

MITIGATING PROLIFERATION: AN ASSESSMENT OF
NONPROLIFERATION INSTITUTIONS, INTERNATIONAL LAW, AND
PREEMPTIVE COUNTERPROLIFERATION INTERVENTION

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of

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ABSTRACT

The US set forth a national security strategy to combat weapons of mass destruction (WMD) in the 2002 "National Security Strategy of the United States," and the 2002 "National Strategy to Combat Weapons of Mass Destruction." In March 2003 the US Administration reorganized proliferation consequence management under the US Department of Homeland Security. In September 2003 the US, along with ten other industrial states, announced the Proliferation Security Initiative where participant states agreed to coordinate the interdiction of WMD to and from state and non-state actors of proliferation concern. This study develops a strategy model encompassing nonproliferation and counterproliferation structural and normative factors and crosscutting enabling functions derived from these US national security strategy documents, US Department of Homeland Security organization, and the Proliferation Security Initiative.

The strategy model is subsequently used to assess the achievement of nonproliferation results. Findings are derived from an analysis of the multilateral nonproliferation regimes, international law, and two historical nonproliferation case studies involving Libya (1981-1996) and Iraq (1974-1985).

The findings of this study: (a) develop and apply four principal factors of multilateral nonproliferation regime effectiveness to assess nonproliferation results; (b) develop and validate three factors of a legal protocol to assess preemptive counterproliferation intervention under international law; (c) identify key nonproliferation and counterproliferation factors and crosscutting enabling functions through historical nonproliferation case study research that achieved nonproliferation results; and (d) present a strategy model where key factors of military force, international law, and multilateral nonproliferation regimes work together to achieve nonproliferation results and which can be applied by US policy-makers in future nonproliferation scenarios.

For Laurel, Jules, Liam, and Revy

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I was a White House Fellow in 1996 when I was selected as the Navy's only Moreau Scholar. At the time I was planning to attend Stanford's international relations program. In the early spring of 1997 I met Professor Robert Pfaltzgraff in his IFPA office in Washington to discuss the Fletcher Program. He pointed out that Fletcher was a professional international relations school designed to immerse future world leaders in language, culture, politics, security studies, leadership, law, business, and history. After speaking with Dr. Pfaltzgraff I realized the Fletcher School was where I needed to study.

Attending the Fletcher School was the right decision. The education I received from Professors Pfaltzgraff, Shultz, Lord, Babbitt, Vaaler, Rubin and others will serve me a lifetime as I continue to serve this great country in the military and in politics.

I have anticipated for over 5 years finishing this project and writing this particular page. I am deeply indebted to my dissertation chairman, Dr. Robert Pfaltzgraff, for reviewing earlier drafts of my work, providing insightful comments, and showing me that one particular "star to steer by." He recognized the demands required of a professional military officer and fighter pilot outside the halls of Fletcher, and provided me the requisite time, guidance, and patience to finish my work and continue with my military career. I thought flying fighters off of aircraft carriers and into combat was difficult; however, working at night on a dissertation after returning to the "boat" or naval air station has been the most difficult project of my life.

Most importantly, I wish to thank my family. My wife Laurel and my children shared this journey with me from initial application through graduation. Laurel, who is a gifted academic and attorney-at-law, was a self-appointed editor for my numerous papers and sounding board for the public defense of my ideas. Words are not enough to describe the sacrifices she made while I was laboring to complete this project. Since attending Fletcher I have made five career relocations including an assignment in Yokosuka, Japan, flying F-14s fighters out of Virginia, training in Texas, commanding a joint squadron in Oklahoma,

and deputy operations officer US Fifth Fleet in Manama Bahrain - all during three US military conflicts in the Balkans, Afghanistan, and Iraq. My youngest daughter, Revere, was born in Winchester, MA while I was at Fletcher. She is now six, which is testament to how long this project has taken. My other children have welcomed the countless drafts of paper to color and paint; many of them are treasures hanging on my wall. Few know that on the reverse sides of these works of art in crayon and watercolor are words representing years of academic study.

If I had not spent those 15 minutes with Professor Pfaltzgraff on a cool spring day in Washington D.C., I would not have learned how to apply the Fletcher experience to the practical world of military operations. Fletcher has trained generations of top leaders in the military and in government and I look forward to paying back the Fletcher School, US military, and US government in future years of public service. I credit, recognize, and salute my family, friends, professors, and colleagues. This fabulous road I have taken from the decks of aircraft carriers, to the White House, through Fletcher, and back to the decks of carriers has truly been a world-class enterprise and journey.

LIST OF ABBREVIATIONS

AG	Australia Group
AOR	Area of Responsibility
BWC	Biological Weapons Convention
CWC	Chemical Weapons Convention
DoD	Department of Defense
IAEA	International Atomic Energy Agency
ISG	Iraqi Survey Group
MTCR	Missile Technology Control Regime
<i>National WMD Strategy</i>	"National Strategy to Combat Weapons of Mass Destruction"
<i>National Security Strategy</i>	"The National Security Strategy of the United States of America"
NBC	Nuclear, biological, and Chemical
NPT	Nuclear Nonproliferation Treaty
NSG	Nuclear Suppliers Group
OPCW Weapons	Organization for the Prevention of Chemical
PSI	Proliferation Security Initiative
USCENTCOM	United States Central Command
UNSCOM	United Nations Special Commission

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CHAPTER ONE : INTRODUCTION

Those skilled in war cultivate the *Tao* and preserve the laws and are therefore able to formulate victorious policies...The *Tao* is the way of humanity and justice; laws are regulations and institutions.¹

The proliferation of weapons of mass destruction (WMD) presents one of the most formidable security challenges in the coming years for US policy-makers. How does the US manage this challenge? Taking a cue from Sun Tzu, the purpose of this dissertation is to look at the way preemptive military force, international institutions, and international law achieve nonproliferation results.

The gravest danger our Nation faces lies at the crossroads of radicalism and technology. Our enemies have openly declared that they are seeking weapons of mass destruction, and evidence indicates that they are doing so with determination. The United States will not allow these efforts to succeed.²

The 2002 "National Security Strategy of the United States of America,"³ 2002 "National Strategy to Combat Weapons of Mass Destruction,"⁴ March 2003 creation of the US

¹ Sun Tzu, *The Art of War*, trans. Samuel B. Griffith, (London: Oxford University Press, 1971), 88.

² United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

³ Ibid.

⁴ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002,"

Department of Homeland Security, and September 2003 Proliferation Security Initiative articulate new US policies, organizational structure, and global partnerships in the security area of combating proliferation. In the national security strategy documents the Bush Administration seeks to improve the efficacy of the multilateral nonproliferation regimes, articulates a policy of preemptive counterproliferation intervention, and advances an overarching strategy of nonproliferation, counterproliferation, and consequence management. Under the US Department of Homeland Security, the Administration reorganized consequence management as Emergency Preparedness and Response under a single federal agency.⁵ In the Proliferation Security Initiative (PSI), the US joined ten other participating industrial states in a plan to prevent the proliferation of WMD, their delivery systems, and related materials worldwide to state and non-state parties of proliferation concern through coordinated interdiction principles.⁶ The structure of analysis for this

(accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

⁵ United States Department of Homeland Security, "DHS Organization," (accessed May 15, 2004); available from <http://WWW.DHS.gov>.

⁶ United States, White House, "Proliferation Security Initiative, Statement of Interdiction Principles, May 31,

dissertation will come from the key variables and factors embedded in current US national security nonproliferation strategies, Department of Homeland Defense, and PSI.

THESIS STATEMENT

This dissertation (a) develops a US nonproliferation strategy model of structural and normative variables discerned from the 2002 "National Strategy to Combat Weapons of Mass Destruction," *Department of Homeland Defense, and Proliferation Security Initiative*; (b) develops and applies four principal factors of multilateral nonproliferation regime effectiveness to assess nonproliferation results; (c) develops and validates three factors of a legal protocol to assess preemptive counterproliferation intervention under international law; and (c) identifies key nonproliferation and counterproliferation factors and crosscutting enabling functions through historical nonproliferation case study research in Libya (1981-1996) and Iraq (1974-1985) that achieved nonproliferation results.

2003," (accessed May 15, 2004), available from <http://WWW.Whitehouse.gov>.

MOTIVATION

The September 11, 2001 terrorist attacks against Washington D.C. and New York were a wake-up call for Americans concerning, among many national security issues, the dangers of WMD proliferation. "We know that some terrorist organizations have sought to develop the capability to use WMD to attack the United States and our friends and allies."⁷ The activity of the Abdul Qadeer Khan (A. Q. Kahn) network which operated freely for many years out of Pakistan and its franchise of proliferating nuclear technology to states of proliferation concern such as Libya, Iran, and North Korea was another wake-up call for Americans.⁸ Proliferation is now one of the most formidable security challenges in the coming years for American policy-makers:

In recent years, another path of proliferation has become clear, as well. America and other nations are learning more about black market operatives who deal in equipment and expertise related to weapons of mass destruction. These dealers are motivated by greed, or fanaticism, or both. They find eager customers in outlaw regimes, which pay millions for

⁷ United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>.

⁸ United States, The White House, "President Announces New Measures to Counter the Threat of WMD, Remarks by the President on Weapons of Mass Destruction," Fort Lesley J. McNair, National Defense University, February 11, 2004, (accessed May 15, 2004) available from <http://WWW.Whitehouse.gov>.

the parts and plans they need to speed up their weapons programs. And with deadly technology and expertise going on the market, there's the terrible possibility that terrorists groups could obtain the ultimate weapons they desire most.⁹

There exists a web of global nonproliferation regimes to prevent the spread of WMD, including those associated with the Nuclear Nonproliferation Treaty (NPT), the Chemical Weapons Convention (CWC), the Biological Weapons Convention (BWC), and the institutional frameworks of the International Atomic Energy Agency (IAEA), Organization for the Prevention of Chemical Weapons (OPCW), the Nuclear Suppliers Group (NSG), the Zangger Committee, the Australia Group (AG), the Missile Technology Control Regime (MTCR), and most recently, the PSI. These institutions, along with other forms of statecraft, export controls, and nonproliferation actions are designed to keep proliferation from happening. However, states that pursue WMD often do so for compelling security reasons.

Nuclear, biological, and chemical (NBC) weapons and ballistic missiles are the great equalizers of the security world. Hostile states and terrorist groups can intimidate regional actors and threaten the US and its allies with these weapons. Rogue states that vigorously pursue asymmetric military capabilities are likely to highly value

⁹ Ibid.

WMD. This has proven true in the contentious Middle East and South Asian subcontinent. In January 2001, the Department of Defense (DoD) under the Clinton Administration identified countries that are pursuing WMD including Syria, Iran, Libya, Pakistan, North Korea, and Sudan.¹⁰ In Feb 2003, the Bush Administration identified seven "state sponsors of terrorism" which include Iran, Iraq, Syria, Libya, Cuba, North Korea, and Sudan.¹¹ The overlap between states that are pursuing WMD and states that sponsor terrorism is of vital national interest to the US.

If proliferation occurs in one of these states or a terrorist organization, the US must be able to interdict, deter, defend, remove the WMD, or deal with the consequences. Historically, preemptive counterproliferation intervention has been rare but not unprecedented. Israel dropped conventional bombs on an Iraqi reactor in 1981 to prevent Saddam Hussein from developing nuclear weapons. The US conducted military strikes against Libya in Operation El Dorado Canyon in 1986 as a reprisal against Libyan terrorist activity, and threatened Libya with military strikes from

¹⁰ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>

¹¹ United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>.

the late eighties and into the mid-nineties to dissuade Muammar Qadhafi from finishing two chemical WMD plants. The US destroyed an alleged Sudanese chemical weapons plant in 1998.

After September 11, 2001 the US administration moved preemptive counterproliferation intervention from the periphery and into the mainstream of US nonproliferation policy options. In September 2002, the Administration published a "National Security Strategy for the United States of America," (*National Security Strategy*) saying that:

We must be prepared to stop rogue states and their terrorist clients before they are able to threaten or use weapons of mass destruction against the United States and our allies and friends. Our response must take full advantage of strengthened alliances, the establishment of new partnerships with former adversaries, innovation in the use of military forces, modern technologies, including the development of an effective missile defense system, and increased emphasis on intelligence collection and analysis.¹²

Specifically, President George W. Bush articulated three main principles of a new nonproliferation strategy:

1. Strengthened nonproliferation efforts to prevent rogue states and terrorists from acquiring the materials, technologies, and expertise necessary for weapons of mass destruction:

¹² United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003), available from <http://WWW.Whitehouse.gov>.

We will enhance diplomacy, arms control, multilateral export controls, and threat reduction assistance that impede states and terrorists seeking WMD, and when necessary, interdict enabling technologies and materials. We will continue to build coalitions to support these efforts, encouraging their increased political and financial support for nonproliferation and threat reductions programs.

2. Proactive counterproliferation efforts:

We must deter and defend against the threat before it is unleashed. We must ensure that key capabilities--detection, active and passive defenses, and counterforce capabilities--are integrated into our defense transformation and our homeland security systems. Counterproliferation must also be integrated into the doctrine, training, and equipping of our forces and those of our allies to ensure that we can prevail in any conflict with WMD-armed adversaries.

3. Effective consequence management to respond to the effects of WMD use, whether by terrorists or hostile states:

Minimizing the effects of WMD use against our people will help deter those who possess such weapons and dissuade those who seek to acquire them by persuading enemies that they cannot attain their desired ends. The United States must also be prepared to respond to the effects of WMD use against our forces abroad, and to help friends and allies if they are attacked.¹³

The strategies embedded in the 2002 *National Security Strategy* that concern proliferation are further refined in the Administration's December 2002 "National Strategy to Combat Weapons of Mass Destruction" (*National WMD Strategy*)

¹³ Ibid, 7.

where the Administration proposes three "pillars" to combat WMD: nonproliferation, counterproliferation, and consequence management. In that strategy document the Bush Administration introduces four cross cutting enabling functions that serve to integrate the contiguous "pillars" into a seamless strategy. These cross-cutting enabling functions are: Intelligence Collection and Analysis on WMD, delivery systems, and related technologies; Research and Development to improve our ability to respond to evolving threats; Bilateral and Multilateral Cooperation; and Targeted Strategies against hostile states and terrorists.¹⁴ The organizational structure of the Department of Homeland Defense provides the key Consequence Management factor of Emergency Preparedness and Response.¹⁵ The PSI further articulates measures and procedures for rapid exchange of relevant information concerning suspected proliferation activity, strengthening relevant national legal authorities,

¹⁴ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

¹⁵ United States Department of Homeland Security, "DHS Organization," (accessed May 15, 2004); available from <http://WWW.DHS.gov>. Consequence Management, however, is beyond the scope of this paper. The key factor of Emergency Preparedness and Response is presented for model development only.

and support of interdiction efforts regarding cargoes of WMD, their delivery systems, or related materials.¹⁶

PROBLEM STATEMENT

Just three days removed from these events, Americans do not yet have the distance of history. But our responsibility to history is already clear: to answer these attacks and rid the world of evil. War has been waged against us by stealth and deceit and murder. This nation is peaceful, but fierce when stirred to anger. The conflict was begun on the timing and terms of others. It will end in a way, and at an hour, of our choosing.¹⁷

When applying the structural and normative variables of the *National WMD Strategy* and Proliferation Security Initiative to assess the achievement of nonproliferation results, the following research questions emerge: What is the ability of the multilateral nonproliferation regimes to achieve nonproliferation results? Is preemptive counterproliferation intervention legal under customary and positive international law? What key nonproliferation and

¹⁶ United States, White House, "Proliferation Security Initiative, Statement of Interdiction Principles, May 31, 2003," (accessed May 15, 2004), available from <http://WWW.Whitehouse.gov>. See also United States, The White House, "President Announces New Measures to Counter the Threat of WMD, Remarks by the President on Weapons of Mass Destruction, Fort Lesley J. McNair, National Defense University, February 11, 2004," (accessed May 15, 2004) available from <http://WWW.Whitehouse.gov>.

¹⁷ George Bush, "Speech at the National Cathedral, Washington, D.C., September 14, 2001," (accessed September, 2003), available from <http://WWW.Whitehouse.gov>.

counterproliferation factors and crosscutting enabling functions were effective in achieving nonproliferation results in Libya (1981-1996) and Iraq (1974-1985)? How can findings concerning these questions shape future US policy-makers' nonproliferation and counterproliferation efforts?

The study of multilateral nonproliferation regimes to mitigate proliferation has theoretical and policy implications. Realist and Neorealist political theorists predict that multilateral regimes and institutions will be anemic in the security area of preventing proliferation. The record of these nonproliferation regimes to prevent proliferation supports these Neorealist theories; the multilateral nonproliferation regimes have not prevented proliferation and countries are pursuing WMD in direct defiance of their commitments to these treaties.¹⁸ Can these regimes adapt to become stronger, more relevant, and consequently more effective at achieving nonproliferation results?

Traditional concepts of deterrence have not stopped rogue states and terrorist organizations from seeking to

¹⁸ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15 2002), available from <http://WWW.Defenselink.com>

acquire WMD.¹⁹ The US, therefore, has articulated an "approach to combat WMD [that] represents a fundamental change from the past."²⁰ If factors of nonproliferation and deterrence fail and hostile states or terrorist groups begin to develop WMD and pose a threat to the US or its interests, military counterproliferation strikes are clearly an option. Considering the scope of the threat that WMD pose today, counterproliferation strikes may be a highly advisable option. Is counterproliferation intervention a form of preventative war or is it anticipatory self-defense under international law?

¹⁹ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>. See also United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>. "Given the goals of rogue states and terrorists, the United States can no longer solely rely on a reactive posture... The inability to deter... do[es] not permit that option." Ibid. See also United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>. "In 1998, Usama bin Laden proclaimed the acquisition of WMD a "religious duty," and evidence collected in Afghanistan proves al-Qaida sought to fulfill this 'duty.' The threat of terrorists acquiring and using WMD is a clear and present danger." Ibid.

²⁰ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

Lastly, proliferation will remain an ongoing security issue for the United States. What were the key pillars, factors, and crosscutting enabling functions that achieved nonproliferation results in Iraq (1974-1985) and in Libya (1981-1996)? Can identification of these key variables and factors aid US policy-makers in future nonproliferation scenarios?

CONTRIBUTIONS

The following are the specific contributions of this dissertation:

- Presents a strategy model encompassing the structural and normative variables of the 2002 "National Strategy to Combat Weapons of Mass Destruction," US Department of Homeland Security, and Proliferation Security Initiative. This strategy model is used to identify the key factors and crosscutting enabling functions that achieved nonproliferation results in Iraq (1974-1985) and in Libya (1981-1996).
- Develops and applies four principal factors of multilateral regime effectiveness to assess nonproliferation results.
- Develops and validates three key factors of a legal protocol discerned from international customary and

positive law to assess preemptive counterproliferation intervention under international law.

- Findings can be used by US policy-makers to: identify and evaluate weaknesses and future changes to the nonproliferation regimes, articulate a preemptive counterproliferation intervention national security policy firmly anchored in international law, and guide future US nonproliferation and counterproliferation policy actions.

DISSERTATION ORGANIZATION

Chapter Two: A Theoretical Framework for Combating Proliferation. This chapter develops the strategy model, surveys theoretical literature on the efficacy of multilateral regimes, and develops the legal foundation for a protocol that supports preemptive counterproliferation intervention under international law.

Chapter Three: The Nonproliferation Regimes. This chapter develops four factors of nonproliferation regime effectiveness and, using those factors, assesses the strengths and weaknesses of the multilateral nonproliferation regimes.

Chapter Four: A Legal Protocol for Preemptive Counterproliferation Intervention. After surveying the customary and positive law traditions of anticipatory self-defense, this chapter develops and validates three factors of a legal protocol to assess counterproliferation intervention in the nuclear age of rogue states and terrorists.

Chapter Five: Chemical Proliferation in Libya. This chapter uses the strategy model to analyze US efforts to prevent Libyan proliferation of chemical WMD (1981-1996).

Chapter Six: Israel's Counterproliferation Intervention in Iraq. This chapter uses the strategy model to analyze Israel's efforts to prevent Iraqi nuclear proliferation (1974-1985).

Chapter Seven: Findings and Recommendations. The dissertation concludes with a summary of findings and suggested follow-on work and extensions.

PERSONAL INTEREST

This subject is of special interest to me because while I am a student of international relations, I am also a military practitioner. In the Navy I fly strike-fighters off aircraft carriers and I am currently in command of one of only three joint Navy-Marine-Air Force squadrons. I will soon be transferred to Manama Bahrain to head strike operations for US Fifth Fleet. During various joint and major command staff assignments, I was a military plans officer in charge of developing counterproliferation plans and strategy and as a fighter pilot I was involved in the potential execution of those plans.

As a White House Fellow (1996-1997), I witnessed and participated in policy formulation at the highest levels of government that created the impetus for counterproliferation contingency plans, watched their dissemination to the Combatant Commanders, and eventually down to the tactical level. In the mid-1990s I was the J3 Plans Officer, US Central Command (CENTCOM). As part of the Special Technical Operations (STO) Cell and cruise missile and strike fighter cell for the CENTCOM Area of Responsibility (AOR), I worked daily with Central Intelligence, Defense Intelligence, and CENTCOM intelligence to formulate counterproliferation contingency strike plans passed down from the National Command Authority for use in the CENTCOM AOR. From 1999

through 2000 I was Operations Officer, Fighter Wing Atlantic, where I was flying F-14s and ensuring Tomcats in the Roosevelt Battle Group were equipped to fight and win when executing these plans. From 2000-2001 I was once again working counterproliferation plans, this time as the Fleet Warfare Officer, US SEVENTH Fleet, in the Pacific area of responsibility (AOR). At SEVENTH Fleet, I worked various counterproliferation plans and contingencies for strike operations on the Korean peninsula.

From my time in the White House, on the staffs of the combatant commanders and major Navy staffs, and as a strike-fighter pilot I was able to witness nonproliferation and counterproliferation policy and execution along the full political-military spectrum. I look forward to discerning findings that will help future policy planners achieve nonproliferation results.

**CHAPTER TWO. A THEORETICAL FRAMEWORK FOR COMBATING
PROLIFERATION**

We will build defenses against ballistic missiles and other means of delivery. We will cooperate with other nations to deny, contain, and curtail our enemies' efforts to acquire dangerous technologies. And, as a matter of common sense and self-defense, America will act against such emerging threats before they are fully formed.¹

BUSH ADMINISTRATION'S NATIONAL WMD STRATEGY

The Administration presents three principal pillars in its *National WMD Strategy* that combat proliferation. The first pillar, *Strengthened Nonproliferation to Combat WMD Proliferation*, is a strategy to prevent proliferation from happening. Within this pillar the Administration identifies six key factors: Active Nonproliferation Diplomacy, Multilateral Regimes, Nonproliferation Threat and Reduction Cooperation, Controls on Nuclear Materials, US Export Controls, and Nonproliferation Sanctions.²

The second pillar, *Counterproliferation to Combat WMD Use*, is a strategy to counter proliferation that is happening, and prevent the use of WMD against the US and its interests once proliferation has happened. Within the

¹ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," cover letter, (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

² United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

pillar of counterproliferation the Administration identifies three key factors: Interdiction, Deterrence, and Defense and Mitigation. The third pillar is Consequence Management to Respond to WMD Use.³ Under the organization of the Department of Homeland Security, the relevant factor for consequence management is Emergency Preparedness and Response.⁴

In the *National WMD Strategy* the Administration identifies four crosscutting enabling functions: Intelligence Collection and Analysis on WMD, Delivery Systems, and Related Technologies; Research and Development to improve the US ability to respond to evolving threats; Bilateral and Multilateral Cooperation; and Targeted Strategies against hostile states and terrorists. These pillars with their associated factors and crosscutting enabling functions can be graphically presented in the following strategy model:

³ Ibid.

⁴ United States Department of Homeland Security, "DHS Organization," (accessed May 15, 2004); available from <http://WWW.DHS.gov>.

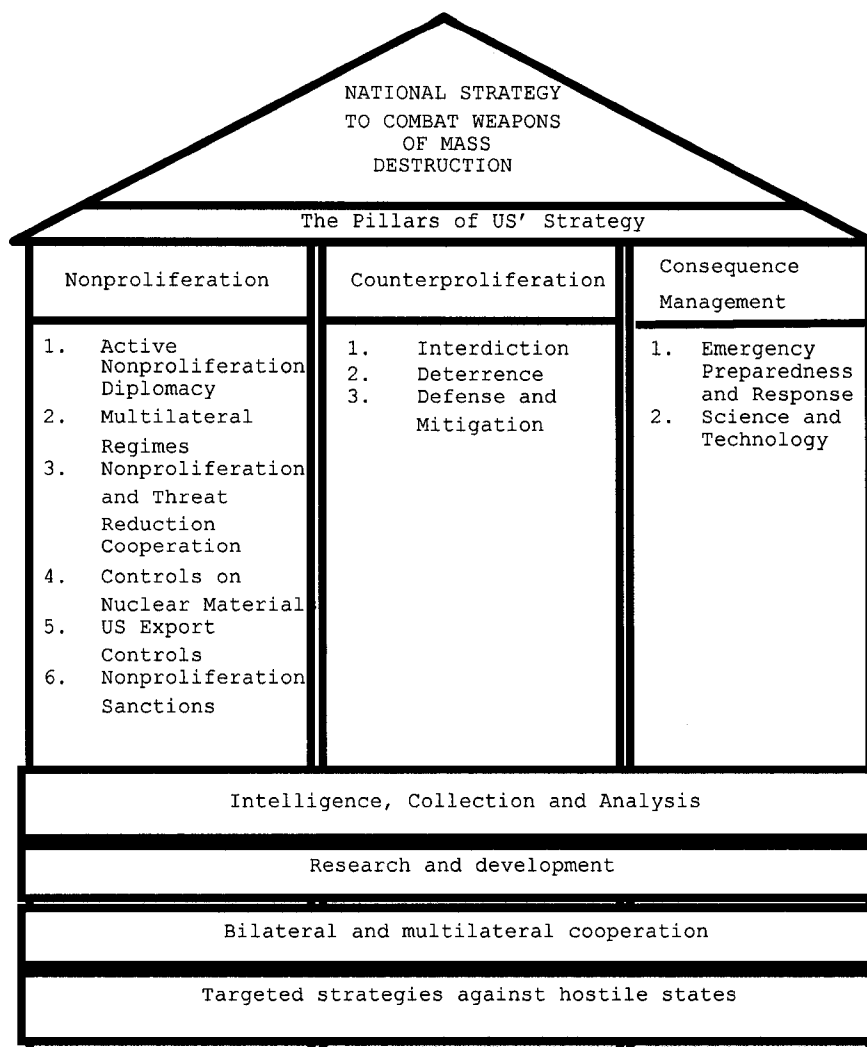


Figure 2-1⁵

The strategy model serves to distinguish the boundaries between pillars and provides a means to identify and examine those factors and enabling functions that are critical to the effectiveness of the administration's policy. The

⁵ Ibid. Consequence Management and the factors of Emergency Preparedness and Response and Science and Technology are

following section describes the structural and normative crosscutting enabling functions and factors of the strategy model that are germane to the case studies used in this dissertation.

Cross-cutting Enabling Functions

In the *National WMD Strategy* the Administration introduced four crosscutting enabling functions: Intelligence Collection and Analysis on WMD, Delivery Systems, and Related Technologies; Research and Development to improve the US ability to respond to evolving threats; Bilateral and Multilateral Cooperation; and Targeted Strategies against hostile states and terrorists.

Intelligence. Accurate and timely intelligence that leads to a complete understanding of WMD threats is the highest priority for US intelligence agencies.⁶ In the pillar of strengthened nonproliferation, intelligence is needed for the proper functioning of all the nonproliferation factors including active nonproliferation diplomacy and the multilateral nonproliferation regimes.

derived from the US Department of Homeland Defense and is presented for model development only.

⁶ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

In the pillar of counterproliferation, accurate and timely intelligence is required to define a window of opportunity for interdiction and military action. For military action, intelligence is critical to counterproliferation military targeting, execution, and post strike bomb damage assessment. Improving the US ability to secure timely and accurate knowledge of an adversary's offensive and defensive capabilities, plans, and intentions is a key crosscutting enabling function in the strategy model.

Research and Development. The *National Security Strategy* calls for a military transformation to ensure the US ability to conduct rapid and precise operations to achieve decisive results.⁷ The US must have cutting-edge technologies that can quickly and precisely detect, analyze, facilitate the interdiction of, defend against, defeat, and mitigate the consequences of WMD.⁸ The Department of Defense (DoD) has initiated research and development programs (standing mission need statements in response to

⁷ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

⁸ Ibid, 6.

urgent Combatant Commander requirements) for a robust and evolving counterforce capability against adversaries' NBC infrastructure including: Agent Defeat Weapon (ADW), improved capabilities against hardened targets, Restoration of Operations (RestOps) for critical military facilities, Biodetection systems and medical countermeasures, and full range of Missile Defenses.⁹

Bilateral and Multilateral Cooperation. The efficacy of cooperative arrangements between states has been an ongoing debate among political theorists such as Neoliberal Institutionalists and Neorealists for decades. Both Neoliberals and Neorealists believe that cooperation is a means for states to pursue their interests, and that possibilities exist for international cooperation. However, Neoliberals and Neorealists diverge on the likelihood of the success of bilateral and multilateral cooperation. In the end, Neorealists believe that cooperative behavior is no substitute for the capabilities of the state.¹⁰

⁹ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>

¹⁰ James E. Dougherty and Robert L. Pfaltzgraff, Jr. *Contending Theories of International Relations: A Comprehensive Survey*, 5th ed., (Boston: Longman, 2001), 68.

The cooperative relationships between states in the security issue area of nonproliferation arise out of the perceived self-interest of states to prevent proliferation. A basic understanding of this cooperative theory in pursuit of self-interest can be found in the Prisoner's Dilemma and Stag Hunt game theories. Based upon these game theories, the key to cooperative behavior lies in the extent to which each state believes that nonproliferation is in its self-interest and in its belief that the other states will cooperate. Without an assumption of cooperation, a multilateral regime will not be effective. States' parties to multilateral nonproliferation regimes and export control groups, therefore, conclude that the benefits of cooperation outweigh the incentives to act unilaterally as a WMD supplier or WMD receiver state.

Targeted Strategies Against Hostile States and Terrorists. States that are of concern to the US are in possession of WMD or they have programs that might lead to the acquisition of such weapons. States that sponsor terrorism and other non-state actors are new security challenges for the US. The emerging post-cold war structure of the international system coupled with the widespread proliferation of dual-use technologies provides a formidable and complex challenge to deterrence and requires a targeted

strategy to combat further proliferation.¹¹ "There is no deterrence in a general or abstract sense; it is a case of knowing who can deter whom, for what, in what circumstances, by what means. Deterrence must be situation-specific if it is to have any real hope of effectiveness."¹² Targeted Strategy is a key crosscutting enabling function:

All elements of the overall US strategy to combat WMD must be brought to bear in targeted strategies against supplier and recipient states of WMD proliferation concern, as well as against terrorist groups which seek to acquire WMD.

A few states are dedicated proliferators... Because each of these regimes is different, we will pursue country-specific strategies that best enable us and our friends and allies to prevent, deter, and defend against WMD...¹³

Strategy Model Pillars

In the *National WMD Strategy* the Administration introduced three pillars of US strategy to combat proliferation: Nonproliferation, Counterproliferation, and Consequence Management.

¹¹ Ibid, 385.

¹² Raymond Aron, "The Evolution of Modern Strategic Thought," in *Problems of Modern Strategy: Part One*, Adelphi Papers No. 54, London: Institute for Strategic Studies, February 1969, p. 9, as quoted in James E. Dougherty and Robert L. Pfaltzgraff, Jr. *Contending Theories of International Relations: A Comprehensive Survey*, 5th ed., (Boston: Longman, 2001), 355.

¹³ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

Strengthened Nonproliferation to Combat WMD

Proliferation. The pillar of Strengthened Nonproliferation to Combat WMD Proliferation encompasses the factors of Active Nonproliferation Diplomacy, Multilateral Regimes, Nonproliferation Sanctions, Threat Reduction Assistance, and Export Controls. The purpose of these factors is to stop proliferation of WMD from happening by dissuading supplier states from cooperating with proliferant states, dissuading and impeding proliferant states and terrorist networks from seeking WMD, and impeding and/or make costly proliferant states and terrorist networks access to sensitive technologies, materials and expertise.¹⁴

Active Nonproliferation Diplomacy. According to the *National WMD Strategy*, the US will "actively employ diplomatic approaches in bilateral and multilateral settings in pursuit of our nonproliferation goals."¹⁵ Specifically, the US intends to use diplomatic approaches to dissuade NBC supplier states from cooperating with proliferant states as well as induce proliferant states to stop their NBC imports and to end their WMD programs. The *National WMD Strategy* states the US will hold countries responsible for complying

¹⁴ Ibid, 3.

¹⁵ Ibid, 3.

with their nonproliferation commitments codified in the nonproliferation multilateral regimes such as the Nuclear Nonproliferation Treaty (NPT), Chemical Weapons Convention (CWC), and Biological Weapons Convention (BWC). Lastly, the *National WMD Strategy* states that the US will continue to build coalitions to support nonproliferation and threat reduction efforts.¹⁶

Multilateral Nonproliferation Regimes. In the new security environment of post-September 11, 2001 the gravest danger the US faces "lies in the crossroads of radicalism and technology."¹⁷ States that are potentially proliferating WMD are also state sponsors of international terrorism.¹⁸ These states have continued to pursue WMD even though many of them are members of the multilateral nonproliferation regimes. These states have all, to varying degrees, violated their nonproliferation international commitments and sponsor

¹⁶ Ibid, 4.

¹⁷ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," cover letter, (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

¹⁸ United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>, 10. The seven sponsors of state terrorism are Iran, Iraq, Syria, Libya, Cuba, North Korea, and Sudan. Ibid.

state terrorism.¹⁹ The Bush Administration has placed renewed emphasis on strengthening the multilateral nonproliferation regimes as one factor to help prevent further defection from these countries.

In the nuclear nonproliferation regime the US supports strengthening of the NPT and International Atomic Energy Agency (IAEA) including ratification of an IAEA Additional Protocol by all NPT states parties, assurances that all states put in full scope IAEA safeguards agreements, appropriate increases in funding for the IAEA, negotiating a Fissile Material Cut-Off Treaty, and strengthening the NSG and Zangger Committees.²⁰ In the chemical and biological nonproliferation regimes, the Bush Administration supports the effective functioning of the Organization for the Prevention of Chemical Weapons (OPCW), identification and promotion of constructive and realistic (yet still

¹⁹ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>. Iran has ratified the NPT, BWC, and CWC; North Korea has ratified the NPT and BWC; Sudan has ratified the NPT and CWC, Pakistan has ratified the BWC and CWC, and Syria has ratified the NPT and signed the BWC. See tables 3-1 through 3-6, chapter three. See also United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>, 10.

²⁰ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

undefined) measures to strengthen the BWC, and strengthening of the Australia Group.²¹

Counterproliferation to Combat WMD Use. The pillar of Counterproliferation to Combat WMD Use encompasses the factors of Interdiction, Deterrence, and Defense and Mitigation. These factors provide the US military and appropriate civilian agencies the full range of operational capabilities to counter the threat and use of WMD by states and terrorists against the US and its interests.

Interdiction. Interdiction is the stopping or interception of WMD technology before a state can make such technology operational. For instance, the US interdicted chemical WMD technology exported from Germany to Libya before Libya could place the equipment underground at Tarhunah,²² and the US routinely tracks the movement of North Korean ships containing missile and WMD related technology on the high seas.²³ The Statement of Interdiction Principles for the Proliferation Security Initiative (PSI)

²¹ Ibid, 2.

²² See chapter five for an accounting of US interdiction efforts in Libya.

²³ The author was the Fleet Warfare Officer, US SEVENTH Fleet, from 2000-2001, and was in charge of war fighting plans for the SEVENTH Fleet Commander in the Korean AOR.

was announced in Paris in September 2003. The PSI is a group of eleven industrialized states committed to interdiction principles to establish a more coordinated and effective basis through which to impede and stop shipments of WMD, delivery systems, and related materials flowing to and from states and non-state actors of proliferation concern. These principles include adopting streamlined procedures for rapid exchange of relevant information concerning suspected proliferation activity, protecting the classified information by participant states, dedicate appropriate interdiction resources and capabilities, maximize coordination among participants in interdiction efforts, develop specific actions in support of interdiction efforts regarding cargoes of WMD, and to review and strengthen participant legal authorities and relevant laws and frameworks to support interdiction commitments.²⁴

Deterrence. Nuclear deterrence theory emerged post-World War II. The pioneer of strategic deterrence, Bernard Brodie, theorized that nuclear deterrence was convincing potential aggressors that the gains to be achieved by deliberately resorting to nuclear war could never outweigh

²⁴ United States, White House, "Proliferation Security Initiative, Statement of Interdiction Principles, May 31, 2003," (accessed May 15, 2004), available from <http://WWW.Whitehouse.gov>.

the costs of embarking on such a course.²⁵ Throughout the Cold War, deterrence theories presupposed rational decision making processes within the bureaucratic governments of industrially advanced powers. According to these theories, governments would act rationally according to expected-utility models and cost benefit calculations.²⁶ A rational actor has a priority of preferences, engages in an ends-means calculation and an assessment of alternative courses having different outcomes, and chooses the alternative deemed to be optimal in light of the preferred outcome.²⁷

However, Brodie did not discount small states acquiring nuclear weapons and deterring a global power:

Now that we are in a nuclear age, the potential deterrence value of an admittedly inferior force may be sharply greater than it has ever been before. Let us assume that a menaced small nation could threaten the Soviet Union with only a single thermonuclear bomb, which, however, it could and would certainly deliver on Moscow if attacked. This would be a retaliatory capability sufficient to give the Soviet government pause.²⁸

²⁵ James E. Dougherty and Robert L. Pfaltzgraff, Jr. *Contending Theories of International Relations: A Comprehensive Survey*, 5th ed., (Boston: Longman, 2001), 345.

²⁶ Ibid, 358-360.

²⁷ Ibid, 385.

²⁸ Bernard Brodie, *Strategy in the Missile Age*, Princeton: Princeton University Press, 1959.

What if the small or rogue state or non-state actor acts irrationally and possesses a nuclear weapon? The ability of the US to deter WMD attacks in the post-September 11, 2001 security environment has dramatically changed from the Post-World War II and Cold War theories of deterrence. The Administration has promulgated a "new concept of deterrence" targeted against rogue states, irrational leaders,²⁹ and "shadowy networks of individuals"³⁰ in its *National Security Strategy*:

Given the goals of rogue states and terrorists, the United States can no longer solely rely on a reactive posture as we have in the past. The inability to deter a potential attacker, the immediacy of today's threats, and the magnitude of potential harm that could be caused by our adversaries' choice of weapons, do not permit that option...

Deterrence based only upon the threat of retaliation is less likely to work against leaders of rogue states more willing to take risks, gambling with the lives of their people, and the wealth of their nations...

Today, our enemies seek weapons of mass destruction as weapons of choice. For rogue states these weapons are tools of intimidation and military aggression against their neighbors. These weapons may allow these states to attempt to blackmail the United States ... to prevent us from deterring or repelling the aggressive behavior of rogue states...

Traditional concepts of deterrence will not work against a terrorist enemy whose avowed tactics are wanton destruction and the targeting of innocents;

²⁹ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

³⁰ Ibid, cover letter.

whose so-called soldiers seek martyrdom in death and whose most potent protection is statelessness.³¹

Deterrence theories must address the irrational behavior of rogue states and other entities that seek personal or national self-destruction or martyrdom, and who regard the loss of most of their nation's population resources as a reasonable cost for the achievement of their goals.³² No longer is the overwhelming conventional or nuclear superiority of the US a guarantee against a catastrophic WMD attack by a rogue state or terrorist organization. "The overlap between states that sponsor terror and those that pursue WMD compels us to action."³³ The Administration's *National WMD Strategy* encompasses a strong declaratory policy, effective military forces, and full range of political tools to persuade potential adversaries not to seek or use WMD. The retaliation component of earlier US deterrence strategies, while remaining essential to an overarching US nuclear deterrence strategy, has been

³¹ Ibid, 15.

³² Ole R. Holsti, *Crisis, Escalation, War*, Montreal: McGill-Queens University Press, 1972, pp 8-9, as quoted in James E. Dougherty and Robert L. Pfaltzgraff, Jr. *Contending Theories of International Relations: A Comprehensive Survey*, 5th ed., (Boston: Longman, 2001), 359.

³³ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

supplemented in the *National WMD Strategy* which emphasizes denial and dissuasion to deter rogue states and terrorists from using WMD against the US. However, in the event of a WMD attack against the United States, its forces abroad, and its friends and allies, the US has articulated a policy that it will use overwhelming force including nuclear options against the state or aggressor.³⁴

If strengthened nonproliferation efforts and interdiction fail to stop rogue/hostile states from gaining WMD technology, then "to forestall or prevent hostile acts by our adversaries, the United States will, if necessary, act preemptively."³⁵ Preemptive intervention requires capabilities to detect and destroy an adversary's WMD assets before the weapons are used, active defenses to disrupt, disable, or destroy WMD en route to their targets, and passive defenses tailored to the unique characteristics of the various forms of WMD. US military forces must be ready to respond against any source of WMD attack with the primary objective of disrupting an imminent attack and eliminating the threat of future attacks. The US will need to be prepared to destroy or dismantle any residual WMD capabilities of a hostile state or terrorist network in

³⁴ Ibid.

³⁵ Ibid.

post-conflict operations.³⁶ The Administration has stated that an effective US counterproliferation response will not only eliminate the source of a WMD attack but also have a powerful deterrent effect upon other adversaries that possess or seek WMD.³⁷

WMD Consequence Management. The pillar of Consequence Management involves responding to the use of WMD in the United States, US forces abroad, and US friends and allies. The White House Office of Homeland Security coordinates all federal efforts to prepare for and mitigate the consequences of terrorist WMD attacks within the US. The National Security Council's Office of Combating Terrorism coordinates US efforts to respond to and manage the recovery from terrorist attacks outside the US. The US State Department works with US friends and allies to develop their own WMD consequence management capabilities.³⁸ Though beyond the scope of this dissertation, the Department of Homeland

³⁶ For example, CNN reported on May 26, 2003 that the Iraqi nuclear research facility at Tuwaitha had been looted and radiological material stolen before the US arrived to secure the facility and its material.

³⁷ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

³⁸ Ibid, 5.

Security has organized itself around five divisions, two of which apply to WMD consequence management: Emergency Preparedness and Response, and Science and Technology. The Department of Homeland Security is using the Federal Management Agency (FEMA) as one of its key components. In addition to the Department of Homeland Security, the Department of Defense created a new combatant command (NORTHCOM) to defend the US soil. When ordered by the President or Secretary of Defense, NORTHCOM is prepared to support civil authorities in the event of a domestic terrorist attack that overwhelms nearby resources.

THEORETICAL IMPLICATIONS FOR STRENGTHENING THE NONPROLIFERATION REGIMES

The effectiveness of multilateral regimes and institutions to mitigate anarchy's constraining effect in the international political systemic structure has been debated for decades in political theory literature.³⁹ WMD have an impact on state survival in a uniquely profound way. Consequently, one would expect a pronounced fault line in theoretical literature concerning the efficacy of

³⁹ James E. Dougherty and Robert L. Pfaltzgraff, Jr. *Contending Theories of International Relations: A Comprehensive Survey*, 5th ed., (Boston: Longman, 2001), chapters 2 and 12.

multilateral regimes to regulate technologies associated with WMD. Regime theory is an area of rich tension between Neoliberal Institutionalists and Neorealists; and nonproliferation regimes offer an important juncture from which to analyze the two competing theories. When do multilateral regimes reflect an existing international systemic structure or when do they actually shape the behavior of units or agents?⁴⁰

Neoliberal Institutionalists argue that the force of international norms and institutions has a large and growing impact on the way states relate in the international system. Neorealists argue that while international norms and institutions may have some marginal impact on inter-state relations, the fundamental reality of the international system is and always has been power and state security. States care mostly about protecting themselves from other states, and the impact of multilateral regimes on security ambitions is often emasculated.

