

CRS Report for Congress

Nuclear Weapons in U.S. National Security Policy: Past, Present, and Prospects

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Nuclear Weapons in U.S. National Security Policy: Past, Present, and Prospects

Summary

The Bush Administration has outlined a strategy of “tailored deterrence” to define the role that nuclear weapons play in U.S. national security policy. There has been little discussion of this concept, either in Congress or in the public at large. This leaves unanswered questions about how this strategy differs from U.S. nuclear strategy during the Cold War and how it might advise decisions about the size and structure of the U.S. nuclear arsenal.

Throughout the Cold War, the United States relied on nuclear weapons to deter an attack by the Soviet Union and its allies and to forestall the outbreak of a global war between the United States and the Soviet Union. However, the broad Cold War-era agreement about the role of nuclear weapons in U.S. security policy began to dissolve during the 1990s, after the demise of the Soviet Union. Further, in response to emerging threats to U.S. national security, the Bush Administration has argued that the United States must alter its deterrence strategy “from ‘one size fits all’ deterrence to tailored deterrence for rogue powers, terrorist networks, and near-peer competitors.”

During the Cold War, the United States often modified, or tailored, its nuclear targeting doctrine, its nuclear weapons employment policy, and its nuclear force structure to enhance or maintain the credibility of its nuclear deterrent posture. In some ways, the Bush Administration’s concept of tailored deterrence follows the same pattern, using assessments of an adversary’s society and values to identify a range of targets that might be threatened, and adjusting U.S. war plans and force structure to enhance the credibility of U.S. threats to destroy these targets. However, tailored deterrence differs from Cold War deterrence in that it explicitly notes that U.S. nuclear weapons could be used in attacks against a number of nations that might have developed and deployed chemical and biological weapons, even if they did not possess nuclear weapons. Hence, the new policy seems more of a change in “who” we will deter than it is a change in “how” we will deter.

Congress may review the concept of tailored deterrence, either as a part of its oversight of nuclear weapons policies and programs, or as a part of a broader debate about the role of nuclear weapons in U.S. national security policy. Issues that might come up in such a review are questions about how much U.S. nuclear strategy and weapons employment policy have changed in recent years; questions about whether the new capabilities and war plans will enhance the credibility of U.S. deterrent threats, or, conversely, make the use of nuclear weapons more likely; questions about whether the United States must develop new weapons capabilities to meet the demands of tailored deterrence, or whether it must retain a force structure with thousands of deployed warheads if it no longer uses “the Russian threat” as the metric for sizing the U.S. force; and questions about whether the new concepts and war plans expand or restrict the role of nuclear weapons in U.S. national security strategy.

This report will be updated as needed.

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Nuclear Weapons in U.S. National Security Policy: Past, Present, and Prospects

Introduction

The Bush Administration has described the strategy of “tailored deterrence” to define the role that nuclear weapons might play in U.S. national security policy. Yet, there has been little discussion of this concept, either in Congress or in the public at large, that would allow this concept to serve as a mechanism to help determine the size and structure of the U.S. nuclear force. This absence of discussion has also made it difficult to identify the ways in which tailored deterrence differs, if at all, from the Cold War concept of strategic deterrence and how it might alter the role of nuclear weapons in U.S. national security strategy.

This report highlights the differences between the construct of tailored deterrence and the more general concept of strategic deterrence that guided U.S. nuclear policy during the Cold War. It then identifies a number of issues that Congress might address when it reviews these differences, including the question of whether detailed and tailored attack plans are more likely to enhance deterrence or more likely to lead to the early use of nuclear weapons, and the question of whether tailored deterrence provides any guidance about the future size and structure of U.S. nuclear forces.

Nuclear Weapons in U.S. National Security Policy

The Evolving Role of Nuclear Weapons

Nuclear weapons were at the center of U.S. national security policy for more than 50 years. From the end of World War II, and, particularly, from the first explosion of a Soviet nuclear weapon in 1949, until the end of the Cold War in 1991, the United States relied on nuclear weapons to deter Soviet aggression and forestall the outbreak of a global war between the United States and the Soviet Union.

Generally, the United States sought to maintain “nuclear and conventional capabilities sufficient to convince any potential aggressor that the costs of aggression would exceed any potential gains that he might achieve.”¹ But the Soviet Union was (and Russia remains) the only nation that could pose a global challenge to U.S. allies and interests and threaten to cause massive destruction in the United States. Other

¹ U.S. Department of Defense, Annual Report to Congress, Fiscal Year 1985, by Caspar Weinberger, Secretary of Defense, February 1, 1984 (Washington, 1984), p. 27.

nations, such as China and Soviet allies in Eastern Europe, were included in the U.S. nuclear war plans, but the Soviet threat dominated U.S. defense planning. Nuclear forces were sized to deter the Soviet threat; these were then thought to be sufficient to deter or respond to the “lesser included cases” of threats from other nations. Although there were often debates about the numbers and types of weapons that the United States should deploy in its nuclear arsenal, there was little doubt, or debate, among analysts, experts, and government officials about the need for the United States to deter the Soviet threat.

This widespread consensus about the nature of the threat to the United States and its allies, and the need for nuclear weapons to deter and respond to this threat, began to dissolve during the 1990s, after the demise of the Soviet Union. Some began to argue that, in the absence of the threat of global nuclear war, the United States should declare that nuclear weapons would serve only as “weapons of last resort” to deter nuclear attacks, or possibly other catastrophic attacks, against the United States itself.² Others argued that the United States needed to maintain a credible nuclear deterrent to “hedge” against the possibility of a resurgence of the Russian threat.³ Still others argued that the United States should craft a nuclear policy and force posture that would allow it deter and/or respond to the threat of nuclear, chemical, or biological attacks from a growing number of potential adversaries.

Although many analysts outside government hoped the United States would sharply limit the role of nuclear weapons after the end of the Cold War, the Clinton Administration did not adopt a more restrictive, or “last resort,” posture for U.S. nuclear weapons. Throughout the 1990s, the Clinton Administration argued that, in addition to serving as a hedge against the potential resurgence of a Russian threat, nuclear weapons remained important to deter the range of threats faced by the United States. It highlighted, in its 1999 National Security Strategy, that “the United States must continue to maintain a robust triad of strategic forces sufficient to deter any hostile foreign leadership with access to nuclear forces and to convince it that seeking a nuclear advantage would be futile.” Furthermore, nuclear deterrence would not necessarily be limited to potential aggressors with nuclear weapons. Although the United States did not explicitly threaten the use of nuclear weapons against non-nuclear states, Assistant Secretary of Defense Edward Warner did indicate in testimony before Congress that “the very existence of U.S. strategic and theater

² This debate mirrored one that had occurred with respect to the role of nuclear weapons in NATO policy. For a description of this concept, see Bundy, McGeorge, William J. Crowe, Jr., and Sidney Drell, *Reducing Nuclear Danger*, Foreign Affairs, Spring 1993, pp. 143-146. These authors, all with years of experience in U.S. nuclear weapons strategy and doctrine, advocated a doctrine of “defensive last resort,” where nuclear weapons would be reserved for use in only the most dire circumstances.

