton and Bruce W. Bennett, "Integrating Counterproliferation into Defense Planning," *RAND Defense Issues*, 7. Online at [http://www.rand.org/publications/CF/CF132/].

evidence suggests Hussein assessed the expected gains from employing chemical and/or biological weapons were far outweighed by the expected costs of U.S. retaliation.[29]

This example of deterrence has obvious implications in counterproliferation strategy. If the United States can convince would-be proliferators that the costs incurred as a result of acquiring some form of WMD outweigh any expected gains, global WMD proliferation should recede. In addition to retaining a policy of "deliberate ambiguity," robust active and passive defensive measures should be undertaken.[30] Moreover, as Paul Bernstein and Lewis Dunn point out, by preparing to severely punish the next use of chemical and/or biological weapons, proliferators may ultimately be deterred from pursuing development and acquisition of a WMD capability.

Many countries that have acquired or are pursuing WMD are seeking to overcome a conventional force imbalance. In some cases, it is the United States conventional military force superiority that motivates these states to seek WMD. Through WMD these "niche states" are able to pose a credible threat to U.S. interests, whereby the United States conventional military force superiority is mitigated.[31] In these instances, WMD is viewed as a deterrent, aimed at preventing or limiting U.S. involvement. Whether these countries are seeking to threaten a regional adversary or deter the United States from involvement is not immediately important. What is paramount is how the United States responds.

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[29] Scott D. Sagan, "The Commitment Trap," *International Security* 24:4 (Spring 2000), 91-92.

[30] Paul I. Bernstein and Lewis A. Dunn, "Adapting Deterrence to the WMD Threat," in *Countering the Proliferation and Use Of Weapons of Mass Destruction*, eds. Peter L. Hays, Vincent J. Jodoin, and Alan R. Van Tassel (New York: McGraw Hill, Inc, 1998), 159-162.

[31] Stuart E. Johnson, ed. *The Niche Threat: Deterring the Use of Chemical and Biological Weapons* (Washington D.C.: National Defense University Press, 1997), 44.

E. ADAPT U.S. MILITARY FORCES AND PLANNING CONSIDERATIONS

The May 1997 Report of the Quadrennial Defense Review (QDR) noted that the DoD is "developing an integrated counter-NBC weapons strategy that includes both offensive and defensive measures as well as regular individual, unit, joint, and combined training and exercises that incorporate realistic NBC threats."[32] To ensure future preparedness to meet challenges brought on by WMD proliferation, according to the QDR, the DoD must "institutionalize counterproliferation as an organizing principle in every facet of military activity."[33]

Much recent discussion has been devoted to examining the U.S. military force structure's capability to operate in a WMD environment. Should proliferation of nuclear, chemical, and biological weapons continue at its current pace, the likelihood of U.S. military forces being confronted with this threat also will increase. Although efforts such as the 1972 Biological Weapons Convention and the 1997 Chemical Weapons Convention explicitly bans the possession and use of biological and chemical weapons through international law, they contain no mechanisms for enforcement of compliance.[34]

Because of the dual-use nature of many biological and chemical weapon-related activities, it is relatively easy to conceal their development and production. Post-war inspections conducted in Iraq following Desert Shield/Desert Storm revealed vast quantities of chemical and biological weapon stockpiles supported by a technologically

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[32] U.S., Department of Defense, *Proliferation: Threat and Response*, (Washington D.C.: Government Printing Office, November 1997). Online at [http://www.gao.gov/new.items/ns00097.pdf].

[33] Ibid.

[34] Wolfkang K.H. Panofsky, "Dismantling the Concept of 'Weapons of Mass Destruction', " *Arms Control Today* (April 1998). Online at [http://armscontrol.org/ACT/april98/wkhp98.htm]

advanced infrastructure.[35] In fact, there are numerous indications that the Iraqi regime continues to conceal and pursue WMD capabilities and related delivery systems.[36]

These facts highlight the immediate need to adapt and prepare U.S. military forces to meet this growing challenge. The conventional superiority of U.S. military forces as demonstrated against Iraq during Desert Shield/Desert Storm cannot be assumed in future conflicts with WMD-armed adversaries. Biological and chemical weapons are the "poor man's nuclear weapons." Their lethality and destructive power are relatively unknown since biological weapons have not been used extensively this century in warfare, while chemical weapons were employed infrequently since World War I.[37] Moreover, biological and chemical weapons continue to evoke a sense of terror because they produce indiscriminate destruction. All U.S. military forces should be properly trained and equipped to ensure they retain their operational capabilities even when attacked with WMD.

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[35] Robert W. Chandler, *Tomorrow's War, Today's Decisions*, (McLean, Virginia, AMCODA Press, 1996), 18.

[36] Greg Weaver and J. David Glaes, *Inviting Disaster: How Weapons of Mass Destruction Undermine U.S. Strategy for Projecting Military Power* (McLean, Virginia: AMCODA Press, 1997), 14.

[37] Wolfkang K.H. Panofsky, "Dismantling the Concept of 'Weapons of Mass Destruction', " *Arms Control Today* (April 1998). Online at [http://armscontrol.org/ACT/april98/wkhp98.htm]

IV. IMPLICATIONS OF U.S. MILITARY FORCE EMPLOYMENT TOWARDS COUNTERPROLIFERATION

A. INTERNATIONAL RESPONSE

This section evaluates international responses to U.S. counterproliferation efforts during unilateral and combined operations. The last fifty years of U.S. military involvement in regional contingency operations has been marked by a heavy emphasis on coalition warfare, which was most notably demonstrated during Desert Shield/Desert Storm. Additionally, most military operations other than war (MOOTW) are composed of multinational forces oriented towards achieving a common objective, although the two most recent U.S. military counterproliferation actions were unilateral operations.

The international response following the U.S. attacks on a suspected terrorist site in Afghanistan and a chemical weapons-producing facility in Sudan was not supportive. Should the United States continue to pursue a unilateral approach to counterproliferation through employing military force, a hostile international response may be provoked. U.S. policymakers must weigh the possibility of a negative response to future counterproliferation operations.

