

MORE WORK FOR THE WEAPONS LABS, LESS SECURITY FOR THE NATION

An Analysis of the Bush Administration's Nuclear Weapons Policy

A Report for Tri-Valley CAREs

by

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Tri-Valley CAREs (Communities Against a Radioactive Environment) is a Livermore, California-based 501(c)(3) nonprofit organization dedicated to increasing public knowledge of the relationship between peace, social justice and the environment, with a special focus on nuclear weapons and nuclear waste.

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TABLE OF CONTENTS

Introduction	1
Public Sources for the Administration's Nuclear Weapons Policy	3
Developing New and Improved Nuclear Weapons	5
Plans for Improving Nuclear Weapons	7
Plans for Developing New Nuclear Weapons	7
Plans for Completely New Nuclear Weapons Concepts	11
Preparing for a Return to Full-Scale Nuclear Testing	12
Making Phantom Reductions in the Nuclear Weapons Stockpile	15
The Administration Overstates its Planned Reductions in Nuclear Weapons	15
The Role of Missile Defense in the "New Triad"	17
Phantom Reductions Perpetuate the Arms Race and Increase Proliferation Risks	18
Assigning a Larger Role to Nuclear Weapons	20
Expanding the Infrastructure of the Nuclear Weapons Complex	22
Conclusions	24
Recommendations	25
Endnotes	26
Appendix A. Major Elements of the Nuclear Posture Review	28
Appendix B. Text of the Strategic Offensive Reductions Treaty	30
Appendix C. Acronyms and Abbreviations	32

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INTRODUCTION

On May 24, 2002, Presidents Bush and Putin signed a treaty agreeing to reduce the number of deployed strategic nuclear weapons in each nation. The Bush administration hailed the new treaty as a major reduction in nuclear tension. The proposed treaty, which requires Senate ratification, is a step in the right direction. However, the administration is using the proposed reductions to divert attention from its broader plans to increase reliance on nuclear weapons. Earlier this year, excerpts from the administration's "Nuclear Posture Review" (NPR) became available via official statements and unofficial leaks of classified information. That information revealed a dangerous shift in this nation's nuclear weapons policies.

According to Secretary of Defense Donald Rumsfeld, the new policies will reduce our dependence on nuclear weapons. However, a closer look reveals that the administration plans to develop new and improved nuclear weapons and to sanction their use for an expanded set of missions. The revised policies view nuclear weapons as just another military option, rather than a weapon of last resort. This way of thinking reduces the threshold for their use and makes the world a more dangerous place.

The National Nuclear Security Administration (NNSA) had a large role in preparing the Nuclear Posture Review and it was rewarded with a substantial increase in the workload and funding levels at its nuclear weapons laboratories and production complex. NNSA was established in 2000 as a semi-independent agency within the Department of Energy (DOE) to manage the nation's nuclear stockpile and to perform related activities. The Nuclear Posture Review calls upon the NNSA to improve existing nuclear weapons, to design and build new weapons, and to develop entirely new concepts for nuclear weapons. This is a fundamental change in policy from the previous posture of maintaining the safety and reliability of the existing nuclear stockpile. The misguided plans for producing new and improved nuclear weapons could compel the United States to abandon the moratorium on nuclear weapons tests and return to full-scale testing of nuclear weapons. Indeed, the NPR calls for the DOE/NNSA to take the first steps in a return to testing by upgrading the state of readiness at its nuclear test site in Nevada.

The NPR discusses the administration's plan to reduce the number of "operationally deployed strategic nuclear warheads" to less than 2,200 by 2012. President Bush committed the United States to achieving that level by signing the treaty with Russian President Putin. However, a closer look reveals the hollowness of that commitment. The treaty does not require either nation to destroy a single nuclear weapon -- they need only be removed from deployment. In addition, the treaty sets no limit on the thousands of non-strategic nuclear warheads in Russia and the United States. According to the NPR, when the proposed reductions are completed in 2012, the United States will have reduced the number of its deployed nuclear weapons from 7,300 to 3,200.

However, with the additional nuclear weapons in reserve, the U.S. will still have a total stockpile of 10,000 nuclear weapons -- about the same as it has today.

The Nuclear Policy Review calls for a massive expansion in the infrastructure of the DOE/NNSA nuclear weapons complex. Indeed, the NPR raises infrastructure itself to the level of a vital element of national security and gives the NNSA carte blanche to expand its laboratories and production facilities. The NNSA has seized upon this opportunity and has developed ambitious expansion plans that would return the nuclear weapons research, development, testing, and production complex to a Cold War footing. The NNSA's 2003 budget request for nuclear weapons programs is \$5.9 billion, which is one and one-half times the average annual spending (in constant dollars) on nuclear weapons during the Cold War. The NPR's ambitious plans for expanding the infrastructure of the weapons complex will require significant increases to that spending level.

The administration's new nuclear weapons policies are a misguided approach to national security and are likely to promote the proliferation of nuclear weapons. The new policies bequeath nuclear weapons a predominant role in U.S. security posture for the foreseeable future. By doing so, the administration is abrogating the United States' responsibility under the nuclear Non-Proliferation Treaty (NPT) to seek an end to the nuclear arms race and to pursue the elimination of nuclear weapons. Under the NPT, which is the most successful arms control agreement in history, 182 nations have promised not to develop nuclear weapons. If America ignores its commitments under that treaty, nations that have forsworn the development of nuclear weapons will have a convenient excuse to reject their NPT commitments. An important tool for controlling the spread of nuclear weapons will be lost. Furthermore, by treating nuclear weapons as just another military option, the administration lowers the threshold for their use. Such action makes it more likely that nuclear weapons will one day be used against the United States or its allies.

This paper examines five key elements of the Bush Administration's new nuclear weapons policies.

- Developing new and improved nuclear weapons;
- Preparing for a return to full-scale nuclear testing;
- Making phantom reductions in the nuclear weapons stockpile;
- Assigning a larger role to nuclear weapons; and
- Expanding the infrastructure of the nuclear weapons complex.

The Nuclear Policy Review also addresses administration policies regarding missile defense, command and control systems, and intelligence capabilities, but those subjects are beyond the scope of this paper.

PUBLIC SOURCES FOR THE ADMINISTRATION'S NUCLEAR WEAPONS POLICY

Significant aspects of the Bush Administration's policies regarding nuclear weapons have been revealed to the public. However, the official documents, which the administration has released, are glossed-over public relations versions of the full administration policy. Furthermore, details of how the administration plans to execute that policy have either not been decided or remain classified.

The key document that sets forth the administration's new nuclear policies is the report of the Nuclear Posture Review (NPR). The National Defense Authorization Act for Fiscal Year 2001 (P.L. 106-398) required the Secretary of Defense, in consultation with the Secretary of Energy, to "conduct a comprehensive review of the nuclear posture of the United States for the next 5 to 10 years" and to submit the report to the Congress in both classified and nonclassified forms. Secretary Rumsfeld submitted the classified version to the defense committees of the Congress on December 31, 2001 in a document that is 55 pages long. Unclassified information from the study was limited to a three-page foreword and a series of briefing slides, which DoD released on January 9, 2002.¹ The unclassified documents provided only a glossed over public relations version of its findings, while the rest of the report remained secret. The unclassified presentation included some additional information on the pledge that President Bush made on November 13, 2001 to reduce the number of U.S. operationally deployed strategic nuclear warheads to 1,700 - 2,200 by 2012. However, it contained little information regarding: "the role of nuclear forces in United States military strategy, planning, and programming; the policy requirements and objectives for the United States to maintain a safe, reliable, and credible nuclear deterrence posture; or the relationship among United States nuclear deterrence policy, targeting strategy, and arms control objectives," which were all required by the Congress. The administration has yet to release that information in unclassified form.

On February 14, 2002, Undersecretary of Defense, Douglas Feith, the Administrator of the National Nuclear Security Administration (NNSA), General John Gordon, and the Commander in Chief for the U.S. Strategic Command, Admiral James Ellis, appeared in open hearings before the Senate Armed Services Committee to discuss the Nuclear Posture Review. At that hearing, General Gordon provided information on the NNSA's plans for modernizing and improving nuclear weapons and for enhancing the infrastructure of the weapons complex. The witnesses also discussed the administration's plans for development and use of modified or new nuclear weapons to attack hard and deeply buried targets, such as command bunkers and buried stockpiles of chemical or biological weapons.

On March 9, 2002, the Los Angeles Times published an article based on information from a leaked version of the classified Nuclear Posture Review.² The article revealed administration plans to select potential targets for use of nuclear weapons against at least seven countries (Russia, China, Iraq, Syria, Libya, Iran, and North Korea). It also presented information from the NPR on the circumstances in which the United States might use nuclear weapons and the kinds of targets against which the U.S. might use them. Subsequently, Globalsecurity.org placed substantial excerpts from the classified NPR on its website.³ This document provides a great deal of

information about the administration's policies for targeting and use of nuclear weapons, as well as its policies for sizing the nuclear force and for developing and improving nuclear weapons. The administration has refused to comment on what it calls "selective and misleading leaks" from the NPR.

