

Changing Targets II:
A Chronology of U.S. Nuclear Policy Against
Weapons of Mass Destruction

Hans M. Kristensen

April 2003

The Greenpeace logo, featuring the word "GREENPEACE" in a bold, white, stylized font with a slightly distressed or hand-painted appearance, set against a solid black rectangular background.

GREENPEACE

Table of Contents

About The Author 3

Executive Summary 4

Evolution of U.S. Nuclear Strategy 1990-2003 6

Operation Desert Storm 7

Lessons Learned? 8

The Clinton Administration’s Nuclear Revolution..... 11

 The 1994 Nuclear Posture Review..... 13

 Regional Counterproliferation Targeting 17

 Fine-Tuning the New Strategy..... 19

 Theater Nuclear Doctrine Detailed 21

 New White House Guidance 22

 The Challenge To Negative Security Assurances 23

The 2001 Nuclear Posture Review 27

The Temptation of Preemption..... 30

Conclusion 31

Endnotes: 33

About The Author

Hans M. Kristensen is a consultant to the Natural Resources Defense Council nuclear program. He co-authors the NRDC Nuclear Notebook in the Bulletin of the Atomic Scientists and the nuclear weapons appendix to the SIPRI Yearbook. Kristensen has written extensively about the impact of proliferation on U.S. nuclear weapons policy in the post-Cold War era, most recently "Preemptive Posturing," *Bulletin of the Atomic Scientists*, September/October 2002 (URL < <http://www.thebulletin.org/issues/2002/so02/so02kristensen.html> >), and his work has been referenced by *The New York Times*, *The Washington Post*, *CNN*, *San Jose Mercury News*, *Moscow Times*, *Le Monde*, *Asahi Shimbun* (Japan), *Taipei Times* (Taiwan) and *Haaretz* (Israel). Other selected publications by Kristensen include:

- "The Matrix of Deterrence: U.S. Strategic Command Force Structure Studies" (The Nautilus Institute, Berkeley, CA, May 2001), "U.S. Nuclear Strategy Reform in the 1990s" (The Nautilus Institute, Berkeley, CA, March 2000) (URL ;
- "The Post Cold War SIOP and Nuclear Warfare Planning: A Glossary, Abbreviations, and Acronyms" (National Resources Defense Council, Washington, DC, January 1999; with William M. Arkin);
- "Dangerous Directions" (*Bulletin of the Atomic Scientists*, March/April 1998; with Arkin);
- "Nuclear Futures: Proliferation of Weapons of Mass Destruction and U.S. Nuclear Strategy," (British American Security Information Council (BASIC), Washington, DC, March 1998);
- "Targets of Opportunity," *Bulletin of the Atomic Scientists*, September/October 1997;
- "The USA and Counter-Proliferation: A New and Dubious Role for U.S. Nuclear Weapons," *Security Dialogue*, Oslo, Norway, December 1996 (with Joshua Handler);
- "Changing Targets: Nuclear Doctrine from the Cold War to the Third World," Greenpeace International, Washington, D.C., 1995 (with Handler).

Questions or comments about the report should be sent to:

Hans M. Kristensen
Natural Resources Defense Council
1200 New York Avenue, NW, Suite 400
Washington, DC 20005
Phone: 202-289-6868
E-mail: hkristensen@msn.com

Executive Summary

The Nuclear Posture Review (NPR) completed by the Bush administration in December 2001¹ received widespread attention for its attempt to revitalize the U.S. nuclear posture. One of the most contentious elements was the prominent incorporation of so-called “rogue states” (or “states of concern”) and the role U.S. nuclear weapons could have in deterring these countries from aggression against the U.S., its interests, and its allies. The NPR listed North Korea, Iraq, Iran, Syria, and Libya as being among the countries that could be involved in immediate, potential, or unexpected contingencies for U.S. nuclear forces.²

The review cleared up somewhat a decade-long ambiguity about the role U.S. nuclear forces are intended to serve in the 21st Century against countries other than Russia and China, the traditional foci of U.S. nuclear planning during the Cold War. During the first half of the 1990s, U.S. officials frequently denied that the role of nuclear weapons had been expanded geographically and to chemical and biological scenarios, despite widespread evidence that military planners were busy realigning nuclear doctrine and forces to address the new enemies. White House and Congressional use of a broad weapons of mass destruction (WMD) terminology to identify opponents and targets inevitably caused planners to broaden both the missions and capabilities of nuclear forces to fit the new rhetoric.

The specific political guidance for this development was scarce, and in hindsight appears more to have caught up with the doctrinal and operational analysis and planning. For the first seven years of the post-Cold War era, the White House did not issue any comprehensive guidance for how the military should plan for the use of nuclear weapons. Not until 1997, six years after the Soviet Union crumbled, did the White House replace President Reagan’s outdated guidance from 1981. The political focus instead was on arms reductions and only after the U.S. Strategic Command in preparation for START III in 1996-97 warned that it would not be able to fulfill Reagan’s guidance with the 2,000-2,500 strategic warheads envisioned by a new treaty did President Clinton issue Presidential Decision Directive 60 (PDD-60) in November 1997.

By the time PDD-60 finally materialized, the Office of the Secretary of Defense had issued new nuclear weapons employment policy twice and had completed a Nuclear Posture Review; the Joint Chiefs of Staff had updated the nuclear appendix to the Joint Strategic Capabilities Plan half a dozen times and published new nuclear doctrine twice. This development speaks volumes about the leverage military planners have in shaping the nuclear posture and how relatively vague specific White House guidance is once it emerges.

The rise of WMD proliferators to the top of anticipated contingencies that shape the size of the U.S. nuclear arsenal is a considerable change compared to the early 1990s, and illustrates the

importance of understanding the evolution that took place in U.S. nuclear strategy during the 1990s. When I wrote the first Changing Targets report with Joshua Handler for the 1995 Non Proliferation Treaty Review and Extension Conference, our claim that U.S. nuclear strategy was expanding was strongly rejected by government officials who insisted that the U.S. was not seeking to expand but instead to reduce the role of nuclear weapons. The developments listed in this chronology suggest that we were not only right but that U.S. nuclear policy has evolved further than we could possibly have imagined. Within the course of a decade, the U.S. went from denying a role of nuclear weapons in deterring chemical and biological weapons to publicly emphasizing such a role as one of the core pillars of why it intends to maintain a large nuclear arsenal for the foreseeable future.

These changes in nuclear policy, however, have profound implications for the future of the NPT. Although nuclear arsenals have been reduced both in size and diversity since the ending of the Cold War, the substantial modernization of the remaining nuclear forces and persistent official reaffirmation of their role and importance for national security suggest that the goal of NPT's article VI, at least with regards to the US, is no more within reach than a decade ago.

When the NPT was agreed to in the 1960s, the essential logic of non-proliferation, as captured in Article VI of the treaty, demanded complete nuclear disarmament. In the 1990s, the nuclear weapons states have stood this logic on its head. Proliferation of nuclear weapons and other weapons of mass destruction has become a main rationale for the nuclear weapons states to keep and upgrade their own nuclear arsenals.

This "Changing Targets" report traces the policy statements and decisions which have transformed U.S. nuclear doctrine since 1989 from one primarily oriented toward the Soviet Union and its allies to a more precarious one focused on fighting a nuclear war in any regions of the globe.³

Evolution of U.S. Nuclear Strategy 1990-2003

The demise of the Soviet Union and the proliferation of weapons of mass destruction have had a profound impact on U.S. nuclear strategy. As the former “evil empire” crumbled and the Warsaw Pact disbanded, widespread changes in the composition and location of the remaining Russian nuclear forces precipitated rapid updates to the Single Integrated Operational Plan (SIOP), the central U.S. strategic nuclear war plan, and other nuclear strike plans. As nuclear planners scrambled to keep up with the pace of change, their skills soon were needed to engage a new “enemy”: a handful of so-called rogue states armed with nuclear, biological and chemical weapons and ballistic missiles.

Then Commander-in-Chief of Strategic Air Command (SAC), General Lee Butler, told an audience at the Air Power History Symposium in September 1992 that: “As early as October 1989 [before the Soviet Union had broken up] we abandoned global war with the Soviet Union as the principle planning and programming paradigm for the U.S. armed forces.” The result was a “complete revisit of nuclear weapons policy and the SIOP target base”⁴ which resulted in the number of targets being reduced from 10,000 to eventually around 2,000.⁵

As this change occurred, nuclear war planners saw that “a new series of threats had begun to emerge on the horizon,” and began to shift their attention toward potential targets outside Russia. The traditional opponent would still remain the focus due to the size of its remaining nuclear forces, but the post-Cold War target base would consist of “fewer but more widespread targets.”⁶ So-called rogue states including Iran, Iraq, Libya, North Korea, and Syria became the focus of a new planning primarily due to their alleged pursuit of weapons of mass destruction (WMD).

Examples of the changes described by Butler soon surfaced in government statements. When the JCS published the Military Net Assessment in March 1990, the report pointed to “increasingly capable Third World threats” as a justification for maintaining U.S. strategic and non-strategic nuclear weapons.⁷ Only three months later, in June 1990, as non-Soviet Warsaw Pact countries were formally removed from the SIOP,⁸ Defense Secretary Dick Cheney in his testimony before the Senate Appropriations Committee made the first high-level government reference to WMD as a formal rationale for keeping U.S. nuclear weapons.⁹

The concept of targeting alleged WMD proliferators is relatively new to U.S. nuclear doctrine.¹⁰ Some nuclear strike plans were drawn up against some of these countries in the late 1980s, but this was done as part of a global plan against the Soviet Union and its potential allies and as insurance against a third country trying to take advantage of the United States and Soviet Union depleting their arsenals in a major nuclear war.¹¹ References in U.S. nuclear strategy to WMD proliferators were rare prior to the 1990s and proliferation as such was not a

rationale for U.S. nuclear doctrine. Following a meeting of government, military services, academia, industry, and the Department of Energy laboratories at the Los Alamos Center for National Security Studies in 1989 to review the past and future of nuclear weapons, the final report observed that several participants had suggested that if hostile regional states acquired nuclear, chemical, or biological weapons, "the United States may need to revise its nuclear doctrine and forces specifically to deal with issues raised by such proliferation."¹²

Operation Desert Storm

This became necessary only 18 months later during the 1991 Gulf War. At the time that the war commenced on January 17, 1991, Iraq was known to have chemical weapons at its disposal.¹³ The Bush administration issued a formal threat of retaliation, not only against chemical or biological weapons use but also against Iraqi support of any kind of terrorist actions. During a meeting with Iraqi Foreign Minister Tariq Aziz on January 9, 1991, then U.S. Secretary of State James Baker handed Aziz a letter from President Bush and warned that, if "God forbid ... chemical or biological weapons are used against our forces -- the American people would demand revenge [...]. This is not a threat," Baker continued, "but a pledge that if there is any use of such weapons, our objective would not be only the liberation of Kuwait, but also the toppling of the present regime."¹⁴

Baker didn't mention nuclear weapons by name but later explained in his biography that he "purposely left the impression that the use of chemical or biological agents by Iraq would invite tactical nuclear retaliation."¹⁵ Whether Aziz understood this is unclear, but the tacit nuclear warning was based on a letter from President Bush to Saddam Hussein which Baker passed on to Aziz during the meeting.¹⁶ The letter also did not mention the nuclear threat explicitly but listed three "sorts" of "unconscionable actions" by Iraq that would demand the "strongest possible response:"¹⁷

- use of chemical or biological weapons;
- support of any kind of terrorist actions;
- destruction of Kuwait's oilfields and installations.

The letter did not make any obvious distinction between these three acts or how the U.S. viewed their importance. Iraq did not use chemical or biological weapons in the conflict, and some have subsequently suggested that nuclear weapons therefore played a valuable role in deterring chemical and biological weapons use. Baker's own conclusion was that, "We do not really know whether this was the reason" Iraq didn't use such weapons. "My own view is that the calculated ambiguity regarding how we might respond has to be part of the reason."¹⁸

Despite this warning, Iraq did destroy Kuwait's oilfields and installations, even though these

facilities were listed in President Bush's warning in the same sentence as the chemical or biological weapons. In this case, the tacit nuclear threat apparently did not work. Nor is there any evidence that the threat had any effect on the third item on the list: support of any kind of terrorist actions.

Whether the ambiguous nuclear threat against chemical or biological weapons use worked or not, it appears to have been -- at least partially -- a hollow threat. Shortly before the Gulf War began, President Bush decided that, "U.S. forces would not retaliate with chemical or nuclear weapons if the Iraqis attacked with chemical munitions."¹⁹ The decision was disclosed in the *The Washington Post* only two day's prior to Baker's meeting with Aziz,²⁰ but it is not clear what impact the disclosure may have had on the Iraqi leadership's reading of the threat Baker said he had conveyed.

