



# NUCLEAR FUTURES:

PROLIFERATION OF WEAPONS  
OF MASS DESTRUCTION  
AND US NUCLEAR STRATEGY



**BRITISH AMERICAN SECURITY INFORMATION COUNCIL**

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# NUCLEAR FUTURES: PROLIFERATION OF WEAPONS OF MASS DESTRUCTION AND US NUCLEAR STRATEGY

**The British American Security Information Council (BASIC) is an independent research organization that analyzes international security issues. BASIC works to promote public awareness of defense, disarmament, military strategy, and nuclear policies in order to foster informed debate on these issues. BASIC facilitates the exchange of information and analysis on both sides of the Atlantic.**

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## **NUCLEAR FUTURES:**

### **Proliferation of Weapons of Mass Destruction and US Nuclear Strategy**

**This report was written by Hans M. Kristensen.**

This is the second of a series of BASIC Research Reports looking at the future of Nuclear Weapons Policy. The third Nuclear Futures report by Nicola Butler and Stephen Young, for publication later this year, will examine options for initiatives by European states and institutions towards the goal of the elimination of nuclear weapons.

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## Acronyms and Abbreviations

|          |  |
|----------|--|
| ANWFZ    | African nuclear-weapon-free zone                                 |
| BUR      | Bottom Up Review   |
| CINC     | Commander-in-Chief   |
| DOD      | Department of Defense  |
| DSWA     | Defense Special Weapons Agency                                   |
| EMP      | Electromagnetic Pulse  |
| ICBM     | inter-continental ballistic missile                              |
| JCS      | Joint Chiefs of Staff  |
| JSCP     | Joint Strategic Capabilities Plan                                |
| NPR      | Nuclear Posture Review   |
| NPT      | nuclear Non-Proliferation Treaty                                 |
| NSA      | Negative Security Assurance                                      |
| NUWEP    | Nuclear Weapons Employment Policy                                |
| NWC      | Nuclear Weapons Council  |
| PDD      | Presidential Decision Directive                                  |
| SAC      | Strategic Air Command  |
| SAG      | Strategic Advisory Group   |
| SIOP     | Single Integrated Operational Plan                               |
| SILVER   | Strategic Installation List of Vulnerability Effects and Results |
| SLBM     | submarine launched ballistic missile                             |
| SRS      | SLBM Retargeting System  |
| STRATCOM | Strategic Command  |
| SWPS     | Strategic War Planning System                                    |
| TIG      | Technology Initiatives Game                                      |
| WMD      | weapons of mass destruction                                      |

## Executive Summary

In November 1997, President Clinton issued a highly classified Presidential Decision Directive (PDD), giving new guidelines to the military on targeting nuclear weapons. According to reports, the new PDD allows for the use of nuclear weapons against “rogue” states – those suspected of having access to weapons of mass destruction.

The use of nuclear weapons to deter attack by weapons of mass destruction, other than nuclear weapons, remains controversial. General Lee Butler, former Commander-in-Chief of US Strategic Command, now describes using nuclear weapons as a solution to chemical or biological attack as an “outmoded idea.” Conventional retaliation would be far more proportionate, less damaging to neighboring states and less horrific for innocent civilians, he says. “There are no rogue nations, only rogue leaders.”

In 1995, President Clinton issued a “negative security assurance,” pledging that the United States would not use nuclear weapons against non-nuclear-weapon states parties to the nuclear Non-Proliferation Treaty (NPT). However, the current US nuclear posture conflicts with that pledge.

Non-nuclear-weapon states parties to the NPT have long demanded legally binding “negative security assurances,” guaranteeing that nuclear weapons will not be used against them. The issue is on the agenda for the 1998 NPT Preparatory Committee meeting in Geneva in April 1998.

However, Special Assistant to the President Robert Bell has already stated that negative security assurances will not tie the hands of US decision-makers faced with a chemical or biological attack. “It’s not difficult to define a scenario in which a rogue state would use chemical weapons or biological weapons and not be afforded protection under our negative security assurance,” he noted.

Documents obtained through the US Freedom of Information Act also reveal criticism of the negative security assurance from within the US military. These documents show how US planning for the use of nuclear weapons against Third World proliferators

has developed in the 1990s. The concept of targeting Third World proliferators is relatively new to US nuclear doctrine. However, since the end of the Cold War the US military has seen “increasingly capable Third World threats” as a new justification for maintaining US strategic and non-strategic nuclear weapons.

The extensive focus on proliferation of weapons of mass destruction has resulted in “fewer but more widespread targets” for the remaining US nuclear weapons. The US nuclear arsenal is in the middle of a multi-billion dollar upgrade that will make it capable of quickly shifting between a greater number of limited contingencies all over the world.

Additionally, new modifications of a number of US nuclear weapons are currently underway in order to provide new capabilities suitable for targeting potential proliferators. In 1996, the B61-11 modification was identified by the Department of Defense as the “weapon of choice” for targeting Libya’s alleged underground chemical weapons plant at Tarhunah. Other weapons “modifications” are in the pipeline.

However, given the overwhelming US conventional capability, there is no need to draw up plans for nuclear war in the Third World. Using nuclear weapons to deter states armed with other weapons of mass destruction is counterproductive, undermining the nuclear non-proliferation regime.

By using nuclear weapons in this way, the United States is sending a message that nuclear weapons are important for achieving prestige in world affairs and for accomplishing military and political objectives. Pointing nuclear weapons at regional troublemakers will provide them with a justification to acquire nuclear weapons themselves. Encouraging nuclear proliferation can only increase the risk to US security in the long term.

A reaffirmation of the commitments to non-proliferation and nuclear disarmament by removing chemical, biological, and radiological weapons and facilities from US war planning would be a more fitting post-Cold War measure.

Nevertheless, as the documents researched as the basis for this paper demonstrate, planning for nuclear war in the Third World has progressed virtually unop

posed. With little informed opposition and public debate, the result is a nuclear doctrine that borrows heavily from Cold War nuclear thinking. President Clinton's Decision Directive of November 1997 permits this planning to continue.

## Introduction

In November 1997, President Clinton issued new guidelines to the US military on targeting of nuclear weapons. According to *The Washington Post*, highly classified Presidential Decision Directive (PDD) 60 “contains language that would permit US nuclear strikes after enemy attacks using chemical or biological weapons.” “Rogue states,” a terminology commonly used by the Pentagon for countries such as Iran, Iraq, Libya, North Korea and Syria, are specifically listed as possible targets in the event of regional conflicts or crises.<sup>1</sup>

The new directive replaces guidelines last issued under President Reagan nearly 17 years ago. But according to Special Assistant to the President Robert Bell, the three basic situations in which the United States might use nuclear weapons have not been changed by the new PDD.<sup>2</sup> They are: if the attacking country has nuclear weapons; if the aggressor is not in compliance with the international treaty to curb the spread of nuclear weapons; or if it is allied to a nuclear power in its attack on the United States. However, Special Assistant Bell also states that the PDD reflects the current reality, in which an attacker using weapons of mass destruction could face nuclear reprisal.<sup>3</sup> US declaratory policy on this point remains ambiguous because the term “weapons of mass destruction” (WMD) refers not only to nuclear weapons but also to chemical, biological, and radiological weapons, as well as the means to deliver them.

The use of nuclear weapons to deter WMD other than nuclear weapons remains controversial. General Lee Butler, former Commander-in-Chief of US Strategic Command (STRATCOM) 1992-94 and Commander-in-Chief of US Strategic Air Command (SAC) 1991-92, who played a key role in shaping US nuclear posture after the Cold War, now describes using nuclear weapons as a solution to chemical or biological attack as an “outmoded idea.” Conventional retaliation would be far more proportionate, less damaging to neighboring states and less horrific for innocent civilians, he says. “There are no rogue nations, only rogue leaders.”<sup>4</sup>

In addition, non-nuclear-weapon states parties to the nuclear Non-Proliferation Treaty (NPT) have

long demanded legally binding “negative security assurances,” guaranteeing that nuclear weapons will not be used against them. The issue is on the agenda for the 1998 NPT Preparatory Committee meeting in Geneva in April 1998. Special Assistant Bell has already stated that negative security assurances will not tie the hands of US decision-makers faced with a chemical or biological attack. “It’s not difficult to define a scenario in which a rogue state would use chemical weapons or biological weapons and not be afforded protection under our negative security assurance.”<sup>5</sup>

In 1995, in the run-up to the NPT Conference, the United States, along with the United Kingdom, France and Russia, reaffirmed its negative security assurance not to use nuclear weapons against non-nuclear-weapon states parties to the Treaty. However, the ink was barely dry on President Clinton’s pledge before the Pentagon updated a plan to do just that.