Another publicly available document is the NNSA's 2003 budget request to Congress.⁴ The budget includes funding requests and additional information regarding near-term implementation of many aspects of the Nuclear Posture Review.

Administration spokesmen have emphasized that the NPR is a statement of policy and not a plan. Thus, while the document discusses a need for nuclear strike capabilities against specific nations and the types of targets it must be able to destroy, the administration can deny that it has any plans to target nuclear weapons against specific nations or any plans to use them for a specific purpose. However, that is a distinction without a difference. A policy to use nuclear weapons under certain circumstances can quickly become a plan when those circumstances present themselves.

Nevertheless, it is clear that the NPR is something short of a plan. Most importantly, the President has not approved it. It was prepared by the DoD and the NNSA/DOE and transmitted to Congress by the Secretary of Defense. While President Bush was briefed on the NPR and he supported its major findings, the document itself does not have the authority of a Presidential Decision Directive (PDD). Furthermore, the NPR lacks many details, such as specific numbers and dates for moving warheads and delivery systems from their current status to their planned new status. The NPR does not have dates and numbers for scheduling the upgrades to weapons systems, which it endorses, nor does it have details about plans for developing new nuclear weapons. Such details would normally be specified in the secret Nuclear Weapons Stockpile Plan. The Atomic Energy Act requires the DoD and the DOE to prepare a Nuclear Weapons Stockpile Memorandum every year for the President's approval and signature. Once the President signs the document, it becomes the Nuclear Weapons Stockpile Plan. As far as we know, the Bush Administration has yet to issue its first Stockpile Plan. However, even after it is issued, it is unlikely that any information in it will ever be made public.

DEVELOPING NEW AND IMPROVED NUCLEAR WEAPONS

The NPR culminates a shift from "maintaining" to "improving" nuclear weapons that the Department of Energy has been making for the past decade in its goals for stewardship of the nuclear weapons stockpile. In 1993, shortly after the United States declared a moratorium on full-scale testing of nuclear weapons, the President and the Congress established the Stockpile Stewardship Program in the Department of Energy (DOE), with the goal of maintaining confidence in existing nuclear weapons, without full-scale nuclear testing. Over time, however, the DOE's approach has shifted from one of maintenance to one of thoroughly revamping and upgrading the nuclear weapons stockpile. The NPR calls upon the National Nuclear Security Administration, a semi-independent agency that Congress established within DOE in 2000, to improve existing nuclear weapons, to design and build new nuclear weapons, and to develop entirely new weapons concepts. Nothing in the proposed treaty with Russia to reduce the number of operationally deployed strategic nuclear weapons will affect any of those plans to develop new and improved nuclear weapons.

The new goal for Stockpile Stewardship is expressed in the NNSA's budget request for fiscal year 2003. That goal is, "Maintain and enhance the safety, security, and reliability of the Nation's nuclear weapons stockpile to counter the threats of the 21st Century." The idea of enhancing the stockpile was intentionally omitted from the goal when the Stockpile Stewardship Program was established in 1993 for two reasons. First, the existing stockpile was viewed as extremely safe and reliable and not in need of any changes. Second, it was widely believed that if major changes were made to nuclear weapons, without full-scale underground nuclear testing, there would be a significant risk that the modified weapons would be less safe and reliable than the well-tested versions they replaced. Neither of those reasons is any less true today.

The Bush Administration's rationale for upgrading the capabilities of the nuclear weapons stockpile is that the nation faces new threats for which it needs new nuclear weapons. According to the NPR, "New [nuclear weapons] capabilities must be developed to defeat emerging threats, such as hard and deeply buried targets (HDBT), to find and attack mobile and relocatable targets, to defeat chemical or biological agents, and to improve accuracy and limit collateral damage."⁵ The pursuit of these new capabilities is a misguided attempt to use nuclear weapons against terrorists or to use them to achieve limited war fighting objectives. Nuclear weapons are not well suited for either of those purposes.

The driving force for developing these new weapons is not coming from the military. The DoD has not defined a requirement for any new nuclear weapon to perform its missions. Rather, scientists at the NNSA's weapons development laboratories are leading the call for new nuclear weapons. Those scientists are driven by a need to justify ever increasing funding for their work.

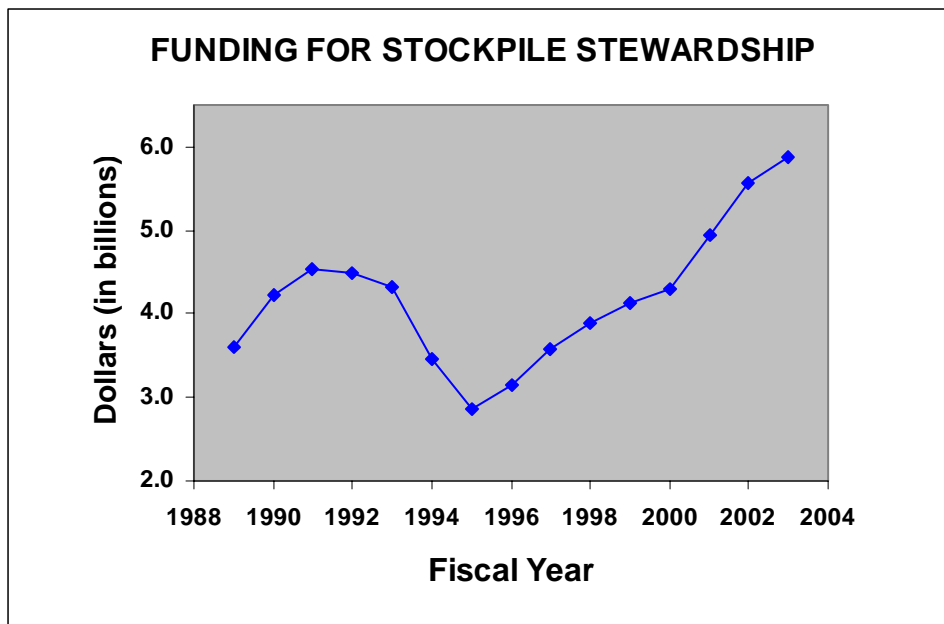
The first call for a new generation of nuclear weapons came in paper by Stephen Younger, then the head nuclear weapons designer at the Los Alamos National Laboratory. He recommended that the composition of our nuclear forces undergo significant modifications, "to respond to changing conditions, changing military needs, and changes in our confidence in our ability to maintain credible nuclear forces without nuclear testing."⁶ This was followed by a White Paper

on a New Nuclear Weapons Policy for the 21st Century by C. Paul Robinson, the President of Sandia National Laboratory. He called for the development of highly accurate nuclear weapons "in the low-kiloton regime, in order to contemplate the destruction of some buried or hidden targets, while being mindful of the need to minimize collateral damage."⁷

The NNSA weapons laboratories are very good at exploiting ongoing developments in the world and playing on policy makers' fears to expand their activities and to increase their budgets. During the Cold War, the NNSA weapons labs fanned the flames of the arms race and led the way to building an irrationally large nuclear weapons stockpile of over 30,000 weapons, with a new design added to the mix nearly every other year. When the Cold War ended and the U.S. declared a moratorium on full-scale testing of nuclear weapons, the weapons laboratories still managed to increase their funding by devising a massive Stockpile Stewardship program based on using huge experimental facilities and the world's fastest computers to model the behavior of exploding nuclear weapons, without full-scale nuclear testing. Now that the laboratories have improved their ability to model the effects of aging and other modest modifications to existing nuclear weapons, they find it more difficult to justify additional budget increases for the maintenance mission. Instead, they have begun to take advantage of the nation's concern about terrorism. To do that, the NNSA laboratories must reinvent nuclear weapons, which are extremely effective as agents of mass destruction, and make them into finely tuned weapons for use against small, but hard to reach targets that may harbor terrorists or their weapons. In other words, the NNSA wants to use a sledgehammer to kill ants.

Despite the end of the Cold War, the weapons labs have continued to obtain budget increases. The Bush Administration's 2003 spending request for the Stockpile Stewardship Program continues a massive upsurge in funding that has been underway since 1995. As shown in Figure 1, the 2003 budget request for Stockpile Stewardship (\$5.9 billion) is more than twice what

Figure 1



DOE spent in 1995 for that program (\$2.9 billion). Furthermore, even after accounting for inflation, the 2003 request is nearly one and one-half times the \$4.1 billion (in 2003 dollars), which is the average annual amount that DOE spent for research, development, and testing of nuclear weapons throughout the Cold War (1948-1991).

Plans for Improving Nuclear Weapons

The NPR calls for all eight types of nuclear warheads in the enduring stockpile to be "refurbished" over the next 25 years. Refurbish is a euphemism for completely rebuilding the warhead and replacing numerous components with redesigned and upgraded versions. Using this terminology, a 1993 Honda could be refurbished into a 2002 Porsche.