³ This concept was underscored as a part of the results of the 1994 Nuclear Posture Review, where Secretary of Defense Perry indicated that the United States would alter its nuclear forces so that it could both “lead” to further reductions in nuclear weapons and “hedge” against an unexpected developments in Russia. See, for example, U.S. Department of Defense, Office of the Assistant Secretary of Defense (Public Affairs), *Remarks Prepared for Delivery by Secretary of Defense William J. Perry to the Henry L. Stimson Center*, September 20, 1994.

nuclear forces, backed by highly capable conventional forces, should certainly give pause to any rogue leader contemplating the use of WMD [weapons of mass destruction; i.e., nuclear, chemical and biological weapons] against the United States, its overseas deployed forces, or its allies.”⁴

The Bush Administration has shifted U.S. nuclear doctrine, at least rhetorically, away from concerns about a resurgent Russian threat. It declared that the United States and Russia no longer view each other as adversaries, and it stated, when releasing the results of its Nuclear Posture Review (NPR) in early 2002, that the United States “will no longer plan, size or sustain its nuclear forces as though Russia presented merely a smaller version of the threat posed by the former Soviet Union.”⁵ It has, instead, emphasized that nuclear weapons “provide credible capabilities to deter a wide range of threats, including weapons of mass destruction and large-scale conventional military force.”⁶ Some analysts consider this shift to be more rhetorical than real, as the United States maintains nuclear forces with much of the same size and shape as it did during the 1990s.⁷ Nevertheless, the Bush Administration has continued to emphasize the need to size and shape U.S. nuclear forces to deter emerging threats from a growing number of potential adversaries. Specifically, the Administration has indicated that the United States would employ a strategy of “tailored deterrence,” where the weapons and attack strategies guiding U.S. nuclear forces would be “tailored” to address the specific capabilities and goals of emerging adversaries.⁸

Need for a National Debate?

Most discussions about U.S. nuclear weapons policy, whether they occur in Congress or in the public and academic literature, focus on how many and what types of weapons the United States should deploy to implement its nuclear doctrine and deterrent strategy.⁹ The discussions have also addressed questions about whether the United States should pursue the design and development of new types of nuclear warheads, either to extend U.S. nuclear capabilities or to provide an alternative

⁴ Statement of the Honorable Edward L. Warner, III, Assistant Secretary of Defense for Strategy and Threat Reduction, before the Senate Armed Services Subcommittee on Strategic Forces, April 14, 1999.

⁵ U.S. Department of Defense, *Special Briefing on the Nuclear Posture Review*, news transcript, January 9, 2002. For a more detailed review of the results of the NPR and their proposed changes in U.S. nuclear strategy, see CRS Report RL31623, *U.S. Nuclear Weapons: Changes in Policy and Force Structure*, by Amy F. Woolf.

⁶ U.S. Department of Defense, *Annual Report to the President and the Congress*, Donald H. Rumsfeld, Secretary of Defense (Washington, 2002), p. 83.

⁷ See, for example, Sidney D. Drell and James E. Goodby, *What Are Nuclear Weapons For? Recommendations for Restructuring U.S. Strategic Nuclear Forces*, an Arms Control Association Report, April 2005, p. 5.

⁸ Jason Sherman, “Henry: Quadrennial Review Will Advance ‘Tailored Deterrence’ Concept,” *Inside the Pentagon*, December 15, 2005, vol. 21, no. 50.

⁹ For a review of many of the issues raised in these debates, see CRS Report RL33640, *Strategic Nuclear Forces: Background, Developments, and Issues*, by Amy F. Woolf.

means of maintaining the U.S. arsenal and U.S. nuclear capabilities into the future.¹⁰ But a growing number of analysts and officials agree that it will be difficult to answer questions about the future size and structure of the U.S. nuclear arsenal without at least some agreement about the role this arsenal should play in U.S. national security policy.¹¹ The former director of the National Nuclear Security Administration (NNSA), Ambassador Linton Brooks, noted this development during remarks he made to a conference in January 2007, when he stated that “we are increasingly hearing from thoughtful observers that political support for the Reliable Replacement Warhead (RRW) ... will not be possible without greater consensus on the future role of nuclear weapons.”¹² Several committees in Congress have also requested reports from the Administration that would link U.S. nuclear weapons strategy to plans for U.S. nuclear weapons and the nuclear weapons infrastructure.¹³ This perspective has led to calls for a national debate on the future role of nuclear weapons in U.S. national security strategy.

Defining Deterrence

Many national security and defense documents produced in the last few years emphasize how much the national security environment for the United States has changed since the demise of the Soviet Union in 1991 and the terrorist attacks in 2001. The report of the 2006 Quadrennial Review, for example, notes that the United States now faces an international security environment “characterized by uncertainty and surprise,” and that it must transform its national security strategy in response to this new environment.¹⁴

Specifically, and of interest for this report, the Defense Department has identified the need to shift “from ‘one size fits all’ deterrence to tailored deterrence for rogue powers, terrorist networks, and near-peer competitors.”¹⁵ The Pentagon’s emphasis on the distinction between “one size fits all” deterrence and tailored deterrence is designed to evoke an understanding of just how much the nature of the

¹⁰ See, for example, *The United States Nuclear Weapons Program: The Role of the Reliable Replacement Warhead*, American Academy for the Advancement of Science, Nuclear Weapons Complex Assessment Committee, April 2007. See also CRS Report RL32929, *The Reliable Replacement Warhead Program: Background and Current Developments*, by Jonathan Medalia.

¹¹ See, for example, *The United States Nuclear Weapons Program. The Role of the Reliable Replacement Warhead*, American Academy for the Advancement of Science, Nuclear Weapons Complex Assessment Committee, April 2007, p. 4.

¹² Brooks, Linton, Opening Remarks, Lawrence Livermore and Los Alamos National Laboratories Conference on Strategic Weapons in the 21st Century, January 25, 2007.

¹³ See, for example, U.S. Congress, House Committee on Appropriations, *Report to Accompany Energy and Water Development Appropriations Bill, FY2008, H.Rept. 110-185*, pp. 93-98.

¹⁴ U.S. Department of Defense, *Report of the Quadrennial Defense Review*, February 2006, Preface, p. vi.

¹⁵ Ibid.

threat and the number of U.S. adversaries have changed since the end of the Cold War. But, even during the Cold War, the United States tailored its nuclear targeting doctrine, its nuclear weapons employment policy, and its nuclear force structure to enhance or maintain the credibility of its nuclear deterrent posture. Therefore, this shift raises questions about the ways in which “tailored deterrence” differs from classic, Cold War-era strategic deterrence. This section discusses the differences between these two concepts in an effort to clarify how tailored deterrence might alter U.S. nuclear weapons employment policy and targeting doctrine.

Deterrence, in Theory

Deterrence, or more precisely, the theoretical construct of *strategic deterrence*, describes an ongoing interaction between two parties. In a deterrent relationship, one or both parties seek to persuade the other to refrain from harmful or dangerous actions by threatening or promising the other nation that the costs of acting will far outweigh the benefits. This can be done by threatening to impose high costs on the acting nation, threatening to deny the benefits the other nation may seek through its actions, and promising to withhold the costs if the nation forgoes the expected action. Because it affects the perceptions and chosen actions of nations with multiple goals and interests, deterrence is difficult to implement or measure with any precision. Further, in spite of the common shorthand of the Cold War era, *deterrence* and the *threat of nuclear destruction* are not interchangeable concepts. A nation could, for example, threaten to use overwhelming conventional force as a deterrent, even without threatening to resort to nuclear weapons, if the adversary perceived those forces to be sufficient to achieve an unacceptable level of destruction. Nevertheless, many analysts agree that during the Cold War, the threat of nuclear retaliation generated the promise of high costs and, therefore, lent some stability to the U.S.-Soviet deterrent relationship.

Questions about the credibility of the U.S. deterrent posture persisted throughout the Cold War, with the United States adjusting its doctrine, targeting strategy, and force structure periodically in an effort to bolster its credibility and enhance deterrence. It did not maintain a “one size fits all deterrent,” but sought to “tailor” its forces and attack strategies to affect the perceptions of the Soviet Union, and other potential adversaries, by convincing them that the United States had the will, the weapons, and the plans needed to ensure that it would respond if attacked and that the level of destruction would be unacceptable to the adversary. The Bush Administration’s focus on tailored deterrence appears to follow the same logic, with the focus on tailoring attack strategies and weapons to create a credible deterrent threat.