The acceptability of counter-proliferation measures may depend on whether they are conducted unilaterally or multilaterally.[38] This aspect of unilateral versus multilateral operations in pursuit of counterproliferation objectives is paramount for predicting international responses. In fact, the international community would likely condemn any

[38] Frank Goldman, *The International Legal Ramifications of United States Counter-Proliferation Strategy*. (Newport: Naval War College, 1997) , 11.

unilateral counterproliferation effort involving U.S. military forces for which the United States does not have U.N. authorization.[39] For example, following the U.S. attacks on the terrorist facility in Afghanistan and on the suspected WMD plant in the Sudan, the United States was harshly criticized for its apparent haste to use military force.

The international community is aware of the grave dangers posed by WMD proliferation. Although the U.S. CPI was not met with enthusiasm by numerous European and Asian allies, a number of countries have begun to embrace the strategy, as well as develop counterproliferation measures of their own. But a general consensus has not been met on exactly how to respond to proliferation offenders. While there are some advocates for the use of military force, the preponderance of states prefer to rely on diplomatic efforts.

The United States has the option of ignoring international responses to its counterproliferation strategy. The consequences of this are far-reaching, to include undermining the existing non-proliferation regime. To be effective, U.S. counterproliferation efforts must include international support.

By helping to create an international norm condemning WMD proliferation, while fostering support for specific counterproliferation measures, the United States can avoid the "ire of the international community."[40] This is especially important in counterproliferation initiatives undertaken during MOOTW, which require a permissive environment enhanced by host-nation support.

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[39] Frank Goldman, *The International Legal Ramifications of United States Counter-Proliferation Strategy*. (Newport: Naval War College, 1997) , 14.
[40] Ibid., 19.

It is likely the international community's response to U.S. counterproliferation efforts will be based on United Nation mandates and international law. Despite its peace-promoting and security-enhancing goals, U.S. counterproliferation efforts conducted unilaterally seem incompatible with current international law.

B. LEGAL AND MORAL RAMIFICATIONS

The legal and moral implications of U.S. counterproliferation operations involving the application of military force are difficult to assess. This analysis uses two documents to provide a framework for establishing legal legitimacy in utilizing military force to counter the proliferation of WMD: the U.N. Charter and the Geneva Convention.

International law condemns intervention. Article 2(4) of the U.N Charter states "...all members shall refrain ...from the threat or use of force against the territorial integrity or political independence of any state...."[41] Protection of one's sovereignty is a vital interest to the survival of any state. For the United States to impose its counterproliferation objectives on another nation without first receiving U.N. authorization appears to violate the target country's sovereignty. While the United States is vulnerable to accusations of hegemonious intentions, particularly with regard to its counterproliferation strategy, it supports its policies with another provision of the U.N. Charter.

Article 51 of the U.N. Charter asserts the right of nations to engage in anticipatory self-defense.[42] This inherent right of self-defense continues to be intensely debated, as

[41] Frank Goldman, *The International Legal Ramifications of United States Counter-Proliferation Strategy*. (Newport: Naval War College, 1997) Ibid., 12.

[42] Ibid., 26.

the intended meaning of Article 51 is contested through varying interpretations. In 1986 Secretary of State George Schultz stated that nations are reserved the right to be "permitted to use force to preempt future attacks, to seize terrorists, or to rescue its citizens when no other means are available."[43] The CPI is seen to incorporate this theme.

U.S. counterproliferation policy can accommodate international law. Counterproliferation emphasizes the familiar tenets of prevention and deterrence, which encourage non-proliferation norm-building. Counterproliferation efforts also focus on preparing and readying military forces for operating in a WMD environment, through both active and passive defensive measures. None of these aspects violate existing international laws. But the fourth component of U.S. counterproliferation strategy – rollback – specifically *involuntary* rollback, remains the most controversial with respect to international law.

Involuntary rollback options, particularly preemptive actions, should be considered only as a last resort and only then with U.N. Security Council approval. The United States must be careful to avoid violating international laws, even if its intentions are considered in the interest of promoting peace and stability. Without U.N. support, the United States risks international condemnation as well as undermining its non-proliferation goals. The sovereignty of other nations, even the sovereignty of blatant proliferants, needs to be respected. Non-military means should be used in all but the most criminal cases of WMD proliferation in pursuing U.S. counterproliferation policy.[44]

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[43] Frank Goldman, *The International Legal Ramifications of United States Counter-Proliferation Strategy*. (Newport: Naval War College, 1997), 27.

[44] Barry R. Schneider, *Radical Responses to Radical Regimes: Evaluating Preemptive Counter-Proliferation* (Washington D.C.: National Defense University, 1995), 37.

The United States should continue to develop the tactics, techniques, and procedures necessary for conducting counterproliferation operations involving military forces in the event deterrence and prevention measures fail. Should the non-proliferation regime collapse, the United States must be prepared to protect its national security interests. Through carefully constructed diplomatic efforts, the U.N. charter can be used to support future counterproliferation operations involving military options should force be necessary. A forceful approach to counterproliferation may offer an effective solution to WMD proliferation.

C. FORCE STRUCTURE CONSIDERATIONS

To evaluate the U.S. military's ability to conduct counterproliferation operations, four general factors must be considered. First, joint and service doctrine is evaluated to determine the level of awareness and understanding of counterproliferation operations as reflected in military doctrine. Second, basic organic capabilities and limitations must be assessed to provide an overview of possible employment scenarios involving U.S. military forces. Third, preventive and preemptive operations are examined in terms of operational considerations as well as the strategic consequences resulting from force application. Finally, U.S. assurances of power projection and force protection are discussed to assess likely risks versus benefits calculations when deciding whether or not to apply a forceful approach to stopping the spread of WMD.

1. Military Doctrine

Doctrine is defined as "fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives."[45] Considering the stated U.S. counterproliferation policies, one would expect to find correspondingly similar emphases within existing military doctrine. Additionally, since the proliferation of WMD has been repeatedly identified as the primary threat to U.S. national security interests,[46] it would be reasonable to assume that the U.S. military's priorities (as codified in its doctrine) reflect this priority. From an operational and tactical perspective, one also would not expect to find the U.S. military conducting operations that are not explicitly outlined in its doctrine.

Typically, new operational guidelines to the military are issued via Presidential Decision Directives (PDD's). PDD's tend to be classified, thereby restricting their distribution. In November 1997, President Clinton issued a PDD establishing new guidelines to the military on targeting nuclear weapons. According the Hans Kristensen, the PDD "allows for the use of nuclear weapons against 'rogue' states – those suspected of having access to weapons of mass destruction."[47]

Although PDD's may eventually be incorporated or adapted to future doctrine modifications, PDD's do not necessarily constitute doctrine. Owing to PDD's political sensitivity and limited dissemination, the majority of military forces often remain unaware of their contents. Joint and service doctrinal publications are used exclusively to

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[45] Marine Corps Combat Development Command, Quantico, VA Doctrine Division. Online at [http://www.doctrine.quantico.usmc.mil].