The NNSA's current and planned refurbishments include:

- Improving warhead structural integrity by modifying primaries, replacing non-nuclear components, and rebuilding some secondary components;
- Modifying the weight, balance, and guidance systems of warheads to improve their accuracy of delivery;
- Installing radically different systems for storing and injecting tritium gas into exploding nuclear weapon primaries;
- Replacing primary high-explosives;
- Installing new mechanisms to vary warhead yields;
- Revamping security and use control systems;
- Improving the ability of warheads to withstand nearby nuclear explosions;
- Installing newly designed neutron generators, which initiate the nuclear chain reaction;
- Installing new equipment to control the height above the ground at which the nuclear blast occurs; and
- Replacing numerous minor components, such as foam supports, cables, and connectors.

All of these changes are being applied to weapons that were well-tested and fully met all their performance requirements when they entered the stockpile and which the laboratories have annually certified to be safe and reliable since the certification program was established in 1996.

Plans for Developing New Nuclear Weapons

When asked whether the administration has plans to develop new nuclear weapons, spokesmen give answers such as, "At this point, there are no recommendations in the [NPR] report about developing new nuclear weapons"⁸ and "There is no design work on low-yield nuclear weapons."⁹ These statements are semantic exercises worthy of Bill Clinton's denial that he had sex with Monica Lewinsky.

There is no question that the NNSA is designing a new capability to attack hard and deeply buried targets (HDBT). The NNSA calls the new capability the "Robust Nuclear Earth Penetrator"

weapon and freely admits to working on it. What the administration disputes is whether it should call the work "development" and whether it should say that the weapon is "new" or "low-yield." We believe that the effort to design a Robust Nuclear Earth Penetrator does amount to the development of a new, low-yield, nuclear weapon.

The NPR clearly calls for the NNSA to design a nuclear weapon with low yield and the capability of penetrating the earth. It states,

With a more effective earth penetrator, many buried targets could be attacked using a weapon with a much lower yield than would be required with a surface burst weapon. This lower yield would achieve the same damage while producing less fallout (by a factor of ten to twenty) than would the much larger yield surface burst. ... One effort to improve the U.S. capability against HDBTs is a joint DoD/DOE phase 6.2/6.2A Study to be started in April 2002.

A "6.2/6.2A Study" is formally called a Design Definition and Cost Study. It is the second step in the development of a nuclear weapon and comes after a Concept Assessment (6.1). During the 6.2/6.2A Study, NNSA will perform experiments on design concepts for the weapon, will use computer models to simulate the performance of new designs, will identify the most promising option, and will estimate the cost for full development and production of the warhead. Historically, following a Design Definition and Cost Study, DOE and DoD have usually chosen the most promising design and proceeded to the next phase in the development of a nuclear weapon, which is Development Engineering (6.3). It takes a major stretch of the imagination to say that 6.2/6.2A activities are not weapons development.

Under the 6.2/6.2A Study for the Robust Nuclear Earth Penetrator weapon, each of NNSA's nuclear weapons design laboratories, the Lawrence Livermore National Laboratory (LLNL) in California and the Los Alamos National Laboratory (LANL) in New Mexico, plans to adapt the design of an existing nuclear weapon to be placed into a 5,000 pound rocket-propelled casing. That casing is currently used to deliver conventional explosives in an earth-penetrating mode. LLNL plans to adapt the existing B83 bomb to the new mission and LANL plans to use the design of the B61 bomb. Each of those nuclear weapons can be set to explode with several different yields, including at least one low-yield option.

The Robust Nuclear Earth Penetrator would be dropped from an airplane and the rocket engine would fire it into the earth at very high speeds, with the intent of penetrating dozens of feet into the ground before the nuclear explosion is initiated. Such a weapon would have to withstand much higher forces and temperatures than any existing nuclear weapon has been designed to endure.

While the NNSA plans to adapt the core components of existing weapons to achieve this capability, the adaptation will require detailed analysis of the nuclear performance of the modified weapon and it may entail major changes to nuclear components. Sandia National Laboratory is the primary engineering development laboratory for the nuclear weapons complex and designs most of the non-nuclear components for nuclear weapons. If the Robust Nuclear Earth Penetrator involved

only changes in nonnuclear components and did not require substantial analysis of the weapon's nuclear performance, Sandia would have been the lead laboratory for the Study, not the two design labs.

Several years ago, Sandia adapted an existing nuclear weapon, the B61 bomb, to fit into a new casing that would penetrate several feet into the earth under the force of gravity. Even though the changes required were much less demanding than is anticipated for the Robust Nuclear Earth Penetrator, many people consider that to be a new weapon, since even limited earth penetration is a new capability that no previous nuclear weapon possessed. The Robust Nuclear Earth Penetrator weapon will require significantly more changes to the existing warheads upon which it is being based than did the limited earth penetrator that Sandia adapted.

One reason that the administration denies it is developing a new low-yield nuclear weapon is that to do so could run afoul of the U.S. Congress. In 1993, because of concerns that a low yield nuclear weapon would blur the distinction between nuclear weapons and conventional weapons, Congress prohibited DOE from conducting any "research and development, which could lead to the production by the United States of a new low-yield nuclear weapon."¹⁰ Two years ago, Senate Republicans tried to get that prohibition removed. They were unsuccessful in removing it entirely, but did manage to get language included in the 2001 Defense Authorization Act that required NNSA and DoD to perform a study and report to Congress on options for the defeat of hard and deeply buried targets. That language gave NNSA the ability to do preliminary research on advanced earth penetrating nuclear weapons. However, the 2002 Defense Authorization Act prohibits NNSA from using funds "to initiate new weapons development programs" not approved by the Congress. Therefore, to continue the development of the Robust Nuclear Earth Penetrator, without directly confronting the Congress, NNSA must insist that it is neither a low-yield nuclear weapon nor a new nuclear weapon. Even the Administrator of the NNSA, Gen. John Gordon, realizes that it may be a stretch of the imagination to insist that the Robust Nuclear Earth Penetrator is not a new nuclear weapon. Gordon told defense reporters in Washington on April 2 that a repackaged nuclear payload would not necessarily violate the congressional ban, although he said it depends on the congressional intent behind the restrictions. "I wouldn't call it a new weapon, but some others might."¹¹

Another reason the NNSA denies it is developing a new nuclear weapon is that NNSA/DOE officials and experts from the nuclear weapons laboratories have repeatedly claimed over many years that they would not have sufficient confidence to certify that a new nuclear weapon could perform as it is intended to without full-scale testing of the new design. In the 1980s and early 1990s, they made that claim in an effort to keep the United States from halting full-scale tests of nuclear weapons. Later on, after the United States had ceased full-scale nuclear weapons tests, they repeated the claim in an effort to gain increased funds for the Stockpile Stewardship Program. Congress established the Stockpile Stewardship Program with a mandate to maintain (and not improve) the safety and reliability of the stockpile. The NNSA, therefore, needed to argue that the massive nuclear weapons research and development effort that it wanted to conduct in the name of Stockpile Stewardship was necessary to maintain the safety and reliability of the stockpile, but could not be used to develop new nuclear weapons without full-scale testing. While the Bush Administration is moving closer to a return to full-scale nuclear testing (as discussed in the next section), it still denies that it has plans for any full-scale tests. The NNSA must, therefore,

continue to deny that it is developing a new nuclear weapon, which its experts have previously declared would need full-scale nuclear testing.

The NNSA's plans to develop a new Robust Nuclear Earth Penetrator weapon are more likely to damage the national security of the United States than to improve it. Development of a new nuclear weapon is a flagrant rejection of U.S. commitments under the nuclear Non-Proliferation Treaty to end the arms race. Under the NPT, 182 nations have promised not to develop or acquire nuclear weapons and to open their peaceful nuclear energy activities to international inspection to assure other nations that they are honoring that pledge. In return, nations with nuclear weapons have pledged to seek an end to the nuclear arms race at an early date and to pursue nuclear disarmament under strict and effective international control. There have been a few notable failures of the NPT, but overall it has been the most successful arms control treaty in history. The NNSA's plans to develop a new Robust Nuclear Earth Penetrator weapon will complicate U.S. and international efforts to ensure that other nations are living up to their NPT commitments and could foster the spread of nuclear weapons to other nations.

The New York Times stated in its lead editorial on March 12, 2002, "If another country were planning to develop a new nuclear weapon ... Washington would rightly label that nation a dangerous rouge state." To the extent that the international community fails to prevent the United States from developing a new Robust Nuclear Earth Penetrator weapon, it will find it more difficult to prevent other rogue states from developing nuclear weapons of their own.