Previously classified documents obtained through the US Freedom of Information Act reveal the background to the latest PDD. These documents

### **Former Commander-in-Chief of US Strategic Command, General Lee Butler, now describes using nuclear weapons as a solution to chemical or biological attack as an “outmoded idea.”**

reveal that not only did President Clinton’s 1995 pledge fail to change US nuclear doctrine, but that US military planners have continued to plan for nuclear war in the Third World ever since.

While the end of the Cold War resulted in a significant cutback in the nuclear target base and the number of nuclear weapons, the extensive focus on proliferation of WMD has resulted in a geographical expansion of the potential targets for remaining US nuclear weapons. In order to be capable of taking on the broader target list, the US nuclear arsenal is in the middle of a multi-billion dollar upgrade that will make it capable of quickly shifting between a greater number of limited contingencies all around the world. The changes represent as significant a development – although very different – in nuclear doctrine and war-fighting capability as the shift in the early 1960s from Mutually Assured Destruction to Flexible Response.

The plan to use nuclear weapons against proliferators of WMD creates a fundamental disharmony in US post-Cold War nuclear policy. In order to strengthen the NPT regime, non-nuclear-weapon state signatories are promised that they will not be targeted. Yet in order to fight proliferators, the Pentagon is planning to do so nonetheless.

Beyond the issue of disharmony, proliferation is becoming an increasingly prominent driver in nuclear war planning. The large residual nuclear arsenal in Russia is still the focus – by virtue of sheer numbers – but the ability also to deter potential proliferators armed with nuclear, chemical, biological and radiological weapons has reshaped declaratory nuclear policy and continues to change US nuclear posture. The development threatens to grant nuclear weapons an enduring role in the post-Cold War era, undercut deep reductions and to thwart the goal of nuclear disarmament.

Similar, but more limited, developments are underway in other nuclear-weapon states as well as within NATO. NATO is embracing US doctrine by expanding alliance nuclear strategy to include the use of British Trident submarines and US free-fall bombs deployed in Belgium, Germany, Greece, Italy, The Netherlands, and Turkey against WMD attacks by rogue states. The focus of this paper, however, is some of the changes that have taken place in US nuclear planning during the 1990s.

### **Nuclear Disharmony**

The pledge not to use nuclear weapons against non-nuclear-weapon states parties to the NPT was an important US foreign policy instrument in ensuring international support for the indefinite extension of the Treaty in 1995. It was repeated by all the five declared nuclear-weapon states in joint United Nations Security Council resolution 984 (1995), which was adopted unanimously on 11 April 1995. The pledge was also listed in the NPT Conference's decision on "Principles and Objectives for Nuclear Non-Proliferation and Disarmament."<sup>6</sup>

Yet only a few months later, in December 1995, the US Joint Chiefs of Staff (JCS) completed a review of their "Doctrine for Joint Nuclear Operations" (Joint Pub 3-12) which endorsed planning for use of nuclear

weapons against targets in countries such as Iran, Iraq, Libya and North Korea. An early version of this doctrine had emerged in April 1993. It was the product of a major refurbishing of US nuclear war planning which included expansion of targeting from the former Soviet Union and China to include regional troublemakers around the world armed with WMD. Disclosure of the document caused a scandal, and criticism forced the Pentagon to downplay Third World targeting in public since it risked undercutting

### **Robert Bell has already stated that negative security assurances will not tie the hands of US decision makers faced with a chemical or biological attack.**

White House efforts to rally international support for indefinite extension of the NPT.

The problem was obvious: the development represented a horizontal and vertical *expansion* of US nuclear targeting, which was at odds with the vow the United States had made to "reduce" the role of nuclear weapons and pursue complete nuclear disarmament. Moreover, several of the non-nuclear countries at the negotiating table were becoming targets themselves, in blunt conflict with President Clinton's pledge not to use nuclear weapons against non-nuclear-weapon states parties to the NPT.

President Clinton's pledge, known as a negative security assurance, was a reaffirmation of a policy first initiated under the Carter Administration in June 1978. It states:

*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.<sup>7</sup>*

How could the United States promise not to use nuclear weapons against non-nuclear-weapon states parties to the NPT such as Iran, Iraq, Libya and North Korea, and then approve a doctrine which condoned using nuclear weapons to deter the use of chemical or biological by the very same states?



When confronted with the new evidence a few weeks prior to the start of the extension conference, the head of the US NPT delegation, Ambassador Thomas Graham, took cover behind the US-Russian bilateral agreement no longer to store designated target data in the guidance system of strategic nuclear missiles. "As of May 31, 1994, no country is targeted by the strategic forces of the United States," Graham told a United Nations press conference in New York.<sup>8</sup> Removing target data from the missiles, however, does not prevent a country from being a target of nuclear planning. In any case, Graham's argument was trivial because target data can be re-loaded into the missiles' computers within minutes.

But the US Administration was painfully aware of the importance many non-nuclear parties to the NPT attach to negative security assurances. It had no intention of confirming that some of them were becoming nuclear targets. "I therefore am deeply concerned about this type of undue criticism of the United States prior to the Conference," US Assistant Secretary of Defense, Ashton B. Carter, wrote a few days before the delegates met in New York, "which only can diminish the chances for a successful outcome."<sup>9</sup> Nuclear doctrine or not, "I want to strongly emphasize," US Deputy Assistant Secretary for Counterproliferation Policy Mitchell B. Wallerstein echoed in October 1995 in an interview with *Air Force Magazine*, "that counterproliferation is fundamentally about finding *non*nuclear solutions to these problems... The United States is not looking to retarget our nuclear weapons."<sup>10</sup>

Even as these words were being spoken, the planners at the JCS were putting the final touches to the updated nuclear doctrine. Despite the strong denials, the doctrine condoned the expansion of US nuclear targeting to non-nuclear countries. President Clinton's 1995 pledge forced no change in nuclear planning; the updated doctrine is virtually identical to the 1993 version.

### **A New Nuclear Doctrine Is Born**

The concept of targeting Third World proliferators is relatively new to US nuclear doctrine, although the United States did target some Third World countries as a matter of course as early as the late 1980s. However, this was done as part of its

global plan against the Soviet Union and its potential allies, and as insurance against the possibility of a third country trying to take advantage of the depletion of US and Soviet arsenals during a major nuclear war.<sup>11</sup> Now, however, some Third World countries are being independently targeted, as proliferators of weapons of mass destruction.

References in nuclear strategy to WMD were rare prior to the 1990s and proliferation as such was not a rationale for US nuclear doctrine. For example, in spring 1989, 150 people from government, military services, academia, industry, and the Department of Energy laboratories met at the Los Alamos Center for National Security Studies to review the past and future of nuclear weapons. A report from the meeting (which was chaired by, among others, President Bush's National Security Advisor Brent Scowcroft) observed that several participants had suggested that,

### **The report pointed to "increasingly capable Third World threats" as a new justification for maintaining US strategic and non-strategic nuclear weapons.**

if hostile regional states acquire 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."<sup>12</sup>

With the fall of the Berlin wall in 1989 and the demise of the Warsaw Pact, however, all that changed. Then Commander-in-Chief SAC, General 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 US armed forces." The result was a "complete revisit of nuclear weapons policy and the SIOP [Single Integrated Operational Plan] target base" which resulted in the number of targets in the SIOP, the chief US nuclear war plan, being reduced from 10,000 to eventually around 2,000.<sup>13</sup> The nuclear forces of the former "evil empire" were still of concern, but 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 and China. The post-Cold War target base would consist of "fewer but more widespread targets."<sup>14</sup>

When the JCS published the Military Net Assessment in March 1990, the shift was already evident. The report pointed to “increasingly capable Third World threats” as a new justification for maintaining US strategic and non-strategic nuclear weapons.<sup>15</sup> Three months later, in June 1990, as non-Soviet Warsaw Pact countries were formally removed from the SIOP, Secretary of Defense Richard Cheney testified before the Senate Appropriations Committee making the first high-level reference to WMD as a formal rationale for keeping US nuclear weapons.<sup>16</sup> These statements were small but important early indications of a change in US nuclear thinking.