[46] U.S., Department of Defense, *Proliferation: Threat and Response*, (Washington D.C.: Government Printing Office, November 1997). Online at [http://www.gao.gov/new.items/ns00097.pdf].

[47] Hans Kristensen, "Nuclear Futures: Proliferation of Weapons of Mass Destruction and US Nuclear Strategy," *Basic Publications*, Research Report 98.2, (March 1998).

determine the applicability of existing doctrine to meet current counterproliferation strategies, because doctrine indicates how U.S. forces train to conduct military operations.

Counterproliferation operations employing military force can occur in a variety of settings involving numerous operational concepts and schemes of maneuver. Ranging from conventional air strikes combined with cruise missiles such as those employed during Operation Desert Fox, to relying purely on long-range cruise missile attacks as demonstrated during Operation Infinite Reach in Afghanistan and the Sudan, counterproliferation operations can take many different forms. While this fact illustrates U.S. reliance on a type of flexible-response strategy towards countering the proliferation of WMD, it says nothing about *how* the United States might respond to a WMD threat in a MOOTW environment.

A substantial portion of the U.S. military's joint and service doctrine contains warfighting tactics, techniques, and procedures that can be easily adapted to meet counterproliferation operations. But counterproliferation operations in a MOOTW setting invoke particular concerns that should be considered. For instance, how would the United States respond to a WMD threat in the conduct of a typical MOOTW mission such as a Non-combatant Evacuation Operation (NEO)?

Joint Publication 3-07 *Military Operations Other Than War* contains information pertaining to NEOs. As the military service most often assigned NEOs owing to its forward presence and immediate response capability, U.S. Marine Corps doctrine on NEOs has been thoroughly developed, evaluated, and refined. Surprisingly, neither JP 3-07 nor Marine Corps Warfighting Publication 3-33 MOOTW, the Marine Corps NEO

doctrinal publication, contains any information pertaining to countering a WMD threat in a NEO setting.

Examinations of JP 3-07 and other service doctrine associated with MOOTW follow a similar pattern. Despite repeated statements asserting that the proliferation of WMD represents the greatest threat to U.S. national security interests, joint and service doctrine fail to reflect this threat assessment. This seems odd, given the accelerating rate of MOOTW, particularly when coupled with current global trends in WMD proliferation. Aside from the previously cited PDD, it becomes immediately clear that a chasm exists between national threat assessments and military priorities as they pertain to U.S. counterproliferation measures.

What is needed is a comprehensive review of MOOTW doctrine and the subsequent inclusions of counterproliferation strategies. If the United States is serious about utilizing military force as an option in its counterproliferation strategy (as evidenced in the CPI) it must first ensure its military force is trained, equipped, and prepared for confronting this new challenge. A first step is updating its military doctrine.

2. Force Capabilities and Limitations

While the United States enjoys a conventional military force superiority over other likely opponents, it is highly vulnerable to what has been termed as *asymmetric* threats, which include weapons of mass destruction. Despite the emphasis placed on developing passive defense measures as a core component of the Counter Proliferation Initiative, the U.S. military remains badly prepared to meet this growing challenge presented by WMD proliferation. Should the U.S. military be called upon to conduct

counterproliferation operations, it must first be prepared to operate in a WMD environment.

Robert Joseph has defined four core challenges confronting the U.S. military force structure's ability to respond to a WMD threat. First, it must be understood that in the post-Cold War environment, states are less constrained to pursue their own aggressive political, ideological, and religious objectives through the use of force. Nuclear, biological, and chemical weapons are seen as "weapons of the weak against the strong" and as the only means by which a state can confront or overcome the conventional superiority of the strong.[48] The evidence indicating increasing WMD proliferation highlights this fact. U.S. officials must recognize the threat posed by WMD proliferation and realize that in future military engagements WMD-capable states might be inclined to employ weapons of mass destruction.

Second, the effects of chemical and biological weapons on operating forces are poorly understood.[49] It is difficult to develop accurate doctrine for conducting operations in a WMD environment due to the variations and lethality of these types of weapons. While the physical effects on individual soldiers, sailors, airmen, and Marines may be mitigated through such passive defensive measures as Mission Oriented Protective Posture (MOPP) gear and detection and sensor equipment, the psychological effects are more difficult to estimate. Additionally, the effects of NBC attacks on points of

[48] Robert Joseph, "The Impact of NBC Proliferation on Doctrine and Operations," *Joint Forces Quarterly* (Autumn 1996): 79-80.

[49] Ibid., 79-80.

debarkation/embarkation in regional theaters can have a tremendous impact on selected concepts of operations and schemes of maneuver.[50]

The third challenge is to train and educate military forces.[51] Joseph states that military training is perhaps the most critical requirement for deterring WMD use. Additionally, should deterrence fail, fully trained military forces are necessary to conduct operations in a NBC environment.[52] Currently, most military training exercises lack an integrated approach to incorporating nuclear, biological, or chemical events. If military forces are to "train as to how they will fight," there is clearly a need to integrate operating in a WMD environment to daily training regimens.

The fourth challenge lies in designing and equipping the military force to respond to the WMD threat. Some progress has been made in this area, particularly with ensuring that all forces are fully equipped with MOPP gear and are properly trained in its use. For prolonged or continuous periods, MOPP gear severely impacts individual proficiency while lowering overall combat effectiveness.[53] Continued improvements in individual protective gear, decontamination equipment and procedures, NBC sensor and detection devices, as well as other passive and active defensive measures are necessary to confront the growing challenges posed by WMD proliferation.

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[50] Robert W. Chandler, *Tomorrow's War, Today's Decision* (McLean, VA: AMCODA Press: 1996), 156.

[51] Robert Joseph, "The Impact of NBC Proliferation on Doctrine and Operations," *Joint Forces Quarterly* (Autumn 1996): 79-80.

[52] Ibid., 77.

[53] Greg Weaver and J. David Glaes, *Inviting Disaster: How Weapons of Mass Destruction Undermine U.S. Strategy for Projecting Military Power* (McLean, VA: AMCODA Press, 1997), 26-27.