Development of a new Robust Nuclear Earth Penetrator weapon could also harm the security of the United States by lowering the threshold for use of nuclear weapons. Advocates for low-yield nuclear weapons argue that the massive destruction, which would result from the use of larger nuclear weapons, makes large nuclear weapons self-detering, i.e. no President would use them. They contend that defense planners need a full-spectrum deterrent. This argument misses the point that the U.S. national security is better served if nuclear weapons remain "self-detering." A high barrier to their use must be maintained to assure that they are used only in the gravest situations. Imagine the pressure to use nuclear weapons that would have been placed upon the first President Bush during the Gulf War if he had a Robust Nuclear Earth Penetrator at his disposal and knew that Saddam Hussein was hiding out in a fortified underground command bunker. The nuclear weapons genie has been put back into the bottle for nearly 60 years, since the United States dropped two nuclear bombs on Japanese cities. If the United States were to release the horror of nuclear weapons once again, even for a limited attack against a reviled enemy, there would be little hope that the genie could be locked up again for long.

In addition, whether one calls the Robust Nuclear Earth Penetrator a new weapon or not, it would most likely require several full-scale nuclear tests before the NNSA could certify that it is safe and reliable enough to enter the U.S. arsenal. A return to full-scale nuclear testing by the United States would serve a death knell to the Comprehensive Test Ban Treaty (CTBT) and further undermine international non-proliferation efforts. The administration's policy regarding nuclear weapons tests and its consequences for U.S. national security are discussed further below.

Plans for Completely New Nuclear Weapons Concepts

In addition to improving existing nuclear weapons and developing new weapons, the administration wants to examine concepts for radically different kinds of nuclear weapons that do more than just explode. The NPR directs the NNSA to investigate so-called "advanced nuclear warhead concepts."

Advanced concepts that DOE/NNSA has examined in the past include:

- Electromagnetic Pulse (EMP) warheads, which might be able to destroy all electric power networks and modern electronic components within hundreds of miles of a high atmospheric blast;
- High radiation or "neutron bombs," which would be effective at killing people, but which would do little damage to structures or property;
- Nuclear tipped anti-ballistic missile warheads; and
- Nuclear powered optical or X-ray lasers, which might be able to shoot damaging beams at satellites, airplanes, missiles, or targets on the ground.

The NNSA plans to establish advanced concepts teams at each of the nuclear weapons laboratories and at DOE Headquarters. According to General Gordon, the work of those teams "could include extending concepts that have been developed and tested, but not yet deployed, as well as new concepts. ... These activities would proceed beyond the 'paper' stage and include a combination of component and subassembly tests and simulations to introduce an appropriate level of rigor."¹²

The development of advanced concepts for nuclear warheads represents a complete abdication of arms control in favor of an unconstrained arms race, even though it is not clear with whom the United States is racing. The facts that DoD has not established any military requirements for these advanced concept weapons, that development of such weapons would require extended programs of multiple full-scale nuclear tests, and that such a program could rekindle an all out arms race with Russia or China and encourage the proliferation of nuclear weapons in other nations, do not seem to dissuade the NNSA from its interest in pursuing these new types of horrifying weapons.

PREPARING FOR A RETURN TO FULL-SCALE NUCLEAR TESTING

While insisting that it has no plans to test a nuclear weapon, the Bush Administration is moving ever closer to a return to full-scale testing of nuclear weapons underground in Nevada. Since the United States ceased full nuclear weapons tests in 1992, the DOE has maintained personnel and facilities at its Nevada Test Site in a state of readiness that would allow it to conduct a full-scale test within 24-36 months from a decision to do so. The NPR requires NNSA to shorten this time by adding personnel and equipment at the test site. The NPR also instructs NNSA/DOE to exercise its testing capabilities by conducting additional experiments at the test site, including subcritical experiments. In a subcritical experiment, the test object might release some nuclear energy, but it stops short of sustaining a nuclear chain reaction. The NNSA's budget for 2003 request's \$15.5 million to shorten the test readiness posture and indicates that additional funds may be needed.

The administration has not yet announced the time period for its new test readiness posture, but there have been reports that it is going to be one year or less.¹³ A congressional advisory panel, composed primarily of former officials of the U.S. weapons program, recently recommended "the administration and Congress support test readiness of three months to a year, depending on the type of test."¹⁴

The administration claims that it needs to shorten the test readiness time in case a problem arises with a warhead currently in the stockpile, which it cannot resolve without a full-scale nuclear test. However, that claim does not make sense. The readiness posture at the Nevada Test Site is not the pacing item that would determine how long it would take to conduct a nuclear test for a problem with a weapon in the stockpile. Before the weapons laboratories could conduct such a test, they must decide what it is that they want to test and then design and produce the test object. When the United States was conducting full-scale nuclear weapons tests, it took about two to three years for the weapons laboratories to design each test and to produce the test object. The current test readiness time was purposely set at 24-36 months so preparations at the test site would not delay a test that had to be devised to examine or fix a problem with the stockpile.

What then is the administration's real reason for wanting to shorten the test readiness time? Two sinister possibilities come to mind. It may be purely a political gesture to demonstrate distain for the current moratorium on nuclear tests, without yet crossing the Rubicon of a return to full-scale nuclear weapons tests. Even more sinister, it may be part of a plan to break out of the test moratorium with as little advance notice as possible. Under a possible breakout scenario, the laboratories could secretly design and produce a test object for an experiment that they want to perform or to test a new weapon design. The preparation for such a test at the test site could be made to look like part of the readiness program, until just before the test was ready to be performed. In that way there would be very little advance notice before the United States conducted a full-scale nuclear weapons test.

There is ample reason to question the administration's motivation for enhancing its readiness to conduct nuclear weapons tests. The administration opposes the CTBT, but says that it supports continuing the U.S. moratorium on full-scale nuclear weapons tests. Such a position is illogical,

since it constrains the United States, but does not constrain other nations. The CTBT has extensive provisions that would improve the ability of the United States to determine if any other nations were testing. Furthermore, the CTBT would allow the United States or another nation to withdraw from it and conduct a test if it is in the supreme national interest of that nation to do so. A position in favor of a testing moratorium, but opposed to the CTBT, makes sense only if support for the moratorium is conditional and the administration wishes to retain the unconstrained ability to test if it so desires. Indeed, that is what the administration says it wants.

According to the NPR,

While the United States is making every effort to maintain the stockpile without additional nuclear testing, this may not be possible for the indefinite future. ... Increasingly, objective judgments about capability in a non-testing environment will become far more difficult. Each year the DoD and DOE will reassess the need to resume nuclear testing and will make recommendations to the President.

In other words, the two-part policy of this administration is:

1. We will not conduct a full-scale nuclear weapons test unless we want to, and
2. We may want to soon.

The NPR's claim that "the United States is making every effort to maintain the stockpile without additional nuclear testing" is not true. As discussed above, the NNSA is making substantial modifications to every nuclear weapon in the enduring stockpile. It is imprudent to modify nuclear weapons that have been tested and shown to be safe and reliable and to meet all of the DoD's performance specifications. The more extensive the modifications, the more likely that the administration will want to test the refurbished weapons to insure that they are still safe and can meet the new specifications. If the administration truly wanted to make every effort to maintain the stockpile without additional nuclear testing, it would not make any changes to the well-tested designs of existing warheads. Rather, it would expand its program of monitoring and performing non-nuclear tests on the stockpile to determine if there have been any changes to any weapons components. When it identifies changes that might adversely affect the performance of a warhead, the NNSA would replace the affected component with a new one of the original design. Such an approach to maintaining the nuclear weapons stockpile would be cheaper and more reliable than the NNSA's current approach. In addition, it would not lead to an inevitable return to full-scale nuclear weapons testing and would support efforts at controlling the proliferation of nuclear weapons.¹⁵

The administration's plans to design and build new nuclear weapons, such as the Robust Nuclear Earth Penetrator, and to develop entirely new weapons concepts are further proof that it is purposefully moving closer to a return to full underground testing of nuclear weapons. As discussed above, the NNSA will most likely have to perform at least one full-scale test before it can be sure that a Robust Nuclear Earth Penetrator is able to meet its stringent performance requirements. NNSA would need to conduct several full-scale nuclear tests before it could incorporate a new concept into a nuclear weapon.

A resumption of full-scale nuclear weapons tests would decrease U.S. national security and undermine U.S. and international non-proliferation efforts. It would also destroy the prospects for eventual passage of the CTBT. Other nations would no longer be constrained from conducting their own nuclear weapons tests. Nations that already have nuclear weapons, including Russia, China, India, and Pakistan, would feel compelled to test and would seize the opportunity to improve the capabilities of their nuclear weapons. Once the nuclear states return to testing, the world could lose whatever moral suasion it now holds over nations that do not have nuclear weapons, but want to pursue their development.

MAKING PHANTOM REDUCTIONS IN THE NUCLEAR WEAPONS STOCKPILE

The Administration Overstates Its Planned Reductions in Nuclear Weapons

On November 13, 2001, President Bush announced, "The United States will reduce our **operationally deployed strategic** [emphasis added] nuclear warheads to a level between 1,700 and 2,200 over the next decade." This is a carefully worded statement, in which each word in bold limits how many nuclear warheads are counted. This is a phony counting system worthy of Enron's accountants. President Bush prevailed upon Russia to adopt this counting system in the proposed new treaty to limit the number of operationally deployed strategic nuclear warheads in each nation to 2,200 in 2012. Since President Bush's pledge and the proposed treaty with Russia limit only deployed nuclear warheads, neither country will have to destroy a single warhead. They need only take them off operationally deployed systems. Furthermore, each country can deploy an unlimited number of non-strategic nuclear weapons.