However, the Administration’s concept of “tailored deterrence” appears to differ from classic “strategic deterrence” in at least two ways. First, the Administration has argued that the United States must prepare to deter a wider range of threats from a greater number of potential adversaries, so it is seeking to tailor weapons capabilities, operational plans, and targeting strategies to counter the capabilities of “advanced military powers, regional WMD states, and non-state terrorists.” Second, tailored deterrence focuses less on maintaining a deterrent relationship with any specific nation than it does on acquiring the capabilities to attack and destroy valued targets in another nation. This capability may be necessary for a deterrent threat to be

credible, but it is not sufficient to establish or presume the broader conditions of *strategic deterrence* because a *strategic* deterrent relationship presumes that both nations know the costs and consequences of acting, and each may believe that it will not suffer the costs or consequences if it *does not* act. The communication between the two parties may be indirect or even ambiguous, but it is presumed that both parties know the stakes and risks associated with their possible actions.

Deterrence, During the Cold War

Throughout the Cold War, the challenge for U.S. nuclear policy was to make the threat of nuclear retaliation, and therefore the U.S. deterrent posture, credible. Towards this end, the United States repeatedly sought to modify and adjust its forces and targeting strategy so that the Soviet Union would believe and heed the U.S. threat to retaliate with nuclear weapons.

The 1950s doctrine known as “massive retaliation” envisioned a “simultaneous, massive, integrated” U.S. nuclear strike against targets in the Soviet Union, Eastern Europe, and China if the Soviet Union or its allies initiated any nuclear or conventional attack against the United States or its allies.¹⁶ In the late 1950s, many began to question whether the Soviet Union would believe that the United States would launch a massive nuclear attack against the Soviet Union in response to *any* level of aggression against Western Europe, particularly when it became evident that the Soviet Union could strike back with nuclear weapons against U.S. cities. Consequently, in the early 1960s, Secretary of Defense Robert McNamara outlined a doctrine of “damage limitation,” which called for attacks against Soviet conventional and nuclear military forces. This became known as “counterforce” strategy because it explicitly excluded attacks designed to destroy cities and focused instead on attacks that would impede the Soviet Union’s warfighting capability.¹⁷ In particular, it sought to destroy those weapons that the Soviet Union might use to attack U.S. cities. Nevertheless, because many of the targets were located near cities, and the attack would have been very large, analysts agree that it would still have produced massive casualties.

By the mid-1960s, Secretary McNamara posited the doctrine of “assured destruction,”¹⁸ where the United States sought to persuade the Soviet leadership that Soviet society would be destroyed if the Soviet Union launched an attack on the United States or its allies. But, by the early 1970s, many again questioned the

¹⁶ “There was no calculated strategy for war winning or termination beyond that of producing as much destruction ... as possible in a single devastating blow.” See David A. Rosenberg, “U.S. Nuclear War Planning, 1945-1960,” in Desmond Ball and Jeffrey Richelson, eds., *Strategic Nuclear Targeting* (Ithaca, NY: Cornell University Press, 1986), pp. 44-45.

¹⁷ Desmond Ball, “The Development of the SIOP, 1960-1983,” in Ball and Richelson, eds., *Strategic Nuclear Targeting*, pp. 62-65.

¹⁸ Secretary McNamara defined the level of damage needed as the destruction of “one-quarter to one-third of the Soviet population and about two-thirds of Soviet industrial capacity.” See Desmond Ball, “The Development of the SIOP, 1960-1983,” in Ball and Richelson, eds., *Strategic Nuclear Targeting*, p. 69.

credibility of a doctrine that called for massive strikes against Soviet society, particularly if the Soviet Union could threaten to strike back against U.S. cities. Therefore, the United States shifted its doctrine again, to “Flexible Response” in the mid-1970s and “Countervailing Strategy,” in the late 1970s. These policies emphasized retaliatory strikes on Soviet military forces and war-making capabilities, as opposed to attacks on civilian and industrial targets, and they called for limited, focused attacks on specified military targets, instead of large-scale attacks on a greater number of sites. The 1988 version of the National Security Strategy of the United States summarized the U.S. approach to targeting by noting that “targeting those assets which are essential to Soviet war-making capability and political control has been an integral part of the U.S. strategy for many years.”¹⁹

The attack options that were designed to implement this approach were contained in the highly classified Strategic Integrated Operational Plan, the SIOP. According to scholarly reports and articles, the SIOP evolved over the years, in response to changes in the number and capabilities of U.S. nuclear forces, changes in the Soviet force structure, and the evolution of theories about how to deter the Soviet Union. The SIOP reportedly provided the president with a number of attack options that varied in terms of the numbers and types of targets to be attacked and varied according to the number and types of U.S. warheads available when the conflict began.²⁰ Further, according to unclassified reports, the target categories included in the SIOP included Soviet strategic nuclear forces, other military forces, military and political leadership, and industrial facilities.²¹ The United States sought the capability to destroy thousands of sites in these target categories, even if the Soviet Union destroyed many U.S. weapons in a first strike, leading to the requirement for large numbers of U.S. strategic nuclear weapons.

To meet these targeting requirements, by the latter half of the 1980s, the United States deployed nearly 12,000 warheads on its land-based missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and heavy bombers.²² Analysts argued that the multiple basing modes for U.S. nuclear weapons would enhance deterrence and discourage a Soviet first strike because they complicated Soviet attack planning and ensured the survivability of a significant portion of the U.S. force in the event of a Soviet first strike.²³ The different characteristics of each weapon system might also strengthen the credibility of U.S. targeting strategy: ICBMs had the accuracy and prompt responsiveness needed to attack hardened targets, such as

¹⁹ *National Security Strategy of the United States*, The White House, January 1988, Washington, DC, p. 14.

²⁰ See, for example, Desmond Ball and Jeffrey Richelson, eds., *Strategic Nuclear Targeting*. (Ithaca, NY: Cornell University Press, 1986). See also Matthew G. McKinzie et al, *The U.S. Nuclear War Plan: A Time for Change*, Natural Resources Defense Council, 2001, pp. 5-14.

²¹ U.S. Congress, Congressional Budget Office, *The START Treaty and Beyond*, October 1991, pp. 11-25.

²² CRS Report RL33640, *U.S. Strategic Nuclear Forces: Background, Developments, and Issues*, by Amy F. Woolf.

²³ U.S. Department of Defense, *Annual Report to Congress, Fiscal Year 1989*, by Frank Carlucci, Secretary of Defense, February 18, 1988 (Washington, 1988), p. 54.

Soviet command posts and ICBM silos; SLBMs had the survivability needed to complicate Soviet efforts to launch a disarming first strike; and heavy bombers could be dispersed quickly and launched to enhance their survivability, and could be recalled to their bases if a crisis did not escalate into conflict.

Taken together, this diverse and numerous force was thought to have the capability to persuade the Soviet Union that any attack it launched would be met with an overwhelming response and an unacceptable amount of damage. It was the sum total of this force, as much as the details of the specific targets that could be destroyed in an attack option, that provided the United States with a robust *strategic deterrent*.

Deterrence, After the Cold War

Throughout the 1990s, the Clinton Administration argued that nuclear weapons remained important to deter the range of threats faced by the United States. In his Annual Report to Congress in 1995, Secretary of Defense Perry noted:

recent international upheavals have not changed the calculation that nuclear weapons remain an essential part of American military power. Concepts of deterrence ... continue to be central to the U.S. nuclear posture. Thus, the United States will continue to threaten retaliation, including nuclear retaliation, to deter aggression against the United States, U.S. forces, and allies.²⁴

Nevertheless, the Clinton Administration argued that “the dissolution of the Soviet empire had radically transformed the security environment facing the United States and our allies. The primary security imperative of the past half century — containing Communist expansion while preventing nuclear war — is gone.”²⁵ Russia could potentially pose a threat to the United States again in the future “because it controls the only nuclear arsenal that can physically threaten the survivability of U.S. nuclear forces.”²⁶ But the United States also faced growing threats from a number of emerging adversaries. In its National Security Strategy Report for 1998, the Administration noted that “a number of states still have the capabilities and the desire to threaten our vital interests ...” and that, “in many cases, these states are also actively improving their offensive capabilities, including efforts to obtain or retain nuclear, biological, or chemical weapons, and, in some cases, long-range delivery systems.”²⁷

After the collapse of the Soviet Union, the Department of Defense conducted several studies to review U.S. nuclear targeting strategy and weapons employment

²⁴ U.S. Department of Defense, *Annual Report to the President and Congress*, by Secretary of Defense William Perry (Washington, February 1995), p. 84.