3. Preventive/Preemptive Operations

Barry Schneider states that there are two kinds of offensive U.S. counterforce (preemptive) operations to counter the threat posed by an adversary's WMD capabilities.[54] The first is the use of offensive forces against an enemy's WMD assets in wartime. Examples of this type of counterforce operations occurred against Nazi Germany during World War II and against Iraq during Operations Desert Shield/Desert Storm in 1991. The second type of counterforce operation is anticipatory self-defense. In this case offensive forces are employed in a crisis where war seems inevitable and enemy use of WMD is likely. This situation can be demonstrated in Israel's 1981 attack on the Iraqi Osirak reactor. In both types of offensive counterforce operations, "the object is to interdict, disrupt, seize, disable, neutralize, deny, or destroy enemy NBC and missile assets."[55] Furthermore, the object is to prevent enemy WMD use against U.S. forces and interests.

The ability of U.S. military forces to conduct preventive/preemptive operations is closely associated with international law. History has witnessed the precedent of preemptive attacks when countering proliferation. Israel's 1981 attack on Iraq's Osirak nuclear reactor, America's Operation Desert Fox in 1998 against remaining Iraqi WMD sites, and most recently during Operation Infinite Reach where the United States attacked a suspected chemical weapons facility in the Sudan all involved a form of preemptive counterforce military offensives. These attacks prompted a relatively restrained international response, despite appearances that the United States was violating international laws protecting sovereignty. The theory that preemptive attacks can be

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[54] Barry R. Schneider, *Future War and Counter-Proliferation.* (Connecticut: Praeger, 1999), 147.
[55] Ibid.

justified based on the presence of an immediate danger or threat is central in opting to use force in U.S. counterproliferation strategy.

Due to the typically covert nature of WMD proliferation and the challenges placed on U.S. intelligence infrastructures, once decided upon, military operations must include surprise, precision, and overwhelming destructiveness to achieve their success. Preemption invokes numerous consequences. Any attempt to legitimize preemptive military attacks most likely will be established within the provisions of United Nations mandates and must provide recognizable evidence of the existence of a credible and imminent threat.

The overall failure to locate and destroy Iraqi missile sites during Operations Desert Shield/Desert Storm as revealed by post-war inspections suggest that much progress needs to be made before U.S. policymakers can feel confident that a preemptive military attack will succeed. The employment of long range conventional cruise missiles seem to be increasing as a way to project power while reducing the risks to U.S. military personnel. Employed along with aircraft attacks during Operation Desert Fox against Iraq in 1998, Tomahawk cruise missiles were used exclusively in the attack on Afghanistan terrorists and the Sudanese pharmaceutical plant. The high expense and limited inventory of cruise missiles place considerable constraints on their employment, forcing alternative concepts of operations.

4. Power Projection and Force Protection

Assurances of power projection and force protection will affect most decisions to employ U.S. military forces. Critical to U.S. security interests is the ability to project

power globally. The proliferation of weapons of mass destruction threatens this ability to project power. As demonstrated by the recent American embassy bombings in Kenya and Tanzania, U.S. interests are vulnerable. To protect those interests, the United States must retain the ability to project its military power unencumbered.

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V. POTENTIAL APPLICATIONS OF U.S. COUNTERPROLIFERATION STRATEGY AND MILITARY OPERATIONS OTHER THAN WAR

A. INTRODUCTION

This section focuses on the issue of U.S. military power projection and force protection capabilities when faced with a WMD threat. As military operations other than war (MOOTW) continue to be a standard role and responsibility of the U.S. military, the confluence of MOOTW and counterproliferation operations is evident.

Greg Weaver and J. David Glaes argue that American military strategy "is based on the ability to project major U.S. combat forces rapidly and effectively."[56] The proliferation of WMD greatly threatens this strategy. Any failure to project power while ensuring a confident degree of force protection threatens vital U.S. national interests. Weaver and Glaes contend that current U.S. warfighting doctrine with its emphasis on mass forces and reliance upon access to theater airfields and ports, creates a potentially decisive vulnerability that can be readily exploited by willing adversaries equipped with weapons of mass destruction. Regional aggressors could employ chemical and/or biological weapons to "great advantage... results would be devastating."[57]

Additionally, MOOTW operations themselves may solely involve a counterproliferation operation intended to destroy a suspected or identified WMD target. A number of questions must be answered, should American decision-makers remain

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[56] Greg Weaver and J. David Glaes. *Inviting Disaster: How Weapons of Mass Destruction Undermine U.S. Strategy for Projecting Military Power*, (Virginia: AMCODA Press, 1997), 53.

[57] John M. Collins, *Weapons of Mass Destruction: The Impact of Proliferation on U.S. Military Posture*, Congressional Research Service (Washington D.C.: Library of Congress, June 2, 1995), 27.

optimistic towards countering the proliferation of WMD, as well as preserving U.S. power projection and force protection capabilities.

B. MILITARY OPERATIONS OTHER THAN WAR (MOOTW)

Military operations other than war broadly encompass the use of military capabilities across the range of military operations short of war.[58] MOOTW focus on deterring war, resolving conflict, promoting peace, and supporting civil authorities. Typically, MOOTW may involve elements of both combat and non-combat operations in a multitude of environmental settings. For example, the U.S. Marine Corps has incorporated numerous tenets of MOOTW in current doctrine. Specifically, Marine Corps doctrine and warfighting theory has developed the term "Three-Block War," which signifies the importance of Marine Corps units maintaining the ability to function in the uncertain MOOTW environment. The "Three-Block War" theory is based on the idea of promoting peace by conducting peacekeeping operations, providing humanitarian assistance, and when necessary immediately transition to combat operations in a given contingency.

This concept of a "Three-Block War" is difficult to implement, but illustrates the growing complexity of military operations other than war. Exacerbating the murky distinction of combat versus non-combat operations in MOOTW, is the growing threat that WMD will somehow be employed during a MOOTW contingency. As U.S. military forces conducting MOOTW are ordered into many of the same regions that contain

[58] Joint Pub 3-07: *Joint Doctrine For Military Operations Other Than War* (Government Printing Office, 16 June 1995), I-1.

nations that are known or suspected of possessing a weapon of mass destruction, contingency preparedness is crucial for mission accomplishment and force protection.