The Bush Administration has said it will dismantle some of the nuclear warheads it removes from deployment, but it has yet to identify how many warheads it plans to dismantle. When all of the reductions called for in the NPR, or required by the proposed treaty with Russia, are completed, the total U.S. nuclear weapons stockpile is likely to remain close to today's figure of 10,700 warheads (see Table 1). Of that total, as many as 3,200 nuclear warheads will remain deployed with their delivery systems. The Bush accounting system fails to count 800 of those deployed warheads, because they are "non-strategic." It also fails to count an additional 200 warheads from two submarines that are expected to be in port for repairs at any given time.

Beyond the 3,200 deployed nuclear weapons, an additional 1,800-2,300 warheads will be maintained in full readiness under the Bush plan as part of a total "active stockpile" of about 5,000 warheads. The active, but non-deployed warheads, will be part of a new "responsive force" that could be loaded onto delivery systems in times ranging from hours to weeks. Up to 5,700 additional warheads will remain in the "inactive stockpile." Warheads in the inactive stockpile are fully functional, except that their tritium reservoirs have been emptied or removed. Warheads from the inactive stockpile could be loaded with tritium in a matter of hours or days and would be ready for use as soon as they could be mated to a delivery system. The administration has stated that some of the warheads from the inactive stockpile will be dismantled, but it has not identified how many or which ones they would be. In any event, the dismantlement of a small portion of the 5,700 inactive warheads would not make a significant difference in the overall stockpile of approximately 10,000 nuclear weapons.

The NPR calls for a smaller cutback to even the administration's restricted category of operationally deployed strategic nuclear warheads than was previously planned. The administration plans to retain 3,800 operationally deployed strategic warheads in 2007 on the way to 1,700-2,200 warheads in 2012. In January 1993, the first President Bush and Russia's President Yeltsin signed the START II Treaty in Moscow. That treaty required the United States to reduce the number of its deployed strategic nuclear warheads to 3,500 by 2003 and for Russia to achieve a

somewhat smaller figure. Using the current administration's terminology, the U.S. commitment under START II was equivalent to about 3,200 operationally deployed strategic nuclear warheads. In March 1997, President's Clinton and Yeltsin agreed to extend the deadline for the START II reductions to 2007. While START II has not entered into force,¹⁶ both the U.S. and Russia were on a schedule that could achieve the START II levels of operationally deployed strategic nuclear warheads in 2007. The administration's new plan for 2007 would allow for 600 more operationally deployed strategic nuclear warheads than President Bush's father believed was needed as far back as 1993 and would slow down the reductions planned by the Clinton administration.

Table 1

CURRENT AND PROJECTED NUCLEAR FORCES*

(Estimates rounded to the nearest hundred)

<u>Category of Forces</u>	<u>2002 Actual</u>	<u>2007 Bush Plan</u>	<u>2007 START II</u>	<u>2012 Bush Plan</u>
Operationally deployed strategic warheads	6,200	3,800	3,200	1,700-2,200
Strategic warheads for submarines in overhaul	<u>300</u>	<u>300</u>	<u>300</u>	<u>200</u>
Subtotal deployed strategic warheads	6,500	4,100	3,500	1,900-2,400
Deployed "non-strategic" warheads	<u>800</u>	<u>800</u>	--	<u>800</u>
Subtotal deployed warheads	7,300	4,900	--	2,700-3,200
Responsive force and spares	<u>700</u>	<u>2,000</u>	--	<u>1,800-2,300</u>
Subtotal active warheads	8,000	6,900	--	5,000
Warheads maintained in the inactive stockpile	<u>2,700</u>	<u>3,800</u>	--	<u>5,700</u>
Total warheads in U.S. nuclear stockpile	10,700	10,700	--	10,700

* Based on information in the Nuclear Posture Review and in *Faking Nuclear Restraint: The Bush Administration's Secret Plan For Strengthening U.S. Nuclear Forces*. Natural Resources Defense Council. NRDC Backgrounder. Feb. 13, 2001. www.nrdc.org/media/pressreleases/020213a.asp

According to the NPR, the DoD will reduce its operationally deployed force of nuclear weapons to 3,800 in 2007 by eliminating Peacekeeper ICBMs, removing four Trident submarines and their missiles from strategic service, and removing some of the warheads from the missiles on the remaining Trident submarines and from Minuteman III ICBMs and B-52H and B-2 bombers. However, the NPR does not say which strategic warheads the administration plans to remove from operational deployment in going from 3,800 warheads to 1,700-2,200. It merely states that subsequent reductions "can be achieved through a variety of methods. The precise method will be determined in the course of periodic reviews the Department [of Defense] will conduct beginning in 2003." In other words, the 1,700-2,200 level is only a goal, not a plan. The proposed treaty

with Russia could provide some formal commitment to that goal. However, the treaty expires on the last day of 2012, the same day that the limit of 2,200 operationally deployed strategic nuclear weapons is supposed to be reached. In addition, either party can withdraw from the proposed treaty with three months notice.

Furthermore, the goal of reducing the stockpile to 1,700-2,200 operationally deployed strategic nuclear warheads is not new. As far back as 1997, President's Clinton and Yeltsin announced their intent to seek agreement on a START III Treaty limiting the number of warheads in each of their nations to (using the NPR's definitions) about 1,800-2,300 operationally deployed strategic nuclear warheads. Unlike the treaty that President's Bush and Putin just concluded, that agreement was also to require each side to dismantle thousands of warheads. Unfortunately, it was never finalized.

The Role of Missile Defense in the "New Triad"

A key feature of the NPR is its establishment of a "New Triad" for the security of the United States. Previously, the term triad referred to three basing modes for nuclear weapons -- land-based, sea-based, and air-based. That triad provided redundant capabilities, which would be difficult for an adversary to attack and destroy simultaneously. The original strategic triad retains its full effectiveness as a deterrent to nuclear attack. Nevertheless, the administration has defined a New Triad that consists of:

- Offensive strike forces (both nuclear and non-nuclear);
- Defenses (including missile defense); and
- A revitalized defense infrastructure.

According to Defense Secretary Rumsfeld,

The establishment of this New Triad can both reduce our dependence on nuclear weapons and improve our ability to deter attack in the face of proliferating WMD [weapons of mass destruction] capabilities.¹⁷

A full discussion of the role of defenses (including missile defense) is beyond the scope of this paper. We must, however comment on the absurdity of the administration's claim that a missile defense will help enable its planned reductions in nuclear weapons. Undersecretary of Defense, Douglas Feith, made that claim when he stated,

As those [missile defense] capabilities come up, our ability to perform strategic missions and secure the country using offensive weapons can come down. And that's the concept. I mean we are dramatically reducing our dependence on offensive nuclear weapons as the basis for our strategic security.¹⁸

With this statement, we are being asked to believe that having a missile defense system is somehow necessary to enable the United States to reduce its arsenal of operationally deployed

strategic nuclear weapons. According to the most optimistic projections, the proposed missile defense will be able to defend against an attack from only 10 or 20 nuclear missiles. Thus, by some absurd reasoning, the Administration claims that having an ability to knock out 10 to 20 nuclear missiles is necessary to enable it to reduce the number of deployed strategic nuclear weapons by 4,000 warheads.

The administration touts the New Triad as a major shift in planning for America's strategic forces. Administration spokesmen also point to our new friendlier relationship with Russia as a major element in this shift. According to Undersecretary Feith, "We are not sizing our nuclear forces against the Russian threat as was done during the Cold War."¹⁹ The NPR has numerous other references to a friendlier relationship with Russia. Those references might lead one to think that the administration believes it no longer needs large numbers of nuclear weapons to counter Russian nuclear forces. Yet, as the new proposed treaty with Russia limiting the number of operationally deployed strategic nuclear weapons demonstrates, the administration's plans for sizing the U.S. nuclear force are clearly determined with Russia in mind. There is no other conceivable reason for retaining a force as large as 3,800 operationally deployed strategic warheads in 2007 and 1,700-2,200 in 2012. The administration denies that it is planning its nuclear force for parity with the Russian force, but it gives no other specific rationale for the numbers.

In sum, despite its denials and the establishment of a "New Triad," the administration continues to plan the size of the deployed strategic nuclear weapons stockpile on anticipated mutual reductions in nuclear weapons with Russia. It is completely fraudulent to give credit to a missile defense system for contributing to those reductions.