Some Neoliberal scholars cite the complex interdependence in the international system as *de facto* proof that state behavior is no longer unconstrained, that regimes do in fact mitigate the anarchical structure of international politics, and that the use of force is

⁴⁰ Ibid, 624.

circumscribed accordingly.⁴¹ Other Neoliberal advocates state that the *de facto* existence of multilateral regimes is because states themselves eschew independent decision-making.

Neoliberals believe that regimes and institutions are created by states to achieve their purposes through limited collective action.⁴² Regimes are the formal rules of behavior specified by the character or constitutions of institutions and encompass sets of implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations.⁴³ "The recurrent image of competitive struggle, and the anarchic conditions in which it is rooted, naturally limits the scope and duration of the risks, however, agreements are still possible if each side has reasonable grounds for confidence and if defection does

⁴¹ Robert O. Keohane, "Institutionalist Theory, Realist Challenge," in *Neorealism and Neoliberalism: The Contemporary Debate*, ed. David A. Baldwin, (New York: Columbia University Press, 1993), 272.

⁴² *Ibid*, 272.

⁴³ Stephen D. Krasner, "International Cooperation in Economic and Security Affairs," in *Neorealism and Neoliberalism: The Contemporary Debate*, ed. David A. Baldwin, (New York: Columbia University Press, 1993), 75.

not mean devastation."⁴⁴ Herein lies the primary fault line between the two theories with regard to WMD proliferation; undetected defection of a party to the nonproliferation regime may lead to WMD devastation.

Neorealists acknowledge the plethora of international regimes and institutions that have emerged since 1945, but believe that Neoliberals exaggerate the extent to which these institutions are able to affect international politics. According to Neorealists, state survival is paramount; a state's survival "instinct" or security "consciousness" will always supersede or trump the independent effect of international regimes and institutions.⁴⁵

In January 2001 the DoD identified countries that are not acting in good faith in their commitments to the nonproliferation regimes⁴⁶ and the defection and

⁴⁴ Charles Lipson citing Schelling, *Neorealism and Neoliberalism: The Contemporary Debate*, ed. David A. Baldwin, (New York: Columbia University Press, 1993), 75.

⁴⁵ Joseph M. Grieco, "Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism," in *Neorealism and Neoliberalism: The Contemporary Debate*, ed. David A. Baldwin, (New York: Columbia University Press, 1993), 116.

⁴⁶ According to the Department of Defense, many DoD countries have ongoing WMD programs even though they are states parties to the NPT, CWC, and BWC. See United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>

proliferation by these countries could mean devastation -- especially if they also sponsor state terrorism.⁴⁷

The Bush Administration has acknowledged that nonproliferation regimes are an important factor in its nonproliferation pillar. The Administration has also acknowledged the weaknesses in the nonproliferation regimes and has articulated measures to strengthen them that will be addressed in detail in chapter three. Furthermore, the Administration has also articulated a policy of preemptive counterproliferation intervention should the nonproliferation regimes fail to prevent proliferation.

INTERNATIONAL LAW AND PREEMPTIVE INTERVENTION

The Bush Administration's *National WMD Strategy* is a nonproliferation strategy document that clearly articulates preemption:

For centuries, international law recognized that nations need not suffer an attack before they can lawfully take action to defend themselves against forces that present an imminent danger of attack. Legal scholars and international jurists often conditioned the legitimacy of preemption on the existence of an imminent threat--most often a visible mobilization of armies, navies, and air forces preparing to attack.

⁴⁷ United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>, 10. The seven sponsors of state terrorism are Iran, Iraq, Syria, Libya, Cuba, North Korea, and Sudan. Ibid.

We must adapt the concept of imminent threat to the capabilities and objective of today's adversaries. Rogue states and terrorists do not seek to attack us using conventional means...

The United States has long maintained the option of preemptive actions to counter a sufficient threat to our national security. The greater the threat, the greater is the risk of inaction--and the more compelling the case for taking anticipatory action to defend ourselves, even if uncertainty remains as to the time and place of the enemy's attack. To forestall or prevent such hostile acts by our adversaries, the United States will, if necessary, act preemptively...

The US will not use force in all cases to preempt emerging threats, nor should nations use preemption as a pretext for aggression...

The purpose of our actions will always be to eliminate a specific threat to the United States or our allies and friends. The reason for our actions will be clear, the force measured, and the cause just.⁴⁸

From an international law and theoretical perspective, this US national security shift toward a formal preemptive intervention policy raises two important issues. The first issue is whether the President has attempted to create a new precedent in international law of preventive war,⁴⁹ or

⁴⁸ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

⁴⁹ Michael E. O'Hanlon, Susan E. Rice, and James B. Steinberg, "The New National Security Strategy and Preemption," The Brookings Institution, Policy Brief #113, January 2003. "Rather than enunciate a formal new doctrine, it would have been better to continue to reserve the preemptive military tool for a narrow, rare class of situations where inaction poses a credible risk of large scale, irreversible harm and where other policy tools offer a poor prospect of success." Ibid.

whether the Administration has further defined or attached the legal tradition of anticipatory self-defense to a new security environment involving rogue states and terrorist groups who pursue WMD.

The second issue relates to the taxonomy of the Administration's overarching strategy to combat proliferation. Though each case is unique, the *National WMD Strategy* does not state under what security conditions the Administration will move from the nonproliferation pillar to prevent proliferation from happening to the counterproliferation pillar. The *National WMD Strategy*, however, provides insight into this transition. In that document the Administration states that "America will act against such emerging threats before they are fully formed" and that the US must "adapt the concept of imminent threat to the capabilities and objectives of today's adversaries."⁵⁰ It finally says that the "reasons for our actions will be clear, the force measured, and the cause just."⁵¹ Arguably, the Administration is not "adapting" international law or advocating a legal precedent for

⁵⁰ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

⁵¹ Ibid.

preventive war, but rather integrating precedents of international law into a new security environment of "rogue states and terrorists" that pursue WMD.⁵²

The national security and defense of the United States against a WMD attack will always override any international legal restrictions on the use of force. However, a legal protocol or standard of preemptive counterproliferation intervention sustained under customary and positive international law can serve as a strategy tool as policy-makers contemplate preemptive military action and, *ex post facto*, offer the Administration a legal foundation for its counterproliferation intervention should such action become necessary.

SUMMARY

This chapter developed a strategy model derived from the Bush Administration's *National WMD Strategy*. This strategy model defined key crosscutting enabling functions and factors associated with pillars of nonproliferation, counterproliferation, and consequence management.

Multilateral regimes are a key factor in the strategy model's pillar of nonproliferation. Therefore, this chapter surveyed Neorealist and Neoliberal Institutionalists' regime theories in order to lay a foundation for developing key

⁵² Ibid.

factors of multilateral regime effectiveness in order to assess nonproliferation results. Lastly, this chapter surveyed the shift in US national security policy toward preemptive counterproliferation intervention, and laid the foundation from which to develop a legal protocol under customary and positive international law that would reinforce the legality of preemptive military force as anticipatory self-defense against rogue states and terrorist organizations which seek WMD.

CHAPTER THREE: THE NONPROLIFERATION REGIMES

INTRODUCTION

Existing nonproliferation and arms control regimes play an important role in our overall strategy. The United States will support those regimes that are currently in force, and work to improve the effectiveness of, and compliance with, those regimes... Overall we seek to cultivate an international environment that is more conducive to nonproliferation...¹

The multilateral nonproliferation regimes are an important factor of the strategy model's nonproliferation pillar. The purpose of this chapter is to survey the nonproliferation

¹ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>. In the *National WMD Strategy* the White House specifically addressed the following with regard to strengthening the various nonproliferation institutions:

Nuclear

"Strengthening of the Nuclear Nonproliferation Treaty and the International Atomic Energy Agency (IAEA), including through ratification of an Additional Protocol by all NPT States parties...

Negotiating a Fissile Material Cut-off Treaty that advances US security interests;

Strengthening the Nuclear Suppliers Group and Zangger Committee;"

Chemical and Biological

"Effective functioning of the Organization for the Prohibition of Chemical Weapons;

Identification and promotion of constructive and realistic measure to strengthen the Biological Weapons Convention...

Strengthening the Australia Group."

Missile

"Strengthening the Missile Technology Control Regime (MTCR), including through support for universal adherence to the International Code of Conduct Against Ballistic Missile Proliferation." Ibid.

regimes, and to present and apply four factors of multilateral nonproliferation regime effectiveness to assess the regimes' nonproliferation effectiveness and proposals to strengthen them.

NUCLEAR

International Atomic Energy Agency (IAEA)/Treaty on the Nonproliferation of Nuclear Weapons (NPT)

In the 1950s, few states possessed the knowledge, monetary resources, or the indigenous technological infrastructure to build nuclear facilities. The global distribution of nuclear power remained in the hands of only a few states. In order to forestall a rapid push by developing countries toward acquiring nuclear weapons, President Eisenhower proposed "Atoms for Peace" -- states seeking nuclear technology could receive it as long as they used that technology only for peaceful purposes. There was a major security issue, however, with Eisenhower's new policy; the nuclear technology necessary to transform society peacefully was the same technology that could potentially be used to build nuclear WMD. In the 1950s, the vision of a world powered by limitless nuclear energy clashed paradoxically with the horrors of nuclear proliferation and catastrophic global war:

First, the knowledge now possessed by several nations will eventually be shared by others, possibly all others.

Second, even a vast superiority in numbers of weapons, and a consequent capability of devastating retaliation, is no preventive, of itself, against the fearful material damage and toll of human lives that would be inflicted by surprise aggression...

The United States knows that if the fearful trend of atomic military build-up can be reversed, this greatest of destructive forces can be developed into a great boon for the benefit of all mankind...

I therefore make the following proposals:

The governments principally involved to the extent permitted by elementary prudence, to begin now and continue to make joint contributions from their stockpiles of normal uranium and fissionable materials to an international atomic energy agency. We would expect that such an agency would be set up under the aegis of the United Nations...

The atomic energy agency could be made responsible for the impounding, storage and protection of the contributed fissionable and other material. The ingenuity of our scientists will provide special, safe conditions under which such a bank of fissionable material can be made essentially immune to surprise seizure.

The more important responsibility of this atomic energy agency would be to devise methods whereby this fissionable material would be allocated to serve the peaceful pursuits of mankind. Experts would be mobilized to apply atomic energy to the needs of agriculture, medicine and other peaceful activities. A special purpose would be to provide abundant electrical energy in the power-starved areas of the world. Thus the contributing powers would be dedicating some of their strength to serve the needs rather than the fears of mankind...

To the making of these fateful decisions, the United States pledges before you - and therefore before the world - its determination to help solve the fearful atomic dilemma - to devote its entire heart and mind to find the way by which the miraculous

inventiveness of man shall not be dedicated to his death, but consecrated to his life.²

On July 29, 1957, the IAEA came into force within the framework of a multilateral United Nations Treaty with the objective to:

Accelerate and enlarge the contribution of atomic energy to peace, health, and prosperity throughout the world. It shall ensure, so far as possible, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose.³

The IAEA was created with the twin objectives of promoting the peaceful uses of nuclear energy while ensuring that the technology would not be used in any weapons program.⁴

Towards that end, the IAEA is authorized:

To establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities, and information made available by the Agency or at its request or under its supervision or control are not used in such a way as to further any military purpose; and to apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement, or, at

² Dwight D. Eisenhower, "Before the General Assembly of the United Nations on the Peaceful Uses of Nuclear Energy," December 8, 1953, (accessed April 15, 2004) available from <http://www.eisenhower.utexas.edu/atoms.htm>

³ United Nations, "Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series* (Vol. 729, 1970), Art. II.

⁴ United Nations, "Statute of the International Atomic Energy Agency, Done at the Headquarters of the United Nations, October 26, 1956," *Treaty Series*, (Vol. 276, 1957), Art II.

the request of a State, to any of the State's activities in the field of atomic energy.⁵

In carrying out its functions, the IAEA shall:

Submit reports on its activities annually to the General Assembly of the United Nations and, when appropriate, to the Security Council: if in connection with the activities of the Agency there should arise questions that are within the competence of the Security Council, the Agency shall notify the Security Council, as the organ bearing the main responsibility for the maintenance of international peace and security, and may also take the measures open to it under this Statute, including those provided in paragraph C of article XII.⁶

Article XII subsequently sets out the rights and responsibilities of the IAEA in such situations including the right to examine the design of specialized equipment and facilities including nuclear reactors to ensure that the design will permit effective safeguards application; the right to require the maintenance and production of operating records to assist in ensuring accountability for source and special fissionable material; and the right to send inspectors into the recipient state with respect to any IAEA project or other arrangements where the agency is requested by the Parties to apply its safeguards.⁷

⁵ Ibid, Art. III.b.

⁶ Ibid.

⁷ Jan Priest, "IAEA Safeguards and the NPT: Examining Interconnections," *IAEA Bulletin* 371, (accessed Feb 15, 1999) available from http://www.iaea.org/worldatom/inforesource/bulletin/bull_371.

A nonproliferation regime cannot remain effective over time without maintenance and/or transformation. To change the inspection regime, amendments shall come into force for all members when:

Approved by the General Conference by a two-thirds majority ... and, accepted by two-thirds of all the members in accordance with their respective constitutional processes.⁸

The IAEA Statute provides the basic authority and framework for the application of safeguards. However, legal obligations to invoke safeguards come from additional instruments through which states make a legally binding commitment not to manufacture or acquire nuclear weapons and to accept verification of their compliance with such undertakings.

On March 5, 1970, the *Treaty on the Nonproliferation of Nuclear Weapons* (NPT) came into being, and in May 1971, the IAEA guidelines for safeguards agreements under the NPT came into force, initially codified in IAEA Document INFCIRC/153, entitled *The Structure and Content of Agreements Between the Agency and States Required in Connection with the Treaty on*

⁸ United Nations, "Statute of the International Atomic Energy Agency, Done at the Headquarters of the United Nations, October 26, 1956," *Treaty Series*, (Vol. 276, 1957), Art. III.

the Non-proliferation of Nuclear Weapons. The entry into force of the NPT in 1970 was a "watershed" event:

Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples. Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war; In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons....⁹

The NPT assigned to the IAEA at the global level the responsibility through its safeguards system to verify that non-nuclear weapon states fulfill their obligations not to use their peaceful nuclear activities to develop any nuclear explosive device of any kind:

Undertaking to co-operate in facilitating the application of International Atomic Energy Agency safeguards on peaceful nuclear activities.... Expressing their support ... of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain points....¹⁰

The NPT was a necessary treaty in the evolving non-proliferation regime. Under the NPT, safeguards were to be applied to all source or special fissionable material in all peaceful activities of the state, under its jurisdiction, or

⁹ United Nations, "Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series* (Vol. 729, 1970), Art. I.

¹⁰ *Ibid*, Article III.

carried out under its control anywhere. Before the NPT came into force, the IAEA's safeguards applied only to nuclear plants and fuel which countries obtained from abroad, and then only if the supplier insisted on them. In an attempt to close loopholes in the IAEA and to outlaw the manufacture and possession of nuclear weapons, 187 nations eventually adopted the legally binding instruments of the NPT.

Following the entry of the NPT into force, the IAEA Board of Governors established a safeguards committee to advise it on the contents of safeguards agreements to be concluded with non-nuclear weapons states that were parties to the IAEA and NPT. In response, the committee developed a document entitled *The Structure and Content of Agreements Between the Agency and States Required in Connection with the Treaty on the Non-proliferation of Nuclear Weapons* (Agreement). The Board of Governors subsequently approved the Agreement in 1972, requesting that the Director General use it as a basis for negotiating safeguards agreements under the NPT.

The Agreement has not just been the basis for a negotiation but the standard for all safeguards between the IAEA and a state. Therefore, it is important to take a look at this linchpin agreement. Part Two, "Objective of Safeguards," states:

The Agreement should provide that the objective of safeguards is the timely detection of diversion of

significant quantities of nuclear material from peaceful nuclear activities to the manufacture of nuclear weapons or of other nuclear explosive devices or for purposes unknown, and deterrence of such diversion by the risk of early detection. To this end the Agreement should provide for the use of material accountancy as a safeguards measure of fundamental importance, with containment and surveillance as important complementary measures.¹¹

The Agreement covers the national system of accounting for and control of nuclear material, the starting point of safeguards, exemptions from safeguards, subsidiary arrangements, inventory, design information, records, reports, inspections, and international transfers. Specific safeguards implementation procedures are set out in subsidiary arrangements, which are tailored specifically to the requirements of the nuclear facilities to be safeguarded. The "Subsidiary Agreements" are technical documents that are concluded between the IAEA and the State simultaneously with the Agreement and are treated as confidential.

Institutions in the arms control or non-proliferation security areas such as the IAEA Statute and the NPT must provide assurances of compliance to all parties to the Treaty:

¹¹ Jan Priest, "IAEA Safeguards and the NPT: Examining Interconnections," *IAEA Bulletin* 371, (accessed February 15, 1999) available from http://www.iaea.org/worldatom/inforesource/bulletin/bull_371.

NPT safeguards are a form of institutionalized nuclear transparency through which the IAEA can provide assurance to the international community that a state's nuclear activities are being used exclusively for peaceful purposes. Thus, through the assurance given, safeguards promote confidence among States and help to strengthen their collective security. Safeguards are a technical means of assuring a political end.¹²

Yet, using these technical accounting practices, the IAEA was unable to detect Iraqi proliferation. After Iraq's Osiraq reactor was destroyed by Israel in 1981, Iraq exponentially expanded its clandestine nuclear WMD programs behind closed doors while the IAEA conducted routine inspections:

Later (in the early eighties) we went into the enrichment program and that was in clear violation of the NPT. When the inspectors arrived we would just lock the doors to the areas where we were working. We would take them on a route that bypassed the locked doors behind which we were working to enrich uranium for the bomb.¹³

¹² Ibid.

¹³ Khidhir Hamza, Iraqi defector and former Iraqi nuclear scientist, interview by author January 7, 2002, e-mail. See also United States Congress, House, "Statement by Khidhir Hamza before House Armed Services Committee," 107th Cong., September 19, 2002, (accessed October 15, 2002) available from <http://www.house.gov/hasc/openingstatementsandpressreleases/107thcongress/02-09-19hamza>. See also Venter, Al J., "Saddam and the West's Worst Nightmare," *The Middle East* (Jan 2001), accessed June 5, 2004), available at <http://www.highbeam.com/library/doc3.asp?docid=1G1:69291258,15>.

Four Factors of Regime Effectiveness and the IAEA/NPT

This section will analyze the NPT/IAEA according to the following criteria: state membership, detectable violations with clear avenues of appeal, credible enforcement, and regime adaptability.

State Membership. To the greatest extent possible, all states should be members of the nonproliferation regime. One non-member state that exports indiscriminately to a rogue state or state that sponsors international terrorism defeats the purpose of the regime. With 187 signatories, the NPT has most of the community of states as members, including all of the major powers with the exception of India. As of September 2003, 47 members of the NPT do not have any comprehensive safeguard agreements in force with the IAEA. However, only sixty-eight of the member states have signed Additional Protocols. Tables 3-1 shows state membership in the NPT, IAEA Agreements, IAEA Additional Protocol,¹⁴ Zangger Committee/Nuclear Suppliers Group, and

¹⁴ IAEA, "Nonproliferation of Nuclear Weapons," IAEA Information Series, Division of Public Information, September 2002, (accessed October 25, 1999), available online at www.iaea.org.

Missile Control Technology Regime for the six major powers, and table 3-2 shows a list of countries that fall under both the 2001 Clinton Administration's countries of concern for proliferation, and the 2003 White House "State sponsors of terrorism":¹⁵

Six Major Power Centers ¹⁶	NPT	Agreement in force with IAEA	Additional Protocol in force with IAEA	Zangger Committee Nuclear Suppliers Group	Missile Technology Control Regime
China	Ratified	Yes	Yes	Yes/No	-----
India	-----	Some	No	-----	-----
Russia	Ratified	Yes	Yes	Yes/Yes	Yes
Japan	Ratified	Yes	Yes	Yes/Yes	Yes
US	Ratified	Yes	Yes	Yes/Yes	Yes
EU states	Ratified	Yes	Yes	Yes/Yes	Yes

Table 3-1

¹⁵ Department of Defense, "Nonproliferation: Threat and Response," January 2001, Annex B, 117, "National Strategy for Combating Terrorism," February 2003. Seven sponsors of terrorism are Iran, Iraq, Syria, Libya, Cuba, North Korea, and Sudan. Ibid.

¹⁶ Henry Kissinger, *Diplomacy*, New York: Simon and Schuster, 1994, pp. 23-25.

DoD countries of Concern	NPT	Agreement in force with IAEA	Additional Protocol in force with IAEA	Zangger Committee Nuclear Suppliers Group	Missile Technology Control Regime
Iran	Ratified	Yes	No	-----	-----
Libya	Ratified	Yes	Yes	-----	-----
North Korea	Ratified	Yes	No	-----	-----
Pakistan	-----	N/A	N/A	-----	-----
Sudan	Ratified	Yes	No	-----	-----
Syria	Ratified	Yes	No	-----	-----
Cuba	Ratified	Yes	No	-----	-----

Table 3-2

Two countries that are not members of the NPT have developed nuclear weapons: Pakistan and India. Two states that are identified by the US as sponsoring state terrorism, North Korea and Iran, have active nuclear WMD programs, have violated existing IAEA agreements, and have not signed the model Additional Protocol with the IAEA.¹⁷

North Korea is a signatory of the NPT and, according to the DoD, North Korea has at least one nuclear weapon.¹⁸ North Korea has been a focus of US' bilateral and multilateral negotiations concerning its nuclear weapons programs over the last decade. After North Korea announced its withdrawal from the NPT in 1993 and after it unloaded

¹⁷ United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>, 10.

nuclear fuel in 1994 from its five-megawatt reactor, the US pushed for sanctions against North Korea and sent former President Carter to Pyongyang to diffuse the situation. Intense US and UN interactions enabled the US to broker the 1994 Agreed Framework that called on the North to freeze its weapons material production at Yongbyon and Taechon facilities and to accept new Light Water Reactors (LWR) that do not produce weapons grade fuel. Though construction of the LWRs has begun and the US and South Korea have fulfilled their obligations to ship 500,000 tons of fuel oil each year, North Korea never fulfilled its obligations to open all of its nuclear facilities to the IAEA. In October 2002 Assistant Secretary of State James Kelley informed North Korean officials that the US was aware that North Korea had a secret program underway to enrich uranium for use in nuclear weapons. In response, North Korea has nullified the Agreed Framework of 1994 and the US, Japan, South Korea and EU are interacting to determine how to pressure North Korea to end its nuclear WMD programs.

Iran has violated its IAEA commitments and has not signed the Additional Protocols. Iran is receiving Russian help to build a 1000-megawatt power reactor at its Bushehr

¹⁸ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>, 10.

nuclear complex and is trying to produce plutonium and highly enriched uranium under the auspices of establishing a complete nuclear fuel cycle.¹⁹

Violations detectable with clear avenues of appeal.

The IAEA/NPT regime is weak in the areas of producing evidence and appeals. In order to make the regime acceptable to a wide range of states with differing interests and power bases, the NPT had to be as non-intrusive as possible. The fault line between sovereignty and compliance verification is evident.

The Agreement and Subsidiary Agreement are clearly *Realpolitik*. To obtain the rights to inspect nuclear facilities, the IAEA had to promise to be as unobtrusive as possible, respecting the sovereignty of the state to the greatest extent possible while carrying out a minimum inspection regimen:

- The Agreement should provide that safeguards shall be implemented in a manner designed:
- (a) To avoid hampering the economic and technological development of the State or international co-operation in the field of peaceful nuclear activities, including international exchange of *nuclear material*;
 - (b) To avoid undue interference in the State's peaceful nuclear activities, and in particular in the operation of *facilities*;
-

¹⁹ Ibid, 35.

The Agreement should provide that the Agency shall take every precaution to protect commercial and industrial secrets and other confidential information coming to its knowledge in the implementation of the Agreement. The Agency shall not publish or communicate to any State, organization or person any information obtained by it in connection with the implementation of the Agreement....²⁰

The "Agreement" Treaty, which has been identified as the linchpin of the nonproliferation regime, had many flaws in its construction. Consequently, there exist several areas where a state determined to acquire WMD can exploit the regime's loopholes:

1. The Agreement is basically an accounting procedure: "Containment as a means of defining material balance is for accounting purposes."²¹ The Subsidiary Agreement specifies exactly how the measurements, evaluation, and procedures will be used to inspect the physical nuclear material and the administrative records and reports.²² There is little room to implement additional or innovative procedures.
2. Inspections are made of all nuclear material subject to safeguards under the Agreement. Undeclared facilities and technologies obtained through dual-use imports are not inspected.
3. The Agreement states that "the number, intensity, duration and timing of routine inspections shall be kept to the minimum consistent with the effective implementation of the safeguards procedures set forth therein, and that the

²⁰ United Nations, "Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series* (Vol. 729, 1970), Art. III.

²¹ IAEA Document, INFCIR/153 of May 1971, Part I, section 6.a and 6.b, (accessed February 15, 1999), available from <http://www.IAEA.org>.

²² United Nations, "Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series* (Vol. 729, 1970), Part II 32.a-h.

Agency shall make the optimum and most economical use of available inspection resources."²³

4. The Agreement provides that the Agency shall give advance notice to the state before arrival of inspectors at facilities or material balance areas outside facilities. For ad hoc and routine inspections, that advance notice shall be at least 24 hours.²⁴ However, States are not required to give annual visas. Administratively, visas in some countries can take weeks to obtain.²⁵

5. The state can approve or disapprove Agency Inspectors.²⁶

6. The Agreement specifies that the Agency shall inform the state of the result of the inspection and the conclusion it draws from the inspection.²⁷

7. Natural uranium ore is not considered nuclear material for inspection purposes.²⁸

The Agreements sacrificed detection and verification procedures required to guarantee the highest degree of compliance in order to obtain signatures from non-nuclear states. In other words, the Agreement section permitted and subsequently codified the most unobtrusive inspections.

When evidence is produced, an appeals process for sanctions or actions against violators exists. Once a violation has been detected and the Board of Governors notified, the matter could be sent to the UNSC.

²³ Ibid, 78.

²⁴ Ibid, 83.a.

²⁵ Congress, Senate, Committee on Foreign Relations, "Hearings: The Israeli Air Strike," 97th Cong., 1st Sess., June 18, 19, and 25, 1981, testimony by Roger Richter, 123.

²⁶ United Nations, "Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series* (Vol. 729, 1970), 85.

²⁷ Ibid, 90.

²⁸ Ibid, 112.

Enforcement. Appeals to the UNSC on nuclear infractions are helpful in that they give greater legitimacy to potential US counterproliferation actions. India, Pakistan, and Israel never signed the NPT and were not subject to any appeals concerning their nuclear programs to the UNSC through the IAEA Board of Governors. Israel unilaterally destroyed Iraq's Osiraq reactor in 1981 without the help or consent of the international community. In the 1980s, Iraq began a massive clandestine nuclear reconstitution effort using primarily dual-use technologies not inspected by the IAEA.²⁹ It was not until the Gulf War cease fire resolutions that the UNSC became aware of Iraq's clandestine programs and subsequently involved in enforcement of Iraqi disarmament.

In the Korean peninsula, the UNSC passed a resolution in May 1993 urging North Korea to cooperate with the IAEA and to implement the 1991 North-South denuclearization accord and encouraged member states to help facilitate a solution.

²⁹ Khidhir Hamza, Iraqi defector and former Iraqi nuclear scientist, interview by author January 7, 2002, e-mail. See also Venter, Al J., "Saddam and the West's Worst Nightmare," *The Middle East* (Jan 2001), accessed June 5, 2004), available at <http://www.highbeam.com/library/doc3.asp?docid=1G1:69291258>, 15.

Adaptability. It has been shown that the IAEA Agreement is, in fact, the critical fault line in the entire nuclear non-proliferation security regime and that amending the IAEA statute is difficult. An amendment to the IAEA statute requires acceptance "by two-thirds of all the members in accordance with their respective constitutional processes."³⁰ This is a naturally slow and tedious process. Bilaterally, once a subsequent Agreement between the IAEA and a state is signed, "all amendments shall require the agreement of both parties."³¹

To circumvent formal amendments, the IAEA has encouraged states to adopt the new model Additional Protocol on their own. However, with the exception of Libya, no state in Table 3-2 has adopted the new model Additional Protocol.

Proposals to Strengthen the IAEA/NPT, Zangger Committee and NSG, and Negotiating a Fissile Material Cutoff Treaty.

NPT/IAEA. In an effort to close loopholes in the Agreement after Iraq's clandestine nuclear projects were

³⁰ United Nations, "Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series* (Vol. 729, 1970).

³¹ Ibid.

discovered by UNSCOM following the 1991 Gulf War, the IAEA Secretariat and member states introduced a more rigorous inspection regime and verifications system. In May 1997 the IAEA's Board of Governors approved a "Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards."³²

The supplemental measures in the Additional Protocol include: the provision for expanded information of a State's nuclear and nuclear-related activities covering all aspects of a state's nuclear and nuclear fuel cycle activities, complimentary access to any declared or undeclared locations where nuclear material may be present, the use of new verification techniques, and broader access rights of inspectors, streamlined procedures for designating inspectors and for providing them with visas, and improved means by which inspectors may communicate with Agency Headquarters while in country.³³ As evidenced by lack of adoption of this protocol by "state sponsors of terrorism"

³² IAEA, INFIRC/540, May 1997, (accessed February 15, 1999), available from <http://www.IAEA.org>.

³³ IAEA, General Conference, GC(43)/22, 26 August 1999; and IAEA, 2002 Review Conference of the Parties to the Treaty on the Nonproliferation of Nuclear Weapons, NPT/CONF.2000/, February 2000.

(table 3-2), there is little movement on this issue by the states that matter most to the US.

The IAEA's Additional Protocol corrects many of the deficiencies of the Agreement, however, the new Protocol is not binding to members already subject to already existing IAEA Agreements.³⁴ The IAEA has stipulated that without these additional safeguards, the Agency cannot ensure the absence of possible undeclared material and activities.³⁵

Fissile Material Cutoff Treaty. Under a Fissile Material Cut-OFF Treaty (FMCT), the five nuclear weapons states (China, France, Russia, the United Kingdom, and the US) and states not party to the NPT would be prohibited from producing HEU and PU for any nuclear explosives. The Treaty would require that any fissile material produced after entry into force of the Treaty would not be used for nuclear weapons or other nuclear explosive devices, however, there would not be any constraints on any fissile material produced prior to the FMCT's entry into force.³⁶

³⁴ IAEA, INFIRC/540, May 1997, (accessed February 15, 1999), available from <http://www.IAEA.org>.

³⁵ IAEA, "Nonproliferation of Nuclear Weapons and Security, IAEA Safeguards Agreements and Additional Protocols, 2002," (accessed January 17, 2003), available from <http://www.IAEA.org>.

³⁶ US Department of State, International Information Programs, "Fissile Material Cutoff Treaty," June 29, 1999.

Nuclear Suppliers Group (NSG) and Zangger Committee. In support of the NPT/IAEA, there exist multilateral export control organizations, bilateral threat reduction agreements, and ongoing bilateral and multilateral negotiations. The Zangger Committee originated as an informal group of 15 members (representing 15 member states) who came together to define Article III of the NPT to reach a common understanding of what constituted exports of source and special fissionable material (Article III.2a) and equipment of non-nuclear material (Article III.2b). The memorandum they sent to the Director General of the IAEA became known as the "Trigger List." The Committee is now made up of 32 member states (table 3-3), including all the major powers except India (China joined in 1997), and its Understandings are published in INCIRC/209 series documents.

The Zangger Committee's guidelines establish three conditions for supply of nuclear material: a non-explosive use assurance, an IAEA safeguards requirement, and a re-transfer provision which requires the receiving state to apply the same conditions when re-exporting these items. The Zangger Committee's Understandings have no status in international law but are unilaterally entered into by

Member States and make an important contribution to the nonproliferation regime.³⁷

The Nuclear Suppliers Group (NSG) was created in 1974 following the explosion of a nuclear device by India, but was relatively inactive until 1991 when Iraq's clandestine WMD programs were discovered. In contrast to the Zangger Committee, the NSG is not bound solely to Article III of the NPT and its members are not required to be members of the NPT. The NSG "Trigger List" contains special dual use nuclear materials (most of which constituted Iraq's clandestine program in the late 1980s) and a formal full scope safeguards requirement as a condition of supply. The NSG requires government-to-government assurances for supplier consent to re-transfer of trigger list items as a condition of supply. The NSG has 34 members who are nuclear suppliers, including the major powers with the exception of India and China (table 3-3).³⁸

In the 1990s, China supplied both Pakistan and India with nuclear technology. In response to growing international pressure, China joined the Zangger Committee in 1997 and stopped its nuclear technology exchange with

³⁷ INFCIRC/209/Rev.1, Nov 1990, (accessed February 17, 1999), available from <http://projects.sipri.org>.

³⁸ Nuclear Suppliers Group, (accessed October 17, 2002), available online at <http://projects.sipri.org>.

Iran. However, China still has not joined the NSG, and according to the DoD, it will continue to take advantage of ambiguities in the NPT and nonproliferation regimes to enhance its strategic and economic interests.³⁹

Russia is a member of the NPT, Zangger Committee, and NSG. Russia has also been a keen supplier of nuclear power reactors to Iran and materials for India's unsafeguarded nuclear reactors. Using Russian nuclear technology, Iran has already violated its IAEA Agreements. According to the IAEA, Iran has "failed to meet obligations under its Safeguards Agreement with respect to the reporting of nuclear material, the subsequent processing and use of that material, and the declaration of facilities where the material was stored and processed."⁴⁰

In March 2004, Russia remains engaged in Iran's nuclear power program even as the IAEA reports that Iran has hidden nuclear experiments and discovered traces of radioactive polonium which can be used in nuclear weapons. Furthermore, the March 2004 IAEA report expressed concern over a

³⁹ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>.

⁴⁰ IAEA, Board of Governors, "Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran, Report by the Director General," Gov/2003/40, June 6, 2003, (accessed April 1, 2004), available from <http://www.IAEA.org>.

previously undisclosed P-2 centrifuge system for enriching uranium.⁴¹ The IAEA Director General, Mohamed ElBaradei, has been pressing Iran to accept the model Additional Protocol that would give the agency more powers to inspect Iran's nuclear activities:

First, I would like to note with satisfaction the marked progress in cooperation on the part of Iran since last October – in particular, by providing Agency inspectors access to requested sites, documentation and personnel, and by suspending reprocessing and uranium enrichment related activities, as a confidence building measure. Second, I am seriously concerned that Iran's October declaration did not include any reference to its possession of P-2 centrifuge designs and related R&D, which in my view was a setback to Iran's stated policy of transparency. This is particularly the case since the October declaration was characterized as providing "the full scope of Iranian nuclear activities", including a "complete centrifuge R&D chronology".

Third, it is vital that, in the coming months, Iran ensures full transparency with respect to all of its nuclear activities, by taking the initiative to provide all relevant information in full detail and in a prompt manner.

Fourth, it is essential that the Agency receive full cooperation on the part of those countries from which nuclear technology and equipment originated. This cooperation has already been forthcoming, and I hope it will continue and expand. This is particularly the case with respect to the major outstanding issue regarding the low and high enriched uranium contamination found at the Kalaye Electric Company workshop and Natanz. Hopefully, with no new revelations, and with satisfactory resolution of these and other remaining questions,

⁴¹ "IAEA Board Resolution on Nuclear Safeguards in Iran," 15 March 2004, (accessed April 1, 2004), available from <http://www.iaea.org>.

we can look forward to a time when the confidence of the international community has been restored.⁴²

Since 1999 Russia began developing the foundation for a modern export control system to stop the transfer of technology from Russian entities to DoD countries of concern including Iran. According to the DoD, Russia's commitment, willingness and ability to curb proliferation remain uncertain.⁴³ A February 28, 2004 *New York Times* article stated that IAEA inspectors found evidence of highly enriched uranium on Iran machinery that can be traced back to the Russian black market.⁴⁴

CHEMICAL AND BIOLOGICAL

Chemical Weapons Convention (CWC)/Organization for the Prevention of Chemical Weapons (OPCW)

In 1971 the Conference of the Committee on Disarmament (CCD) completed work on the Biological Weapons Convention (BWC). In 1980, as an outgrowth of that convention process, an adhoc working group on chemical weapons was set up by the

⁴² Mohamed ElBaradei, IAEA Director General, "Introductory statement to the Board of Governors," March 8, 2004, (accessed April 1, 2004), available from <http://www.iaea.org>.

⁴³ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>, 58.

CCD. It was given a formal negotiation mandate in 1984 and an evolving draft of the CWC was updated annually throughout the 1980s. In 1992, Australia presented a complete draft of the convention based upon the "rolling text" of the previous 8 years of negotiations. In 1992, the CCD adopted the text of the CWC and the convention was opened for signature on January 13, 1993 in Paris.⁴⁵

On April 24, 1997, the US Senate ratified the CWC, subject to 28 conditions binding on the President. The Convention came into force on April 29, 1997, and is of unlimited duration. Currently 143 states are parties to the Convention.⁴⁶

The CWC consists of a Preamble, 24 Articles, and 3 Annexes. The Annexes are: Chemicals, Implementation and Verification, and Protection of Confidential Information. The Secretary General of the United Nations is the Depository of the Convention and the Treaty is implemented by the Organization for the Prohibition of Chemical Weapons (OPCW) that is located at The Hague.

⁴⁴ William J. Broad, "Uranium Traveled to Iran Via Russia, Inspectors Find," *New York Times*, February 28, 2004.

⁴⁵ "The Chemical Weapons Convention," (accessed March 03, 2002), available from <http://www/opcw.nl/guide.htm>, 2.

⁴⁶ "States Parties to the Chemical Weapons Convention," (accessed March 03, 2002), available from <http://www.opcw.org/memsta/ratifyer>.

The Preamble of the CWC reiterates the determination of States Parties to progress towards the "prohibition and elimination of all types of weapons of mass destruction." It recalls the Geneva Protocol of 1925 and the BWC as multilateral instruments pertinent to the Convention.⁴⁷

States Parties to the Convention are required to destroy all existing chemical weapon stockpiles, production, and other related facilities within ten years of the CWC's entry into force. Parties are also required to declare all of their governmental and private sector chemical facilities.⁴⁸

The OPCW is responsible for the implementation and verification of the CWC. The OPCW employs over 500 staff of which more than 200 are members of the Inspectorate. The OPCW consists of three parts: the Conference of State Parties, the Executive Council, and the Technical Secretariat.⁴⁹

The Conference of States Parties is the principal organ of the Organization. It is composed of all members of the

⁴⁷ United Nations, "Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction," corrected version 8 August 1994, (accessed February 23, 2002), available from <http://www.projects.SIPRI.se/cbw/docs/cw-cwc-preamble>.

⁴⁸ "Chem-Bio Weapons Site," (accessed March 03, 2002), available from <http://www.cdi.org/issues/cbw/chem>.

⁴⁹ Ibid.

OPCW (States Parties) and meets in regular sessions on an annual basis. The Executive Council has the day-to-day responsibility for supervising the activities of the OPCW. It consists of 41 representatives elected for two-year terms from among the member states. The Technical Secretariat has the primary responsibility for carrying out the activities mandated by the Convention including: verification activities, providing assistance if chemical weapons are used, supporting the Conference and the Executive Council, and communicating on behalf of the OPCW. The Director-General is the head and chief administrator of the Technical Secretariat. He or she will be appointed by the Conference of the States Parties for a term of four years, renewable only once.⁵⁰

The National Authority (NA) is not part of the OPCW but it is an important aspect of the CWC. Each State Party must have a NA that acts as a liaison between the State Party, the OPCW, and other member states. The NA collects all relevant information regarding their host states civilian and military facilities that produce scheduled chemicals. This information is then given to the Technical Secretariat in the declaration process. The NA also acts as a contact and host for inspection teams entering a country.

⁵⁰ Ibid.

The general obligations under the CWC are contained in Article I:

1. Each State Party to the Convention undertakes never under any circumstances:
 - (a) To develop, produce, otherwise acquire, stockpile or retain chemical weapons, or transfer, directly or indirectly, chemical weapons to anyone;
 - (b) To use chemical weapons;
 - (c) To engage in any military preparations to use chemical weapons;
2. Each State Party undertakes to destroy chemical weapons it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with the provisions of the Convention.
3. Each State Party undertakes to destroy all chemical weapons it abandoned on the territory of another State Party, in accordance with the provisions of this Convention.
4. Each State Party undertakes to destroy any chemical weapons production facilities it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with this Convention.
5. Each State Party undertakes not to use riot control agents as a method of warfare.⁵¹

The Convention requires States Parties to destroy their chemical weapons in an environmentally friendly manner within 10 years of the Convention coming into force. The rate of destruction of certain categories of chemical weapons is also dictated by the convention as well as destruction of the chemical weapons facilities.

⁵¹ United Nations, "Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction," corrected version 8 August 1994, (accessed February 23, 2002), available from <http://www.projects.SIPRI.se/cbw/docs/cw-cwc-preamble>.

Verification of compliance is the heart of an effective and transparent non-proliferation convention and it is also the most difficult to implement. The Annex on Chemicals contains lists of chemicals that have been identified for application of verification measures. There are three categories:

Schedule 1 lists three families of nerve agents, two families of nerve agent precursors and two individual nerve agent precursor chemicals. Schedule 2 includes three toxic chemicals of limited dual use, a considerable number of precursors to nerve agents, mustard gas, lewisite, and BZ, and all chemicals containing a phosphorus atom with one attached methyl, ethyl or propyl group. Schedule 3 contains four toxic chemicals, nerve agent precursors and mustard agent precursors of extensive use.⁵²

The lists of chemicals can be amended if recommended by the Executive Council for adoption and no State Party objects to the amendment within 90 days. Declared chemical weapons facilities are subject to routine inspections during the production and destruction of scheduled chemicals. For routine inspections, the number and extensiveness of the inspections are guided by the risk associated with the chemicals. Routine verification is also applied to chemical industry facilities that produce, process, or consume, above certain thresholds, chemicals outlined by the Convention.

⁵² Ibid.

For routine inspections,

Each State Party shall conclude a facility agreement with the Organization for each facility declared and subject to on-site inspection pursuant to Articles IV, V, and VI, paragraph 3.... Facility agreements shall be based on models for such agreements and provide for detailed arrangements which shall govern inspections at each facility. The model agreements shall include provisions to take into account future technological developments and shall be considered and approved by the Conference pursuant to Article VIII, paragraph 21, (I).⁵³

Any State Party can request a challenge inspection at any site, declared or undeclared, under the jurisdiction of a State Party. The sole purpose of the challenge inspection is to clarify and resolve any question in relation to a possible non-compliance with the provisions of the Convention.⁵⁴ The inspection team can arrive at the perimeter of the chemical facility 48 hours after notification is given to the NA of the State Party. Host officials must allow inspectors access to the alleged CW facility within 72 hours of notification. In addition, they are required to give the inspection team eighty-four hours to investigate.⁵⁵

⁵³ Ibid, Part III, General Provisions for Verification Measures Pursuant to Articles IV, V, and VI, Paragraph 3.

⁵⁴ Ibid.