Table 2 depicts the major U.S. military operations other than war conducted since Desert Shield/Storm in 1991, excluding counterdrug operations, defined by the number of U.S. military forces involved. A total of 119 separate MOOTW missions were conducted during the last nine-year period, again excluding sixteen different counterdrug operations. Many of these missions were concurrent, thereby placing further demands on an already extended force structure.

Table 2 also indicates the many types of MOOTW conducted during the period. Twelve non-combatant evacuation operations (NEO) were undertaken, primarily evacuating and providing safe haven for American citizens living and working abroad as well as many third-country national citizens requesting evacuation. Typically, NEOs originate in or near American embassies, which suggest that American embassies tend to focus attention and serve as prime targets for terrorists, non-state actors, and other anti-American dissenters. Considering the embassies' relative vulnerability to conventional threats, they are especially susceptible to WMD targeting, which should gain the appropriate attention from U.S. military forces expected to conduct this type of MOOTW.

Table 2. U.S. Military Operations Other Than War Conducted Since Operation Desert Shield/Desert Storm, Excluding Counterdrug Operations. *Source:* Online at [http://www.fas.org/man/dod-101/ops/index.html].

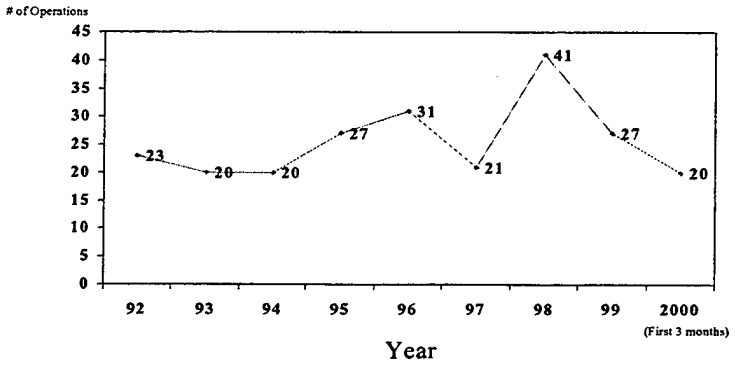
DATE	OPERATION	TYPE	LOCATION
June 99-TBD	Joint Guardian	PO	Kosovo
Mar-Jun 99	Allied Force	PO/HA	Kosovo
Oct 98-Mar 99	Noble Anvil	PO	Kosovo
Dec 98	Desert Fox	S/AC	Iraq
91-TBD	Southern Watch	EEZ	SW Asia/Iraq
91-TBD	Northern Watch	EEZ	Iraq
Apr 91-Dec 94	Provide Comfort	HA/EEZ	Kurdistan
Sept-Nov 99	Stabilize	PO	Timor
Aug-Sept 99	Avid Response	HA	Turkey
Oct 98-Feb 99	Strong Support	HA	Central America
Aug 98	Infinite Reach	CT/AC	Sudan/Afghanistan
Jun 98	Shepherd Venture	NA	Guinea-Bissau
Jun 98	(none)	NEO	Eritrea
Jan-Mar 98	Noble Response	HA	Kenya
Jul 97	Bevel Edge	NEO	Cambodia
May-Jun 97	Noble Obelisk	NEO	Sierra Leone
Mar-Jun 97	Guardian Retrieval	NEO	Congo
Mar 97	Silver Wake	NEO	Albania
Mar-Aug 96	Guardian Assistance	HA	Zaire/Rwanda/Uganda
May-Aug 96	Quick Response	NEO	Central African Republic
Apr-Aug 96	Assured Response	NEO	Liberia
Dec 95-May 96	Zorro II	MSCA	Mexico
Jul 95-Mar 96	3rd Taiwan Straits Crisis	SF	Taiwan Strait
95-June 99	Safe Border	NA	Peru-Ecuador
Jan-Mar 95	United Shield	PO	Somalia
Sep 94-Mar 95	Uphold Democracy	PO/NA	Haiti
Jul-Sep 94	Support Hope	HA	Rwanda
Apr 94	Distant Runner	NEO	Rwanda
Oct 92	(none)	NEO	Liberia
Aug 92-Dec 93	Restore Hope	PO/HA	Somalia
Aug-Oct 92	Provide Transition	NA	Angola
May 92	Garden Plot	MSCA	Los Angeles, CA
May 92	Silver Anvil	NEO	Sierra Leone
Sept 91	Victor Squared	NEO	Haiti
June 91	Fiery Vigil	NEO	Philippines
May-Jun 91	Sea Angel	HA	Bangladesh

Legend:
AC: Arms Control
CT: Counter Terrorism
EEZ: Enforcement of Exclusion Zones
HA: Humanitarian Assistance
MSCA: Military Support to Civil Authorities
NA: Nation Assistance
NEO: Noncombatant Evacuation Operations
PO: Peace Operations
SF: Show of Force Operations
S: Strikes and Raids

Following the NEOs, peacekeeping operations are the next most prevalent type of MOOTW, but actually account for a higher number of troops involved. Additionally, peacekeeping operations tend to endure for extended periods of time. For example, U.S. military forces have been involved in MOOTW in the Balkan region beginning with Operation Provide Promise in Bosnia in July 1992 and are currently deployed throughout the Balkans participating in six on-going operations. Figure 2 is another illustration of U.S. military operations other than war conducted since Desert Shield/Desert Storm in

1991. The sustained international employment of U.S. military forces operating in the MOOTW environment suggests a broadening U.S. interest in regional crises.

Figure 2. Number of U.S. Military Operations Other Than War Conducted Since Operation Desert Shield/Desert Storm in 1991



If this operational tempo continues, U.S. military forces will eventually confront some type of WMD use in a MOOTW operation.

C. MILITARY OPERATIONS OTHER THAN WAR AND THE COUNTER PROLIFERATION INITIATIVE

As Military Operations Other than War and WMD proliferation become increasingly prevalent, the likelihood of a direct confrontation between these phenomena also increases. While the Counter Proliferation Initiative was intended to offer additional policy alternatives for confronting the challenges posed by WMD proliferation, thus far its most salient contribution has been towards recognizing the immediacy in preparing U.S. military forces for operating in a nuclear, biological, or chemical environment. Despite some technological advancements in various passive defense measures, much work remains to be done.

The continued proliferation of weapons of mass destruction signifies a dangerous trend that can produce several consequences for U.S. national strategy involving force projection. A significant element of U.S. national strategy is the ability to maintain forward presence. Military Operations Other than War often signify the U.S. commitment to a strategy of engagement. Weapons of mass destruction threaten this strategy by posing risks that may become unacceptable, thereby forcing a reassessment of the American desire to maintain an active and leading role in world affairs.

