The Department of Defense and the Nuclear Mission in the 21st Century

A Beyond Goldwater-Nichols Phase 4 Report

Author
Clark A. Murdock

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Center for Strategic and International Studies
1800 K Street, NW, Washington, DC  20006
Tel: (202) 775-3119
Fax: (202) 775-3199
Web: www.csis.org
Executive Summary

This report presents an advocacy narrative for the still important contributions that nuclear weapons make to U.S. security and outlines a set of recommendations for how the Department of Defense (DOD) should organize for the nuclear mission. After first chronicling a failed effort in 2007 to develop a centrist consensus behind a “balanced and integrated” package of policy initiatives on nuclear issues, this report provides a rationalization for why the next administration should choose a particular strategic option, one that seeks to resuscitate the U.S. nuclear deterrent, as it confronts a number of daunting nuclear challenges, ranging from the growing risk of nuclear terrorism and the proliferation risks associated with the expansion of nuclear energy to the role of nuclear weapons in a proliferating world.

The Role of Nuclear Weapons in the 21st Century

In addition to their proven utility as a means to terminate a major conventional war (namely, World War II), nuclear weapons were the principal instruments used by the great powers during the Cold War to deter each other. Despite the close calls and the now almost inexplicable buildup of nuclear weapons by the superpowers, the fact remains: nuclear weapons kept the superpower competition from becoming a war.

The violence-suppressive effect of nuclear weapons has not receded with the end of the Cold War. Although the risks of deterrence failure increase as the number and types of nuclear powers increase, it is seems to be the case that, to date, possession of a nuclear weapon has made the possessor, and its adversaries, much more cautious about embarking on courses of action that could escalate to nuclear use.

Although the United States appears to be allergic to all things nuclear, much of the rest of the world remains intensely interested in nuclear weapons: those states that have nuclear weapons are modernizing their inventories; North Korea has paid dearly (in terms of its political and economic isolation) to join the nuclear club, and Iran may follow suit, despite the U.S.-led opposition in the United Nations; and North Korea’s and Iran’s neighbors, many of them U.S.
allies, are pondering if they might need to go nuclear as well. Nation-states pursue nuclear status for many reasons:

- Nuclear weapons are seen as the ultimate guarantee of national sovereignty and survival;
- Possession of nuclear weapons is believed to confer world-class status on those nations that possess them;
- Nuclear weapons can serve as the “great equalizer” for nations facing competitors with significantly greater conventional military power.

In light of the very strong incentives for acquiring nuclear weapons in a Hobbesian international system with weak central governance and few, if any, shared international norms, the notion of a world without nuclear weapons is a fantasy.

Nuclear weapons are unique in their capacity to inflict massive amounts of damage almost instantaneously. In an era of suicide bombers, ideologically driven non-state actors will employ nuclear weapons if they can get them—and the logic of nuclear deterrence among nation-states will have no relevance when, unfortunately, those wanting to use nuclear weapons in a terrorist attack for messianic motives eventually succeed.

Deterrent strategies based on the assumption of state-actor rationality worked with the Soviet Union and the People’s Republic of China. Deterring nuclear attacks against the United States by nuclear-armed regional states is, at the least, more problematic than Cold War nuclear deterrence. In thinking through how U.S. nuclear deterrence will work in the post-9/11 era, it is necessary to think about how it will work in the post–next nuclear use era, if only for the purpose of delaying the start-date of that era for as long as possible.

**The Contributions of Nuclear Weapons to U.S. Security**

The United States continues to say that nuclear deterrence is “critical”—the 2006 National Security Strategy states that “credible” nuclear forces continue to play a critical role in U.S. national security, and the 2006 Quadrennial Defense Review report maintains that the U.S. nuclear deterrent is a “keystone of national power.” Days after the North Korean nuclear test, Secretary of State Condoleezza Rice invoked the U.S. nuclear deterrent when she stated: “The United States has the will and the capability to meet the full range—and I underscore the full range—of its deterrent and security commitments to Japan. Former Central Command commander General John P. Abizaid, who stated flatly in September 2007 that “I believe nuclear deterrence will work with the Iranians,” clearly believes in it. Evidently, the United States still needs a nuclear deterrent and acts as if it has one.

During the Cold War, a credible nuclear deterrent depended on whether the Soviet Union (and others) believed we had the will and capability to carry out our threats. The issue of credibility was at the core of our deterrent strategy, defense policy, and nuclear force strategy. However, the
collapse of the Soviet Union and the emergence of the United States as the world’s only conventional superpower led senior officials in Washington to greatly downgrade the value of nuclear weapons. Even when the United States deliberately threatened nuclear retaliation (e.g., Secretary of State James Baker warning on the eve of the first Gulf War that Iraq would suffer “terrible consequences” if it used chemical weapons), senior U.S. policymakers subsequently stated they had no intention of using nuclear weapons during that operation. It’s hard to make credible threats when you tell the world (including future adversaries) that you were bluffing the last time you made one.

For the United States (or any nuclear-armed state), having a credible nuclear deterrent requires having a military that is serious about sustaining its nuclear capability, strategy, and doctrine. At the risk of overstatement, as well as that of offending those in uniform who care about things nuclear, the predominant view in today’s military, where the operational perspective of the “warfighter” is dominant, is that nuclear weapons lack utility because they are not “useable.” Nuclear weapons are not “interesting” (particularly from a career perspective) because they are not needed (since the United States is the world’s only conventional superpower) and will not ever be used (by a U.S. president).

Resuscitating the U.S. nuclear deterrent must begin with the recognition that nuclear weapons are unique capabilities and play unique roles in both warfare and international affairs. That the United States needs a nuclear deterrent in the post-9/11 era is self-evident at the most fundamental level:

- Nation-states still possess nuclear capabilities that threaten our very existence and can inflict “unacceptable” damage;
  - Deterring nuclear attacks against the United States and its citizens is still a first-order requirement.
- U.S. allies and friends that do not possess nuclear weapons depend on our extended nuclear deterrent;
  - Credibly extending the U.S. nuclear umbrella is key to the decisions that our non-nuclear allies make about their nuclear futures.

The classic deterrence question has always been “deter who from doing what against whom.” How far the U.S. nuclear deterrent could be “extended” beyond direct nuclear threats to the United States was much debated during the Cold War and will continue to be the subject of great debate in the post-9/11 era. However, in the final analysis, the imperative for a credible U.S. nuclear deterrent is indisputable—nuclear weapons exist; numerous nation-states possess them; more nation-states are likely to acquire them and the risk that nuclear weapons will be used is growing. No other justification or rationale is needed for making the nuclear mission a top priority for the Department of Defense.
Organizing DOD for the Nuclear Mission

Over the past 15 years, the bureaucratic actors focused on nuclear weapons have either disappeared or been incorporated (aka “mainstreamed”) into other agencies. Moreover, the time and attention of senior policymakers—the scarcest resource in official Washington—has precipitously declined when it comes to nuclear issues.

Nuclear weapons are really the “president’s weapons”—no other military capability requires the explicit approval of the president before it can be employed for any purpose. The Department of Defense executes the nuclear mission for the president. The U.S. Strategic Command, under the authority of the president and the secretary of defense, generates the requirements for nuclear weapons, plans for, and would conduct, any operations involving nuclear weapons. The U.S. Navy and the U.S. Air Force provide delivery systems for nuclear weapons and personnel trained in the planning and conduct of nuclear operations. The National Nuclear Security Administration (NNSA), whose administrator is dual-hatted as an under secretary of Department of Energy (DOE), provides oversight of the national laboratories, production plants and testing facilities that provide nuclear warheads to DOD. During the height of the Cold War, the nuclear mission was clearly top dog; today, however, the nuclear mission has fallen on hard times.

The recent history of STRATCOM illustrates how far the nuclear mission has declined in organizational status. On October 1, 2002, U.S. Space Command was merged into STRATCOM, and, since that time, STRATCOM picked up many new responsibilities, global strike, computer network operations, information operations, global intelligence, surveillance and reconnaissance (ISR), strategic warning and intelligence assessments, and combating weapons of mass destruction. In the summer of 2002, the highest-ranking individual at STRATCOM who thought about nothing but nuclear issues, was its four-star commander; today, it is a retired lieutenant colonel who heads up the Nuclear Command and Control office. This loss of bureaucratic status has been mirrored in the Office of the Secretary of Defense (OSD) and the military services.

The infrastructure that supports the design and production of nuclear weapons has suffered from post–Cold War benign neglect. The nuclear enterprise is currently behind on virtually every task assigned to it, from stockpile surveillance to weapons dismantlement (although the situation has improved in the last year). The deterioration of the nuclear infrastructure is mirrored by the deterioration of the nuclear weapons themselves. The last warheads that the United States produced were designed in the 1970s, assembled during the 1980s and were intended to last 10–15 years. Meanwhile, other nuclear-armed states continue to produce nuclear weapons.