²⁵ *A National Security Strategy of Engagement and Enlargement*, The White House, February 1995, Washington, DC, p. 1.

²⁶ U.S. Department of Defense, *Annual Report to the President and Congress*. William S. Cohen, Secretary of Defense. April 1997. Washington, DC, p. 11.

²⁷ *A National Security Strategy for a New Century*, The White House, October, 1998, Washington, DC, p. 6.

policy. According to published reports, these reviews revised and greatly reduced the length of the target list within the SIOP, but left the basic tenets of the strategy untouched. According to a 1995 article in the *Washington Post*, “the United States primary nuclear war plan still targets Russia and provides the President an option for counterattack within 30 minutes of confirmed enemy launch.”²⁸ In 1997, however, the Clinton Administration altered the U.S. strategy from seeking to win a *protracted* nuclear war, a strategy identified during the Reagan Administration, to seeking to deter nuclear war. In practice, this probably meant the United States would not seek to cause as much damage against as wide a range of targets as it had planned on attacking in previous war plans. Consequently, the United States would not need as large an arsenal of nuclear weapons as it had needed during the Cold War.

But, these changes did not alter the core objectives of U.S. nuclear policy. The United States reportedly continued to prepare a range of attack options, from limited attacks involving small numbers of weapons to major attacks involving thousands of warheads, and to plan attacks against military targets, nuclear forces, and civilian leadership sites in Russia.²⁹ At the same time, reports indicated that the U.S. Strategic Command (STRATCOM) had begun to expand the focus of the SIOP and include plans for possible attacks against a wider range of adversaries. According to some reports, in 1992, General Lee Butler, the Commander-in-Chief of the Strategic Command, proposed changing the name of the SIOP to the “National Strategic Response Plans,” to accommodate the fact that the SIOP itself was “evolving to a collection of far more differentiated retaliatory choices, tailored to a threat environment of greater nuance and complexity.”³⁰ The Clinton Administration argued that the flexibility offered by this range of options would enhance deterrence by providing the United States with more credible responses to a range of crises and attack scenarios.

The Clinton Administration also did not rule out the possible use of nuclear weapons against nations that were not armed with nuclear weapons themselves. Specifically, it maintained the long-standing U.S. policy of reserving the right to use nuclear weapons first in a crisis or conflict “if a state is not a state in good standing under the Nuclear-Nonproliferation Treaty (NPT) or an equivalent international

²⁸ “Secretary Cheney and General Powell and their aides threw thousands of targets out of the SIOP (single integrated operational plan), helping to reduce it from its Cold War peak of more than 40,000 to about 10,000 by 1991.” In addition, “General Butler reviewed each target one-by-one tossing many out ... one day he eliminated 1,000 targets in newly liberated Eastern Europe....” By 1994, General Butler had helped to pare the SIOP to 2,500 targets. See David B. Ottaway and Steve Coll, “Trying to Unplug the War Machine,” *Washington Post*, April 12, 1995, p. A28.

²⁹ Jeffrey R. Smith, “Clinton Directive Changes Strategy on Nuclear Arms; Centering on Deterrence, Officials Drop Terms for Long Atomic War,” *Washington Post*, December 7, 1997, p. A1.

³⁰ Memorandum, Gen. George L. Butler, U.S. Air Force, Commander in Chief, U.S. Strategic Command, to the Chairman, Joint Chiefs of Staff, “Renaming the Single Integrated Operational Plan,” September 2, 1992. Cited in Hans M. Kristensen, “U.S. Strategic War Planning After 9/11,” *The Nonproliferation Review*, Center for Nonproliferation Studies, July 2007, p. 378.

convention.”³¹ Furthermore, the United States did not rule out the possibility of retaliating with nuclear weapons if a nation attacked the United States or U.S. forces with weapons of mass destruction (WMD).³² The United States did not, however, directly threaten to use nuclear weapons in retaliation for non-nuclear attacks. Its policy, consistent with the long-standing U.S. approach, was one of “studied ambiguity,” neither ruling in nor ruling out the possible use of nuclear weapons in any given circumstance.

The United States did, however, reduce the size of its nuclear arsenal, to around 6,000 warheads deployed on strategic delivery vehicles, according to the provisions outlined in the 1991 Strategic Arms Reduction Treaty (START). Even with these reductions, however, the United States continued to maintain a triad of strategic nuclear forces, with warheads deployed on land-based ICBMs, submarine-launched SLBMs, and heavy bombers. According to the Department of Defense, this mix of forces not only offered the United States a range of capabilities and flexibility in nuclear planning that complicated an adversary’s attack planning, but also hedged against unexpected problems in any single delivery system. Moreover, the United States still maintained detailed, tailored attack plans that were intended to enhance the credibility of the U.S. deterrent posture.

Deterrence in the 21st Century

The Bush Administration has emphasized that nuclear weapons “continue to be essential to our security, and that of our friends and allies.”³³ It has argued that nuclear weapons remain the only weapons in the U.S. arsenal that can hold at risk the full range of targets valued by an adversary. As a result, “they provide credible capabilities to deter a wide range of threats, including weapons of mass destruction and large-scale conventional military force.”³⁴

In many ways, the Bush Administration’s statements about the role that nuclear weapons play in deterring potential opponents echo the Cold War and post-Cold War concepts described above. In a document prepared in February 2004, STRATCOM noted that nuclear weapons “cast a lengthy shadow over a rational adversary’s decision calculus when considering coercion, aggression, WMD employment, and escalatory courses of action. Nuclear weapons threaten destruction of an adversary’s most highly valued targets.... This includes destruction of targets otherwise

³¹ Craig Cerniello, “Clinton Issues New Guidelines on U.S. Nuclear Weapons Doctrine,” *Arms Control Today*, November/December 1997.

³² Jeffrey R. Smith, “Clinton Directive Changes Strategy on Nuclear Arms; Centering on Deterrence, Officials Drop Terms for Long Atomic War,” *Washington Post*, December 7, 1997, p. A1.

³³ U.S. Senate, Committee on Armed Services, Statement of the Honorable Douglas J. Feith, Undersecretary of Defense For Policy, February 14, 2002.

³⁴ U.S. Department of Defense, *Annual Report to the President and the Congress*, Donald H. Rumsfeld, Secretary of Defense (Washington, 2002), p. 83.

invulnerable to conventional attack....”³⁵ Further, according to the report of the Quadrennial Defense Review, “the aim is to possess sufficient capability to convince any potential adversary that it cannot prevail in a conflict and that engaging in a conflict entails substantial strategic risks beyond military defeat.”³⁶

At the same time, though, the Bush Administration has indicated that the Cold War concept of *strategic deterrence* would not be sufficient to generate the requirements for U.S. nuclear strategy, doctrine, and force structure in this new security environment. In a letter written to *Defense News* in March 2004, Keith Payne, who had served as an Assistant Secretary of Defense during the 2001 Nuclear Posture Review, noted that “deterrence threats based on the generally high nuclear 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....”³⁷ This is the mandate for tailored deterrence.