⁵⁵ "Chem-Bio Weapons Site," (accessed March 03, 2002), available from <http://www.cdi.org>

Similarly to the "Facilities Agreements" for routine inspections, sensitive information of the inspected State Party is protected during challenge inspections by a process of managed access. Under the CWC, the

Inspection team shall ... ensure that sensitive equipment, information or areas, not related to chemical weapons, are protected....

The inspected State Party shall designate the perimeter entry/exit points to be used for access. The inspection team and the inspected State Party shall negotiate: the extent of access to any particular place or places within the final and requested perimeters...; the particular inspection activities, including sampling, to be conducted by the inspection team; the performance of particular activities by the inspected State Party....

In conformity with the relevant provisions in the Confidentiality Annex, the inspected State Party shall have the right to take measures to protect sensitive installations and prevent disclosures of confidential information and data not related to chemical weapons.⁵⁶

The CWC also addresses measures to curb the transfer of chemicals. S1 chemicals can be transferred between two States Parties only for purposes of research medicine and pharmaceutical use, and only in specified quantities. These chemicals cannot be re-transferred to a new state. S2 chemicals may be traded with non-signatories for only three years after the convention enters into force. For S3

⁵⁶ United Nations, "Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction," The Verification Annex, Part X, Challenge Inspections Pursuant to Article 9, (accessed February 23, 2002), available from <http://www.projects.SIPRI.se/cbw/docs/cw-cwc-preamble>.

chemicals, no quantitative limits are placed on trading within state parties, and consideration for limits to trading with non-signatories will be made after 5 years.⁵⁷

Any State Party may amend the Convention in the following manner:

The text of a proposed amendment shall be submitted to the Director-General for circulation to all States Parties and to the Depository. The proposed amendment shall be considered only by an Amendment Conference. Such an Amendment Conference shall be convened if one third or more of the States Parties notify the Director-General not later than 30 days after its circulations that they support further consideration of the proposal. The Amendment Conference shall be held immediately following a regular session of the conference unless the requesting States Parties ask for an earlier meeting. In no case shall an Amendment Conference be held less than 60 days after the circulation of the proposed amendment.

Amendments shall enter into force for all States Parties 30 days after deposit of the instruments of ratification or acceptance by all the States Parties...

a. When adopted by the Amendment Conference by a positive vote of a majority of all States Parties with no State Party casting a negative vote; and

b. Ratified or accepted by all those States Parties casting a positive vote at the Amendment Conference.⁵⁸

⁵⁷ "Chem-Bio Weapons Site," (accessed February 15, 2002), available from <http://www.cdi.org>.

⁵⁸ United Nations, "Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction," The Verification Annex, Part X, Challenge Inspections Pursuant to Article 9, (accessed February 19, 2002), available from <http://www.projects.SIPRI.se/cbw/docs/cw-cwc-preamble>.

Enforcement of non-compliance is an issue area that is still being negotiated within the OPCW. The lack of specificity in the CWC regarding punitive measures leaves the enforcement mechanism to the UNSC:

The Conference shall, in cases of particular gravity, bring the issue, including relevant information and conclusions, to the attention of the United Nations General Assembly and the United Nations Security Council.⁵⁹

Four Factors of Regime Effectiveness and the CWC/OPCW

This section will analyze the CWC/OPCW regime according to the following criteria: state membership, detectable violations with clear avenues of appeal, credible enforcement, and regime adaptability.

State Membership. The CWC has 145 members and signatories including all of the major powers. Tables 3-3 and 3-4 show membership in the CWC and AG for the six major powers, and a list of countries that fall under both the 2001 Clinton Administration's countries of concern for proliferation and the 2003 White House "State sponsors of terrorism":⁶⁰

⁵⁹ Ibid, Article XII.

⁶⁰ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>. See also United States, The White House, "National Strategy for Combating

Six Major Power Centers⁶¹	Chemical Weapons Convention	Australia Group
China	Ratified	No
India	Ratified	No
Russia	Ratified	Yes
Japan	Ratified	Yes
US	Ratified	Yes
EU states	Ratified	Yes

Table 3-3

DoD countries of concern	Chemical Weapons Convention	Australia Group
Iran	Ratified	-----
Libya	Ratified	-----
North Korea	-----	-----
Pakistan	Ratified	-----
Sudan	Ratified	-----
Syria	-----	-----
Cuba	Ratified	-----

Table 3-4

The US destroyed a suspected Sudanese chemical weapons factory in 1998 and in 1999 Sudan acceded to the CWC. Iran acceded to the CWC in May 1998 and acknowledged for the first time the existence of a past chemical weapons program.

Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>.10. Seven sponsors of terrorism are Iran, Iraq, Syria, Libya, Cuba, North Korea, and Sudan. Ibid.

⁶¹ Henry Kissinger, *Diplomacy*, New York: Simon and Schuster, 1994, pp. 23-25.

However, both Syria and North Korea have chemical weapons, have not acceded to the CWC,⁶² and sponsor terrorism.⁶³

Jose Bustani cites the CWC as "the first ever universal, non-discriminatory and truly verifiable treaty to eliminate completely an entire category of weapons of mass destruction, and to prevent their recurrence."⁶⁴ The CWC does have elaborate verification measures, however, loopholes in the CWC have already pointed out inherent inspection deficiencies and lessons learned from UNSCOM demonstrate the problems associated with verifying chemical and biological compliance to international agreements. With 145 States' Parties, the CWC has achieved a critical mass of states including the major powers and interactions by individual States Parties are encouraged through the National Authorities and the Conference of States Parties. Many of the functions and export control lists of the Zangger Committee and NSG which are so critical to the nuclear nonproliferation regime are built into the fabric of

⁶² United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>

⁶³ United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>, 10.

⁶⁴ Forward by Jose M. Bustani, Director General, OPCW, in *Verification Practice Under the Chemical Weapons Convention: A Commentary*, eds. Walter Krutzsch and Ralf Trapp, (The Hague: Kluwer Law International, 1999), V.

the CWC and, therefore, with the exception of the Australia Group, these additional multilateral export control organizations are not required.

Violations detectable with clear avenues of appeal.

The CWC is a compromise of interests, concerns, capabilities, and approaches. The Convention, which entered into force in April 1997, was negotiated by 39 sovereign states.

The Treaty negotiators created the most extensive and intrusive verification regime of any arms control agreement to date. The regime, for the first time, provides for routine monitoring and inspection not only of military facilities but also of certain civilian chemical facilities. In addition, challenge inspections expand compliance verification to suspect facilities of any sort.

Loopholes in the regime, however, have already been identified. Any analytic device used by the OPCW inspectors can be programmed to detect only the limited chemicals defined in the Chemical Annex of the Treaty. States determined to acquire WMD might be able to produce chemicals that fall outside those listed chemicals. Likewise, any data that is collected during a visit can be confiscated by

the host-country under the guise that proprietary information has been collected.⁶⁵

Lessons learned from UNSCOM show that is not possible to create a peacetime inspection regime that is foolproof; the OPCW will not be able to detect all clandestine production or stockpiling of chemical weapons. Charles Duelfer, former Deputy Head of UNSCOM, gave a poignant example of how difficult it is to unmask a state determined to build Chemical WMD:

We had a pop inspection set up in September 1997 in Takrit which involved helicopters, U2s, and a UNSCOM convoy. We had direct evidence that the Iraqis picked up everything and moved it out of sight over a sand dune. Our helo was forced down when he tried to fly over it. The U2 photographed the whole affair. There was a lot of evidence but no proof. For UNSCOM to catch them with proof they had to make a really bad mistake.⁶⁶

Credible enforcement. Like the NPT, violations of the CWC are turned over to the UNSC for action. However, the UN has failed to act on any chemical or biological evidence. In 1998, the US unilaterally destroyed a Sudanese chemical

⁶⁵ Jonathan B. Tucker, "Nonproliferation Regimes at Risk: Challenges to the Chemical Weapons Convention," CNS Occasional Papers: #3, (accessed February 15, 2003), available online at <http://cns.Miis.edu/pubs/opapers/op3/tucker>.

⁶⁶ Charles Duelfer, former Deputy UNSCOM, interview by author in Washington D.C., July 26, 2001.

weapons plant on the basis of self-defense. In Libya from 1991-1996, credible threats of military intervention by the US stopped Libya from finishing its chemical plant at Tarhunah. At the time, neither of these states were members of the CWC. Of the countries that are of proliferation concern to the US and that sponsor state terrorism, Syria and North Korea have not joined the CWC nor have they destroyed their chemical WMD stockpiles. Libya joined the CWC in February 2004 and, according to the director general of the OPCW, Rogelio Pfirter, Libya admitted to stockpiling 44,000 pounds of mustard gas but had stopped production in the early 1990s⁶⁷ following intense US military pressure.

Arms control treaties rely on states parties' self-interest and world public opinion pressures to restrain would-be violators. However, in the cases of determined proliferation, moral restraint, international norms, interaction, and public opinion may not be sufficient. Without a credible threat of economic and military action, the CWC or other nonproliferation regime will never play a truly effective role in chemical nonproliferation.

⁶⁷ "Libya Reveals Chemical Weapons Stockpiles," *The Atlanta Journal-Constitution*, March 05, 2004.

Recognizing this fact, the US Senate attached 13 conditions onto the US Senate's Consent to Ratification of the CWC, including:

If the President determines that ... a State Party to the Convention is maintaining a chemical weapons production or production mobilization capability, is developing new chemical agents, or is in violation of the Convention in any other manner so as to threaten the national security interest of the United States, then the President shall--

....

(iv) Implement prohibitions and sanctions against the relevant party...

(v) ... Seek on an urgent basis within the Security Council of the United Nations a multilateral imposition of sanctions against the non-compliant party...⁶⁸

Adaptability. Any State Party may propose an amendment to the CWC. The proposed amendment enters into force no later than 90 days after it is adopted by the Amendment Conference by a positive vote of a majority of all States Parties with no State Party casting a negative vote; and ratified or accepted by all those States Parties casting a positive vote at the Amendment Conference.⁶⁹ A negative vote

⁶⁸ Congress, Senate, "U.S. Senate's Consent to Ratification of the CWC," 105th Cong., 1st Sess., April 24, 1997.

⁶⁹ United Nations, "Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction," corrected version 8 August 1994, Article XV, (accessed February 23, 2003), available from <http://www.projects.SIPRI.se/cbw/docs/cw-cwc-preamble>.

cast by a State Party on the Amendment Conference will defeat the amendment.

The US Senate, recognizing the critical position that States Parties have on the Amendment Conference, placed a condition for Senate ratification on the President that says

A United States representative will be present at all Amendment Conferences and will cast a vote, either affirmative or negative, on all proposed amendments made at such conferences ... and that the President shall submit to the Senate for its advice and consent to ratification ... any amendment to the Convention adopted by an Amendment Conference.⁷⁰

"Effective Functioning" of the OPCW. In the chemical nonproliferation regime, the Bush Administration has identified no critical fault lines in the actual Chemical Nonproliferation Treaty, but rather the "effective functioning of the OPCW."⁷¹ The OPCW is having some initial challenges balancing the States Parties' need for confidentiality and unobtrusiveness to areas not associated with the CWC with the requirement of transparency and the right to conduct a sufficient investigation. The opening statement by Jose Bustani, the Director-General, at the Executive Council's twenty-fourth session, expressed concern

⁷⁰ Congress, Senate, "U.S. Senate's Consent to Ratification of the CWC," 105th Cong., 1st Sess., April 24, 1997.

⁷¹ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

that "the access granted by inspected States Parties to inspection teams at Schedule 1 facilities subject to systematic verification had been restricted [as well as] access during some recent Schedule 2 inspections."⁷²

Strengthening the Australia Group. The Australia Group is a multilateral export control organization that has attempted to alleviate some of the flaws in the CWC by adopting export controls on specific microorganisms and related BW production equipment.

The Australia Group was an informal export control organization formed in 1984 in response to chemical agents used in the Iran-Iraq War. The 34 members of the AG are members of the CWC and BWC and include the major powers except China, India, and Russia (tables 3-3 and 3-4). The purpose of the Australia Group is to ensure through licensing measures on certain chemicals, biological agents, and dual-use chemical and biological manufacturing facilities and equipment that exports of these items do not contribute to the spread of CBW. In an effort to strengthen the Australia Group, the Administration is working to include all chemical-biological exporters including China,

⁷² Jose Bustani, "Opening Statement by the Director-General to the Executive Council at its Twenty-Fourth Session," The Hague, 3 April 2001, (accessed February 23, 2002), available from http://www.opcw.org/speeches/DG_statement_to_24th_EC.

India, and Russia as well as hold all parties accountable for their exports.

Biological Weapons Convention

The US became determined to eliminate biological weapons during the Nixon Administration. In 1969 President Nixon renounced the use of biological weapons and ordered the destruction of US stockpiles of biological weapons.⁷³

The willingness to craft a treaty to eliminate BW by the Super Powers eventually led to the Soviet Union and the US agreeing to the BWC draft in 1972, and both Super Powers supported the final draft which entered into force in 1975. Currently, 164 countries have signed the convention. Compared with the NPT/IAEA and the CWC, the BWC is succinct and diminutive; the convention is only a few pages in length. Article I states the convention's lofty purpose:

Each State Party to this Convention undertakes never in any circumstance to develop, produce, stockpile or otherwise acquire or retain:

(1) Microbial or other biological agents, or toxins whatever their origin or method of production of types and in quantities that have no justification or prophylactic, protective or other peaceful purposes,

(2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.⁷⁴

⁷³ "Biological Weapons Convention Overview," (accessed March 22, 2002), available from <http://www.cdi.org/issues/cbw/bwc>.

⁷⁴ United Nations, "Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological

The BWC does not have a verification protocol to determine if state parties are complying with the provisions of the Convention. In lieu of an inspection regime, states parties are encouraged to abide by Confidence Building Measures (CBMs). CBMs are biological issue areas where the state parties voluntarily share information. The purpose of CBMs is to instill confidence and transparency in the BWC. However, most states parties' do not participate in CBMs. Ironically, the practice instead creates doubts and suspicions. Moreover, the information provided in the CBM declarations has been less than complete. CBMs have not been effective in deterring States Parties from producing biological weapons.⁷⁵

Like the NPT and CWC, the BWC is difficult to amend. Any state party can propose an amendment. If the amendment is accepted by a majority of states parties, such amendment comes into force for each individual state party accepting the amendment.⁷⁶ If an amendment came to a vote for a

(Biological) and Toxin Weapons and on Their Destruction (The Biological Weapons Convention)," April 10, 1972.

⁷⁵ Graham S. Pearson, "The Protocol to the Biological Weapons Convention is Within Reach," *Arms Control Today*, June 2000, (accessed March 02, 2003) available from www.armscontrol.org/ACT/June_00/bwcjun.htm.

⁷⁶ United Nations, "Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological

verification regime, there is a high probability that the states that were adamantly opposed to the rolling text leading up to the amendment would not ratify it in their individual constitutional processes and, therefore, would operate outside the verification protocol.

Clearly the BWC lacks specific mandatory enforcement measures to ensure compliance, engender confidence, and create transparency. If a state party is found in violation of the Convention, a State Party may lodge a complaint directly to the Security Council. By ratifying the BWC, states parties agree to cooperate with any investigation the Security Council may initiate.

The Protocol to the Biological Weapons Convention. In 1992, Boris Yeltsin admitted that the former Soviet Union had violated the BWC by developing an offensive biological WMD program throughout the Cold War era.⁷⁷ The surprising admission, combined with UNSCOM's problems in discovering Iraq's massive BW program after the Gulf War and the massive undertaking of the Iraqi Survey Group (ISG) following

(Biological) and Toxin Weapons and on Their Destruction (The Biological Weapons Convention)," April 10, 1972. Article XI.

⁷⁷ Defense Nuclear Agency, "Biological Weapons Proliferation, Global Proliferation: Dynamics, Acquisition, Strategies and Response," Vol. 4 (Alexandria, Va.: DNA, 1994), 10.

Operation Iraqi Freedom (OIF) have shown that even the most intrusive inspection regime may not be sufficient to build confidence in compliance:

From 1991 to 1995, Iraq stated categorically that it had no offensive biological weapons program and that it had never engaged in anything more than laboratory-scale defensive research with biological warfare agents. On July 1, 1995, Iraq's admission that it had in fact produced biological warfare (BW) agents at an industrial scale brought the investigation to a state similar to that of the chemical and ballistic missile investigations around 1992.⁷⁸

UNSCOM was the most intrusive inspection regime ever created to disarm the WMD of a state, and the Iraq Survey Group (ISG) has complete though not permissive access to Iraq in post Operation Iraqi Freedom. What is alarming for the proponents of a BWC inspection protocol (or any nonproliferation inspection regime) was the difficulty UNSCOM had in determining Iraq's BW program:

Because it had not had the benefit of seized documents or fruitful initial inspections, the biological investigation used circumstantial evidence, pieced together minutiae, and held marathon interviews of Iraqi personnel in an effort to uncover the hidden program.⁷⁹

Even in post-OIF, the ISG has ongoing problems assessing Iraq's WMD programs including post-OIF looting, deliberate

⁷⁸ Stephen Black, "Investigating Iraq's Biological Weapons Program," in *Biological Weapons: Limiting the Threat*, ed. Joshua Lederberg, (Cambridge: The MIT Press, 1999), 159.

⁷⁹ Ibid, 160.

destruction and dispersal of material and documentation, and a less than permissive environment.⁸⁰

The number of countries known to have or suspected of having biological weapons capability has doubled since the Convention went into force.⁸¹ Therefore, the states parties have sought since the end of the Gulf War to strengthen the BWC to include an inspection protocol.⁸² In light of UNSCOM's difficulty in uncovering Iraq's clandestine BW program in three years of intense and intrusive inspections and the ISG's ongoing issues post OIF, the potential of constructing an inspection regime that can serve to mitigate BW proliferation is remote.

Article X of the BWC calls for a Review Conference to convene every 5 years with the approval of the States Parties. The Third Review Conference, which convened in September 1991, agreed to create an ad hoc group of governmental experts (also known as VEREX) whose mandate was

⁸⁰ United States, Congress, "Statement by David Kay on the Interim Progress Report on the Activities of the Iraq Survey Group before US Congress, House Permanent Select Committee on Intelligence, the House Committee on Appropriations, Subcommittee on Defense, and the Senate Select Committee on Intelligence," October 02, 2003.

⁸¹ J.D. Holum, "Remarks for the Fourth Review Conference of the Biological Weapons Convention," (Geneva: US Arms Control and Disarmament Agency, November 26, 1996).

⁸² Robert P. Kadlec, Allan P. Zelicoff, and Ann M. Vrtis, "Biological Weapons Control: Prospects and Implications for the Future," in *Biological Weapons: Limiting the Threat*, 95.

to identify, examine and evaluate from a scientific and technical standpoint potential verification measures with respect to the BWC:

The VEREX effort produced a consensus report that resulted in several principal conclusions. First, potential verification measures could be useful in varying degrees in enhancing confidence, through increased transparency, that member nations were fulfilling their BWC obligations. Second, reliance could not be placed on any single measure to differentiate conclusively between prohibited and permitted activities and to resolve ambiguities about compliance, though such measures could provide information of varying utility in strengthening the BWC. Third, concern was expressed that the implementation of any measure should ensure that sensitive commercial proprietary information and national security needs were protected.⁸³

The VEREX report did not state that "effective verification" was possible. It did state that an inspection protocol could (to some degree) enhance transparency and confidence that States Parties were fulfilling their obligations.⁸⁴

VEREX, comprised solely of government experts, convened four sessions between March 1992 and September 1993 and

⁸³ "Ad Hoc Group of Governmental Experts to Identify and Examine Potential Verification Measure from a Scientific and Technical Standpoint Report," (Geneva: United Nations, 1993).

⁸⁴ Robert P. Kadlec, Allan P. Zelicoff, and Ann M. Vrtis, "Biological Weapons Control: Prospects and Implications for the Future," in *Biological Weapons: Limiting the Threat*, 103.

explored 21 possible verification measures and the art of technologies available applicable to each measure. The conclusions of VEREX were as follows:

1. VEREX determined that each measure could contribute something to the verification process.
2. The committee felt that no one measure was a panacea for preventing non-compliance to the BWC
3. Some combinations of measure could produce positive results.

VEREX reported their results at a Special Conference convened in 1994. This conference agreed to establish an Ad Hoc Group to consider VEREX's verification measures and to draft a protocol to strengthen the Convention.⁸⁵ During the Fourth Review Conference in 1996, the states parties tasked the AD Hoc Group to create the draft verification protocol before the Fifth Review Conference to be held in 2001.

In July 1997 the Ad Hoc Group transitioned to negotiating a rolling text of the verification protocol, and the 12th version was issued in April 2000. The text contains a Preamble and 23 Articles, Annexes and Appendixes.⁸⁶ On March 30, 2001, Ambassador Tibor Toth, Chairman of the Ad Hoc Group, provided to States Parties a

⁸⁵ "Biological Weapons Convention Overview," (accessed March 23, 2002) available from <http://www.cdi.org/issues/cbw/bwc>.

⁸⁶ Graham S. Pearson, "The Protocol to the Biological Weapons Convention is Within Reach," *Arms Control Today*, June 2000, (accessed March 02, 2003) available from www.armscontrol.org/ACT/June_00/bwcjun.htm.

composite Protocol text that was based entirely on the rolling text and adopted compromises.

In brief summary, the protocol regime relied on a three-pillar approach, consisting of mandatory declarations, declaration and follow-up procedures, and investigations of non-compliance concerns. The first pillar requires parties to submit declarations on activities or facilities of relevance to the BWC. The second pillar is the follow-up declarations that are based on a package of measures that include infrequent randomly selected transparency visits to declared facilities and clarification visits to facilities to resolve "ambiguities, uncertainties, anomalies or omissions."⁸⁷ The third pillar is investigations of possible non-compliance. This pillar is further broken down into two categories: field and facility investigations. A field investigation would occur when there has been an unusual outbreak of disease that appears not to have been caused naturally. Facility investigations can be conducted if a state party has a non-compliance concern about a particular facility. A facility investigation is confrontational and comparable to challenge inspections under the CWC. If after conducting an investigation, the BWC's implementing organization judges a state party to be non-compliant, it

⁸⁷ "Biological Weapons Convention Overview," (accessed March 22, 2002), available from <http://www.cdi.org/issues/cbw/bwc>.

can recommend suspending the state party's rights and privileges under the protocol or bringing the issue to the attention of the UNSC.⁸⁸

On July 25, 2001, the United States rejected the BWC verification protocol. At the July 25, 2001 State Department briefing, the government's position was expressed as follows:

The Protocol, which was proposed, adds nothing new to our verification capabilities. And it was the unanimous view in the United States government that there were significant risks to US national interests and that is why we could not support the protocol. Implementation of such a protocol would have caused problems for our biological weapons defense programs, would have risked intellectual property problems for our pharmaceutical and biotech industries and risked the loss of integrity and utility to our very rigorous multilateral export control regimes.⁸⁹

Four Factors of Regime Effectiveness and the BWC

Having taken a look at the BWC and the proposed verification protocol, an analysis of the BWC can be made.

⁸⁸ Graham S. Pearson, "The Protocol to the Biological Weapons Convention is Within Reach," *Arms Control Today*, June 2000, (accessed March 02, 2003) available from [www.armscontrol.org/ACT/June 00/bwcjun.htm](http://www.armscontrol.org/ACT/June%2000/bwcjun.htm).

⁸⁹ State Department Briefing cited in Graham S. Pearson, Malcom R. Dando, and Nicholas A. Sims, "The US Rejection of the Composite Protocol: A Huge Mistake based on Illogical Assessments," Evaluation Paper No 22, (accessed March 17, 2003), available online at www.brad.ac.uk/acad/sbtwc/briefing/exec22.

State membership. The BWC has 164 signatories including all of the major powers. Tables 3-5 and 3-6 show adherence to the BWC for the major powers, and a list of countries that fall under both the 2001 Clinton Administration's countries of concern for proliferation and the 2003 White House "State sponsors of terrorism":⁹⁰

Six Major Power Centers⁹¹	Biological Weapons Convention	Australia Group
China	Ratified	No
India	Ratified	No
Russia	Ratified	Yes
Japan	Ratified	Yes
US	Ratified	Yes
EU chemical export states	Ratified	Yes

Table 3-5

⁹⁰ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>. See also United States, The White House, "National Strategy for Combating Terrorism, February 2003," (accessed September 23, 2003), available from <http://WWW.Whitehouse.gov>, 10. Seven sponsors of terrorism are Iran, Iraq, Syria, Libya, Cuba, North Korea, and Sudan. Ibid.

⁹¹ Henry Kissinger, *Diplomacy*, New York: Simon and Schuster, 1994, pp. 23-25.

Countries of Concern	Biological Weapons Convention	Australia Group
Iran	Ratified	-----
Iraq	Ratified	-----
Libya	Ratified	-----
North Korea	Ratified	-----
Pakistan	Ratified	-----
Sudan	-----	-----
Syria	Ratified	-----
Cuba	Ratified	-----

Table 3-6

Of the states that have ratified the BWC, Iran, North Korea and Syria have known biological weapons programs⁹² and sponsor terrorism.⁹³

Violations detectable with clear avenues of appeal.

Monitoring and verification of a BWC inspection regime are difficult tasks because 'nature' is the source of the microorganisms that are the basis of these weapons. Technical advances have given scientists the ability to engineer new disease strains and clean an entire manufacturing facility's fermenters and pipelines within minutes. These are capabilities that states determined to acquire WMD could take advantage of in the face on a

⁹² United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>.

⁹³ The White House, "National Strategy for Combating Terrorism," February 2003, available online at WWW.Whitehouse.gov, 10.

verification protocol. In a report to Congress on ISG, David Kay said:

Post-OIF looting destroyed or dispersed important and easily collectable material and forensic evidence concerning Iraq's WMD program. As the report covers in detail, significant elements of this looting were carried out in a systematic and deliberate manner...⁹⁴

In order to address these issues, a verification regime would need to push technology to the limits as well as create highly intrusive inspections of commercial and military installations even more robust than the CWC inspection protocol. The Stimson Center's Chemical and Biological Weapons Nonproliferation Project sponsored a study of what type of inspection regime would mitigate the BW proliferation trend and instill trust and confidence in the BWC. After brainstorming sessions involving research institutions and universities, pharmaceutical and biotechnology companies, and defense contracting firms (VEREX was made up of only government experts) and field trials, the Stimson Center concluded that the proposed

⁹⁴ "Statement by David Kay on the Interim Progress Report on the Activities of the Iraq Survey Group before the House Pemanet Selct Committee on Intelligence, the House Committee on Appropriations, Subcommittee on Defense, and the Senate Select Committee on Intelligence," October 02, 2003.

inspection protocol was a house of cards and would not meet the requirements of an effective inspection regime.⁹⁵

Credible enforcement mechanism. Like the NPT and CWC, BWC infractions would be reported by the member state to the UNSC for enforcement action. Following the Gulf War, the community of states discovered that Iraq had extensive biological WMD program including "large quantities of equipment for the production of biological weapons..."⁹⁶ The UNSC statement of 31 January 1992, an outgrowth of the Gulf War cease fire resolution 687 (1991), Section C, decided that Iraq shall unconditionally accept, under international supervision, the destruction, removal or rendering harmless of its weapons of mass destruction.⁹⁷ Other than the UNSC's

⁹⁵ The Henry L. Stimson Center, "House of Cards: The Pivotal Importance of a Technically Sound BWC Monitoring Project," Report #37, March 2001.

⁹⁶ UNSCOM Documents, (accessed November 16, 2000), available from <http://www.un.org/depts/unscom>. UNSCOM supervised the destruction of the following proscribed items: 48 operational long-range missiles, 14 conventional warheads, 6 operational mobile launchers, 28 operational fixed launch pads, 32 fixed launch pads, 30 missile chemical warheads, "Super Gun" components, 38,537 filled and empty chemical munitions, 690 tons of chemical weapons agent, more than 3,000 tons of precursors chemical, 426 pieces of chemical weapons production equipment, 91 pieces of related analytical instruments, the entire Al-Hakam biological weapons production facility, and other biological weapons production equipment and materials. Ibid.

⁹⁷ United Nations, UNSC 687 (1991).

nonproliferation efforts with Iraq throughout the 1990s, the UNSC has not enforced any case of biological nonproliferation.

Adaptability. With the rejection of the latest inspection protocol by the US and other major powers, the BWC is likely to remain an overarching nonproliferation norm where compliance, verification, and enforcement are left to the individual states and not the regime. The Australia Group remains the only export regime in place to restrict the transfer of dangerous microorganisms.

Strengthening the BWC. In the *National WMD Strategy* the Bush Administration calls for the "identification and promotion of constructive and realistic measures to strengthen the BWC and thereby to help meet the biological weapons threat."⁹⁸ Since the US rejected the BWC verification protocol in July 2001, new measures must be identified and promoted to meet the biological weapons threat.

⁹⁸ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

MISSILE

The Missile Technology Control Regime (MTCR) was formed in 1987 by the US, Canada, Japan, the United Kingdom, France and Germany and has since grown to 33 countries, including all of the major powers except India and China. The MTCR has no control over nonmembers and no enforcement provisions. The main purpose of the MTCR is to halt or slow the spread of missiles and UAVs that can deliver a 500-kilogram or larger payload 300 or more kilometers. Members of the MTCR agree to control two categories of exports related to missile development, production, and operation. Category I: whole missiles and UAVs with 500 kilogram/300 kilometer payload/range; and complete subsystems such as guidance and engines. Category II: equipment and technology related to warheads and re-entry vehicles, missile engines, guidance technology, propellants and missile and UAVs with a 300 km range but less than a 300 kilogram payload.⁹⁹

Russia is a member of the MTCR. However, Russian entities have exported ballistic missile technologies to Iran throughout the last decade. China has agreed to abide by many of the provisions of the MTCR but continues to be a

⁹⁹ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>, 118.

source of missile related technologies. North Korea has sold No Dong missile technology to Iran as well as ballistic missile technology to Pakistan.¹⁰⁰ Overall, the MTCR has been ineffective in curbing missile proliferation to states hostile to the US.

The US supports strengthening the MTCR including universal adherence to the International Code of Conduct Against Ballistic Missile Proliferation (ICOC). The ICOC is aimed at bolstering efforts to curb ballistic missile proliferation worldwide and to further delegitimize such proliferation. The ICOC consists of a set of general principles, modest commitments, and limited confidence-building measures. It is intended to supplement, not supplant, the Missile Technology Control Regime (MTCR), and is administered collectively by all of the Subscribing States.¹⁰¹ The US clearly supports China's entrance into the MTCR and ICOC as well as strict adherence to the provisions of the MTCR/ICOC from its membership and Russia. Without adherence to the MTCR and ICOC by all ballistic missile exporting countries such as China and North Korea, efforts to curb ballistic missile proliferation will remain highly problematic.

¹⁰⁰ Ibid, 9, 13, and 53.

¹⁰¹ "Fact Sheet," Bureau of Nonproliferation, Department of State, Washington, DC, January 6, 2004.

OVERALL LESSONS DISCERNED THROUGH UNSCOM AND THE ISG

What lessons have the UNSCOM inspectors discerned in Iraq post-Gulf War and ISG inspectors post-OIF that can help strengthen US nonproliferation efforts? Charles Duelfer, former Deputy UNSCOM, believes that any inspection regime is effective only to a certain degree:

The idea of UNSCOM or UNMOVIC completely disarming Iraq [prior to Operation Iraqi Freedom] was not going to happen. The bottom line is that coercive disarmament against a determined proliferator will not work unless you occupy the country. [Inspections will] buy yourself time which is not bad. However, Iraq is a unique situation in that it has a whole lot of oil and lost a war to the US. How the next [proliferation scenario involving another state] will play out remains to be seen.¹⁰²

Scott Ritter, former UNSCOM weapons inspector, believes in the importance of monitoring but not necessarily intrusive inspections:

The bottom line is that the UNSCOM model won't work. Attempts to create international inspectorates with wide ranging authority have failed especially in the face of rogue nations that want to gain access to such technology. Imaginative diplomacy, backed by a firm nonproliferation policy, is the best bet. The UN is a good tool for certain aspects of the problem-solving set, but a true solution requires the kind of wealth and

¹⁰² Charles Duelfer, former Deputy UNSCOM, interview by author in Washington D.C. July 26, 2001.

political/military/economic/diplomatic reach that only the US can bring to bear.¹⁰³

Richard Butler, former head of UNSCOM, believes:

A new security structure would need to ensure WMD arms control treaties were strengthened and universally applied. For this to be achieved, the major powers would need to take specific steps, including: political action to secure universal participation in NPT, and to strengthen the IAEA safeguards system; the establishment of a verification mechanism for the BWC, and further development of controls over trade in weapons of mass destruction relevant materials and technologies.¹⁰⁴

Prior to Operation Iraqi Freedom, Khidhir Hamza, a former Iraqi nuclear scientist, believed that Iraq and any other country of proliferation concern that watched the Washington-Baghdad saga learned how to play the inspection routine. Hamza believed Iraq had developed a deep understanding of the weaknesses and vulnerabilities of the entire inspection system and that nonproliferation may come down to proactive counterproliferation efforts and, in cases of extreme proliferation recalcitrance, regime change.¹⁰⁵

¹⁰³ Scott Ritter, former UNSCOM weapons inspector, interview by author August 26, 2001, e-mail.

¹⁰⁴ Richard Butler, former head of UNSCOM, interview by author in Sydney Australia June 5, 2001.

¹⁰⁵ Venter, Al J., "Saddam and the West's Worst Nightmare," *The Middle East* (Jan 2001), accessed June 5, 2004, available at <http://www.highbeam.com/library/doc3.asp?docid=1G1:69291258>, 15.

"In the end," said Khidhir Hamza, "I believe that the real solution to proliferation [in Iraq] is regime change. No other solution seems to be viable."¹⁰⁶

David Kay, head of ISG, has been attempting to uncover the extent of Iraq's nuclear, chemical, and biological weapons programs. In testimony before the US Congress on October 02, 2003, Kay said that his team has discovered dozens of WMD-related program activities and significant amounts of equipment that Iraq concealed from the UN during the inspections that began in late 2002, including documents and equipment that would have been useful in resuming uranium enrichment by centrifuge and electromagnetic isotope separation, new research on BW-applicable agents, a prison laboratory complex, possibly to be used in human testing of BW agents, and a clandestine network of laboratories and safe houses. In searching for retained stocks of chemical munitions, as of October 2003, the ISG had not examined one-tenth of known storage points many of which exceed 50 square miles in size.¹⁰⁷ The ISG search has not been easy:

¹⁰⁶ Ibid.

¹⁰⁷ Congress, House, Committee on Intelligence, the House Committee on Appropriations, Subcommittee on Defense, and the Senate Select Committee on Intelligence, *Statement by David Kay on the Interim Progress Report on the Activities of the Iraq Survey Group*, October 02, 2003 (accessed February 12, 2003), available from http://www.cia.gov/cia/public_affairs/speeches/2003/david_kay_10022003.html

1. From birth all of Iraq's WMD activities were highly compartmentalized within a regime that ruled and kept its secrets through fear and terror and with deception and denial built into each program;
2. Deliberate dispersal and destruction of material and documents related to weapons programs began pre-conflict and ran trans-to-post conflict;
3. Post-OIF looting destroyed or dispersed important and easily collectable material and forensic evidence concerning Iraq's WMD program. As the report covers in detail, significant elements of this looting were carried out in a systematic and deliberate manner, with the clear aim of concealing pre-OIF activities of Saddam's regime;
4. Some WMD personnel crossed borders in the pre-trans conflict period and may have taken evidence and even weapons-related materials with them;
5. Any actual WMD weapons or material is likely to be small in relation to the total conventional armaments footprint and difficult to near impossible to identify with normal search procedures. It is important to keep in mind that even the bulkiest material we are searching for, in the quantities we would expect to find, can be concealed in spaces not much larger than a two car garage;
6. The environment in Iraq remains far from permissive for our activities, with many Iraqis that we talk to reporting threats and overt acts of intimidation on our own personnel being subject to threats and attacks.¹⁰⁸

KEY ASPECTS OF THE NUCLEAR, CHEMICAL, AND BIOLOGICAL NONPROLIFERATION REGIMES

Nonproliferation regimes are a factor in the Administration's strategy model to mitigate proliferation. However, this chapter has uncovered many failings in the nuclear, chemical and biological regimes.

Nuclear

According to the following criteria: state membership, detectable violations with clear avenues of appeal, credible enforcement, and regime adaptability, the strengths of the NPT/IAEA are its membership and the export control coordination associated with the Zangger Committee, NSG, MTCR, FMCT, and other bilateral and multilateral nuclear nonproliferation negotiations. Its weaknesses lie in its ability to detect violations, its adaptability, and enforcement mechanisms.

This chapter identified the weakness in the current IAEA inspection protocol. The ratification of the Additional Protocol, as advocated by the Bush Administration, would close the loopholes identified in this section and strengthen the IAEA inspection regime. However, the Additional Protocol is non-binding and states clandestinely fielding nuclear weapons programs are not likely to become a signatory to it.

Negotiating a Fissile Missile Cut-Off Treaty would cap the quantity of available fissile material for nuclear weapons globally. It would also extend verification measures to production facilities not currently subject to international monitoring.

¹⁰⁸ Ibid.

Strengthening the Zangger Committee and NSG in reality means strengthening Russian and Chinese compliance with the Trigger list of the Zangger Committee and export controls of the NSG. Without full Russian and Chinese participation and control over their black market trade, these export control organizations are ineffective.

Chemical and Biological

The CWC is a nascent convention. Its strengths lie in the membership of chemical exporters, export restriction lists, verification protocols, strong chemical nonproliferation norms, and interactions through the Australia Group and other multilateral organizations. Its weaknesses are that a number of potentially hostile states such as Syria, Iran, and North Korea have chemical WMD and have not acceded to the Treaty, and that the Treaty has not been fully implemented or adhered to.

Strengthening the CWC must entail full membership of the countries that are thought to have chemical weapons, or who may be developing chemical weapons. The effective functioning of the OPCW entails ensuring unrestricted access to Schedule 1 and Schedule 2 facilities and the closing of loopholes such as the programming of analytical devices and the confiscation of data by states parties.

The BWC has major flaws. Although state membership in this Treaty is high, a significant number of member states including states hostile to the US have biological weapons programs including: North Korea, Iran, and Syria. Due to the nature of the technology, many other rogue states are in a position to start a bio-weapons program in the future or may have undiscovered programs already in existence.

The BWC has no verification protocol. The US will have to rely on its own intelligence and that of its allies to detect illegal biological WMD activities. The Confidence Building Measures (CBMs) designed to increase confidence and increased regime activity have been inadequate. Although the AG has an export control list, many of the states capable of exporting biological technology such as China and Russia are not members.

Strengthening the BWC will require identification, promotion, and adoption of realistic verification measures - if such verification measures are even technologically possible. Strengthening the Australia Group must include membership by all the major chemical and biological exporters including Russia, China, and India and ensuring compliance to the strict export provisions of the Group.

Missile

The US supports strengthening the MTCR including universal adherence to the International Code of Conduct Against Ballistic Missile Proliferation (ICOC). The US supports China's entrance into the MTCR as well as strict adherence to the provisions of the MTCR from its member states including Russia.

SUMMARY

Under the structure of the Bush Administration's *National WMD Strategy*, nonproliferation institutions are one of six factors in an overarching strategy model to prevent proliferation. Nonproliferation institutions, along with other forms of statecraft, export controls, and nonproliferation actions, are the key factors in the strategy model that keep proliferation from happening.

Using four factors of nonproliferation regime effectiveness, this chapter identified the key elements of the nonproliferation regimes that are not always effective at preventing proliferation. Even though members of the NPT and IAEA, determined proliferators such as Iraq, Iran, Libya, and North Korea have succeeded in engaging in clandestine nuclear activities under the auspices of the nuclear nonproliferation regime. Proposals to strengthen the IAEA inspection regime through adoption of Additional

Protocols are progressive but are not binding. The newest nonproliferation regime, the CWC, is having problems with the effective functioning of the OPCW and there already exist loopholes in the inspection regime that have yet to be addressed. Clearly the BWC is a flawed convention and has done little to prevent biological proliferation. Without the technological capability and will of its member states to adopt a capable inspection regime, the BWC will remain ineffective at curbing biological proliferation.

However, the nonproliferation regimes remain a viable tool in the US nonproliferation strategy. A rogue state can help facilitate its return to normalized relations with the US by joining and adhering to the nonproliferation regimes. Such is the case in Libya in 2004. Whereas, states that violate their nonproliferation commitments to these regimes can expect increased US scrutiny, sanctions, and military intervention as was the case in Libya pre-2003 and Iraq pre-OIF. The US can use adoption of the IAEA's Additional Protocol as a necessary step to normalize relations with North Korea and Iran as well as the joining of the CWC by North Korea and Syria.

Lastly, a state's violation of its nonproliferation promises can give the US legitimacy in a preemptive counterproliferation strike and mitigate potential post-strike political fallout. The next chapter will examine the

international legal ramifications of a preemptive
counterproliferation strike.

**CHAPTER FOUR: COUNTERPROLIFERATION TO COMBAT WMD USE:
A LEGAL STANDARD**

The purpose of this chapter is to analyze customary and positive law in order to develop a legal protocol for preemptive counterproliferation intervention.

ANTICIPATORY SELF-DEFENSE

Anticipatory self-defense is based on the expectation of aggression rather than the manifest act of aggression. The state acts in anticipatory self-defense when it launches a preemptive strike against an enemy it thinks is going to attack rather than against an enemy that has already launched an attack. Self-defense is a fairly simple legal concept; if an enemy is hurting you, you have the right to fight against that enemy to make it stop. But anticipatory self-defense is legally complex because it is based on something that has not happened yet. Weapons of mass destruction make this concept even more critical because WMD can cause so much devastation so fast: if you wait for an enemy to attack you with WMD it may be too late to protect yourself:

The greater the threat, the greater is the risk of inaction--and the more compelling the case for taking anticipatory action to defend ourselves, even if uncertainty remains as to the time and place of the enemy's attack.¹

¹ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

Anticipation is key to preventing widespread damage. A framework for legally evaluating acts of self-defense in a world of WMD must necessarily include some measure for anticipatory behavior.

Anticipatory self-defense is a complicated matter for policy makers and military planners. A successful preemptive intervention requires a focused, targeted strategy against a state, excellent real-time intelligence, research and development to counter any emerging threat, bilateral and multilateral cooperation,² timing, communications, and deception, as well as a finely honed military instrument.³ A lengthy political decision-making process may be enough to delay an intervention such that critical windows of opportunities for military intervention are lost. However, the legal framework of anticipatory self-defense does not need to be as complicated as the military part. In President Bush's *National Security Strategy*, he states:

² United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

³ The author was a J3 Plans Officer, US Central Command, 1995-1996, and was in charge of developing such plans for the Combatant Commander.

We must adapt the concept of imminent threat to the capabilities and objectives of today's adversaries. Rogue states and terrorists do not attack us using conventional means...⁴

In fact, a careful examination of international law and legal institutions suggests a viable preemptive counterproliferation protocol based in part on the legal precedents of anticipatory self-defense and subsequently 'evolved' by legal commentators to the nuclear age of WMD. This chapter will look at both positive law before and after the UN Charter and customary law to "adapt the concept of imminent threat to the capabilities and objectives of today's adversaries."

POSITIVE LAW

Pre-United Nations Positive Law and Self-Defense.

The first source of international law as codified by the International Court of Justice (ICJ) statute is international treaties or conventions: positive law. All signatories of a convention are bound by the terms of their promises and the rules contained there are perhaps the most

⁴ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003), available from <http://WWW.Whitehouse.gov>.

definitive source of international law for them.⁵ In all major examples of positive law relevant to international warfare, self-defense is accepted as a justification for war, even when other justifications are proscribed.