Phantom Reductions Perpetuate the Arms Race and Increase Proliferation Risks

Even if the Bush Administration reduces the number of operationally deployed strategic nuclear warheads, as promised, its plan to retain large numbers of nuclear weapons in reserve is phantom disarmament. Combined with its plans to upgrade every nuclear weapon in the U.S. inventory, to pursue a ballistic missile defense, and to revitalize the nuclear weapons production infrastructure (discussed further below), the NPR is a roadmap for continuing the arms race in direct contradiction to U.S. commitments under Article VI of the nuclear Non-Proliferation Treaty.

Article VI of the nuclear Non-Proliferation Treaty requires that:

Each of the Parties to the treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

Nations party to the NPT, which don't have nuclear weapons and have pledged under the treaty not to acquire them, have become increasingly restive since the end of the Cold War. They believe the U.S. and Russia are not moving fast enough to meet their obligations under Article VI.

The concerns of some non-weapons states threaten to collapse the entire non-proliferation regime. The Nuclear Posture Review is certain to fan the flames of those who see the U.S. as reneging on its NPT commitments. It could move the Non-Proliferation Treaty closer to collapse.

Quite apart from its potential to bring down the NPT, the Bush plan to maintain a large stockpile of non-deployed nuclear weapons represents a proliferation risk in its own right. Stockpiled warheads are attractive targets for terrorists or other groups that would like to obtain a nuclear weapon. A study last year by the Project on Government Oversight (POGO)²⁰ found government documents highlighting security problems at 10 major nuclear weapons facilities. Based on their findings, Massachusetts Congressman Edward Markey warned in a letter to the Energy Department that "terrorist commandos could gain access to weapons-grade nuclear material and rapidly construct and detonate nuclear weapons because of grossly inadequate security at many of the nation's nuclear weapons research facilities."

If the United States continues to keep a stockpile of nuclear weapons in reserve, Russia is sure to do the same. There are problems with security within the U.S. weapons complex, but they are small compared to the inadequate security at Russian nuclear facilities. The economic and political collapse of the Soviet Union created a formidable challenge to keeping its nuclear weapons and materials under adequate control. Individuals and groups have attempted to steal uranium or plutonium from Russian facilities dozens of times during the past ten years. In several incidents, a kilogram or more of weapons-usable material has been stolen or disappeared.²¹ In January 2001, a bipartisan task force chaired by former Senate majority leader, Howard Baker, and former White House counsel, Lloyd Cutler, concluded:

The most urgent unmet national security threat to the United States today is the danger that weapons of mass destruction or weapons-usable material in Russia could be stolen, sold to terrorists or hostile nation states, and used against American troops abroad or citizens at home.²²

The Bush Administration's phantom reductions in nuclear weapons will assure that this national security threat remains unchecked.

ASSIGNING A LARGER ROLE TO NUCLEAR WEAPONS

The administration's new policies abandon the concept that nuclear weapons are instruments of last resort. Instead, they integrate plans for the use of nuclear weapons with conventional weapons, thereby opening the way for the United States to use nuclear weapons for a variety of purposes against any enemy. That is a dangerous expansion of the role for nuclear weapons.

Administration statements that call for integrating the use of nuclear weapons with conventional means include:

"Within the New Triad, nuclear forces will be integrated with, rather than treated in isolation from, other military capabilities."²³

"Composed of both non-nuclear weapons and nuclear weapons, the strike element of the New Triad can provide greater flexibility in the design and conduct of military campaigns to defeat opponents decisively."²⁴

"Linking nuclear forces to multiple defense policy goals, and not simply to deterrence, recognizes that these forces, and other parts of the new triad, perform key missions in peacetime as well as in crisis or conflict."²⁵

The NPR gives a number of specific circumstances in which the United States might use nuclear weapons including:

"... an Iraqi attack on Israel or its neighbors, a North Korean attack on South Korea, or a military confrontation over the status of Taiwan.

... the emergence of a new, hostile military coalition against the United States, or its allies in which one or more members possesses WMD and the means of delivery ... and

... a sudden regime change by which an existing nuclear arsenal comes into the hands of a new, hostile leadership group, or an opponents surprise unveiling of WMD capabilities."²⁶

These circumstances all appear to sanction the use of nuclear weapons by the United States in situations that do not involve prior use of nuclear weapons by an enemy. Administration spokesmen have denied that the United States has a first strike policy, but they have maintained a degree of ambiguity. According to a senior administration official quoted in the New York Times, "We do not have a declared policy of pre-emption ... we have a strategy of deterrence." At the same time, the official added it is important to develop deep-burrowing nuclear weapons in order to hold at risk any nation's hardened, underground nuclear or biological weapons and laboratories. The new American weapons are needed, the official said, to make sure there is no safe place to develop nuclear and biological weapons, and to discourage countries from even trying.²⁷

Such ambiguity is not new in U.S. nuclear use policies. No U.S. President has ever pledged not to be the first to use nuclear weapons in a conflict. In recent history, the first President Bush pointedly refused to rule out the use of any options during the Gulf War. The Clinton Administration moved a step closer to condoning the first use of nuclear weapons by extending them to deterring any use of weapons of mass destruction (WMD), thereby implying a potential nuclear response to an attack with chemical or biological weapons.²⁸ On February 22, 2002, a State Department spokesman made it clear that the Bush Administration maintains that policy, stating, "If a weapon of mass destruction is used against the United States or its allies, we will not rule out any specific type of military response."²⁹

While ambiguity is not new in U.S. nuclear use policies, the Bush Administration goes one step further by planning to develop new types of nuclear weapons that are specially suited for pre-emptive strikes against underground factories or stores of chemical and biological weapons. Taken together, the new administration policies significantly shift the role of nuclear weapons from deterring the use of nuclear weapons by others and use as an instrument of last resort, to a flexible weapon that it might use for a broad range of military purposes. Such a policy both increases the other nations' perceptions of the value of nuclear weapons and lowers the threshold for their use.

President Bush says that he only wants to maintain his options. He fails to realize, however, that there are negative consequences to maintaining options. It sanctions the threat of nuclear force as a legitimate means of conducting diplomacy and condones the use of nuclear weapons to achieve desired goals. Rather than deterring our enemies, this approach only heightens other nations' resolve to obtain nuclear weapons for their own defense. It sends a message to budding nuclear powers that if you want to become a full player in international politics and heighten your national security, it is a good idea to have large numbers of nuclear weapons and to be prepared to use them to pursue your objectives. Imagine the horror in this country if other nations declared that they wanted nuclear weapons to maintain their options for containing the United States.

According to Ivo Daalder of the Brookings Institution, "Throughout the nuclear age, the fundamental goal has been to prevent the use of nuclear weapons. Now the policy has been turned upside down. It is to keep nuclear weapons as a tool of war fighting rather than a tool of deterrence. If military planners are now to consider the nuclear option any time they confront a surprising military development, the distinction between nuclear and nonnuclear weapons fades away."³⁰ Similarly, the New York Times stated in its lead editorial on March 12, 2002, "Nuclear weapons are not just another part of the military arsenal. They are different, and lowering the threshold for their use is reckless folly."

Enlarging the role for nuclear weapons is a misdirected attempt to employ them to make us safer, when they remain capable of doing only harm.

EXPANDING THE INFRASTRUCTURE OF THE NUCLEAR WEAPONS COMPLEX

The NPR places a high priority on revitalizing and expanding the infrastructure of the nuclear weapons complex. Indeed, the third element of the "New Triad" is "a revitalized defense infrastructure that will provide new capabilities in a timely fashion to meet emerging threats."³¹ This raises infrastructure itself to the level of a vital element of national security and gives the NNSA carte blanche to expand its laboratories and production facilities.

The NNSA has seized upon this opportunity and has developed ambitious expansion plans that would return the nuclear weapons research, development, testing, and production complex to a Cold War footing. NNSA is planning to rebuild and enlarge virtually all of its production facilities and it is building massive research facilities to push the limits of nuclear weapons physics and to examine nuclear weapons and materials under extreme conditions. NNSA's 2003 budget request of \$5.9 billion for its nuclear weapons programs is already one and one-half times the average annual spending on nuclear weapons during the Cold War in constant dollars. Its ambitious plans for expanding the infrastructure of the weapons complex will require significant increases to that spending level.

The NNSA plans to nearly double the number of nuclear weapons that it can support. According to the NPR, "today the complex can process - either refurbish or dismantle - roughly 350 weapons per year. If the NNSA's proposed plan is funded, that number should increase to roughly 600 per year." The existing capacity (350 weapons per year) supports a total stockpile of about 10,700 nuclear weapons. On a proportional basis, the enhanced capacity to process 600 weapons per year would be sufficient to support a stockpile of over 18,000 nuclear weapons. That figure is nine times the 1,700-2,200 operationally deployed strategic nuclear weapons to which the President claims he is reducing the stockpile.

Among the NNSA's construction plans is a \$4-6 billion project to expand the capacity and capability of the Y-12 plant, in Oak Ridge, TN, to rebuild and replace nuclear weapons secondaries. This expansion would enable Y-12 to do ten times the current level of nuclear weapons work and to resume all activities needed to produce secondaries for completely new nuclear weapons. The first facilities in the new complex are a Highly Enriched Uranium storage facility and a Special Materials Complex (for beryllium, lithium and other non-radioactive materials), which are both currently being designed.