The Gulf War and the disclosure of Iraq’s clandestine nuclear weapons program accelerated the changes in US nuclear doctrine. In January 1991, as US forces were deployed to liberate Kuwait, Defense Secretary Cheney issued the top-secret Nuclear Weapons Employment Policy (NUWEP), which formally tasked the military to plan for nuclear operations against nations capable of developing WMD.<sup>17</sup> This guidance resulted in SIOP-93, the first overall nuclear war plan formally to incorporate Third World WMD targets.<sup>18</sup>

Nothing was said in public about these important additions to the SIOP, but a couple of hints were given. In March 1991, the JCS suggested in the Joint Military Net Assessment that non-strategic nuclear weapons “could assume a broader role globally in response to the proliferation of nuclear capability among Third World nations.” The report reiterated, however, that nuclear proliferation in general necessitated an upgrade of the command, control, and communication capabilities of US forces, and identified the MILSTAR satellite communications system, designed to provide secure global command and control capabilities for nuclear war fighting, as an example of such an upgrade.<sup>19</sup>

Likewise, in February 1992, Secretary Cheney stated in the Defense Department’s annual report, “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.” US 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.”<sup>20</sup>

When SAC Commander General Butler testified before Congress in April 1992, he explained the role of nuclear weapons in missions against “rogue” nations. “A US nuclear deterrent force encourages non-proliferation, albeit within limits bounded by rational calculations,” Butler said, and added, “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.”<sup>21</sup>

Later the same month, Assistant Secretary of the Air Force John J. Welch told Congress that “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.”<sup>22</sup>

These changes were being incorporated into SIOP-93, but President Bush’s unilateral disarmament initiatives from September 1991 had removed US strategic bombers and Minuteman II intercontinental ballistic missiles (ICBMs) from alert. The move, which was accompanied by a decision to withdraw all tactical nuclear weapons from surface ships and attack submarines, and drastically reduce the weapons deployed in Europe, together with Soviet

**Non-strategic nuclear weapons “could assume a broader role globally in response to the proliferation of nuclear capability among Third World nations.”**

reciprocal steps, forced new changes in the SIOP. The changes were reflected in the JCS’s new Joint Strategic Capabilities Plan (JSCP) from 1992 that laid out the

military objectives for the nuclear war plan. However, the plan also directed military planners to re-target US nuclear weapons beyond Russia and China to other countries developing weapons of mass destruction.<sup>23</sup>

The nuclear cuts on both sides, combined with the new WMD mission, resulted in a rewriting of Annex C to the JSCP, which contains the targeting and damage criteria for the use of nuclear weapons. SIOP-93 was scheduled for completion in October

1992, but was rushed into effect four months early on 1 June 1992.<sup>24</sup>

However, even before SIOP-93 was implemented, Presidents Bush and Yeltsin agreed to new cuts in the arsenals. The deal was sealed at the Washington Summit Agreement in June 1992, which resulted in an updated NUWEP 92 and yet another rewriting of the JSCP Annex C, completed in the spring of 1993.<sup>25</sup> Along with additional guidance, this work resulted

**Key target data processing technologies “currently have no capability south of the equator,” a STRATCOM study concluded in March 1992. The report recommended development of a “global capability.”**

in a new nuclear war plan, the SIOP-94, in spring 1993.

Shortly before SIOP-94 was implemented, General Butler, the first Commander of STRATCOM when it replaced SAC, told *The New York Times*, “our focus now is not just the former Soviet Union but any potentially hostile country that has or is seeking weapons of mass destruction.”<sup>26</sup> Butler set up a new Joint Intelligence Center “to assess from STRATCOM’s operational perspective the growing threat represented by the global proliferation of weapons of mass destruction.”<sup>27</sup> Implementation of SIOP-94 coincided with the JCS publishing of the first version of the Joint Nuclear Doctrine (3-12) in April 1993.

### The “Living SIOP”

STRATCOM had already realized that US nuclear forces were ill-suited for nuclear war in Third World. Incorporating the Third World into the nuclear war plan was not just a matter of re-targeting the weapons. The Cold War focus on the Soviet Union and China meant that hardware and software had “typically been configured for the Northern Hemisphere only.” Key target data processing technologies “currently have no capability south of the equator,” a STRATCOM study had already concluded in March 1992. The report recommended development of a “global capability” by the late 1990s.<sup>28</sup> Furthermore, expanding nuclear deterrence to smaller and more diverse regional WMD contingencies meant that nuclear planners would be faced with rapidly changing guidance and requirements. The old war planning system was built

to handle updates over a matter of years, but nuclear deterrence in the post-Cold War era demanded changes on a monthly – sometimes even weekly – basis. The solution was the creation of a completely new nuclear war planning apparatus based on “adaptive planning,” a concept which has since been adopted in NATO nuclear planning as well.

Adaptive planning refers to the means by which nuclear planners can quickly execute selected or limited attack options against regions inside and outside Russia, using weapons otherwise assigned exclusively to the traditional SIOP plan.<sup>29</sup> STRATCOM set up a group of ten people in December 1992 and tasked them “to develop a flexible, globally-focused, war-planning process known as the Strategic War Planning System (SWPS).” The group, known as the Strategic Planning Study Group, developed what they called “a living SIOP,” a real-time nuclear war plan which could receive virtually instantaneous war fighting commands and upgrades. STRATCOM Commander General Butler described the new concept in an interview with *Jane’s Defense Weekly* in the spring of 1993:

*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.<sup>30</sup>*

The concept was approved in July 1993, the final SWPS report finished in October 1993, and the Living SIOP was implemented on 1 April 1994, coinciding with completion of SIOP-95.<sup>31</sup> Planning requirements examined went well beyond the core SIOP to include items like crisis planning and non-strategic nuclear forces.<sup>32</sup> The new SWPS will achieve initial operations capability in late 1998, and when completed in 2003,

will expand the US capability to incorporate the routine processing of WMD targets outside Russia in countries such as Iran, Iraq, Libya, and North Korea.<sup>33</sup>

Until recently, updating the SIOP was a major task, taking 14-18 months to complete. Even SIOP-94, completed in Spring 1993 after significant

**Dual capable aircraft, like the F-16 and F-15E the US Air Force currently deploys in Germany, Italy, Turkey, and the United Kingdom, will be incorporated into STRATCOM nuclear planning.**

reductions in target numbers following the break-up of the Soviet Union and the demise of the Warsaw Pact, took nearly 17 months.<sup>34</sup> The “living SIOP,” by contrast, is based on continuous analysis of guidance, forces and target changes, rather than a fixed plan, reducing the time for complete overhaul of the SIOP to six months.<sup>35</sup> Wholesale revision of an attack plan for a new enemy will now be possible in months.<sup>36</sup>

Regional nuclear contingencies, however, may involve only one or a few dozen nuclear weapons and not large strategic weapon systems at all. Moreover, in order to encompass all types of nuclear planning, the modernized SWPS erases the traditional distinction between strategic and tactical nuclear planning. Already in 1992, SAC Commander General Butler had emphasized that he wanted to see “a simplified process that makes no distinction between strategic and tactical mission planning,” and one of the requirements in the new SWPS is that the SIOP process “be able to plan for nonstrategic nuclear force employment.”<sup>37</sup> The new SWPS will achieve a preliminary theater support of non-strategic nuclear weapons planning by January 1998, and the goal is optimized adaptive planning within the theaters.<sup>38</sup> This includes consolidation of theater and strategic target construction and implementation of the Non-Strategic Nuclear Force planning capability.<sup>39</sup> As a result, nuclear Tomahawk land-attack missiles assigned to nuclear attack submarines and dual-capable aircraft, like the F-16 and F-15E the US Air Force currently deploys in Germany, Italy, Turkey, and the United Kingdom, will be incorporated into STRATCOM nuclear planning, albeit in coordination with the regional commanders.

The National Academy of Sciences recently recommended that adaptive planning be used to

alleviate the rigidity of the Cold War SIOP.<sup>40</sup> The Academy also recommended that “the US should announce that the only purpose of US nuclear weapons is to deter attacks on the United States and its allies, adopting no first use for nuclear weapons as official declaratory policy.”<sup>41</sup> However, it is adaptive planning itself that allows nuclear weapons

to take on a broader role against chemical, biological, and radiological weapons, with nuclear responses of a more limited nature and weapons that result in less collateral damage. Adaptive planning grants nuclear deterrence an aura of acceptability, and it is a central element of the “Living SIOP.”<sup>42</sup>

So the race is on for rapid planning capabilities – even faster than those required to change the overall SIOP plan – to allow planning for limited nuclear operations, such as those in regional contingencies against “rogue” nations, in a much shorter time. Work currently underway at the Air Force’s Rome Laboratory aims to provide planners with the capability to plan “critical nuclear options” in the SIOP “within days rather than months” and limited SIOP re-planning options “in less than 30 minutes.”<sup>43</sup>

One incentive is that a greater portion of future Russian strategic nuclear forces will be mobile, as will some Third World WMD targets. Another driver is that a greater geographical spread of limited target areas in different regional contingencies, combined with future reductions in the overall number of nuclear warheads in the arsenal, will increase the need to quickly shift assignment of a significant number of nuclear warheads from one theater to the other. Capabilities derived from what was previously called the Survivable Adaptive Planning Experiment, for example, are aimed at allowing SIOP generation in less than 24 hours and re-targeting of up to 1000 relocatable targets per day.<sup>44</sup> The result is that in addition to the core war plan (SIOP), STRATCOM must be prepared to provide a greater number of smaller, more flexible, adaptive options.<sup>45</sup>