The decay of the U.S. nuclear enterprise is met with increasing apathy—and at times, antipathy—inside the Beltway. There seems to be an allergy to supporting anything with the word “nuclear” in it. Today, there are no national debates about nuclear strategy or forces, but only “mini-debates” about specific programs, such as the study of the Robust Nuclear Earth Penetrator (RNEP). While their elected representatives in Washington may devalue nuclear weapons, the American people do not. Public opinion surveys consistently show that in the post–Cold War era, a strong majority of Americans believe that nuclear weapons continue to play an important role
in deterring nuclear conflict and, moreover, value nuclear weapons now as much as they did at the end of the Cold War.

Resuscitating the credibility of the U.S. nuclear deterrent in an era of nuclear multipolarity requires that Washington gets over its denial that nuclear issues matter and gets serious about its nuclear strategy, policy and force posture. Since nuclear weapons belong to the president, leadership on these issues must start at the top. For starters, the organizational decline of the nuclear mission must be undone. Nuclear weapons are unique and special capabilities, and they need the same approach as that given to special operations forces (SOF). In 1986, the U.S. Special Operations Command (SOCOM) was established after repeated operational failures. It’s time to go “back to the future” and establish a U.S. Nuclear Forces Command that could have (pending further analysis) the following attributes:

- Established as a subordinate command in U.S. Strategic Command and headed by a three-star;
- Provided (as SOCOM was) with budget and acquisition authority (including a Major Force Program for nuclear capabilities);
- Supported by NNSA and a smaller, rationalized complex focused solely on the nuclear mission.

To ensure that the National Command Authorities would receive the support they needed on nuclear matters, the president needs a National Security Council (NSC) special assistant for nuclear issues (to help integrate and harmonize nuclear policy, including communications, across the U.S. government), and the secretary of defense needs a congressionally confirmed assistant secretary for nuclear matters (the minimum level of organizational status needed for effective advocacy inside the Pentagon).

Washington’s approach to sustaining its post-9/11 nuclear deterrent is feckless and somewhat frivolous. A stockpile designed for a 1980s threat that no longer exists is not relevant to today’s challenges. Getting serious about nuclear weapons means doing things with them—thinking about them, producing them, deploying them, exercising with them and, if necessary, testing them—so that the threats to employ them will be taken seriously. It also will require some straight talk to the international community, telling them what everyone in Washington used to know and most Americans still believe—namely, the United States, like all other nuclear powers, has no intention of getting rid of its nuclear weapons for the foreseeable future. This deliberately active approach to nuclear weapons is the only way to resuscitate the U.S. nuclear deterrent. And it is far better for the United States to have a credible nuclear deterrent than to feel compelled to employ a nuclear weapon because its nuclear deterrent failed.
Introduction

Continued drift in policy and growing polarization in the policy debate on nuclear issues is likely during 2008, if only because everything in Washington becomes more politicized during an election year. The new administration will face a number of daunting nuclear challenges, ranging from the growing risk of nuclear terrorism and the proliferation risks associated with the expansion of nuclear energy to the role of nuclear weapons in a proliferating world. Given the uncertainty endemic in the 21st century security environment and the inherently controversial nature of nuclear issues, the Murdock-Miller approach (to be discussed shortly) of developing a centrist consensus behind a package of nuclear initiatives is not likely to succeed. To be sure, there are interactive effects between nuclear issues. For example, expanding the use of nuclear energy, which involves fuel enrichment and reprocessing, increases the risk of nuclear proliferation. However, as the author learned over the past year, the centrist consensus behind an integrated package of nuclear initiatives proved fragile as a particular issue (e.g., funding the Reliable Replacement Warhead (RRW) or promoting the vision of a world free of nuclear weapons) gained salience and divided the policy community.

The next administration will face strategic choices on at least the following critical nuclear issues:

- How to:
  - Prevent and, if necessary, cope with nuclear terrorism;
  - Prevent and, if necessary, cope with nuclear proliferation;
  - Promote the expansion of nuclear energy without significantly increasing the risk of nuclear terrorism and proliferation;
  - Define the post-9/11 U.S. nuclear strategy, policy and force structure.

For each of these nuclear issues, a set of strategic options needs to developed, each with a logic that links assumptions, strategic concepts, policy principles and implementation actions. Each strategic option should be defined as a coherent stream of “if-then” statements that provide a clear path between the assumptions that one makes about the nature of the security environment to the tasks required to execute the strategies needed to cope with the identified security challenges. Developing alternative “strategic paths” of ends-ways-means will help the next administration’s senior decisionmakers understand the strategic choices facing them in the nuclear realm.

Each of these strategic options should also have an advocacy narrative that both provides the rationalization for choosing that option and the basis for the outreach campaign—a “mini-White Paper,” so to speak—that the administration can use in building political support for that policy. As part of making their strategic choice, senior decisionmakers should know how they are going to market that solution set. This report will begin this task by developing the narrative for one strategic option, which will be called the Nuclear Plus option (with its emphasis on the continued utility of nuclear weapons and nuclear modernization)—the other two being Nuclear Same.
(current policy projected forward) and Nuclear Minus (with an emphasis given to nuclear nonproliferation, arms control and disarmament)—for U.S. nuclear strategy, policy and force structure.¹ It will address in sequence the following subjects:

- The role of nuclear weapons in the post-9/11 era;
- The contributions of nuclear weapons to U.S. security;
- Organizing the Department of Defense for the nuclear mission.

In a concluding section, the author will make some preliminary observations about the utility of the alternative strategic options approach for making strategic choices. But first, some background for why the author believes that this approach is necessary for the controversial set of critical issues facing the next administration.

**Background**

This report evolved from one of four study efforts conducted as part of Beyond Goldwater-Nichols (BG-N) Phase 4.² The genesis for assessing how DOD supported the nuclear mission in the 21st century stemmed from the author’s participation in the Defense Science Board (DSB) Task Force on Nuclear Capabilities, which met throughout 2005 and produced a classified brief in January 2006 and an unclassified report in December 2006. In recommending that the National Nuclear Security Administration (NNSA), a semi-autonomous agency created in 2000 inside the Department of Energy, be reestablished as an independent agency reporting to the president through a Board of Directors chaired by the secretary of defense, the DSB task force concluded that DOD was not “a good fit” for housing NNSA, in part because “senior-level attention [in

¹ CSIS, the American Physical Society (APS), and the American Association for the Advancement of Science (AAAS) are cosponsoring a nine-month study effort, “The Role of Nuclear Weapons in U.S. National Security.” The cosponsors will host day-long workshops on the military, technical, and international aspects of U.S. nuclear strategy, policy and stockpile, followed by an “integrative” workshop intended to identify the strategic choices, including the principal options, facing the next administration. In addition to fulfilling its Beyond Goldwater Nichols Phase 4 contractual obligation, this report will inform this forthcoming study effort.

² The multi-year BG-N study started in November 2003 when CSIS received its first tranche of funding from the Smith-Richardson Foundation. With most of its subsequent funding provided by the U.S. Congress (in the FY05, FY06 and FY07 defense appropriations bills), the Beyond Goldwater-Nichols series has yielded the following reports and papers:
- Phase 1 report (March 2004) on DOD reform (including chapters on congressional and interagency reform);
- Phase 2 report (July 2005) on DOD (7 chapters) and U.S. government (4 chapters) reform;
- Phase 3 report (July 2006) on the role of the National Guard and Reserves and an annotated brief (August 2006) on DOD acquisition and PPBES reform;
- Phase 4 reports (in addition to this report) on DOD governance (March 2008) and DOD/U.S. government response to domestic catastrophic disasters (March 2008) and a methodological note on facilitating a senior-level dialogue on setting national security priorities (March 2008).
DOD’s stewardship of nuclear weapons be examined as part of BG-N Phase 4, the “task monitors” in OSD readily agreed, because, as one official observed, the “Pentagon had lost the bubble” on things nuclear.

In an effort to develop a centrist consensus on how the United States Government (USG) and DOD should define the nuclear mission in the post–Cold War, post-9/11 era, the author invited a diverse group of experts who spanned the political spectrum to join a working group whose initial purpose was to “develop a sustainable (over several decades) U.S. nuclear strategy, policy and force structure.” After its initial meeting on November 6, 2006, the BG-N Working Group (WG) met three times to reexamine the “basics” of nuclear roles, missions and strategies in the post-9/11 security environment (the “basics” paper went final on January 30, 2007). At its November 27, 2006, meeting, Working Group members reached consensus on only one assumption—namely, “the United States will have nuclear weapons for the foreseeable future.”