According to Ryan Henry, the Principal Deputy Secretary of Defense for Policy, when pursuing the concept of tailored deterrence, the United States must have “the means to determine what assets an adversary holds dear and wants to protect; an ability to identify which military tools can be used to threaten those assets; and an effective means of communicating to adversaries that the military can target their most important assets and destroy them.”³⁸ Payne made similar points in testimony before the House Armed Services Committee’s Subcommittee on Strategic Forces in July 2007, when he noted that a central feature of the U.S. ability to tailor deterrence to meet emerging threats was the ability to “understand the specific opponent’s mind-set and behavioral style, and the different ways opponents can perceive and respond to our deterrence threats.”³⁹

The Bush Administration asserts that nuclear weapons have a role to play in deterring threats and challenges from potential adversaries armed with weapons of mass destruction. During a news conference on March 14, 2002, President Bush stated that “we want to make it very clear to nations that you will not threaten the United States or use weapons of mass destruction against us or our allies.... I view our nuclear arsenal as a deterrent, as a way to say to people that would harm America that ... there is a consequence. And the President must have all the options available

³⁵ Draft JCS Strategic Deterrence Operating Concept (JOC). Cited in “Global Strike: A Chronology of the Pentagon’s New Offensive Strike Plan,” by Hans M. Kristensen, Federation of American Scientists, March 15, 2005, p. 69.

³⁶ U.S. Department of Defense, *Report of the Quadrennial Defense Review*, February 2006, p. 30.

³⁷ Keith Payne, Letter to the Editor, *Defense News*, March 15, 2004.

³⁸ Jason Sherman, “Henry: Quadrennial Review Will Advance ‘Tailored Deterrence’ Concept,” *Inside the Pentagon*, December 15, 2005, vol. 21, no. 50.

³⁹ U.S. Congress, House Committee on Armed Services, Subcommittee on Strategic Forces, hearing on United States Nuclear Weapons Policy, prepared statement, July 18, 2007.

to make that deterrent have meaning.”⁴⁰ Further, some outside reports indicate that, in June 2002, President Bush signed a new nuclear weapons planning guidance, National Security Presidential Directive (NSPD) 14, that explicitly stated that the United States may use nuclear weapons in response to chemical or biological attacks against U.S. forces or allies.⁴¹ The United States has never ruled out the use of nuclear weapons in response to attacks by nations with chemical or biological weapons (in other words, the United States has never adopted a “no first use” policy for its nuclear weapons), even though many analysts argue that such a policy would better serve U.S. national security interests. Nonetheless, some view the Administration’s explicit inclusion of these types of attacks in nuclear weapons planning guidance as a further indicator of an expanding role for nuclear weapons under the Bush Administration.

The Pentagon has outlined changes in the U.S. strategy for targeting nuclear weapons, shifting from threat-based targeting to capabilities-based targeting. Instead of focusing on the forces and attack plans needed to defeat the “Soviet threat” when planning for the possible use of nuclear weapons, the United States would “look more at a broad range of capabilities and contingencies that the United States may confront” and tailor U.S. military capabilities to address this wide spectrum of possible contingencies.⁴² Specifically, according to the Pentagon, the United States would identify potential future conflicts, review the capabilities of its possible adversaries, identify those capabilities that the United States might need to attack or threaten with nuclear weapons, and develop a force posture and nuclear weapons employment strategy that would allow it to attack those capabilities.

The Administration has never specified, in public, the full range of capabilities, or types of targets, that the United States would want to threaten under this strategy. However, it has highlighted the threat posed by hardened and deeply buried targets, and has also noted that the United States may need to improve its capabilities against mobile or fleeting targets, perhaps by enhancing its ability to attack promptly, or perhaps preemptively, at the start of a conflict. The desire to acquire this capability is central to the focus of the new “prompt global strike” mission and the Pentagon’s interest in pursuing the deployment of conventional warheads on some of Air Force or Navy long-range ballistic missiles. One list of possible targets for nuclear weapons appears in DOD’s publication *Deterrence Operations: Joint Operating Concepts*. This document indicates that

nuclear weapons threaten destruction of an adversary’s most highly valued assets, including adversary WMD capabilities, critical industries, key resources, and means of political organization and control (including the adversary leadership itself). This includes destruction of targets otherwise invulnerable to

⁴⁰ Greg Miller, “Bush Puts Nuclear Use in ‘Options Available,’” *Los Angeles Times*, March 14, 2002.

⁴¹ Cited in “Global Strike: A Chronology of the Pentagon’s New Offensive Strike Plan,” by Hans M. Kristensen, Federation of American Scientists, March 15, 2005, pp. 108.

⁴² U.S. Congress, Senate Committee on Armed Services, Statement of the Honorable Douglas J. Feith, Undersecretary of Defense For Policy, February 14, 2002.

conventional attack, e.g., hard and deeply buried facilities, “location uncertainty” targets, etc.⁴³

As it did during the Cold War, the Pentagon continues to maintain a detailed war plan that contains the numerous nuclear attack options that would be available to the President in the event of a conflict. The SIOP of the Cold War era has, however, been replaced with a new war plan known as OPLAN (operations plan) 8044. This document may contain many of the same types of major strike options and contingency plans for potential conflicts with Russia that had been included in the SIOP, although reports indicate that it no longer considers Russia to be an “immediate contingency” that the United States must plan to address.⁴⁴ It also, reportedly, contains options that would be available for use in conflicts with other potential adversaries. At the same time, officials from STRATCOM have indicated that the structure and purpose of the SIOP/OPLAN has changed, as it has expanded to include a wider range of contingencies and potential adversaries. In 2003, the Commander-in-Chief of STRATCOM, Admiral James Ellis, noted, as had his predecessor General Butler in 1992, that the war plan was changing from “a single, large, integrated plan to a family of plans applicable to a wider range of scenarios.”⁴⁵ As the plan continued to evolve, in response to guidance that emerged after the 2001 Nuclear Posture Review, it underwent what General Richard Myers, then Chairman of the Joint Chiefs of Staff, referred to as a “major revamping” so that it could provide the President with “more flexible options to assure allies, and dissuade, deter, and if necessary, defeat adversaries in a wider range of contingencies.”⁴⁶

Hence, as the U.S. nuclear war plan has evolved, it has changed from a “single integrated plan” that contained a growing number of options for attacks against the Soviet Union to a more diverse document that has been described as a “family of plans” with options for attacks against a wider range of contingencies. The Bush Administration has identified three types of contingencies that these plans must address:⁴⁷

- Immediate contingencies include “well-recognized, current dangers.” The Soviet threat was an immediate contingency in the

⁴³ U.S. Department of Defense, *Deterrence Operations. Joint Operating Concept. Version 2.0*, p. 39, available at [http://www.dtic.mil/futurejointwarfare/concepts/do_joc_v20.doc].

⁴⁴ Hans M. Kristensen, “U.S. Strategic War Planning After 9/11,” *The Nonproliferation Review*, Center for Nonproliferation Studies, July 2007, p. 378.

⁴⁵ Memorandum, Adm. J. O. Ellis, U.S. Navy, Commander, U.S. Strategic Command, to the Chairman of the Joint Chiefs of Staff, January 3, 2002. Cited in Hans M. Kristensen, “U.S. Strategic War Planning After 9/11,” *The Nonproliferation Review*, Center for Nonproliferation Studies, July 2007, p. 378.

⁴⁶ U.S. Congress, Senate Committee on Appropriations, Subcommittee on Defense, Written Posture Statement to the Senate of General Richard B. Myers, Chairman of the Joint Chiefs of Staff, April 27, 2005.

⁴⁷ The following summarizes the discussion in the Secretary of Defense’s *Annual Report*. See U.S. Department of Defense, *Annual Report to the President and Congress*, Donald H. Rumsfeld, Secretary of Defense (Washington, 2002), p. 88.

past; current examples include a WMD attack on U.S. forces or allies in the Middle East or Asia.

- Potential contingencies are “plausible, but not immediate dangers.” This might include the emergence of new, adversarial, military coalitions, or the re-emergence of a “hostile peer competitor.” According to the Administration, the United States would probably have sufficient warning of the emergence of these threats to modify or adjust its nuclear posture.
- Unexpected contingencies are “sudden and unpredicted security challenges.” This might include a “sudden regime change” causing an existing nuclear arsenal to be transferred to the control of a hostile leadership or an adversary’s sudden acquisition of WMD.