### **The Nuclear Posture Review**

At the same time that this expansion of the capabilities and the role of US nuclear weapons was underway, six working groups were busily undertaking a major review of US nuclear policy and

force structure. Initiated in October 1993, the Nuclear Posture Review (NPR) was described as the most ambitious review of US nuclear weapons and nuclear planning in decades. The six working groups were to investigate:<sup>46</sup>

- the role of nuclear weapons in US security strategy;
- nuclear force structure and infrastructure;
- nuclear force operations and Command & Control;
- nuclear safety, security, and use control;
- the relationship between alternative US nuclear postures and counterproliferation policy;
- the relationship between alternative US nuclear postures and the threat reduction policy with the former Soviet Union.<sup>47</sup>

Assistant Secretary Carter was in charge of the NPR process, and at 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.” These were not popular opinions in a command like STRATCOM, whose very existence relied on nuclear weapons. Persuading such policy makers of a continued need and “wider role” for nuclear weapons would be, STRATCOM feared, “an uphill battle.”<sup>48</sup>

Yet, even “denuclearizers” like Carter did not rock the boat too much. The opposition to deep cuts and major changes was too great for Carter, and he soon ran his head against the military establishment. STRATCOM’s position was that “the basic role of nuclear weapons in US security policy had not changed with the end of the Cold War.” But after only four months work, the feeling within STRATCOM was that “the process in which it had put great faith had broken down.” General Admire, the acting co-chairman of the NPR, told Carter that he was “concerned with the process by which the NPR is being conducted.” When Carter proposed that the review should prepare recommendations for the new secretary of defense-designate, retired Admiral Bobby Inman complained to STRATCOM chief Admiral Henry G. Chiles, Jr., that it “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.”<sup>49</sup>

Following the Washington Summit Agreement in June 1992, STRATCOM had conducted a major force structure analysis to see which forces the US should maintain after START II. The final report, “Sun City,” investigated nine options, six of which were at the 3,500 accountable warhead limit, while the other three fell “well below” 3,500 weapons.<sup>50</sup> STRATCOM chose a “preferred force” and wanted the NPR to accept it, but a few weeks prior to completion of the NPR, STRATCOM realized that the preferred force was not even among the eight force structures under consideration within the NPR process. Admiral Chiles intervened and warned that, “all three legs of the Triad are at risk in the NPR.” Without a triad, the US would not be able to maintain a nuclear posture capable of deterring and, if necessary, defeating a resurgent Russia, while maintaining the flexibility to deal with potential threats from hostile regional powers.<sup>51</sup>

When the review was completed in September 1994, well after the first “Living SIOP” (SIOP-95) had been implemented, it was apparent that apart from a few more reductions little had changed. The Pentagon said it had changed the way it thinks about nuclear weapons and that it was reducing their role. However, after 55,000 man hours and 11 months of work – and without a written final report – 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. More importantly, the NPR reaffirmed the

**STRATCOM answered: “The US should preserve its options for responding to the situation by maintaining its current policy which does not preclude first use of nuclear weapons.”**

importance of nuclear deterrence to US security and supported the continued existence of a nuclear Triad.

Moreover, STRATCOM’s inclusion of regional WMD contingencies into the nuclear war plan was condoned, although initially somewhat halfheartedly by the NPR process. During the working group meetings, Carter’s special assistant and former

professor at the University of Maryland, Dr. Steven Fetter, argued repeatedly that nuclear weapons could only deter *nuclear* use or acquisition, although the effect on acquisition was “hotly” debated. No meaningful contribution, Fetter argued, was likely in deterring chemical and biological weapons of mass destruction.<sup>52</sup> Eventually, both Fetter and Carter were outmaneuvered by STRATCOM. Even the 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.<sup>53</sup>

In response to questions asked by the working groups on the role of nuclear weapons in counterproliferation efforts, however, 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 [Commanders-in-Chief]... 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.<sup>54</sup> Asked about the US response to WMD use, STRATCOM answered:

*The US 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 US should not rule out the preemptive first use of nuclear weapons. In addition, following the use of WMD, the US should again seek to preserve its options. The US policy should not require retaliation with nuclear weapons, but it should leave that option open as one of a complete spectrum of possible options.*<sup>55</sup>

Carter, however, was concerned that nuclear deterrence in WMD scenarios could have negative impact on the NPT regime and instructed the drafting

groups to suggest possible political, economical and conventional deterrence options that could complement the US nuclear posture.<sup>56</sup>

In the end, however, the counterproliferation working group sided with STRATCOM. Not only

### **Nuclear weapons featured prominently in counter-proliferation roles such as to “deter weapons of mass destruction acquisition or use.”**

did it accept STRATCOM’s broad nuclear deterrence vision, but it warned that deep reductions in US nuclear weapons might influence proliferators to decide to match US numbers or allies under US protection to reconsider their alternatives for defense.<sup>57</sup> Indeed, within the counterproliferation group there was “group *consensus* that [the] *full range* of nuclear options is desirable to deter proliferant nations,” and the majority wanted the “unique contribution of nuclear deterrence to counter-proliferation” to be “stated more forcefully.”<sup>58</sup>

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.<sup>59</sup> 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 US nuclear posture.<sup>60</sup>

In sum, STRATCOM probably could not have hoped for stronger backing. When the results were briefed to Congress in September 1994, nuclear weapons featured prominently in counter-proliferation roles such as to “deter WMD acquisition or use.” But these conclusions were largely deleted from the public record, as were several non-strategic nuclear weapons missions in support of counterproliferation scenarios.<sup>61</sup> Instead, the public conclusion was that the NPR had reduced the role of nuclear weapons.

### **The Silver Books**

Once the policy and doctrine were in place, the next step was to plan for it. STRATCOM was assigned to help regional commands draw up the plans for nuclear war with regional troublemakers.<sup>62</sup> But as late as December 1994, the overall responsibility for the counterproliferation mission had not yet been

assigned to a unified command.<sup>63</sup>

General Butler wanted to move STRATCOM “firmly into the counterproliferation mission.”<sup>64</sup> In April 1993, he testified before Congress that, at the request of the Chairman of the Joint Chiefs of Staff, he was “working with selected regional Unified Commands to explore the transfer of planning responsibilities for employment of nuclear weapons in theater conflicts.” He noted that this initiative could “save manpower and further centralize the planning and control” of US nuclear forces.<sup>65</sup>

However, planning for nuclear war with the Third World was a new development. A White Paper from October 1993 describes how STRATCOM “already has a role in countering weapons of mass destruction in the context of deterring their use by the Former Soviet Union.” Nevertheless, planners are now “focusing much of their thinking on developing a concept which can support both the civilian leadership and theater CINCs in planning for military counter-proliferation options against weapons of mass destruction” outside Russia.<sup>66</sup> “We also need to have a strategy to deter the more ‘undeterrable’ leaders such as Quadaffi and Saddam Hussein,” STRATCOM said.<sup>67</sup> One of the results of this effort was the creation of what were known as the Silver Books.

While there were many separate counter-proliferation efforts underway in the Pentagon, none addressed the full spectrum of WMD targets within the context of real US 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 on STRATCOM and it would give the armed forces a global capability to carry out the Department of Defense (DOD) counterproliferation policy.<sup>68</sup>

The Silver Books were plans for military strikes against 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.”<sup>69</sup> Targets included nuclear,

chemical, biological, and command, control and communications installations.<sup>70</sup>

In early 1994, the Weapons Subcommittee of STRATCOM’s SAG began analyzing target sets and weapons capabilities against representative Silver Book targets. The primary analysis centered on defeat mechanisms for chemical/biological and buried targets. A total of six facilities were analyzed using conventional, unconventional and nuclear weapons appropriate for the attack.<sup>71</sup> The focus was on fixed installations.<sup>72</sup> By April, the process had advanced enough that new STRATCOM chief Admiral Chiles 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.”<sup>73</sup>

**Targets included nuclear, chemical, biological and command, control and communications installations.**

By late 1994, a proposed Silver Book was ready for the European Command and a prototype was being developed for Pacific Command. STRATCOM briefed staff from the regional commands, and also briefed the Chairman of the Joint Chiefs of Staff, General John Shalikashvili.<sup>74</sup> STRATCOM officials argue that STRATCOM deserved a stronger role in the counterproliferation 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.<sup>75</sup>*

But reactions were mixed and the regional com-

mands did not approve of STRATCOM's plan to take control. As 1994 drew to a close, it became increasingly apparent that the counterproliferation mission would not be formally awarded to STRATCOM.<sup>76</sup> Then, in early 1995, the JCS ordered STRATCOM to drop the Silver Books project.<sup>77</sup>

Termination of the Silver Books and the subsequent decision by a Defense Acquisition Board review later in 1995 to develop only non-nuclear weapons for attacking hard and deeply buried targets appeared to be major setbacks for advocates of nuclear counterproliferation.<sup>78</sup> But STRATCOM was convinced that existing nuclear forces were to play a role in countering WMD, and termination of the Silver Book concept did not mean an end to the targeting of the Third World, but only that STRATCOM would not have overall authority for counterproliferation. Nuclear planning would be focused at STRATCOM but in coordination with the regional commanders and their planning staff. Nor did the death of the Silver Books project have any effect on the content of the JCS's updated Joint Nuclear Doctrine from 1995, which is virtually identical to the previous version from 1993. Regional nuclear war planning continued under other names.