On January 4, 2007, the Wall Street Journal published an op-ed by former secretaries of state George Shultz and Henry Kissinger, former secretary of defense Bill Perry and former senator Sam Nunn endorsing a vision of a world free of nuclear weapons and arguing forcefully that the United States embrace this vision as “a bold initiative consistent with America’s moral heritage” and help lead the nuclear weapons states in undertaking a “series of agreed and urgent steps [ranging from reducing the alert status of nuclear weapons and reducing nuclear weapons inventories to halting the production of fissile material and resolving regional conflicts] that would lay the groundwork for a world free of the nuclear threat.” Although, as will be discussed shortly, this op-ed, known as the “Quartet op-ed” or “Gang of Four op-ed,” markedly affected the debate on nuclear issues, the BG-N WG concluded at its January 6, 2007, meeting that its sole assumption that the United States would “have nuclear weapons for the foreseeable future” still held.

In its early 2007 meetings (February 14 and March 27), the BG-N WG reviewed draft papers by Jim Miller, a vice president at the newly established Center for a New American Security, on nuclear strategy and policy and a balanced approach to reducing nuclear risks, and a Murdock chart on nuclear modernization options. During those discussions, many WG members realized

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4 Chaired by Clark Murdock, regular attendees included Barry Blechman, Bruce Blair, Elaine Bunn, Bill Courtney, Michele Flournoy, Kathleen Hicks, Rod Keefer, Jenifer Mackby, Jim Miller, Frank Miller, Ivan Oelrich, Joan Rohlfing, Vic Utgoff, and Jon Wolfsthal. The author wants to express his sincerest thanks to all those who attended the BG-N Working Group on DOD and the Nuclear Mission. The working group discussions were lively, quite passionate in nature, and very thought-provoking. While this report was circulated in draft to working group members, the views expressed here are solely those of the author and do not represent those of any of the BG-N working group members. He wishes, however, to thank all who commented on the first draft of this report for their very useful comments.
that there was more consensus among the members on several policy initiatives than anyone anticipated. Based in part on earlier CSIS work in 2005 on an integrated package of nuclear initiatives, Clark Murdock and Jim Miller became convinced that it was necessary to address a comprehensive set of initiatives, ranging from nuclear terrorism and nuclear energy to U.S. nuclear strategy and force posture, which could be supported as an integrated package. Murdock and Miller believed that building a centrist consensus behind a comprehensive approach to interrelated nuclear initiatives would be politically easier than building majority support behind each initiative separately, because of the implicit “horse-trading” within the integrated package between, for example, support for U.S. nuclear modernization and a new approach to nuclear arms control and disarmament. In April 2007, Murdock and Miller reached agreement between themselves on a “Balanced and Integrated U.S. Approach to 21st Century Nuclear Issues” (B&I approach) and circulated that statement to BG-N WG members to see if others would join them as signatories. The B&I approach statement went through two complete iterations—June 12, 2008, and September 6, 2007 (see appendix A for the September 6 version minus the list of signatories) but failed to sustain its momentum in a third version, as it became clear that the debate within the policy community on these issues was becoming increasingly polarized.

The proximate cause for the “weakening middle” of the debate on nuclear issues was the B&I approach position on the RRW, the Bush administration’s proposal to “transform” both the nuclear stockpile and the nuclear infrastructure by designing and producing a new nuclear warhead, all without nuclear testing, to start replacing Cold War-era warheads in the stockpile. In the spring of 2007, signatories both to the left and right of center could agree (as part of an integrated package) to “develop, produce and deploy RRW warheads to replace existing warheads on a less than 1:1 ratio for deployed weapons and significantly less than 1:1 ratio for [the] weapons stockpile.” By summer 2007, those on the left side could only agree to “develop and prepare to produce and deploy RRW-like warheads,” a position those on the right side could not agree to. In part, this was caused by the emergence of a policy statement entitled “Reducing Nuclear Threats and Preventing Nuclear Terrorism” that, like the B&I approach, proposed an integrated package of nuclear initiatives but was supported by a distinguished roster of Democratic party stalwarts ranging from former Clinton officials Madeleine Albright, Bill Perry, and Sandy Berger to leading Democratic defense and arms control thinkers like Michèle Flournoy and Bob Einhorn. While agreeing that the United States needed a “safe, secure, and responsive nuclear weapons R&D and production infrastructure to ensure a durable and credible deterrent” which will “require refurbishing the current aging weapons complex,” the Democratic party signatories concluded “there is no urgency to proceed with the administration’s RRW program or any other alternative to the long-standing SSP [Stockpile Stewardship Program] to assure the continuing safety and reliability of U.S. nuclear weapons.” While this statement of nuclear

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7 Ibid. pp. 9, 10.
initiatives certainly reduced the attractiveness of the Murdock-Miller policy statement to liberal supporters, it was also apparent that the Wall Street Journal "Quartet op-ed" had significantly changed the nature of the debate on nuclear weapons.

By late fall 2007, the Center for Defense Information (CDI), led by Bruce Blair, a long-time left-of-center advocate on nuclear issues (and a member of the BG-N WG on DOD and the Nuclear Mission), was leading a privately funded effort to build public and policy elite support for a global campaign in support of a world free of nuclear weapons. In part motivated by the perception that many supporters of the "Quartet op-ed" were more concerned about implementing the "more modest" near-term policy prescriptions (de-alerting of nuclear weapons, smaller nuclear stockpiles, etc.) than about the ultimate goal of complete nuclear disarmament, the CDI-led campaign focused on the realization of the abolitionist vision of eliminating nuclear weapons, not just reducing them. For supporters of this more radical movement, which included Barry Blechman, a long-time Democratic expert on arms control and defense issues (and, like Bruce Blair, a member of the BG-N WG), support for the RRW not only would undercut U.S. leadership in efforts to prevent further nuclear proliferation—as former secretary Bill Perry frequently stated—it also would undermine U.S. moral authority in the campaign for a world free of nuclear weapons.

The extent to which the policy landscape had been "pulled to the left" is illustrated by the long-delayed response to the "Quartet op-ed" by former defense secretary Harold Brown and former deputy defense secretary John Deutch. In their November 19, 2007, Wall Street Journal op-ed entitled "The Nuclear Disarmament Fantasy," Brown and Deutch argued that the United States "should have nuclear weapons to deter potential opponents and to avoid intimidation by other states seeking" weapons of mass destruction (WMD) "[s]o long as serious political differences exist between nations and peoples, and given that the possibility of nuclear weapons exists," but, somewhat surprisingly (in the author’s view), remained agnostic on RRW:

Here is another important issue [in addition to ratifying the Comprehensive Test Ban Treaty or CTBT]. The Bush administration has proposed a Reliable Replacement Warhead program (RRW) to replace existing nuclear warheads with a new design. The RRW, it says, will facilitate reductions in the stockpile; permit confidence in the reliability, security, safety of weapons for the indefinite future; as well as maintain the design capability of the Department of Energy nuclear weapons laboratories. The RRW could lead to a design that is certified without testing, but that sure would be a subject of debate.

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8 In his written testimony to the House Committee on Appropriations Energy and Water Subcommittee on March 29, 2007, Dr. Perry said (on p. 5) that the proliferation argument against RRW—"that if the United States proceeds to develop new nuclear weapons it will substantially undermine our ability to lead the international community in the fight against proliferation"—"outweighs" the pro-RRW arguments—"it will maintain the capability of our nuclear weapon designers" and "it allows the design of a warhead that cannot be detonated by a terror group."
Whether this is a good idea or not, the decision should be made on the basis of the infrastructure needed to support the U.S. nuclear force structure and assure its reliability. It should not be decided on the basis of whether the RRW does or does not contribute to a distant and uncertain goal of a nuclear-free world.9

Even former supporters of the “robust reliable warhead,” as the RRW was once called during the Clinton administration, could not bring themselves to embrace RRW, most likely because it had been endorsed by the Bush administration.10

The U.S. Congress dramatically underscored the “weakening of the middle” on the RRW issue when it passed the FY2008 omnibus domestic spending bill, which President Bush signed on December 26, 2007. The House Appropriations Energy and Water Subcommittee had cancelled previous study efforts on new nuclear capabilities (the Robust Nuclear Earth Penetrator, or RNEP, and Advance Concepts work on low-yield nuclear weapons), but had supported RRW in FY06 and FY07. However, on March 29, 2007, subcommittee chairman Peter Visclosky (D-Ind.) told NNSA acting administrator Thomas D’Agostino: “I have to say that I am troubled by the apparent unbridled enthusiasm of the nuclear weapons complex over the Reliable Replacement Warhead. Any proposal that is so uncritically supported by the department and the rest of the nuclear weapons enterprise immediately throws up a red flag for me.”11

The subcommittee subsequently zeroed out NNSA’s RRW $89 million request (which included $15 million for related Navy work on the Trident D-5 ballistic missile) and cut $130 million from the national labs’ nuclear weapons procurement as a preemptive bargaining chip to the Senate appropriations mark which fully funded the labs weapons work (as long as it included no implementation of NNSA’s Complex 2030 initiative) and provided $66 million for RRW. The final Senate DOE appropriations bill included $15 million for continued RRW feasibility study, which the administration initially hoped to increase to $30 million but settled for the Senate mark (and a smaller $30 million–$40 million cut to the overall nuclear weapons program). Congress passed in early December the FY 2008 National Defense Authorization Act, which authorized $43 million in overall spending for RRW, even as it mandated both a Congressional Commission on the Strategic Posture of the United States (which was to report on a wide variety of “strategic