Why President Bush made the decision not to use nuclear weapons is also not clear, but it may, in part, have been influenced by recommendations from the Chairman of the Joint Chiefs of Staff General Colin Powell. Prior to the war, Powell ordered, at the request of then Secretary of Defense Dick Cheney, a handful of Pentagon officials to work out nuclear strike options against Iraq. "The results unnerved me," Powell later confessed in *My American Journey*. "To do serious damage to just one armored division dispersed in the desert would require a considerable number of small tactical nuclear weapons.... If I had had any doubts before about the practicality of nukes in the field of battle, this report clinched them," Powell concluded.²¹

Lessons Learned?

Defense Secretary Cheney seemed less discouraged, and in January 1991, as U.S. forces amassed to liberate Kuwait, he issued a top-secret Nuclear Weapons Employment Policy (NUWEP), which reportedly tasked the military to plan for nuclear operations against nations developing or capable of delivering WMD.²² And despite General Powell's realization, the Joint Military Net Assessment published by the Joint Chiefs of Staff in March 1991 concluded that, "even under the most optimistic assumptions about future US-Soviet relations, our nation requires a capable strategic Triad of survivable [nuclear] systems to deter any potential adversary...." The Chiefs not only suggested that alleged WMD proliferators provided renewed justification for the Triad of strategic nuclear forces, but added that non-strategic nuclear forces in particular "could assume a broader role globally in response to the proliferation of nuclear capability among Third World nations." Doing so demanded increasing the Command, Control, and Communication (C³) capabilities of U.S. forces, the Chiefs said, and added that planned systems should meet these requirements. The C³ of non-strategic nuclear forces would be improved by the fielding of new systems such as MILSTAR/SCOTT satellite communications systems.²³

Little was said in public about this important expansion of nuclear doctrine, but the Pentagon quickly incorporated it into the nuclear war plans. "The possibility that Third World nations may acquire nuclear capabilities," Defense Secretary Cheney stated in the Defense Department's annual report to the President and the Congress in February 1992, "has led the Department to make adjustments to nuclear and strategic defense forces and to the policies that guide them." U.S. nuclear strategy, Cheney said, "must now also encompass potential instabilities that could arise when states or leaders perceive they have little to lose from employing weapons of mass destruction."²⁴

Absent White House guidance, contingency planning seemed to have become policy by default. Apparently mindful of the potential implications for other aspects of U.S. foreign policy, not least the non-proliferation regime, SAC commander General Butler told the lawmakers in April 1992 that a U.S. nuclear deterrent force "encourages non-proliferation, albeit within limits bounded by rational calculations." Not everyone agreed that Cold-War deterrence could simply be "mirrored" onto alleged WMD proliferators, but Butler countered: "Some contend that deterrence is not applicable outside the classic Cold War paradigm -- especially when such weapons are in the hands of seemingly irrational leaders. In my view, the very fact that such leaders pursue nuclear capability implies a certain lethal rationality."²⁵

General Butler's conviction of a role for nuclear weapons against alleged WMD proliferators partially flowed from analysis he had commissioned in 1990 when he established a Deterrence Study Group to examine the role of nuclear weapons in the post-Cold War era. The group was chaired by former Secretary of the Air Force Thomas Reed, and was known as the Reed Panel. A draft version of the report was completed in October 1991 and Butler was briefed on the conclusions, one of which recommended the creation of a small strike force earmarked for operations against non-Russian opponents.²⁶

"We recommend a new SIOP.... SIOP Echo would constitute a Nuclear Expeditionary Force" with "A handful of nuclear weapons, on alert, day to day.... Primarily for use against China and Third World targets."²⁷

The Nuclear Expeditionary Force was deleted when the final report was published in January 1992,²⁸ but the implication of a need for more limited strike options against non-Russian foes was clear: "No despotic leaders should be allowed to believe that they can embark on major aggression against the United States, its deployed forces, or its allies and friends, while enjoying personal sanctuary from American weapons, including nuclear weapons." The report added that, "While it is unlikely that the United States will use nuclear weapons in such regional conflicts, it is in the U.S. interest to maintain a deliberate ambiguity when facing aggressors like Saddam Hussein who are armed with weapons of mass destruction."²⁹ Later that month, when testifying before Congress, the report's lead authors went further in

describing the possible uses of nuclear weapons:

"It is not difficult to entertain nightmarish visions in which a future Saddam Hussein threatens American forces abroad, US allies or friends, and perhaps even the United States itself with nuclear, biological, or chemical weapons. If that were to happen, US nuclear weapons may well be a resource for seeking to deter execution of the threat..."³⁰

To what extent the Reed study influenced nuclear policy directly or was used to test perceptions in public that were already well underway within the planning community is difficult to assess with certainty. In any case, when Defense Secretary Dick Cheney's report to the President and the Congress was published in February 1992, it left little doubt that the new thinking had already affected nuclear planning directly. The report described how "the possibility that Third World nations may acquire nuclear capabilities has led the Department to make adjustments to nuclear and strategic defense forces and to the policies that guide them." U.S. nuclear strategy "must now also encompass potential instabilities that could arise when states or leaders perceive they have little to lose from employing weapons of mass destruction,"³¹ the Pentagon report concluded.

During the spring of 1992, both of the two nuclear services gave similar descriptions of an expanded nuclear strategy. In April, Assistant Secretary of the Air Force, John W. Welch, described for the lawmakers how "the emphasis of the deterrence equation has been shifted from just deterring the development or use of nuclear weapons by the Soviet Union, to deterring the development or use of nuclear weapons by other countries, as well."³² The Navy also evolved its thinking about the role of nuclear weapons. In June 1992, it published STRATPLAN 2010, an internal study that was intended to provide the Chief of Naval Operations with long-term guidance for decisions about naval forces beyond 2010. The study had conclusions similar to the Reed Panel, SAC, and the Air Force. It envisioned the sea-based "offensive strike and secure reserve nuclear deterrence roles evolving primarily to a singular secure nuclear reserve role with low-yield nuclear weapons providing a wider range or targeting options for maintaining a credible nuclear deterrence in the new world order."³³

Up to this point, the Joint Chiefs of Staff had referred to *nuclear* proliferation in their Joint Military Net Assessment reports. The report published in August 1992, however, for the first time adopted the terminology of *weapons of mass destruction* (WMD) as a justification for keeping U.S. nuclear weapons. "The purpose of nuclear forces is to deter the use of weapons of mass destruction," the assessment concluded.³⁴ The shift flowed almost naturally from the public debate, which adapted the much wider WMD to describe the new threat. While seemingly a benign editorial shift, the new terminology brought entire new target categories to the nuclear planners' attention by incorporating also chemical and biological weapons as well

as the missiles to deliver them.

It was at this point in the debate that the traditionally separate Air Force and Navy nuclear planning were merged into Strategic Command (STRATCOM). As the new nuclear "super-command" took over in June 1992, Strategic Air Command (SAC) was disbanded but its Commander-in-Chief, General Butler, was asked to head STRATCOM. Tasked to provide a single-voice for nuclear analysis and planning, STRATCOM not only was given responsibility for executing the nation's strategic nuclear war plan and maintaining and developing the SIOP, but also came to play a central role in further developing and fine-tuning the role of nuclear weapons in countering alleged WMD proliferators.

To prepare for this task, Butler established a 10-person Strategic Planning Study Group (SPSG) in December 1992 "to develop a flexible, globally-focused, war-planning process known as the Strategic War Planning System (SWPS)." The group developed procedures for what they called "a living SIOP," a real-time nuclear war plan which could receive virtually instantaneous warfighting commands. Even during peacetime, the SWPS would allow daily automated target changes for a variety of potential adversaries in addition to Russia (e.g., China, Iran, Iraq, Libya, North Korea and Syria) and wholesale revision of an attack plan for a new enemy would be possible in a matter of months.³⁵ A new Joint Intelligence Center was established specifically "to assess from STRATCOM's operational perspective the growing threat represented by the global proliferation of weapons of mass destruction."³⁶

The Clinton Administration's Nuclear Revolution

All these elements were in motion when President Clinton took office in early 1993 and would strongly influence the reviews and policy of the new administration. One of the first initiatives was the Bottom-Up Review (BUR), aimed at "shifting America's focus away from a strategy designed to meet a global Soviet threat to one oriented toward the new dangers of the post-Cold War era."³⁷ Its core objective, however, already seemed foretold.

In February 1993, one month before the BUR was officially initiated, the Joint Chiefs of Staff concluded in a new Roles and Missions report that "Deterring nuclear attack and containing communism have given way to a more diverse, flexible strategy which is regionally oriented."³⁸ "Our focus now is not just the former Soviet Union," STRATCOM commander General Butler echoed in an interview with *The New York Times* that same month, "but any potentially hostile country that has or is seeking weapons of mass destruction."³⁹

This shift of doctrine was more than declaratory policy; it was also mirrored in the hardware and software of the nuclear forces themselves. In his testimony before the Senate Armed Services Committee in April 1993, General Butler explained that the operational planning

capability of SAC was "tailored to the Cold War, and, therefore, was not well-suited to the far more dynamic environment of the emerging era."⁴⁰ The previous year, a STRATCOM study had found that hardware and software had "typically been configured for the Northern Hemisphere only," and that key target data processing technologies "currently have no capability south of the equator."⁴¹ To overcome these limitations, Butler explained, STRATCOM was "developing a flexible, adaptive operational planning capability that will be much more responsive to the potential for spontaneous threats that defy precise preplanning. This will provide senior decision makers with an array of options to apply in acute crises requiring a prompt exacting response."⁴² This adaptive planning capability would revolutionize nuclear war planning:

"Adaptive planning challenges the headquarters to formulate plans very quickly in response to spontaneous threats which are more likely to emerge in a new international environment unconstrained by the Super Power stand-off. We can accomplish this task by using generic targets, rather than identifying specific scenarios and specific enemies, and then crafting a variety of response options to address these threats. To ensure their completeness, these options consider the employment of both nuclear and conventional weapons. Thus, by its very nature, adaptive planning offers unique solutions, tailored to generic regional dangers involving weapons of mass destruction."⁴³

The result was a nuclear war planning capability described as a "living SIOP" that would take far less time to update. Updating the nation's strategic war plan was a major undertaking that required 14-18 months to complete, and even the SIOP-94 that was completed in the Spring of 1993 after significant reductions in the number of targets following the break-up of the Soviet Union and the demise of the Warsaw Pact, took nearly 17 months to complete.⁴⁴ The "living SIOP," by contrast, was based on continuous analysis of guidance, forces and target changes, rather than a fixed plan, all intended to reduce the time required for complete overhaul of the SIOP to only six months.⁴⁵ Wholesale revision of an attack plan for a new enemy would be possible in a matter of months;⁴⁶ the goal was that in addition to the core war plan (SIOP), STRATCOM must be prepared to provide a greater number of smaller, more flexible, adaptive strike options.⁴⁷

Coinciding with this technical development, STRATCOM was also the lead agent in an update of the nation's nuclear doctrine. The result of this effort, "Doctrine for Joint Nuclear Operations," was published by the Joint Chiefs of Staff in April 1993 and concluded that "the fundamental purpose of US nuclear forces is to deter the use of weapons of mass destruction (WMD), particularly nuclear weapons." The document also stated that, in addition to deterring a large scale military attack, nuclear weapons were useful in "regional contingencies" for deterring weapons of mass destruction.⁴⁸

With these developments in doctrine, strategy, and war planning capability underway, it is little surprise that the BUR essentially mirrored a scaled-down Soviet-oriented nuclear deterrence strategy onto the new regional enemies. The final report from October 1993 concluded that this required "maintenance of flexible and robust nuclear and conventional forces to deter WMD attacks through the credible threat of devastating retaliation."⁴⁹

General Butler's successor, Admiral Henry G. Chiles, who took over as Commander-in-Chief of STRATCOM in October 1993, picked up the lead from his predecessor in April 1994 when he told lawmakers that STRATCOM needed to be able to respond "rapidly to unplanned situations as they emerge." He reaffirmed that STRATCOM was developing an "adaptive planning process to produce a variety of options for crisis response" in order to provide greater "adaptability and responsiveness to reduce the time necessary to provide the President with viable options."⁵⁰ Admiral Chiles said the modernization of the Strategic War Planning System would become operational in 1999 and be completed by 2003. The upgrade would cost some \$578 million and reduce the time it takes to generate nuclear strike plans from 18 to some 6 months.⁵¹

The 1994 Nuclear Posture Review

While this modernization was underway, the Clinton administration undertook a new review in October 1993: the Nuclear Posture Review (NPR). Initiated in October 1993, the NPR was described as the most ambitious review of U.S. nuclear weapons and nuclear planning in decades. The review was a "DOD-wide collaborative effort" lead by a five-person steering group co-chaired by Ashton Carter, the Assistant Secretary of Defense for Nuclear Security and Counterproliferation, and Major General John Admire, the Vice Director for Strategic Plans and Policy at Joint Staff. The other three members represented nuclear, space, and intelligence agencies. The review was organized around six working groups, with comprised of military and civilian experts from the DOD, Joint Staff, the Services and various agencies, to examine different aspects of the nuclear posture:

1. The role of nuclear weapons in U.S. security strategy;
2. Nuclear force structure and infrastructure;
3. Nuclear force operations and Command & Control;
4. Nuclear safety, security, and use control;
5. Relationship between alternative U.S. nuclear postures and counterproliferation policy;
6. The relationship between alternative U.S. nuclear postures and the threat reduction policy with the former Soviet Union.⁵²

From the beginning of the review, the military viewed Ashton Carter with skepticism. Within STRATCOM there were concerns about the “negative feelings” Carter had demonstrated in the past toward nuclear weapons. Background information on Carter indicated “a less-than favorable long-term outlook for nuclear weapons” and long-term visions of “complete denuclearization.” Persuading such policy makers of a continued need and “wider role” for nuclear weapons would be, STRATCOM feared, “an uphill battle.”⁵³

STRATCOM and the other nuclear commands all had representatives in the working groups, and soon after the work had commenced the services and CINCs began to rebel. After only a few months of work, co-chairman Major General Admire sent a letter to Ashton Carter in which he expressed concern with the NPR process and how the Steering Group would review and approve the working group findings. This same concern, he explained, “has been expressed to me by the Services and CINCs based on input from their working group members.”⁵⁴ As Carter tried to intensify the process, opposition from within STRATCOM increased with one memo to STRATCOM commander Admiral Chiles complaining that Carter's plan “imposes a schedule that will backfill the vacuum with grab-bag thinking and then ask the Secretary for his blessing.... This would be comical if we didn't have so much at stake.”⁵⁵

STRATCOM had already developed a “preferred force structure” for the future⁵⁶ and wanted the NPR to accept it, but as the NPR progressed, STRATCOM realized that the preferred force was not even among the eight force structures under consideration within the NPR process. STRATCOM chief Admiral Chiles intervened and warned that “all three legs of the Triad are at risk in the NPR”⁵⁷ and asked his Strategic Advisory Group to prepare a white paper on a post-1994 nuclear posture. In blunt defiance of Carter's NPR process, the six-page paper argued up front that the “nation's security should not be premised on piecemeal nuclear forces reductions in unrelated increments to satisfy as sense that we do not need as much as before the Cold War ended, or to save scarce defense dollars.”⁵⁸ The paper reiterated the expanded role for nuclear weapons against alleged WMD proliferators, albeit cautiously, and challenged those that questioned such a role for nuclear weapons:

“For the foreseeable future, a U.S. nuclear force sized against the residual nuclear forces of the Former Soviet Union will provide a quantitatively sufficient force to deal with the emerging threats from weapons of mass destruction proliferating to the Third World. We should be far from sanguine, however, that we yet understand the dynamics of deterring serious regional threats posed by weapons of mass destruction to U.S. forces deployed abroad, to allies and friends that depend upon us for nuclear protection. Nor should we be quick to embrace the position that nuclear weapons exist only to deal with other nuclear weapons. Those who argue that biological and chemical threats can always be safely deterred without requiring the last resort of U.S. nuclear

force must bear the burden of proof for their arguments. Until they make a compelling case that nuclear force is not necessary for successful deterrence, it is not in the nation's interest to forswear the uncertainty as to how we would respond to clear and dangerous threats from other weapons of mass destruction. "Measured ambiguity" is still a powerful tool for the President trying to deter an intransigent despot."⁵⁹

In particular, the paper advocated one of STRATCOM's core principles from the disarmament process, the so-called hedge of reserve nuclear forces intended for potential reconstitution of reserve warheads onto operationally deployed weapon systems. Yet it included deterrence of regional aggressors as a rationale for hedging, something STRATCOM had traditionally tied to a resurgence of the former Soviet Union and protection against technical problems of deployed warheads. "It does not give to future Saddam Husseins the dangerous impression that American nuclear weapons are not credible deterrents to dangerous provocations, or that we are self deterred," the paper concluded and ended: "To paraphrase an earlier Chairman of the JCS, it is the right strategy, at the right time, against the right set of potential adversaries."⁶⁰

Admiral Chiles sent the white paper directly to the new Chairman of the JCS, General John M. Shalikashvili, to some extent bypassing the NPR process that was in the final phases of preparing its conclusions and recommendations to the JCS. In his response to Admiral Chiles, General Shalikashvili said he particularly appreciated STRATCOM's "perspective on hedging against future uncertainty while we grapple with near-term resource management."⁶¹ Admiral Chiles later commended SAG for the document which he said was "particularly effective" in preparing the NPR.⁶²

In the end, Carter's study plan could not match the technical and bureaucratic skills of the military services and STRATCOM's near-monopoly on comprehensive strategic nuclear war planning analysis. Faced with opposition from STRATCOM and others, the study groups fell apart in July 1994. "Everyone just wanted to get away," according to one high-level participant in the review. "The military officials knew the lay of the land, we didn't. Ash Carter set us up for disaster."⁶³

The NPR failed to produce a final report, so for the completion in September 1994 the Defense Department instead assembled a series of briefing slides and point papers to summarize the conclusions. The material showed that apart from a few additional reductions little substantial had changed. The Pentagon said it had changed the way it thought about nuclear weapons and that it was reducing their role, but after 55,000 man hours and 11 months of work, the NPR essentially implemented nuclear force structure studies conducted by STRATCOM several years earlier following President Bush's unilateral initiatives in 1991 and the Washington Summit Agreement in June 1992.

Something did change, however: the NPR condoned the expanded role of nuclear weapons against not only nuclear but also chemical and biological weapons in regional scenarios, although initially not without some internal debate. Some argued that nuclear weapons could only deter *nuclear* use or acquisition, although the effect on acquisition was “hotly” debated, and a suggestion by the Office of the Secretary of Defense that chemical weapons should be viewed as a more important threat than biological weapons, was strongly opposed by the military representatives.⁶⁴

At the same time STRATCOM had a representative in Working Group 5, the group tasked to analyze the relationship between the nuclear posture and counterproliferation, STRATCOM also functioned as something like a “nuclear deterrence oracle” that would answer formal question from the working groups about the role of deterrence. STRATCOM argued that while nuclear weapons may not directly affect Third World countries’ *acquisition* of WMD, maintaining nuclear weapons could support political aims. This is accomplished, STRATCOM explained, “through demonstrating intent by maintaining an arsenal and continuously providing war plans to support regional CINCs... Within the context of a regional single or few warhead detonation, classical deterrence already allows for adaptively planned missions to counter any use of WMD,” STRATCOM elaborated.⁶⁵ Asked about the U.S. response to WMD use, STRATCOM answered:

“The U.S. should preserve its options for responding to the situation by maintaining its current policy which does not preclude first use of nuclear weapons. While it would not be in our interest to unleash the destructive power of a nuclear weapon, the loss of even one American city, or the endangerment of vital American interests *overseas* is unacceptable. To counter this threat, the U.S. should not rule out the preemptive first use of nuclear weapons. In addition, following the use of WMD, the U.S. should again seek to preserve its options. The U.S. policy should not require retaliation with nuclear weapons, but it should leave that option open as one of a complete spectrum of possible options.”⁶⁶

Midway through the process, Ashton Carter became concerned that nuclear deterrence in WMD scenarios could have a negative impact on the NPT regime and instructed the drafting groups to suggest possible political, economical and conventional deterrence options that could complement the U.S. nuclear posture.⁶⁷ This effort also failed, and documents from Working Group 5 meetings suggest that the group eventually not only sided with STRATCOM’s broad nuclear deterrence vision, but warned that deep reductions in U.S. nuclear weapons might influence proliferators to decide to match U.S. numbers or cause allies under U.S. protection to reconsider their alternatives for defense.⁶⁸ Indeed, within the counterproliferation group there was “group *consensus* that [the] *full range* of nuclear options is desirable to deter proliferant nations,”⁶⁹ and the majority of the participants wanted the “unique contribution of

nuclear deterrence to counterproliferation”⁷⁰ to be “stated more forcefully.”⁷¹ In addition to declaratory policy, the group also agreed that nuclear weapons remain the only method of destroying certain types of targets including deeply buried facilities.⁷² Only on one issue, the question of terrorist use of WMD, did the group see a limitation: nuclear deterrence should only apply to state-sponsored terrorism, because non-state actors would not be deterred by the U.S. nuclear posture.⁷³

In its push for expanding nuclear policy to address alleged regional WMD proliferators, STRATCOM could probably not have hoped for stronger backing. Although the collapse of the NPR process meant that none of Working Group 5’s conclusions (nor those from the other five working groups) were formally adopted as policy, nuclear weapons featured prominently in counterproliferation roles such as to “deter WMD acquisition or use” when the NPR was briefed to Congress in September 1994. These conclusions were largely deleted from the public presentations -- as were several non-strategic nuclear weapons missions in support of counterproliferation scenarios,⁷⁴ but some acknowledgement of an expanded role was evident. Then Deputy Secretary of Defense John Deutch told the Congress that proliferation concerns had influenced the composition of the nation’s nuclear arsenal and were now a prominent factor in U.S. nuclear planning:

"An examination of the remaining nuclear threat from Russia and the non-Russian republics that possess nuclear weapons as well as the emerging threat from other countries around the world indicate that the United States will continue to need nuclear weapons for deterrence for the foreseeable future...."⁷⁵

Regional Counterproliferation Targeting

While the NPR’s endorsement of the nuclear counterproliferation role was briefed to Congress, STRATCOM was already working with the regional commands to adjust the war planning process. Prior to April 1993, the Chairman of the Joint Chiefs of Staff had asked STRATCOM to work with “selected regional Unified Commands to explore the transfer of planning responsibilities for employment of nuclear weapons in theater conflicts.”⁷⁶ When he was chief of STRATCOM, General Butler had wanted to move the command “firmly into the counterproliferation mission,”⁷⁷ but as late as December 1994 the overall responsibility for the counterproliferation mission had not yet been assigned to a unified command.⁷⁸

Planning for nuclear war with alleged regional WMD proliferators was a new development for STRATCOM which, according to an Air Force document from October 1993 “already has a role in countering weapons of mass destruction in the context of deterring their use by the Former Soviet Union.” Outside Russia, however, planners were now “focusing much of their thinking on developing a concept which can support both the civilian leadership and theater

Commander-in-Chief's (CINCs) in planning for military counterproliferation options against weapons of mass destruction."⁷⁹ "We also need to have a strategy to deter the more 'undeterrable' leaders such as Quadaffi and Saddam Hussein," STRATCOM said in briefing in December 1994.⁸⁰ One of the results of this effort became known as the Silver Books.

While there were many separate counterproliferation efforts underway in the Pentagon, none addressed the full spectrum of WMD targets within the context of real U.S. military capabilities and limitations. Nor did they deal with proliferation of WMD as a global problem. With the Silver Books, the counterproliferation effort would be focused at STRATCOM and it would give the armed forces a global capability to carry out the DOD counterproliferation policy.⁸¹

Silver Books were regional target plans developed for each of the European, Atlantic, Pacific, and Central commands for military strikes against alleged WMD facilities in a number of "rogue" nations, such as Iran, Iraq, Libya and North Korea. Silver was an abbreviation of Strategic Installation List of Vulnerability Effects and Results, and the project involved "the planning associated with a series of 'silver bullet' missions aimed at counterproliferation."⁸² Targets included nuclear, chemical, biological and command, control and communications (C3) installations.⁸³

In early 1994, the Weapons Subcommittee of STRATCOM's Strategic Advisory Group (SAG) began analyzing target sets and weapons capabilities against representative Silver Book targets. The primary analysis centered on defeat mechanisms for chemical/biological sites and buried targets. A total of six facilities were analyzed using conventional, unconventional and nuclear weapons appropriate for the attack.⁸⁴ The focus was on fixed installations.⁸⁵ By April, the process had advanced enough that the new STRATCOM chief, Admiral Henry G. Chiles, Jr., could report to Congress that, "Systems and procedures to accomplish this task have been developed, and planning coordination with regional commanders has begun." He added: "In a supporting role, STRATCOM will provide its planning expertise to assist geographic unified commanders when required."⁸⁶

By late 1994, a proposed Silver Book was ready for the European Command and a prototype was being developed for Pacific Command.⁸⁷ In November 1994, STRATCOM briefed staff from the regional commands,⁸⁸ and also briefed Chairman of the Joint Chiefs of Staff, General John Shalikashvili. STRATCOM officials argue that STRATCOM deserved a stronger role in the counter-proliferation effort because:

"We can kind of bring a global perspective to any counter-proliferation strategy, because the kind of targets you'd be looking at are the same kind of targets we already look at for our strategic purposes, and the same kind of interactions that

you'd have with the National Command Authority for strategic weapons, would probably be very similar to the kind of interaction you'd have in some kind of counter-proliferation scenarios.