### Third World Nuclear Planning Continues

The expansion in nuclear targeting was probably aided by the US decision to eliminate its chemical and biological weapons. In the cynical logic of deterrence, removing those weapons from the arsenal meant that the United States could no longer rely on a tit-for-tat response to attacks by chemical and biological weapons to deter "rogue" nations from using such weapons.<sup>79</sup> Other than the overwhelming conventional capability, the only "big stick" left in the US arsenal was the threat of nuclear weapons.

Yet deterring troublemakers was not necessarily the same as deterring the Soviet Union. In June 1994, while the NPR was still under preparation, the SAG produced a white paper on the future of nuclear forces which warned that the dynamics of deterring regional WMD threats were far from clear. Yet the paper nonetheless embraced that very role:

*Nor should we be quick to embrace the position that nuclear weapons should 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 US nuclear forces must bear the burden of proof for their argument. 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 of other weapons of mass destruction. 'Measured ambiguity' is still a powerful tool for the President trying to deter an intransigent despot.<sup>80</sup>*

Admiral Chiles later commended SAG for the document which was "particularly effective" in preparing the Silver Books and the NPR.<sup>81</sup>

Throughout 1995 and 1996, SAG continued to define the role of WMD in US nuclear deterrence. In April 1995, four months after the Silver Books were terminated and in the same month that the Clinton Administration reiterated its negative security assurances to non-nuclear-weapon states, the SAG Policy Subcommittee completed an in-depth review of deterrence against Third World proliferators. The review provided Terms of Reference other SAG subcommittees could use as a baseline "to expand the concept of Deterrence of the Use of WMD."<sup>82</sup>

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 Non-proliferation Treaty." The review warned that, "if we put no effort into deterring these [WMD] threats, they will be 'undeterrable' by definition."<sup>83</sup> Threatening what an adversary values most is essential, the review stressed, and here is the anecdote it used to demonstrate it:

*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.<sup>84</sup>*

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.<sup>85</sup>

The review strongly recommended ambiguity in US nuclear deterrence and used President Bush's

**The review added: "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."**

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 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 concluded, 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."<sup>86</sup>

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." Yet it also 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.<sup>87</sup> 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 STRATCOM completed its nuclear deterrence review for the post-Cold War era, it decided to test it on a potential WMD adversary. It chose Iran. During the fall of 1995 the Policy Subcommittee of SAG conducted an in-depth application of the weapons of mass destruction deterrence study.<sup>88</sup> The test coincided with a secret war game held in September 1995 in Washington, D.C., called the "Technology Initiatives Game (TIG95)." 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.<sup>89</sup>

STRATCOM, however, could not complete its in-depth study of Iran at the time, so it was deferred pending further coordination with Central Command. Instead, Admiral Chiles, requested that the subcommittee apply the deterrence theory to North Korea.<sup>90</sup>

The focus was on the regions, and in February 1996 regional nuclear counterproliferation was formally enshrined into nuclear doctrine when the JCS published its Doctrine for Joint Theater Nuclear Operations (Joint Pub 3-12.1). This document "translates" the overall joint nuclear doctrine from 1995 for use in regional scenarios such as in Europe, the Middle East and the Korean Peninsula. The emphasis on WMD is striking. Joint Pub 3-12.1 defines 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 concludes, are "the *primary* threat" in theaters.<sup>91</sup>

Nuclear war planning with the Third World, however, soon collided with the demand for further nuclear reductions beyond the START II treaty. In defining post-Cold War deterrence, the SAG subcommittee discovered that expanding the target base globally would be difficult if the number of nuclear weapons continued to decline. Basically,

there would not be enough operational nuclear weapons in the arsenal to cover Russia and China, as well as half a dozen regional troublemakers. So the subcommittee conducted a review of the reasons, the pros and cons, of reducing the number of accountable nuclear warheads below the 3,500 set by START II. It recommended against deeper cuts partly to maintain enough nuclear weapons for a "broader base to address WMD."<sup>92</sup>

Once an addendum to nuclear war planning, targeting WMD proliferators had become a challenge to the overall force structure. Deeper cuts under a START III agreement could only be achieved if the overall guidance was changed allowing for a reduc

### **While reducing the number of targets in Russia, the new Directive caught up with the expansion of nuclear targeting STRATCOM had already been conducting for years.**

tion in the number of Russian targets to be covered by the war plan.

However, reducing aimpoints within the different target categories was no longer enough; the number of categories themselves had to be cut. Consequently, in November 1997, President Clinton signed a new directive ordering the military no longer to target Russian conventional forces and industry but focus on destroying nuclear forces as well as the military and civilian leadership. Fighting – and winning – a protracted nuclear war against Russia would no longer be an objective. The new PDD replaced a nearly 17-year old directive signed by President Reagan in 1981 at the height of the Cold War.<sup>93</sup>

While reducing the number of targets in Russia, the new Directive caught up with the expansion of nuclear targeting STRATCOM had already been conducting for years. It ordered the nuclear planners to broaden the scope of targeting in China to include conventional forces and industry – the very categories it eliminated from the Russian target pool. Moreover, the secret directive is reported to have identified specific regional contingencies (such as Iran, Iraq, Libya, North Korea, and Syria) where US nuclear forces could be directed to respond to attacks by WMD in the future.

### **Credible Deterrence Means Credible Forces**

Adding the Third World to the target pool means upgrading weapon systems. The Navy is installing a new submarine launched ballistic missile (SLBM) Retargeting System (SRS) that will enable Trident submarines "to quickly, accurately, and reliably retarget missiles to targets" and "to allow timely and reliable processing of an increased number of targets."<sup>94</sup> The operational requirement for the SRS was defined in October 1989 (a month before the fall of the Berlin Wall). The program is being implemented in three phases, with phase III scheduled for completion in the 1998-2002 time frame. The end

result will help "reduce overall SIOP processing" time and "support adaptive planning." Trident submarines at sea will have a greater capability to attack fixed and mobile sites.<sup>95</sup> Although originally conceived to allow Trident

submarines to attack dispersed Soviet SS-24 rail-mobile and SS-25 road-mobile ICBMs, these technical improvements also provide new capabilities for dealing with new or mobile targets globally.

Similar developments are underway within the Air Force, which is spending more than \$4 billion on upgrading its Minuteman III ICBMs through 2001. Part of this upgrade entails equipping the missiles with the Rapid Execution and Combat Targeting system, which will provide "rapid message processing [and] rapid re-targeting."<sup>96</sup> When completed early next century, the program will "upgrade Minuteman to Peacekeeper-class accuracy... to hold at risk the hardest enemy targets."<sup>97</sup>

The Air Force is also upgrading its B-2 bombers for nuclear counterproliferation missions. Conceived as a purely nuclear strike platform against the Soviet Union, the B-2 is being given an additional conventional capability to justify maintaining the expensive program and to give the bomber a role in regional contingencies. Moreover, the B-2, which is being increased from 20 to 21 operational aircraft by upgrading a test plane to a fully operational bomber, will be a designated carrier of the Pentagon's newest nuclear bomb: the B61-11.<sup>98</sup> Because of the B61-11's enhanced earth-penetrating capabilities and low yield, it is likely to be the weapon of choice in

nuclear counterproliferation scenarios against “rogue” nations.

### The Nuclear Duck

The B61-11 program began in October 1993, one month after the Pentagon completed its Bottom Up Review (BUR). The BUR shifted the US strategic focus from the former Soviet Union to regional scenarios involving “rogue” nations armed with WMD. A request came from the office of the Assistant to the Secretary of Defense/Atomic Energy, which asked the Air Force to study the replacement of the aging B53 gravity bomb with a stockpile weapon.<sup>99</sup>

However, building nuclear weapons was not popular in the early 1990s. In 1992 and 1993 it was disclosed that the Department of Energy and the nuclear weapons laboratories were involved in work on designing mini-nukes specifically tailored for use against “rogue” nations. Subsequently, Congress decided in November 1993 – one month after the Air Force was asked to study the new bomb – to ban any “research and development which could lead to the production by the United States of a new low-yield nuclear weapon, including a precision low-yield nuclear weapon.”<sup>100</sup>

As a result, the B61-11 project (nicknamed “The Duck” because it has identical flight characteristics to the existing B61-7 bomb) was not submitted to the Nuclear Weapons Council (NWC) for approval. The Assistant Secretary of Defense for International Security Policy was concerned that Congress would not support it. However, in September 1994, the NPR recommended replacement of the old B53 and in November, the Congressional election changed committee chairmanship to one more favorably inclined to reopening the nuclear weapons production line. The Assistant Secretary of Defense “re-energized” the project with a strong recommendation that the effort be completed “before Congress changed again.”<sup>101</sup>

These events occurred at the same time that Deputy Secretary of Defense John Deutch presented the results of the NPR and assured the Congress that “there is no requirement currently for the design of

any new warhead that we can see.”<sup>102</sup> Deutch added that “almost all” nuclear modernization programs had been terminated.<sup>103</sup> Some remained. One of these was the B61-11.