10 On the first anniversary (January 15, 2008) of the Quartet op-ed, George P. Shultz, William J. Perry, Henry Kissinger, and Sam Nunn published another op-ed, “Toward a Nuclear-Free World,” Wall Street Journal (p. 13), that summarized the favorable response the first op-ed had received, restated the “near-term steps” that the United States and Russia could take (e.g., de-alerting, discarding any massive-attack plans, discussing an end to forward-deployment of nuclear weapons, etc.) that “can in and of themselves dramatically reduce nuclear dangers, and concluded that while the “goal of a world free of nuclear weapons” is like a mountain top that we cannot see, “[w]e must chart a course to the higher ground where the mountaintop becomes more visible.”
posture and nuclear weapons strategy” issues by December 1, 2008) and a “comprehensive” nuclear posture review from the secretary of defense (due with the new administration’s Quadrennial Defense Review, or QDR, in February 2010). Congress, however, cut all RRW development funding from the FY08 omnibus domestic spending bill and directed that the $15 million go instead to the Advanced Certification plan to “close gaps in the program currently used to certify that nuclear weapons retain their potency without the need for underground testing.”

Even though Congress had blocked the path forward to a revitalized nuclear complex via the RRW program, NNSA announced that it would proceed to cut its nuclear infrastructure (both workforce and physical structure) by 20–30 percent over the next decade. In moving toward a “transformed complex” that would be “smaller, safer and less expensive,” NNSA director D’Agostino also announced a new 15 percent reduction in the active U.S. nuclear inventory by 2012 (to a total believed to be around 4,600 warheads, although the exact number is classified and the 2002 U.S.-Russia agreement to reduce to 1,700–2,200 operationally deployed warheads is unchanged). The United States may not know what its nuclear strategy, policy and force structure should be in the 21st century, but it would continue to cut its nuclear stockpile and infrastructure. A much smaller version of the U.S.—Cold War arsenal—White House press secretary Dana Perino said on December 18, 2007, that the active nuclear stockpile would be “less than a quarter its size at the end of the Cold War”—is not likely to be the right answer.

Growing polarization in the policy community during 2007 clearly contributed to the continued decline in congressional support for actions to stem the post–Cold War erosion of U.S. nuclear capabilities. For those, including the author, who believe this dismaying course of events must be decisively reversed, the Nuclear Plus strategic option must be embraced by the next administration. This report will now present the analytic narrative that, hopefully, makes a compelling case for making this choice.

The Role of Nuclear Weapons in the 21st Century

The United States, of course, used nuclear weapons to compel Japan’s surrender ending WW II. In addition to their proven utility as a means to terminate a major conventional war, nuclear weapons were the principal instruments used by the great powers during the Cold War to deter each other. “Strategic” and “nuclear” became interchangeable as nuclear weapons prevented the Cold War from becoming hot, leading one of the foremost theorists of deterrence, Sir Lawrence Freedman, to conclude:

Deterrence can be a technique, a doctrine and a state of mind. In all cases it is about setting boundaries for actions and establishing the risks associated with the crossing of those boundaries. These are key activities in all societies. In international relations these activities dominate diplomatic activity and military provisions. During the cold war [sic], this effort became focused on the superpower confrontation, dominated by nuclear deterrence, to the point where it sucked in all theory. The study of deterrence became synonymous with the study of the strategic conduct of the cold war. The confrontation defined the concept rather than the concept the confrontation.16

From a systemic perspective, nuclear deterrence suppressed the level of violence associated with major power competition: wartime fatalities consumed 2 percent of the world's population in the 1600s and 1700s, about 1 percent in the 1800s, about 1.5 percent in World War I and 2.5 percent in World War II, but about one-tenth during the Cold War (minus the Korean War, which pushed fatalities up to 0.5 percent). A leading practitioner of the art of nuclear deterrence, Sir Michael Quinlan, aptly observed: “Better a world with nuclear weapons but no major war, than one with major war but no nuclear weapons.”17 Despite the close calls and the now almost inexplicable buildup of nuclear weapons by the superpowers, the fact remains: nuclear weapons kept the superpower competition from becoming a war.

The violence-suppressive effect of nuclear weapons has not gone away with the end of the Cold War. Noted Cold War deterrent theorist and Nobel economics laureate Thomas Schelling told a recent World Economic Forum retreat (according to Thomas Barnett, the Pentagon’s favorite futurist) that (1) no state that has developed nuclear weapons has ever been attacked by another state and (2) no state armed with nuclear weapons has ever attacked another state similarly armed.18 With his characteristic flair, Barnett observes that the United States and the Soviet Union learned

that nuclear weapons are for having and not using. Due to the equalizing threats of mutually assured destruction, these devices cannot win wars but only prevent them.

The same logic has held—all these decades—for powers as diverse as the United Kingdom, France, China, India, Pakistan and Israel, with North Korea stepping up to the plate and Iran on deck.

Thus we have survived the democratic bomb and the totalitarian bomb, as well as the capitalist bomb and the communist bomb. In religious terms, we have survived the Christian and atheist bombs, the Confucian and Hindu bombs and the Islamic and Jewish

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16 Lawrence Freedman, Deterrence (Malden, Mass.: Polity Press, 2004), p. 116,
bombs. Somehow, despite all the “irrationalities” ascribed to each new member, the logic of nuclear deterrence holds fast.\(^\text{19}\)

The proposition that nuclear weapons make the world “safe” for great power competition clearly belongs to the ranks of self-fulfilling prophecies, since it depends on the credibility of each state’s nuclear deterrent. Moreover, while it doesn’t make this author sanguine about the risks of further nuclear proliferation to states, regimes or individuals that are more difficult to deter, it seems to be the case that, to date, possession of a nuclear weapon has made the possessor, and its adversaries, much more cautious about embarking on courses of action that could escalate to nuclear use.

Although the United States appears to be allergic to all things nuclear (more about Washington’s nuclear allergy later), much of the rest of the world remains intensely interested in nuclear weapons: those states that have nuclear weapons are modernizing their inventories; North Korea has paid dearly (in terms of its political and economic isolation) to join the nuclear club, and Iran may follow suit, despite the U.S.-led opposition in the United Nations; and North Korea’s and Iran’s neighbors, many of them U.S. allies, are pondering if they might need to go nuclear as well. Nation-states pursue nuclear status for many reasons:

- Nuclear weapons are seen as the ultimate guarantee of national sovereignty and survival:
  - In his cover letter to the December 2006 British White Paper on the future of its nuclear deterrent, Prime Minister Tony Blair stated that for “50 years our independent nuclear deterrent has provided the ultimate assurance of our national security” and that now, as in the Cold War, “we believe that an independent British nuclear deterrent is an essential part of our insurance against the uncertainties and risks of the future.”\(^\text{20}\)
  - While characterizing nuclear deterrence as a “mission that is fundamental to [French] independence and security,” President Chirac in early 2006 defined the “core of our vital interests” as the “integrity of our territory, the protection of our population, [and] the free exercise of our sovereignty” and stated that French nuclear forces “will continue to be the ultimate guarantor of our security.”\(^\text{21}\)

- Possession of nuclear weapons is believed to confer world-class status on those nations that possess them:
  - A former senior U.S. official told me that, in defense of India’s resuming nuclear testing in 1998, his Indian counterpart said: “India is a great nation; all great nations have

\(^{19}\) Ibid.
\(^{20}\) The Future of the United Kingdom’s Nuclear Deterrent, presented to Parliament by the Secretary of Defense and the Secretary of State for Foreign and Commonwealth Affairs by Command of Her Majesty (December 2006), p. 4.
\(^{21}\) Speech by Jacques Chirac, president of the Republic, during his visit to the Strategic Forces Landivisiau – L’Ille Longue Finistere, January 19, 2006, pp. 1, 3, 4.
nuclear weapons.” In defending the U.S.-India nuclear energy deal against domestic critics who believed that it would constrain India’s ability to test nuclear weapons, Prime Minister Manmohan Singh told his Parliament in August 2007: “I will let history judge. I will let posterity judge the value of what we have done through this agreement. It is another step in our journey to regain our due place in global councils.”

- The October 2006 North Korean nuclear test has stimulated an open debate in Japan—a “latent” nuclear power that, understandably, displayed a most severe nuclear allergy for decades—about whether its evolution into a “normal” country should include membership in the nuclear club.

- Nuclear weapons can serve as the “great equalizer” for nations facing competitors with significantly greater conventional military power:
  - Much as the United States did when confronted with the threat of superior Warsaw Pact forces on the Central Front, Russia now rejects a no-first-use policy for its nuclear weapons and follows a more “bang-for-the-ruble” approach that gives nuclear modernization priority over that for conventional forces.
  - When asked what the top lesson learned was from the first Gulf War, Indian Chief of Staff made the now-legendary quip—“Don’t go to war with the United States without nuclear weapons.”