You ought to think about this kind of problem ahead of time, so you know what the potential targets are, and you know what kind of force would be the best to take that out, whether they are special operations forces or conventional weapons or some kind of nuclear weapon.”⁸⁹

One military official familiar with the concept told *Jane's Defence Weekly* in January 1995 that a "Silver Book" would include "different options with regard to countries or organizations or groups that would pose a significant proliferation threat." Under the plan, STRATCOM would compile a target list and a full range of weapons and platforms that could strike the particular target with nuclear or conventional weapons.⁹⁰

Reactions were mixed, however, and the regional commands did not approve of STRATCOM's attempt to take control. The regional CINCs were seen to have particular expertise in regional planning and in early 1995 it became increasingly apparent that the counterproliferation mission would not be formally awarded to STRATCOM.⁹¹ With the completion of the Counterproliferation Mission and Function Study by the JCS in January 1995, it was decided that regional CINCs should continue to be responsible for target planning and execution but that STRATCOM would assist with appropriate expertise. Although the study officially meant the end to the Silver Books project, elements would be used in the closer STRATCOM-CINCs collaboration.

Fine-Tuning the New Strategy

With the new nuclear doctrine in place, the nuclear counterproliferation mission endorsed by the NPR, and the planning relationship between STRATCOM and the regional CINCs settled, work continued in 1994 and 1996 on fine-tuning the new strategy. Four months after the Silver Books were terminated, in April 1995 -- the very month that the Clinton administration reiterated its negative security assurances to non-nuclear-weapon states parties to the NPT, the policy subcommittee of STRATCOM's Strategic Advisory Groups completed an in-depth review of deterrence against WMD proliferators. The review provided the Terms of Reference for use by the other subcommittees within SAG as a baseline "to expand the concept of Deterrence of the Use of WMD."⁹²

The review, "Essentials of Post-Cold War Deterrence," bluntly criticized the pledge given by President Clinton not to use nuclear weapons against non-nuclear weapon states parties to the NPT. It is "easy to see the difficulty we have caused ourselves," the review said, "by putting forward declaratory policies such as the 'Negative Security Assurances' which were put

forward to encourage nations to sign up for the Nonproliferation Treaty.” The review warned that, “if we put no effort into deterring these [WMD] threats, they will be ‘undeterrable’ by definition.”⁹³ Threatening what an adversary values the most is essential, the review stressed, and provide the following anecdote as an illustration:

“The story of the tactic applied by the Soviets during the earliest days of the Lebanon chaos is a case in point. When three of its citizens and their driver were kidnapped and killed, two days later the Soviets had delivered to the leader of the revolutionary activity a package containing a single testicle – that of his eldest son – with a message that said in no uncertain terms, “never bother our people again.” It was successful throughout the period of the conflicts there. Such an insightful tailoring of what is valued within a culture, and its weaving into a deterrence message, along with a projection of the capability that be mustered, is the type of creative thinking that must go into deciding what to hold at risk in framing deterrent targeting for multilateral situations in the future.”⁹⁴

The STRATCOM planners quickly cautioned that the story illustrates just how more difficult it is for a society such as ours to frame its deterrent messages. Even so, “that our society would never condone the taking of such actions makes it more difficult for us to deter acts of terrorism,” the planners complained.⁹⁵

The review strongly advocated ambiguity in U.S. nuclear deterrence and used President Bush’s warning to Saddam Hussein in January 1991 against using chemical weapons as an example of the value of this. But it added another twist to the equation, warning that in threatening nuclear destruction the United States must not appear too rational and cool-headed. Indeed, that “some elements [of the U.S. administration] may appear potentially ‘out of control’ can be beneficial” to creating and reinforcing fears and doubts within the minds of an adversary’s decision makers. This essential sense of fear, the review reminded, is the working force of deterrence. “That the US may become irrational and vindictive if its vital interests are attacked should be part of the national persona we project to all adversaries.”⁹⁶

In the case of non-Russian adversaries, the review concluded, the penalty for using WMD should “not be just military defeat, but the threat of even worse consequences.” At the same time the review warned against too many civilian casualties. When dealing with WMD conflicts other than Russia that are not nation-threatening, “the US does not require the ‘ultimate deterrent’ -- that a nation’s citizens must pay with their lives for failure to stop their national leaders from undertaking aggression.” It will be sufficient to create fear of “national extinction,” the review said, by denying their leaders the ability to project power thereafter, but without having to inflict massive civilian casualties.⁹⁷ This, in essence, is the penalty the

United States sought to inflict upon Saddam Hussein after the Gulf War – but with non-nuclear means.

After SAG completed its nuclear deterrence template for the post-Cold War era, STRATCOM commander Chiles asked the group to test it on a potential WMD adversary: Iran. During the fall of 1995, the Policy Subcommittee of SAG conducted an in-depth application of the weapons of mass destruction deterrence study.⁹⁸ The test coincided with a secret war game held in September 1995 in Washington, D.C., called “The Technology Initiatives Game (TIG-95).” TIG95 simulated an Iranian attack on its Gulf neighbors in the year 2015 in which Iran was armed with twenty to thirty nuclear warheads and intermediate-range ballistic as well as cruise missiles.⁹⁹ STRATCOM, however, could not complete its in-depth study of Iran at the time, which was deferred pending further coordination with Central Command. Instead, Admiral Chiles asked the subcommittee to apply the deterrence theory to North Korea.¹⁰⁰

Nothing is known about the outcome of this exercise, except that North Korea was a ripe subject following the crisis in June 1994 when the U.S. came to the brink of war with North Korea over the country’s nuclear program. Yet General Eugene Habiger, who succeeded Admiral Chiles as Chief of STRATCOM in 1996, volunteered some new information in 1997 when he was asked during Congressional hearings what “sort of deterrence” he thought U.S. nuclear weapons played in preventing WMD from being used by rogue states:

“In my view, sir, it plays a very large role. Not only was that message passed in 1990 by the President [to Iraq], that same message was passed to the North Koreans back in 1995 [sic], when the North Koreans were not coming off their reactor approach they were taking [sic].”¹⁰¹

Theater Nuclear Doctrine Detailed

At the same time SAG applied the WMD deterrence template to North Korea, another branch of STRATCOM was busy putting the final touches on an updated Doctrine for Joint Nuclear Operations (Joint Pub 3-12). Compared with the first version published by JCS in April 1993, the updated version was a more mature document, with language and explanations expanded, and the glossy 48 pages almost double the length of its predecessor. In terms of content, however, the role of nuclear weapons and scope of deterrence remained largely the same. On one point the new document, which was published on December 15, 1995, differed from its predecessor: it only concerned strategic nuclear operations.

Doctrine for non-strategic nuclear operations was published two months later, on February 9, 1996, in a separate document. This document, entitled Doctrine for Joint Theater Nuclear Operations (Joint Pub 3-12.1), spelled out the principles and considerations for planning non-

strategic nuclear forces in far greater detail than the other documents. Its focus on WMD deterrence was striking. Of particular interest was its description of the enemy facilities that may be likely targets for nuclear strikes in a regional scenario:

- WMD and their delivery systems, as well as associated command and control, production, and logistical support units;
- Ground combat units and their associated command and control and support units;
- Air defense facilities and support installations;
- Naval installations, combat vessels, and associated support facilities and command and control capabilities;
- Non-state actors (facilities and operation centers) that possess WMD; and
- Underground facilities.

This large but nonetheless focused list of *military* targets included “non-state actors,” a diffuse and scattered target category that Working Group 5 of the 1994 NPR had specifically concluded was “not deterred by our nuclear posture.”¹⁰² Overall the document concluded that “the threat of nuclear exchange by regional powers and the proliferation of WMD have grown following the end of the Cold War.” Short-, medium-, and intermediate-range missiles capable of carrying nuclear, biological, or chemical warheads, the doctrine defined, are “the *primary* threat” in regional theaters.¹⁰³

New White House Guidance

Up until 1997, the operational stockpile was large enough to allow military planners to incorporate the new missions without compromising the still considerable targeting of Russia. As arms control agreements reduced the number of operational warheads, however, and preparation for a START III Treaty of 2,000-2,500 operational strategic nuclear warheads began to take shape, STRATCOM began to raise concern that it would not be able to fulfill existing White House guidance with such a low force level.

Already in 1995, STRATCOM commander Chiles had tasked SAG to conduct a review of the reasons, the pros and cons, for reducing the number of accountable nuclear warheads below the 3,500 set by START II. SAG recommended against deeper cuts partly to maintain enough nuclear weapons for a “broader base to address WMD.”¹⁰⁴ Basically, there would not be enough operationally deployed strategic nuclear weapons in the arsenal to cover Russia and China, as well as half a dozen regional opponents. Once an addendum to nuclear war planning, targeting alleged WMD proliferators had become a challenge to the overall force structure. Deeper cuts beyond START II could only be achieved if the overall guidance was changed allowing for a reduction in the number of Russian targets to be covered by the war plan.

Responding to STRATCOM's plea, President Clinton in November 1997 signed Presidential Decision Directive (PDD) 60 which ordered the military to no longer plan for a protracted nuclear war with Russia. According to media reports, the Directive also largely removed Russian conventional forces and its war-making industry as target categories, and required the planners to focus on destroying nuclear forces as well as the military and civilian leadership. The new guidance replaced a nearly 17 year old directive signed by President Reagan in 1981 at the height of the Cold War.¹⁰⁵

At the same time it reduced the number of targets in Russia, however, the new guidance caught up with the expansion of nuclear targeting carried out by STRATCOM for years. It ordered the nuclear planners to broaden the scope of targeting in China to include conventional forces and industry – the very categories (albeit in lower numbers) it eliminated from the Russian target pool, and it reportedly identified specific regional contingencies (including Iran, Iraq, Libya, North Korea, and Syria) where planners should prepare for U.S. nuclear strikes in response to attacks by WMD in the future.

The Challenge to Negative Security Assurances

While PDD-60 solved STRATCOM's targeting concerns, its embrace of regional WMD targeting including against chemical and biological weapons soon collided with the views of some prominent NATO allies. In November 1998, Canada and Germany suggested that NATO, in connection with a planned update of its Strategic Concept, should fundamentally review its nuclear policy, particularly the so-called first use policy. Of particular concern to Canada and Germany – although not stated publicly at first, was that an application of nuclear deterrence against opponents armed with chemical and biological weapons could create a condition where NATO would resort to nuclear weapons use first against a non-nuclear state.

The U.S. has maintained a pledge not to use nuclear weapons against non-nuclear countries under certain conditions. Officially referred to as a Negative Security Assurance, the pledge is intrinsically tied to the NPT regime, and was first articulated by the Carter administration in June 1978:

“The United States will not use nuclear weapons against any non-nuclear weapons States Party to the NPT or any comparable internationally binding commitment not to acquire nuclear explosive devices, except in the case of an attack on the United States, its territories or armed forces, or its allies, by such a State allied to a nuclear-weapon State or associated with a nuclear-weapon State in carrying out or sustaining the attack.”¹⁰⁶

Although government officials frequently refer to this policy as long-standing and unchanged, its conditions have changed considerably over the years. When Ukraine joined the NPT in 1994, for example, the U.S. reiterated its pledge in a joint statement with Britain and Russia, in which they:

“reaffirm, in the case of Ukraine, their commitment not to use nuclear weapons against any non-nuclear weapon state party to the Treaty on the Non-Proliferation of Nuclear Weapons, except in the case of an attack on themselves, their territories or dependent territories, their armed forces, or their allies, by such a state in association or alliance with a nuclear weapon state.”¹⁰⁷

In the new statement, the reference to “comparable internationally binding commitment not to acquire nuclear explosive devices” other than the NPT had been omitted, which is relevant because the pledge initially emerged as part of a larger security debate related also to nuclear weapons free zones such as the Tlatelolco Treaty. A more significant change occurred in April 1995, in connection with the review and extension conference of the NPT, when the Clinton administration “reaffirmed” the policy:

“The United States reaffirms that it will not use nuclear weapons against non-nuclear-weapon states parties to the Treaty on the Non-Proliferation of Nuclear Weapons except in the case of an invasion or any other attack on the United States, its territories, its armed forces or other troops, its allies, or on a State towards which it has a security commitment, carried out or sustained by such a non-nuclear-weapon State in association or alliance with a nuclear-weapon state.”¹⁰⁸

The formulation “except in the case of an invasion or any other attack” added invasion to the exception to the policy, a condition not previously used in the language. More subtle, however, was the wording “any other attack” because of the expansion of U.S. nuclear strategy in the 1990s to seek to deter not only nuclear but also chemical and biological opponents (see above). The administration wanted to ensure that non-nuclear NPT countries that were otherwise seeking to acquire chemical and biological weapons would not get the impression that Negative Security Assurances made them immune to nuclear retaliation. Libya was one example, and when the U.S. signed a protocol to the African Nuclear-Weapon Free Zone (ANFZ) in 1996 promising not to use nuclear weapons against the countries in the zone, Special Assistant to the President and Senior Director for Defense Policy and Arms Control Robert Bell made it clear that U.S. adherence to the protocol did not eliminate a U.S. option to use nuclear weapons in self-defense against a biological or chemical attack by one of those countries:

“Under Protocol I, which we signed, each party pledges not to use or threaten

nuclear weapons against an ANFZ party. However, Protocol I will not limit options available to the United States in response to an attack by an ANFZ party using weapons of mass destruction.”¹⁰⁹

In other words, a non-nuclear country could be both threatened and attacked with nuclear weapons even though it was a member of the NPT. Libya was an obvious case with its large underground chemical weapons production and storage facility at Tarhunah, at one point reported to be capable of producing up to 1,000 tons of mustard gas, 90 tons of Sarin, and 1,300 tons of Soman nerve agent per year.¹¹⁰

"We could not take [Tarhunah] out of commission using strictly conventional weapons," U.S. Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Programs Harold P. Smith, Jr., told the Associated Press in April 1996.¹¹¹ If there was a decision to destroy the plant, the B61-11 earth-penetrating nuclear bombs "would be the nuclear weapon of choice," Smith said.¹¹²

Smith made the statement during a breakfast interview with reporters after then Defense Secretary William Perry had testified before a Senate Foreign Relations Committee hearing on chemical and biological weapons that the U.S. retained the option of using nuclear weapons against the Tarhunah plant. The remarks about targeting Libya caused widespread attention and the Pentagon spokesman soon sought to soften the stand. "There is no consideration to using nuclear weapons, and any implication that we would use nuclear weapons preemptively against this plant is just wrong," said Pentagon spokesperson Ken Bacon. The statement was in conflict with long-term practice of not foreclosing any option in advance, and Bacon added that Washington still did not rule out using nuclear weapons in response to a nuclear, chemical and biological attack on the United States or its allies.¹¹³

Deterring Libyan WMD use had failed only nine years earlier, in 1987, when Chadian forces (with French and U.S. support) launched a surprise attack against a military base inside Libya. In response, Muammar Qaddafi ordered a chemical weapons attack -- mustard gas delivered by a transport aircraft.¹¹⁴ That was during the Cold War when nuclear weapons employment carried with it the risk of superpower escalation to world annihilation. Harold P. Smith's statement in 1996, in contrast, suggests an assessment devoid of escalation concerns but focused on the *utility* of the nuclear weapon.