NNSA also plans to build a new facility to produce plutonium pits -- the major component of the primary stage of a nuclear weapon. According to the NPR, "NNSA will accelerate preliminary design work on a modern pit manufacturing facility." The NNSA has not yet determined how large the facility will be, but initial studies have discussed a facility that could produce as many as 500 new pits per year. Cost estimates to build that facility run as high as \$4 billion. The NNSA is conducting feasibility studies for the new pit facility, but it has not yet scheduled the start of detailed design or construction.

According to General Gordon, the NNSA plans to expand its capabilities at the weapons design and engineering laboratories "to be able to design, develop, and begin production on the order of five years from a decision to enter full-scale development of a new warhead."³² Gordon noted that was the time it took to take new nuclear warheads from initial design to production during the Cold War. In pursuing this capability, the NNSA is spending over \$700 million per year to build the world's fastest computers and to develop programs and models to accurately simulate the performance of an exploding nuclear weapon in detail. This effort is supported by a host of huge research facilities, which the NNSA plans to use to push the limits of knowledge of nuclear weapons physics.

Among the research facilities is the National Ignition Facility (NIF), which the NNSA is building at the Lawrence Livermore National Laboratory in Livermore, CA. The NIF is designed to aim 192 giant laser beams, each one meter in diameter and the length of a football field, onto a tiny pellet of nuclear material. If successful, it will heat and compress pellets to nearly the conditions that occur in an exploding nuclear weapon. From that, NNSA hope's to learn more about the behavior of materials under those conditions and to improve its computer codes for designing nuclear weapons. The NIF project has gone through several schedule delays and cost increases. Estimates of the cost to complete the facility in 2008, as now planned, run as high as \$5 billion. With the cost of operating the NIF over 30 years, the total cost of the project could be as much as \$32 billion.³³

The NNSA's overblown program to improve the capability of the weapons laboratories to understand, model and design nuclear weapons and to expand and improve the entire infrastructure of the nuclear weapons research, development, and production complex, demonstrate that the administration is planning for nuclear weapons to remain the centerpiece of the U.S. strategic posture for many years to come. This is yet another rejection of Article VI of the nuclear Non-Proliferation Treaty. It also repudiates the pledge that the United States made at the NPT Review Conference in May 2000 to diminish the role for nuclear weapons in its security policies and to pursue an unequivocal undertaking to accomplish the total elimination of its nuclear arsenal.

According to the NPR, "The capacity of the infrastructure to upgrade existing weapons systems, surge production of weapons, or develop and field entirely new systems for the New Triad can discourage other countries from competing militarily with the United States." In other words, the U.S. plans to win the arms race rather than cease it.

CONCLUSIONS

President Bush claims he is de-emphasizing the role of nuclear weapons in U.S. security and reducing the size of the nuclear weapons stockpile. However, his administration has set out a plan for:

- Developing new and improved nuclear weapons;
- Preparing for a return to full-scale nuclear testing;
- Making phantom reductions in the nuclear weapons stockpile;
- Assigning a larger role to nuclear weapons; and
- Expanding the infrastructure of the nuclear weapons complex.

This plan places nuclear weapons at the center of U.S war fighting capabilities and reduces the threshold for their use.

The new nuclear weapons policies are part of a broad administration strategy of renouncing international treaties and agreements and placing the interests of the United States in opposition to other nations' interests. The new nuclear weapons policies specifically reject commitments that the United States made in the nuclear Non-Proliferation Treaty, disavow the Comprehensive Test Ban Treaty, and abandon the Anti-Ballistic Missiles (ABM) Treaty.

The Nuclear Posture Review is full of inflammatory language directed at nations that have nuclear weapons or may be developing them. This saber rattling has angered those nations and provided support to elements that favor the further development of their nuclear weapons capabilities. By undercutting the nuclear Non-Proliferation Treaty, U.S. nuclear weapons programs and plans could deliver a devastating blow to international goals for the non-proliferation of nuclear weapons. Thus, the new nuclear policies are likely to lead to an increase in the number of nations that have nuclear weapons and significantly reduce the security of the United States.

RECOMMENDATIONS

We direct most of our recommendations to the Congress, since the Nuclear Posture Review sets forth the administration's policies regarding nuclear weapons and those policies are unlikely to change. Nevertheless, the administration could and should take many of the steps that we ask of the Congress.

The U.S. Congress should:

- Deny the NNSA's 2003 budget request for \$15.5 million to enhance its readiness to conduct a full-scale nuclear weapons test at the Nevada Test Site;
- Prohibit the NNSA from spending any funds on a Design Definition and Cost Study (phase 6.2/6.2A study) for a Robust Nuclear Earth Penetrator Weapon;
- Reiterate and strengthen the provisions of section 3136 of the National Defense Authorization Act for Fiscal Year 1994 (Public Law 103-160), relating to prohibitions on research and development on low-yield nuclear weapons;
- Prohibit the NNSA from any spending on research or development of new nuclear weapons or modifications to existing nuclear weapons, unless the Secretary of Energy certifies that a modification is necessary to maintain the level of safety and reliability that the weapon design had when it entered service and the Congress specifically approves funds for the modification; and
- Specify that the mission of the Stockpile Stewardship Program is to maintain, and not improve, nuclear weapons in the U.S. stockpile.

The U.S. Senate should:

- Ratify the Comprehensive Test Ban Treaty; and
- Condition ratification of the proposed treaty with Russia limiting operationally deployed strategic nuclear weapons subject to U.S. and Russian agreement on 1.) measures to assure that the treaty is verifiable and irreversible, including provisions for the monitoring and destruction of nuclear warheads and delivery systems and 2.) a timetable for intervening reductions on the way to the goal of 2,200 operationally deployed strategic nuclear weapons in 2012.

The Bush Administration should:

- Immediately release a declassified version of the Nuclear Posture Review as required by law.

ENDNOTES

¹ Donald H. Rumsfeld, Secretary of Defense. *Foreword to the Nuclear Posture Review Report*. Submitted to Congress on December 31, 2001. <http://www.defenselink.mil/news/Jan2002/d20020109npr.pdf>

² Richter, Paul. U.S. Works Up Plan for Using Nuclear Arms. *Los Angeles Times*. March 9, 2002. <http://latimes.com/news/nationworld/nation/la-030902bombs.story>.

³ *Excerpts of the Nuclear Policy Review*. Submitted to Congress on December 31, 2001. www.globalsecurity.org/wmd/library/policy/dod/npr.htm

⁴ www.cfo.doe.gov/budget/03budget/content/nnsaadm/nnsaover.pdf

⁵ *Excerpts of the Nuclear Policy Review*. Op. cit.

⁶ Younger, Stephen M. *Nuclear Weapons in the Twenty-First Century*. Los Alamos National Laboratory. June 27, 2000. LAUR-00-2850. www.fas.org/nuke/guide/usa/doctrine/doe/younger.htm

⁷ Robinson, C. Paul. *Pursuing a New Nuclear Weapons Policy for the 21st Century*. Sandia National Laboratory. March 2001. www.sandia.gov/media/whitepaper/2001-04-Robinson.htm

⁸ Special Briefing on the Nuclear Posture Review. Presenter: J.D. Crouch. Jan. 9, 2002. www.defenselink.mil/news/briefings.html.

⁹ Testimony of General John Gordon, Administrator of the National Nuclear Security Administration, before the Senate Armed Services Committee. Feb. 14, 2002.

¹⁰ *National Defense Authorization Act for Fiscal Year 1994. (Public Law 103-160) Sec. 3136*. Low-yield was defined as less than five kilotons, which is less than one-half the yield of the bomb that the United States dropped on Hiroshima.

¹¹ Earth Penetrating Nukes May Not Violate Restrictions, Says DOE Official. *Aerospace Daily*. April 3, 2002.

¹² Prepared statement of General John Gordon, Administrator, National Nuclear Security Administration, before the Senate Armed Services Committee, Feb. 14, 2002.

¹³ Tetreault, Steve. *Nuclear Moratorium: Evaluation of test site in motion*. Las Vegas Review-Journal. Jan. 9, 2002.

¹⁴ Prepared statement of John S. Foster, Jr, Chairman of the Panel to Assess the Reliability, Safety, and Security of the United States Nuclear Stockpile, before the House Armed Services Committee, Special Oversight Panel on Department of Energy Reorganization. Mar. 21, 2002.

¹⁵ Civiak, Robert. *Managing the U.S. Nuclear Weapons Stockpile: A Comparison of 5 Strategies*. A Report for Tri-Valley CAREs. Livermore, CA. July 2000. www.trivalleycares.org/ManagingStockpileReport.pdf

¹⁶ The START II Treaty was ratified by the U.S. Senate in January 1996, by a vote of 87-4, and by the Russian Duma in April 2000, by a vote of 288-131. However, the Duma ratification requires that before the Treaty enters into force, the U.S. approve new agreements related to the Anti-Ballistic Missile (ABM) Treaty, which the U.S. has not accepted.