These are very strong incentives for acquiring nuclear weapons in a Hobbesian international system with weak central governance and few, if any, shared international norms. It is hard to disagree with Harold Brown and John Deutch—the notion of a world without nuclear weapons is a fantasy. Few Americans would give them up if other nations still possessed them. And if the world’s strongest military power by far cannot give them up first, who can?

Nuclear weapons are unique in their capacity to inflict massive amounts of damage almost instantaneously. Unlike chemical, biological and radiological weapons, nuclear weapons are truly capable of instant and massive destruction. In an era of suicide bombers, ideologically driven non-state actors will employ nuclear weapons if they can get them—al Qaeda leader Osama bin Laden has said it was a “sacred duty” to seek nuclear weapons—and the civilized world must do everything it can to prevent non-state actors from acquiring nuclear weapons, to disrupt or preempt any nuclear use by non-state actors and to deny non-state actors any benefits they may gain from their use of nuclear weapons. But the so-far-unbroken track record of successful nuclear

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deterrence in the affairs of nation-states will not be replicated against non-state nuclear threats. Not only do many non-state actors lack things of value that can be threatened by nuclear retaliation, some might actually invite nuclear attacks (in the case of deterrence failure) because that would serve their disruptive, messianic purposes. Abolishing nuclear weapons would be an appropriate response to the threat of nuclear terrorism if it were doable. But the continued utility of nuclear weapons in the world of nation-states makes that option an illusion. The history of warfare is absolute—we humans are very inventive at finding new ways of killing each other and once we do, we use them. At some point, hopefully as far in the future as we can make it, a non-state actor is likely to use a nuclear device in a terrorist attack. And while the logic of nuclear deterrence among nation-states will have little, if any, relevance to that future catastrophe, that future employment of a nuclear weapon by a non-state actor is likely to affect how post-use nuclear deterrence works.

In retrospect (and despite Tom Barnett’s sunny optimism), it has actually been quite remarkable that nuclear weapons have not been used since 1945. It would be even more astonishing if they were not used during the next 60 years. Deterrent strategies based on the assumption of state-actor rationality worked with the Soviet Union and the People’s Republic of China. But those Cold War adversaries, unlike Iran today, did not have an official Death to America Day or a president who says that an important U.S. regional ally must be wiped off the map. Deterring nuclear attacks against the United States by nuclear-armed regional states is, at the least, more problematic than Cold War nuclear deterrence.26 The author has participated in several “scenario seminars” (as opposed to formal war games) in which a small nuclear-armed state in a conflict resorts to early use of nuclear weapons in an effort to compel the United States (by escalating across the nuclear threshold) to stop its conventional campaign against it. In summarizing the themes from its 2006 Annual Symposium, The Future Nuclear Landscape: New Realities, New Responses, the National Defense University’s Center for the Study of Weapons of Mass Destruction concluded that “U.S. policymakers and military planners [“while remaining focused on terrorist threats”] should also take seriously the possibility of next state use” and advised: “Prudent policy should assume a next use of nuclear weapons is becoming more likely and will be a shock to the international system, especially if it is deemed successful in achieving the user’s objectives.”27 In thinking through how U.S. nuclear deterrence will work in the post-9/11 era, it is necessary, not just prudent, to think how it will work in the post-next-nuclear-use era, if only for the purpose of delaying the start-date of that era for as long as possible.

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The Contributions of Nuclear Weapons to U.S. Security

The United States continues to say that nuclear deterrence is “critical”—the 2006 National Security Strategy states that “credible” nuclear forces continue to play a critical role in U.S. national security, and the 2006 QDR report maintains that the U.S. nuclear deterrent is a “keystone of national power.” Days after the North Korean nuclear test, Secretary of State Condoleezza Rice (upon her arrival in Japan) invoked the U.S. nuclear deterrent when she stated: “The United States has the will and the capability to meet the full range—and I underscore the full range—of its deterrent and security commitments to Japan.” Similarly, Secretary of Defense Donald H. Rumsfeld agreed to a joint communiqué with the visiting South Korean defense minister on October 20, 2006, that “offered assurances of firm U.S. commitment and immediate support to the Republic of Korea, including continuation of the extended deterrence offered by the U.S. nuclear umbrella, consistent with the mutual defense treaty.” In this instance, the Japanese were reassured; Foreign Minister Aso stated: “The government of Japan has no position at all to consider going nuclear. There is no need to arm ourselves with nuclear weapons, either.” The South Koreans, however, were less so—Defense Minister Yoon Kwang-ung reportedly “tried to persuade Pentagon officials yesterday to issue a public statement that if the North attacked the South with nuclear weapons, the United States would retaliate as if U.S. territory itself had been attacked by nuclear weapons.” The continued need for a U.S. nuclear deterrent was underscored by recently retired Central Command commander General John P. Abizaid, who stated flatly in September 2007 that “I believe nuclear deterrence will work with the Iranians,” although he did put it in a broader context:

I believe that the United States, with our great military power, can contain Iran, that the United States can deliver clear messages to the Iranians that makes it clear to them that while they may develop one or two nuclear weapons, they’ll never be able to compete with us in our true military might and power, and they should not underestimate our resolve or our ability to deal with them in the event of war.

Evidently, the United States still needs a nuclear deterrent and acts as if it has one. But how credible is it?

31 Shanker and Onishi (October 19, 2006).
During the Cold War, a credible nuclear deterrent depended on whether the Soviet Union (and others) believed we had the will and capability to carry out our threats. The issue of credibility was at the core of our deterrent strategy, defense policy and nuclear force strategy. Changes in nuclear strategy, for example from Massive Retaliation to Flexible Response, were driven by our perceptions of which threats would be most credible to our Cold War adversary. The nuclear arms race was not just about building nuclear capabilities—it was about demonstrating resolve. One of the ways of demonstrating how serious we were about nuclear deterrence was to build more weapons. Another way was to test them.

The collapse of the Soviet Union and the emergence of the United States as the world’s only conventional superpower led senior officials in Washington to greatly downgrade the value of nuclear weapons. President George H.W. Bush unilaterally eliminated entire classes of short-range nuclear weapons (Army systems and those on surface naval systems) and withdrew almost all forward-deployed tactical nuclear weapons (with the exception of small inventories in NATO).

The effectiveness of Secretary of State James Baker’s “calculated ambiguity” in threatening Iraq on the eve of the first Gulf war with “terrible consequences” if Iraq used chemical weapons is still debated. Whatever the utility of this U.S. nuclear threat intended to deter a proximate action, it was undermined by the memoirs of the senior policymakers involved. President George H.W. Bush and General Brent Scowcroft wrote in their memoirs that they had no intention of using nuclear weapons during that operation. JCS chairman Colin Powell, when asked by Secretary of Defense Dick Cheney about nuclear options, stated: “Let’s not even think about nukes. You know we’re not going to let the genie lose.” It’s hard to make credible threats when you tell the world (including future adversaries) that you were bluffing the last time you made one.

The Clinton administration conducted a Nuclear Posture Review (NPR) that concluded that “no new strategic systems are under development or planned.” In fact, the assistant secretary of defense charged with the NPR stated, “Our intention is to have a military that doesn’t need to use [nuclear, biological and chemical] weapons. We can use conventional forces to prevail anywhere in the world.” Once its NPR was concluded, the administration paid little attention to U.S. nuclear strategy and policy, focusing instead upon nuclear nonproliferation and counterproliferation issues.

The administration of President George W. Bush initially paid considerable attention to nuclear issues. This resulted in a May 2001 speech at the National Defense University on strategic issues (including the commitment to build ballistic missile defense, abrogate the 1970 Anti-Ballistic

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Missile (ABM) Treaty and unilaterally reduce the U.S. inventory of nuclear weapons). At that time, President Bush stated that he was “committed to achieving a credible deterrent with the lowest-possible number of nuclear weapons consistent with our national security needs, including our obligations to our allies.”

Secretary Rumsfeld launched his NPR in late spring 2001. The decisions made during the 2001 NPR (the agreement, later codified in the Moscow Treaty with Russia to reduce long-range nuclear weapons inventories to 1,700–2,200 operationally deployed warheads and the formal U.S. withdrawal from the ABM treaty) are well known; the NPR report itself is not. It was transmitted to Congress in a classified form, but was never released in an unclassified form. In hindsight, many believe that the administration missed a big opportunity to engage the Congress on a new vision for America’s nuclear forces. But Washington is a one-big-issue-at-a-time town, and in the winter of 2001–2002 that issue was the post-9/11 invasion of Afghanistan.