These three types of contingencies would place different demands on U.S. nuclear war planners. Because the United States can understand and anticipate immediate contingencies, it can size, structure, and plan in advance for the use of its nuclear arsenal to address these contingencies. The United States can also plan in advance for the possible use of nuclear weapons in potential contingencies, even if it does not maintain the needed force structure on a day-to-day basis. These contingencies are one possible source of the “family of plans” contained in OPLAN 8044. Further, these plans may include many of the same types of targets as the United States planned to attack during the Cold War because the ability to destroy these types of facilities is likely to remain important to the U.S. ability to defeat an enemy and limit damage to itself during a conflict. These targets could include deployed and non-deployed stocks of weapons of mass destruction, other military facilities, leadership facilities, and, possibly, other economic targets.

The United States cannot, however, prepare pre-planned attack options for unexpected contingencies because it does not know when or where these threats may emerge. This has given rise to a growing emphasis on the need for “adaptive planning” capabilities. STRATCOM, which develops the operational plans for U.S. strategic nuclear weapons, has been pursuing this capability since at least 1992, when it sought to develop “a flexible, globally focused, war planning process” along with a “living SIOP,” a nuclear war plan “able to respond almost instantaneously to new requirements.”⁴⁸ Now, “STRATCOM is in the process of developing a more flexible and adaptive planning system ... that employs modern computing techniques and streamlined processes to significantly improve our planning capability for rapid, flexible crisis response.”⁴⁹

The Bush Administration has emphasized the increasing importance of adaptive planning, and waning relevance of pre-planned attack options, to highlight the fact that its nuclear doctrine and targeting strategy focus on emerging threats, rather than

⁴⁸ Stephen I. Schwartz, “Nukes You Can Use,” *Bulletin of the Atomic Scientists*, May/June 2002, p. 19.

⁴⁹ U.S. Senate, Committee on Armed Services, statement of Admiral James O. Ellis, Commander in Chief of Strategic Command, February 14, 2002.

on a smaller version of the Cold War threat from the Soviet Union. However, recent statements indicate that concerns about Russia, and possibly China, still play a role in determining the size and structure of the U.S. nuclear arsenal. In a brief statement on “National Security and Nuclear Weapons,” released in late July 2007, the Secretaries of Energy, Defense, and State indicated that “the future direction that any number of states may take, including some established nuclear powers with aggressive nuclear force modernization programs, could have a dramatic effect on U.S. security and the security of our allies.”⁵⁰ According to Steve Henry, an Assistant Secretary of Defense, both Russia and China qualify as established nuclear powers with aggressive nuclear force modernization programs.⁵¹

Under the terms of the 2002 Strategic Offensive Reductions Treaty (known as the Moscow Treaty), the United States will reduce the size of its nuclear arsenal to 1,700-2,200 “operationally deployed warheads” by the end of 2012.⁵² Hence, the United States still plans to maintain a sizeable and varied force of strategic offensive nuclear warheads. The Bush Administration has stated that this force is not determined by a need to counter a “Russian threat,” but to provide the United States with the capability to assure its allies of its commitments to their security, dissuade potential adversaries from seeking to challenge or compete with the United States, deter conflict with adversaries, and defeat an adversary if deterrence should fail.⁵³

Moreover, some who support the Administration’s approach have argued that the remaining U.S. nuclear force structure may not be sufficient to meet the security challenges of the future. The new nations challenging the United States may not possess nuclear weapons at all, and certainly will not possess the capability to destroy the United States as a functioning society. Therefore, a threat to impose overwhelming levels of damage in these nations, with weapons that have “a relatively high yield and modest accuracy,” may not seem credible.⁵⁴ Instead, they argue, the United States should seek the ability to attack promptly, at great range, with focused intent, and with less destructive force than it would have used in attacks against the Soviet Union. To achieve these objectives, it would need not only nuclear weapons, but also precision conventional weapons, long-range strike capabilities with its

⁵⁰ National Security and Nuclear Weapons: Maintaining Deterrence in the 21st Century, statement by the Secretary of Energy, Secretary of Defense, and Secretary of State, July 2007, p. 3.

⁵¹ Bill Gertz, “Inside the Ring,” *Washington Times*, July 27, 2007, p. 6.

⁵² Operationally deployed warheads are those deployed on missiles and stored near bombers on a day-to-day basis so that they be available immediately, or in a matter of days, to meet “immediate and unexpected contingencies.” See U.S. Senate, Committee on Armed Services, statement of the Honorable Douglas J. Feith, Undersecretary of Defense for Policy, February 14, 2002.

⁵³ U.S. Department of Defense, *Special Briefing on the Nuclear Posture Review*, news transcript, January 9, 2002. These are the same four defense policy goals outlined in the *Quadrennial Defense Review* for the whole of the U.S. military. See U.S. Department of Defense, *Quadrennial Defense Review Report*, September 30, 2001, p. 11.

⁵⁴ Keith B. Payne, “The Nuclear Posture Review: Setting the Record Straight,” *The Washington Quarterly*, Summer 2005, p. 142.

conventional weapons, and missile defense capabilities.⁵⁵ These capabilities, when combined with the new attack options that may be included in the new operational plans described above, form the core of the capabilities needed to implement the strategy of “tailored deterrence.”

Others, however, have questioned whether “tailored deterrence” is just an excuse for the United States to deploy a new generation of nuclear weapons and develop new war plans that include targets in a longer list of nations. These differing perspectives on both the substance and the rationale for tailored deterrence give rise to several specific issues, addressed in the remainder of this report, that might be part of a congressional, or even national, debate on the future role of nuclear weapons in U.S. national security policy.

Issues for Congress

Congress has the opportunity to review U.S. nuclear weapons programs and policies during the annual authorization and appropriations process. Each year, the Administration’s budget contains funding requests for programs that are designed to maintain both the warheads and the delivery vehicles that make up the U.S. nuclear arsenal. During its debates about the funding levels for these programs as Congress can, and often does, address broader discussions about the role of nuclear weapons in U.S. national security strategy. As was noted early in this report, the Administration’s request for funding for a new “reliable replacement warhead” has served this purpose in recent years. This section reviews a number of topics that might be addressed in such a discussion.

How Much Has Nuclear Strategy Changed?

There is no question that the Bush Administration has changed the rhetoric about U.S. deterrent strategy and the role of nuclear weapons in that strategy substantially since it released the Nuclear Posture Review in late 2001. The Administration has spoken often about how the United States no longer views Russia as an enemy, and how the United States will now focus its nuclear deterrent on emerging threats in other nations. But changes in war plans and employment policy have evolved since the end of the Cold War, with few sharp distinctions unique to the policies that appeared under the Bush Administration. U.S. military planners began to include nations other than Russia in the SIOP, and to consider the SIOP to be a “family of plans,” in the early 1990s, as the United States adjusted to the post-Cold War security environment. It also began to emphasize adaptive planning and to focus on the need to deter nations armed with weapons of mass destruction during that same time period. Further, in spite of the changing rhetoric about the Russian threat, Russia probably still holds a unique position in the U.S. war plans. Many analysts believe it is the only contingency that can account for the U.S. plan to retain

⁵⁵ U.S. Congress, House Committee on Armed Services, Subcommittee on Strategic Forces, hearing on United States Nuclear Weapons Policy, prepared statement, July 18, 2007. See also M. Elaine Bunn, “Can Deterrence Be Tailored?” *Strategic Forum*, Institute for National Security Studies, National Defense University, January 2007, pp. 4-5.

2,200 nuclear warheads in its arsenal; contingencies with other nations are likely to require a far smaller number of warheads.

On the other hand, there are similarities between tailored deterrence and Cold War deterrence strategy. For example, both are based on the precept that it is necessary to know what your adversary values and to maintain the weapons and attack plans needed to target those valued assets. During the Cold War, the United States developed a number of attack plans that were tailored to address the values, interests, and capabilities of its primary adversary, and some smaller plans to address threats from other adversaries, such as China and the Warsaw Pact nations.⁵⁶ As was noted above, Ryan Henry and Keith Payne have both noted the need for this kind of analysis in support of tailored deterrence. Further, just as U.S. war plans evolved during the Cold War to accommodate changes in weapons capabilities and threat assessments, the Administration's supporters believe that tailored deterrence will allow for similar, ongoing modifications to U.S. war plans.