¹⁷ *Foreword to the Nuclear Posture Review Report*. Op. cit.

¹⁸ Testimony of Douglas Feith. Undersecretary of Defense, before the Senate Armed Services Committee. Feb. 14, 2002.

¹⁹ Ibid.

²⁰ The Project on Government Oversight. *U.S. Nuclear Weapons Complex: Security at Risk*. October 2001. <http://www.pogo.org/nuclear/security/2001report/reporttext.htm>

²¹ The Nuclear Threat Initiative maintains a searchable database of all reported incidents of nuclear trafficking at www.nti.org/db/nistraff/index.html.

²² U.S. Department of Energy. Secretary of Energy Advisory Board. *A Report Card on the Department of Energy's Nonproliferation Programs with Russia*. Howard Baker and Lloyd Cutler Co-Chairs, Russia Task Force. January 10, 2001. www.hr.doe.gov/seab/rusrpt.pdf

²³ Testimony of Douglas Feith. Op. cit.

²⁴ *Excerpts of the Nuclear Policy Review*. Op. cit.

²⁵ Prepared statement of Douglas Feith, Undersecretary of Defense, before the Senate Armed Services Committee, Feb. 14, 2002.

²⁶ Ibid.

²⁷ Thinking the Unthinkable, Again by David E. Sanger. *New York Times*. March 18, 2002. <http://query.nytimes.com/search/restricted/article?res=FB061FFC3F5C0C7B8DDDA0894DA404482>

²⁸ Kristensen, Hans. Targets of Opportunity: How nuclear planners found new targets for old weapons. *Bulletin of the Atomic Scientists*. Vol. 53, No. 5 Sept./Oct. 1997. www.thebulletin.org/issues/1997/so97/so97/kristensen.html.

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³⁰ Gordon, Michael R. Nuclear Arms for Deterrence or Fighting? *New York Times*. March 11, 2002.

³¹ *Foreword to the Nuclear Posture Review Report*. Op. cit.

³² Prepared statement of General John Gordon before the Senate Armed Services Committee. Op. cit.

³³ Civiak, Robert. *Soaring Cost, Shrinking Performance: Status of the National Ignition Facility*. A Report for Tri-Valley CAREs. Livermore, CA. May 2001. www.trivalleycares.org/NIFreport.pdf

Appendix A

MAJOR ELEMENTS OF THE NUCLEAR POSTURE REVIEW

The Nuclear Posture Review (NPR) was a secret review of nuclear weapons policy led by the Department of Defense during the first year of President Bush's term of office. The Secretary of Defense submitted the results of that review to Congress on January 8, 2002. The report:

- Declares that nuclear weapons play a critical role in the defense capabilities of the United States;
- Establishes a new strategic Triad composed of offensive strike systems (both nuclear and non-nuclear), defenses (both active and passive), and a revitalized defense infrastructure, with integrated planning for the nuclear and non-nuclear components;
- Affirms the goal of reducing the number of operationally deployed strategic nuclear warheads to 1,700-2,200 by 2012, as first announced by President Bush on November 13, 2001, with an interim goal of 3,800 in 2007;
- Sets the planned strategic nuclear force structure for 2012 at 14 Trident submarines, 500 Minuteman II ICBMs, 76 B-52H bombers, and 21 B-2 bombers;
- Sets requirements for a second-tier responsive nuclear force of about 2,000 strategic nuclear warheads, and an inactive nuclear stockpile of about 5,000 warheads (an additional 1,000 non-strategic nuclear warheads in the U.S. stockpile are not addressed, leaving a total of about 10,000 nuclear weapons in the U.S. arsenal);
- Calls for new nuclear weapons capabilities (including an earth penetrating nuclear weapon) to defeat emerging threats such as hard and deeply-buried targets, mobile and relocatable targets, and chemical or biological agents, and to improve accuracy and limit collateral damage;
- Calls for the NNSA to establish advanced warhead concept teams at each of the national laboratories and at DOE headquarters in Washington;
- Calls for a revitalized nuclear weapons complex that will be able to design, develop, manufacture, and certify new warheads;
- Recommends that the production capacity of the NNSA nuclear weapons complex be increased to 600 per year;
- Endorses NNSA plans to accelerate preliminary design work on a modern pit manufacturing facility;

- Notes that NNSA plans to enhance its readiness to prepare and conduct full-scale tests of nuclear weapons more rapidly than the current 24-36 months readiness posture and directs DoD and NNSA to determine the optimum test readiness time;
- Declares that the United States supports continued observance of the moratorium on full-scale nuclear testing, but that it may not be possible to maintain the stockpile without additional nuclear testing for the indefinite future;
- Expands the planning basis for America's strategic forces from deterring existing threats to countering anticipated capabilities of potential adversaries;
- Establishes requirements for nuclear strike forces to be able to meet immediate contingencies, such as an Iraqi attack on Israel; potential contingencies, such as the emergence of a new, hostile military coalition against the United States in which one or more members possesses weapons of mass destruction; and sudden and unexpected contingencies, like the Cuban Missile Crisis;
- Identifies seven countries as potential targets for U.S. nuclear weapons, including North Korea, Iraq, Iran, Syria, and Libya as countries that could be involved in immediate, potential, or unexpected contingencies; China, due to the combination of its strategic objectives and the ongoing modernization of its nuclear and non-nuclear forces; and Russia, which maintains the most formidable nuclear forces;
- Enumerates near- and mid-term technology options that the U.S. could deploy to provide an emergency missile defense capability in 2003-2008 and lists additional missile defense systems that could be deployed in 2006-2008; and
- Establishes requirements for command, control, and intelligence assets to support offensive and defense strategic systems.

Appendix B

TEXT OF THE STRATEGIC OFFENSIVE REDUCTIONS TREATY

The United States of America and the Russian Federation, hereinafter referred to as the Parties,

Embarking upon the path of new relations for a new century and committed to the goal of strengthening their relationship through cooperation and friendship,

Believing that new global challenges and threats require the building of a qualitatively new foundation for strategic relations between the Parties,

Desiring to establish a genuine partnership based on the principles of mutual security, cooperation, trust, openness, and predictability,

Committed to implementing significant reductions in strategic offensive arms,

Proceeding from the Joint Statements by the President of the United States of America and the President of the Russian Federation on Strategic Issues of July 22, 2001 in Genoa and on a New Relationship between the United States and Russia of November 13, 2001 in Washington,

Mindful of their obligations under the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms of July 31, 1991, hereinafter referred to as the START Treaty,

Mindful of their obligations under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968, and

Convinced that this Treaty will help to establish more favorable conditions for actively promoting security and cooperation, and enhancing international stability,

Have agreed as follows:

Article I

Each Party shall reduce and limit strategic nuclear warheads, as stated by the President of the United States of America on November 13, 2001 and as stated by the President of the Russian Federation on November 13, 2001 and December 13, 2001 respectively, so that by December 31, 2012 the aggregate number of such warheads does not exceed 1700-2200 for each Party. Each Party shall determine for itself the composition and structure of its strategic offensive arms, based on the established aggregate limit for the number of such warheads.

Article II

The Parties agree that the START Treaty remains in force in accordance with its terms.

Article III

For purposes of implementing this Treaty, the Parties shall hold meetings at least twice a year of a Bilateral Implementation Commission.

Article IV

This Treaty shall be subject to ratification in accordance with the constitutional procedures of each Party. This Treaty shall enter into force on the date of the exchange of instruments of ratification.

This Treaty shall remain in force until December 31, 2012 and may be extended by agreement of the Parties or superseded earlier by a subsequent agreement.

Each Party, in exercising its national sovereignty, may withdraw from this Treaty upon three months written notice to the other Party.

Article V

This Treaty shall be registered pursuant to Article 102 of the Charter of the United Nations.

Done at Moscow on May 24, 2002, in two copies, each in the English and Russian languages, both texts being equally authentic.

Appendix C

ACRONYMS AND ABBREVIATIONS

ABM	Anti-Ballistic Missile
CA	California
CTBT	Comprehensive Test Ban Treaty
DoD	Department of Defense
DOE	Department of Energy
EMP	Electromagnetic Pulse
Gen.	General
HDBT	Hard and Deeply Buried Targets
ICBM	Intercontinental Ballistic Missile
LANL	Los Alamos National Laboratory
LLNL	Lawrence Livermore National Laboratory
NIF	National Ignition Facility
NNSA	National Nuclear Security Administration
NPR	Nuclear Posture Review
NPT	Non-Proliferation Treaty
PDD	Presidential Decision Directive
P.L.	Public Law
POGO	Project on Government Oversight
START	Strategic Arms Reduction Treaty
TN	Tennessee
U.S.	United States
WMD	Weapons of Mass Destruction