In post-Napoleonic Europe, one of the first movements toward positive law was the 1868 Declaration of the Principal European States plus Turkey and Persia under which the parties agreed not to employ small explosive projectiles in war among themselves.⁶ One of the early attempts by the members of the international community to curtail the use of force was found in the Hague Conventions of 1899⁷ and 1907.⁸

⁵ Ian Brownlie, *Principles of Public International Law*, (Oxford: Clarendon Press, 1979), 4. However, disagreement exists with legal commentators over whether the order of the sources constitutes a hierarchy. See Louis Henkin, *International Law*, (St. Paul, Minn.: West Publishing Company, 1980), 36. Some commentators believe that a treaty that conflicts with customs would probably be void. It will be postulated in the international customary law section of this paper that the peremptory norm of self-defense, when in conflict with positive law, is in fact the higher standard. See Alfred Rubin, "Looking Out From the Inside," *Fletcher Forum of World Affairs* (Winter-Spring, 1995), 3. See also Alfred Rubin, "Jus Ad Bellum and Jus Cogens: Is Immorality Illegal?" in Delissen and Tanja, eds., *Humanitarian Law of Armed Conflict* (1991), 10.

⁶ "Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight," signed at St. Petersburg, November 29 and December 11, 1868, in Dietrich Schindler, *The Laws of Armed Conflicts* (Geneva: Marinus Nijhoff, 1988), 19.

⁷ Convention I, International Peace Conference, signed at the Hague, July 29, 1899, in Dietrich Schindler, *The Laws of Armed Conflicts* (Geneva: Marinus Nijhoff, 1988), 51.

In the Hague Conventions, the signatories agreed to delay the immediate recourse to war in situations of international conflict through mediation and arbitration.⁹ However, the Hague Conventions did not stop WWI from happening. World War I began for reasons and causes still debated by historians today including a hardening of alliance systems in the Triple Alliance and Triple Entente, a general arms race, and intense European nationalistic, imperialistic, territorial, and economic rivalries. The assassination of Archduke Ferdinand June 28, 1914, at Sarajevo set in motion a last ditch diplomatic maneuver by Britain's Sir Edward Grey for a conference of Great Powers. This Conference was rejected by Austria-Hungary with support from Germany, and World War I started on July 28, 1914, with Austria-Hungary's declaration of war on Serbia.

Following the devastation of World War I, world leaders introduced a collective system of positive law designed to restrain the use of force and recourse to war within the

⁸ Conventions I and III, Second International Peace Conference, signed at the Hague, October 18, 1907, in Dietrich Schindler, *The Laws of Armed Conflicts* (Geneva: Marinus Nijhoff, 1988), 55.

⁹ Final Act of the Second International Peace Conference, signed at The Hague, October 18, 1907, in Dietrich Schindler, *The Laws of Armed Conflicts* (Geneva: Marinus Nijhoff, 1988), 55.

Covenant of the League of Nations.¹⁰ The Covenant of the League of Nations represented the first significant break with the theory of traditional international law.¹¹ The League, however, did not prohibit the use of force altogether. It reiterated the common-law tradition of the right of self-defense, allowing for the use of force if the League could not come to a decision of collective self-defense.¹²

In 1928, the formally modest limitations on the use of force, which the Covenant of the League placed on the *jus ad bellum* of traditional international law, were extended and the gaps in the Covenant closed by the Kellogg-Briand Pact.¹³ In the Pact, the parties "condemn recourse to war

¹⁰ Covenant, League of Nations, in US Congress, Senate, Committee on Foreign Relations, *Treaties, Conventions, International Acts, Protocols and Agreements*, 61st Congress, 2d Session, 3159. Article 16 states "[s]hould any member of the League resort to war in disregard of its covenants... it shall ipso facto be deemed to have committed an act of war against all other members of the League...." Ibid.

¹¹ Myres McDougal and Florentino Feliciano, *Law and Minimum World Public Order*, (New Haven: Yale University Press, 1961), 138.

¹² Article 12, League of Nations Covenant, Covenant, League of Nations, in US Congress, Senate, Committee on Foreign Relations, *Treaties, Conventions, International Acts, Protocols and Agreements*, 61st Congress, 2d Session, 3157.

¹³ Also known as the General Treaty Providing for the Renunciation of War as an Instrument of National Policy, August 27, 1928. Hereinafter cited as the Kellogg-Briand Pact or the Pact. In Myres McDougal and Florentino Feliciano, *Law and Minimum World Public Order*, (New Haven:

for the solution of international controversies and renounce it as an instrument of national policy in their relations with one another."¹⁴ The US Senate at the time of ratification, however, insisted that there must be no curtailment of the US right of self-defense and legal commentators have pointed out that the Pact's provisions did not outlaw war¹⁵ and reconfirmed the common law tradition permitting the use of force in self-defense. Although 62 nations ultimately ratified the Pact, its efficacy was vitiated by its failure to provide enforcement measures during the undeclared wars in the 1930s and the start of WW II.

International Tribunals and Self-Defense

The 1945 instruments of the international tribunals at Nuremberg and Tokyo fall under the sources of international law considered a subsidiary source of international law by the ICJ and mark one of the last additions to international

Yale University Press, 1961), 140, the gaps are referred to as cases of unilateral resort to war other than self-defense.

¹⁴ Pact of Paris in Congress, Senate, Committee on Foreign Relations, *Treaties, Conventions, International Acts, Protocols and Agreements*, 61st Congress, 2d Session, 5130-5133.

¹⁵ Alfred Rubin, "Is War Still Legal?" *Indian Year Book of International Affairs* (1980), 47.

positive law prior to the signing of the UN Charter. The gradual sophistication of positivist doctrine and international law manifested itself in the Tokyo and Nuremberg Military Tribunals, where individuals were found guilty of crimes against humanity and of crimes against peace and punished without the usual interposition of the state.¹⁶

In forming the Tribunal, the Allies found it very difficult to decide, even among them, what constituted international law and what the terms of the Tribunal should be. The Tribunal Charter was ultimately agreed upon, adhered to by nineteen other nations, and later endorsed by the General Assembly of the United Nations.¹⁷ The

¹⁶ Malcolm Shaw, *International Law*, (New York: Cambridge University Press, 1991) 43.

¹⁷ Dietrich Schindler, *The Laws of Armed Conflicts* (Geneva: Marinus Nijhoff, 1988), 923. Introductory Note. "Under General Assembly Resolution 177 (II), para (a), the International Law Commission was directed to 'formulate the principles of international law recognized in the Charter of the Nuremberg Tribunal and in the judgment of the Tribunal.' In the course of consideration of this subject the question arose as to whether or not the Charter and judgment constituted principles of international law. The conclusion was that since the Nuremberg principles had been affirmed by the General Assembly, the tasks entrusted to the Commission were not to express any [opinion] on these principles as principles of international law but merely to formulate them." Ibid. Principle VII of the "Principles of the Nuremberg Tribunal 1950," states "complicity in the commission of a crime against peace, a war crime, or a crime against humanity as set forth in Principle VI is a crime against international law." Dietrich Schindler, *The Laws of Armed Conflicts* (Geneva: Marinus Nijhoff, 1988), 924.

significance of the Nuremberg Tribunal as it pertains to preemptive counterproliferation intervention is that it reaffirmed international common law principles of anticipatory self-defense. This reaffirmation can be seen in a passage from Leslie Greene's notable work *International Law Through the Cases*:

From [the evidence], it is clear that as early as October 1939, the question of invading Norway was under consideration. The defense that has been made here is that Germany was compelled to attack Norway to forestall an Allied invasion, and her action was therefore preventative. It must be remembered that preventative action in foreign territory is justified only in case of 'an instant and overwhelming necessity for self-defense, leaving no choice of means, and no means of deliberation.'¹⁸ From [the documents before the Tribunal] it is clear that when the plans for an attack on Norway were being made, they were not made for the purposes of forestalling an imminent Allied landing, but, at the most, that they might prevent an Allied occupation at some future date.....

It was further argued that Germany alone could decide, in accordance with the reservations made by many of the Signatory Powers at the time of the conclusion of the Briand-Kellogg Pact [sic], whether preventative action was a necessity, and that in making her decision her judgment was conclusive...

In light of all the available evidence, it is impossible to accept the contention that the invasions of Denmark and Norway were defensive, and in the opinion of the Tribunal they were acts of aggressive war.¹⁹

¹⁸ Note of August 6, 1842, from Mr. Webster to Lord Ashburton in connection with the *Caroline* incident.

¹⁹ Leslie Green, *International Law Through the Cases* (New York: Praeger, 1959), 670. For a complete discussion on

Since the Kellogg-Briand Pact and the Nuremberg Military Tribunals, the international community of nations has moved towards a positive law doctrine that desires the complete outlawing of force to settle international disputes. It has done so, however, without abrogating the common law traditions of self-defense.

Anticipatory Self-Defense under the UN Charter

International law is not incongruent with the use of force. After World War II, the question for the community of nations was not 'the non-use of force,' but the assignment of the competence to use force to appropriate agencies in the community, and the determination of the contingencies, purposes, and procedures for the use of authoritative force.²⁰

The assignment of competent authority to the UN Security Council was agreed to by states as they became signatories to the Charter of the United Nations. However,

international customary law see section in this paper entitled "*Caroline Correspondence*."

²⁰ W. Michael Reisman, "Allocating Competencies to Use Coercion in the Post-Cold War World: Practices, Conditions, and Prospects," in Lori Fisher Damrosch and David J. Scheffer, eds., *Law and Force in the New International Order* (San Francisco: Westview Press, 1991), 26.

the drafters and the signatories of the UN Charter could not possibly have foreseen the proliferation of modern military technology and weapons of mass destruction. Because of this, some commentators believe that weapons of mass destruction have overwhelmed the positive law doctrine of the UN Charter and made all but the UN Charter's most basic rules of *jus ad bellum* and *jus in bello* moot.²¹ The UN Security Council makes decisions very slowly, and because a WMD attack can happen very quickly with untold devastation, frightened states will probably not be able to wait for the Security Council to move before they themselves have to take some action against WMD threats.

This focuses our attention on the question of what must a state do and how long must it wait before its preemptive actions against a looming WMD threat can be deemed legal and justified. In order to answer this question, one can examine the relevant portions of the UN Charter on the use of force for anticipatory self-defense, the interpretation of those words by legal commentators,²² and the original debates and agreements of the UN *travaux preparatoires*.

²¹ Ibid, 27.

²² Article 38, ICJ, in Barry Carter and Phillip Trimble, *International Law*, (New York: Little Brown and Company, 1995), 37.

The UN Charter explicitly recognizes the right of individual and collective self-defense under Article 51. The language of Article 51, however, calls into question whether this right of self-defense legally exists *before* an actual armed attack occurs. Must a state wait to be attacked before it can lawfully use force in self-defense?²³

Article 51 states that 'nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member.' Some legal commentators assert that the word 'inherent' was deliberately set in Article 51 to clearly preserve the existing, natural right of states to use force in self-defense. The word 'inherent' does not have its source in the Charter but rather it is an independent right rooted in general international law, and that the purpose of Article 51 was simply to remove possible doubts as to the impact of the Security Council's powers upon the rights of states to have recourse to force in self-defense.²⁴

²³ Julius Stone, *Aggression and World Order: A Critique of United Nations Theories of Aggression* (Los Angeles: University of California Press, 1958), 99.

²⁴ Leland M. Goodrich, Edvard Hambro, and Anne Praticia Simons, *Charter of the United Nations: Commentary and Documents*, Third Edition, (New York: Columbia University Press, 1969), 345. See also J. L. Brierly, *The Law of Nations: An Introduction to the International Law of Peace*, 6th Edition, (New York: Oxford University Press, 1963), 417.

Support for the deliberate wording of Article 51 and its "customary" heritage exists in the *travaux preparatoires* of the Charter. In the Four Power negotiations beginning August 14, 1944, at Dumbarton Oaks,²⁵ China raised the point of who was to judge whether a state was using force consistently with the purposes and principles of the organization --- in particular, if a state contended that it was acting in self-defense? It was agreed that the Charter could not deny the inherent right of self-defense against aggression and that the Security Council was probably the organ to make such a determination.²⁶

In preparation for the February, 1945 United Nations Conference in San Francisco, the US Delegation made a paragraph-by-paragraph study of the Dumbarton Oaks Proposals. It determined that the most difficulties arose with the chapter on the maintenance of peace and security. The most serious point left unsettled was whether a specific reservation of the right of self-defense should be included. "As this was agreed to be an inherent right of sovereignty, not deniable by the projected Charter, there was no

²⁵ Ruth Russell and Jeanette Muther, *A History of the United Nations Charter: The Role of the United States 1940-1945* (Washington, D.C.: The Brookings Institution, 1958), 411.

²⁶ Ruth Russell and Jeanette Muther, *A History of the United Nations Charter: The Role of the United States 1940-1945* (Washington, D.C.: The Brookings Institution, 1958), 466.

controversy on the principle. The question, as it had earlier confronted American officials, was whether the attempted definition of self-defense would not defeat the very end desired by making possible a restrictive interpretation of the principle."²⁷

At the February, 1945, United Nations Conference in San Francisco, Committee I (which dealt with Article 2(4)) stated outright that the "use of arms in legitimate self-defense remains admitted and unimpaired."²⁸ The records then show that Article 51 was introduced into the Charter in Committee III/4, after being approved earlier by the Big

²⁷ Ibid, 599. This fear of the American delegation would later be verified by subsequent legal scholastic interpretation of the words "if an armed attack occurs," in order to give them full meaning, as *restricting* the right of self-defense to defense against armed attack. Ibid. See Ian Brownlie, *International and Comparative Law Quarterly*, (1959), 720. See also Tom Farer, "Law and War," in Black and Falk, eds. *The Future of the International Legal Order*, (Princeton: Princeton University Press, 1971), 35. "Professor McDougal and Dr. Feliciano who have the most developed and persuasive set of arguments on this point begin by disparaging the notion that a word formula can have, apart from context, any single 'clear and unambiguous' or 'popular, natural, and ordinary meaning that predetermines decision in infinitely varying particular controversies.'" Ibid.

²⁸ Ruth Russell and Jeanette Muther, *A History of the United Nations Charter: The Role of the United States 1940-1945* (Washington, D.C.: The Brookings Institution, 1958), 702. See also Myres McDougal and Florentino Feliciano, *Law and Minimum World Public Order*, (New Haven: Yale University Press, 1961), 235.

Five,²⁹ primarily for the purpose of harmonizing regional organizations for defense with the powers and responsibilities given to the Security Council for maintaining peace. According to some legal commentators, there was no conscious intention on the part of Committee III/4, by including the words 'if an armed attack occurs,' to make unlawful the use of force in self-defense against unlawful acts of force not amounting to an armed attack.³⁰ In their view, the intention of the negotiations in the Big Five and Committee III/4 was always to recognize that the inherent right of self-defense would remain unimpaired if the Council 'does not maintain peace and security.'³¹

The placement of Article 51 at the end of Chapter VII of the UN Charter strengthens the common law argument of the legitimacy of anticipatory self-defense. Articles 39-42 allow the Security Council ample flexibility for deciding

²⁹ Ibid, 702.

³⁰ J. L. Brierly, *The Law of Nations: An Introduction to the International Law of Peace*, 6th Edition, (New York: Oxford University Press, 1963), 418.

³¹ *U.S. Department of State Bulletin*, Vol. 12, May 27, 1945, 949. See also Leland M. Goodrich, Edvard Hambro, and Anne Praticia Simons, *Charter of the United Nations: Commentary and Documents*, Third Edition, (New York: Columbia University Press, 1969), 343, "final agreement was reached on a British proposal which omitted all reference to regional arrangements as such, emphasized the inherent right of individual to collective self-defense in case of armed attack in the event of failure of the Security Council to act..." Ibid.

and taking enforcement measures, but Article 27(3) makes it clear that each Great Power has the authority to prevent Security Council action.³² "In providing for the possibility of enforcement action being needed to 'maintain or restore' international peace and security, the United Nations Charter itself implies that the use of force is not an unmitigated evil."³³ When the Security Council is not acting, the broader license of self-defense and self-redress under customary international law must surely continue to exist so far as the positive prohibitions of the Charter do not exclude it.³⁴ "Article 51 itself, in reserving as against the Security Council's powers a narrow range of self-defense, can surely not have destroyed the broader area of the license of self-defense and self-redress where the Security Council is not acting, and there is no inconsistency with the purposes of the United Nations."³⁵ In other words, the overall pattern of Chapter VII is that the

³² Alfred Rubin, "Looking Out From the Inside," *Fletcher Forum of World Affairs* (Winter-Spring, 1995), 3. See also Alfred Rubin, "Is War Still Legal?" *Indian Year Book of International Affairs* (1980), 48.

³³ Alfred Rubin, "Is War Still Legal?" *Indian Year Book of International Affairs*, (1980), 48.

³⁴ Julius Stone, *Aggression and World Order: A Critique of United Nations Theories of Aggression*, (Los Angeles: University of California Press, 1958), 44.

³⁵ *Ibid*, 48.

Security Council should act to restore international peace and security whenever it determines the existence of a threat to the peace, breach of the peace, or act of aggression. That is, the Security Council is given a reactive mission. Article 51 comes into play only after a failure of the Security Council to perceive and stymie a looming threat to the peace.³⁶ Member states are free to do what they think they need to do to provide for their own defensive security, and the Security Council is supposed to help once a crisis flares. What a state does to prevent a crisis from flaring is its own business -- as long as it acts for defensive reasons rather than aggressive reasons.

To many architects of the UN Charter, the inherent right of self-defense under Article 51 seemed necessary to provide the basis for measures of self-defense in case the Security Council was unable to discharge its responsibilities because of disagreements among the major powers.³⁷ In testifying before the Committee on Foreign Relations of the United States Senate, Secretary of State Dulles, when questioned about who decides when the Council

³⁶ Alfred Rubin, "Looking Out From the Inside," *Fletcher Forum of World Affairs* (Winter-Spring, 1995), 3.

³⁷ Leland M. Goodrich, Edvard Hambro, and Anne Praticia Simons, *Charter of the United Nations: Commentary and Documents*, Third Edition, (New York: Columbia University Press, 1969), 352.

has taken necessary measures for the maintenance of peace and security, agreed that "the determination as to that adequacy ... would be ours to make."³⁸ If that statement is indicative of policies of the other great powers that have veto authority, the Security Council might often be paralyzed by inaction in situations where global politics come into conflict with global proliferation concerns. The architects of the Charter, in ensuring the inherent right of self-defense in the nuclear age, allowed a state the legal means outside the Security Council to defend itself against the coercive threats and use of WMD.³⁹ However, when deciding to act outside the normative structure of the UNSC, states would necessarily follow the steps in Chapter VII of the Charter that leads to Article 51. In other words, states would be expected to try to appeal for UN mediation, but when the immediate situation calls for it, they can act unilaterally to protect themselves. The structure of Chapter 7 of the Charter implies that options for peaceful remedies should be followed, but that the right of

³⁸ Ibid, 352.

³⁹ Myres McDougal and Florentino Feliciano, *Law and Minimum World Public Order*, (New Haven: Yale University Press, 1961), 238. "The second major difficulty with a narrow reading of Article 51 is that it requires a serious underestimation of the potentialities both of the newer military weapons systems and of the contemporary techniques of nonmilitary coercion." Ibid.

anticipatory self-defense must ultimately rest with the individual states.

CUSTOMARY LAW

International Customary Law and Self-Defense

Customary law can be thought of as customs, common consent, and long-established uniform practices that have taken on the force of law. Self-defense is one of the oldest and widely accepted customary traditions for states to resort to force. Well before the UN Charter, customary international law gave a state the right to use force to defend itself not only in response to armed attack, but also in anticipation of an imminent attack.⁴⁰ The language and structure of Chapter 7, and especially Article 51, of the UN Charter implies an assumption about customary law; namely, that customary law provides a certain notion of an inherent right of self-defense. How does customary law characterize states' rights of self-defense, and particularly how does it elucidate the idea of anticipatory self-defense? Customary law is rich in this area. The 1837 Caroline incident

⁴⁰ John Bassett Moore, *A Digest of International Law* (Washington: Government Printing Office, 1906), 412. See also *British and Foreign State Papers, 1840-1841* (London: James Ridgway and Sons, Picadilly, 1857), 1138.

provides the central precedent to consider, especially in regard to standards of imminence and proportionality.

The Caroline Correspondence. The *Caroline* incident took place during the Canadian Rebellion from which sympathetic US citizens were providing assistance to the Canadian rebels against the constituted government of England. British forces took action against the *Caroline*, docked on the American side of the Niagara River, claiming that the *Caroline* was aiding the rebels. The British had witnessed the *Caroline* making several calls to Navy Island on the Niagara River where certain "articles of freight were landed."⁴¹ That evening, 70-80 British troops boarded the *Caroline*, killed 2 American citizens, set her on fire, cut her loose from her moorings, and dumped her over Niagara Falls. The British paid little attention to American protests until Alexander McLeod, a British citizen, was arrested in New York state in 1841 for murder and arson for his participation in the *Caroline* capture.⁴²

⁴¹ John Bassett Moore, *A Digest of International Law* (Washington: Government Printing Office, 1906), 412. See also *British and Foreign State Papers, 1840-1841* (London: James Ridgway and Sons, Picadilly, 1857), 409. See also *British and Foreign State Papers, 1837-1838* (London: Harrison and Sons, 1855), 1373.

⁴² *British and Foreign State Papers, 1840-1841* (London: James Ridgway and Sons, Picadilly, 1857), 1126.

On July 27, 1842, US Secretary of State Daniel Webster sent a note to Lord Ashburton, the British Ambassador in Washington, which contained the first elaboration of anticipatory self-defense.⁴³ "It was natural that the elaboration of that concept should come from the American side for elaboration meant limitation, and made it no longer possible for the British to talk vaguely of self-defense and self-preservation as if the mere utterance of the words excused any and every sin."⁴⁴ In this correspondence, Webster wrote that for the use of force to be justified in law, there must be:

necessity of self-defense, instant, overwhelming, leaving no choice of means, and no moment for deliberation. It will be for it [the state using force] to show, also, that the local authorities of Canada, even supposing the necessity of the moment, authorized them to enter the territories of The United States at all, did nothing unreasonable or excessive; since the act justified by the necessity of self-defense, must be limited by that necessity, and kept clearly within it. It must be shown that admonition or remonstrance to the persons on board the *Caroline* was impracticable, or would have been unavailing; it must be shown that daylight could not be waited for; that there could not be an attempt at discrimination between the innocent and the guilty; that it would not have been enough to seize and detain the vessel; but that there was a necessity, present and inevitable, for attacking her in the darkness of the night, while moored to the shore, and while unarmed men were asleep on board,

⁴³ John Bassett Moore, *A Digest of International Law* (Washington: Government Printing Office, 1906), 412. See also *British and Foreign State Papers, 1840-1841* (London: James Ridgway and Sons, Picadilly, 1857), 1138.

⁴⁴ R. Y. Jennings, "The *Caroline* and McLeod Cases," *The American Journal of International Law* (January, 1938), 89.

killing some and wounding others, and then drawing into the current, above the cataract, setting her on fire, and, careless to know whether there might not be in her the innocent with the guilty, or the living with the dead, committing her to a fate which fills the imagination with horror. A necessity for all this, the Government of The United States cannot believe to have existed.⁴⁵

Because Webster elaborated these principles first, one can assume that they were intentionally limiting. There can be little doubt that his correspondence demanding England to show a "necessity of self-defense, instant, overwhelming, leaving no choice of means and no moment for deliberation," was intended to ask the impossible of Her Majesty's government. However, it was really Lord Ashburton's reply, ingenious in its ability to fit neatly into Webster's formulation for anticipatory intervention, that has enabled the *Caroline* case to be relevant today as the primary statements of international customary law on anticipatory self-defense.⁴⁶ Lord Ashburton began his rebuttal that the *Caroline* was indeed funneling arms into Canada and that the Government of the US failed to take effective steps to stop her. Since, up to the last minute, British commanders had expected her to be moored in British waters, there was no

⁴⁵ *British and Foreign State Papers, 1840-1841* (London: James Ridgway and Sons, Picadilly, 1857), 1138.

⁴⁶ R. Y. Jennings, "The *Caroline* and McLeod Cases," *The American Journal of International Law* (January, 1938), 89.

time for deliberation. The attack was planned at night to ensure the least loss of life.⁴⁷

Drawing upon the *Caroline* Case, there seems to be general agreement among international legal commentators that pre-Charter customary international law recognizes a right of anticipatory self-defense provided that the conditions of necessity and proportionality are met.⁴⁸ The *Caroline* case was the first important case where intervention was suffered by a strong state and a case where both parties were agreed in general terms to the law -- "which makes it all the more valuable as a precedent."⁴⁹ The *Caroline* case is a bedrock precedent for most customary law legal commentators. Because of its importance in international law, the *Caroline* case underscores the proper framework for evaluating anticipatory self-defense, and

⁴⁷ John Bassett Moore, *A Digest of International Law* (Washington: Government Printing Office, 1906), 413.

⁴⁸ Anthony Clark Arend and Robert J. Beck, *International Law and the Use of Force: Beyond the UN Paradigm*, (New York: Routledge, 1993), 73. "An examination of the scholarly literature on the question of anticipatory self-defense reveals that most scholars fall into one of two schools of thought. For simplicity's sake, these schools may be called the restrictionist and counter-restrictionist. 'Restrictionists' include such scholars as Brownlie, Dinstein, Henkin and Jessup. 'Counter-restrictionists' include Bowett, O'Brien, McDougal and Stone." Ibid.

⁴⁹ R. Y. Jennings, "The *Caroline* and *McLeod* Cases," *The American Journal of International Law* (January, 1938), 92.

provides the source and support for the customary tradition of 'imminence' and 'proportionality.'

Customary State Practice. "Customary state practice" is another way to consider customary law. Specifically, from the customary behavior of states, scholars can deduce norms that effectively serve as precedents in the body of customary law. In particular, customary state practices give us good criteria for judging what is considered "reasonable" in the arena of international conflicts and responses. Since this chapter revolves around the notion of anticipatory self-defense, it is beneficial to look at what states believe were reasonable conditions for preemptive operations in the past.

There are several cases in international law where the suitability of anticipatory self-defense was addressed. However, more than a cursory look at a few of these watershed cases is beyond the scope of this chapter.

Pakistan. During the Pakistan invasion of Kashmir in 1950, Pakistan justified its action as self-defense under customary law after exhausting all means for a peaceful settlement:⁵⁰

⁵⁰ United Nations Security Council, *Report of the Security Council to the General Assembly Covering the Period from 16*

In the beginning of May, Pakistan troops had moved in order to avoid imminent danger that threatened Pakistan's security and economy. This step had been communicated to the United Nations Commission for India and Pakistan as soon as feasible....⁵¹

In the later Security Council deliberations, only India voiced an objection to Pakistan's claim of legitimate intervention under anticipatory self-defense.⁵² Commentators have cited this episode as a key precedent for states following the customary international law concept of anticipatory self-defense.⁵³

Cuban Missile Crisis. The 1962 Cuban Missile Crisis is an important case study for two reasons. First, the intervention was justified under the regional authorization of the Organization of American States (OAS).⁵⁴ Second, it is the first unclassified anticipatory counterproliferation

July 1949 to 15 July 1950, General Assembly Office of Records, 5th Sess. (Supplement), 5073 A/1361, 2.

⁵¹ Ibid, 2.

⁵² Ibid, 1-5..

⁵³ D. Bowett, *Self-defense in International Law*, (New York: Praeger, 1958), 189.

⁵⁴ Abram Chayes, *The Cuban Missile Crisis* (New York: Oxford University Press, 1974), 4-5; Carl Christol and Charles Davis, "Maritime Quarantine: The Naval Interdiction of Offensive Weapons and Associated Material to Cuba, 1962," *American Journal of International Law*, 57 (1963), 597; and Quincy Wright, "The Cuban Quarantine," *American Journal of International Law* 57 (1963), 525.

intervention by the US in its history. Even though the official legal justification for the Cuban Missile Crisis focused on the authority of the OAS, the question of anticipatory self-defense was widely discussed in legal scholarship. "In the course of the debate, there was no specific rejection of the concept of anticipatory self-defense. Instead, there seemed to be an underlying acceptance by most members of the Council that in certain circumstances the preemptive use of force could be justified."⁵⁵

This justification, as in most cases of anticipatory self-defense, is made *ex post facto* and usually involves using the framework of the *Caroline* correspondence.⁵⁶ In the case of the US quarantine of Cuba, the danger to the US territorial integrity and political independence justified the US Navy's intervention of Soviet merchant ships on the high seas. It can be reasonably argued that the mere deployment of the missiles, coupled with the heightened tension between the US, Soviet Union and Cuba, was

⁵⁵ Anthony Clark Arend and Robert J. Beck, *International Law and the Use of Force: Beyond the UN Paradigm*, (New York: Routledge, 1993), 75.

⁵⁶ Since this type of intervention has been defined as "preemptive," the military element of surprise is critical. Depending on the imminence of the situation, notification to the Security Council or allies would necessarily be left until the very last moment.

considered an imminent danger to the security of the US. "Even a few days' delay by the United States in taking appropriate measures would have meant that the missiles would be in place and the situation irreversible."⁵⁷

Using the Cuban Missile Crisis as a case study, it has been concluded by many commentators that if there is enough evidence to show that the other side is planning an attack using weapons of mass destruction, the right of self-defense may be invoked, even though the exact date of the attack is unknown.⁵⁸

Nicaragua V. United States of America. During the early years of the Reagan Administration, the US trained and armed contra rebels in Honduras and Nicaragua in order to overthrow the anti-American communist regime in Nicaragua and to stop the flow of arms out of Nicaragua to other

⁵⁷ Myres McDougal, "Some Comments on the 'Quarantine of Cuba,'" 57 *American Journal of International Law* 592, (1963), 597. Because of the poor means of gathering intelligence and the lack of precision guided munitions, the chances of destroying the missiles once in place were not extremely high.

⁵⁸ See Charles Fenwick, "The Quarantine Against Cuba: Legal or Illegal?" 57 *American Journal of International Law* (1963), 588. See also Myres McDougal, "Some Comments on the 'Quarantine of Cuba,'" 57 *American Journal of International Law* 592, (1963), 597 and Quincy Wright, "The Cuban Quarantine," *American Journal of International Law* 57 (1963), 525.

states in the region such as El Salvador. Because of this overt US action, Nicaragua brought a case to the International Court of Justice. An important result of that case was that the ICJ established that the right of self-defense is an inherent right under customary international law as well as under the UN Charter.⁵⁹

The basic argument presented to the ICJ from the Reagan Administration was that the United States relied on self-defense against the allegedly secret penetration of international communism or acts of international terrorism.⁶⁰ In this case the ICJ upheld the international customary right of self-defense:

As regards the suggestion that the areas covered by the two sources of law are identical, the Court observes that the United Nations Charter, the convention to which most of the United States

⁵⁹ *Case Concerning Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America)*, Merits, 1986 International Court of Justice, Judgment of 27 June 1986, 84.

⁶⁰ See paragraphs 227-238, *Nicaragua v. United States of America*, Merits, 1986 International Court of Justice, Judgment of 27 June 1986, 118-123. It must be noted that the US gave six months notice on October 7, 1985 to terminate its 1946 declaration of acceptance of the Court's compulsory jurisdiction. See Carter and Trimble, 323. The reasons for the withdrawal came from a statement by the US Department of State on January 18, 1985, "The United States has consistently taken the position that the proceedings initiated by Nicaragua in the International Court of Justice are misuses of the Court for political purposes and that the Court lacks jurisdiction and competence over such a case.... With great reluctance, the United States has decided not to participate in further proceedings in this case." Ibid, 323.

argument is directed, by no means covers the whole area of the regulation of the use of force in pre-existing customary international law; this reference to customary law is contained in the actual text of Article 51, which mentions the "inherent right" (in the French text the "droit naturel") of individual or collective self-defense.... The Court therefore finds that Article 51 of the Charter is only meaningful on the basis that there is a "natural" or "inherent" right of self-defense, and it is hard to see how this can be other than a customary nature, even if its present content has been confirmed and influenced by the Charter.... It cannot, therefore, be held that Article 51 is a provision which 'subsumes and supersedes' customary international law.⁶¹

Unfortunately, the ICJ did not directly express a view on the issue of anticipatory self-defense.⁶² By embracing the

⁶¹ Ibid, 84.

⁶² Ibid, 118-123. In this case the ICJ did define an 'armed attack.' "Nicaragua has also claimed that the United States has violated Article 2, paragraph 4 of the Charter and has used force against Nicaragua in breach of its obligation under customary international law in as much as it has engaged in: 'recruiting, training, arming, equipping, financing, supplying and otherwise encouraging, supporting, aiding, and directing military and paramilitary actions in and against Nicaragua....' As to the claim that United States activities in relation to the Contras constitute a breach of the customary international law principle of the non-use of force, the Court finds that ... the United States has committed a *prima facie* violation of the principle by its assistance to the Contras in Nicaragua, by organizing or encouraging the organization of irregular forces or armed bands ... for incursions into the territory of another State."Ibid. See also John Lawrence Hargrove, "The Nicaragua Judgment and the Future of the Law of Force and Self-defense," *American Journal of International Law* (1987), accessed on Nexis-Lexis March, 19 1998, 137, "Since an 'armed attack' is necessary to justify resort to force in self-defense by the United States, the US claim of the right of self-defense failed because (a) the provision of arms or 'logistical or other support' to armed forces operating in

customary tradition of self-defense,⁶³ however, one could argue that the ICJ was endorsing the *Caroline* framework of 'imminence' and 'proportionality.'

A decision of the ICJ is not binding on states other than the parties to the case.⁶⁴ However, decisions are "subsidiary means for the determination of rules of law,"⁶⁵ and the decisions of the ICJ are highly authoritative.⁶⁶ "The court's principal conclusions, representing the views of an overwhelming majority of the judges, will doubtless be accepted by states generally and by the large majority of the legal community both in the United States and

the territory of another state does not amount to an 'armed attack' (and, in any event, such flows of arms from Nicaraguan to El Salvadoran territory as had taken place were not imputable to Nicaragua); and (b) certain 'military incursions' or 'military attacks' by the Nicaraguan Government into Honduran and Costa Rican territory, while found by the Court to be difficult to appraise legally, apparently did not amount to armed attacks.'" Ibid. Inclusive notes omitted.

⁶³ Ibid, 84.

⁶⁴ Article 59, ICJ, Barry Carter and Phillip Trimble, *International Law*, (New York: Little Brown and Company, 1995), 41. The US did not participate in any proceedings after January 18, 1985.

⁶⁵ Ibid, Article 38, 37.

⁶⁶ Henkin, Louis, Stanley Hoffmann, Jeane J. Kirkpatrick, Allan Gerson, William D. Rogers, and David J. Scheffer, *Right V. Might: International Law and the Use of Force* (New York: Council on Foreign Relations Press, 1991), 49.

elsewhere.”⁶⁷ Therefore, this ICJ ruling is an important precedent for developing a preemptive counterproliferation framework.

SUMMARY: A LEGAL FRAMEWORK FOR COUNTERPROLIFERATION INTERVENTION

Thus far this chapter articulates a legal argument that supports the right of anticipatory self-defense. It has shown that if or when collective action fails or is not viable due to the imminence or the political circumstances surrounding a WMD attack, a state has a legitimate right of anticipatory self-defense under international customary law. The placement of Article 51 at the end of Chapter VII of the UN Charter gives states a road map to deliberately pursue peaceful remedies to a potential conflict before using the military instrument in a preemptive action. All preemptive interventions are different, and the degree to which a state diligently uses the UN to peacefully resolve its proliferation security concerns will aid states *ex post facto* in determining whether a state acted legally and reasonably. However, the proliferation of WMD has overwhelmed much of the positive law doctrine concerning the

⁶⁷ Ibid.

use of force. Ballistic missiles and clandestine terrorist attacks are by their very nature imminent threats that leave little time for appeals to the UNSC and very little "moment for deliberation."

The following legal standard is proposed for preemptive counterproliferation intervention:

1. Imminence,
2. Proportionality, and
3. Reasonableness.

Imminence and Proportionality

We must adapt the concept of imminent threat to the capabilities and objective of today's adversaries...

To forestall or prevent such [WMD] hostile attacks by our adversaries, the United States will, if necessary, act preemptively...⁶⁸

The standards of imminence and proportionality were first proposed in the *Caroline* correspondences in which Webster challenged Lord Ashburton that the British preemptive strike against a US ship met neither standard. Using the precedents of *Caroline*, the Tribunal in the Nuremberg trials found that Germany's invasion of Norway and Denmark did not meet the standard of 'imminence' and was therefore determined to be "acts of war." In *Nicaragua V. The United States of America*, the ICJ ruled that self-defense was an

⁶⁸ Ibid.

inherent right. In the Cuban Missile Crisis, the US was determined by legal commentators to have met both the conditions of imminence (immediate nuclear attack) and proportionality (quarantine of Cuba instead of military invasion).

Stone said in 1958 that preemptive counterproliferation intervention "raise[s] horrifying thoughts of preventive war, and its perils in our age: but the perils are there even if we do not ask the questions."⁶⁹ After the September 11, 2001, terrorist attacks against the World Trade Center and Pentagon, the US has 'adapted' the customary tradition of imminence dating back almost 200 years to a new threat. "The greater the threat, the greater is the risk of inaction—and the more compelling the case for taking anticipatory action to defend ourselves, even if uncertainty remains as to the time or place of the enemy's attack."⁷⁰

Reasonableness

The US will not use force in all cases to preempt emerging threats, nor should nations use preemption as a pretext for aggression....

⁶⁹ Julius Stone, *Aggression and World Order: A Critique of United Nations Theories of Aggression*. Los Angeles: University of California Press, 1958, 99

⁷⁰ The White House, "The National Security Strategy of the United States of America," September 2002, 15, available online at www.whitehouse.gov

The reason for our actions will be clear, the force measured, and the cause just.⁷¹

If weapons of mass destruction have fundamentally changed the nature of self-defense, they arguably have created a new subsequent norm of general international law having the same character. In a highly volatile security environment, WMD, due to their nature and modern delivery systems, decrease the burden of evidence a state might require at the time to execute a preemptive operation. Third party states and courts should bear this in mind when evaluating actions that defenders have taken in anticipatory self-defense with regard to WMD. However, judgments about whether actions of anticipatory self-defense were or were not reasonable will be best secured if standards for reasonableness are broadly and collectively established in an *a priori* fashion.

President Bush's *National Security Strategy* and *National WMD Strategy* are strategy documents that clearly articulate preemption as reasonable behavior against rogue states and terrorists that threaten the US with WMD.⁷²

⁷¹ Ibid.

⁷² Ibid. See also The White House, "The National Strategy to Combat Weapons of Mass Destruction," December 2002, 2.

CHAPTER FIVE: CHEMICAL PROLIFERATION IN LIBYA (1981-1996)

For a decade beginning in 1981, Federal Republic of Germany (German) companies were helping Libya build a chemical weapons facility at Rabta. The Reagan Administration was very sensitive to German chemical technology transfers to Libya, and every US Administration since Reagan's has been sensitive to Libyan proliferation of WMD.

In February 2004 Libya acceded to the CWC and acknowledged stockpiling 44,000 pounds of mustard gas. According to the OPCW director general Rogelio Pfirter, Libya stopped its development program and production of chemical weapons in the early 1990s,¹ about the time the US threatened Qadhafi with preemptive counterproliferation intervention against his WMD facilities in Rabta and Tarhunah.

The purpose of this chapter is to identify key pillars, factors, and crosscutting enabling functions in a nonproliferation case study involving the US, Germany, and Libya. Research derived from this case study will be used to determine the efficacy of the US efforts to combat chemical WMD in Libya.

¹ "Libya Reveals Chemical Weapons Stockpiles," *The Atlanta Journal-Constitution*, March 05, 2004.

ACTIVE NONPROLIFERATION DIPLOMACY VIS-À-VIS GERMANY

Background

On April 22, 1980, German intelligence reported to the Federal Chancellery, Federal Foreign Office, Federal Ministry of Defense, and Federal Ministry of the Interior "Libya is developing a plant for the manufacture of chemical warfare agents as well as a system for using them."² On April 1, 1986 the US Embassy in Germany officially notified the German government of possible involvement of German companies in selling nuclear, biological and chemical equipment to Libya.³ On May 18, 1988 the US Embassy again expressed concern to the German government over the participation of German companies in the supply of chemical facilities to Libya and specifically named *Imhausen Chemie*.⁴ Finally, on January 18, 1989, Wolfgang Schaeuble, Chancellor

² "Report Submitted by the Government of the Federal Republic of Germany to the German Bundestag on February 15, 1989 Concerning the Possible Involvement of Germany in the Establishment of a Chemical Weapon Facility in Libya." This secret report was made unclassified and submitted to the US Senate to clarify Germany's role in supplying Libya with chemical weapons technology. This report can be found in US Congress, Senate, Committee on Foreign Relations, *Chemical and Biological Weapons Threat: The Urgent Need for Remedies: Hearings of the United States Senate, 101st Cong., 1st Sess., 24 January, 1 March, and 9 May 1989, 52*. See Appendix I at end of this section.

³ Ibid, 56.

⁴ Ibid, 59.

Helmut Kohl's Chief of Staff, issued a report to the German Parliament stating that intelligence reports dating back to 1980 suggested West German involvement in the building of the Rabta chemical weapons factory in Libya.⁵ Schaeuble's report to Parliament elicited a storm of protests in the Bundestag from politicians angered by the government's failure to take action for 9 years. One Member of Parliament accused the leadership of being "an accessory to mass murder."⁶

In spring 1989, Chancellor Helmut Kohl publicly admitted that German companies were involved in the Rabta chemical weapons plant in Libya and announced stronger legislation to prohibit the export of chemical weapons technology in the future.⁷ In an apologetic letter delivered on February 27, 1989 to Senator Claiborne Pell,

⁵ "Top Kohl Aide Acknowledges First Reports on Libyan Affair Date Back to 1980," *The Associated Press*, February 15, 1989, (accessed October 25, 1998), available from LEXIS-NEXIS Academic Universe.

⁶ "Kohl Weathers Barrage of Accusations at Parliamentary Debate," *The Associated Press*, February 17, 1989, (accessed October 17, 1998) available from LEXIS-NEXIS Academic Universe.

⁷ Letter from the German Ambassador to the United States, Juergen Rhufus, to Senator Claiborne Pell Dated February 27, 1989, available in US Congress, Senate, Committee on Foreign Relations, *Chemical and Biological Weapons Threat: The Urgent Need for Remedies: Hearings of the United States Senate*, 101st Cong., 1st Sess., 24 January, 1 March, and 9 May 1989, 109.

Chairman of the Senate Committee on Foreign Relations, the Ambassador of the Federal Republic of Germany to the United States, Juergen Rhufus, said:

The Government of the Federal Republic of Germany shares the policy of the Congress and the Administration of the United States of America to prevent the proliferation of the material and technology necessary to produce or deliver chemical or biological weapons.

The German Federal Government has, therefore, submitted to the German Bundestag legislation to strengthen substantially the German control regime to prohibit the flow of German materials, equipment, and technology that would assist countries in acquiring the ability to produce or deliver chemical or biological weapons...

The German Government has been deeply disturbed about German companies being involved in the transfer of chemical weapons technology to areas of international tension... While we are improving our relevant export controls to a much more stringent level we will strengthen our efforts through multilateral diplomacy to achieve the complete abolition of chemical weapons worldwide.⁸

To account for its activities during the decade of the 1980s to the US Congress and mend relations between two allies in 1989, the German government released a secret chronology of events between Germany and Libya.⁹

US Targeted Strategy Against Libya

Theoretically, Libya is a jamahiriya (state of masses), governed by the populace through local councils. In

⁸ Ibid.