Conceptually, the NPR broke new ground in several areas. The United States would no longer plan, size, or shape its forces vis-à-vis Russia, enabling greater stockpile reductions. The review underscored the critical need to refurbish the nuclear weapons complex. It also unveiled a new concept for U.S. strategic forces and capabilities—the New Triad (see figure 1). The New Triad took the Old Triad, comprising ICBMs, SLBMs, and bombers, and placed them within a broader portfolio of strategic capabilities: strike (non-nuclear and nuclear), defense (active and passive), and a responsive nuclear infrastructure. The legs are integrated through C4ISR and intelligence.

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Figure 1. 2002 Nuclear Posture Review Redefines “Triad”

Cold War Triad

New Triad


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39 President George W. Bush, “Remarks by the President to Students and Faculty at National Defense University,” White House: Office of the Press Secretary, May 1, 2001, p. X.
Although the NPR put the United States on a more sound policy footing, it failed to create the political foundation, particularly in Congress, for implementing that policy. Portions of the 2002 NPR report were leaked and posted on Web sites around the globe,\(^4\) often without the broader political context that framed the report’s key conclusions. This undoubtedly generated undue skepticism toward the administration’s nuclear initiatives, which also were caught up in the political backlash from the so-called preemption doctrine expressed in the Bush administration’s national security strategy released in September 2002.

Not only did the NPR fail to generate the debate necessary for its implementation, the report itself undercut both the credibility of the nuclear deterrent and the rationale for modernizing U.S. nuclear forces. Most important, the NPR “mainstreamed” nuclear weapons by making them, despite their unique destructive properties and the unique role they have played since the end of World War II, one of several offensive “strategic capabilities”—in STRATCOM chartology, the New Triad offensive forces includes conventional, non-kinetic (that is, cyberwarfare) and nonconventional (that is, nuclear forces). The effect of this downgrading of nuclear weapons from their unique status has been (as will be discussed shortly) a continuation of the neglect of things nuclear. This should not have been surprising since Secretary Rumsfeld, in his cover letter to the NPR report, stated or implied six times that one of the principal virtues of the NPR was that it reduced U.S. reliance on nuclear weapons. If this is the kind of advocacy that nuclear weapons received in a “nuclear posture review,” it is not hard to envision how weakly they are advocated when they are “mainstreamed” with other capabilities in DOD’s constant competition for defense dollars (often referred to as “the Pentagon’s real war”).

In a recent article on “new nuclear realities,” Harold Brown restated the military elements of deterrence credibility:

> Because some nuclear weapons will remain [since it will be impossible to assure that all nuclear weapons have been destroyed in a disarmed world “not universally governed by an all-powerful and all-intrusive regime”], the United States ought to continue to have them, have a rationale for having them, and inevitably have a doctrine for their use as a deterrent, which in turn implies a doctrine for their possible use in retaliation.\(^4\)

For the United States (or any nuclear-armed state), having a credible nuclear deterrent requires having a military that is *serious* about sustaining its nuclear capability, strategy and doctrine. At the risk of overstatement, as well as that of offending those in uniform who care about things nuclear, the predominant view in today’s military, where the operational perspective of the “warfighter” is dominant, is that nuclear weapons lack utility because they are not “useable.” Nuclear weapons are not “interesting” (particularly from a career perspective) because they are not needed (since the United States is the world’s only conventional superpower) and will not ever be used (by a U.S. president).


The views of General James E. “Hoss” Cartwright (USMC), STRATCOM combatant commander from July 2004 to August 2007, are both illustrative and illuminating. Long-time Pentagon watcher and reporter Elaine M. Grossman reported that “[e]arly in his tenure as head of Strategic Command, the general said he was determined to build long-range conventional weapons that might offer a U.S. president a more viable alternative to nuclear weapons under certain circumstances. ‘My priority is not reduced yield,’ Cartwright told a reporter in April 2005. ‘It’s to take the accuracy to the point where conventional can substitute for nuclear. That’s my first priority.’”42 In advocating that a conventional missile be substituted for a nuclear-tipped missile on the Trident submarine (Conventional Trident Modification, or CTM), the STRATCOM commander made the following statements to the Congress in early 2007:

…it is prudent to have the ability to defeat attacks or eliminate high value or fleeting targets at global ranges rather than suffering the consequences of an attack. We have a prompt delivery capability on alert today, but it is configured with nuclear weapons, which limits the options available to our decisionmakers and may reduce the credibility of our deterrence.43

While America possesses dominant conventional capabilities second-to-none, we lack the capability to respond promptly to globally dispersed or fleeting threats without resorting to nuclear weapons. As good as they are, we simply cannot be everywhere with our general-purpose conventional forces and use of a nuclear weapons system in prompt response may be no choice at all.44

If having only a nuclear options is, as one senior STRATCOM official told me, equivalent to “choosing between a nuclear response and no response” and if reliance on nuclear weapons weakens deterrence, then nuclear capabilities, by definition, are not very useful. In one of his first extensive interviews after becoming the vice chairman of the Joint Chiefs of Staff, General Cartwright “called the notion of a temptingly low-yield [nuclear] weapon—generally defined as 1 to 10 kilotons—a 'good academic argument,' one 'that deals more with the 'what if’” and went on to say:

“None of them [policy advocates, including Bush administration appointees in DoD and DoE, of low-yield nuclear weapons] have had the responsibility or the accountability” to launch such weapons, Cartwright said. “I don’t want to put myself in the shoes of the

President, but who is not going to take [as] incredibly serious the use of a nuclear weapon?”

For those who are accountable, he added, “it is not just a little bit [of] a weapon of mass destruction. It is going to change not just that country’s future, but all of our futures when we start using these things, big or little.”

Although General Cartwright (whom I know personally and admire greatly) is clearly one of the most respected and influential leaders of today’s military, the gap between what former defense secretary Brown believes is necessary for nuclear deterrence and how General Cartwright views the issue is self-evident. It makes one long for the “bad old days” of the Cold War when our nuclear deterrent was “strong,” in part because we limited our threats of nuclear retaliation to very important things such as deterring nuclear attacks on ourselves and our allies, and our conventional deterrent was “weak,” largely because of its poor track record. “Mainstreaming” our nuclear deterrent in DOD has devalued it, in part because our military practitioners believe what our political leaders said after the last time they threatened to use nukes—“we didn’t really mean it.”

Although the 2001 QDR included deterrence as one of the four defense policy goals, along with assurance, dissuasion and defeat in the now-canonical “ADDD” formulation, the Bush administration paid little attention to deterrence during its first term because, as Eldridge Colby points out in quoting President Bush and Vice President Cheney, the post-9/11 threat was terrorism using nuclear weapons (that is, nuclear terrorism):

Deterrence—the promise of massive retaliation against nations—means nothing against shadowy terrorist networks with no nation or citizens to defend. Containment is not possible when unbalanced dictators with weapons of mass destruction can deliver those weapons on missiles or secretly provide them to terrorist allies.

—President Bush at West Point, June 1, 2002

The strategy of deterrence, which served us so well during the decades of the Cold War, will no longer do. Our terrorist enemy has no country to defend. No assets to destroy in order to discourage an attack. . . . There is only one way to protect ourselves against catastrophic terrorist violence, and that is to destroy the terrorists before they can launch further attacks against the United States.

—Vice President Cheney to the Heritage Foundation, October 10, 2003

Not only was preemption the preferred strategy for dealing with nuclear terrorism, preventive war was the strategy for dealing with the threat of “unbalanced dictators” armed with nukes. Of course, going to war to prevent Saddam Hussein from getting nuclear weapons conveyed our belief that we would have been deterred if he had gotten them. After all, Iraq’s presumed

operational capability for chemical warfare (and, possibly, biological warfare as well) had not deterred the United States from attacking in 1991 or 2003. Similarly, repeated statements by mid-level DOD officials during the first Bush administration that the United States needs new nuclear capabilities that are low collateral, lower yield, and more accurate to ensure that its nuclear deterrent remains credible raise an obvious question: what happens if there are no new nuclear capabilities? How credible—to ourselves, our allies and friends and our adversaries—will our nuclear deterrent be then?

Deterrence made a comeback during the Bush administration’s second term when the concept of “tailored deterrence” was adopted in the 2006 QDR report. Congressional Research Service analyst Amy F. Woolf traces the “mandate for tailored deterrence” to Keith Payne, noted deterrence theorist and a deputy assistant secretary of defense during the 2001 NPR, who said in March 2004:

[D]eterrence threats based on the generally high yields of the Cold War arsenal may not appear credible, given the excessive civilian destruction likely to occur. . . . Clearly, some reasonable and much needed steps to better align U.S. deterrence policy to the realities of the new era include broadening U.S. deterrent threat options…seeking an understanding of the opponents’ intentions and the flexibility to tailor deterrence to specific requirements of foe, time, and place . . . .

Although Payne seemed to be focusing on nuclear deterrence, the 2006 QDR defined tailored deterrence, albeit in the New Triad context, as the “forces and capabilities needed for deterrence, reflecting a shift from ‘one size fits all’ deterrence toward more tailorable capabilities to deter advanced military powers, regional WMD states or non-state terrorists.”