The key difference in the current security environment, however, is the fact that the United States may now face a longer list of potential adversaries, and, therefore, when planning its nuclear policy and force structure, the Administration has argued that the United States now faces threats from "multiple potential opponents, sources of conflict, and unprecedented challenges."⁵⁷ Considering both these similarities and differences, it seems, then, that the change from strategic deterrence to tailored deterrence is less of a change in "how to deter" than there is in "whom to deter."

There is, however, one element of strategic deterrence missing from the Administration's description of tailored deterrence. A deterrent relationship, where one nation seeks to stop another from pursuing actions by threatening to impose high costs if the action occurs, presumes that both sides are aware of the threats and possible responses. This requires that the party making the deterrent threat communicate that threat to the other party, either explicitly or implicitly. The existence of a workable attack plan does not necessarily translate into the communication of a credible deterrent threat.⁵⁸

In future crises, the United States may not have the time or the channels to inform a potential adversary of the types of actions that might result in a nuclear or conventional response from the United States. Further, the Administration seems to place a high priority on developing the capability to react promptly, with little or no warning, at the start of a conflict, either to preempt the adversary's use of weapons of mass destruction or to undermine the adversary's ability to prosecute the conflict on its own terms. This presumes that the United States would act *before* the adversary had taken the actions that the United States had sought to deter. There is

⁵⁶ M. Elaine Bunn, "Can Deterrence Be Tailored?" *Strategic Forum*, Institute for National Security Studies, National Defense University, January 2007, p. 2.

⁵⁷ U.S. Department of Defense, *Special Briefing on the Nuclear Posture Review*, news transcript, January 9, 2002.

⁵⁸ For a description of the need for a communications strategy to complete the concept of tailored deterrence see M. Elaine Bunn, "Can Deterrence Be Tailored?" *Strategic Forum*, Institute for National Security Studies, National Defense University, January 2007.

no promise that the adversary would not suffer the consequences and costs of its attack if it refrained from action; if anything, the adversary may feel pressured to act even more quickly, before the United States launched its preemptive attack.

Does Tailored Deterrence Enhance the Credibility of Nuclear Deterrence or Increase the Risk of Nuclear Use?

Officials from the Bush Administration have argued that, by tailoring U.S. deterrent strategies to address the specific values and capabilities of a larger number of potential enemies, the United States can enhance the credibility of its deterrent posture and, therefore, increase the likelihood that deterrence will succeed in future contingencies. They argue that a “one size fits all” set of war plans and a nuclear arsenal consisting of Cold War-era weapons would not meet this need because the weapons have yields that are too large and the war plans presume the use of too many weapons. Therefore, the adversary would not believe that the United States would follow through on its deterrent threats and the United States would be self-deterred from implementing its war plans because it would know that an attack would be too large and cause too much collateral damage.⁵⁹

Critics of the Administration’s nuclear policy, in contrast, believe that the concept of tailored deterrence is less likely to enhance deterrence than it is to make the use of nuclear weapons more likely in regional conflicts. They view the expansion of the U.S. nuclear war plans to include a wider range of potential attack options against a growing number of potential adversaries to be an indication of the growing willingness of the United States to resort to nuclear weapons use before other means — including diplomacy and conventional force — have been employed and exhausted.⁶⁰ If such plans were not in place, the United States would be less likely to use them in a crisis.

This debate derives from the long-standing theoretical debate about what it takes to make a deterrent threat credible. Administration officials argue that, to be credible, deterrent threats must be precise, detailed, and specific, so that an adversary will accept that the United States is both willing and able to implement the plans. Some analysts have argued that such precision is not a key to credibility. Some have argued that no threats to use nuclear weapons, no matter how specific or limited, would be credible because such an attack would produce “disproportionate and unacceptable collateral destruction and severe political fallout.”⁶¹ Because such use would be so horrific, no adversary would believe the United States would be willing

⁵⁹ According to the Defense Science Board, “Credible deterrence requires that the adversary believe that U.S. capabilities will be used if the adversary takes the course of action we seek to deter.” See *Report of the Defense Science Board Task Force on Nuclear Capabilities*, U.S. Department of Defense, Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, December 2006, p. 11.

⁶⁰ For a description of some of the stability implications of these types of detailed attack plans, see Hans Kirstensen, “U.S. Strategic War Planning After 9/11,” *Nonproliferation Review*, vol. 14, no. 2, July 2007, pp. 383-386.

⁶¹ Daryl G Kimball, “Of Madmen and Nukes,” *Arms Control Today*, November 2005.

to launch a nuclear attack unless its very national survival were at stake. Others have argued that such precision is unnecessary because the mere existence of nuclear weapons and the means to deliver them could serve as a sufficient deterrent. Adversaries do not need to understand the specifics of U.S. nuclear policy to understand that they might be on the receiving end of an attack with nuclear weapons.

While U.S. military and civilian leaders might be more willing to use nuclear weapons if they believe the specific plans and weapons in the U.S. arsenal are less likely to produce catastrophic levels of destruction, it is not clear that this would be the only, or even primary, factor in their decision-making process. Some U.S. leaders might be deterred from launching such an attack because they feel constrained by a generally accepted “nuclear taboo.”⁶² Others may, in contrast, be more inclined to use nuclear weapons if, knowing not only that such use would not lead to global nuclear war, but also that the adversary could not retaliate against the U.S. with nuclear weapons, they believe the effects of an adversary’s attack on the United States would be worse than the effects of the limited use of U.S. nuclear weapons. Therefore, the outcome, in any particular contingency, could depend not only on the specifics of the U.S. war plans and weapons characteristics, but also on the belief system of the leadership involved in making the decision.

Can Tailored Deterrence Provide Guidance in Determining the Size and Structure of the U.S. Nuclear Arsenal?

Officials speaking for the Bush Administration have indicated that, as the United States tailors its nuclear attack plans and weapons capabilities to address the challenges and capabilities of potential adversaries, it will need a nuclear force structure that differs in many ways from the Cold War-era arsenal. They have noted that the United States will need weapons with the capabilities to attack and destroy hardened or deeply buried targets and that it may need warheads that can produce tailored effects, perhaps to destroy stocks of chemical or biological weapons. They have also noted that the United States may need a greater number of lower-yield weapons, so that it can minimize collateral damage while destroying these types of targets.⁶³ But they have offered few, if any descriptions of how a concept of tailored deterrence would affect the required numbers of warheads in the U.S. arsenal.

Throughout the Cold War, the United States determined the size and structure of its nuclear arsenal, in part, through an analysis of the numbers and types of weapons it would need to deter a Soviet attack on the United States and its allies. Although a number of factors affected this determination, the numbers and types of weapons, along with the plans that would guide their use, reflected an assessment of

⁶² For a description of the long-standing “taboo” against the use of nuclear weapons, and its relationship to current debates over U.S. nuclear weapons policy, see Thomas C. Schelling, “The Nuclear Taboo,” *Wall Street Journal*, October 24, 2005, p. 14. See also, Nina Tannenwald, “Stigmatizing the Bomb: Origins of the Nuclear Taboo,” *International Security*, vol. 29, no. 4 (Spring 2005).

⁶³ Keith B. Payne, “The Nuclear Posture Review: Setting the Record Straight,” *The Washington Quarterly*, Summer 2005.

the numbers and types of targets that would need to be destroyed in the former Soviet Union. When the target base began to decline after the end of the Cold War, the number of weapons needed in the U.S. arsenal began to decline, and the United States began to reduce the size of its deployed forces.