⁹ See Appendix 1.

reality, Libya is a military dictatorship under Muammar Abu Minyar al Qadhafi. Libya has very low levels of socio-political cohesion, violent domestic politics, and has no political parties or other pluralistic groups. Qadhafi controls the instruments of power within Libya, has very few international relations outside the Arab/African community, and has no formal relationship with any US political agent. Despite past UN embargoes and a tumultuous domestic situation, Qadhafi has steadfastly maintained his power.

In Libya, classic realist rules apply and military force is a viable instrument of policy. Until recent developments, Qadhafi's policies have led Libya down a path of continuous confrontation with the United States. Since 1973, Libya has claimed as territorial waters the Gulf of Sidra, and beyond the Gulf another twelve nautical miles. The US has never recognized this claim.

Throughout the 1980s and 1990s, Libya actively sponsored international terrorism. Qadhafi harbored international fugitives who engaged in terrorist activities,¹⁰ pursued a massive chemical weapons production

¹⁰ United Nations Security Council Document s/Res/731, 21 Jan 1992, (accessed October 25, 1998), available from www.ourworld.compuserve.com/homepages/dr_ibrahim_ighneiwa/lib-west.htm; United Nations Security Council Document s/Res/748, 21 March 1992, (accessed October 23, 1998) available from www.ourworld.compuserve.com/homepages/dr_ibrahim_ighneiwa/

and storage capability, used chemical weapons against another country,¹¹ and engaged the US militarily on three separate occasions since 1981.

Qadhafi's position until 2003 concerning WMD was that Libya has the right under international law to produce and stockpile chemical weapons and, therefore, free to import chemical WMD technology without outside interference.¹²

Qadhafi's major limiting factor in acquiring WMD is Libya's lack of sufficient technological infrastructure to support domestic development of chemical weapons and delivery

lib-west.htm; United Nations Security Council Document S/Res/883, 11 Nov 1993, (accessed October 17, 1998), available from www.ourworld.com/serve.com/homepages/dr_ibrahim_ighneiwa/lib-west.htm. In 1992, the UN Security Council imposed sanctions against Libya for its involvement in the 1988 bombing of Pan Am flight 103 over Lockerbie, Scotland and for harboring two Libyans, Lameen Fhaima and Abdel-Basi Al-Megarhi, wanted for trial in the US and Scotland. After Libya extradited the suspects in 1999, the UN suspended its sanctions. Ibid.

¹¹ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>.

¹² US Congress, Senate, Committee on Foreign Relations, *Chemical Weapons Convention: Mr. Helms, from the Committee on Foreign Relations, Submitted the Following Report Together with Majority and Minority Views*, 104th Cong., 2nd Sess., Executive Report 104-33, 11 September, 1996. Prior to the "Convention on the Prohibition of Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction" (hereafter known as the CWC), international law did not prohibit the development or stockpiling of chemical weapons. Since Libya had not signed the CWC, it was not bound by the treaty's terms. Ibid.

systems. Therefore, Libya had to import the means necessary to produce these weapons.

Qadhafi believes that WMD can advance his international position, served as deterrents against the West's sophisticated weaponry, could be used to intimidate neighboring states, and could serve as cheaper alternatives to more expensive conventional systems.¹³ Qadhafi has repeatedly linked Libya's efforts to acquire chemical WMD directly to neutralizing Israel's nuclear weapons capability.¹⁴

Libya asymmetrically sought to increase its regional relative power by acquiring WMD. Qadhafi believed the US proliferation policy towards Israel was incongruent with its overall proliferation standards and, therefore, unfairly singled out Libya and other Arab states. As a self-proclaimed defender of developing countries, Qadhafi

¹³ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>.

¹⁴ "Libya: AL-Qadhdhafi Claims al-Tarhunah Tunnel for Irrigation," *FBIS*, Tripoli JANA in English, 1428 GMT April 17, 1996. FBIS-NES-96-076; "Libya: AL-Qadhdhafi Says U.S. Photograph of Tunnel Fake," Tripoli JANA in Arabic, 1710 GMT May 26, 96, in FBIS-NES-96-104; "Libya: Human Shield to Form to Protect Tarhunah Tunnel," Tripoli JANA in Arabic, 1120 GMT May 16, 96, in FBIS-NES-96-097; "Libya: JANA Criticizes U.S. Campaign Against Chemical Factory," Tripoli JANA in English, 0820 GMT May 9, 96, in FBIS-NES-96-091. "Libya Offers to Discuss Chemical Weapons Charges with U.S.," *The Associated Press*, April 11, 1996, available in LEXIS-NEXIS Academic Universe.

believed acquisition of WMD might legitimize Libya's desire to lead a pan-Arab movement against the US and Israel.¹⁵

The US targeted strategy was to prevent Libya from acquiring the materials and expertise to complete a chemical weapons factory. Since Germany was the primary supplier of this equipment in the 1980s, this strategy meant convincing an important ally to stop its chemical exports to Libya.

Bilateral Cooperation

The US and Germany are complex, pluralistic societies that exhibit strong democratic processes, high capacities to interact, similar legal institutions and cultures, advanced technological and industrial capabilities, and market economies. Germany and the US have been allied together since Germany joined NATO on May 6, 1955, and have long-established cooperative security arrangements. Germany had the third largest economy in the world and in the late 1980s was the world's top exporter.¹⁶ The US and Germany exhibited all the necessary relationships to cooperate over Libyan chemical proliferation in the 1980s and early 1990s.

¹⁵ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>.

¹⁶ "CIA Factbook," (accessed October 17, 1998), available from <http://WWW.odci.gov/cia/publications/factbook/ly.html>.

Intelligence and Active Nonproliferation Diplomacy

In 1980, the German government was aware of Libya's desire to acquire WMD and that German companies were involved in helping Libya reach that goal.¹⁷ The US was also aware of German proliferation to Libya and was sharing intelligence with the German government as early as 1986.¹⁸

In response to US intelligence products of German involvement, Germany told the US repeatedly throughout the 1980s that it needed US intelligence that was acceptable in German courts to support criminal or civil sanctions.¹⁹ According to the German Federal Intelligence Service (BND),

¹⁷ "Report Submitted by the Government of the Federal Republic of Germany to the German Bundestag on February 15, 1989 Concerning the Possible Involvement of Germany in the Establishment of a Chemical Weapon Facility in Libya," Congress, Senate, Committee on Foreign Relations, *Chemical and Biological Weapons Threat: The Urgent Need for Remedies: Hearings of the United States Senate*, 101st Cong., 1st Sess., January 24, March 1, and May 9, 1989, 52.

¹⁸ See Appendix I.

¹⁹ "Report Submitted by the Government of the Federal Republic of Germany to the German Bundestag on February 15, 1989 Concerning the Possible Involvement of Germany in the Establishment of a Chemical Weapon Facility in Libya," Congress, Senate, Committee on Foreign Relations, *Chemical and Biological Weapons Threat: The Urgent Need for Remedies: Hearings of the United States Senate*, 101st Cong., 1st Sess., January 24, March 1, and May 9, 1989, 64, 66, and 71.

the intelligence issued by the US was not 'strong' enough to initiate a Foreign Trade and Payment investigation.²⁰

On November 4, 1988 the BND reported to the Chancellor that until the summer of 1988 the BND had no knowledge of the participation of German companies from its own sources or from foreign intelligence sources. However, in the report submitted by Germany to the US Senate, the BND clearly had such knowledge of German proliferation since 1980.²¹ The German Foreign Ministry had given a written brief to Federal Minister Genscher in November 1988 for his upcoming talks in Washington. In that brief, it was recommended that Genscher tell the US that nothing had been found in US intelligence or German intelligence that violated the Foreign Trade and Payments Act and, that even if the information provided by the US was true, "the FRG would have no effective lever to prevent the mere participation of Germans in such [Libyan chemical] projects."²²

²⁰ Ibid. See June 8, 1988 in Appendix 1. "The [US] non-paper contains no concrete information of the kind of goods purported to have been exported." Ibid.

²¹ Ibid. See April 22, 1980, July 25, 1985, Feb 7, 1986 and Aug 3, 1987 for BND knowledge prior to summer 1988 in Appendix 1.

²² Ibid. See November 11, 1988 in Appendix 1.

The official position of the German bureaucracy was that US intelligence was not of sufficient specificity to invoke official German investigations and German legal action. In testimony before the Senate Foreign Relations Committee on March 1, 1989 then Director of the Central Intelligence Agency (CIA), William Webster, addressed this issue:

The principle is that none of these countries were able to develop their own capability without foreign assistance. Much of that foreign assistance came from West German companies. As I recall at the time, the problem was viewed in a legalistic way that is looked at in terms of the inadequacy of the laws or the lack of specificity of the intelligence to support a criminal or civil sanction...

I think we have to find a way of using our intelligence, protecting our sources and our methods so that we continue to collect intelligence, but to form a basis on which those laws can be triggered if they are passed. I don't mean to try to be too obscure in what I'm saying, but it -- you can develop sanctions, but then the proof of the sanctions will depend upon some form of evidence. And some of the intelligence that we have is not readily convertible into evidence. So, it is not an easy task. But, certainly, some showing on the part of the United States that it will, in this area, take sanctions, civil or criminal, is consistent with what the United States has done in the effort to control technology transfer of other kinds that are inimical to our national security.²³

²³ US Congress, Senate, Committee on Foreign Relations, *Chemical Weapons Proliferation. Hearing of the Senate Foreign Relations Committee*, Federal News Service, March 1, 1989, (accessed October 17, 1998) available from CIS Congressional Search.

When the knowledge of German involvement finally broke to the German Bundestag, the German Chancellor's rationale for not preventing the transfer of this technology sooner was that the shipments never violated German export laws:

In a democratic country which respects the rule of law, mere suspicion is not sufficient grounds for legal steps against individuals or companies who may have been involved in the building of a chemical weapons plant in Libya or in any other Libyan activities in the field of armaments. There has to be conclusive evidence. This also applies to public statements by the Federal government.²⁴

However, German media did not accept that rationale. In a German editorial in *Sueduette Zeitung* in 1996, Josef Joffe said:

In the late 80s, as [sic] the Americans kept informing Bonn with an increasing sense of urgency that German companies in particular were involved in putting together a Libyan "poor man's nuclear bomb" and that they were also seeking to do business with Iraq and Iran. Bonn responded with relatively deaf ears. Instead of immediately realizing that the reputation of the FRG was of more importance than any manner of export surpluses, the reaction was one of reticent pontification about the difference between "proof" and "indications."²⁵

²⁴ "Report Submitted by the Government of the Federal Republic of Germany to the German Bundestag on February 15, 1989 Concerning the Possible Involvement of Germany in the Establishment of a Chemical Weapon Facility in Libya," Congress, Senate, Committee on Foreign Relations, *Chemical and Biological Weapons Threat: The Urgent Need for Remedies: Hearings of the United States Senate*, 101st Cong., 1st Sess., January 24, March 1, and May 9, 1989, 49.

²⁵ "Germany: Commentary on Implications of Libyan Toxic Gas Deal," *Munich Sueduette Zeitung* in German, 21 August 1996 p 4 in FBIS-WEU-96-164, 21 Aug 1996.

Dramatically the German government reversed its status quo position in 1989. Germany publicly admitted that German companies were involved in the construction of the Rabta plant and agreed to amend its export laws, imposing much greater restrictions on the export of dual-use technologies. Germany then sent a full accounting of its actions to the US Senate Foreign Relations Committee along with a pledge to stop German export of these technologies in the future.

Active Nonproliferation Diplomacy and Public Diplomacy.

The frustration the US had with Germany throughout the 1980s concerning its chemical exports led to a shift in US policy in 1989 to providing intelligence to the German media. The US leaked sensitive satellite imagery of the Rabta chemical weapons plant, names of German chemical companies involved in the exports, and names of German citizens employed by Libya to help set up the Rabta facility. By leaking intelligence to the press, the US created an untenable position for the German government. Exposing the German public to the possibility that German companies were selling chemical weapons to Libya touched a

cultural and moral nerve in the FRG.²⁶ In testimony before the US Senate Foreign Relations Committee in October 1990 concerning the Open Skies Conference, Michael Krepon of the Stimson Center said:

You may recall the instance of the Rabta facility in Libya, where month after month, the United States government tried to convince the West German government to do something with respect to export controls and do something about a German presence in Libya. And all of those private pleadings led to nothing. The electronic media and some newsweeklies published a very fuzzy picture of the Rabta facility. It was a picture taken by a satellite with ten-meter resolution. That is to say, if the object is 33 feet or wider, it'll show up in the picture. It's a fuzzy picture, but it had an immediate reaction, in terms of the German government, in putting the Libyan government on the defensive, in creating a whole chain of events that was beneficial... The threat of releasing imagery from aerial surveillance might prompt a country to do the right thing.²⁷

The effect of releasing this intelligence to the media was immediate and overwhelming. In a hearing before the US Senate Foreign Relations Subcommittee on Near East and South Asia, Dr. Gary Milhollin, Director of the Wisconsin Project on Nuclear Arms Control, said:

²⁶ "Kohl Weathers Barrage of Accusations at Parliamentary Debate," *The Associated Press*, February 17, 1989, (accessed October 12, 1998), available from LEXIS-NEXIS Academic Universe.

²⁷ US Congress, Senate, Committee on Foreign Relations, *Chemical Weapons Proliferation. Hearing of the Senate Foreign Relations Committee*, Federal News Service, March 1, 1989, available in CIS Congressional Search, 3.

If you talk to the Germans about export controls -- and I talk to them, too -- they say that the universe is divided into two eras -- before Rabta and after Rabta -- because their company Emhousen (ph) was nailed publicly on television in Germany and in the US media as supplying willfully a chemical weapons plant to Libya despite US objections.

That only changed -- that is, the big disaster only befell the Germans when it all got in the newspapers, and it was in *Der Spiegel* every week, and it was all over German television. And finally, the Germans were humiliated publicly, and they caved, and they changed their export laws.²⁸

In testimony on nuclear proliferation before the US Senate Government Affairs Committee on May 18, 1989, William Webster summed up the effectiveness of US nonproliferation diplomatic efforts and releasing intelligence to the media:

I think that wherever there has been exposure, there has been a tendency for those who have skirted the edges of their own laws or taken advantage of loopholes in the law to slow down their activity. There is indeed a moral suasion available on the world scene, and we've seen examples of how it works, not necessarily indefinitely. Certainly I think Germany should -- the German government should be complimented for seeking tighter laws, as well as moral suasion. But the biggest weapon we have these days, I think, is to draw attention to businesses who purport to be legitimate who are engaging in activities which are -- which threaten the security of the world.²⁹

²⁸ US Congress, Senate, Committee on Foreign Relations, *Holds Hearing on Arms Sales to Iran: Senate Foreign Relations Subcommittee on Near East and South Asia*. FDCH Political Transcripts, May 6, 1997, (accessed October 17, 1998), available from CIS Congressional Search, 21.

²⁹ US Congress, Senate, Governmental Affairs Committee on Nuclear Proliferation, *Hearing of Senate Committee Governmental Affairs Committee on Nuclear Proliferation*, *Federal News Service*, May 18, 1989, (accessed 22 October 1998), available from CIS Congressional Search, 12.

Marshal Billingslea, former staff member of the US Senate Foreign Relations Committee, said that media exposure in the Rabta case was very effective in persuading Germany to stop the export of dual-use technologies. However, he cautioned that sharing intelligence in such cases to the media is not the panacea either. "The media might expose German companies. However, that exposure highlights what materials the proliferators need to get from other countries. Some of these countries do not share the West's conviction of nonproliferation and are not as responsive to international pressure, such as China."³⁰ Laura Cressey, Special Assistant, Political-Military Bureau of the US Department of State in 1998, said that the media can be quite effective in mitigating the flow of dual-use technologies, but also warned that states seeking WMD are looking increasingly to non-Western suppliers.³¹

Post-Rabta. After the 'Rabta affair' with Germany, CIA Director Webster stated that "at the present time, our

³⁰ Marshal Billingslea, former Staff Member, Senate Foreign Relations Committee, phone interview by author July 1, 1998.

³¹ Laura Cressey, former Special Assistant, Political-Military Bureau, US State Department, phone interview by author, July 1, 1998.

liaison with the German intelligence service is excellent, and we are working hand-in-glove to try to bring as much information to bear on the problem as possible."³² The export laws Germany enacted after Rabta included:

In January 1992 changes were made in the list of countries to which German export control measures are applied. Previously the list covered 54 countries, and industry was greatly concerned about the long time that tended to elapse from filing an application to approval. The list now covers only 34 countries. The Federal Assembly also approved legislation to allow investigators to tap telephones and intercept the mail of individuals suspected of violating export laws. In April the new Federal Export Office was established in Eschborn; ... employing 400 people. The Federal Export Office is responsible for the control, clarification, and approval of all requests for export according to new legislation for foreign trade. Germany's Customs Criminology Institute (ZKI) operates an early warning data base system called KOBRA which centralizes all documents filed with customs concerning certain categories of technology where there could be suspicion of weapon proliferation.³³

However, changes in German export laws were not immediately effective and there were some residual proliferation activities after the first convictions of German citizens in

³² US Congress, Senate, Senate Foreign Relations Committee, *Hearing of the Senate Foreign Relations Committee; Chemical Weapons*, Federal News Service, March 1, 1989, (accessed October 12, 1998), available from CIS Congressional Search.

³³ *SIPRI Yearbook 1992, World Armaments and Disarmament*, (Oxford University Press, 1992), 270. For additional testimony on the effectiveness of the new German laws, see also *Hearing of the Europe and Middle East Subcommittee of the House Foreign Relations Committee*, 12.

the Rabta affair. An unclassified cable from the American Consulate in Stuttgart, Germany to the US Secretary of State, in part read:

Eight weeks after the conviction and sentencing of Juergen Hippenstiel-Imhausen to five years in imprisonment for tax evasion and export control violations, the Imhausen Company is once again suspected of having developed and delivered plans for a second poison gas plant in Libya.³⁴

US COUNTERPROLIFERATION EFFORTS VIS-À-VIS LIBYA

The last section examined how the US used the crosscutting enabling functions of Targeted Strategy, Intelligence, and Bilateral Cooperation, and the Nonproliferation factor of Active Nonproliferation Diplomacy and Public Diplomacy, to eventually stop Germany from exporting dangerous chemical technology to Libya. However, at some point in the late 1980s Libya had imported enough German technology and gained sufficient experience to produce chemical weapons at its facility at Rabta.

The US chose not use the same nonproliferation factors with Libya that it used with Germany. The US used the pillar of Counterproliferation and specifically

³⁴ US Department of State, Cable P 101026Z Aug 90, (accessed October 17, 1998), available from <http://www.security-policy.org/papers/1990/90-p8-at.html>.

Interdiction, Deterrence, and Defense and Mitigation to stop Libyan proliferation.

Targeted Strategy to Prevent Libya from Completing its Chemical WMD Facilities

On December 2, 1979 the US embassy in Tripoli was destroyed by demonstrators apparently influenced by the takeover of the US embassy in Tehran.³⁵ On May 2, 1980, President Carter suspended all US embassy activities in Tripoli. On May 6, 1981 President Reagan ordered the closing of the Libyan People's Bureau in Washington, and twenty-seven Libyan diplomats were expelled from the United States for supporting international terrorism.³⁶

The US has had to resort to military force and other coercive acts against Libya on a number of occasions. In August 1981 US F-14 fighters operating from aircraft carriers around the Gulf of Sidra shot down two Libyan SU-22 fighters. In December 1981, the US ordered 1,500 American citizens to leave Libya or face legal action. In March 1982, oil imports from Libya were embargoed and technology transfer banned. In January 1986, Libyan assets were frozen

³⁵ "CIA Factbook," (accessed October 12, 1998), available from WWW.odci.gov/cia/publications/factbook/ly.html.

³⁶ Ibid.

as part of a series of economic sanctions.³⁷ In response to US intelligence that Libya had sponsored a bomb that exploded in a Berlin nightclub killing two people and injuring 204, the US launched strikes against Tripoli and Benghazi terrorist and military facilities in April 1986.³⁸ On January 9, 1989, the US again shot down Libyan fighters in the Gulf of Sidra.

The diplomatic-military behavior by the US vis-à-vis Libya shows a targeted strategy of stopping Libyan sponsorship of international terrorism. Throughout the 1980s, the US watched German chemical companies with increasing alarm as they helped build a chemical WMD plant at Rabta. Through diplomatic efforts and by leaking intelligence to the media, the US was able to curb German exports to Libya as the chemical plant was nearing completion in the late 1980s. In the early 1990s, the new US Targeted Strategy with Libya was to prevent Libya from producing chemical WMD.

Multilateral Cooperation and the Pillars of Nonproliferation and Counterproliferation

³⁷ "Anti-American U.N. Resolution Toned Down," *UPI*, January 9, 1989, (accessed October 22, 1998) available from LEXIS-NEXIS Academic Universe.

³⁸ *Ibid.*

After 1980 the US had limited diplomatic contact with Libya. Because the US struck Libya repeatedly throughout the 1980s, however, Qadhafi was fully cognizant that the US might use military force against Rabta, and tried a variety of means to gain international support to stop any US action.

Diplomatically, Qadhafi turned to his Arab and European neighbors throughout the late 1980s and 1990s to gain international support. Qadhafi also attempted to draw the US into "unofficial" negotiations through third parties in the hope the US would see a more united front. On January 5, 1989 the US Secretary of State stated that the US had no formal diplomatic relations with Libya but were communicating about the plant through intermediaries.³⁹ In early 1989, the Administration formally rejected calls for direct talks with Libya and said that Belgium was representing US interests in Libya while the United Arab Emirates represented Libyan interests in Washington.⁴⁰

On January 8, 1989 Libyan leader Qadhafi said that the United States "must negotiate with Libya directly" on the

³⁹ "Schultz Hints U.S. Open to Deal on Libyan Plant," *The Associated Press*, January 5, 1989, (accessed October 15, 1998) available from LEXIS-NEXIS Academic Universe.

⁴⁰ "Libya Offers to Discuss Chemical Weapons Charges with U.S.," *The Associated Press*, April 11, 1996, (accessed October 15, 1998), available from LEXIS-NEXIS Academic Universe.

disputed issues between them.⁴¹ On May 3, 1990 *The Washington Post* reported, "Contacts between the United States and Libya have intensified in recent months, in spite of renewed controversy over the Rabta factor and US allegations that Libya continues to support terrorism."⁴² By 1990 Egypt was publicly encouraging a US-Libyan dialogue.⁴³

Relaying Washington's rigid position on Rabta in January 1989, Marlin Fitzwater said "we certainly know their position and they know ours, so there shouldn't be any need for direct discussions. What there is a need for is for them to destroy [Rabta] and to improve their international responsibility."⁴⁴

Philo Dibble, former Deputy Director of Egyptian and North African Affairs at the Department of State, stated:

The US had a narrow line of communications through the Belgians. There were no direct diplomatic negotiations. The US lets the Libyans know of our

⁴¹ Ibid.

⁴² "Libya Said to offer to Dismantle Plant if it is Given New One," *The Washington Post*, May 3, 1990, (accessed October 19, 1998), available from LEXIS-NEXIS Academic Universe, A33.

⁴³ "Mubarak Lends Bush, Gadhafi a Hand," *The Washington Post*, March 27, 1990, A20, (accessed October, 1998) available from LEXIS-NEXIS Academic Universe.

⁴⁴ "US Rejects Libya's Call for Direct Talks," *The Xinhua General Overseas News Service*, January 9, 1989, (accessed around October, 1998), available from LEXIS-NEXIS Academic Universe.

position through the UN, the public, and through Libya's supporters and friends. Egypt has never been a privileged interlocutor in this matter.⁴⁵

The US was using the crosscutting enabling function of Multilateral Cooperation to isolate Libya from non-Arab states and the Nonproliferation factor of Active Nonproliferation Diplomacy to convey the message to Libya through third parties that the US would not negotiate on Rabta nor would the US allow Libya to produce chemical weapons.

Unable to negotiate directly with the US, Libya tried other means to stop US counterproliferation actions. Through the media, Qadhafi claimed that its chemical weapons facility at Rabta was a legitimate pharmaceutical chemical plant and offered international inspections of this 'pharmaceutical' facility. The US, however, rejected Qadhafi's offer:

A one-time inspection could not be conclusive in this regard. A CW plant could easily be modified to appear as a legitimate industrial chemical plant... All traces of chemical weapons production could be erased from a plant on extremely short notice.⁴⁶

⁴⁵ Philo Dibble, Deputy Director, Egyptian and North African Affairs, US State Department, phone interview by author, July 10, 1998.

⁴⁶ "State Department Rejects Libyan Offer," *The Associated Press*, December 30, 1988, (accessed around October 1998), available from LEXIS-NEXIS Academic Universe.

Though never admitting it was building a chemical weapon facility, Libya argued it had the right under international law to produce and stockpile chemical weapons.⁴⁷ Libya appealed to the international community and Arab world under a pretense of fairness and regional balance of power.⁴⁸ Specifically, Libya has repeatedly tried to tie the issue of Arab chemical weapons to Israel's nuclear monopoly.⁴⁹ Libya, with the help of Syria, put forward a proposal that chemical arsenals should be viewed against the backdrop of widespread belief that Israel possesses nuclear arms. This linkage, said Syrian Foreign Minister Farouk Charaa, amounts to "unilateral disarmament."⁵⁰

The US continued to refuse to interact at any level with Libya. In March 1989 the White House publicly announced that the life expectancy of an operational

⁴⁷ "Libya: AL-Qadhdhafi Claims al-Tarhunah Tunnel for Irrigation," *FBIS*. Tripoli JANA in English, 1428 GMT April 17, 1996. FBIS-NES-96-076.

⁴⁸ "Libya: JANA Criticizes U.S. Campaign Against Chemical Factory," Tripoli JANA in English, May 9, 96, in FBIS-NES-96-091.

⁴⁹ "U.S. Drive to Censure Libya Lags," *The Washington Post*, January 7, 1989, A1, (accessed around October 1998), available from LEXIS-NEXIS Academic Universe.

⁵⁰ *Ibid*, A2.

chemical weapons facility at Rabta was "nanoseconds."⁵¹ Qadhafi subsequently abandoned Rabta and placed his chemical weapons technology in a deeply buried tunnel in the mountains of Tarhunah.

The Tarhunah Chemical Weapons Complex: The Pillar of Counterproliferation and Factors of Interdiction and Defense and Mitigation

On March 15, 1990 a fire supposedly destroyed the Rabta chemical WMD facility in Libya. Since the fire occurred at the peak of US-Libyan tensions over Rabta, it appeared like Qadhafi had executed his own face-saving *fait accompli* to avoid a US aerial attack. The chapter on Libya's near-term acquisition of WMD appeared to be closed.⁵²

However, on June 18, 1990 the State Department announced that the Rabta fire was a hoax perpetrated by Libya.⁵³ Moreover, other reports indicated that one-week before the fire, all chemical weapons and production equipment were removed from Rabta and placed in an

⁵¹ "From the White House," *Federal News Service* (March 7, 1990), (accessed October 20, 1998), available from LEXIS-NEXIS Academic Universe.

⁵² "From the State Department," *Federal News Service*, March 15, 1990, (accessed October 15, 1998), available from LEXIS-NEXIS Academic Universe.

⁵³ *Ibid.*

underground tunnel system located in Tarhunah, Libya.⁵⁴ The following was reported in a German editorial in May 1996:

Even the "al-Rabitah" chapter mercifully appeared to draw to a close, when the poison gas factory burned down under mysterious circumstances in 1990. However, the foxes have unfortunately become cleverer. Today, it can be assumed to a degree bordering on certainty that al-Qadhdhafi himself staged the al-Rabitah fire himself (sic) to cover his tracks and to build an "al-Rabitah II" elsewhere -- in a mountain bunker complex at Tarhunah, which the US Air Force should not find easy to knock out.⁵⁵

After the Rabta fire, the US used the Counterproliferation factor of Interdiction and reportedly destroyed some chemical production hardware while it was out in the open waiting to be transported to Tarhunah.⁵⁶ The US efforts to interdict equipment taken from the Rabta plant, however, were insufficient to prevent the Tarhunah facility from becoming operational.⁵⁷ In response to this situation

⁵⁴ Douglas Waller, "Target Gaddafi, Again: He's Building a Huge Plant to Make Nerve Gas, and the CIA is Trying to Stop It." *Time* (April 1, 1996), 46.

⁵⁵ "Germany: Commentary on Implications of Libyan Toxic Gas Deal," *Munich Sueddeutsche Zeitung* in German, 21 August 1996 p 4 in FBIS-WEU-96-164, 21 Aug 1996.

⁵⁶ Douglas Waller, "Target Gaddafi, Again: He's Building a Huge Plant to Make Nerve Gas, and the CIA is Trying to Stop It," *Time* (April 1, 1996), 46.

⁵⁷ "Libya-Egypt Talks tied to U.S. Warning," *UPI*, April 5, 1996, (accessed around October 1998), available from LEXIS-NEXIS Academic Universe. In April 1996, Perry postulated that the completion of the Tarhunah complex was "more than a year away." *Ibid.*

on April 3, 1996, then US Secretary of Defense William Perry hinted at the ultimate American trump card while he was visiting President Mubarak of Egypt. Perry clearly said that the US would not allow Libya to finish the new chemical weapons facility in Tarhunah and would not rule out the use of military force.⁵⁸ Since it was reported at the time that the only means to knock out the deeply buried tunnel system from the air was with a small, deep-penetrating nuclear weapon, Perry had given Muammar Qadhafi the super power ultimatum.⁵⁹

Libya was not idle on the diplomatic front during the Rabta and Tarhunah episodes. Libya rarely misses an opportunity to align with fellow Arab states against the US and extraordinary US pressure on Libya gave Qadhafi the impetus to seek maximum international exposure. Appendix II is a select chronology of Libyan efforts to form coalitions

⁵⁸ "Saudi Arabia: Expatriate Paper -- No Case for Claiming Libya has Chemical Weapons," London AL-SHARQ AL AWSAT in Arabic, April 6, 96 in FBIS-NES-96-075; Waller, "Target Gaddafi, 46; United Nations, "Letter from Elizabeth Furse, Member of Congress, to President Clinton on May 3, 1996," United Nations Security Council document W/1996/346; "Libya-Egypt Talks tied to U.S. Warning," *UPI*, April 5, 1996.

⁵⁹ United Nations, Letter from Elizabeth Furse, Member of Congress, to President Clinton on May 3, 1996," United Nations Security Council document W/1996/346. Harold Smith, Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Defense Programs, confirmed Perry's speech in late April 1996 by suggesting that the US might use a nuclear weapon in the case of Libya. Ibid.

and use multilateral efforts to counter US efforts to deny them chemical weapons. The more intensive Libyan efforts at multilateral diplomacy and coalition building generally occurred when Libya perceived that a US military action was imminent.⁶⁰

While Libya was courting Arab states to help in its struggle against the US, the US leaked intelligence pictures of the Rabta facility to the press⁶¹ and an artist's rendition of the intelligence findings on the Tarhunah facility.⁶² This use of the media against Libya served a much different purpose than US' intelligence leaks to the media in its negotiations with Germany. The intelligence photographs of Tarhunah served to isolate Qadhafi from the international coalitions he had been cultivating since the late 1980s and condition the international community to possible US strikes. Using the media in this capacity put

⁶⁰ Appendix II.

⁶¹ US Congress. Senate. European Affairs Subcommittee of the Senate Foreign Relations Committee. *Hearing of the European Affairs Subcommittee of the Senate Foreign Relations Committee on Open Skies Conference. Federal News Service, October 9, 1990*, (accessed around October 1998), available from CIS Congressional Search, 3.

⁶² US Department of Defense, "Artists Rendering of the Tarhunah Complex Based on Classified Photo Reconnaissance Sources," April 1996, (accessed around October 1998), available from www.brook.edu/fp/projects/nucwest/tarhunah.htm.

Qadhafi on the defensive, forcing him to respond to the imagery with reports that the photographs were "fake,"⁶³ that the whole Tarhunah chemical WMD was a "conspiracy theory,"⁶⁴ and that Tarhunah was an irrigation project.⁶⁵

Sustained counterproliferation efforts by the US finally forced Qadhafi to abandon his construction at Tarhunah. On May 16, 1996, FBIS translated the following article from JANA in Tripoli:

Two hundred and twenty Islamic bodies, institutions, parties and prominent figures from the geographic groups of the Islamic world, the Arab homeland, Asia, Africa, Europe, and the two Americas, members of the International Islamic Popular Command, have decided to form a human shield made up of millions of Muslims to be deployed at the site of the tunnel used for regulating the flow of water from the Great-Man-Made River to farms in the Al Jifarah valley in the Tarhunah mountain range. This will be done to confront the US aggressive threats to drop atomic bombs on the tunnel.⁶⁶

⁶³ "Libya: AL-Qadhdhafi Says U.S. Photograph of Tunnel Fake." *FBIS*. Tripoli JANA in Arabic, 1710 GMT May 26, 1996, FBIS-NES-96-104.

⁶⁴ "Libya: US Concern About Chemical Weapons Dismissed as 'Conspiracy Theory,'" London AL-SHARQ AL-AWSAT in Arabic April 4, 1996 p. 9 in FBIS-NES-96-067.

⁶⁵ "Libya: AL-Qadhdhafi Claims al-Tarhunah Tunnel for Irrigation," *FBIS*. Tripoli JANA in English, 1428 GMT April 17, 1996. FBIS-NES-96-076.

⁶⁶ "Libya: Human Shield to Form to Protect Tarhunah Tunnel," Tripoli JANA in Arabic, 1120 GMT 16 May 96, in FBIS-NES-96-097.

After this demonstration, Qadhafi stopped his chemical WMD efforts at Tarhunah though he never admitted that Tarhunah was a chemical weapons factory. However, after receiving copies of the construction plans from German and Austrian companies, the CIA reported in February 1996 that Tarhunah, if operational, would be able to produce several tons of poison gas a day.⁶⁷

FINDINGS

US Nonproliferation Efforts Vis-à-vis Germany

Crosscutting Enabling Functions. In the case study involving Germany, the US used Intelligence, Bilateral Cooperation, and a Targeted Strategy as crosscutting enabling functions in the pillar Nonproliferation:

Crosscutting Enabling Functions	Pillar of Nonproliferation
Targeted Strategy	Yes
Intelligence	Yes
Bilateral and Multilateral Cooperation	Yes

Table 5-7

⁶⁷ "Underground Chemical Weapons Plant Cited," (accessed around October 1998), available from lexis-nexis universe.

Targeted Strategy. The US clearly had a targeted strategy to stop Libya from acquiring WMD. Libya actively sponsors international terrorism, has used chemical weapons against another country,⁶⁸ and has engaged the US militarily on three separate occasions since 1981. The US identified German companies as the primary supplier of chemical technology to Libya. Initially, the US Targeted Strategy was to stop German chemical exports to Libya, and, therefore, prevent Libyan proliferation.

Intelligence. The US had adequate intelligence to detect the chemical facilities at Rabta and Tarhunah as well as identify the German firms involved in their construction.⁶⁹ However, the convertibility of US intelligence to evidence that could be used in German courts was an issue throughout the 1980s and into the 1990s. To end the US-German diplomatic deadlock concerning the efficacy and convertibility of US intelligence, the US leaked nonproliferation intelligence to the German media and used German public opinion as its primary diplomatic nonproliferation lever.

⁶⁸ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>.

⁶⁹ Appendix I.

Bilateral Cooperation. The US and Germany are complex, pluralistic societies and have long-established cooperative security arrangements. The US and Germany exhibited all the necessary relationships to cooperate over Libyan chemical proliferation. However, as the world's third largest economy and the world's top exporter in the late 1980s,⁷⁰ elements of Germany's free market economy were clearly in tension with German and US nonproliferation policies. Eventually, bilateral cooperation and nonproliferation diplomacy prevailed between the US and Germany in the case of Libyan chemical proliferation when Germany changed its chemical export laws and began to prosecute German companies.

Nonproliferation Factors: Active Nonproliferation Diplomacy. On March 25, 1986 the US embassy in Germany passed to the German Federal Foreign Office a non-paper identifying that "a [German] company was thought to be negotiating with Libya on the sale of NBC [nuclear, biological and chemical] equipment." This was the first of many low-level diplomatic efforts by the US to stop German firms from completing the chemical weapons plant.⁷¹ Why was

⁷⁰ "CIA Factbook," (accessed around October 1998), available from <http://WWW.odci.gov/cia/publications/factbook/ly.html>.

⁷¹ Appendix I.

the US unable to gain German compliance from the early 1980s until 1989? In an October 1995 counterproliferation article by Sergey Kortunov, consultant of the National Security Assistant to the Russian Federation President, the message that the US missed many opportunities was clear:

Multilateral diplomacy in this area is clearly under used. For example, in the 1970s and the 1980s, the United States knew that West German companies were building plants for manufacturing poison gases in Libya and Iraq... The United States took no effective measure until one plant for manufacturing poison gases in Rabta Libya, was ready to launch production. Only then did US officials begin to speak of this in the press. As a result, the Germans were compelled to tighten their export control legislation. Clearly, had the US government brought pressure to bear on the German firms five years earlier, today the world would be a safer place.⁷²

The 'non-papers' presented to the German government as early as 1986 were not strong enough diplomatic efforts to pressure the Kohl government to change German export laws.⁷³

⁷² "Russia: Counterproliferation Strategies." *FBIS*. Moscow YADERNYY KONTROL: OBOZRENIYE PO PROBLEMAM ORUZHIIYA MASSOVOGO UNICHTOZHENIYA V ROSSII I NOVYKH NEZAVISIMYKH GOSUDARSTVAKH in Russian October 1995 No. 10, in *FBIS-SOV-96-139-S*.

⁷³ "Report Submitted by the Government of the Federal Republic of Germany to the German Bundestag on February 15, 1989 Concerning the Possible Involvement of Germany in the Establishment of a Chemical Weapon Facility in Libya," US Congress, Senate, Committee on Foreign Relations, *Chemical and Biological Weapons Threat: The Urgent Need for Remedies: Hearings of the United States Senate*, 101st Cong., 1st Sess., January 24, March 1, and May 9, 1989, 49. See Appendix I.

According to the US State Department, there were stronger signals the US government could have given to Germany,⁷⁴ and at much higher levels⁷⁵ that would have raised the level of diplomacy.⁷⁶

Eventually, Germany succumbed to US political pressure and stopped its chemical exports to Libya. However, Libya had acquired enough material and expertise to pursue chemical weapons development without German help:

The German Government is conscious that there are a lot of German footprints in the sand on some of these export questions. But in June of [1990] the German government passed two laws -- or two amendments which provided for much stiffer penalties, much stronger licensing provisions for German firms engaged in this kind of export business... There is no question ... that the intent of the German government to get hold of this problem is very serious indeed.⁷⁷

⁷⁴ Ken Gross, Foreign Service Officer, Germany Desk, US State Department, interview by author, July 8, 1998. Ibid.

⁷⁵ Appendix I. The first high level correspondence between the US and Germany occurred on November 11, 1988, two years after the US Embassy sent its first non-paper to the German Foreign Ministry. Ibid.

⁷⁶ Congress, Senate, Committee on Foreign Relations, *Chemical Weapons Proliferation. Hearing of the Senate Foreign Relations Committee. Federal News Service*, March 1, 1989, (accessed around October 1998), available from CIS Congressional Search.

⁷⁷ Congress, House, Europe and Middle East Subcommittee of the House Foreign Relations Committee, United States House of Representatives, *Hearing of the Europe and Middle East Subcommittee of the House Foreign Relations Committee, Federal News Service*, October 9, 1990, (accessed around October 1998), available in CIS Congressional Search.

US Nonproliferation Efforts Vis-à-vis Libya

Crosscutting Enabling Functions. In its efforts to stop Libya from constructing chemical WMD plants at Rabta and Tarhunah, the US used crosscutting enabling functions of Targeted Strategy, Intelligence, Bilateral and Multilateral Cooperation, and Research and Development:

Crosscutting Enabling Functions	Pillar of Counterproliferation
Targeted Strategy	Yes
Intelligence	Yes
Bilateral and Multilateral Cooperation	Yes
Research and Development	Yes

Table 5-8

Targeted Strategy. The US Targeted Strategy to stop Libyan proliferation remained steadfast as Germany stopped exporting chemical technology to Libya in 1990. The overall US strategy, however, shifted from diplomatic efforts vis-à-vis Germany to a policy of isolating Libya diplomatically and applying counterproliferation factors of interdiction, deterrence, and intervention.

Intelligence. The US quickly detected that the Rabta fire was a hoax and covertly interdicted equipment from Rabta before it could be placed in the mountain complex of

Tarhunah. Subsequently, the US released intelligence to the media of the Tarhunah chemical plant. From a Defense and Mitigation factor, the US had the necessary intelligence to target Tarhunah and to determine when the chemical plant was operational.⁷⁸

Bilateral and Multilateral Cooperation. Since closure of the US embassy in 1980 and the expulsion of Libyan diplomats by President Reagan in 1981, the US had no formal diplomatic relations with Libya from 1980 through 1996. The US used informal intermediaries to convey to Libya that the US would not allow either Rabta or Tarhunah to produce chemical weapons.

Libya countered US military and political pressures during the bipolar structure of the 1980s by attempting to align itself with the Soviet Union. As the Soviet Union collapsed and international politics shifted from bipolarity to US dominance and weak unipolarity into the 1990s, Libya attempted to court Egypt, Italy, France and Spain to counter US nonproliferation actions against it. Libya was never able to gain support from non-Arab major powers or from the industrial democracies to its north and remained isolated and susceptible to US targeted strategies.

⁷⁸ The author was involved in the targeting of the Tarhunah chemical weapons complex in the mid-90s.

Research and Development. The Tarhunah episode raised important military concerns in the DoD about the ability of the US to strike deeply buried targets. US military planners in 1995 had been able to target the Tarhunah facility but not destroy it completely with conventional weapons. The choice for a counterproliferation strike in 1996 was either special operations forces on the ground with its associated risks, air strikes using conventional weapons that would seal the complex but not destroy the equipment, or a nuclear attack.⁷⁹ Recognizing the nonproliferation dilemma and irony of destroying a WMD plant with a nuclear weapon, the DoD began the Hard and Deeply Buried Target Defeat Capability (HDBTDC) program in the late 1990s.⁸⁰ The Defense Threat Reduction Agency and the Defense Intelligence Agency are currently operating a deeply buried test facility in Nevada to develop, test, and assess end-to-end US capabilities against Tarhunah and other type-sites.⁸¹ Using

⁷⁹ The author was in J3 Plans, USCENTCOM, during this time period and involved in various targeting issues with regard to Libya.

⁸⁰ United States, Department of Defense, "Proliferation: Threat and Response, 2001," (accessed January 15, 2002), available from <http://WWW.Defenselink.com>.

⁸¹ End-to-end refers to detecting, identifying and characterizing facilities and then to develop targeting, attacking options, and then perform damage assessment.

ACTDs, the DoD is rapidly fielding weapons with hardened fuses, increased payloads around 30,000 lbs, increased kinetic energy weapons, and black programs designed to destroy or render inoperative deeply buried targets.

Counterproliferation Factors: Interdiction and Deterrence. The US reportedly had destroyed some chemical production hardware while it was out in the open waiting to be transported to Tarhunah.⁸² However, US interdiction was insufficient to prevent Libya from completing the Tarhunah weapons facility.

The US has maintained a Carrier Battle Group in the Mediterranean with 70 combat aircraft, hundreds of Tomahawk cruise missiles,⁸³ as well as shore-based aircraft in the US and in Europe. The US used this military presence as a conventional deterrent to Libya's completion of the Tarhunah chemical weapons facility.

⁸² Douglas Waller, "Target Gaddafi, Again: He's Building a Huge Plant to Make Nerve Gas, and the CIA is Trying to Stop It." *Time* (April 1, 1996), 46.