Once the DOD was convinced that opposition in Congress had eroded, things moved fast. The project was submitted to the NWC, which approved it in February 1995. Briefings continued in Congress with approval following in July 1995. In August 1995 – less than a year after the Congressional election and only three months after the United States, together with the other parties to the NPT, had once more committed to pursue nuclear disarmament – the B61-11 program formally got underway.<sup>104</sup>

Target Sequence and Military Characteristics review for the new bomb was performed by an Environments Working Group to reflect its “unique requirements,” and planning for flight tests by the new bomb’s users, Air Combat Command and STRATCOM, got off the ground.<sup>105</sup> There was no time or money in the existing B-2 flight test program to develop a completely new weapon, so the B61-11 was developed with identical properties and interfaces to the B61-7, already certified for the B-52 and B-2 (Block 20) bombers. Consequently, the B-52 was added to the Air Force test flight program to reduce time and costs.<sup>106</sup> A total of 13 full-scale drop tests were performed in 1996, three in Alaska and 10 at the Tonopah Test Range in Nevada.<sup>107</sup> The B61-11

**A new submarine launched ballistic missile retargeting system will allow “timely and reliable processing of an increased number of targets.”**

passed its certification flight tests on 20 November 1996. Four complete retrofit kits were delivered to the Air Force in mid-December 1996. By the end of 1996, the new bomb was accepted as a “limited stockpile item” pending additional tests.<sup>108</sup> These were scheduled to include flight tests through July 1997.<sup>109</sup>

### The Nuclear Program At Work

The B61-11 apparently is not the only modified nuclear weapon in the pipeline. Under the Department of Energy’s Core Research and Advanced Technology Program Element Plans, scientists are busily researching “concept design studies, arising out of the experiences during the Gulf War that indicate potential military utility for types of nuclear weapons not currently in the stockpile.”<sup>110</sup>

Some of this work is taking place at Sandia National Laboratory where scientists are “examining changes to other B61 designs to add additional value to these systems for our military customers.” One of these efforts is the Bomb Impact Optimization System program, in which Sandia National Laboratory is investigating the feasibility of “modifying a B61 payload for use in a guided glide bomb for aircraft delivery against defended target complexes.” These efforts include analysis, design, model fabrication and testing, and ground and flight testing of a functional prototype.<sup>111</sup>

Other exotic design concepts stem from the emphasis on underground and deeply buried targets and the concern to limit the collateral damage from the use of nuclear weapons. These are all prime

**At Sandia National Laboratory scientists are “examining changes to other B61 designs to add additional value to these systems for our military customers.”**

features of the counterproliferation effort. Research contracts for 1997, outlined by the Defense Special Weapons Agency (DSWA), formerly the Defense Nuclear Agency, include adjusting Electromagnetic Pulse (EMP) data for nuclear weapons to allow war planners to assess wide-area, distributed target damages “inflicted by nuclear weapons’ EMP effects.” The project aims to lower the burst height of nuclear weapons EMP by two-thirds from the existing boundary of 100 km altitude to 30 km, and to revamp the capability to compute air and ground bursts EMP fields as well as shallow buried bursts. The project will also investigate alternatives to potential design modification and weapon delivery with the aim to “limit or minimize collateral damage” from the use of nuclear weapons. Models for using EMP to knock out blast and shock-hardened buried targets will be developed in order to “devise a new tool for PC-based weapon lethality prediction and target damage assessment [...for use by] USSTRATCOM and other regional commands... for their specific missions applications.”<sup>112</sup>

It is still too early to predict whether these exotic designs will mature into actual nuclear weapons modifications. But these and a wide range of other nuclear projects, are clear indicators that US nuclear weapons are here to stay.<sup>113</sup> And the expansion of

US nuclear doctrine is an increasingly prominent justification for new weapons.

**Libya: The First B61-11 Target**

Even before the B61-11 was accepted into the stockpile, its first potential target was already pronounced: Libya. Despite repeated assurances by Assistant Secretary Carter and Deputy Assistant Secretary Wallerstein that US counterproliferation efforts do not involve nuclear weapons, other US officials in 1996 identified Libya’s alleged underground chemical weapons plant at Tarhunah as a potential target for the B61-11.

“We could not take [Tarhunah] out of commission using strictly conventional weapons,” Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Programs Harold P. Smith, Jr., said in April 1996.<sup>114</sup> If there was a decision to destroy the plant, the B61-11 “would be the nuclear weapon of choice,” Smith said.<sup>115</sup> The

statement was given during a breakfast interview with reporters after Defense Secretary William Perry had told a Senate Foreign Relations Committee hearing on chemical or biological weapons that the US retained the option of using nuclear weapons against the Tarhunah plant.

Like the disclosure of the Silver Books, the remarks about targeting Libya caused widespread attention and the Pentagon quickly retreated from its nuclear sabre rattling. “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. Yet nuclear doctrine prevailed and Bacon had to keep the nuclear option open, adding that despite his denial, Washington did not rule out using nuclear weapons in response to a nuclear, chemical and biological attack on the United States or its allies.<sup>116</sup> Targeting or no targeting, Washington just didn’t want to talk about it.

However, the importance of the statement should not be lost; Libya is a party to both the NPT and the African Nuclear-Weapon-Free Zone (ANWFZ) Treaty. It signed the NPT in 1975 and has entered into nuclear safeguard agreements with the International Atomic Energy Agency. It is therefore a non-nuclear-weapon

state party to the NPT and thus falls within the group of nations the United States has pledged not attack with nuclear weapons. The United States has also signed protocol I of the ANWFZ, undertaking “not to use or threaten to use” a nuclear explosive device against any party to the Treaty. Libya became a target nonetheless.

### **Deterrence, the NPT and the Third World**

Privately, military and civilian officials in the Clinton Administration argue that planning for nuclear contingencies against non-nuclear NPT countries such as Iran, Iraq, Libya, North Korea and Syria is prudent, despite the apparent conflict with the Negative Security Assurance (NSA). According to the preamble to the US NSA “the United States believes that universal adherence to and compliance with international conventions and treaties seeking to prevent the proliferation of weapons of mass destruction is a cornerstone of global security.”<sup>117</sup> The United States interprets this reference to compliance with treaties concerning WMD as allowing it to opt out of its negative security assurance where a state, such as Libya, is believed to be manufacturing chemical weapons. Likewise, the US appears to have a similar interpretation of its commitment under the ANWFZ Treaty.

This interpretation, however, is flawed for several reasons. Negative Security Assurances are given in connection with the NPT, a treaty that relates to *nuclear* weapons. Thus, the issue of compliance must be evaluated in connection with that treaty. Moreover, the interpretation undermines the value of negative security assurances as a way of providing reassurance to non-nuclear-weapon states and as an important US tool to encourage universality of the Treaty itself.

The incident with Libya also raises the increasingly controversial issue of “first use” – whether it is acceptable or prudent for nuclear-weapon states to use or threaten to use nuclear weapons not just in retaliation for an attack by WMD, but also in pre-emptive strikes against facilities suspected of manufacturing WMD.

Planning for nuclear war in the Third World is completely out of tune with what the United States

is otherwise trying to accomplish. It is clear how the United States itself reacts when nuclear weapons are pointed at it. Why, then, does the Clinton Administration expect that other countries will act any differently? Targeting nuclear weapons at regional troublemakers will provide them with a justification to acquire nuclear weapons. By using nuclear weapons in this way, the United States is sending a message that nuclear weapons are important for achieving prestige in world affairs and for accomplishing military and political objectives. It also indicates that the nuclear powers have no intention of eliminating their nuclear arsenals, as required by the NPT.

Equally importantly, there is the question of whether nuclear counterproliferation has any meaning at all or if it merely results from the projection of Cold War nuclear thinking onto the post-Cold War era.