A comparison of Figure 3 and the appendices reveal a merging confluence of WMD proliferation and U.S. MOOTW. If the past decade of MOOTW can be considered a validation of U.S. national security concerns, then the United States has virtually unconstrained global interests. Military involvement in regional MOOTW contingencies have ranged from extended peacekeeping duties in the Former Yugoslavia to humanitarian assistance operations in South Asia and to non-combatant evacuation operations throughout Africa and the Adriatic.

Figure 3 illustrates the past decade of U.S. involvement in MOOTW. The appendices denote countries that are known or suspected of containing one or more forms of WMD according to open unclassified sources. Considering the extent of Iraq's WMD programs as revealed during post-Gulf War inspections, it is entirely possible that a number of other countries may be pursuing or have acquired one or more forms of WMD, particularly chemical or biological weapons. The Counter Proliferation Initiative was designed to confront this challenge and augment on-going non-proliferation efforts. Despite the non-proliferation obstacles and other disincentives that face WMD aspirants, various countries remain determined to acquire or develop WMD programs of their own.

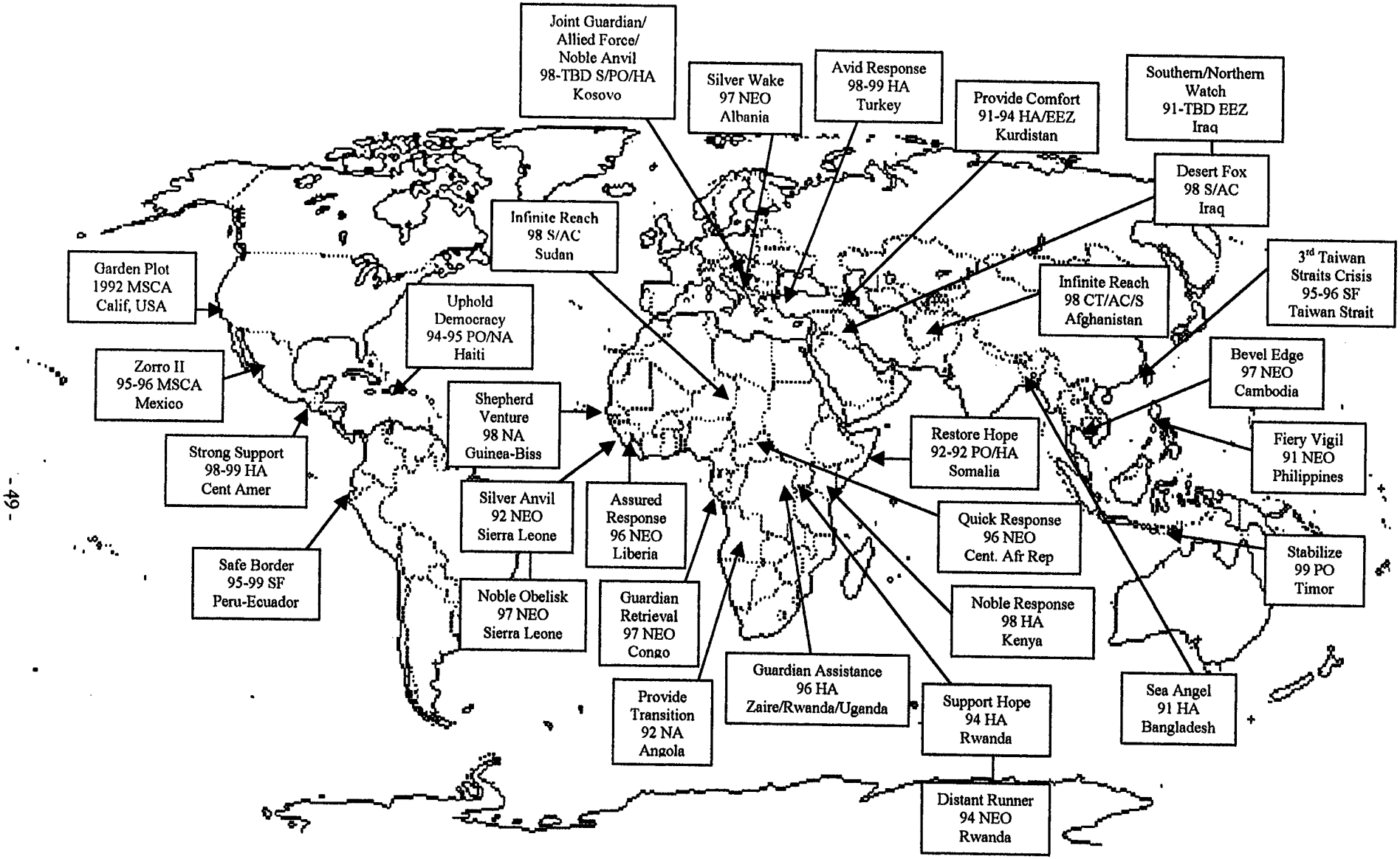


Figure 3. Major U.S. Military Operations Other Than War

Weapons of mass destruction will likely be an integral aspect of future military engagements. As outlined in the CPI, the United States must immediately begin to make the necessary preparations in ensuring that its military forces are ready to face the WMD threat. Military Operations Other than War offer the United States a powerful instrument for maintaining a forward presence, but can also create a serious vulnerability if forces are placed in harm's way without the proper training, equipment, and level of preparedness.

D. U.S. MILITARY PREPAREDNESS

Counterproliferation measures offer an alternative approach to stemming the proliferation of WMD. As noted authors have pointed out, it would be naïve and myopic to conclude that military options can be expected to achieve 100 percent success in every case where diplomacy has failed. But the employment of military force towards counterproliferation does provide a more flexible response, whether through deterrence, coercive diplomacy, or actual application of force. Should U.S. decision makers choose to apply military force in pursuit of counterproliferation objectives, the military's organic capabilities and limitations must also be reviewed in addition to considering potential international responses, legal and moral ramifications, and other factors previously discussed.

The fact that U.S. military forces involved in MOOTW are equipped with the bare essentials for operating in a NBC environment should be alarming. Relying primarily on individual protective garments (MOPP gear), limited detection equipment, and the most

basic of preparedness training, U.S. forces seem relatively unprepared for confronting a WMD-armed adversary.