⁸³ "Libya: AL-Qadhdhafi Claims al-Tarhunah Tunnel for Irrigation." *FBIS*. Tripoli JANA in English, 1428 GMT April 17, 1996. FBIS-NES-96-076. "The American fleet for example has atomic weapons and is present at a close distance from us and constitutes a constant source of threat at any one time." *Ibid*.

Counterproliferation Factors : Defense and Mitigation.

The US efforts to interdict equipment bound for the Tarhunah facility were insufficient to prevent the Tarhunah facility from becoming operational.⁸⁴ In response to this situation on April 3, 1996, then US Secretary of Defense William Perry hinted at the ultimate American trump card while he was visiting President Mubarak of Egypt. Perry clearly said that the US would not allow Libya to finish the new chemical weapons facility in Tarhunah and would not rule out the use of military force.⁸⁵ Since it was reported at the time that the only means to knock out the deeply buried tunnel system from the air was with a small, deep-penetrating nuclear weapon, Perry had signaled to Muammar Qadhafi that the US would use all of its military capabilities to destroy Tarhunah should the plant become operational.⁸⁶ Though at

⁸⁴ "Libya-Egypt Talks tied to U.S. Warning," *UPI*, April 5, 1996, (accessed around October 1998), available from LEXIS-NEXIS Academic Universe. In April 1996, Perry postulated that the completion of the Tarhunah complex was "more than a year away." *Ibid.*

⁸⁵ "Saudi Arabia: Expatriate Paper -- No Case for Claiming Libya has Chemical Weapons," London AL-SHARQ AL AWSAT in Arabic, April 6, 96 in FBIS-NES-96-075; Waller, "Target Gaddafi, 46; United Nations, "Letter from Elizabeth Furse, Member of Congress, to President Clinton on May 3, 1996," United Nations Security Council document W/1996/346; "Libya-Egypt Talks tied to U.S. Warning" *UPI*, April 5, 1996.

⁸⁶ United Nations, Letter from Elizabeth Furse, Member of Congress, to President Clinton on May 3, 1996," United Nations Security Council document W/1996/346. Harold Smith,

the time the US had a conventional capability to render Tarhunah inoperative, the US leaked a veiled nuclear threat to third party intermediaries and the media to ensure that the US nonproliferation policy in Libya was thoroughly understood by Qadhafi.

End State

When faced with the determined military resources and capabilities of the United States, Qadhafi ultimately stopped the completion of Tarhunah. The US continued using key factors of sanctions, threat of military force, and active nonproliferation diplomacy until Libya abandoned its desires to acquire WMD. Today, Libya has signed the CWC, IAEA Additional Protocol, and given up his purpose of acquiring WMD. In response, the US has begun lifting sanctions against Libya and normalizing relations.

Germany changed its legislation on chemical exports in 1990, and publicly admitted a chemical nonproliferation policy in line with the US. Both Germany and the US believe that the nonproliferation of the material and technology necessary to produce or deliver chemical or biological weapons to rogue nations or states that sponsor terrorism is

Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Defense Programs, confirmed Perry's speech in late April 1996 by suggesting that the US might use a nuclear weapon in the case of Libya. Ibid.

of vital national interest.⁸⁷ Today, the US and Germany are signatories to the CWC and members of the Australia Group.

SUMMARY

In summary, actions against Libya in the 1980s and 1990s were a long-term success for US nonproliferation policy. In March of 2004 Libya abandoned its desires to acquire chemical and nuclear WMD and has signed both the CWC and IAEA Additional Protocol.

However, the path to Libyan nonproliferation compliance was lengthy and involved direct US intervention with both Germany and Libya. Weak US nonproliferation diplomatic efforts alone vis-à-vis Germany were insufficient to stop German chemical transfers from 1981 through 1989. By 1991 Libya had acquired sufficient chemical material and expertise to produce and store chemical weapons.

⁸⁷ Letter from the German Ambassador to the United States, Juergen Rhufus, to Senator Claiborne Pell Dated February 27, 1989, available in Congress, Senate, Committee on Foreign Relations, *Chemical and Biological Weapons Threat*, 109. See also United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

After Libya's abandonment of Rabta, the US subsequently used interdiction, deterrence, and defense and mitigation throughout the 1990s to pressure Libya to abandon its plant at Tarhunah. Eight years later in 2004 Libya turned over its chemical weapons and joined the CWC.

CHAPTER SIX: ISRAEL'S COUNTERPROLIFERATION EFFORTS IN IRAQ

From the mid-1970s Israel believed Iraq was seeking nuclear WMD as Saddam Hussein negotiated the purchase of a nuclear reactor from France. As the Iraqi Osiraq research reactor was nearing completion in 1981, Israel also believed that the IAEA safeguards system was incapable of detecting Iraqi nuclear proliferation and was signaling to the world a 'false positive'¹ of Iraqi compliance with its NPT promises. Unable to stop the construction of the Iraqi reactor or strengthen IAEA-Iraqi "Agreements," and fearing for its own survival should Iraq acquire nuclear WMD, Israel destroyed the Osiraq nuclear reactor in 1981. After the attack, the international community focused exclusively on Israel's 'illegal' military action and chose not to act upon the evidence that Iraq was pursuing WMD or act to strengthen the IAEA. This allowed Iraq to reconstitute and accelerate its nuclear WMD program in the mid-1980s.²

The purpose of this chapter is to identify key pillars, factors, and crosscutting enabling functions in an historical nonproliferation case study involving Israel and Iraq. Research derived from this case study will be used to

¹ Charles Duelfer, former Deputy UNSCOM, interview by author July 26, 2001.

² Khidhir Hamza, Iraqi defector and former Iraqi nuclear scientist, interview by author January 6, 2002, e-mail.

determine the efficacy of the pillars, factors and crosscutting enabling functions to mitigate proliferation.

**PRE-OSIRAQ: IRAQ'S NUCLEAR ASPIRATIONS AND ISRAEL'S
NONPROLIFERATION AND COUNTERPROLIFERATION EFFORTS**

Intelligence on Iraq's Nuclear Program

Beginning its quest for nuclear technology in the 1950s, Iraq began building in 1963 the Tuwaitha Nuclear Research Center near Baghdad with help from the Soviet Union. The research facility included the 2 megawatts (MW) IRT-2000 nuclear reactor. In 1974-75 Iraq approached France for additional assistance.

After prolonged negotiations and a visit by Saddam Hussein to France, a nuclear cooperation agreement was concluded between the two nations in 1974. Initially, Iraq requested a 500 MW graphite power reactor, which was used primarily as a source of plutonium for the Force de Frappe,³ as well as power generation. France, however, had stopped making the graphite reactor in the 1960s and was now making the Pressure Water Reactor (PWR) and the Boiling Water Reactor (BWR) types. Israel at the time estimated that the French graphite reactor could have produced 400 kg of

³ "Delayed Reaction," *Jerusalem Post*, (August 22, 1980). See also Shai Feldman, "The Bombing of Osiraq -- Revisited," *International Security* (Fall 1992), 115.

weapons grade plutonium annually⁴ -- enough for 20 nuclear bombs. Iraq declined the alternative offer of PWR or BWR reactors and opted instead for a 40 MW Osiraq-type research reactor. Iraq had embarked on a longer but more clandestine approach to nuclear proliferation.

Of all the research reactors in 1981, the Osiraq-type was one of the most suitable for the production of weapons grade plutonium⁵ because it was designed to study the properties of radiation on certain metals. Material Testing Reactors (MTRs) normally exist in countries that plan to develop and produce new reactor technology. The Osiraq reactor would have 31 places built into the reactor core to insert materials for irradiation.⁶

In order to produce weapons grade plutonium from the Osiraq reactor, a number of additional facilities would have to be constructed to process the nuclear fuel. In addition to the reactor, Iraq purchased from Italian and French firms a uranium target manufacturing facility and a plutonium separation plant.

⁴ Government of Israel, Ministry of Foreign Affairs and Atomic Energy Commission, *The Iraqi Nuclear Threat -- Why Israel Had to Act*, Jerusalem, 1981.8.

⁵ Ibid 9.

⁶ Shai Feldman, "The Bombing of Osiraq -- Revisited," *International Security* (Fall 1992), 117.

To acquire the critical separation expertise and facilities, Iraq purchased from Italy a small, gram size hot cell for training and a large-scale separation plant capable of processing up to 25 tons of uranium. The larger separation cell was designed and installed without radiation shielding, and some components were unsuitable for "hot" work. However, Israel believed that "despite its apparent unsuitability for 'hot' operation, the possibility of adding radiation shielding to the facility and modifying some of its components cannot be ruled out."⁷

In March 1980, the *New York Times* reported that the Italian "hot" cells would be able to produce 5-10 Kgs per year of weapons grade plutonium (or one bomb per year) -- a figure that Israel agreed with:

By adding target (U238) elements to the Osiraq core within the "chimney," it is possible to produce up to 10 Kg of Pu [plutonium] annually. No changes in the reactor cooling system are required. 80 Kg of enriched uranium (the amount provided for in the Franco-Iraqi agreement) should suffice for the operation of Osiraq for 2-3 years. In this period, 20-30 Kg of Pu could be produced, consuming 10-20 tons of natural or depleted uranium.⁸

⁷ Government of Israel, Ministry of Foreign Affairs and Atomic Energy Commission, *The Iraqi Nuclear Threat -- Why Israel Had to Act*, Jerusalem, 1981. 12.

⁸ Ibid, 51.

Israel's Targeted Strategy to Stop Iraqi Proliferation

Iraq was motivated to acquire WMD for a variety of reasons. The most important factor was that Iraq would be the first Arab State to acquire nuclear weapons. Iraq has always wanted to be the leader of emerging pan-Arab nationalism and the dominant power in southwest Asia.⁹ The acquisition of nuclear weapons was a critical element in this endeavor. Overall, Iraq would become a dominant regional power if it could couple its large conventional army, petroleum-based economy, and large population with nuclear weapons.

Iraq was aware that Israel had nuclear weapons and that Iraq did not. On July 2, 1981, Saddam Hussein, President of Iraq said:

we ignore a party [Israel] which has not signed the nuclear arms nonproliferation agreement, which does not permit IAEA to inspect its reactors and which really possesses -- as western officials have stated, including a French ... expert, that it is believed that Israel possesses several nuclear bombs....¹⁰

In the early 1960s, Israel organized the means to deliver nuclear warheads: the 450-kilometer surface-to-surface

⁹ US Congress, Senate, Committee on Foreign Relations, *Hearings: The Israeli Air Strike*, 97th Cong., 1st Sess., June 18, 19, and 25, 1981, 21.

¹⁰ "Baghdad Carries ABC Interview with Saddam Husayn," FBIS, JN302126, Baghdad Domestic Service in Arabic, 1900 GMT, Jun 30, 1981.

Jericho missile, and a number of fighter-attack aircraft (A-4s, F-4s, Mirage, and Kfir). By the 1980s, Israel had achieved an undeniable nuclear superiority¹¹ and the international community was aware of this.¹²

Israel believed that a continued state of belligerency would dominate its relations with the Arabs and that national power favored the Arabs in the long run due to their petroleum-based economies and population base.¹³ Over time, the Arabs could buy a technological infrastructure.

¹¹ "America's Nuclear Pledge to Israel," *Foreign Report*, published by *The Economist*, January 21, 1981, 2.

¹² United Nations General Assembly Resolution 34/89, December, 11, 1979. To wit, on December 11, 1979, the UN General Assembly passed the following resolution:

The General Assembly,

Alarmed at the increasing information and evidence regarding Israel's activities aiming at the acquisition and development of nuclear weapons....

Convinced that the development of nuclear capability by Israel would further aggravate the already dangerous situation in the region and further threaten international peace and security....

Strongly condemns any attempt by Israel to manufacture, acquire, store or test nuclear weapons or introduce them into the Middle East. Ibid.

¹³ Shai Feldman and Abdullah Toukan, *Bridging the Gap: A Future Security Architecture for the Middle East*, Carnegie Commission on Preventing Deadly Conflict, (New York, Rowan and Littlefield, Publishers, Inc., 1997), 19.

In the early 1980s, Israel was acutely aware that the US was preoccupied in a greater Cold War struggle with the Soviet Union and that the US was courting Iraq as a regional ally to replace Iran.¹⁴

With less than 8,000 square miles and less than 6 million people, it would not take many 20 kiloton explosions to cripple Israel and destroy Tel Aviv. Armed with nuclear SCUD-type surface-to-surface ballistic missiles, the likely successful penetration of a ballistic missile attack through Israeli air defenses was high. In contrast, Iraq has 170,594 square miles¹⁵ of sovereign territory -- enough land to hide a few nuclear scud missiles in the desert. Once dispersed, Iraq's ballistic missiles would be virtually impervious to a preemptive attack with the technology and military capability available in the 1980s.¹⁶ Also, Israel is not an island fortress; a nation determined to use WMD against it might not use ballistic missiles but rather stage

¹⁴ Congress, Senate, Committee on Foreign Relations, *Hearings: The Israeli Air Strike*, 97th Cong., 1st Sess., June 18, 19, and 25, 1981, 81.67.

¹⁵ Walden Publishing Country Reports, (accessed around October, 1998), available from Nexis Lexis Universe.

¹⁶ Richard G. Davis, *Decisive Force: Strategic Bombing in the Gulf War*, (Air Force History and Museums Program, 1996), 60. "The anti-Scud effort eventually consumed 22% of all strategic air campaign sorties [in the Gulf War].... The attack on Scud launches failed to destroy any significant numbers." Ibid.

an attack from a merchant ship or from a disguised civilian aircraft.

Iraq, by buying the 40 MW Osiraq reactor and supporting facilities, was positioning itself for clandestine, long-term extraction of plutonium to make at least one bomb per year. If Iraq's activities were ever discovered, it could immediately withdraw from the NPT and use the highly enriched uranium (93% HEU) fuel from the Osiraq reactor and the smaller Tammuz II reactor to make nuclear weapons. A year's supply of fuel for both reactors was around 50 Kgs, enough for two weapons. Even if France had limited its supply to just one fueling at a time (12 Kgs per reactor), Iraq would have had enough HEU for one bomb. By allowing the construction and fueling of the Osiraq reactor, the West was *de facto* allowing Iraq to have the potential to build at least 2 nuclear weapons.¹⁷ By allowing the construction of the "hot" cells, the West was giving Iraq the opportunity to clandestinely produce nuclear weapons.

Iraq, testing just a few nuclear weapons in its own desert, would alter the regional balance of power in the Middle East. Iraq was attempting to acquire these WMD and

¹⁷ UN Secretary General Report to the General Assembly, A/36/431. It requires 15 Kg of plutonium or 20 Kg of HEU to produce one bomb. Ibid.

Israel felt enormous pressure to act to remove that threat.¹⁸

Bilateral Cooperation

France and the US recognized Israeli concerns over Iraqi nuclear proliferation. Acknowledging the proliferation dangers of supplying Iraq with highly enriched uranium (HEU), France attempted to modify its agreement with Iraq in 1978. France wanted to substitute the HEU fuel with a new "Caramel" fuel, enriched to only 7-10% and unusable for nuclear weapons. Iraq refused to accept the "caramel" fuel.¹⁹

Italy, however, was politically less concerned with Iraqi proliferation than France or the US. The US State Department intervened diplomatically with Italy on Israel's behalf in 1980. Through formal channels the US asked Italy to explain its agreements to supply Iraq with a plutonium separation facility. Instead of backing down on its sale of a separation facility to Iraq, Italy attempted to assure

¹⁸ Venter, Al J., "Saddam and the West's Worst Nightmare," *The Middle East* (Jan 2001), accessed June 5, 2004), available at <http://www.highbeam.com/library/doc3.asp?docid=1G1:69291258>, 15.

¹⁹ Congress, Senate, Committee on Foreign Relations, *Hearings: The Israeli Air Strike*, 97th Cong., 1st Sess., June 18, 19, and 25, 1981, 81.

Washington that Iraq would only use the facilities for legitimate purposes. However, Italy also acknowledged the potential use of the hot cells in the manufacturing of nuclear weapons.²⁰

Pre-Osiraq Nonproliferation Factors: Active Nonproliferation Diplomacy

Israel brought its concerns before the IAEA. Prior to the attack on March 10, 1981, the IAEA Deputy-General was alerted to the possibility of clandestine plutonium production by a team of IAEA technical specialists. Nine senior IAEA technical specialists alerted the IAEA Deputy-General, Department of Safeguards, to the possibility of clandestine plutonium production in a report on March 10, 1981. In the report, the specialists confirmed the inadequacies in the inspection procedures of high-powered MTRs such as Osiraq. However, the standardized agreement structure, outlined in INFCIRC/153 of May 1971 upon which the Iraq-IAEA "Agreement" is specifically based, would not permit the obtrusive inspections required to ensure this clandestine plutonium production was not taking place. Since a new "Agreement" would need to be negotiated, the consensus of the specialists was that "the states involved

²⁰ Jed C. Snyder, "The Road to Osiraq: Baghdad's Quest for the Bomb," *The Middle East Journal* (Autumn 1983), 575.

[with negotiating a new agreement] would laugh their heads off."²¹ The IAEA made no changes to its "Agreements" with Iraq, and Israel was unable to stop the construction of Osiraq or the hot cells.

Pre-Osiraq Nonproliferation Factors: Multilateral Regimes

Even though Iraq was a member of the NPT and was operating a safeguarded reactor, Israel was not reassured of Iraqi intentions or the IAEA inspections:

With three such [20 kiloton] bombs ... they could have destroyed completely, utterly ... the basis of our industrial, commercial, agricultural and cultural life. Six hundred thousand casualties we would suffer ... as a result of the use of even three Hiroshima bombs that Saddam Husayn had ambition to create in order to try to destroy our people.²²

Immediately after the Osiraq raid in 1981, Israel presented to the US Senate and UN Security Council a comprehensive document titled "The Iraqi Nuclear Threat -- Why Israel Had to Act." This document explained in great detail why Israel believed Iraq was attempting to build nuclear weapons, why the IAEA would not detect their construction, and why the UNSC would not respond to Israeli

²¹ Government of Israel, "The Iraqi Nuclear Threat -- Why Israel Had to Act," Jerusalem, 1981, 27.

²² "Begin, Other Leaders Press Conference on Raid," FBIS TA091649 Jerusalem Domestic Service in Hebrew, 1605 GMT, June 9, 1981.

concerns. Israel believed the flaws in the nonproliferation regime were in its legal construction:

Furthermore, although Israel has great respect for the manner in which the IAEA staff discharge their inspection duties within their mandate, it is nevertheless inconceivable that a country directly threatened would entrust its fundamental security to an inspection procedure which is contractually limited, is not unconditional and binding, and is substantially dependent in both character and duration on the discretion of the country posing that threat.²³

Iraq's stated intention to use nuclear technology peacefully, as evidenced by its signature to the NPT and the IAEA Agreements, was not enough to palliate Israel's fears. Israel believed Iraq would be able to clandestinely produce fissile material under its Agreement²⁴ with the IAEA:

The shortcomings in the effective application of this [IAEA safeguards] system to high-power MTRs in general, and to Osirag in particular, are due to the irregularity of the implementation of technical and administrative procedures laid down in the safeguards agreement between Iraq and the IAEA, as well as to technical constraints on the IAEA safeguards system and techniques regarding Osirag. Iraq's abuse or potential abuse of conditions under which safeguards apply and of inspection procedures, along with the absence of back-up safeguards, as well as the right to withdraw from NPT, and the ineffectiveness of international

²³ Government of Israel, "The Iraqi Nuclear Threat -- Why Israel Had to Act," Jerusalem, 1981, 2.

²⁴ IAEA, INFCIRC/153, May 1971, *The Structure and Content of Agreements Between the Agency and States Required in Connection with the Treaty on the Non-proliferation of Nuclear Weapons*, (accessed October 23, 1998), available from <http://www.IAEA.org>.

sanctions, in the case of Iraq, must also be borne in mind.²⁵

Israel believed that the IAEA Agreements with Iraq were inadequate and that violations would not be detectable, that the Agreements were not renegotiable if nonproliferation concerns became apparent, and that the UNSC would not enforce infractions even if they were discovered. Israel sighted a number of issues with the IAEA Statute and "Agreement" between Iraq and the IAEA as shortcomings. Among the main points were: loopholes in the overall IAEA inspection regime would cause inspectors to miss Iraqi clandestine activities, lack of subsidiary agreements in the inspection protocol to account for the special nature of research reactors, sporadic inspections and inadequate surveillance equipment while the inspectors were out of country, the requirement for visas well in advance of inspections, and that Iraq had acquired 200 tons of Iraqi natural uranium that did not fall under IAEA control and yet could be irradiated in the Osiraq reactor to make weapons grade plutonium.²⁶

²⁵ Government of Israel, "The Iraqi Nuclear Threat -- Why Israel Had to Act," Jerusalem, 1981, 16.

²⁶ 1. Subsidiary Arrangements relating to the Iraqi reactors were not in force by December 31, 1980, 8 years after the signing of the "Agreement," which called for these arrangements to "enter into force at the same time as, or as soon as possible after, the entry into force of this

Agreement... and "before nuclear fuel is introduced into the new facility."

2. Art. 28 of the "Agreement Between the Republic of Iraq and the International Atomic Energy Agency," states that the objective of the safeguard system is the "timely detection of diversion of significant quantities of nuclear material from peaceful nuclear activities to the manufacture of nuclear weapons...." At that time, the entire IAEA safeguards structure was designed around the physical accounting of registered nuclear material. The IAEA system was not readily designed to detect the clandestine production of significant quantities of plutonium in Osiraq.

3. Osiraq was designed to be able to readily insert material for research. Iraqi technicians could easily insert natural uranium targets into the core. Since IAEA inspectors, by mandate, cannot question what experiments are going on in the reactor and since natural uranium is not an accountable material to the IAEA, Israel felt that Iraq could be manufacturing plutonium in the same vicinity of where the inspectors were accounting for nuclear material without being questioned or caught. According to Art. 76.c of the "Agreement," IAEA "inspectors shall have access only to the strategic point specified in the subsidiary arrangements...."

4. IAEA inspections are intermittent, advance notice must be given, and visas are required of the inspectors. This would allow Iraq ample time to remove any natural uranium targets from Osiraq's core prior to the arrival of IAEA inspectors.

5. Inspection procedures permit the use of surveillance equipment to monitor Osiraq's core between inspections. Israel believed that this inspection technique was inadequate to detect the insertion of uranium targets. By design, MTRs require frequent insertion and removal of test material from the core. Since such experiments are not within the IAEA mandate to question, the IAEA would have no legitimate authority to conduct a special inspection or move beyond the strategic points to discover any clandestine activity.

6. The IAEA Deputy-General, Department of Safeguards, was alerted to the possibility of clandestine plutonium production in a report by nine senior IAEA technical specialists on March 10, 1981. No IAEA action was taken on this report.

7. Israel believed Iraq had already acquired 200 tons of natural uranium from Portugal and other African sources. Natural uranium is not accountable to the IAEA and can be readily made into "targets" in the "hot" facilities provided

Operation Babylon

On June 07, 1981, two formations of US built F-16 and F-15 aircraft left Etzion air base near Eilat, Israel, for a

to Iraq by Italy. These targets could have been irradiated to make plutonium and the plutonium extracted in these same hot cells. The hot cell facilities would not be inspected by the IAEA.

8. According to Article 10 of the NPT a party can withdraw from the NPT after giving 3 months notice. Israel felt that if any of Iraq's clandestine activities were discovered, Iraq would merely withdraw from the NPT.

9. France and Iraq never agreed to standby safeguard mechanisms should IAEA safeguards cease to be applied. Without this backup and in the event of Iraqi withdrawal from the NPT, there would be no legal recourse to prevent Iraq from acquiring nuclear weapons.

10. Upon detection and withdrawal from the NPT, the international community could impose sanctions on Iraq and attempt to halt all supplies of nuclear fuel. However, Israel felt that Iraq -- at the time of any sanctions -- might already have acquired sufficient quantities of nuclear material for its nuclear weapons program.

The Annual Report for 1980, IAEA Board of Governors (April 10, 1981); United Nations, "Agreement Between the Republic of Iraq and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series*, (1973), 229; "Agreements," 230; "Agreements," 227; Government of Israel, 18, 19, 27; "Agreements," 237; Statement by Senator Alan Cranston, *Hearings: The Israeli Air Strike*; Paul Szasz, *The Law and Practices of the International Atomic Energy Agency*, (Vienna: IAEA, September 1970), 549, cited in Government of Israel, 26. *The Annual Report for 1980*, IAEA Board of Governors (April 10, 1981); United Nations, "Agreement Between the Republic of Iraq and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series*, (1973), 229; "Agreements," 230; "Agreements," 227; Government of Israel, 18, 19, 27; "Agreements," 237; Statement by Senator Alan Cranston, *Hearings: The Israeli Air Strike*; Paul Szasz, *The Law and Practices of the International Atomic Energy Agency*, (Vienna: IAEA, September 1970), 549, cited in Government of Israel, 26.

preemptive strike on Osiraq, over flying Saudi Arabia and Jordan. Eight F-16 aircraft, escorted by six F-15 Eagles, dropped a total of sixteen 2000-pound iron bombs on the reactor facility. According to one account, the pilots had been training for this mission since October 1980. The strike destroyed the containment vessel, the control panel and the auxiliary equipment.²⁷

The Iraqi early warning air defense net and Iraqi fighters were caught completely off guard. Using aerial refueling and methods of aerial deception designed to fool early warning detection systems, Operation Babylon was a success for the Israeli Air Force. Israel showed that its air force could surgically strike anywhere and any time on the southwest Asia subcontinent.

POST-OSIRAQ: THE BEGIN DOCTRINE

Post Osiraq Crosscutting Enabling Functions: Targeted Strategy and Intelligence

Immediately following the Osiraq raid, Menachem Begin defended his preemptive strike stating that Iraq's President Saddam Hussein would not have hesitated using nuclear weapons against Israel had Osiraq been completed. While defending the Osiraq intervention in the press, Begin

²⁷ Amos Perlmutter, *Two Minutes Over Baghdad*, (London: Vallentine, Mitchell & Co, Ltd, 1982), 130.

articulated an emerging doctrine that spoke to the entire Arab community of states:

After the holocaust another holocaust would have happened in the history of the Jews. There won't be another holocaust in the history of the Jewish people. Never, never again. So tell your friends and anybody you meet: We shall defend our people with all the means at our disposal. We shall not allow any enemy to develop weapons of mass destruction to be turned against us.²⁸

The Begin Doctrine was significant because it was a formalized counterproliferation policy in the early 1980s. "If the Iraqi reactor is rebuilt," Begin said, "based on the precedent we created, any prime minister of any government of Israel will destroy the reactor before it is operational." When asked if this was a precedent for other countries, Begin replied that "[e]very country will decide for itself."²⁹ Ariel Sharon, Israeli Defense Minister, later articulated the same doctrine in December 1981, and again in 1985:

The third element in our defense policy of the 1980s is our determination to prevent confrontational states from gaining access to nuclear weapons. Israel cannot afford the introduction of nuclear weapons. For us it is not a question of balance of terror but a question of

²⁸ "Begin, Other Leaders Press Conference on Raid," FBIS TA091649 Jerusalem Domestic Service in Hebrew, 1605 GMT, 9 June 1981.

²⁹ "Foreign Ministry-Begin Dispute," TA150647 Jerusalem Post in English 15 Jun 1981, 1.

survival. We shall therefore have to prevent such a threat at its inception.³⁰

For a variety of reasons, Israel did not use further counterproliferation strikes against Iraq. One reason was that Iraq became masterful at hiding and dispersing its illegal WMD sites. In the late 1980s, any successful counterproliferation attack would have needed flawless intelligence coupled with a massive aerial campaign with Special Forces on the ground. Israel was incapable of mounting such action. For example, even the cumulative bombing campaign of the Gulf War failed to rid Iraq of its dispersed WMD capability.³¹

Post Osiraq: Bilateral and Multilateral Cooperation

Assessing the political costs suffered by Israel following the Osiraq strike and the announcement of the Begin Doctrine is problematic. However, the strike did

³⁰ Sharon repeated the same warning as late as 1985, "Minister Sharon says that if a nuclear reactor that will threaten Israel's security is established in Iraq in the future, Israel will bomb it." See "Sharon Threatens to Bomb Iraqi Reactor," *FBIS* TA261232 Jerusalem Domestic Service in Hebrew 1224 GMT Mar 26, 1985.

³¹ Charles Duelfer, former Deputy UNSCOM, interview by author in Washington, D.C., July 26, 2001.

affect the ongoing Middle East peace process and US-Israeli relations.³²

The Security Council held nine meetings on the Osiraq strike from 12 - 19 June 1981. Most speakers in the debate condemned Israel's attack as a violation of the United Nations Charter and international law and as a threat to international peace and security. They could not accept Israel's argument that it acted in self-defense and considered Israel's attack a dangerous precedent. Most profoundly, the US teamed up with Iraq to draft the UNSC resolution that was unanimously adopted on 19 June 1981. That resolution strongly condemned Israel's attack; called on Israel to refrain from any such acts or threats; considered that the attack constituted a serious threat to the IAEA safeguards regime; fully recognized the inalienable sovereign right of Iraq and all other States, especially the developing countries, to establish nuclear development programs for peaceful purposes, consistent with the objective of nuclear non-proliferation; called on Israel urgently to place its nuclear facilities under IAEA

³² "Reagan Agonizes on Whether to Send F-16s to Israel as Aides See Broad Consequences," *Wall Street Journal*, July 20, 1981.

safeguards;³³ and considered that Iraq was entitled to appropriate redress for the destruction it had suffered.³⁴

In a statement before the UNSC, Ambassador Kirkpatrick said:

We believe the means Israel chose to quiet its fears about the purposes of Iraq's nuclear program have hurt and not helped the peace and security of the area. In my government's view, diplomatic means available to Israel had not been exhausted, and the Israeli action has damaged the region's confidence that is essential for the peace process to go forward.³⁵

The IAEA Board of Governors, on 12 June 1981, also adopted a resolution by which it strongly condemned Israel for its attack. It recommended that the Agency's General Conference consider all the implications, including the suspension of Israel's membership privileges and rights, and that the Conference suspend IAEA technical assistance to Israel. On 26 September 1981, the General Conference decided to suspend IAEA assistance to Israel, as the Board of Governors recommended.³⁶ In an unprecedented policy

³³ In order for Israel to join the NPT and accept IAEA inspectors it would need to declare itself a non-nuclear state.

³⁴ *Yearbook of the United Nations 1981*, Department of Public Information, United Nations, New York, 276.

³⁵ "Statement on Israeli Raid Before Security Council," United States Department of State, Bureau of Public Affairs, Washington DC, June 19, 1981.

³⁶ *Yearbook of the United Nations 1981*, Department of Public Information, United Nations, New York, 279.

speech, Sigvard Eklund, Director General of the IAEA, said the following after the Osiraq attack:

This attack on the Iraqi nuclear center is a serious development with far-reaching implications. The Agency's safeguards system is a basic element of the Non-Proliferation Treaty. During my long time here, I do not think we have been faced with a more serious question than the implications of this development. The Agency has inspected the Iraqi reactors and has not found evidence of any activity not in accordance with the Non-Proliferation Treaty. A non-NPT country has evidently not felt assured by our findings and about our ability to continue to discharge our safeguarding responsibilities effectively.... From a point of principle, one can only conclude that it is the Agency's safeguard regime that has also been attacked. Where will this lead us in the future? This is a matter of grave concern that should be pondered well.³⁷

On 13 November 1981, the General Assembly adopted, by a roll-call vote of 109-2, a resolution entitled "Armed Israeli Aggression Against The Iraqi Nuclear Installations And Its Grave Consequences For The Established International System Concerning The Peaceful Uses Of Nuclear Energy, The Non-Proliferation Of Nuclear Weapons And International Peace And Security." In that resolution, the Assembly strongly condemned Israel for its act of aggression; warned it to cease threatening and committing such attacks against nuclear facilities; reiterated its call to all States to cease providing Israel with arms and related material which

³⁷ United Nations Security Council, S/PV. 2280, June 12, 1981.

would enable it to commit acts of aggression; requested the Security Council to investigate Israel's nuclear activities and the collaboration of other states and parties in those activities; reiterated its request that the Council institute effective enforcement action to prevent Israel from further endangering peace and security; demanded that Israel pay prompt and adequate compensation for the material damage and loss of life; and requested the Secretary-General to keep Member States and the Council informed of the resolutions implementation and to report to the Assembly in 1982.³⁸

But the most important backlash came from Washington. In addition to a strong verbal condemnation, the US also suspended the delivery of four F-16 aircraft to Israel, citing violations of the Arms Export Control Act and the US-Israeli Mutual Defense Assistance Agreement of July 23, 1952. The suspension of military sales was unprecedented in the history of US-Israeli relations, and further military transfers from the US, on which Israel relied heavily, were in jeopardy. Additionally, Israel had been looking for many years to buy a US nuclear reactor.³⁹ After Osiraq and the US

³⁸ *Yearbook of the United Nations 1981*, Department of Public Information, United Nations, New York, 279.

³⁹ Shai Feldman, "The Bombing of Osiraq -- Revisited," *International Security* (Fall 1992), 117.

authorship of the UNSC Resolution condemning Israel's unsafeguarded reactor, the chances that Israel would acquire a US' reactor were diminished.

As might be expected, Israel suffered political condemnation from the Arab states. President Anwar as-Sadat of Egypt, in an interview in Cairo on June 15, 1981, reasserted the right of all Arab states to pursue nuclear reactor technology:

It is an extremely serious thing to say that the purpose of destroying the Iraqi nuclear reactor was to prevent any state in the area from building nuclear reactors within its borders, while Israel alone has the right to build such reactors.... Israel's attempt to have the right to build nuclear reactors and to prevent others from having this right will only result in the reopening of old wounds and the rebuilding of the psychological barrier, which jeopardizes the peace process.⁴⁰

Egypt was particularly sensitive about its relationship with Israel following the Camp David Accords and its leadership made several negative statements in the press concerning the raid.⁴¹ The raid hurt Arab pride, and Saudi Arabia, Syria, and the Arab League openly condemned the Israeli action as well as voted for the UN General Assembly resolutions. For

⁴⁰ "Text of As-Sadat May Interview on Israeli Raid," FBIS, NC150930, Cairo MENA in Arabic, 0700 GMT, Jun 15, 1981.

⁴¹ For instance, see "Presidential Office Statement," FBIS NC082222 Cairo MENA in Arabic 241 GMT 8 Jun 1981 and "Text of As-SADAT May Interview on Israeli Raid," FBIS NC150930 Cairo MENA in Arabic 0700 GMT 15 June 1981.

example, following the raid, Saudi Arabian Minister of Information, Dr Auhammad Yamani described the Israeli raid as:

...tyrannical aggression manifesting the ultimate in international terror practiced by tyrannical Israel which hides behind the slogan of a state when, in fact, it is not more than a colonizing force...⁴²

As for the industrialized democracies, Japan, Great Britain and the US criticized Israel's strike in the UN Security Council hearings.⁴³

After Osiraq, the international community and IAEA never focused on whether Iraq was pursuing WMD. Further exports of NBC technology to Iraq never became an issue in the 1980s, nor was there any movement to correct the IAEA safeguards system or appeals process until the mid-1990s. In its meetings following the Osiraq raid, the IAEA Board of Governors did not discuss upgrading its inspection procedures to prevent a reoccurrence of Osiraq.⁴⁴ The Board

⁴² "Minister Makes Statement Condemning Israeli Raid," *FBIS* LD082120 Riyadh Domestic Service in Arabic 2000 GMT 9 Jun 1981.

⁴³ United Nations Security Council United Nations Security Council, S/PV.2282, 15 June 1982.

⁴⁴ *Yearbook of the United Nations 1981*, Department of Public Information, United Nations, New York, 279.

of Governors instead focused on the notion that the "agency's safeguard regime [had] also been attacked."⁴⁵

The IAEA was not under any pressure to strengthen its safeguard system until the Gulf War aftermath uncovered a massive and illegal proliferation program in Iraq. Ironically, the discussions in the IAEA throughout the 1980s were not about how to upgrade its inspections in order to stop a proliferation, but rather how to *protect* peaceful nuclear reactors, such as Iraq's Osiraq reactor, from counterproliferation operations. While Israel was being lambasted in the UN, IAEA inspectors were walking by "locked doors" in Iraq without questioning their contents.⁴⁶

Post-Osiraq: Counterproliferation Factors

Iraq's reaction to the attack foreshadowed its massive post-Osiraq nuclear WMD effort. Immediately following the raid, Saddam Hussein made the following comment:

⁴⁵ United Nations Security Council, S/PV. 2280, 12 June 1981.

⁴⁶ Venter, Al J., "Saddam and the West's Worst Nightmare," *The Middle East* (Jan 2001), accessed June 5, 2004), available at <http://www.highbeam.com/library/doc3.asp?docid=1G1:69291258>, 15. See also Yair Evron, *Israel's Nuclear Dilemma*, (New York: Cornell University Press, 1994), 266, "Demonstrating great ingenuity, the Iraqis approached the enrichment operation on a very wide front, developing three alternative technologies simultaneously. The element of secrecy was needed ... In light of the 1981 attack on Osiraq." Ibid.

Regardless of the Arabs' intentions or capabilities, when Israel possesses the bomb, all peace-loving forces should help the Arabs obtain such a weapon for the sake of peace, that is, for the establishment of a balance between Israel, which possesses bombs, and between the Arabs, who have no bombs. That will make Israel hesitate before using the bomb against them.⁴⁷

Israel had dealt Iraq a major political, economic, and military setback. Saddam Hussein, however, was not going to allow Israel the opportunity to destroy its reconstituted WMD program again with a single aerial raid:

Do you think that, after this experience, Israel would be able to destroy such a thing again? Israel has made a grave strategic mistake, for it has taught not only the Iraqis, but all the Arabs as well, that they should immerse themselves in the important strategic links in economy, science and the necessary technical requirements to such an extent that it would be impossible for the atomic bomb to achieve its objective with a direct hit. Thus, Israel will fail to achieve an objective of this kind in the future.⁴⁸

Eventually the political costs of the Begin Doctrine began to weather on Israel. Israel realized that it could no longer knock out Iraq's WMD with a single strike and the international community had not strengthened the IAEA inspection regime. After Osiraq, Israel's international reputation continued to deteriorate with its deepening involvement in Lebanon. This urban guerrilla war had the

⁴⁷ "Baghdad Carries ABC Interview with Saddam Husayn," FBIS, JN302126, Baghdad Domestic Service in Arabic, 1900 GMT, Jun 30, 1981.

⁴⁸ Ibid.

effect of keeping the international community's eye on Israeli politics. More importantly, implied by UNSC Resolution's call for Israel not to repeat an Osiraq-type intervention, the Begin Doctrine was under constant political fire in the UN.

Due to the pressures of Israel's war in Lebanon, strategic political pressure in the UNSC, UN General Assembly, and IAEA Conferences, claims by Pakistan in October 1984 that Israel was planning to strike its nuclear facilities,⁴⁹ Israeli desires to obtain a new US reactor, and the passing of the conservative Menachem Begin from the political scene and the emergence of the moderate Peres-led coalition in 1984, Israel took four steps from 1983-1985 to tone down the Begin Doctrine. First, Israel narrowed the Begin Doctrine with the Arens' Amendment to cover Arab nuclear reactors dedicated solely for military purposes. Second, Israel re-accepted the IAEA's authority when it remained true to its principles. Third, Israel held that the peaceful use of nuclear facilities must remain inviolate from military attack. Fourth, Israel affirmed that it would

⁴⁹ For instance, "JANG on Danger of Attack on Nuclear Sites," *FBIS GF150906 Lahore JANG in Urdu* 8 October 1984, 1.

not attack, nor did it have a policy to attack, 'peaceful' nuclear reactors.⁵⁰

However, in 1985 Ariel Sharon put Israel's counterproliferation policy in the world's limelight again:

Minister Ari'el Sharon says that if a nuclear reactor that will threaten Israel's security is established in Iraq in the future, Israel will bomb it. Sharon said that the Iraq-Jordan-Egypt triangle should not be spoken of as a moderate axis. Iraq must be regarded as a dangerous and cruel enemy....⁵¹

Distressed by Israeli reaffirmation of the Begin Doctrine, certain states continued to press Israel for full abandonment of the Begin Doctrine. These efforts manifested themselves in anti-Israeli debates in the 1985 IAEA General Conference and in the autumn 1985 UN General Assembly. During this period, Israel circulated a letter supporting the competent authority of the IAEA as well as re-affirming its no-attack policy on peaceful nuclear installations. No resolution passed out of the IAEA General Conference, however, the UN General Assembly Resolution passed a resolution in 1985 criticizing Israeli counterproliferation policies.

⁵⁰ Paul F. Power, "The Baghdad Raid: Retrospect and Prospect," *Third World Quarterly*, July 1986, 845.

⁵¹ "Sharon threatens To Bomb Iraqi Nuclear Reactor," *FBIS*, TA261232 Jerusalem Domestic Service in Hebrew, 1224 GMT 26 March 1985.

Iraq and other Arab states had learned a valuable lesson from Osiraq, the Begin Doctrine, and the failure of the international community to strengthen the nonproliferation regime or to take a careful look at Iraq's WMD programs. Iraq and the other Arab states with proliferation desires would go underground:

[Israel] merely made the program go underground and enlarge in size from a \$400 million internationally supervised project into a \$10 billion secret one. The staffing went from around 400 French and Italian trained technologists to 7000 mostly locally trained cadre.⁵²

No longer would it be easy to detect WMD production facilities, or would these facilities be co-located in easily targetable locations.

FINDINGS

The IAEA safeguards system has weaknesses that were identified in chapter three. Iraq exploited those weaknesses throughout the 1970s and 1980s. Israel's concerns with the Iraqi acquisition of a research reactor were brought to the attention of the US, France, and Italy, and the inadequacies of the IAEA safeguards system were brought before the IAEA Board of Governors prior to Iraq's Osiraq reactor becoming

⁵² Khidhir Hamza, Iraqi defector and former Iraqi nuclear scientist, interview by author January 6, 2002. See also, Venter, Al J., "Saddam and the West's Worst Nightmare," *The Middle East* (Jan 2001), accessed June 5, 2004, available at

operational. Israel, however, received no support from the IAEA to amend its Agreements with Iraq, or from France or Italy to stop nuclear technology transfers to Iraq. Because of international inaction, Israel preemptively acted in its own defense to remove Iraq's nuclear WMD infrastructure.

Pre-Osiraq: Israeli Nonproliferation Efforts

Crosscutting Enabling Functions. Prior to its counterproliferation raid on June 07, 1981 Israel used the variables of Targeted Strategy, Intelligence, Bilateral and Multilateral Cooperation, and the Nonproliferation factors of Active Nonproliferation Diplomacy and Multilateral Nonproliferation Regimes to attempt to stop Iraq from building a nuclear reactor that could be modified to produce weapons grade fissile material:

Crosscutting Enabling Functions	Pillar of Nonproliferation
Targeted Strategy	Yes
Intelligence	Yes
Bilateral and Multilateral Cooperation	Yes

Table 6-9

<http://www.highbeam.com/library/doc3.asp?docid=1G1:69291258>, 15.

Targeted Strategy. Israel's initial Targeted Strategy was to prevent the Osiraq reactor from being built and fueled, or to strengthen the "Agreements" between the IAEA and Iraq to prevent clandestine production of fizzle material in the research reactor. Israel's back-up strategy was to destroy Osiraq before it became operational.