After the issuing of PDD-60 in November 1997, Robert Bell reiterated that negative security assurances would not tie the hands of U.S. decision-makers faced with a chemical or biological attack. "It's not difficult to define a scenario," he said, "in which a rogue state would use chemical weapons or biological weapons and not be afforded protection under our negative security assurance."¹¹⁵

The proposal by Canada and Germany, however, to review and possibly abandon the policy of first-use of nuclear weapons, would have afforded such "protection" to non-nuclear "rogue" states and fundamentally undercut the expansion in nuclear strategy developed by the U.S. during the 1990s. The reaction from NATO's nuclear powers was swift and firm. In an official U.S. response, U.S. Defense Secretary Cohen stated:

"We think that the ambiguity involved in the issue of the use of nuclear weapons contributes to our own security, keeping any potential adversary who might use either chemical or biologicals [sic] unsure of what our response should be. So we think it's a sound doctrine. It was adopted certainly during the Cold War, but modified even following and reaffirmed following [sic] at the end of the Cold War. It is an integral part of our strategic concept and we think it should remain exactly as it."¹¹⁶

Faced with such opposition, Canada and Germany soon backed away from their proposal, but the issue has remained contentious. The Bush administration has shown to be less constrained by international treaties that would limit its policies, as illustrated by its breakout from the Anti-Ballistic Missile (ABM) Treaty, its decision not to pursue a Comprehensive Test Ban Treaty (CTBT) and its abandonment of the START II Treaty. During an interview with *The Washington Times* in February 2002, U.S. Undersecretary of State for Arms Control and International Security John Bolton said, in reference to Carter's 1978 commitment: "We're just not into theoretical assertions that other administrations have made." In case of an attack on the United States, Bolton explained, "we would have to do what is appropriate under the circumstances, and the classic formulation of that is we are not ruling anything in and we are not ruling anything out."¹¹⁷

The headline for the article was that the U.S. had dropped its negative security assurance pledge, but the State Department quickly corrected the record by restating the policy issued by Secretary of State Warren Christopher in April 1995. In doing so, however, State Department spokesperson Richard Boucher added a new formulation to the policy that reiterated what Robert Bell had stated in 1997 and 1998:

"Furthermore, the policy says that we will do whatever is necessary to deter the use of weapons of mass destruction against the United States, its allies, and its interests. If a weapon of mass destruction is used against the United States or its allies, we will not rule out any specific type of military response."¹¹⁸

The 2001 Nuclear Posture Review

President George W. Bush took office in 2001 with a vision that was said to require a fundamental review of U.S. nuclear policy. The core idea was to reduce reliance on offensive nuclear forces for deterrence by building defensive systems that could shoot down incoming ballistic missiles from rogue states. With strong resemblance to former President Reagan's Star War initiative from 1983, albeit at much lower levels, the Bush Administration promised to protect Americans and allies while reducing nuclear forces.

Before any review was completed, however, the terrorist attacks on September 11, 2001, against the World Trade Center and the Pentagon re-ignited concerns about the vulnerability of the US to WMD attacks. When the day began, the attention of the main U.S. warning system at NORAD was focused on a large Russian air exercise in the Arctic, and many seized the opportunity to use September 11 to promote defense against WMD:

“We think that when the numbers come in we'll find that more Americans were killed on Tuesday than any single day in American history since the American Civil War, worse than any day of World War I, any single day of World War II. It's massive. And I think that focuses the mind. It makes you think in a different way. It makes you think anew. And if it doesn't do that, then people ought to think that given some of the weapons, kinds of weapons these terrorists are after, what we saw on September 11th could be just the beginning.”¹¹⁹

As the Bush administration prepared to respond militarily against the Taliban in Afghanistan, several members of Congress argued in public that the U.S. should consider using nuclear weapons if met with chemical or biological weapons.¹²⁰ Senior officials went to considerable lengths to dismiss the possibility, without formally ruling out the nuclear option. When asked on *ABC News This Week* less than a week after the September 11 attacks if he would rule out the use of nuclear weapons in a response, Defense Secretary Rumsfeld replied:

"The answer is that we ought to be very proud of the record of humanity, that we have not used those weapons for 55 years. And we have to find as many ways possible to deal with this serious problem of terrorism.”¹²¹

After a report in the Japanese press a few days later quoted unnamed diplomatic sources saying that the U.S. was considering the use of tactical nuclear weapons, Rumsfeld went even further than his first rebuttal by saying on Fox News:

"We've *not given consideration nor discussion* to that particular issue. You're going to hear so many different things about what the United States may or may

not do with respect to financial matters, or covert matters, or military matters, and I suspect that most of the people that are offering those suggestions are people who don't know much about what's going on."¹²²

Secretary of State Colin Powell was asked the same day by the BBC if the president's statement that all necessary weapons would be used also included nuclear weapons. Powell replied: "I don't think nuclear weapons would be a necessary weapon against a terrorist organization," echoing the analysis of the 1994 NPR Working Group 5 (see above). When pushed on the matter by the BBC reporter to "give a guarantee on that," Powell replied briskly: "I think I've just answered the question rather adequately."¹²³

While senior officials struggled to quench rumors of nuclear use against terrorists, there was little doubt about the intention to plan for their use against alleged WMD opponents. In the Nuclear Posture Review Report sent to Congress on December 31, 2001, nuclear scenarios against rogue states armed with WMD featured prominently. The events of September 11 were also used repeatedly as justification for upgrading nuclear facilities:

- A Federal Advisory Committee (FAC) established by Secretary Rumsfeld to review all activities involved in maintaining the highest standards of nuclear weapons safety, security, control, and reliability, had presented an "urgent preliminary finding to the Secretary subsequent to the events of September 11 identifying the need to expand the current nuclear command and control (C2) architecture to a true national command and control conferencing system."¹²⁴
- "The attacks of September 11 dramatically highlighted the requirement for secure, wideband communications between fixed and mobile command centers and national decision makers. The Department is developing a secure wideband communications architecture and procedures ... The Department will initiate a satellite communications system in FY03, the Advanced Wideband System (AWS), that incorporates interoperable laser communications and will be designed to meet the needs of the defense and intelligence community for wideband tactical, protected tactical (replaces Advanced EHF satellites) broadcast, and relay communications with a planned system first launch during FY09. The Department supports the effort to implement a secure, wideband capability on all strategic C2 platforms. Wideband complements, but does not replace, the requirement for assured, survivable, and enduring nuclear C2."¹²⁵
- The "2001 Emergency Supplemental Appropriations Act for Recovery from and Response to Terrorist Attacks on the United States" provided immediate upgrades to aircraft for national leadership, and the Department has programmed funding for additional wideband upgrades including the E-4 National Airborne Operations Center

aircraft.”¹²⁶

Most importantly, however, the NPR -- in the strongest terms yet for such a document -- condoned and consolidated an expanded role for U.S. nuclear weapons in deterring not only nuclear but also other forms of weapons of mass destruction use and acquisition. When the Pentagon first briefed the review to the public on January 9, 2002, the specifics presented were vague.¹²⁷ The following month, however, the review was leaked and described in some detail in the Los Angeles Times,¹²⁸ and large excerpts were published on the Internet by *GlobalSecurity.com*.¹²⁹ The review reversed an almost two-decade long trend in relegating nuclear weapons to the category of weapons of last resort,¹³⁰ and called for widespread modernization of the U.S. nuclear posture, ranging from the nuclear warheads themselves to delivery systems, command and control systems, satellites, weapons production facilities and nuclear weapons testing readiness.

In determining the size of the nuclear arsenal and “setting requirements for nuclear strike capabilities,” the review outlined the following distinctions among the different contingencies for which the U.S. must be prepared:

Immediate contingencies: involve well-recognized current dangers... Current examples of immediate contingencies include an Iraqi attack on Israel or its neighbors, a North Korean attack on South Korea, or a military confrontation over the status of Taiwan.

Potential contingencies: plausible, but not immediate dangers. For example, the emergence of a new, hostile military coalition against the United States or its allies in which one or more members possesses WMD and the means of delivery is a potential contingency that could have major consequences for U.S. defense planning, including plans for nuclear forces.

Unexpected contingencies: sudden and unpredicted security challenges, " like the Cuban Missile Crisis. "Contemporary illustrations might include a sudden regime change by which an existing nuclear arsenal comes into the hands of a new, hostile leadership group, or an opponents surprise unveiling of WMD capabilities."

Contingencies involving alleged WMD proliferators were represented in all three categories, a considerable change because rogue states scenarios up till now had been seen as low on the list compared with Russia and China. Yet the review stated that, “North Korea, Iraq, Iran, Syria, and Libya are among the countries that could be involved in immediate, potential, or unexpected contingencies. All have longstanding hostility toward the United States and its security partners; North Korea and Iraq in particular have been chronic military concerns. All sponsor or harbor terrorists, and all have active WMD and missile programs.”

China was described as an opponent that could be involved in immediate or potential contingencies, due to “the combination of China's still developing strategic objectives and its ongoing modernization of its nuclear and non nuclear forces.”

The NPR listed Russia, the former "evil empire", as a country for which “a [nuclear strike] contingency [...], while plausible, is not expected.” The reason was that although Russia maintains the most formidable nuclear forces, aside from the United States, and substantial, if less impressive, conventional capabilities, there are now “no ideological sources of conflict with Moscow, as there were during the Cold War.” In addition, the U.S. is seeking a more cooperative relationship with Russia and a move away from the balance-of-terror policy framework, which by definition is an expression of mutual distrust and hostility. Even so, the NPR concluded, "Russia's nuclear forces and programs, nevertheless, remain a concern. Russia faces many strategic problems around its periphery and its future course cannot be charted with certainty. U.S. planning must take this into account. In the event that U.S. relations with Russia significantly worsen in the future, the U.S. may need to revise its nuclear force levels and posture."

The Temptation of Preemption

The rise of WMD proliferators to the top of the list of expected contingencies that determine the size and composition of the U.S. nuclear posture represents a considerable change to the past, when rogue states were considered sidebars to U.S. nuclear strategy. Yet nuclear clashes with rogue states armed with WMD, though terrible in terms of potential destruction, lack the risk of global nuclear annihilation which acted as a damper on nuclear conflicts during the Cold War. This may increase the likelihood that nuclear weapons will be used in a conflict.