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VI. CONCLUSION

In January 1997 Secretary of Defense Cohen summarized the principle threat to U.S. national security interests:[59]

> I believe the proliferation of weapons of mass destruction presents the greatest threat that the world has ever known. We are finding more and more countries who are acquiring technology – not only missile technology -- and are developing chemical weapons and biological weapons capabilities to be used in theater and also on a long-range basis. So I think that is perhaps the greatest threat any of us will face in the coming years.

Secretary Cohen's statements directly reflect the seriousness of the increasing proliferation of WMD as well as illustrate the importance of confronting this impending challenge to U.S. national security interests. The development and employment of a comprehensive counterproliferation strategy is key to responding to this threat. Since there is no simple solution or single response to the threat posed by the proliferation of WMD and their delivery systems, a flexible response is likely to continue to be the hallmark of U.S. counterproliferation strategy.

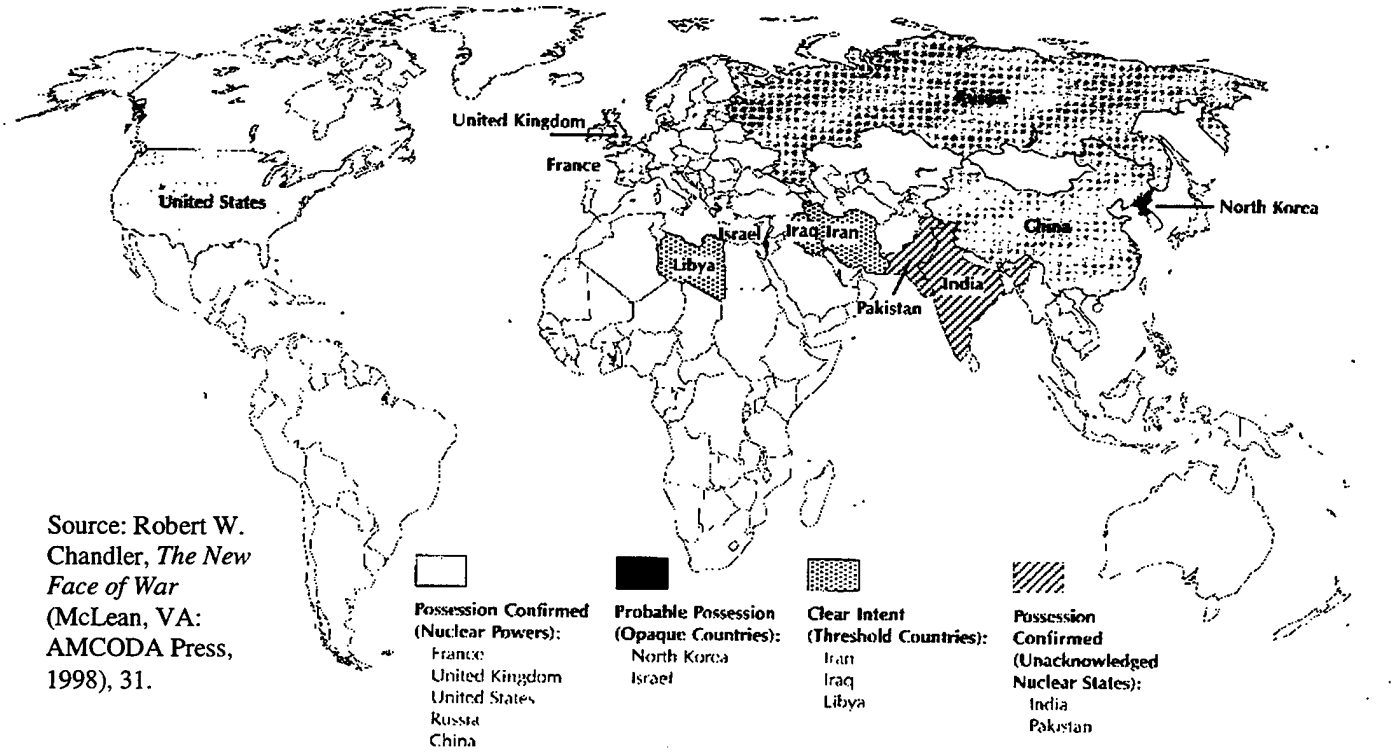
U.S. participation in Military Operations Other Than War is likely to continue on its present course. The evidence presented in this thesis indicates that in the very near future, U.S military forces will be directly confronted with a WMD threat in a MOOTW setting. How effectively the U.S. military will resolve this impending crisis remains unanswered. But as U.S. military forces continue to go into harms way during peacekeeping, humanitarian, non-combatant evacuation, and other operations other than war, the WMD threat will surely increase risks and present greater challenges to mission

[59] U.S., Department of Defense, *Proliferation: Threat and Response*, (Washington D.C.: Government Printing Office, November 1997). Online at [http://www.gao.gov/new.items/ns00097.pdf].

accomplishment. If the United States is to continue to enjoy its relative freedom to project power and protect its forces, the WMD threat must be neutralized through the consistent and alacritous application of its counterproliferation strategy.