Intelligence. Israel had requisite intelligence to discern that the Osiraq reactor would be capable of producing weapons grade plutonium and that the IAEA inspection regime would not detect such proliferation. Israel also had the intelligence to know when the Osiraq reactor would be fueled and ready for operation. Lastly, Iraq's purchase of a large separation plant capable of processing 5-10 Kgs of weapons grade plutonium per year led Israel to believe that Iraq intended to irradiate uranium and process it into plutonium.⁵³

Bilateral Cooperation. Israel was trying to gain French and US cooperation to stop Iraq from building Osiraq. Acknowledging the proliferation dangers of supplying Iraq with highly enriched uranium (HEU), France attempted to modify its agreement with Iraq in 1978 and substitute the

⁵³ Government of Israel, "The Iraqi Nuclear Threat -- Why Israel Had to Act," Jerusalem, 1981, 51.

HEU fuel with a new "Caramel" fuel which was unusable for nuclear weapons.⁵⁴ The US State Department also intervened with Italy to explain its agreements with Iraq concerning the potential use of the hot cells in the manufacturing of nuclear weapons.⁵⁵

Active Nonproliferation Diplomacy. Israel brought its concerns to the IAEA Deputy-General before Osiraq was attacked. Nine senior IAEA technical specialists evaluated Israel's concerns and subsequently alerted the IAEA Deputy-General to the possibility of clandestine plutonium production at Osiraq. The IAEA concluded it would have to amend its "Agreements" with Iraq in order to detect the clandestine irradiation of natural uranium in Osiraq and that modification to the Agreement was not feasible. This finding supports that the IAEA inspection regime was unable to adapt or amend agreements to changing proliferation concerns and, therefore, at risk at detecting proliferation with determined proliferators.

⁵⁴ Congress, Senate, Committee on Foreign Relations, *Hearings: The Israeli Air Strike*, 97th Cong., 1st Sess., June 18, 19, and 25, 1981, 81.

⁵⁵ Jed C. Snyder, "The Road to Osiraq: Baghdad's Quest for the Bomb," *The Middle East Journal* (Autumn 1983), 575.

Nonproliferation Factors: Multilateral Regimes. Israel believed that the IAEA Agreements with Iraq were inadequate and that violations would not be detectable, that the Agreements were not renegotiable, and that the UNSC would not enforce infractions even if they were discovered. Israel sighted a number of issues with the IAEA Statute and "Agreement" between Iraq and the IAEA as shortcomings. Among the main points were: loopholes in the overall IAEA inspection regime would cause inspectors to miss Iraqi clandestine activities, lack of subsidiary agreements in the inspection protocol to account for the special nature of research reactors, sporadic inspections and inadequate surveillance equipment while the inspectors were out of country, the requirement for visas well in advance of inspections, and that Iraq had acquired 200 tons of Iraqi natural uranium that did not fall under IAEA control and yet could be irradiated in the Osiraq reactor to make weapons grade plutonium.⁵⁶

⁵⁶ *The Annual Report for 1980*, IAEA Board of Governors (April 10, 1981); United Nations, "Agreement Between the Republic of Iraq and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series*, (1973), 229; "Agreements," 230; "Agreements," 227; Government of Israel, 18, 19, 27; "Agreements," 237; Statement by Senator Alan Cranston, *Hearings: The Israeli Air Strike*; Paul Szasz, *The Law and Practices of the International Atomic Energy Agency*, (Vienna: IAEA, September 1970), 549, cited in Government of Israel, 26. *The Annual Report for 1980*, IAEA Board of Governors (April 10, 1981);

Israeli Nonproliferation Efforts Post-Osiraq

Crosscutting Enabling Functions. After the strike on Osiraq, Israel used the crosscutting enabling functions of Targeted Strategy, Bilateral and Multilateral Cooperation, and Intelligence, and the Counterproliferation factors of Interdiction and Deterrence to stop any hostile Arab nuclear program from becoming operational:

Crosscutting Enabling Functions	Pillar of Counterproliferation
Targeted Strategy	Yes
Intelligence	Yes
Bilateral and Multilateral Cooperation	Yes

Table 6-10

Targeted Strategy. Immediately following the Osiraq raid, Menachem Begin articulated a policy of preemptive counterproliferation intervention against any enemy of

United Nations, "Agreement Between the Republic of Iraq and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series*, (1973), 229; "Agreements," 230; "Agreements," 227; Government of Israel, 18, 19, 27; "Agreements," 237; Statement by Senator Alan Cranston, *Hearings: The Israeli Air Strike*; Paul Szasz, *The Law and Practices of the International Atomic Energy Agency*, (Vienna: IAEA, September 1970), 549, cited in Government of Israel, 26.

Israel developing a nuclear infrastructure.⁵⁷ Ariel Sharon, Israeli Defense Minister, reiterated the Begin Doctrine in 1981 and 1985.⁵⁸

Intelligence. Israel's preemptive counterproliferation strike set Iraq's nuclear WMD program back years. However, as Israel came under increasing pressure to renounce the Begin Doctrine in the mid-1980s, Iraq began to increase its WMD budget and personnel 20 fold to build a massive, multifaceted, and dispersed WMD program in various sites around Baghdad.⁵⁹ Israel and the international community failed to follow through on the Osiraq strike with strong nonproliferation intelligence and the IAEA continued its ineffective inspections of Iraq's nuclear sites. Because of international inaction, Saddam Hussein reconstituted a massive WMD program that went unhindered and undiscovered throughout the 1980s until the Gulf War.

Bilateral and Multilateral Cooperation. Israel did not obtain the requisite bilateral and multilateral cooperation

⁵⁷ "Foreign Ministry-Begin Dispute," TA150647 Jerusalem Post in English Jun 15, 1981, 1.

⁵⁸ "Sharon Threatens to Bomb Iraqi Reactor," FBIS TA261232 Jerusalem Domestic Service in Hebrew 1224 GMT 26 Mar 85.

⁵⁹ The author is a strike-fighter pilot who served in US Central Command's J3 Plans office from 1994-1996.

necessary to sustain its nonproliferation and counterproliferation strategies following Osiraq. The biggest setback for Israel was in its relationship with the US. The US teamed up with Iraq to draft the UNSC resolution that was unanimously adopted on 19 June 1981. That resolution strongly condemned Israel's attack; called on Israel to refrain from any such acts or threats; considered that the attack constituted a serious threat to the IAEA safeguards regime; fully recognized the inalienable sovereign right of Iraq and all other States, especially the developing countries, to establish nuclear development programs for peaceful purposes, consistent with the objective of nuclear nonproliferation; called on Israel urgently to place its nuclear facilities under IAEA safeguards; and considered that Iraq was entitled to appropriate redress for the destruction it had suffered.⁶⁰ The IAEA Board of Governors adopted a resolution by which it strongly condemned Israel for its attack. In an unprecedented policy speech, Sigvard Eklund, Director General of the IAEA, said "a non-NPT country has evidently not felt assured by our findings and about our ability to continue to discharge our safeguarding responsibilities effectively. From a point of principle, one can only

⁶⁰ *Yearbook of the United Nations 1981*, Department of Public Information, United Nations, New York, 276.

conclude that it is the Agency's safeguard regime that has also been attacked."⁶¹

Lack of multilateral, nonproliferation cooperation after the strike had a negative impact on the nonproliferation regime. The international community and IAEA never focused on whether Iraq was pursuing WMD. Further exports of nuclear technology to Iraq never became an issue in the 1980s, nor was there any movement to correct the IAEA safeguards system or appeals process until the mid-1990s. In its meetings following the Osiraq raid, the IAEA Board of Governors did not discuss upgrading its inspection procedures to prevent a reoccurrence of Osiraq.⁶²

Counterproliferation Factors: Post Osiraq. Israel had dealt Iraq a major political, economic, and military setback. Saddam Hussein's reaction to the attack immediately following the raid foreshadowed his massive post-Osiraq nuclear WMD effort where he made a promise to reconstitute

⁶¹ United Nations Security Council, S/PV. 2280, 12 June 1981.

⁶² *Yearbook of the United Nations 1981*, Department of Public Information, United Nations, New York, 279.

his WMD efforts⁶³ and take his reconstituted program underground.⁶⁴

Israel began to moderate its counterproliferation strategy almost immediately following the pronouncement of the Begin Doctrine. First, Israel redefined the Begin Doctrine with the Arens' Amendment; Israel would strike only Arab nuclear reactors dedicated solely for military purposes. Second, Israel re-accepted the IAEA's authority concerning nuclear reactors when it remained true to its principles. Third, Israel held that the peaceful use of nuclear facilities must remain inviolate from military attack. Fourth, Israel affirmed that it would not attack, nor did it have a policy to attack, 'peaceful' nuclear reactors.⁶⁵

End State. The depth of Iraq's reconstituted nuclear program throughout the mid-to-late 80s was never fully revealed until after the Gulf War and the start of UNSCOM

⁶³ "Baghdad Carries ABC Interview with Saddam Husayn," FBIS, JN302126, Baghdad Domestic Service in Arabic, 1900 GMT, 30 Jun 81.

⁶⁴ Khidhir Hamza, Iraqi defector and former Iraqi nuclear scientist, interview by author January 6, 2002. See also "Baghdad Carries ABC Interview with Saddam Husayn," FBIS, JN302126, Baghdad Domestic Service in Arabic, 1900 GMT, 30 Jun 81.

⁶⁵ Paul F. Power, "The Baghdad Raid: Retrospect and Prospect," *Third World Quarterly*, July 1986, 845.

inspections. Rolf Ekeus, executive chairman of the UN Special Commission established to implement the disarmament provisions of the cease-fire resolution adopted by the UNSC following the Gulf War, said in 1992:

As inspections revealed, Iraq's nuclear program included not just the three enrichment programs, but also significant weapons design efforts, notably construction of a trigger package as well as a program to build an advanced delivery system, in the form of the Badr 2000 program....⁶⁶

According to former head of UNSCOM, Richard Butler, and former Deputy UNSCOM, Charles Duelfer, the chronology of Iraqi proliferation represents a fatal flaw in the nuclear nonproliferation regime. Without a comprehensive safeguards system that eliminates false positives, backed up with a credible enforcement regime, there is no incentive for Iraq or other states determined to acquire WMD to adhere to NPT obligations.⁶⁷

⁶⁶ Rolf Ekeus, "The Iraqi Experience and the Future of Nuclear Nonproliferation," *The Washington Quarterly*, Autumn 1992, 67.

⁶⁷ Richard Butler, former head UNSCOM, interview by author in Sydney Australia, June 5, 2001; Charles Duelfer, former Deputy UNSCOM, interview by author July 26, 2001.

SUMMARY

In summary, Israel used the nonproliferation factors of diplomacy and multilateral regimes prior to 1981 to prevent Iraq from building Osiraq and acquiring nuclear WMD. As Osiraq neared completion in 1981, Israel used the counterproliferation factor of defense and mitigation to destroy the reactor.

Post Osiraq, a more moderate Peres government in Israel in the mid-to-late 1980s coupled with a lack of international support for its policy of preemption led Israel to relax the Begin Doctrine and its policy of preemption with the Arens' Amendment. The international community, including the US and the IAEA, failed to closely monitor Iraq's post-Osiraq nuclear reconstitution or impose stricter export controls on dual-use nuclear technologies and, consequently, Saddam Hussein substantially reconstituted his WMD efforts in the late 1980s.

CHAPTER SEVEN: FINDINGS AND RECOMMENDATIONS

The final chapter of this thesis outlines the major findings and policy recommendations of the study.

RESEARCH QUESTIONS

Taking a cue from Sun Tzu's *Tao*, the purpose of this dissertation is to look at the way preemptive military force, multilateral nonproliferation regimes, and international law achieve or fail to achieve nonproliferation results. The "National Strategy to Combat Weapons of Mass Destruction" (*National WMD Strategy*) was chosen as a basis from which to develop a strategy model because it emphasizes nonproliferation regimes and international law as important elements in overall nonproliferation strategy, and it provides a structure of factors and crosscutting enabling functions from which to assess nonproliferation results. The Proliferation Security Initiative (PSI) was used to further refine the counterproliferation factor of interdiction, and the US Department of Homeland Security provided the factor of Emergency Preparedness and Response under consequence management.¹ Case studies of Libyan chemical proliferation (1981-1996) and Iraqi nuclear proliferation (1974-1985) were

¹ Consequence management was beyond the scope of this dissertation.

chosen because of (a) their definable end states and availability of research; (b) both case studies involved counterproliferation intervention and international law; (c) and both case studies involved the nonproliferation regimes in various capacities.

When applying the structural and normative variables of the strategy model to the case studies, four major research questions emerge: what is the ability of the multilateral nonproliferation regimes to achieve nonproliferation results? Under what conditions is preemptive counterproliferation intervention legal under customary and positive international law? What key nonproliferation and counterproliferation factors and crosscutting enabling functions were effective in achieving nonproliferation results in Libya (1981-1996) and Iraq (1974-1985)? How can findings concerning these questions shape future US policymakers' nonproliferation and counterproliferation efforts?

ASSESSING THE NONPROLIFERATION REGIMES

Using the structure of the strategy model, nonproliferation regimes are one of six factors in an overarching US strategy to prevent proliferation. In the strategy model's pillar of nonproliferation, multilateral nonproliferation regimes, along with other forms of statecraft, export controls, and nonproliferation actions,

are designed to keep proliferation from happening. In order to assess the efficacy of these regimes to prevent proliferation, this dissertation developed and applied four factors: state membership, detectable violations with clear avenues of appeal, credible enforcement, and regime adaptability.

The multilateral regimes' record of achieving nonproliferation results is poor. Determined proliferators such as Iraq, Libya, and Iran -- states that sponsor international terrorism -- have succeeded in engaging in clandestine nuclear activities even though they are signatories to the NPT and IAEA. Proposals to strengthen the IAEA inspection regime through its Additional Protocols are relevant but not binding on current IAEA members. The CWC, whose construct attempted to alleviate the weaknesses of the NPT/IAEA and BWC, is having ongoing problems with the effective functioning of the OPCW. The BWC is clearly a flawed convention and has done little to prevent biological proliferation.

However, certain factors of the nonproliferation regimes remain relevant while other factors must be changed to ensure continued application as a factor of a comprehensive nonproliferation strategy. Membership in the nonproliferation regime remains important. India and Pakistan never joined the NPT and both states detonated

nuclear devices in 1998. North Korea and Syria have not joined the CWC and both states have chemical weapons programs. Once a member, a state's violation of its nonproliferation promises can (a) lead to increased scrutiny and sanctions; (b) can give the US legitimacy in a preemptive counterproliferation strike; (c) and can mitigate potential political fallout from a preemptive strike. The nonproliferation regimes can also legitimize a state's return to normalized relations -- as is the case in Libya in 2004.

An inspection regime such as the IAEA and OPCW can give the international community access to a state's nuclear and chemical programs that would not otherwise be available in order to help determine compliance with its nonproliferation promises. However, the lessons discerned in Iraq also point to an underlying acceptance of compliance or "false positive" by the international community when an inspection regime is involved. This dissertation showed that even the most intrusive inspection regime such as UNSCOM was unable to discover the true state of Iraqi nonproliferation compliance throughout the 1990s. Even after occupation of Iraq, the ISG in 2004 is having considerable trouble discovering the truth about Iraq's WMD programs. An inspection regime should only be viewed as one tool in the overarching US strategy to mitigate proliferation.

From a US nonproliferation perspective, credible enforcement comes from US counterproliferation actions of interdiction, deterrence, and defense and mitigation. Post-strike political fallout after a US preemptive strike will depend on the imminence of the threat, proportionality of the US response, and whether the strike was reasonable. A state's violation of its nonproliferation promises adds a legal element to the condition of reasonableness.

Regime adaptability is an important factor to ensure the continued relevance of the NPT, CWC, and BWC to prevent proliferation. The IAEA has stated that it cannot continue to execute its mission without all IAEA members agreeing to its Additional Protocols. However, the US has identified states that sponsor international terrorism including Iran, North Korea, Sudan, Syria, Cuba, and Pakistan which have not adopted the Additional Protocols.

PREEMPTIVE COUNTERPROLIFERATION INTERVENTION AND INTERNATIONAL LAW

This dissertation developed a legal protocol for counterproliferation intervention under international law incorporating the factors of imminence, proportionality, and reasonableness. Clandestine terrorist attacks using WMD are by their very nature imminent threats that leave little time for appeals to the UNSC and very little "moment for

deliberation." If or when collective action fails or is not viable due to the imminence or the political circumstances surrounding a perceived WMD attack, a state has a legitimate right of anticipatory self-defense under international customary law as long as the military response is proportional.

Weapons of mass destruction have fundamentally changed the nature of self-defense and created a new subsequent norm of general international law having the same character. Judgments about whether actions of anticipatory self-defense were or were not reasonable will be best secured if standards are broadly and collectively established *a priori*. Application of this legal protocol is presented as part of the findings of the Libyan and Iraqi case studies in the following sections.

CHEMICAL NONPROLIFERATION IN LIBYA (1981-1996)

The nonproliferation factor the US used to mitigate German proliferation of chemical WMD to Libya was active nonproliferation diplomacy. However, US diplomatic efforts, based on intelligence not readily convertible to evidence in German courts, were insufficient to stop German chemical transfers to Libya from 1981-1989. Nonproliferation public diplomacy in the form of leaked intelligence to the German

press ultimately was the catalyst that led to changes in German export laws in 1990.

Throughout the 1980s, however, Libya had acquired sufficient chemical material and expertise to produce chemical weapons. After Libya staged a fire at its chemical facility in Rabta, Qadhafi moved his equipment to a deeply buried facility in the mountains of Tarhunah where US conventional weapons technology was insufficient to destroy the plant.

The US subsequently used the nonproliferation factor of active nonproliferation diplomacy to isolate Libya from non-Arab states, and the counterproliferation factors of deterrence and defense and mitigation to pressure Libya not to produce any further chemical weapons in Tarhunah. Persistent US factors of nonproliferation diplomacy and threats of counterproliferation intervention were ultimately successful.

Using the strategy model, the key factors and crosscutting enabling functions that mitigated German proliferation of chemical WMD to Libya and US efforts vis-à-vis Libya are summarized below:

US Efforts to Mitigate German Chemical Transfers to Libya

Crosscutting Enabling Functions	Factors of Nonproliferation
Targeted Strategy	Active Nonproliferation Diplomacy and Public Diplomacy
Intelligence	
Bilateral and Multilateral Cooperation	

Table 7-11

US Efforts to Mitigate Libyan Chemical Proliferation

Crosscutting Enabling Functions	Factors of Counterproliferation
Targeted Strategy	Interdiction and Deterrence
Intelligence	Defense and Mitigation
Bilateral and Multilateral Cooperation	

Table 7-12

The Role of the Chemical Nonproliferation Regime in Mitigating Libyan Proliferation. The CWC was not in effect from 1981-1996. However, Germany and the US have been members of the Australia Group (AG) since its inception in 1985. The purpose of the AG is to ensure through licensing measures on certain chemicals, biological agents, and dual-use chemical and biological manufacturing facilities and equipment that exports of these items do not contribute to

the spread of chemical and biological weapons (CBW). The AG should have played a role in this case study.

The AG was ineffective in mitigating Germany's transfer of chemical technology to Libya from 1985 - 1989. In parallel to the length of time it took the German Parliament to amend Germany's export laws from 1985-1990, members of the AG including Germany were slow to enact measures that would have proved useful in this case study. For example, the CW equipment warning list which would have flagged Germany's equipment exports to Libya and the notification of denials, were not adopted until 1989 - eight years after the initial transfers of Germany equipment to Libya:

Activities of the Australia Group: 1985-1989

AUSTRALIA GROUP MEETING	PRINCIPAL RESULT ²
June 1985	First AG Meeting. Core List of five chemicals.
September 1985	Development of a Warning List.
May 1986	Adoption of Warning List/35 chemicals.
September 14-15, 1987	Core List of eight chemicals.
April 19-21, 1988	Discussion of CW equipment Warning List.
December 14-15, 1988	Thionylchloride added to Core List. Four added to Warning List/44 chemicals.
May 9-11, 1989	Adoption of U.S. proposal for notifications of denials. Six added to Warning List/50 chemicals. Japan imposes controls on 50 chemicals. Austria requested July 1989 AG documentation system instituted. Proposed biannual meetings.
December 12-14, 1989	Austria attends as new member. CW Equipment Warning List adopted. U.S. proposal on harmonization with emerging suppliers. BW on Agenda for Information and Policy Exchange.

Table 7-13

During the critical period of 1985 through 1989, Germany's export laws were not in sync with the intent of its commitment to the AG to restrict exports of dual-use chemical and biological manufacturing facilities and equipment to ensure they do not contribute to the spread of chemical WMD.

² "Australia Group," (accessed November 12, 2003), available from <http://www.fas.org/nuke/control/ag/docs/aus496.htm>

US Preemptive Counterproliferation Intervention in Libya under International Law. To stop Libya from producing chemical weapons, the US threatened military actions from 1989 through 1996 against the Rabta and Tarhunah chemical plants.

Throughout the 1980s US intelligence posited Libya's involvement as a state sponsor of international terrorism. On April 16, 1986, under the code name El Dorado Canyon, the United States launched a series of military air strikes against ground targets inside Libya. President Reagan emphasized that this action was a matter of US self-defense against Libya's state-sponsored terrorism, "self defense is not only our right, it is our duty. It is the purpose behind the mission...a mission fully consistent with Article 51 of the U.N. Charter."³ The use of force against Libya in 1986 gave credibility to US threats of force against the Rabta and Tarhunah facilities from 1989-1996.

³ "Operation El Dorado Canyon," FAS Military Analyst Network, (accessed January 15, 2004), available from www.fas.org/man/dod-101/ops/el_dorado_canyon.htm. The use of force was specifically prompted by what the President claimed was "irrefutable proof" that Libya had directed the terrorist bombing of a West Berlin discotheque nine days earlier which had killed one American and injured 200 others. The impetus for the President's decision to authorize the raid was the American intelligence interception of a message from Qadhafi ordering an attack on Americans "to cause maximum and indiscriminate casualties." Ibid.

According to the legal protocol of "imminence" developed in chapter four, when a rogue state or state sponsor of international terrorism begins to develop weapons of mass destruction, then the requirement for imminence is satisfied. From 1989 to 1996, US intelligence showed Libya to be a sponsor of international terrorism. To satisfy the legal protocol of "proportionality," the US was only targeting the Rabta and Tarhunah facilities. The condition of "reasonableness" would have been examined *ex post facto* based on US intelligence of Libya's WMD programs and proportionality of the strike.

NUCLEAR NONPROLIFERATION IN IRAQ (1974-1985)

Israel used the nonproliferation factors of active nonproliferation diplomacy and multilateral regimes prior to 1981 to prevent Iraq from building the research reactor at Osiraq. These nonproliferation factors were inadequate to prevent the construction of the reactor. As Osiraq neared completion in 1981, Israel used the counterproliferation factors of deterrence and defense and mitigation to destroy the nuclear facilities at Osiraq.

Post-Osiraq and into the mid-to-late 1980s, a more moderate Peres government in Israel coupled with a lack of international support for its policy of preemption forced

Israel to relax the "Begin Doctrine" with the Arens' Amendment. With the Begin Doctrine relaxed and under inadequate IAEA safeguards, Iraq began a massive nuclear WMD effort in the mid-1980s. The international community, including the US, IAEA, and NSG failed to detect Iraq's post-Osiraq nuclear reconstitution or impose stricter export controls on dual-use nuclear technologies.

Using the structure of the strategy model, the key pillars, factors and crosscutting enabling functions that were used pre- and post-Osiraq are identified in the tables below:

Nonproliferation Efforts Vis-à-vis Iraq Pre-Osiraq

Crosscutting Enabling Functions	Factors of Nonproliferation and Counterproliferation
Targeted Strategy	Active Nonproliferation Diplomacy
Intelligence	Interdiction, Deterrence, and Defense an Mitigation
Bilateral and Multilateral Cooperation	

Table 7-14

Israeli Counterproliferation Efforts Post-Osiraq

Crosscutting Enabling Functions	Factors of Counterproliferation
Targeted Strategy	Deterrence
Intelligence	Defense and Mitigation
Bilateral and Multilateral Cooperation	

Table 7-15

The Role of the Nuclear Nonproliferation Regime in Mitigating Iraqi Nuclear Proliferation

Israel believed that the IAEA Agreements with Iraq were inadequate and that Iraqi violations of its NPT promises would not be detectable, that the IAEA Agreements were not renegotiable, and that the UNSC would not enforce infractions even if they were discovered. Israel sighted a number of issues with the IAEA Statute and "Agreement" between Iraq and the IAEA as shortcomings. Among the main points were: loopholes in the overall IAEA inspection regime would cause inspectors to miss Iraqi clandestine activities, lack of subsidiary agreements in the inspection protocol to account for the special nature of research reactors, sporadic inspections and inadequate surveillance equipment while the inspectors were out of country, the requirement for visas well in advance of inspections, and that Iraq had acquired 200 tons of Iraqi natural uranium that did not fall

under IAEA control and yet could be irradiated in the Osiraq reactor to make weapons grade plutonium.⁴

Israel brought its concerns to the IAEA Deputy-General before Osiraq was attacked. The IAEA concluded it would have to amend its "Agreements" with Iraq in order to detect the clandestine irradiation of natural uranium in Osiraq and that modification to the Agreement was not feasible. This finding supports Israel's assertion that the IAEA inspection regime was unable to detect proliferation, and that it was unable to adapt or amend agreements to changing proliferation concerns.

⁴ *The Annual Report for 1980*, IAEA Board of Governors (April 10, 1981); United Nations, "Agreement Between the Republic of Iraq and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series*, (1973), 229; "Agreements," 230; "Agreements," 227; Government of Israel, 18, 19, 27; "Agreements," 237; Statement by Senator Alan Cranston, *Hearings: The Israeli Air Strike*; Paul Szasz, *The Law and Practices of the International Atomic Energy Agency*, (Vienna: IAEA, September 1970), 549, cited in Government of Israel, 26. *The Annual Report for 1980*, IAEA Board of Governors (April 10, 1981); United Nations, "Agreement Between the Republic of Iraq and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons," *Treaty Series*, (1973), 229; "Agreements," 230; "Agreements," 227; Government of Israel, 18, 19, 27; "Agreements," 237; Statement by Senator Alan Cranston, *Hearings: The Israeli Air Strike*; Paul Szasz, *The Law and Practices of the International Atomic Energy Agency*, (Vienna: IAEA, September 1970), 549, cited in Government of Israel, 26.

Israeli Counterproliferation Intervention in Iraq under International Law

Through its nonproliferation efforts alone, Israel was not able to stop the construction of the Osiraq research reactor in Iraq. On June 07, 1981, it destroyed Osiraq in an aerial raid.

Israel believed the IAEA would not detect Iraqi clandestine production of nuclear WMD and, therefore, Israel would not be able to determine when Osiraq was producing HEU. Consequently, Israel destroyed Osiraq before it was fueled to avert any ecological damage to Baghdad. Israel's action against a declared enemy pursuing WMD is consistent with the protocol of "imminence." Israel's attack on Osiraq was clearly proportional, destroying only the Osiraq facility.

Ex post facto, the Israeli strike was declared unreasonable and illegal by the IAEA Board of Governors, United States, and United Nations General Assembly. However, after the Gulf War uncovered a huge clandestine nuclear program in Iraq, many states have re-evaluated Israel's strike in 1981 and found it to be reasonable.

SUMMARY AND FUTURE RESEARCH

Strategy Model

This dissertation develops a strategy model encompassing the structural and normative pillars, factors,

and crosscutting enabling functions derived from the Bush Administration's *National WMD Strategy*:

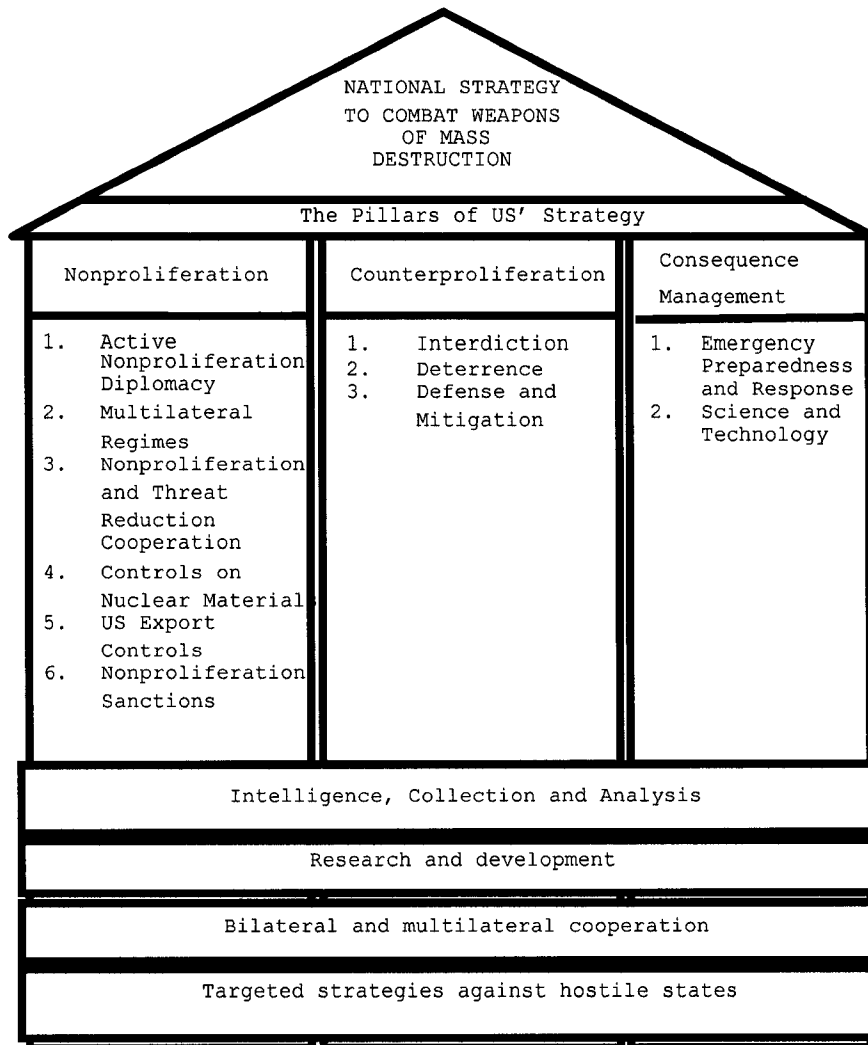


Figure 7-2⁵

The factors that were successful in preventing proliferation in Libya were active nonproliferation diplomacy and public

⁵ Consequence Management and the factors of Emergency Preparedness and Response and Science and Technology are derived from the administrative structure of US Department of Homeland Defense and is presented for model development only.

diplomacy, and defense and mitigation. Lessons discerned from the Libya case study that are applicable to future US nonproliferation scenarios are: (a) the importance of being able to convert US intelligence into evidence for use in foreign courts; (b) the importance of public diplomacy in the form of US intelligence leaked to the media in a democratic state such as Germany; and (c) consistent nonproliferation diplomatic efforts in combination with credible counterproliferation pressures of preemptive military intervention over time resulted in a favorable nonproliferation outcome in Libya. In 2004 Libya acceded to the CWC, signed IAEA Additional Protocols, and has agreed to destroy its stocks of chemical WMD and abandon its nuclear WMD programs.

The factor that was successful in Iraq was Israel's preemptive counterproliferation strike. Lessons discerned from the Iraqi case study post-Osiraq are that aggressive post-strike nonproliferation attention by the IAEA, NSG, and international community might have mitigated Iraqi nuclear proliferation post-Osiraq. However, without the additional inspection authority of the Additional Protocols developed post-Desert Storm, the IAEA would probably have not have detected Iraq's recapitalization of its nuclear program. The long-term solution to Iraq, according to Scott Ritter in

April 2001, has always resided in deterrence, defense and mitigation, or occupation of Iraq and regime change.⁶

Nonproliferation Regimes. In both case studies, the nonproliferation regimes failed to prevent proliferation. Research from UNSCOM and the ISG shows that even the most intrusive inspection regime is easily deceived.

However, the multilateral inspection regimes are only one nonproliferation tool in the overall US strategy to mitigate proliferation. If used correctly, this tool can contribute to the US nonproliferation strategy.

This study developed and applied four variables to the nonproliferation regimes. After analyzing the multilateral nonproliferation regimes, including findings from UNSCOM and the ISG, this study suggests that the proposals by the Bush Administration to strengthen the nonproliferation regimes are necessary if the nonproliferation regimes are to remain viable in an overarching US nonproliferation strategy. Specifically, the IAEA Additional Protocols are required to ensure future IAEA relevance in the nuclear nonproliferation regime, as well as the full functioning of the CWC and OPCW in the chemical nonproliferation regime. Current technology does not support an effective inspection regime for the BWC.

⁶ Scott Ritter, former UNSCOM weapons inspector, interview by author August 26, 2001.

Until the technology is available and an inspection regime acceded to by state's parties, the BWC will not be able to mitigate biological proliferation.

Legal Protocol on Counterproliferation. The US has clearly stated it will not wait to be physically attacked with weapons of mass destruction before responding in self-defense; nor will it respect any veto in the UN Security Council that would constrain an imminent threat which required preemptive action. In the *National Security Strategy* the Bush Administration articulates a policy of preemption based upon adapting the concept of imminent threat to the capabilities and objective of a specific threat employing WMD, with clear reason, measured force, and just cause.⁷

Should rogue states and terrorist organizations begin to acquire NBC WMD, the protocol developed in this dissertation supports the Bush Administration's policy statements concerning preemptive counterproliferation intervention. The legal concepts of imminence, proportionality, and reasonableness - which are loosely identified in the *National Security Strategy of the United*

⁷ United States, The White House, "The National Security Strategy of the United States of America, September 17, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

States of America - should continue to be reinforced in future nonproliferation strategy documents and *a priori* any counterproliferation actions:

Preemption: Factors of International Law	Correlation to the National Security Strategy of the United States of America ⁸
Imminence	"We must adapt the concept of imminent threat to the capabilities and object of today's adversaries. Rogue states and terrorists do not seek to attack us using conventional means."
Proportionality	"The purpose of our actions will always be to eliminate a specific threat to the United States or our allies and friends...the force measured..."
Reasonableness	"The US will not use force in all cases to preempt emerging threats, nor should nations use preemption as a pretext for aggression... The reason for our action will be clear... and the cause just."

Table 7-16

Future Research

It is my hope that the research on nonproliferation institutions, international law and preemptive counterproliferation intervention, US nonproliferation

⁸ Ibid.

efforts vis-à-vis Germany and Libya, and Israel's nonproliferation efforts in Iraq have provided lessons to discern to "prevent rogue states and terrorists from acquiring the materials, technologies, and expertise necessary for weapons of mass destruction."⁹ However, current events such as North Korea's WMD programs illustrate that rogue states will not be dissuaded by nonproliferation efforts alone. Once a rogue state or terrorist organization acquires NBC WMD, the US must be able to interdict, deter, and effectively target and destroy its WMD sites. To do this, the US must continue to develop and field WMD detection and targeting capabilities and robust military capabilities to destroy even the most heavily defended or deeply buried sites.

Future research on US nonproliferation policy should continue to focus on areas to make the multilateral nonproliferation regimes more effective at mitigating proliferation and lessons discerned from current and future US nonproliferation efforts in states such as Iraq, Iran, and North Korea. The pillars, factors, and crosscutting enabling functions derived from the Administration's *National WMD Strategy* can be further refined to serve as a

⁹ United States, The White House, "National Strategy to Combat Weapons of Mass Destruction, December, 2002," (accessed September 15, 2003); available from <http://WWW.Whitehouse.gov>.

basis for modeling future nonproliferation actions in war games. Lastly, I hope further study will contribute to a closer and more direct linkage between nonproliferation and counterproliferation theory and practice in international relations literature.

APPENDIX I

CHRONOLOGY OF EVENTS: GERMAN CHEMICAL TECHNOLOGY EXPORTS TO LIBYA¹

- April 22, 1980 The BND [German Federal Intelligence Service] reports that, with the help of unnamed East and West German experts, Libya is developing a plant for the manufacture of chemical warfare agents as well as a system for using them.
- Feb 12, 1981 The BND reports that Libya intends to import chemical warfare agents which can be used with long-range artillery, helicopters and high-speed aircraft as well as with medium-range missiles. The chemicals needed for the production of chemical warfare agents are reportedly to be purchased in Western Europe. It is thought that, in view of the growing amount of evidence, there can be no doubt about the seriousness of the Libyan efforts.
- July 5, 1985 The German Embassy in Moscow reports on information received from a non-Eastern source indicating that the Imhausen Company in Lahr has concluded a contract in Hong Kong to provide supplies for a pharmaceutical project. A German company is said to be involved.

¹ "Report Submitted by the Government of the Federal Republic of Germany to the German Bundestag on February 15, 1989 Concerning the Possible Involvement of Germany in the Establishment of a Chemical Weapon Facility in Libya," Congress, Senate, Committee on Foreign Relations, *Chemical and Biological Weapons Threat: The Urgent Need for Remedies: Hearings of the United States Senate, 101st Cong., 1st Sess., 24 January, 1 March, and 9 May 1989; Yearbook of the United Nations, 1989*, Department of Public Information, The United Nations, (Boston: Martinus Nijhoff Publishers, 1990) 155-156.

Jan 28, 1986 The BND reports that the plant for the manufacture of mustard gas in Libya was constructed under the management of a member of a German company identified by name. The plant is presumed to be on the site of the Tajura nuclear research center.

Feb 7, 1986 The BND reports on news from an allied intelligence service according to which 100 tons of sodium fluoride may have been shipped from Zeebrugge to Libya on the Panamanian freighter "Capira" at the beginning of October 1985. This is said to involve a German shipping company identified by name.

April 1, 1986 The AA [German Federal Foreign Office] passes on to the BMWI [German Federal Ministry of Economics] a non-paper it received on 25 March 1986 from the US Embassy stating, among other things, that a company was thought to be negotiating with Libya on the sale of NBC [nuclear, biological and chemical] equipment.

June 22, 1987 Daily briefing by the BND. According to information from an allied intelligence service, a warfare agent's factory is about to be completed near Rabta with a production capacity estimated at 1 to 3 tons of sarin per day.

Aug 3, 1987 The BND confirms from [satellite pictures] that the new industrial plant near Rabta is most likely the new warfare agent's factory.

Oct 28, 1987 The German Embassy in Tripoli reports to the AA in connection with the Chad/Libya conflict on the following statements by German businessmen: "The Libyan military, they say, are aware that Libya is on the defensive. One is now hoping to have a miracle weapon. This probably refers to the use of poison gas. Preparations are being made in the Sebha region with the assistance of Western companies among others."

Feb 3, 1988 The German embassy in Tripoli reports ... the supply of equipment has mainly been organized via Switzerland, with German intermediaries and German companies thought to be involved.

March 19, 1988- Conference on the "Australian Initiative."
 May 18, 1988 The AA receives a routine level non-paper from the American embassy. It expresses concern over the participation of companies from the Federal Republic of Germany in the supply of chemical facilities to Libya.... "We understand that several firms from the FRG have provided or facilitated Libya's procurement of equipment ... for a probable chemical weapons facility. Among the firms involved are ... Sihi and Co., and Imhausen Chemie GmbH."

June 8, 1988 For the time being the BMF refrains from conducting foreign trade and payments inspections of the other firms mentioned in the non-paper because the paper contains no concrete information on the kind of goods purported to have been exported.

July 15, 1988 The BND receives information from an allied intelligence service concerning possible supplies from German companies for the construction of a poison gas production plant in Rabta. The firms named are IBI, Pen Tsao and Imhausen.

Aug 2, 1988 The ZKI [German Customs Criminology Institute] and BND ... conclude that the ZKI should only undertake preliminary investigations into Imhuasen and refrain from ordering a foreign trade and payments investigation by inspectors from the customs authority before further information has been gathered.

Aug 25, 1988 The AA informs the US embassy of the measures taken so far.

Sep 12, 1988 The BND has information... that Rabta is not yet in operation. More intensive intelligence work reveals the possible involvement of individual citizens of the Federal Republic, who are not named.

- Sep 13, 1988 Intelligence brief in the BK-Amt [German Federal Chancellory]. The BND President reports on the subject of chemical weapons in the Near and Middle East (including Libya). The US embassy hands over to the AA a non-paper of 21 Sep 1988. The US Administration appeals for a stop to an assistance to Libya for the development of its own capability to manufacture and use chemical weapons.
- Oct 13, 1988 The BND reports that Libya is very probably about to achieve its long sought-after objective of having its own chemical warfare capability. The contract work is ... being carried out by ... German firms/persons... The precursors from, among others, a German firm as early as 1985 ... Distribution BK-Amt, ZKI, AA, BMVg, BMWi.
- 18 Oct 1988 The BND announces receipt of a report from an allied intelligence service on 14 Oct 1988, stating that in Aug 1988 staff from the Imhausen was involved in putting the alleged warfare agents plant into operation and possibly in repair of damage to the production facilities too.
- Oct 20, 1988 The Federal Chancellor is briefed for the first time on the information gathered by the intelligence services in relation to Libyan efforts to establish a warfare agents factory. He is presented with a summation of the situation by the head of directorate-general 6 of the Federal Chancellery. This summary also mentions a possible involvement of the German company Imhausen.
- Nov 11, 1988 The [German Foreign Ministry] presents a written briefing to Federal Minister Genscher for his talks in Washington proposing that he make the following points:
- * US evidence provided in October 1988 has been looked into, but so far nothing has been found on Germans or German firms' violation of the Foreign Trade and Payments Act.

* There is no verified information on the activity of the Germans in the Libyan chemical weapons plant. Even if this were the case, the Federal Government would have no effective lever to prevent the mere participation of Germans in such projects.

Nov 11, 1988 [A letter from then-Secretary of State George Shultz to Foreign Minister Genscher]:

* Concern in the US Administration over the growing chemical weapons proliferation, latest example is Libya.

* He (Shultz) praises the Federal Government's efforts to prevent German firms from exporting chemical weapons material while recognizing the legal obstacles to stronger measures.

* He announces the desire to discuss this problem during the Federal Chancellor's visit and offers to provide an intelligence briefing.

Nov 15, 1988 At a meeting with Secretary Shultz in Washington the Federal Chancellor and Foreign Minister Genscher are given evidence by CIA Director Webster of the involvement of German companies...in the alleged chemical weapons plant at Rabta.... The Federal Chancellor promises an immediate investigation and announces that, if necessary, the Federal Republic's legal provision will be tightened.

Nov 17, 1988 The Federal Chancellor notifies the Federal Cabinet and the Federal Security Council of the information received from the US Administration. The Federal Chancellor's statement is recorded in the minutes of the Federal Security Council of 18 November 1988 as follows: "Pictures and documents on the production of chemical weapons in Libya have been presented by the US Government. This information caused him great consternation. A huge arsenal of chemical weapons was being manufactured in production centers in the

desert. A considerable part of the equipment was thought to be of German origin and German experts were said to be involved. A problem in this investigation was that civil products manufactured by the chemical industry were sometimes hardly distinguishable from substances destined for chemical weapons. First of all, we had to gain a clear picture of the information available in the US. Then we would have to consider what could be done. If our laws proved to be inadequate, we would have to create new ones."

- Nov 21, 1988 The German embassy in Washington reports that the US Department of Defense has confirmed intelligence on the chemical weapons plant...
- Nov 24, 1988 The BND reports to the Chancellor in response to evidence presented by the US Administration... Until the summer of 1988, the BND had no knowledge of the participation of German companies neither from its own nor from foreign intelligence sources.
- Dec 5, 1988 The US Embassy hands over to the German Foreign Ministry and BMWi a non-paper with an appeal phrased in general terms to counter Libyan efforts to acquire a chemical weapons capability.
- Dec 19, 1988 The ZKI informs the BMF ... that the information available is still not sufficient to warrant the institution of formal investigations as yet.
- Dec 20, 1988 Session of the Federal Cabinet. The Federal Chancellor emphasizes that the use of German products to manufacture dangerous weapons abroad must be prevented without delay and, if necessary, with drastic legislation.
- Jan 7, 1989 Federal Minister Genscher meets Secretary of State Shultz in Paris. Shultz confirms he has complete confidence in the fact that the Federal Chancellor, Federal Minister Genscher, and the Federal Republic are taking the matter very seriously.