The increased focus on low-yield nuclear weapons and earth-penetrating nuclear weapons seems to rest on the assumption that deterrence will fail sooner or later, and when it does the U.S. should have the right weapons to destroy specific targets. This nuclear warfighting mentality was highlighted by General Wesley Clark, the former Supreme Allied Commander Europe (SACEUR), in October 2001 when he told CNN that the U.S. in his view would be unlikely to ever consider nuclear retaliation even if terrorist attacks caused 100,000 casualties in the United States. Use of nuclear weapons, he insisted, would only occur if a critical target could not be destroyed by other means:

"I don't think the United States would consider tactical nuclear weapons unless there were targets that would require tactical nuclear weapons. The use of tactical nuclear weapons wouldn't be warranted just in response to American casualties. There would have to be an objective that required the -- it might be, for example, there was a deeply

buried-underground command center that we thought contained the stocks of these chemical weapons that Osama bin Laden may have or his bioweapons and it took a tactical nuke, well, then under those circumstances we might well feel that the constraints were off, and we would use it. But it would be based on a target-by-target requirement, not on the basis of what would happen to us."¹³¹

The National Strategy to Combat Weapons of Mass Destruction, which was published by the White House in December 2002, includes a section on counterproliferation deterrence which in the public version states that the U.S. "reserves the right to respond with overwhelming force – including through resort to all of our options – to the use of WMD against the United States, our forces abroad, and friends and allies."¹³² In the classified version of this document, which is called National Security Presidential Directive 17 (NSPD-17) and issued on September 14, 2002, the sentence "including through resort to all of our options" instead reads "including potentially nuclear weapons." For the public, mentioning the nuclear option was deemed too controversial, but using the words "nuclear weapons" in the classified text, according to an unnamed senior administration official, gives the military and other officials "a little more of an instruction to prepare all sorts of options for the president," *The Washington Times* reported.¹³³

Some of these options were apparently fine-tuned in preparation for the war on Iraq. According to reports in *Los Angeles Times*, the Pentagon analyzed possible nuclear strike options against two target categories in Iraq: potential targets included Iraqi facilities that might be impervious to conventional explosives; and targets associated with Iraqi use of WMD.¹³⁴ Defense Secretary Rumsfeld refused to rule out the use of nuclear weapons when asked about the reports, but added that he "had every confidence that in the event force is to be used in Iraq that we can do what needs to be done using conventional capabilities."¹³⁵

Conclusion

Fortunately, Iraq did not use WMD and the U.S. did not use nuclear weapons, but as this chronology of nuclear strategy illustrates, the preparations to do so in a future conflict have been long in the makings. The 2001 Nuclear Posture Review and the 2002 National Strategy to Combat Weapons of Mass Destruction represent the current result of this evolution. For some, this is merely prudent military planning. For others, it represents a downward spiral from the hopes and expectations of nuclear disarmament in the early 1990s to the harsh realities of indefinite nuclear war-planning in the 21st century.

The implications of this for long-term nuclear arms control are unclear. Up until the indefinite extension of the nuclear Non-Proliferation Treaty in 1995, U.S. officials at least occasionally echoed the goal of nuclear disarmament as stipulated in the Treaty's Article VI, but nuclear

disarmament (meaning *elimination*) has now all but vanished from the U.S. government's vocabulary. In its place there is a new assertiveness that nuclear weapons are here to stay -- albeit at lower numbers; that the United States will remain a nuclear weapons state indefinitely; that nuclear forces will need to be modernized along the way; and that the nuclear infrastructure must be revitalized to meet planned and unforeseen requirements. At the core of this assertiveness is a belief that the NPT's Article VI is not credible as a realistic goal for national and international security. How this abolition of the official goal of eliminating nuclear weapons will affect the NPT regime in the years to come remains to be seen.

Endnotes:

¹ The Nuclear Posture Review Report was sent to Congress on December 31, 2001. The foreword to the report was released to the public and signed by Defense Secretary Donald Rumsfeld on January 8, 2002. The Defense Department further held a press briefing on the report on January 9, 2002.

² Department of Defense, Office of the Secretary of Defense, "Nuclear Posture Review Report," January 8, 2002 (submitted to Congress on December 31, 2001).

³ Similar developments have occurred in other nuclear weapon states, to the same or lesser degree. For a description of developments in British and French nuclear doctrine, see Hans M. Kristensen and Joshua Handler, "Changing Targets: From the Cold War to the Third World," Greenpeace International, Washington, D.C., March 1995, pp. 15-22.

⁴ U.S. Strategic Command, "History of the United States Strategic Command, 1 June 1992 – 31 December 1992," Top Secret, [n.d.] 1993, p. 9. Partially declassified and released under the Freedom of Information Act.

⁵ For descriptions of SIOP changes in the early 1990s, see: Richard Halloran, "U.S. Revises Its War Plan For New Age," *The New York Times*, 2 November 1988, p. A7; Dick Cheney, U.S. Secretary of Defense, in U.S. Congress, Senate, Committee on Appropriations, Defense Subcommittee, Hearing on Department of Defense Appropriations For Fiscal Year 1991, Part 1, National Security, 101st Cong., 2nd sess., 12 June 1990, p. 340; Patrick E. Tyler, "Air Force Reviews 'Doomsday' Plan," *The Washington Post*, 11 July 1990, p. A17; R. Jeffrey Smith, "U.S. Expected to Reduce Number of Nuclear Targets," *The Washington Post*, 19 April 1991, p. A17; R. Jeffrey Smith, "U.S. Trims List of Targets in Soviet Union," *The Washington Post*, 21 July 1991, p. A1; George Perkovich, "Counting the Costs of the Arms Race," *Foreign Policy*, Winter 1991-92, pp. 83-105; William M. Arkin, "How Much Isn't Enough?," Greenpeace International, Draft Paper Prepared for the Center for Strategic and International Studies Study "Nuclear Weapons After the Cold War," 17 September 1992, pp. 5-7.

⁶ U.S. Strategic Command, "History of the United States Strategic Command, 1 June 1992 – 31 December 1992," Top Secret, [n.d.] 1993, pp. 13, 66. Partially declassified and released under the Freedom of Information Act.

⁷ Joint Chiefs of Staff, "1990 Joint Military Net Assessment," Washington, D.C., March 1990, pp. VI-1, VI-7.

⁸ U.S. Strategic Command, "Strategic Planning Study," Final Report, 1 October 1993, p. 3-35. Partially declassified and released under the Freedom of Information Act.

⁹ Dick Cheney, U.S. Secretary of Defense, in U.S. Congress, Senate, Committee on Appropriations, Defense Subcommittee, Hearing on Department of Defense Appropriations For Fiscal Year 1991, Part 1, National Security, 101st Cong., 2nd sess., 12 June 1990, p. 304.

¹⁰ The doctrine to use nuclear weapons to counter the acquisition or use of nuclear weapons by Third World proliferators is not thought to be a part of, but exist in tandem with, the formal U.S. counter-proliferation program, which is widely understood to provide only non-nuclear responses to hostile use of weapons of mass destruction (WMD) in regional conflicts. Nonetheless, references to nuclear weapons in counter-proliferation roles, such as "deter WMD acquisition or use," featured prominently in the Defense Department's presentation of the NPR to Congress in September 1994 and even more so in the 2001 NPR. Interestingly, several non-strategic nuclear weapons missions in support of nonproliferation were deleted from the public record in 1994. See: John Deutch, U.S. Deputy Secretary of Defense, U.S. Congress, Senate, Committee on Armed Services, "Briefing on Results of the Nuclear Posture Review," 103rd Cong., 2nd sess., 22 September 1994, pp. 9 (chart), 10 (chart), 16 (chart), 17 (chart).

U.S. anti-proliferation terminology entails two overall definitions: counterproliferation and nonproliferation. These terms were defined in a February 1994 National Security Council memorandum on "Agreed Definitions:"

Counterproliferation: the activities of the Defense Department across the full range of U.S. efforts to

combat proliferation, including diplomacy, arms control, export controls, and intelligence collection and analysis, with particular responsibility for assuring U.S. forces and interests can be protected should they confront an adversary armed with weapons of mass destruction.

Nonproliferation: the use of the full range of political, economic and military tools to prevent proliferation, reverse it diplomatically or protect our interests against an opponent armed with weapons of mass destruction or missiles, should that prove necessary. Nonproliferation tools include: intelligence analysis, global nonproliferation norms and agreements, diplomacy, export controls, security assurances, defenses, and the application of military force.

The distinction is not very clear, but counterproliferation policy appears subordinate to, and not distinct from, nonproliferation policy. Both definitions mention a broad spectrum of policies and instruments to prevent the spread of "weapons of mass destruction." Zachary S. Davis and Mitchell Reiss, "U.S. Counterproliferation Doctrine: Issues for Congress," 94-734 ENR, Congressional Research Service, Washington, D.C., 21 September 1994, pp. 8, 9.

¹¹ Bruce Blair, "Towards Zero Alert: Operation Path to Nuclear Safety," The Brookings Institution, presentation made at the Panel on Non-Obvious Costs of Nuclear Weapons, as part of the session on International Security, Proliferation, and Weapons of Mass Destruction, at the American Association for the Advancement of Science annual conference, Atlanta, Georgia, 16-21 February 1995.

¹² Patric J. Garrity, et al., "Debating the Future," *Los Alamos Science*, Summer 1989, p. 16.

¹³ By the eve of the war, Iraqi means for delivering chemical munitions were known to include area bombs and cluster munitions, artillery and mortar shells, and short-range rockets. U.S. Department of the Air Force, *Gulf War Air Power Survey* (Washington, D.C.: Government Printing Office, 1993), Volume II, Part II: Effects and Effectiveness, pp. 312-313.

¹⁴ William M. Arkin, "Gulf War + 10: The Secret Story," *The Stars and Stripes*, Special Report, n.d. [2000], Chronology, January 9, 1991.

James A. Baker, III, with Thomas M. DeFrank, *The Politics of Diplomacy* (New York: Putnam, 1995), p. 359. At the beginning of Operation Desert Storm, according to one unclassified estimate, the U.S. had some 1,000 nuclear warheads with its military forces in the region. This included 700 bombs and cruise missiles on aircraft carriers, surface ships and attack submarines, and 300 bombs in Turkey. William M. Arkin, et al., "U.S. Nuclear Weapons in the Persian Gulf Crisis," Greenpeace, January 1991, p. 1.

¹⁶ Actually, two letters were handed over: a sealed envelope to Saddam Hussein and a copy to Tariq Aziz. A third copy was delivered to the Iraqi Ambassador in Washington, D.C. James A. Baker, III, with Thomas M. DeFrank, *The Politics of Diplomacy* (New York: Putnam, 1995), p. 358.

¹⁷ The actual wording of the relevant section in President Bush's letter was: "Let me state, too, that the United States will not tolerate the use of chemical or biological weapons, support of any kind for terrorist actions, or the destruction of Kuwait's oilfields and installations. The American people would demand the strongest possible response. You and your country will pay a terrible price if you order unconscionable actions of this sort." See: "Text of Letter from Bush to Hussein," *The New York Times*, January 13, 1991; as reprinted in Mark Grossman, *Encyclopedia of the Persian Gulf War* (Santa Barbara, CA.: ABC-CLIO, Inc., 1995), p. 396.

¹⁸ James A. Baker, III, with Thomas M. DeFrank, *The Politics of Diplomacy* (New York: Putnam, 1995), p. 359.

¹⁹ *Ibid.*

²⁰ R. Jeffrey Smith and Rick Atkinson, "U.S. Rules Out Gulf Use of Nuclear, Chemical Arms," *The Washington Post*, January 7, 1991, p. A1.

²¹ Colin Powell, with Joseph E. Persico, *My American Journey* (New York: Random House, Inc., 1995), p. 486.

²² William M. Arkin, "Agnosticism When Real Values Are Needed: Nuclear Policy in the Clinton Administration," Federation of American Scientists Public Interest Report, September/October 1994, p. 7.

²³ Joint Chiefs of Staff, "1991 Joint Military Assessment," Washington, D.C., March 1991, pp. 2-8, 6-1, 7-1 (box), 7-2, 11-12.

²⁴ Dick Cheney, U.S. Secretary of Defense, "Annual Report to the President and the Congress," Washington, D.C., February 1992, p. 59.

²⁵ General Lee Butler, Commander-in-Chief, Strategic Air Command, in U.S. Congress, Senate, Committee on Appropriations, Defense Subcommittee, Hearings on Department of Defense Appropriations for Fiscal Year 1993, Part 2, 102nd Cong., 2nd sess., 9 April 1992, p. 796.

²⁶ "The Role of Nuclear Weapons in the New World Order," Briefing by Thomas C. Reed, former Secretary of the Air Force, and Chairman of the Joint Strategic Target Planning Staff (JSTPS) Deterrence Study Group to General Lee Butler, Commander, Strategic Air Command, 10 October 1991; as cited in William M. Arkin, "Nuclear Junkies," *Bulletin of the Atomic Scientists*, July/August 1993, p. 24. See also, Thomas Reed and Michael O. Wheeler, "The Role of Nuclear Weapons in the New World Order," Draft Report, undated (October 1991); William M. Arkin, "Agnosticism When Real Values Are Needed: Nuclear Policy in the Clinton Administration," F.A.S Public Interest Report, September/October 1994, p. 7.

28. William Matthews, *Air Force Times*, 20 January 1992; as cited in William M. Arkin, "Nuclear Weapons Policy-Making for the Third World," Greenpeace, unpublished chronology, p. 3.

The published version only recommended the U.S. nuclear posture should be "supported by a new planning structure for the SIOP, and a new set of integrated plans.... The new plan should adapt to emerging realities, and pay even more attention to escalation control in the emerging world." Thomas C. Reed and Michael O. Wheeler, "The Role of Nuclear Weapons in the New World Order," 13 January 1992, p. v

29. Thomas C. Reed and Michael O. Wheeler, "The Role of Nuclear Weapons in the New World Order," 13 January 1992, pp. 14, 16, 26.