Although many Cold War-era nuclear deterrent theorists and practitioners took umbrage at the “one size fits all” characterization, since they had always “tailored” the U.S. nuclear deterrent to fit their changing assumptions about what targets the Soviet leadership valued, the more significant problems, from the perspective of the U.S. nuclear deterrent, was the continued “mainstreaming” of things nuclear inside DOD and the application of “tailored deterrence” to “non-detractable” non-state terrorists.

The first steps in any recovery program are understanding and taking ownership. Resuscitating the U.S. nuclear deterrent must begin with the recognition that nuclear weapons are unique capabilities and play unique roles in both warfare and international affairs. That the United States needs a nuclear deterrent in the post-9/11 era is self-evident at the most fundamental level:

- Nation-states still possess nuclear capabilities that threaten our very existence (Russia today, perhaps China tomorrow) and can inflict “unacceptable damage” (any state that has nuclear weapons);

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• Deterring nuclear attacks against the United States and its citizens is still a first-order requirement.

• U.S. allies and friends that do not possess nuclear weapons depend on our extended nuclear deterrent;

• The State Department’s International Security Advisory Board, as it dismissed the view that “nuclear security is possible only through nuclear disarmament” as “misguided and dangerous,” stated flatly: “There is clear evidence in diplomatic channels that U.S. assurances to include the nuclear umbrella have been, and continue to be, the single most important reason many allies have foresworn nuclear weapons.”

The classic deterrence question has always been “deter who from doing what against whom.” How far the U.S. nuclear deterrent could be “extended” beyond direct nuclear threats to the United States was much debated during the Cold War—no participant will ever forget the passionate debate in NATO over the “coupling” or “decoupling” effects of U.S. forward-deployed nuclear weapons—and will continue to be the subject of great debate in the post-9/11 era. The discussion sparked by the “new” concept of tailored deterrence has already enhanced our understanding of deterrence—Elaine Bunn, for example, argues successfully (in my view) that the credibility of our deterrent depends not only on our will and capability (as perceived by the adversary), but our “communications,” defined as “the kinds of messages the United States would send in its words or actions that contribute to (or detract from) its efforts to deter specific actors, in both peacetime and crisis situations.” But the imperative for a credible U.S. nuclear deterrent is indisputable—nuclear weapons exist; numerous nation-states possess them; more nation-states are likely to acquire them and the risk that nuclear weapons will be used is growing. No other justification or rationale is needed for making the nuclear mission a top priority for the Department of Defense.

Organizing DOD for the Nuclear Mission

In the March/April 2006 Foreign Affairs, Keir A. Leiber and Daryl G. Press argue that the United States “stands on the verge of gaining nuclear primacy” and that the “weight of the evidence suggests that Washington is, in fact, deliberately seeking nuclear primacy.” For those of us in Washington who follow nuclear matters, this charge is ridiculous on its face, because DOD and the U.S. government as a whole are scarcely even interested in things nuclear. In Washington, effective policy representation of any issue requires organizational and bureaucratic stature. Over the past 15 years, the bureaucratic actors focused on nuclear weapons have either disappeared or

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been incorporated (aka “mainstreamed”) into other agencies. Moreover, the time and attention of senior policymakers—the scarcest resource in official Washington—has precipitously declined when it comes to nuclear issues. The “nuclear suitcase” that provides positive command and control for U.S. nuclear weapons still follows the president around, but this appears to most (including, I suspect, the president himself) as an anachronism of the Cold War rather than an indicator of current strategic priorities.

Who is involved in the nuclear mission? Nuclear weapons are really the “president’s weapons”—no other military capability (except, perhaps, the Marine Band) requires the explicit approval of the president before it can be employed for any purpose. The Department of Defense executes the nuclear mission for the president. The U.S. Strategic Command, under the authority of the president and the Secretary of Defense (the so-called National Command Authorities) generates the requirements for nuclear weapons, plans for, and would conduct, any operations involving nuclear weapons. The U.S. Navy and the U.S. Air Force provide delivery systems for nuclear weapons and personnel trained in the planning and conduct of nuclear operations. The National Nuclear Security Administration (NNSA), whose administrator is dual-hatted as an under secretary of DOE, provides oversight of the national laboratories, production plants and testing facilities that provide nuclear warheads to DOD. During the height of the Cold War, the nuclear mission was clearly top dog, as DOD withheld forces from other missions to ensure that it could exercise the Single Integrated Operating Plan (SIOP) at a moment’s notice. Today, however, the nuclear mission has fallen on hard times.

The recent history of STRATCOM illustrates how far the nuclear mission has declined in organizational status. In 1992, DOD (belatedly) recognized that the nuclear mission was a “joint” mission—that is, carried out by two or more military services—and established the U.S. Strategic Command. Doing so brought the planning, requirements definition and wartime employment for nuclear-armed bombers and land-based and sea-based missiles (once known as “the Triad”) under the command of a single four-star commander.\(^5^2\)

On October 1, 2002, that all changed. U.S. Space Command was merged into STRATCOM, in part because Secretary Rumsfeld did not want to expand the number of combatant commands while DOD responded organizationally to post-9/11 political imperatives by creating U.S. Northern Command. Since that time, STRATCOM picked up new responsibilities, having responsibility by 2006 for the following: command and control of strategic forces, global strike, military space operations, computer network operations, information operations, global intelligence, surveillance and reconnaissance (ISR), strategic warning and intelligence assessments, and combating weapons of mass destruction.\(^5^3\) In the summer of 2002, the highest-

\(^5^2\) Operational planning for nuclear weapons had been centralized since the 1960s by dual-hatting the commander of Air Force’s Strategic Air Command (SAC) as the head of the Joint Strategic Target Planning Staff.

ranking individual at STRATCOM who thought about nothing but nuclear issues was its four-star commander; today, it is a retired lieutenant colonel who heads up the Nuclear Command and Control office (the only place where the word “nuclear” appears on STRATCOM’s org chart). That’s five levels down the bureaucratic food chain in less than four years.

This post–Cold War loss of organizational status was echoed on the civilian side of the house in DOD. At the end of the Cold War, OSD’s assistant secretary of defense for international security policy focused largely on nuclear issues; now, it’s one of several accounts for the deputy assistant secretary of defense for strategic forces. The Defense Atomic Support Agency (later the Defense Nuclear Agency, or DNA) was established in the wake of the World War II Manhattan Project and over the years (in several different incarnations) served as the secretary’s principal technical adviser for nuclear weapons. By 1998, the DNA had become the Defense Threat Reduction Agency (DTRA), which has a broad anti-WMD mandate. DTRA’s current focus is on managing the threat (including preventing proliferation) from biological, chemical, and nuclear weapons, with DNA’s original role as the civilian nuclear proponent inside DOD taking (at least) tertiary priority.

The organizational decline of the nuclear mission in the military services has been almost as dramatic. The U.S. Army divested itself of nuclear forces entirely as a consequence of the U.S. decision in 1991 to unilaterally reduce tactical (that is, short-range) nuclear weapons. In January 1997, then chief of staff of the Air Force Ronald R. Fogelman created an office (AF/XON) headed by a two-star general in order to create a single button on the Air Staff for nuclear issues. Today, that office no longer exists and the highest-ranking Air Force officer in the Pentagon with responsibility for nothing but nuclear matters is a colonel. The Navy still has a two-star in charge of its nuclear programs, but that is largely driven by the Navy’s nuclear-powered submarine program, not the nuclear mission. Members of the nuclear community within both services privately express the belief that both services would readily divest themselves of the nuclear mission in a heartbeat if they could do so without losing force structure. The Air Force’s recent Bent Spear incident—in which six nuclear-armed cruise missiles were left unattended for 36 hours while being flown from one air base to another—raises the disturbing issue of how much the nuclear mission’s decline has eroded the “nuclear competence” of the military services.

The infrastructure that supports the design and production of nuclear weapons has suffered from post–Cold War benign neglect. The nuclear enterprise is currently behind on virtually every task assigned to it, from stockpile surveillance to weapons dismantlement (although the situation has improved in the last year). Perhaps worse, the workforce continues to age, as the retirement of experienced designers creates an ominous gap in the nation’s nuclear weapons design knowledge.

54 Close observers of the Omaha-based command, while noting that General Cartwright had an excellent command of nuclear issues, estimate privately that STRATCOM’s senior leadership spends about five percent of their time on nuclear issues.