APPENDIX

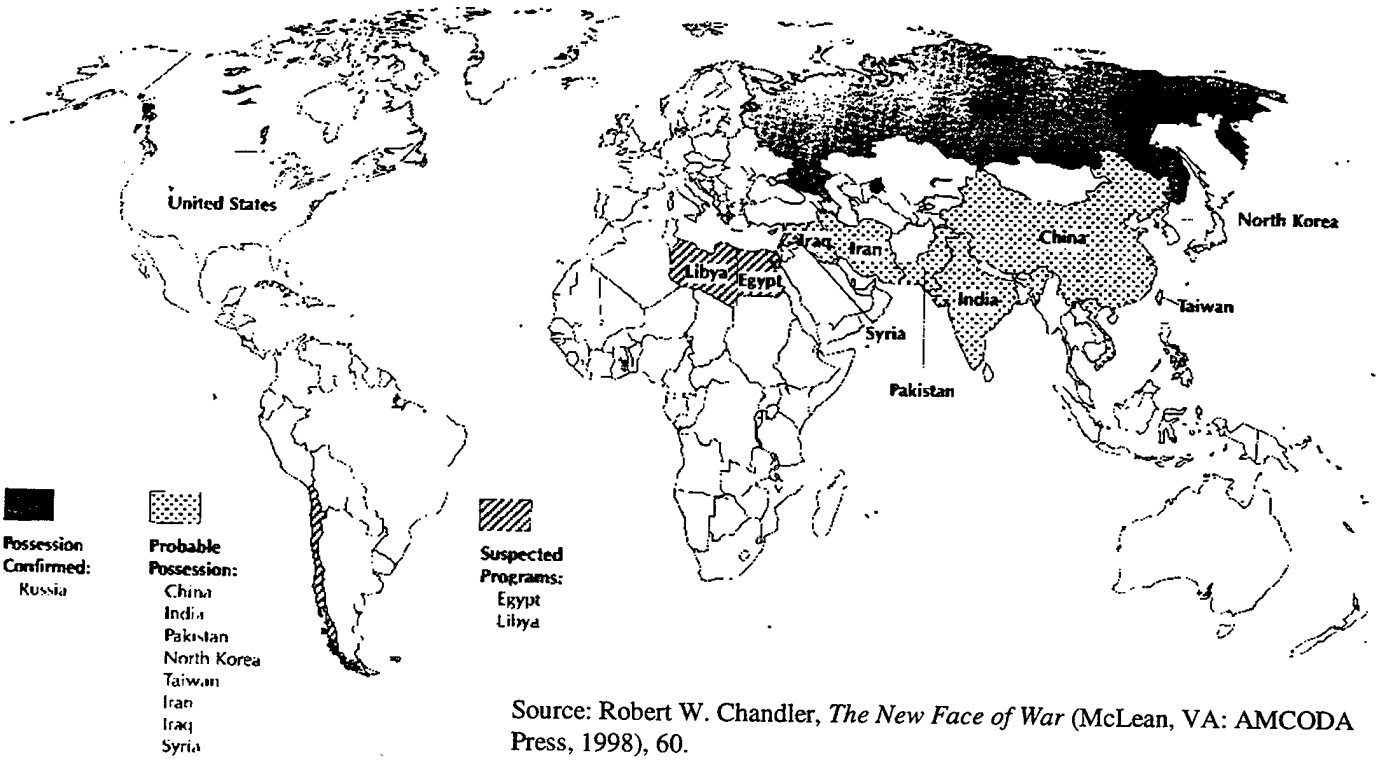
A. GLOBAL NUCLEAR WEAPON POSSESSION AND POTENTIAL PROLIFERATION



Source: Robert W. Chandler, *The New Face of War* (McLean, VA: AMCODA Press, 1998), 31.

APPENDIX

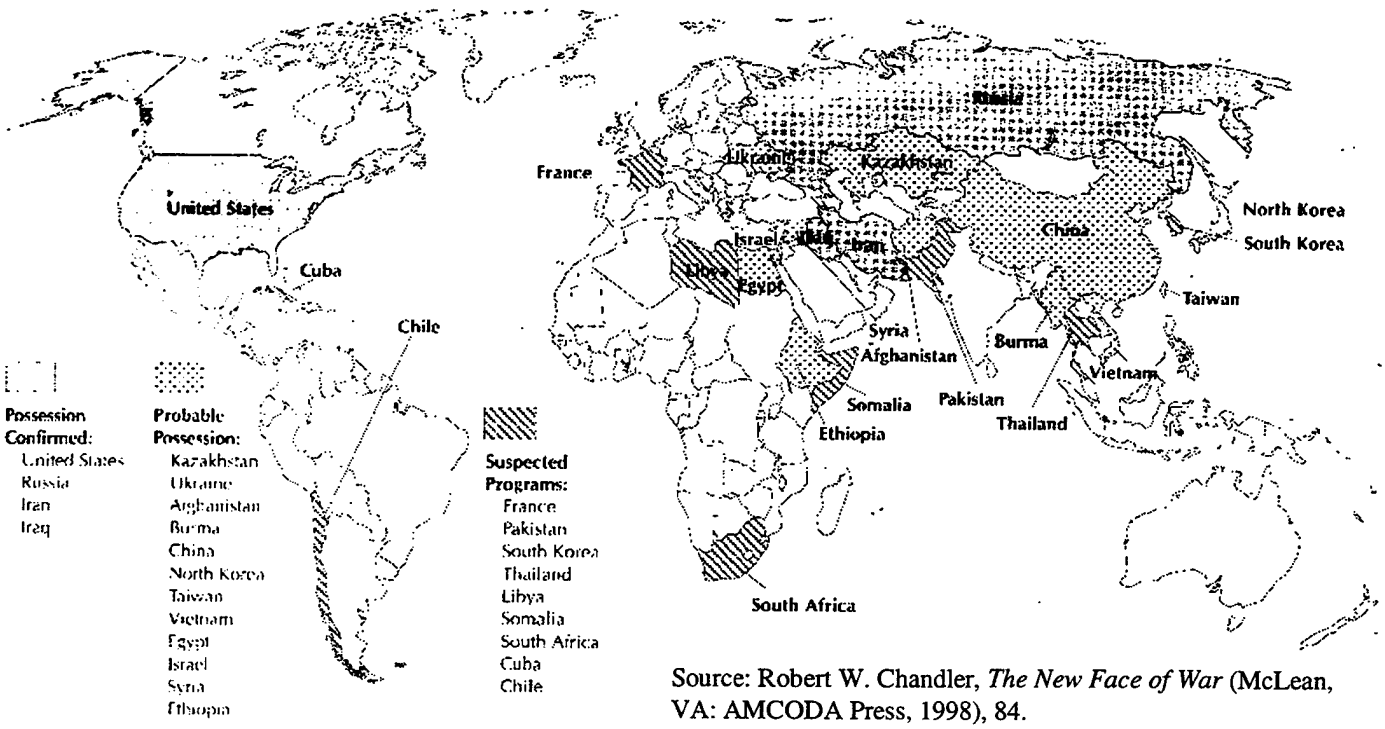
B. GLOBAL BIOLOGICAL WEAPON POSSESSION AND POTENTIAL PROLIFERATION



Source: Robert W. Chandler, *The New Face of War* (McLean, VA: AMCODA Press, 1998), 60.

APPENDIX

C. GLOBAL CHEMICAL WEAPON POSSESSION AND POTENTIAL PROLIFERATION



Source: Robert W. Chandler, *The New Face of War* (McLean, VA: AMCODA Press, 1998), 84.

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