APPENDIX II

CHRONOLOGY OF EVENTS: LIBYAN MULTILATERAL EFFORTS

Jan 3, 1989: The Co-ordinating Bureau of Non-Aligned countries issued a communique in which it recalled that threats of aggression and media campaigns had preceded the 15 April 1986 aerial and naval attacks by the United States against the Libyan Arab Jamahiriya and warned that the current campaign might serve as a pretext for launching fresh acts of aggression against that country. On January 4, 1989 the Libyan Arab Jamahiriya requested an immediate meeting of the Security Council in order to halt the aggression by the United States, which, it said, had that morning downed two Libyan reconnaissance aircraft over international waters... [In the Security Council] The Libyan Arab Jamahiriya called upon the council to condemn the American military aggression, to take all measures to stop it and to call on the United States to withdraw its naval fleet. On January 11, 1989 the Council received a draft resolution, sponsored by Algeria, Colombia, Ethiopia, Malaysia, Nepal, Senegal, and Yugoslavia, which would have had the Council deplore the downing of the two Libyan reconnaissance planes by the United States, and call on the United States to suspend military maneuvers off the Libyan coast...¹ On January 5, 1989 the Co-ordinating Bureau of Non-Aligned Countries, recalling its communique of January 3, condemned the attack and called on the United States to withdraw its forces from the area.

¹ *Yearbook of the United Nations, 1989*, Department of Public Information, The United Nations, (Boston: Martinus Nijhoff Publishers, 1990) 155-156.

- Jan 9, 1989: Non-aligned countries toned down a draft UN resolution condemning the US downing of two Libyan jets last week. When asked if a toned down resolution was acceptable, Libyan Ambassador Treiki said his government feels that its position in the conflict is vindicated by its support among the non-aligned nations, many of which are Arab and African countries sharing the vast continent.²
- Dec 26, 1989: The Arab Council expressed solidarity with Libya on Monday and said any US attack on an alleged chemical weapons plant there would seriously harm Arab-American relations. Quoted in the article, the Council of Permanent Representatives said "[t]he Council affirms its total solidarity with Libya and warns against any temptation to unleash an aggression against this state, which would risk having the most serious repercussions on the region and Arab-American relations... Anything that happens to Libya could happen to any other Arab state. There will be an attempt to propose applying the Arab common defense agreement."³
- May 28, 1996: Egyptian President Hosni Mubarak said in an interview in London that he had sent a team of inspectors to Libya and found no evidence of a chemical weapons plant.⁴
- May 27, 1996: Qadhafi received at his residence at al-Qubbah Palace the members of the Committees for Foreign and Arab Relations. The three-hour meeting was attended by Dr. Usaman al-

² "Anti-American U.N. Resolution Toned Down." *UPI*, January 9, 1989, (accessed around October 1998), available from LEXIS-NEXIS Academic Universe.

³ "Arab League Backs Libya in Dispute with U.S.," *The Reuter Library Report*, December 26, 1988, (accessed around October 1998), available from LEXIS-NEXIS Academic Universe.

⁴ "Mubarak Says There is No Chemical Weapons Plant in Libya." *Agene France Presse*, May 28, 1996, (accessed around October 1998), available from LEXIS-NEXIS Academic Universe.

Baz, first Foreign Ministry Under Secretary and Director of the President's Office for Political Affairs. Col. al-Al-Qadhdhafi announced during the meeting that his country is ready to immediately start strengthening cooperation and integration with Egypt first, then with Sudan and the other Arab countries, out of its concern for unity of Arab action.⁵

May 26, 1996: Qadhafi, in Cairo, told Egyptian President Hosni Mubarak that US photographs of an alleged underground chemical weapons plant near Tripoli were faked. Qadhafi repeated the Libyan position that the underground site is part of an irrigation project and said that the US photographs are faked... The Libyan leader praised Egypt's support and the efforts of President Mubarak for all Arab issues, especially the Libyan ones, which have reflected positively on the relations between the two peoples and countries.⁶

May 19, 1996: AL-JUMHURIYAH writes that the US insistence on accusing the Libyan Jamahiriya of building a chemical weapons complex in Tarhunah is not objective. It describes the American position in this connection as bizarre because it demands the elimination of something that does not exist and seeks to prove a lie that the United States promoted.⁷

May 19, 1996: [In an interview with Arab League Secretary General 'Isamat 'Abd-al-Mahid by Sawsan 'Abu-Husayn in Ganbhazi]. 'Abu-Husayn: How can a dialogue between Libya and the three Western sides be held, after US threats against Libya

⁵ "Egypt: AL-Aadhdhafi -- Libya to Strengthen Cooperation with Egypt." FBIS. Cairo MENA in Arabic, 2140 GMT, May 27, 96, NES-96-103.

⁶ "Gadhaffi Meets Mubarak, Defends Underground Plant," *Reuters North American Wire*, May 26, 1996, (accessed around October 1998), available from LEXIS-NEXIS Academic Universe.

⁷ "Egypt: U.S. Attitude Toward Libya Seen as 'Not Objective,'" Cairo MENA in Arabic, 0510 GMT 19 May 96, in FBIS-NES-96-099.

were announced by US Defense Secretary William Perry? Arab League Secretary General 'Ismat 'Abd-al-Mahid: The Arab League has already condemned these statements. Also, the United States has recently announced that it rules out a strike against the Tarhunah plant, suspected of manufacturing chemical weapons. The Arab League has stressed that the threats would be dealt with politically, because it would be irrational for the Arab League to prepare an army to fight the United States in response to verbal threats. Furthermore, there is an international and Arab willingness to calm the situation down and achieve security, stability, and peace in all tension spots; therefore, these threats are not expected to be carried out.⁸

May 16, 1996: Two hundred and twenty Islamic bodies, institutions, parties and prominent figures from the geographic groups of the Islamic world, the Arab homeland, Asia, Africa, Europe, and the two Americas, members of the International Islamic Popular Command, decided to form a human shield made up of millions of Muslims to be deployed at the site of the tunnel used for regulating the flow of water from the Great-Man-Made River to farms in the Al Jifarah valley in the Tarhunah mountain range. This will be done to confront the US aggressive threats to drop atomic bombs on the tunnel.⁹

May 10, 1996: Letter ... From the Charge D-Affaires A.I. of the Permanent Mission of the Libyan Arab Jamahiriya to the United Nations Addressed to the President of the Security Council: I have the honor to transmit herewith a letter addressed to you by Mr Omar Mustafa Al-Muntasser, Secretary of the General People's

⁸ "Inter-Arab: Arab League Chief on Libya, Palestinians, Other Issues," London AL-SHARQ AL-AWSAT in Arabic, 19 May 96, 4, in FBIS-NES-96-100.

⁹ "Libya: Human Shield to Form to Protect Tarhunah Tunnel," Tripoli JANA in Arabic, 1120 GMT 16 May 96, in FBIS-NES-96-097.

Committee for Foreign Liaison and International Cooperation of the Libyan Arab Jamahiriya, concerning statements being made by officials of the United States administration that indicate that the United States is preparing to take large-scale military action against the Libyan Arab Jamahiriya.¹⁰

May 7, 1996: [Portion of letter from Mr Omar ustafa Al-Muntasser to the UNSC] "The Libyan Arab Jamahiriya would like to alert you and the international community to the dangerous character of the designedly hostile interests of the United States of America towards the Mediterranean region. I should be grateful if you would have this letter and its enclosure circulated as a document of the Security Council."¹¹

April 4, 1996: If the dispute between Libya and the United States were to explode, Italy would risk losing its principal source of oil supplies and would have to say good-bye to the "contract of the century" for a giant gas pipeline costing \$4 billion. The trouble is that Italian strategy is being undermined not by Rome but by Washington. The United States is in practice creating a situation that is forcing Italy to take sides.

¹⁰ United Nations, "Letter Dated 8 May 1996 from the Charge D'Affaires A.I. of the Permanent Mission of the Libyan Arab Jamhiriya to the United Nations Addressed to the President of the Security Council," United Nations Security Council Document S/1996/342, 8 May 1996.

¹¹ United Nations, "Letter dated 7 May 1996 from the Secretary of the General People's Committee for Foreign Liaison and International Cooperation of the Libyan Arab Jamahiriya addressed to the President of the Security Council," United Nations Security Council Document S/1996/342, 7 May 1996.

BIBLIOGRAPHY

PRIMARY SOURCES

Interviews by Author

- Billingslea, Marshal. Senate Foreign Relations Committee. July 1, 1998. Shorthand notes.
- Black, Stephen. Administrative Staff, UNSCOM. July, 2000. Shorthand notes.
- Bouchard, Joseph. National Security Council Staff. November 07, 1997. Shorthand notes.
- Butler, Richard. Former Head United Nations Special Commission on Iraq (UNSCOM). Sydney Australia, June 5, 2001. Tape recording.
- Cressey, Laura. Special Assistant, Political-Military Bureau, U.S. State Department. November 7, 1997. Shorthand notes.
- Dibble, Philo. Deputy Director, Egyptian and North African Affairs. July 10, 1998, Washington D.C. Shorthand notes.
- Duelfer, Charles. Former Deputy UNSCOM. July 26, 2001, Washington, D.C. Tape recording and shorthand notes.
- Gross, Ken. Foreign Service Officer. German Desk at the US Department of State. 8 July 1998, Washington D.C. Shorthand notes.
- Hamza, Khidhir. Former Iraqi nuclear scientist. January 7, 2002. E-mail exchange.
- McCabe, Michael, VADM. Deputy Director for Operations. The Joint Staff. October 14, 1997. Shorthand notes.
- Metzel, Jaime. Director, Global and Multilateral Affairs, National Security Council. November 03, 1997, Washington, D.C. Shorthand notes.
- Orr, Robert. Former Special Assistant to the US Ambassador to the United Nations. October 17, 1997. Shorthand notes.

Ritter, Scott. Former weapons inspector, UNSCOM. August 26, 2001. E-mail exchanges.

Other Interviews

"Ambassador Kirkpatrick: Statement on Israeli Raid Before Security Council." United States Department of State, Washington, D.C., June 19, 1981.

United Nations Documents

Ahmad Khan, Munir. "1957-87: Development Through Global Cooperation." *IAEA Bulletin* 29/3.

"Arms Control and Verification." *IAEA Bulletin* 39/3. September, 1997.

Bustani, Jose M. "Opening Statement by the Director-General to the Executive Council at its Twenty-Fourth Session," The Hague, 3 April 2001.

IAEA. Board of Governors. "Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran, Report by the Director General." Gov/2003/40. June 6, 2003.

IAEA. General Conference. GC(43)/22, August 22, 1999 and 2002 Review Conference of the Parties to the Treaty on the Nonproliferation of Nuclear Weapons. NPT/CONF.2000/, February 2000.

IAEA. *The Structure and Content of Agreements Between the Agency and States Required in Connection with the Treaty on the Non-proliferation of Nuclear Weapons.* INFCIR/153, May 1971.

IAEA. INFIRC/540, May 1997. Accessed February 15, 1999. Available from <http://www.iaea.org>

IAEA. INFCIRC/209/Rev.1. Nov 1990. Accessed October 15, 1999. Available from <http://www.projects.sipri.se/expcon/zangger.htm>.

IAEA. "Nonproliferation of Nuclear Weapons and Security, IAEA Safeguards Agreements and Additional Protocols." 2002. Accessed February 17, 2003. Available online from <http://www.iaea.org>.

- IAEA. "Nonproliferation of Nuclear Weapons." IAEA Information Series, Division of Public Information, September, 2002. Accessed February 17, 2003. Available from <http://www.IAEA.org>
- "Peaceful Nuclear Development Must Continue." *International Atomic Energy Agency Bulletin*. September, 1981.
- Priest, Jan. "IAEA Safeguards and the NPT: Examining Interconnections." *IAEA Bulletin* 37/1.
- Schriefer, Dirk. "New Safeguards Measures Initial Implementation and Experience." *IAEA Bulletin* 38/4.
- The Annual Report for 1980*, IAEA Board of Governors. April 10, 1981.
- United Nations. "Ad Hoc Group of Governmental Experts to Identify and Examine Potential Verification Measure from a Scientific and Technical Standpoint Report." Geneva. 1993.
- United Nations. "Agreement Between the Republic of Iraq and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons." *Treaty Series*, 1973.
- United Nations. "Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction." corrected version 8 August 1994.
- United Nations. "Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (The Biological Weapons Convention)." April 10, 1972.
- United Nations. *Military and Paramilitary Activities in and Against Nicaragua. (Nicaragua v. The United States)*. Merits, 1986.
- United Nations. "Statute of the International Atomic Energy Agency. Done at the Headquarters of the United Nations. October 26, 1956." *Treaty Series*, vol. 276, 1957.

- United Nations. "Treaty on the Non-Proliferation of Nuclear Weapons." *Treaty Series*, Vol. 729, 1970.
- United Nations General Assembly. Resolution 34/89. December 11, 197.
- United Nations Secretary General. Report to the General Assembly. A/36/431.
- United Nations Security Council. *Report of the Security Council to the General Assembly Covering the Period from 16 July 1949 to 15 July 1950*. General Assembly Office of Records, 5th Sess. (Supplement), 5073 A/1361.
- United Nations Security Council. S/PV. 2280. June 12, 1981.
- United Nations Security Council. S/PV. 2282. June 15, 1981.
- United Nations Security Council. S/14556. June 18, 1981.
- "United Nations Security Council. UNSC 487. 1981." *American Journal of International Law*, July 1981.
- United Nations Security Council. UNSC 687. 1991.
- United Nations Security Council. Document S/1996/342, May 7, 1996. "Letter dated 7 May 1996 from the Secretary of the General People's Committee for Foreign Liaison and International Cooperation of the Libyan Arab Jamahiriya addressed to the President of the Security Council."
- United Nations Security Council. Document S/1996/342, May 8, 1996. "Letter Dated 8 May 1996 from the Charge D'Affaires A.I. of the Permanent Mission of the Libyan Arab Jamhiriya to the United Nations Addressed to the President of the Security Council."
- United Nations Security Council. Document S/1996/34. May 10, 1996. "Letter Dated 10 May 1996 from the Charge D'Affaires A.I. of the Permanent Mission of the Libyan Arab Jamhiriya to the United Nations Addressed to the President of the Security Council."
- United Nations Security Council. Document W/1996/346. "Letter from Elizabeth Furse, Member of Congress, to President Clinton on May 3, 1996."
- United Nations Security Council. Document S/Res/731, Jan 21, 1992.

United Nations Security Council. Document S/Res/748, 21 March 1992.

United Nations Security Council. Document S/Res/883, Nov 11, 1993.

US Government Documents

Capitol Hill Hearing Testimony. "Testimony of Walter B. Slocombe Under Secretary of Defense for Policy Senate Armed Services 21st Century Security Threats." March 05, 1998.

Defense Nuclear Agency, "Biological Weapons Proliferation, Global Proliferation: Dynamics, Acquisition, Strategies and Response," Vol. 4, Alexandria, Va.: DNA, 1994.

"From the State Department." *Federal News Service*, March 15, 1990. Available at <http://www.federalnewsservice.com>.

"From the State Department. Hearing of the Senate Committee on Foreign Relations." *Federal News Service*, June 12, 1990. Available at <http://www.federalnewsservice.com>.

"From the State Department." *Federal News Service*, June 18, 1990. Available at <http://www.federalnewsservice.com>.

"From the White House." *Federal News Service*, March 7, 1990. Available at <http://www.federalnewsservice.com>.

Holum, J.D. "Remarks for the Fourth Review Conference of the Biological Weapons Convention." Geneva: US Arms Control and Disarmament Agency, November 26, 1996.

Review of the United Nations Charter: A Collection of Documents. Subcommittee on the United Nations Charter. US Government Printing Office: Washington, 1954.

"Statement on Israeli Raid Before Security Council." United States Department of State. Bureau of Public Affairs. Washington DC, June 19, 1981.

US Congress. House. *Statement by David Kay on the Interim Progress Report on the Activities of the Iraq Survey Group before the House Permanent Select Committee on Intelligence, the House Committee on Appropriations, Subcommittee on Defense, and the Senate Select Committee on Intelligence*. October 02, 2003.

- US Congress. House. Committee of Foreign Affairs, Subcommittee on Arms Control, International Security and Science, and International Economic Policy and Trade. *Chemical Weapons Proliferation; Hearings Before the Committee of Foreign Affairs, Subcommittee on Arms Control, International Security and Science, and International Economic Policy*. 101st. Cong., 1st Sess., May 4, 1989.
- US Congress. House. Committee of Foreign Affairs, Subcommittee on International Security and Scientific Affairs. "Hearings on Europe and the Middle East, 97th. Cong., 1st Sess., June 17 and 25, 1981.
- US Congress. House. Committee of National Security. "Hearings on US Policy Towards Iraq." September 16, 1998.
- US Congress. House. Europe and Middle East Subcommittee of the House Foreign Relations Committee, United States House of Representatives. *Hearing of the Europe and Middle East Subcommittee of the House Foreign Relations Committee*. *Federal News Service*, October 9, 1990. Available at <http://www.federalnewsservice.com>.
- US Congress. House. Foreign Affairs, International Security, International Organizations and Human Rights Committee. *Testimony September 14, 1993 Honorable Tom Lantos Chairman House Foreign Affairs/International Security, International Organizations and Human Rights U.S. Proliferation Policy Toward Rogue Regimes*. *Federal Document Clearing House Congressional Testimony*, September 14, 1993.
- US Congress. House. "Hearing Before the Subcommittees on International Security and Scientific Affairs on Europe and the Middle East and on International Economic Policy and Trade of the Committee on Foreign Affairs House of Representatives." Ninety-Ninth Congress, June 17 and 25, 1981.
- US Congress. House. House Arms Control Subcommittee and the International Economic Policy and Trade Subcommittee. *Joint Hearing of the House Arms Control Subcommittee and the International Economic Policy and Trade Subcommittee*. *Federal News Service*, May 4, 1989. Available at <http://www.federalnewsservice.com>.

- US Congress. House. "Statement by Khidhir Hamza before House Armed Services Committee," 107th Cong., September 19, 2002.
- US Congress. House. Subcommittee on Economic Policy and Trade of the Committee on International Relations United States House of Representatives. *Prepared Testimony of Dr. Paul Freedenberg, International Trade Consultant Before the Subcommittee on Economic Policy and Trade of the committee on International Relations United States House of Representatives. Federal News Service. January 25, 1995. Available at <http://www.federalnewsservice.com>.*
- US Congress. Senate. Armed Services Committee. *Testimony March 05, 1998 Walter B. Slocombe, Under Secretary of Defense for Policy, Senate Armed Services 21st Century Security Threats, Congressional Testimony.*
- US Congress. Senate. Committee on Foreign Relations. "Hearings: The Israeli Air Strike." 97th Cong., 1st Sess., June 18, 19, and 25, 1981.
- US Congress. Senate. Committee on Foreign Relations. *Treaties, Conventions, International Acts, Protocols and Agreements. 61st Congress, 2d Session, 3159.*
- US Congress. Senate. Committee on Government Affairs. *Proliferation Primer: A Majority Report of the Subcommittee on International Security, Proliferation, and Federal Services. January, 1998.*
- US Congress. Senate. Committee on Foreign Relations. *Chemical and Biological Weapons Threat: Hearings Before the Committee on Foreign Relations. "Statement of William F. Burns. Director, U.S. Arms Control and Disarmament Agency." 101st Cong., 1st Sess., January 24, 1989.*
- US Congress. Senate. Committee on Government Affairs. "Proliferation Primer: A Majority Report of the Subcommittee on International Security, Proliferation, and Federal Services." January 1998.
- US Congress. Senate. Committee on Foreign Relations, *Chemical and Biological Weapons Threat: The Urgent Need for Remedies: Hearings of the United States Senate, 101st Cong., 1st Sess., 24 January, 1 March, and 9 May 1989.*

- US Congress. Senate. Committee on Foreign Relations, *Chemical Weapons Convention: Mr. Helms, from the Committee on Foreign Relations, Submitted the Following Report Together with Majority and Minority Views*, 104th Cong., 2nd Sess., Executive Report 104-33, 11 September, 1996.
- US Congress. Senate. Committee on Foreign Relations, *Chemical Weapons Proliferation. Hearing of the Senate Foreign Relations Committee. Federal News Service*. March 1, 1989. Available at <http://www.federalnewsservice.com>.
- US Congress. Senate. Committee on Foreign Relations. *Holds Hearing on Arms Sales to Iran: Senate Foreign Relations Subcommittee on Near East and South Asia. FDCH Political Transcripts*, May 6, 1997.
- US Congress. Senate. European Affairs Subcommittee of the Senate Foreign Relations Committee. *Hearing of the European Affairs Subcommittee of the Senate Foreign Relations Committee on Open Skies Conference. Federal News Service*, October 9, 1990. Available at <http://www.federalnewsservice.com>.
- US Congress. Senate. Governmental Affairs Committee on Nuclear Proliferation. *Hearing of Senate Committee Governmental Affairs Committee on Nuclear Proliferation. Federal News Service*, May 18, 1989. Available at <http://www.federalnewsservice.com>.
- US Congress. Senate. Senate Foreign Relations Committee. *Hearing of the Senate Foreign Relations Committee; Chemical Weapons. Federal News Service*, March 1, 1989. Available at <http://www.federalnewsservice.com>.
- US Congress. Senate. Senate Governmental Affairs Committee and the Permanent Subcommittee. *Hearing of the Full Senate Governmental Affairs Committee and the Permanent Subcommittee on Investigations. Federal News Service*, February 10, 1989. Available at <http://www.federalnewsservice.com>.
- US Congress. Senate. "U.S. Senate's Consent to Ratification of the CWC." 105th Cong., 1st Sess., April 24, 1997.

- US Department of Defense. "Artists Rendering of the Tarhunah Complex Based on Classified Photo Reconnaissance Sources." April 1996.
- US Department of Defense, "Nonproliferation: Threat and Response," 2001. Accessed January 15, 2002. Available online at <http://www.dod.gov>.
- US Department of Defense. "Statements on Preemptive Nuclear Weapon Use against Libyan CW Facility." Accessed January 15, 2002. Available on-line from DefenseLINK Nes: DoD News Briefing 5/7/96. Kenneth Bacon, ASD (PA), May 7, 1996.
- US Department of Homeland Security. "DHS Organization." May 2004. Accessed May 15, 2004. Available online at WWW.DHS.gov.
- US Department of State Bulletin*, Vol. 12, May 27, 1945.
- US Department of State. Cable P 101026Z Aug 1990. Available on-line [p8-at.html](#)
- US Department of State. "Draft International Code of Conduct Against Ballistic Missile Proliferation." February 8, 2002.
- US Department of State. International Information Programs. "US Urges Disarmament Conference to Launch Fissile Material Talks." February 15, 2001.
- US Department of State. International Information Programs. "US Urges Disarmament Conference to Launch Fissile Material Talks." February 15, 2001.
- US Department of State. International Information Programs. "Fissile Material Cutoff Treaty," June 29, 1999.
- US Department of State. International Information Programs. "US Urges Disarmament Conference to Launch Fissile Material Talks." February 15, 2001.
- US Department of State. *Patterns of Global Terrorism, 1996*. US Department of State Publication 10433, April 1997.
- US President. *Executive Order #12938: Proliferation of Weapons of Mass Destruction*. November 14, 1994.

US President. "Letter to the Congress of the United States by William Clinton on the Continuation of Executive Order 12938, November 12, 1997." Accessed February 19, 2000. Available from <http://www.pub.whitehouse.gov/u...eop.gov.us/1997/11/16.text>.

US President. *Report of the President's Special Review Board*. February 26, 1987.

US President. "The Clinton Administration's Policy on Managing Complex Contingency Operations: Presidential Decision Directive-56." May 1997.

White House. "A National Security Strategy of the United States." September 2002. Accessed October 15, 2003. Available on-line at WWW.Whitehouse.gov.

White House. "National Strategy to Combat Weapons of Mass Destruction." December 2002. Accessed October 15, 2003. Available on-line at WWW.Whitehouse.gov

White House. "National Strategy for Combating Terrorism." February 2003. Accessed October 15, 2003. Available on-line at WWW.Whitehouse.gov.

White House. "Proliferation Security Initiative, Statement of Interdiction Principles." September 2003. Accessed October 15, 2003. Available online at WWW.Whitehouse.gov.

White House. "President Announces New Measures to Counter the Threat of WMD, Remarks by the President on Weapons of Mass Destruction." Fort Lesley J. McNair, National Defense University. February 11, 2004. Accessed May 15, 2004. Available online at WWW.Whitehouse.gov.

FBIS Documents

"Baghdad Carries ABC Interview with Saddam Husayn." *FBIS*. JN302126. Baghdad Domestic Service in Arabic, 1900 GMT, Jun 30, 1981.

"Begin Cites US Document on Aim of Iraqi Reactor." *FBIS*. TA221733. Jerusalem Domestic Service in Hebrew, 1700 GMT, June 22, 1981.

"Begin Interview on Attack." *FBIS*. TA081832. Jerusalem Domestic Service in Hebrew. 1805 GMT, June 8, 1981.

"Begin, Other Leaders Press Conference on Raid." *FBIS*. TA091649. Jerusalem Domestic Service in Hebrew, 1605 GMT, June 9, 1981.

"Begin-McFarlane Talks." *FBIS*. MEA-81-134. July 14, 1981.

"Chief of Staff Eytan Interviewed on Operation." *FBIS*. TA091839. Jerusalem Domestic Service in Hebrew. 1700 GMT, 9 June 1981.

"Egypt: AL-Aadhdhafi -- Libya to Strengthen Cooperation with Egypt." *FBIS*. Cairo MENA in Arabic, 2140 GMT, May 27, 1996. NES-96-103.

"Egypt: Mubarak Reportedly Warned U.S. Against Attacking Libya." *FBIS*. Cairo AL-SHA'B in Arabic, Aug 6, 1996. NES-96-160.

"Egypt: Opposition Parties Denounce U.S. Threats Against Libya" *FBIS*. Cairo AL-'ARABI in Arabic, April 15, 1996. NES-96- 079.

"Egypt: U.S. Attitude Toward Libya Seen as 'Not Objective.'" *FBIS*. Cairo MENA in Arabic, 0510 GMT, May 19, 1996. NES-96-099.

"Foreign Ministry-Begin Dispute." TA150647. Jerusalem Post in English. Jun 15, 1981, 1.

"Italy: Paper Sees Risk for Italy if US Bombs Libyan Factory." *FBIS*. Rome LA REPUBBLIA in Italian, April 4, 1996. FBIS-TOT-96-014-L.

"Inter-Arab: Arab League Chief on Libya, Palestinians, Other Issues." *FBIS*. London AL-SHARQ AL-AWSAT in Arabic, May 19, 1996, in FBIS-NES-96-100.

"JANG on Danger of Attack on Nuclear Sites." *FBIS* GF150906 Lahore JANG in Urdu. October 8, 1984.

"Libya: AL-Qadhdhafi Claims al-Tarhunah Tunnel for Irrigation." *FBIS*. Tripoli JANA in English, 1428 GMT April 17, 1996. FBIS-NES-96-076.

"Libya: AL-Qadhdhafi Says U.S. Photograph of Tunnel Fake." *FBIS*. Tripoli JANA in Arabic, 1710 GMT May 26, 1996. FBIS-NES-96-104.

"Libya: Human Shield to Form to Protect Tarhunah Tunnel." FBIS. Tripoli JANA in Arabic, 1120 GMT May 16, 1996. FBIS-NES-96-097.

"Libya: US Concern About Chemical Weapons Dismissed as 'Conspiracy Theory.'" FBIS. London AL-SHARQ AL-AWSAT in Arabic April 4, 1996. FBIS-NES-96-067.

"Libya Warns of US 'Dangerous Step,' Plan for 'Aggression.'" FBIS. Tripoli JANA in Arabic 1500 GMT Mar 13, 1997. FBIS-NES-97-072.

"Libya: JANA Criticizes U.S. Campaign Against Chemical Factory." FBIS. Tripoli JANA in English, 0820 GMT, May 9, 1996. FBIS-NES-96-091.

"Minister Makes Statement Condemning Israeli Raid." FBIS LD082120 Riyadh Domestic Service in Arabic. 2000 GMT Jun 9, 1981.

"Peres Attacks Government at Press Conference." FBIS. Jerusalem Domestic Service in Hebrew, 1100 GMT, Jun 15, 1981. TA151143.

"Presidential Office Statement." FBIS NC082222 Cairo MENA in Arabic. 241 GMT Jun 8, 1981.

"Russia: Counterproliferation Strategies." FBIS. Moscow YADERNYY KONTROL: OBOZRENIYE PO PROBLEMAM ORUZHIYA MASSOVOGO UNICHTOZHENIYA V ROSSII I NOVYKH NEZAVISIMYKH GOSUDARSTVAKH in Russian October 1995 No. 10, in FBIS-SOV-96-139-S.

"Saudi Arabia: Expatriate Paper -- No Case for Claiming Libya has Chemical Weapons." FBIS. London AL-SHARQ AL-AWSAT in Arabic, April 6, 1996, in FBIS-NES-96-075.

"Shamir Interviewed on Iraq Raid, US Ties." FBIS. Tel Aviv MA'ARIV in Hebrew, June 12, 1981. TA121435.

"Sharon Threatens to Bomb Iraqi Nuclear Reactor." FBIS. Jerusalem Domestic Service in Hebrew. 1224 GMT, March 26, 1985. TA261232.

"Text of As-Sadat May Interview on Israeli Raid." FBIS. Cairo MENA in Arabic. 0700 GMT, June 15, 1981. NG150930.

Sites, Documents and Policy Briefs

British and Foreign State Papers, 1840-1841. London: James Rigway and Sons, Picadilly, 1857.

"Biological Weapons Convention Overview." Accessed March 22, 2002. Available from www.cdi.org/issues/cbw/bwc.

"Chem-Bio Weapons Site." Accessed March 03, 2002. Available from <http://www.cdi.org/issues/cbw/chem.html>

"CIA Factbook." Accessed October 17, 1998. Available from [http:// WWW.odci.gov/cia/publications/factbook/ly.html](http://WWW.odci.gov/cia/publications/factbook/ly.html).

"Libyan Site Page." Accessed October 15, 1998. Available from [http://lcweb2.loc.gov/cgi-bin/query/r?frd/csdtty:@field\(DOCID+ly0133\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/csdtty:@field(DOCID+ly0133))

Nuclear Suppliers Group. Accessed October 17, 2002. Available online at <http://projects.sipri.org>

O'Hanlon, Michael E., Susan E. Rice, and James B. Steinberg, "The New National Security Strategy and Preemption," The Brookings Institution. Policy Brief #113, January 2003.

"States Parties to the Chemical Weapons Convention." Accessed March 03, 2002. Available from <http://www.opcw.org/memsta/ratifyer.htm>

"The Chemical Weapons Convention." Accessed March 03, 2002. Available from <http://www/opcw.nl/guide.htm>.

Speeches

Bush, George W. Speech at the National Cathedral, Washington, D.C., September 14, 2001.

Ekeus, Rolf. Speech given to The Fletcher School of Law and Diplomacy, Tufts University, April 22, 1988.

Yearbooks

SIPRI Yearbook 1989. World Armaments and Disarmament. Oxford University Press, 1989.

- SIPRI Yearbook 1992. World Armaments and Disarmament.*
Oxford University Press, 1992.
- SIPRI Yearbook 1994. World Armaments and Disarmament.*
Oxford University Press, 1994.
- SIPRI Yearbook 1996. Armaments, Disarmament and
International Security.* Oxford University Press, 1996.
- Yearbook of the United Nations 1981.* Department of Public
Information. United Nations. Boston: Martinus Nijhoff
Publishers, 1990.
- Yearbook of the United Nations, 1989.* Department of Public
Information. The United Nations. Boston: Martinus
Nijhoff Publishers, 1990.

SECONDARY SOURCES

Books

- Arend, Anthony Clark and Robert J. Beck. *International Law
and the Use of Force: Beyond the UN Paradigm.* New York:
Routledge, 1993.
- Baldwin, David A. ed. *Neorealism and Neoliberalism: The
Contemporary Debate.* New York: The Columbia
University Press, 1993.
- Black, Stephen. "Investigating Iraq's Biological Weapons
Program," in *Biological Weapons: Limiting the Threat*,
ed. Joshua Lederberg (Cambridge: The MIT Press, 1999),
159.
- Bowett, D. W. *Self-Defense in International Law.* New York:
Praeger, 1958.
- Brierly, J. L. *The Law of Nations: An Introduction to the
International Law of Peace*, 6th Edition. New York:
Oxford University Press, 1963.
- Brodie, Bernard. *Strategy in the Missile Age.* Princeton:
Princeton University Press, 1959.

- Brownlie, I. *Principles of Public International Law*. Oxford: Clarendon Press, 1979.
- _____. *International Law and the Use of Force by States*. Oxford: Clarendon Press, 1979.
- Bustani, Jose M. *Verification Practice under the Chemical Weapons Convention: A Commentary*. Eds. Walter Krutzsch and Ralf Trapp. The Hague: Kluwer Law International, 1999.
- Carter, Barry and Phillip Trimble. *International Law*. New York: Little Brown and Company, 1995.
- Chayes, Abram. *The Cuban Missile Crisis*. New York: Oxford University Press, 1974.
- Dougherty, James E. and Robert L. Pfaltzgraff, Jr. *Contending Theories of International Relations, A Comprehensive Survey*, 5th ed. New York: Addison Wesley Longman, 2001.
- Damrosch, Lori Fisher and David J. Scheffer, eds. *Law and Force in the New International Order*. San Francisco: Westview Press, 1991.
- Davis, Richard G. *Decisive Force: Strategic Bombing in the Gulf War*. Air Force History and Museums Program, 1996.
- Evron, Yair. *Israel's Nuclear Dilemma*. New York: Cornell University Press, 1994.
- Farer, Tom J. "Law and War." In Black and Falk, eds. *The Future of the International Legal Order*. Princeton: Princeton University Press, 1971.
- Feldman Shai and Abdullah Toukan. *Bridging the Gap: A Future Security Architecture for the Middle East*. Carnegie Commission on Preventing Deadly Conflict. New York: Rowan and Littlefield, Publishers, Inc., 1997.
- Goodrich, Leland M., Edvard Hambro and Anne Praticia Simons. *Charter of the United Nations: Commentary and Documents*, Third Edition. New York: Columbia University Press, 1969.
- Green, Leslie. *International Law Through the Cases*. New York: Praeger, 1959.

- Henkin, Louis, Stanley Hoffmann, Jeane J. Kirkpatrick, Allan Gerson, William D. Rogers, and David J. Scheffer. *Right V. Might: International Law and the Use of Force*. New York: Council on Foreign Relations Press, 1991.
- Henkin, L. *International Law*. St. Paul, Minn.: West Publishing Company, 1980.
- Kissinger, Henry. *Diplomacy*. New York: Simon and Schuster, 1994.
- Krutzsch, Walter and Ralf Trapp, eds. *Verification Practice Under the Chemical Weapons Convention: A Commentary*. The Hague: Kluwer Law International, 1999.
- Lederberg, Joshua, ed. *Biological Weapons: Limiting the Threat*. Cambridge: The MIT Press, 1999.
- McDougal, Myres, and Florentino Feliciano. *Law and Minimum World Public Order*. New Haven: Yale University Press, 1961.
- Moore, John Bassett. *A Digest of International Law*. Washington: Government Printing Office, 1906.
- Perlmutter, Amos. *Two Minutes Over Baghdad*. London: Vallentine, Mitchell & Co, Ltd, 1982.
- Russell, Ruth and Jeanette Muther. *A History of the United Nations Charter: The Role of the United States 1940-1945*. Washington, D.C.: The Brookings Institution, 1958.
- Schindler, Dietrich. *The Laws of Armed Conflicts*. Geneva: Marinus Nijhoff, 1988.
- Shaw, Malcolm. *International Law*. New York: Cambridge University Press, 1991.
- Stone, Julius. *Aggression and World Order: A Critique of United Nations Theories of Aggression*. Los Angeles: University of California Press, 1958.
- Thucydides, *History of the Peloponnesian War*. Translated by Rex Warner. London: Penguin Books, 1972.

Periodicals

- "America's Nuclear Pledge to Israel." *Foreign Report*,
Published by the *Economist*. January 21, 1981.
- "Anti-American UN Resolution Toned Down." *UPI*, January 9,
1989.
- "Arab League Backs Libya in Dispute with U.S." *The Reuter
Library Report*, December 26, 1988.
- Blix, Hans. "Verification of Nuclear Nonproliferation: the
Lessons of Iraq." *The Washington Quarterly*, Autumn,
1992.
- "Bonn Acts to Tighten Export Control." *The Washington Post*,
January 11, 1989.
- "Bonn Opens Probe of Chemical Firm." *The Washington Post*,
January 14, 1989.
- "Bonn to Work with the U.S. Against Libyan Plant." *The
Washington Post*, January 27, 1989.
- "Bonn's Benign Neglect on Poison Gas Assailed." *The
Washington Post*, January 29, 1989.
- "Bush Calls Kohl to Discuss Alleged Libyan Chemical Arms
Plant." *The Reuter Library Report*, January 23, 1989.
- Carnahan, Burrus M. "Protecting Nuclear Facilities from
Military Attack: Prospects After the Cold War."
American Journal of International Law, July 1992.
- Comprehensive Disclosure of Fissionable Materials.*
Carnegie Commission on Preventing Deadly Conflict.
Carnegie Corporation of New York.
- Christol, Carl and Charles Davis. "Maritime Quarantine: The
Naval Interdiction of Offensive Weapons and Associated
Material to Cuba, 1962." *American Journal of
International Law*, 57, 1963.
- "Delayed Reaction." *Jerusalem Post*. August 22, 1980.
- "DOD Developing Arms for Buried Targets." *UPI*, April 23,
1996.

- Eitan, Freddy. "Delayed Reaction." *Jerusalem Post*. August 22, 1980.
- Ekeus, Rolf. "The Iraqi Experience and the Future of Nuclear Nonproliferation." *The Washington Quarterly*. Vol. 15, Number 4, Autumn 1992.
- Feldman, Shai'. "The Bombing of Osiraq -- Revisited." *International Security*. Fall 1992.
- Fenwick, Charles. "The Quarantine Against Cuba: Legal or Illegal?" 57 *American Journal of International Law*, 1963.
- "Gadhaffi Meets Mubarak, Defends Underground Plant." *Reuters North American Wire*, May 26, 1996.
- "Germany: Charges Filed in Libyan Technology Transfer Case." *FBIS*. Berlin Die Welt in German, Jun 7, 1997. FBIS-TAC-97-160.
- "Germany: Commentary on Implications of Libyan Toxic Gas Deal." *FBIS*. Munich Sueddeutsche Zeitung in German, August 21, 1996. FBIS-WEU-96-164.
- "Germany: Schnidbauer Views Dangers of Illegal Technology Transfer." *FBIS*. Hamburg Der Spiegel in German, July 7, 1997. FBIS-TAC-97-189.
- "Germany: ZDF Sees Role in Libyan Poison-Gas Plant." *FBIS*. Mainz ZDF Television Network in German, 2000 GMT, May 1, 1996. FBIS-TAC-96-007.
- Government of Israel. Ministry of Foreign Affairs and Atomic Energy Commission. *The Iraqi Nuclear Threat -- Why Israel Had to Act*. Jerusalem, 1981.
- Hamza, Khidhir. "Saddam and the West's Worst Nightmare." *The Middle East*, January 2001.
- Hargrove, John Lawrence. "The Nicaragua Judgement and the Future of the Law of Force and Self-Defense." *American Journal of International Law*, 1987.
- House, Karen. "Reagan Agonizes on Whether to Send F-16s to Israel as Aides See Broad Consequences." *Wall Street Journal*, July 20, 1981.

- Jennings, R. Y. "The Caroline and McLeod Cases." *The American Journal of International Law*, January, 1938.
- "Kohl Weathers Barrage of Accusations at Parliamentary Debate." *The Associated Press*, February 17, 1989.
- "Libya-Egypt Talks tied to U.S. Warning." *UPI*, April 5, 1996.
- "Libya Reveals Chemical Weapons Stockpiles," *The Atlanta Journal-Constitution*, March 05, 2004.
- "Libya Said to offer to Dismantle Plant if it is Given New One." *The Washington Post*, May 3, 1990.
- "Libya: U.S. Says Rabta Chemical Plant Fire was a Hoax." *Inter Press Service*, June 18, 1990.
- "Libyan Plant Sparks Storm in Bonn." *The Washington Post*, January 19, 1989.
- "Libya Offers to Discuss Chemical Weapons Charges with U.S." *The Associated Press*, April 11, 1996.
- McDougal, Myres. "Some Comments on the 'Quarantine of Cuba,'" 57 *American Journal of International Law*, 1963.
- "Mubarak Lends Bush, Gadhafi a Hand." *The Washington Post*, March 27, 1990.
- "Mubarak Says There is No Chemical Weapons Plant in Libya." *Agence France Presse*, May 28, 1996.
- Power, Paul F. "The Baghdad Raid: Retrospect and Prospect." *Third World Quarterly*, July, 1986.
- Pearson, Graham S. "The Protocol to the Biological Weapons Convention is Within Reach," *Arms Control Today*, June 2000. Available online at http://www.armscontrol.org/ACT/June_00/bwcjun.htm.
- "Report: US has not Confirmed Iraq A-bomb Suspicions." CNN Broadcast September 30, 1998. Available on-line at CNN.com/world/meast/9809/30/iraq.bomb.report.01.reut/index.html.
- Rubin, Alfred. "Looking Out From the Inside," *The Fletcher Forum of World Affairs*, Winter-Spring, 1995.

- _____. "Jus Ad Bellum and Jus Cogens: Is Immorality Illegal?" Eds. Delissen and Tanja. *Humanitarian Law of Armed Conflict*, 1991.
- _____. "Is War Still Legal?" *Indian Year Book of International Affairs*, 1980.
- "Shultz Hints U.S. Open to Deal on Libyan Plant." *The Associated Press*, January 5, 1989.
- Snyder, Jed C. "The Road to Osiraq: Baghdad's Quest for the Bomb." *The Middle East Journal*, Autumn, 1983.
- "State Department Rejects Libyan Offer." *The Associated Press*, December 30, 1988.
- "Stop Libya Without Nucs." *The Atlanta Journal and Constitution*, April 26, 1996.
- The Henry L. Stimson Center. "House of Cards: The Pivotal Importance of a Technically Sound BWC Monitoring Project." Report #37, March 2001.
- "Top Kohl Aide Acknowledges First Reports on Libyan Affair Date Back to 1980." *The Associated Press*, February 15, 1989.
- Tucker, Jonathan B. "Nonproliferation Regimes at Risk: Challenges to the Chemical Weapons Convention." CNS Occasional Papers: #3. Available online at <http://cns.miss.edu/pubs/opapers/op3/tucker.htm>.
- "US Drive to Censure Libya Lags." *The Washington Post*, January 7, 1989.
- "US Rejects Libya's Call for Direct Talks." *The Xinhua General Overseas News Service*, January 9 1989.
- Waller, Douglas. "Target Gaddafi, Again: He's Building a Huge Plant to Make Nerve Gas, and the CIA is Trying to Stop It." *Time*, April 1, 1996.
- Wright, Quincy. "The Cuban Quarantine." *The American Journal of International Law*, 57, 1963.