The deterioration of the nuclear infrastructure is mirrored by the deterioration of the nuclear weapons themselves. The last warheads that the United States produced were designed in the 1970s, assembled during the 1980s and were intended to last 10 to 15 years. While other nuclear-armed states continued to produce nuclear weapons, NNSA announced proudly on September 27, 2007, that Los Alamos National Laboratory had produced in July the first pit for the stockpile in 18 years and the first W88 nuclear warhead to employ a replacement pit had been certified for entry into the stockpile.56

During the Cold War, confidence that U.S. nuclear weapons would perform as advertised, which many believed was critical to the credibility of the U.S. nuclear deterrent, was attained through rigorous nuclear testing. In the early stages of nuclear development, around 10 nuclear tests were conducted for every type of warhead put in the stockpile; this number decreased to around three tests by the 1980s.57 These tests, which both identified and rectified problems in the nuclear warhead, were designed to test nuclear yield, not the effects of weapon longevity. To replace testing as a means of sustaining confidence in the stockpile, the United States embarked on the science-based Stockpile Stewardship Program (SSP), a costly (about $2 billion to $3 billion a year), technically complicated program that relies heavily on computer simulations. Although the national lab directors and the STRATCOM commander continue to give Congress annual certifications of the reliability of the nuclear stockpile, the uncertainty associated with certifying decades-old systems without testing had led NNSA to preserve the ability to test—as then-NNSA administrator Linton Brooks told the Congress in 2005: “While there is no reason to doubt the ability of the stockpile stewardship program to ensure the safety, security, and reliability of the deterrent, we believe the nation must be prepared to carry out an underground nuclear weapons test in the event of some unforeseen problems that cannot be resolved by other means.”58

The decay of the U.S. nuclear enterprise is met with increasing apathy—and at times, antipathy—inside the Beltway. There seems to be an allergy to supporting anything with the word “nuclear” in it. During the Cold War, nuclear issues often turned national elections (e.g., the so-called Missile Gap in 1960) and consumed Congress (e.g., alternative basing schemes for the Peacekeeper missile). Today, there are “mini-debates” about specific programs, such as the study of the Robust Nuclear Earth Penetrator, or RNEP, but no discussion of the overall strategy and role for U.S. nuclear forces. The “inside the Beltway” nuclear allergy—one prominent legislator privately stated in early 2005 that “take the word ‘nuclear’ out of RNEP and we’ll give it to you” (which is what they did)—has become so strong that the chairman of the relevant House appropriations subcommittee—who criticized the complex for being “giddy” over the RRW—and

the editorial board of the *New York Times*—which characterized the RRW program as “Busywork for Nuclear Scientists”—sound like they are singing from the same anti-nuclear song book.\(^{59}\)

While their elected representatives in Washington may devalue nuclear weapons, the American people do not. Public opinion surveys consistently show that in the post–Cold War era, a strong majority of Americans believe that nuclear weapons continue to play an important role in deterring nuclear conflict and, moreover, value nuclear weapons now as much as they did at the end of the Cold War.\(^{60}\) A more recent survey (September 2007) reveals:

- 7 percent of Americans believe that nuclear weapons are “morally wrong” and that the United States should eliminate its nukes regardless of what others do;
- 19 percent, however, believe that nuclear weapons “give the U.S. a uniquely powerful position in the world” and that it is not in the U.S. interest to participate in treaties that would reduce or eliminate nuclear weapons;
- 38 percent believe “we should do our best to reduce the number of nuclear weapons through verifiable agreements, but it should not be our goal to eliminate them.”\(^{61}\)

In the same manner that the majority of Americans have believed since the mid-1960s that the United States already has effective national missile defenses, many, if not most, Americans think they have a healthy nuclear stockpile and infrastructure (even though the median response in September 2007 to the question of how many nuclear weapons does the United States have was 1,000, an estimate off by at least a factor of five).\(^{62}\) Although Americans clearly think little about nuclear matters, they likely assume that the United States is a nuclear power “second to none” (albeit at stockpiles far smaller than is actually the case) and would be shocked to discover how little attention has actually been paid to U.S. nuclear forces.

Resuscitating the credibility of the U.S. nuclear deterrent in an era of nuclear multipolarity requires that Washington gets over its denial that nuclear issues matter and gets serious about its nuclear strategy, policy and force posture. Since nuclear weapons belong to the president, leadership on these issues must start at the top. Because of the current political realities surrounding the wars in Iraq and Afghanistan, as well as the antibodies that this president generates when it comes to things “nuclear,” this issue is best left for the next administration.

For those (like the author) who are increasingly frustrated by the lack of consistent, serious attention to nuclear matters by senior leadership in the Pentagon, the organizational decline of

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\(^{62}\) Ibid., p. 3.
the nuclear mission must be undone. Nuclear weapons are unique and special capabilities, and they need the same approach as that given to special operations forces (SOF). In 1986, the Nunn-Cohen amendment established U.S. Special Operations Command (SOCOM) and gave it budgetary and acquisition authorities, because the military departments had neglected this “orphan mission” and failed to provide the SOF capabilities the nation needed. In the case of SOF, it was repeated operational failures (particularly Desert One, the failed attempt to rescue the Iranian hostages) that gave political impetus to the creation of SOCOM. We cannot afford similar failures in the nuclear realm. It is time to go “back to the future” and establish a U.S. Nuclear Forces Command that could have (pending further analysis) the following attributes:

- Established as a subordinate command in U.S. Strategic Command and headed by a three-star;
  - Like other combatant commands, this new “Nuclear Forces Command” would function as a standing Joint Task Force (JTF).
- Provided (as SOCOM was) with budget and acquisition authority (including a Major Force Program for nuclear capabilities);
- Supported by NNSA and a smaller, rationalized complex focused solely on the nuclear mission
  - Ends DOE’s risk-averse micro-management of the nuclear complex and leaves them to focus on nuclear energy;
  - Consolidates “national security” activities (that is, work on the nuclear warhead) at one of the national labs and “other” activity (non-weapons work) at the other lab (which could stay with DOE);
  - One can have competing warhead design teams without having competing labs.

To ensure that the National Command Authorities would receive the support they needed on nuclear matters, the president needs an NSC special assistant for nuclear issues (to help integrate and harmonize nuclear policy, including communications, across the U.S. government), and the secretary of defense needs a congressionally confirmed assistant secretary for nuclear matters (the minimum level of organizational status needed for effective advocacy inside the Pentagon).

Washington’s approach to sustaining its post-9/11 nuclear deterrent is feckless and somewhat frivolous. A stockpile designed for a 1980s threat that no longer exists is not relevant to today’s challenges. Getting serious about nuclear weapons means doing things with them—thinking about them, producing them, deploying them, exercising with them and, if necessary, testing them—so that the threats to employ them will be taken seriously. It also will require some straight talk to the international community, telling them what everyone in Washington used to know and most Americans still believe—namely, that despite having agreed to Non-Proliferation Treaty Article VI, the United States, like all other nuclear powers, has no intention of getting rid of its nuclear weapons for the foreseeable future. This deliberately active approach to nuclear weapons
is the only way to resuscitate the U.S. nuclear deterrent. And it is far better for the United States to have a credible nuclear deterrent than to feel compelled to employ a nuclear weapon because its nuclear deterrent failed.

Final Thoughts

This advocacy narrative for the Nuclear Plus option is not intended to be “balanced.” It makes the case for why a president and his or her cabinet should embrace this option, and gives a sense of how this option could be implemented and marketed domestically and internationally. The downside risks of this option should be clear from the advocacy narrative for the Nuclear Minus option, as well as that for the “as is” Nuclear Same policy. The risks of the increasingly untenable (in the judgment of the author) “middle way” policy should be exposed by the supporting material for the options to both sides of the current course of action. It is the job of the NSC, operating as honest broker, to identify the pros and cons of each strategic option and help the president decide on the role of his weapons and the nature of the nuclear mission.

While this “competitive strategies” approach may seem overly burdensome, it is necessary when a president faces strategic choices on important issues on which there is significant disagreement in the policy community on the “basics.” In these instances—and there is little doubt that the future of U.S. nuclear weapons is one of them—the president will have to chose among fundamentally different courses of actions, not on the best way to execute a particular course of action. These latter decisions, of course, will have to be made, but only after the basic strategy (often called the “business model” in the world of commerce) is known. Trying to decide which actions the government should take, without knowing which end-ways-means chain is being followed, results in purposeless action, an all-too-common state of affairs in Washington. When it comes to nuclear strategy, policy and force structure, like other big issues, you have to know where you are going before you can start moving in that direction. And sometimes a president has to take the time to make that choice.
About the Author


In 2000, Murdock taught military strategy, the national security process, and military innovation at the National War College. From 1995 to 2000, he was deputy director of the Air Force’s headquarters planning function. As deputy special assistant to the chief for long-range planning, he helped define a coherent strategic vision for the 2020 Air Force and institutionalize a new long-range planning process. As deputy director for strategic planning, he helped implement the new planning process and led the development of several new planning products. Before joining the Air Force, he headed the Policy Planning Staff in the Office of the Under Secretary of Defense for Policy.

Murdock has served in many roles in the defense world, including as a senior policy adviser to House Armed Services Committee chairman Les Aspin, as an analyst and Africa issues manager in the CIA, and in the Office of the Secretary of Defense. He also taught for 10 years at the State University of New York at Buffalo. He is an honors graduate of Swarthmore College and holds a Ph.D. in political science from the University of Wisconsin at Madison.