During the Cold War both sides claimed to deter each other. Yet both sides were also self-deterred because they realized that the global destruction resulting from nuclear war would cost more than either side could win. In post-Cold War regional contingencies, however, that important constraint is missing. In a conflict with a “rogue” state to which even nuclear destruction equals martyrdom, deterrence may not mean much. The behavior of leaders of such states may turn out to be far removed from the assumptions upon which US deterrence

### **Targeting nuclear weapons at regional troublemakers will provide them with a justification to acquire nuclear weapons.**

theory depends in order to work. A “rogue” state might gamble that the United States would never dare to use nuclear weapons even if a nuclear, chemical, or biological weapon was used against US troops, an allied country, or even a US city. Breaking the nuclear taboo would be impossible, and the small “rogue” state could come out as the small state bullied by the nuclear power.

On the other hand, as US planning against Third World targets continues, US decision makers may actually come to believe, albeit gradually, that using nuclear weapons could be “safe” if “collateral” damage was kept to a minimum. Controlled response would take on a new meaning. If regional nuclear

deterrence is to add the credibility that the existing nuclear posture has not been able to provide, then the new posture and strategy must indicate more willingness than the old to use nuclear weapons.

### **The Ever Expanding Weapons of Mass Destruction Threat**

Despite such fundamental unanswered questions, US nuclear planners are busy drawing up plans for nuclear contingencies in regional conflicts against “rogue” states. As a result, the scope of nuclear targeting seems to be set for constant expansion. In the words of the Defense Special Weapons Agency, the international environment “has now evolved from a ‘weapon rich environment’ to a ‘target rich environment.’”<sup>118</sup>

In the old days, WMD referred to nuclear weapons, since these were the weapons that destroyed en masse. But as the Cold War came to an end and Coalition Forces expelled Iraq from Kuwait in a display of New World Order values, the discovery of Iraq’s advanced clandestine nuclear weapons program propelled the decade old concern of nuclear weapons proliferation on to a new level. Iraq’s use of chemical-capable Scud missiles against Israel and Saudi Arabia, combined with allegations of Libyan chemical weapons ambitions just a few months later, elevated WMD to the status of a new threat to international security. With the former Soviet threat rapidly fading into the background, US military planners eagerly grabbed the new “enemy” and incorporated it into their nuclear planning.

When the first JCS Joint Nuclear Doctrine was published in 1993, the Terms of Definitions did not explain what WMD meant. But the text of the document talks about three types of “WMD, whether it be nuclear, biological, or chemical” weapons.<sup>119</sup> The updated version from 1995, however, clearly defines WMD as “weapons that are capable of a higher order of destruction and/or of being used in such a manner as to destroy large numbers of people.” Moreover, in an important addition to the “old” definition of WMD the new document adds “radiological weapons” to the list, so that WMD now consists of four types of weapons: nuclear, chemical,

biological, and radiological weapons.<sup>120</sup>

The ramifications of the ever-expanding WMD target terminology are endless. The most recent implication of adding radiological weapons to the list is a scenario in which the launch of a missile loaded with nuclear waste into a city or onto US forward deployed troops could potentially qualify for a nuclear response. This may be unlikely, but the inclusion of “radiological weapons” into the nuclear doctrine is a worrisome additional step in the pool of post-Cold War nuclear targets.

Where does it end? The post-Cold War trend is that each time a new crude weapon emerges somewhere on the radar screen, which qualifies on the Pentagon’s checklist as a WMD, that weapon may be added to US nuclear planning as a matter of routine. Clearly the implications deserve more debate and consideration than they have had to date, for along with inclusion into the stated nuclear doctrine

**With little informed opposition and public debate, the result is a nuclear doctrine that borrows heavily from Cold War nuclear thinking.**

comes actual nuclear planning. Adding radiological weapons to the list means that STRATCOM, along with US Regional Commands in Europe, the

Middle East and the Pacific, is investigating where the targets are and which US nuclear warheads and delivery vehicles should be designated to ensure destruction of the new targets in case of war.

### **Conclusion**

At the threshold of the post-Cold War era, less than a decade after the fall of the Berlin Wall, the proliferation of WMD has risen to the top of the international agenda. Fortunately, there are many tools to influence and counter proliferation. But nuclear deterrence, despite its superficially appealing logic, is not a useful tool. The most effective way of dealing with proliferation of WMD is to prevent countries from acquiring these weapons in the first place. Engaging in nuclear war planning against WMD proliferators is a step backward to old-fashioned Cold War deterrence that will lock the international community in nuclear antagonism and grant nuclear weapons an enduring status and utility in international affairs which, in turn, will undermine non-proliferation and nuclear disarmament.

The benefit of nuclear deterrence in counterproliferation is not as important as what can be gained by its absence. With the overwhelming US conventional capability, there is no need to draw up plans for nuclear war with the Third World. The Cold War vividly demonstrated how difficult it is to stop nuclear plans from escalating once they are set in motion.

The latest Presidential Decision Directive was drawn up by extremely small group, led by Special Assistant Bell of the National Security Council and the Assistant Secretary of Defense for International Affairs, Franklin Miller. There were no review and no panels, and, while the State Department reportedly was involved, the US Arms Control and Disarmament Agency was not consulted, an indication of the failure to consider properly the impact on non-proliferation efforts.<sup>121</sup> A reaffirmation of the commitments to non-proliferation and nuclear disarmament by removing chemical, biological, and radiological weapons and facilities from US war planning would be a more fitting post-Cold War measure.

Nevertheless, as the documents researched as the basis for this paper demonstrate, planning for nuclear war in the Third World has evolved significantly since the Gulf War. For nuclear planners, the logical conclusion of proliferation and the US renunciation of chemical and biological weapons is that nuclear weapons must now take over in deterring the acquisition and use of WMD. Behind a veil of military secrecy, planning has progressed virtually unopposed. With little informed opposition and public debate, the result is a nuclear doctrine that borrows heavily from Cold War nuclear thinking. President Clinton's Decision Directive of November 1997 permits this planning to continue.

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<sup>108</sup> Sandia National Laboratory, Statement by C. Paul Robinson, "Significant Recent Achievements," [n.d.] 1997, [n.p.]. Available on the SNL Internet Home Page, <http://www.sandia.gov>.

<sup>109</sup> Department of the Air Force, "B53 Replacement Program," briefing by Brig. Gen. James Richards, 28 September 1995, slide 9. Partially declassified and released under the Freedom of Information Act.

<sup>110</sup> Department of Energy, Office of Research and Inertial Fusion, "Core R&AT Program Elements (Detail)," [n.d.] approximately 1995, p. 3. Previously available on the DOE Internet Home Page. I am indebted to Andrew M. Lichterman with Western States Legal Foundation for bringing this document to my attention.

<sup>111</sup> Sandia National Laboratory, "Statement of C. Paul Robinson, "Highlights of Current Stockpile Support

Work," 10 April 1997. Available on the SNL Internet Home Page, <http://www.sandia.gov>.

<sup>112</sup> Defense Special Weapons Agency, "Statement of Work for Nuclear Electromagnetic Pulse (EMP) Phenomenology And Applications," 15 April 1997, pp. 1, 2.

<sup>113</sup> For ongoing nuclear weapons work, see: US Department of Energy, "Stockpile Stewardship and Management Plan (U)," 29 February 1996. Secret. Partially declassified and released under the Freedom of Information Act; and William M. Arkin, "What's 'New'?", *Bulletin of the Atomic Scientists*, November/December 1997, pp. 22-27.

<sup>114</sup> Robert Burns, "US-Libya," Associated Press (Washington, D.C.), 23 April 1996.

<sup>115</sup> "Nuclear Weapons Only Option for USA to Hit Buried Targets," *Jane's Defence Weekly*, 1 May 1996, p.3.

<sup>116</sup> Charles Aldinger, "US Rules Out Nuclear Attack On Libya Plant," *The Washington Post*, 8 May 1996, p. A32.

<sup>117</sup> US 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.

<sup>118</sup> Defense Special Weapons Agency, "Statement of Work for Nuclear Electromagnetic Pulse (EMP) Phenomenology And Applications," Spring 1997, p. 1.

<sup>119</sup> US Joint Chiefs of Staff, "Doctrine for Joint Nuclear Operations," Joint Pub 3-12, 29 April 1993, p. I-1. Released under the Freedom of Information Act.

<sup>120</sup> US Joint Chiefs of Staff, "Doctrine for Joint Nuclear Operations," Joint Pub 3-12, 15 December 1995, p. GL-2. The document is available on the Joint Chiefs of Staff's internet home page, <http://www.dtic.mil/jcs>.

<sup>121</sup> R. Jeffrey Smith, "Clinton Directive Changes Strategy on Nuclear Arms," *The Washington Post*, 7 December 1997.

## Appendix 1

### National Press Club Newsmakers Luncheon with General Lee Butler USAF, (ret.), Commander-in-Chief, United States Strategic Air Command (1991-92); Commander-in-Chief, United States Strategic Command (1992-1994).