30. Thomas C. Reed and Michael O. Wheeler, "The Role of Nuclear Weapons in the New World Order," Statement before the Senate Armed Services Committee, 23 January 1992, p. 7.

31. Dick Cheney, U.S. Secretary of Defense, "Annual Report to the President and the Congress," Washington, D.C., February 1992, p. 59.

32. John J. Welch, Jr., Assistant Secretary of the Air Force (Acquisition), and Lieutenant General John E. Jaquish, Principal Deputy Assistant Secretary (Acquisition), "Presentation to the Committee on Appropriations Subcommittee on Defense. Subject: Air Force Research, Development, Test and Evaluation," 29 April 1992, p. 4; in U.S. Congress, House, Committee on Appropriations, Subcommittee on the Department of Defense, Hearings on Department of Defense Appropriations for FY 1993, Part 6, 102nd Cong., 2nd sess., 1992, p. 318.

33. Department of the Navy, Office of the Deputy Chief of Naval Operations for Plans, Policy and Operations (OP-06), Nuclear Warfare and Arms Control Division (OP-65), and Analysis Branch (OP-654), "STRATPLAN 2010," Final Report, Phase II, Volume I, June 1992, p. 21. SECRET/NOFORN. Partially declassified and released under the Freedom of Information Act.

STRATPLAN 2010 echoed the Reed Panel's doubts about the utility of the current SSBN force in the post-Cold War era. "This deterrent force alone will not be as viable against the smaller adversaries (even those nuclear-capable countries) in the new world order.... Precision, long-range non-nuclear weapons will become more attractive for deterrent in regional and limited-intensity conflicts because an opponent will perceive we are more likely to use them," the study concluded in an interesting precursor for the conclusions of the Bush administration's 2001 Nuclear Posture Review. *Ibid.*, pp. 21, 22. Emphasis in original.

34. Joint Chiefs of Staff, "1992 Joint Military Net Assessment," Washington, D.C., August 1992, p. 2-12.

35. Planning requirements examined went well beyond the core SIOP to include items like crisis planning and non-strategic nuclear forces. General George Lee Butler, U.S. Air Force (retired), "'Reengineering' Nuclear War Planning," *Strategic Review*, Summer 1994, pp. 77, 79; William M. Arkin, "Agnosticism When Real Values Are Needed: Nuclear Policy in the Clinton Administration," Federation of American Scientists Public Interest Report, September/October 1994, p. 7.

³⁶ General George Lee Butler, U.S. Air Force, Strategic Command, "Statement before the Senate Armed Services Committee," 22 April 1993, p. 3.

37. Les Aspin, U.S. Secretary of Defense, "Report on the Bottom-Up Review," Washington, D.C., October 1993, p. iii.

The regional emphasis of the Bottom-Up Review was strongly influenced by one of the Bush Administration's last defense publications, the "Regional Defense Strategy," from January 1993. The strategy also endorsed the role of nuclear weapons for counter-proliferation purposes: "In the decade ahead, we must adopt the right combination of deterrent forces, tactical and strategic, while creating the proper balance between offense and active defense to mitigate risk from weapons of mass destruction and their means of delivery, whatever the source." Dick Cheney, U.S. Secretary of Defense, "Defense Strategy for the 1990s: The Regional Defense Strategy," Washington, D.C., January 1993, p. 14. Emphasis added.

38. Chairman of the Joint Chiefs of Staff, "Report on the Roles, Missions, and Functions of the Armed Forces of the United States," Washington, D.C., February 1993, p. II-2.

39. Eric Schmitt, "Head of Nuclear Forces Plans for a New World," *The New York Times*, 25 January 1993, p. B7.

40. General George Lee Butler, U.S. Air Force, Commander-in-Chief, Strategic Command, "Statement before the Senate Armed Services Committee," 22 April 1993, p. 3.

⁴¹ U.S. Strategic Command, "Final Report of the SWPS Modernization Road Map Team (SM-RT)(U)," Secret, August 1992, pp. 3-6, 3-49. Partially declassified and released under the Freedom of Information Act.

42. General George Lee Butler, U.S. Air Force, Commander-in-Chief, Strategic Command, "Statement before the Senate Armed Services Committee," 22 April 1993, p. 3.

43. Barbara Starr, "Targeting rethink may lead to non-nuclear STRATCOM role," *Jane's Defence Weekly*, 22 May 1993, p. 19.

STRATCOM battle management assets would contribute "exquisite intelligence capability" to such a policy, including U-2, RC-135, E-4B, and E-6 aircraft. In addition, a review ordered by JCS Chairman General Colin Powell, was considering giving STRATCOM combat command of key satellite intelligence systems that could help targeting. *Ibid.*

⁴⁴ U.S. Strategic Command, "Strategic Planning Study," Final Report, 1 October 1993, p. 3-1. Partially declassified and released under the Freedom of Information Act.

SIOP-94 changes compared with SIOP-93 included approximately 250 SLBM sortie changes, 116 ICBM changes, and 20 aircraft sortie changes resulting in 20 cruise missile sortie changes. *Ibid.*, p. 3-32.

⁴⁵ U.S. Strategic Command, "Strategic Planning Study," Final Report, 1 October 1993, p. 3-30. Partially declassified and released under the Freedom of Information Act; U.S. Strategic Command, Briefing by Lt. Col. George Beck, SWPS Program Manager, "Strategic War Planning System," 6 September 1997, slide 11. Just like the "living SIOP" is not only related to Russia, adaptive planning is not limited to regional contingencies. Rather the modernization is an effort to provide increased flexibility and adaptability to the nuclear planning process regardless of the geographical location of the target.

⁴⁶ Planning requirements examined went well beyond the core SIOP to include items like crisis planning and non-strategic nuclear forces. General George Lee Butler, U.S. Air Force (retired), "'Reengineering' Nuclear War Planning," *Strategic Review*, Summer 1994, pp. 77, 79.

⁴⁷ U.S. Strategic Command, "Strategic War Planning," 1 May 1997.

48. Joint Chiefs of Staff, "Doctrine for Joint Nuclear Operations," JOINT PUB 3-12, 29 April 1993, pp. I-1, I-3. Released under the Freedom of Information Act.

49. Les Aspin, U.S. Secretary of Defense, "Report on the Bottom-Up Review," Washington, D.C., October 1993, pp. iii, 6.

The regional emphasis of the Bottom-Up Review was strongly influenced by one of the Bush Administration's last defense publications, the "Regional Defense Strategy," from January 1993. The strategy also endorsed the role of nuclear weapons for counter-proliferation purposes: "In the decade ahead, we must adopt the right combination of deterrent forces, tactical and strategic, while creating the proper balance between offense and active defense to mitigate risk from weapons of mass destruction and their means of delivery, whatever the source." Dick Cheney, U.S. Secretary of Defense, "Defense Strategy for the 1990s: The Regional Defense Strategy," Washington, D.C., January 1993, p. 14. Emphasis added.

50. Admiral Henry G. Chiles, Jr., Command-in-Chief, Strategic Command, "Statement before the Senate Armed Services Committee," 20 April 1994, p. 11.

STRATCOM played a central role in the Nuclear Posture Review, which endorsed the utility of nuclear weapons in counter-proliferation roles. According to Deputy Secretary of Defense John Deutch, "USSTRATCOM staff participated in all NPR working groups and supported the NPR with valuable analysis. Admiral Chiles attended all high level NPR meetings.... USSTRATCOM supports the conclusions of the NPR." John Deutch, U.S. Deputy Secretary of Defense, written answer in response to question submitted by Senator Strom Thurmond, in U.S. Congress, Senate, Committee on Armed Services, "Briefing on Results of the Nuclear Posture Review," 103rd Cong., 2nd sess., 22 September 1994, p. 57. The answer was not received in time for printing in the hearing but is retained in committee files.

51. Admiral Henry Chiles, Commander-in-Chief, Strategic Command, U.S. Congress, Senate, Committee on Armed Services, Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1995 and the Future Years Defense Program, Part 1, 103rd Cong., 2nd sess., 20 April 1994, pp. 979 and 1000-1001.

His predecessor as commander of STRATCOM said the "adaptive planning capability" will "enable planners to present to the President within hours viable options in response to global crises." Butler 1994, op. cit., pp. 79. Emphasis added.

⁵² Briefing, Brig. Gen. Tony Tolin, Deputy Director, Strategy and Policy, J-5, "Nuclear Posture Review: Key Issues For Review By The Strategic Advisory Group," 15 March 1994, slide 9. Partially declassified and released under the Freedom of Information Act.

⁵³ U.S. Strategic Command, "History of the United States Strategic Command, 1 January 1994 – 31 December 1994," Top Secret, [n.d.] 1995, p. 42. Partially declassified and released under the Freedom of Information Act.

⁵⁴ Memo (U), Maj. Gen. John H. Admire, USMC, Vice Director for Strategic Plans and Policy, Joint Staff, to Assistant Secretary of Defense for Nuclear Security and Counterproliferation, "Nuclear Posture Review (NPR)," 6 January 1994. Released under Freedom of Information Act.

⁵⁵ U.S. Strategic Command, "History of the United States Strategic Command, 1 January 1994 – 31 December 1994," Top Secret, [n.d.] 1995, p. 43. Partially declassified and released under the Freedom of Information Act.

⁵⁶ For an overview of STRATCOM force structure studies, see: Hans M. Kristensen, "The Matrix of Deterrence: U.S. Strategic Command Force Structure Studies," The Nautilus Institute, Berkeley, California, May 2001, URL < <http://www.nautilus.org/nukestrat/matrix.html>> .

⁵⁷ U.S. Strategic Command, "History of the United States Strategic Command, 1 January 1994 – 31 December 1994," Top Secret, [n.d.] 1995, p. 45. Partially declassified and released under the Freedom of Information Act.

⁵⁸ U.S. Strategic Command/Strategic Advisory Group, "Nuclear Forces; Post 1994," July 12, 1994, p. 1. Released under the Freedom of Information Act.

⁵⁹ Ibid.

⁶⁰ Ibid., p. 6.

⁶¹ Memo (U), Gen. John M. Shalikashvili, CJCS, to USCINCPAC, "Strategic Force Structure," 28 July 1994. Released under the Freedom of Information Act.

⁶² U.S. Strategic Command, "Minutes of the Fifty-Second United States Strategic Command Strategic Advisory Group Meeting (U), 27-28 October 1994, Offutt AFB, Nebraska," 27 January 1995, p. 10. Partially declassified and released under the Freedom of Information Act.

⁶³ Interview with former Defense Department official, September 21, 2001.

⁶⁴ U.S. Strategic Command/J51 Memorandum, NPR Report #8, Working Group #5, 4 November 1993, p. 2; U.S. Strategic Command, Memorandum, NPR Report #5, Working Group #2, 16 November 1993, p. 2; U.S. Strategic Command/J51 Memorandum, NPR Report #69, Working Group #5, 9 February 1994, p. 1. All documents partially declassified and released under the Freedom of Information Act.

⁶⁵ Listing, Group 5 – Relationship Between U.S. Nuclear Postures and Counterproliferation Policy, Formal STRATCOM Answers as of 22 November 1993, pp. 12, 13. Secret. Partially declassified and released under the Freedom of Information Act.

⁶⁶ Ibid., p. 14.

⁶⁷ U.S. Strategic Command, Nuclear Posture Review Slides, Update Briefing, 4 March 1994, slide 3. Secret. Partially declassified and released under the Freedom of Information Act.

⁶⁸ U.S. Strategic Command/J51 Memorandum, NPR Report #90, Working Group #5, 7 March 1994, p. 1. For official use only. Partially declassified and released under the Freedom of Information Act.

⁶⁹ U.S. Strategic Command/J51 Memorandum, NPR Report #86, Working Group #5, 2 March 1994, p. 1. Secret. Partially declassified and released under the Freedom of Information Act. Emphasis added.

⁷⁰ U.S. Strategic Command Nuclear Posture Review Slides, Update Briefing, 25 March 1994, slide 3. Secret. Partially declassified and released under the Freedom of Information Act.

⁷¹ U.S. Strategic Command/J51 Memorandum, NPR Report #92, Working Group #5, 9 March 1994, p. 1. Secret; U.S. Strategic Command, Nuclear Posture Review Slides, Update Briefing, 11 March 1994. Secret. Both documents partially declassified and released under the Freedom of Information Act.

⁷² U.S. Strategic Command, Nuclear Posture Review slides, Update Briefing, 3 December 1993, slide 7. Secret. Partially declassified and released under the Freedom of Information Act.

⁷³ U.S. Strategic Command/J51 Memorandum, NPR Report #80, Working Group #5, 23 February 1994, p. 2. Secret. Partially declassified and released under the Freedom of Information Act.

⁷⁴ U.S. Congress, Senate, Committee on Armed Services, Briefing on Results of the Nuclear Posture Review, 103rd Cong., 2nd sess., 22 September 1994, pp. 9 (chart), 10 (chart), 16 (chart), 17 (chart).

⁷⁵ John Deutch, U.S. Deputy Secretary of Defense, written answer in response to question submitted by Senator Strom Thurmond, in U.S. Congress, Senate, Committee on Armed Services, "Briefing on Results of the Nuclear Posture Review," 103rd Cong., 2nd sess., 22 September 1994, p. 56. Emphasis added. Deutch's answers to the questions for the record were not received in time for printing in the hearing but are retained in committee files.

At the news conference announcing the Nuclear Posture Review, Deutch specifically linked nuclear weapons to counter-proliferation: "In arriving at our nuclear posture, we had many different considerations. Some of them quite qualitative, like counter-proliferation -- the declaratory policy we might have with respect to the use of nuclear weapons." Department of Defense, Office of the Assistant Secretary of Defense (Public Affairs), "Defense Department Briefing With Secretary of Defense William Perry, General John Shalikashvili, Chairman, Joint Chiefs of Staff, and Deputy Secretary of Defense John Deutch at the Pentagon on the Nuclear Posture Review, September 22, 1994," News Release No. 546-94, Washington, D.C., 22 September 1994, p. 6.

⁷⁶ General George Lee Butler, U.S. Air Force, Commander-in-Chief, Strategic Command, "Statement before the Senate Armed Services Committee," 22 April 1993, p. 3.

⁷⁷ U.S. Strategic Command, "History of the United States Strategic Command, 1 January 1993 – 31 December 1993," Top Secret, p. 176. Partially declassified and released under the Freedom of Information Act.

⁷⁸ U.S. Strategic Command, "Counterproliferation Strategies: Countering Weapons of Mass Destruction," Briefing, 1 December 1994, slide 76. Partially declassified and released under the Freedom of Information Act.

⁷⁹ White Paper, Maj. Alex Ivanchishin, USAF J513, "Military Aspects of Counterproliferation and the Unique Political-Military Interface," 18 October 1993. Partially declassified and released under the Freedom of Information Act.

⁸⁰ U.S. Strategic Command, "Counterproliferation Strategies: Countering Weapons of Mass Destruction," Briefing, 1 December 1994, slide 76. Partially declassified and released under the Freedom of Information Act.

⁸¹ U.S. Strategic Command, "Counterproliferation and the Silver Book," Secret, 26 April 1994, pp. 1, 3. Partially Declassified and released under the Freedom of Information Act.

⁸² U.S. Strategic Command, "The SILVER BOOK Concept: Providing Military Options to Counter Proliferation," July 1993, p. 8. Secret. Partially declassified and released under the Freedom of Information Act.

⁸³ U.S. Strategic Command, "Counterproliferation and the Silver Book," 10 March 1994, p. 1. Partially declassified and released under the Freedom of Information Act.

⁸⁴ U.S. Strategic Command, "Minutes of the Fifty-Second United States Strategic Command Strategic Advisory Group Meeting (U), 27-28 October 1994, Offutt AFB, Nebraska," 27 January 1995, pp. 10, 17, 18. Partially declassified and released under the Freedom of Information Act.

⁸⁵ Presentation, U.S. Strategic Command, "Intelligence Support to the Silver Book Concept," Secret, March 1994, slide 4. Partially declassified and released under the Freedom of Information Act.

⁸⁶ Admiral Henry Chiles, Commander-in-Chief, Strategic Command, U.S. Congress, Senate, Committee on Armed Services, Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1995 and the Future Years Defense Program, Part 1, 103rd Cong., 2nd sess., 20 April 1994, pp. 979-980.

⁸⁷ Barbara Starr, "STRATCOM sees new role in WMD targeting," *Jane's Defence Weekly*, 14 January 1995, p. 3.

⁸⁸ U.S. Strategic Command, "Extracts from USCINCPACSTRAT Brief for EUCOM Visit (Nov 1994)," 1 November 1994. Partially declassified and released under the Freedom of Information Act.

⁸⁹ "STRATCOM Looks to Find Niche in Counter-proliferation Plans," *Inside the Navy*, 19 December 1994, p. 14.

⁹⁰ Barbara Starr, "STRATCOM sees new role in WMD targeting," *Jane's Defence Weekly*, 14 January 1995, p. 3.

⁹¹ U.S. Strategic Command, "History of the United States Strategic Command, 1 January 1994 – 31 December 1994," Top Secret, [n.d.] 1995, p. 11. Partially declassified and released under the Freedom of Information Act.

⁹² U.S. Strategic Command, Minutes of the Fifty-Third United States Strategic Command Strategic Advisory Group Meeting (U), 20-21 April 1995, Offutt AFB, Nebraska," Secret/NOFORN/ND, 21 July 1995, pp. 4, 15. Partially declassified and released under the Freedom of Information Act.

⁹³ U.S. Strategic Command, "Essentials of Post-Cold War Deterrence," [n.d.] probably April 1995, pp. 3, 4. Partially declassified and released under the Freedom of Information Act.

⁹⁴ *Ibid.*, p. 4.

⁹⁵ *Ibid.*

⁹⁶ *Ibid.*, pp. 4, 7.

⁹⁷ *Ibid.*, p. 4.

⁹⁸ U.S. Strategic Command, "Minutes of the Fifty-Fourth United States Strategic Advisory Group Meeting (U), 19-20 October 1995, Offutt AFB, Nebraska," Secret/RD, 19 January 1996, p. 4. Partially declassified and released under the Freedom of Information Act.

⁹⁹ William M. Arkin, "Iran and the Virtual Reality of US War Games," *Middle East Report*, November-December 1995, p. 11.

¹⁰⁰ U.S. Strategic Command, "Minutes of the Fifty-Fourth United States Strategic Advisory Group Meeting (U), 19-20 October 1995, Offutt AFB, Nebraska," Secret/RD, 19 January 1996, pp. 4, 11. Partially declassified and released under the Freedom of Information Act.

¹⁰¹ Eugene E. Habiger, General, USAF, Commander in Chief, U.S. Strategic Command, statement before the Senate Armed Services Committee Authorization for Appropriations hearing for FY 1998 and Future Years Defense Programs, S. 936, S. HRG. 105-37, PT. 1, March 13, 1997, p. 654.

¹⁰² U.S. Strategic Command/J51 Memorandum, NPR Report #80, Working Group #5, 23 February 1994, p. 2. Secret. Partially declassified and released under the Freedom of Information Act.

¹⁰³ U.S. Joint Chiefs of Staff, "Doctrine For Joint Theater Nuclear Operations," Joint Pub 3-12.1, 9 February 1996. Emphasis added. The document is available on the JCS internet home page.

¹⁰⁴ U.S. Strategic Command, "Minutes of the Fifty-Third United States Strategic Command Strategic Advisory Group Meeting (U), 20-21 April 1995," Offutt AFB, Nebraska, 21 July 1995, p. 15. Partially declassified and release under the Freedom of Information Act.

¹⁰⁵ For media coverage of the 1997 Presidential Decision Directive, see: R. Jeffrey Smith, "Clinton Changes Nuclear Strategy," *The Washington Post*, 7 December 1997, p. A1; "Rogue Attackers May Face Nuclear Response," *Chicago Tribune*, 8 December 1997.

¹⁰⁶ "Statement of Secretary of State Vance: U.S. Assurance on Non-Use of Nuclear Weapons, June 12, 1978," *Department of State Bulletin*, August 1978, p. 52, ACDA, Docs. on Disarm., v. 1978, p. 384. For an in-depth review of U.S. policy on negative security assurances, see: George Bunn, "The Legal Status of U.S. Negative Security Assurances to Non-Nuclear Weapon States," *The Nonproliferation Review*, Spring-Summer 1997, Vol. 4, No. 3, URL < <http://cns.miis.edu/pubs/npr/vol04/43/bunn43.pdf> > .

¹⁰⁷ U.S. Department of State, "Memorandum on Security Assurances in Connection with Ukraine's Accession to the Treaty on the Non-Proliferation of Nuclear Weapons," December 4, 1994.

¹⁰⁸ U.S. Department of State, "Statement by the Honorable Warren Christopher, Secretary of State, Regarding a Declaration by the President on Security Assurances for Non-Nuclear Weapon States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons," 5 April 1995.

¹⁰⁹ The White House, Press Briefing by Robert Bell, Special Assistant to the President and Senior Director for Defense Policy and Arms Control, National Security Council, April 11, 1996.

¹¹⁰ Craig R. Black, Commander, U.S. Navy, "Deterring Libya: The Strategic Culture of Muammar Qaddafi," *The Counterproliferation Papers*, Future Warfare Series No. 8, USAF Counterproliferation Center, Air War College, Air University, Maxwell Air Force Base, Alabama, October 2000, p. 11. Available on the Internet at URL < <http://www.wacsc.au.af.mil/au/awc/awcgate/cpc-pubs/black.htm> > .

¹¹¹ Robert Burns, "US-Libya," *Associated Press* (Washington, D.C.), 23 April 1996.

¹¹² "Nuclear Weapons Only Option for USA to Hit Buried Targets," *Jane's Defence Weekly*, 1 May 1996, p. 3.

¹¹³ Charles Aldinger, "U.S. Rules Out Nuclear Attack On Libya Plant," *The Washington Post*, 8 May 1996, p. A32.

¹¹⁴ Craig R. Black, Commander, U.S. Navy, "Deterring Libya: The Strategic Culture of Muammar Qaddafi," U.S. Air Force Counterproliferation Center, Air War College, Air University, Maxwell Air Force Base, Alabama, October 2000, n.p. [page 12 of 15]. Available on the Internet at URL < <http://www.au.af.mil/au/awc/awcgate/cpc-pubs/black.html> > .

¹¹⁵ Jeff Erlich, "New U.S. Nuclear Policy Maintains Ambiguity", *Defense News*, 5-11 January 1998.

¹¹⁶ William S. Cohen, U.S. Defense Secretary, DoD News Briefing, Monday, November 23, 1998 - 10 a.m.

¹¹⁷ Nicholas Kralev, "U.S. Drops Pledge on Nukes," *The Washington Times*, February 22, 2002.

¹¹⁸ Quoted in "U.S. Nuclear Policy: Negative Security Assurances," Arms Control Association Fact Sheet, March 2002, URL < <http://www.armscontrol.org/factsheets/negsec.asp> > .

¹¹⁹ Paul Wolfowitz, U.S. Deputy Secretary of Defense, interview with *PBS Newshour*, September 14, 2001.

¹²⁰ "Kyl, Chemical Biological Attack Deserves Nuclear Retaliation," *Associated Press*, September 30, 2001;

"Indiana Congressman: U.S. Should Consider Use of Nuclear Weapons," *Associated Press*, October 18, 2001; "Rep. King: Nukes Should Be An Option in Afghanistan," *Newmax.com*, October 21, 2001.

¹²¹ Donald H. Rumsfeld, U.S. Secretary of Defense, interview with *ABC News This Week*, September 16, 2001. Emphasis added.

¹²² U.S. Department of Defense, News Transcript, "Secretary Rumsfeld Interview with Fox News," September 21, 2001. Available on the Internet at URL

< http://www.defenselink.mil/news/Sep2001/t09212001_t0921fox.html > .

¹²³ U.S. Department of State, "Interview by BBC," September 21, 2001. Available on the Internet at URL

< <http://www.state.gov/secretary/rm/2001/index.cfm?docid=5004> > .

¹²⁴ U.S. Department of Defense, Office of the Secretary of Defense, "Nuclear Posture Review Report," submitted to Congress December 31, 2001, p. 26. Excerpts available at GlobalSecurity.com URL

< <http://www.globalsecurity.org/wmd/library/policy/dod.htm> > .

¹²⁵ *Ibid.*, p. 27.

¹²⁶ *Ibid.*

¹²⁷ U.S. Department of Defense, News Transcript, "Special Briefing on the Nuclear Posture Review," January 9, 2002.

¹²⁸ Paul Richter, "U.S. Works Up Plan for Using Nuclear Arms," *The Los Angeles Times*, March 9, 2002; William M. Arkin, "Secret Plan Outlines the Unthinkable," *The Los Angeles Times*, March 10, 2002.

¹²⁹ See URL < <http://www.globalsecurity.org/wmd/library/policy/dod.htm> > .

¹³⁰ William M. Arkin, "Secret Plan Outlines the Unthinkable," *The Los Angeles Times*, March 10, 2002.

¹³¹ Statement by General Wesley Clark, former NATO Supreme Allied Commander, *CNN* "Late Edition," October 21, 2001.

¹³² The White House, "National Strategy to Combat Weapons of Mass Destruction," December 2002, p. 3.

¹³³ Nicholas Kralev, "Bush Approves Nuclear Response," *The Washington Times*, January 31, 2003.

¹³⁴ Paul Richter, "U.S. Weighs Tactical Nuclear Strike on Iraq," *The Los Angeles Times*, January 25, 2003; William M. Arkin, "The Nuclear Option in Iraq," *The Los Angeles Times*, January 26, 2003.

¹³⁵ Will Dunham, "Rumsfeld Won't Rule Out Nuclear Bomb Against Iraq," *Reuters*, February 13, 2003.