#### *Question and Answer Session (transcript), 2 February 1998*

DOUG HARBRECHT (Moderator. National Press Club president and Washington news editor of *Business Week*): (Brief audio break) - [Do you think the US should consider using nuclear weapons in] Iraq or in response to any chemical or biological weapon threat?

GEN. BUTLER: At the risk of reiterating something I just said, I think it's worth reiterating perhaps in a slightly different context. I had the opportunity to go through this calculus. When I was the director of strategic plans and policy in the 1989 to '91 time frame, it was my direct responsibility to draw up the strategic objectives of our prospective war in the Persian Gulf, to imagine outcomes and to set war termination objectives.

At the very heart of that calculus was to imagine the prospect of using nuclear weapons. And I would point out to those of you here who might have read Colin Powell's memoirs that he goes through this himself in the latter stages of his book, because he was asked to imagine the kinds of targets in the Persian Gulf that might be struck with nuclear weapons. I share his reservations absolutely.

The first issue, of course, is the one that I posed in my remarks. If we rightfully abhor and condemn the resort to the use of a weapon of mass destruction, how is it we could possibly justify — we, the United States, a democratic society — ourselves stooping to such ends?

Number two, can you imagine the impact in a part of the world where we worked so assiduously for so many years to build our presence, to build support and credibility, of being the nation that used a nuclear weapon against Arab peoples? Only the second time in history that such a device had been used, and it would be the United States, and it would be in a part of the world where even today those actions raise powerful suspicions.

Secondly, what would — thirdly, what would have happened to the coalition? How painstakingly we worked to put together a coalition of some 30 nations from very disparate points on the ideological and cultural compass in order to provide the proper underpinnings of the international community for that war. Can you imagine the impact on that coalition if we, the United States, had used a nuclear weapon, even in response to the use of a weapon of mass destruction by the Iraqis? It would have been devastating.

There's the question of targets. If you were the target planner for the use of a nuclear weapon in the Persian Gulf, what would be your choice? Surely it would not be the city of Baghdad. Would you hold hundreds of thousands of people accountable for the acts of their leader? Would it be an Iraqi division in the far western reaches of that nation? You might be interested to know the calculation of how many tactical nuclear weapons it requires to bring even one division to its knees when it's spread over such a vast expanse.

What would have happened to the fallout from the blast? If you want to do maximum damage, you use a ... [inaudible]. How is it that the fallout patterns would have arrayed themselves beyond the borders of Iraq, perhaps even to the south if the wind had been blowing in that direction?

The real point of the exercise is that the United States has put itself happily in a position where it has no need to resort to weapons of mass destruction to respond to such provocation. We brought Iraq to its knees conventionally. We could have decimated that country. We could have occupied it as we did Japan and Germany at the end of World War II. We chose not to do that, but it was within our capacity to do so. And if we could do that in 1991, when they had the fourth-strongest army in the world and a significant air force, can you imagine the task

today when we've reduced all of that by at least two-thirds? It is wrong from every aspect. It is wrong politically. It makes no sense militarily. And morally, in my view, it is indefensible.

...

MR. HARBRECHT: General, it's widely believed that Israel not only possesses nuclear weapons but would use them if its survival depended upon them. Is Israel's reliance on its nuclear weapons in the dangerous Middle East ill-advised?

GEN. BUTLER: I think that it is a perfect illustration of the short-sightedness that tends to surround this issue of whether or not nations should acquire nuclear capability. What was it that prompted Iraq to try and acquire weapons of mass destruction, a nuclear weapon arsenal of their own? Could it have in any way been tied to the fact that Israel acquired such capability? And what of Syria or Iran? What of Libya?

These things have causes and they have effects. They're related. The circumstances in which nuclear weapons capability is created and sustained aren't static. As a consequence, in my view, it is dangerous in the extreme that in the cauldron of animosities that we call the Middle East, one nation has armed itself, ostensibly, with stockpiles of nuclear weapons, perhaps numbering in the hundreds, and that that inspires other nations to do so. And, of course, that's not the only regional conflict where we see this perilous confrontation.

I will tell you what I do think. I cannot imagine any regional quarrel or conflict that is or will be made easier to resolve by the presence or the further introduction of nuclear weapons.



## Appendix 2

### **“Essentials of Post-Cold War Deterrence”, US Strategic Command, 1995. Partially declassified and released under the Freedom of Information Act.**

*In 1995, the Strategic Advisory Group at STRATCOM prepared “Terms of Reference” as a baseline for expanding nuclear deterrence beyond Russia and China to take on a broader role including “rogue” states armed with weapons of mass destruction. The document, which was released to the author under the Freedom of Information Act, contains the conclusions of several years of thinking about the role of nuclear weapons in the post-Cold War era. Below are the key conclusions from the document:*

#### **Detering the Undeterrable**

For non-Russian states, the penalty for using Weapons of Mass Destruction (WMD) should not just be military defeat, but the threat of even worse consequences. Should we ever fail to deter such an aggressor, we must make good on our deterrence statement in such a convincing way that the message to others will be so immediately discernible as to bolster deterrence thereafter.

Leaders of “rogue” states armed with WMD are not undeterrable, contrary to what many people argue. Soviet leaders, by comparison, were not “rational” but deterrence worked against them nonetheless. The result of deterrence is never predictable and its degree of success will largely depend on the effort we put into it. This should be our guide to adapting the deterrence process for future threats. If we put no effort into deterring “rogue” states, they will be undeterrable by definition.

It will be necessary to communicate, specifically, what we want to deter without saying what is permitted. The will to deter against attacks on the homeland seems to be more credible than deterrence on behalf of others, and making deterrence “value-based” can help to be the great equalizer in blurring the distinction between an adversary’s use of a particular type of WMD. There are levels of damage or destruction that we find unacceptable whether caused by (or resulting from) nuclear, biological, chemical, or conventional armaments.

Deterrence should create fear in an opponent’s

mind of extinction – extinction of either the leaders themselves or their national dependence, or both. Yet there must always appear to be a “door to salvation” open to them should they reverse course. The fear should be compelling, but not paralyzing. Moreover, the US does not require the “ultimate deterrent” – that a nation’s citizens must pay with their lives to stop their national leaders from undertaking aggression.

#### **What to Deter With**

The United States should have available the full range of responses, conventional weapons, special operations, and nuclear weapons. Unlike chemical or biological weapons, the extreme destruction from a nuclear explosion is immediate, with few if any palliatives to reduce its effect. Although we are not likely to use nuclear weapons in less than matters of the greatest national importance, or in less than extreme circumstances, nuclear weapons always cast a shadow over any crisis or conflict in which the US is engaged. Thus, deterrence through the threat of use of nuclear weapons will continue to be our top military strategy.

#### **What to Target**

The deterrence plans must be country- and leadership-specific. Targeting should cover what the opponent values the most. But planners should not be too rational about determining what that includes. If the adversary’s values are misunderstood through “mirror-imaging,” deterrence is almost certain to fail. Targeting will cover the usual categories such as strategic weaponry (both deployed and in storage or production), other military capabilities, and war-supporting industry, along with national leadership.

#### **Maintaining Ambiguity**

While it is crucial to explicitly define and communicate the acts or damage that we would find unacceptable, we should not be too specific about

our responses. Because of the value that comes from the ambiguity of what the US may do to an adversary if the acts we seek to deter are carried out, it hurts to portray ourselves as too fully rational and cool-headed. The fact that some elements may appear to be 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 is the working force of deterrence. That the US may become irrational and vindictive if its vital interests are attacked should be a part of the national persona we project to all adversaries.

### **Creative Deterrence**

Beyond tradition targeting of forces and infrastructure it may be necessary to consider other unique motivators of either a society or its leaders. The tactic applied by the Soviet Union during the Lebanon crisis 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.

### **Declaratory Disarmament Policies**

Putting forward declaratory policies such as the “Negative Security Assurances” under the nuclear Non-Proliferation Treaty (NPT) creates serious difficulties for US deterrence policy in the post-Cold War era. It is a mistake to single out nuclear weapons from the remainder of other WMD and such piecemeal policies are not in the best interest of US long-term security.

Likewise, a no first use policy would undermine

deterrence in the post-Cold War era because it would limit US nuclear goals without providing equitable returns. Adversaries must be warned in the strongest ways possible, whether our reaction would either be responsive or preemptive.

### **Elimination of Nuclear Weapons**

There are critical differences between the BW/CW conventions and the NPT. While the former *outlaw* weapons, the NPT makes a distinction between the possession of nuclear weapons by the five original nuclear weapons powers and everyone else. Elimination of nuclear weapons should only be considered in the context of complete and general disarmament. Since it is impossible to “uninvent” nuclear weapons or to prevent clandestine manufacture of some number of them, nuclear weapons seem destined to be the centerpiece of US strategic deterrence for the foreseeable future.