Under the Moscow Treaty of 2002, the United States has pledged to reduce its strategic nuclear forces to no more than 2,200 operationally deployed warheads by the end of 2012. But many analysts have questioned why the United States needs to retain that many warheads, and why it cannot reduce its forces much further, if it is not sizing and structuring its forces to meet the “Russian threat.” Few can imagine contingencies or conflicts that would require the United States employ more than a few, or even a few dozen nuclear weapons. The only contingencies where the United States would need to employ thousands, or even hundreds, of weapons would be one where the United States sought to destroy large numbers of weapons and facilities in Russia, or possibly in China.⁶⁴

The Bush Administration has countered this calculation by noting that there are a number of objectives for U.S. nuclear forces that go beyond just deterring attacks by Russia or other nations. Nuclear weapons, along with missile defenses and other elements of the U.S. military establishment, can also *assure* allies and friends of the U.S. commitment to their security by providing an extended deterrent, *dissuade* potential adversaries from challenging the United States with nuclear weapons or other “asymmetrical threats” by convincing them that they can never negate the U.S. nuclear deterrent, and *defeat* enemies by holding at risk those targets that could not be destroyed with other types of weapons.⁶⁵ The size and structure of the U.S. arsenal should reflect all of these goals, or a combination of these goals, although it has not indicated which goal requires a force as large as 2,200 operationally deployed warheads.

What Role for U.S. Nuclear Weapons?

For many, the apparent disconnect between the concept of tailored deterrence and the size and structure of the U.S. nuclear arsenal raises questions about the actual future role of nuclear weapons in U.S. national security. If the goal is simply to be able to threaten small numbers of targets in large numbers of countries, than a much smaller force may be sufficient. At the same time, though, many analysts are wary of a posture that calls for the use of U.S. nuclear weapons against nations that do not have nuclear weapons themselves. They believe that U.S. national security interests can be served well with a smaller number of nuclear weapons because they believe

⁶⁴ See, for example, the analysis presented by Dr. Sidney Drell in testimony before the House Armed Services Committee, Strategic Forces Subcommittee, prepared text, July 18, 2007, pp. 1-3.

⁶⁵ U.S. Department of Defense, *Special Briefing on the Nuclear Posture Review*, news transcript, January 9, 2002. These are the same four defense policy goals outlined in the *Quadrennial Defense Review* for the whole of the U.S. military. See U.S. Department of Defense, *Quadrennial Defense Review Report*, September 30, 2001, p. 11.

that the role of nuclear weapons can and should be sharply limited to deterring nuclear or other catastrophic attacks on the United States.⁶⁶

In recent years, the debate about the future role of nuclear weapons in U.S. national security strategy has become closely linked to the debates about the relationship between U.S. nuclear weapons programs and policy and U.S. nonproliferation policy. There is widespread agreement both inside and outside government that the greatest threat to the United States comes not from the nuclear challenge posed by a single adversary, as it did in the Cold War, but from the potential proliferation of nuclear weapons to an increasing number of nations, and possibly, terrorist groups. But there is little agreement about whether the continued U.S. reliance on nuclear weapons stems proliferation by reminding nations of the risks they face if they challenge U.S. security with their own weapons of mass destruction, or spurs proliferation by demonstrating that nuclear weapons can play a significant role in enhancing a nation's security. As a result, most discussions of U.S. nuclear policy now focus on the question of whether, or how, the size, structure, and role of the U.S. nuclear arsenal can affect the emergence of or deterrence of nuclear threats in other nations.

The Bush Administration has identified tailored deterrence, along with the growing integration of missile defenses and conventional force capabilities into the U.S. deterrent posture, as a *response* to the potential proliferation of nuclear weapons and other weapons of mass destruction. They believe the capabilities and attack plans generated under this strategy will enhance the U.S. ability to deter, and if necessary, defeat these emerging threats to U.S. national security. Further, they also argue that a robust U.S. nuclear deterrent can further U.S. nonproliferation objectives by strengthening the U.S. extended deterrent. In response to questions submitted prior to his nomination hearing to be Commander in Chief of U.S. Strategic Command, General Kevin Chilton noted that “a credible U.S. nuclear deterrent ... assures allies that the U.S. will deter, prevent, or limit damage to them from adversary attacks. This removes incentives for many of them to develop and deploy their own nuclear forces, thereby encouraging nonproliferation.”⁶⁷

Further, those who support the Administration's position argue that no amount of restraint in U.S. nuclear weapons policies — either through reductions in deployed warheads, restraints on modernization or maintenance plans, or restrictions in the declared role of nuclear weapons — is likely to deter or discourage the acquisition of nuclear weapons by nations who want them. They note that these nations generally seek nuclear weapon to meet their own regional security concerns, and not in response to U.S. nuclear weapons programs.

⁶⁶ See, for example, Jack Mendelsohn, “Delegitimizing Nuclear Weapons,” *Issues in Science and Technology*, Spring 2006.

⁶⁷ U.S. Senate, Committee on Armed Services, Advanced Questions for General Kevin P. Chilton, USAF. Nominee for Commander of U.S. Strategic Command, September 27, 2007, p. 17. See also Dr. Keith B. Payne, testimony before the House Armed Services Committee, Subcommittee on Strategic Forces, July 18, 2007, p. 3.

Few analysts who disagree with the Administration's approach would argue that reductions or the elimination of U.S. nuclear weapons programs would alter the decision to acquire nuclear weapons in nations seeking nuclear weapons to meet their own security concerns. At the same time though, they argue that the continued pursuit of these programs, and the continued retention of thousands of deployed warheads, when combined with a doctrine that has a longer list of nations that might be targets of nuclear attack, can undermine U.S. nonproliferation goals. They argue that the United States is likely to find it more difficult to persuade other countries to abandon or reject nuclear programs if the United States, through its own efforts, is reinforcing the view that nuclear weapons can play a critical role in a nation's security policies.⁶⁸ Some have also noted that, by pursuing programs to maintain or expand its own nuclear arsenal, the United States could find it more difficult to persuade other countries to work with it and share its objectives when trying to constrain nuclear programs in "problem" countries. Several prominent current and former government officials have, in recent months, highlighted this linkage and proposed that the United States adopt a number of policies that, over time, may demonstrate that it has reduced its own reliance on nuclear weapons and strengthen its case against nations seeking nuclear weapons. These include, among other things, the ratification of the comprehensive test ban treaty, the reaffirmation of the pledge in Article VI of the Nuclear Nonproliferation Treaty that embraces the eventual elimination of nuclear weapons, and further deep reductions in the numbers of deployed nuclear weapons.⁶⁹

A new national debate on the role of nuclear weapons in U.S. national security policy has been brewing during 2007, and is likely to grow louder in 2008 as the next presidential election approaches. Congress has already indicated that it would like the next President to re-evaluate U.S. nuclear policy and posture, and it has indicated that future nuclear weapons initiatives may hinge on the results of this review. For example, the FY2008 Defense Authorization Bill establishes a "Congressional Commission on the Strategic Posture of the United States" (H.R. 1585, Sec. 1062). This Commission, with 12 Members appointed by the Chairmen and Ranking Members of the House and Senate Armed Services Committees, is charged with assessing "the benefits and risks associated with the current strategic posture and nuclear weapons policies of the United States." Its report, which it is to submit by December 1, 2008, is supposed to make recommendations about

- (1) the military capabilities and force structure necessary to support the recommended strategy;

⁶⁸ In her keynote address to the Carnegie Endowment's annual Nonproliferation Conference in June 2007, Margaret Beckett, then Great Britain's Foreign Minister said, "we risk helping Iran and North Korea in their efforts to muddy the water, to turn the blame for their own nuclear intransigence back on us. They can undermine our arguments for strong international action in support of the NPT by painting us as doing too little to fulfill our own obligations." Transcript available at [<http://www.carnegieendowment.org/files/keynote.pdf>].

⁶⁹ See for example, George P. Schulz, William J. Perry, Henry A. Kissinger, and Sam Nunn, "A World Free of Nuclear Weapons," *Wall Street Journal*, January 4, 2007, p. 15. See also, Ivo Daalder and John Holum, "A Nuclear-Free World," *The Boston Globe*, October 5, 2007.

- (2) the number of nuclear weapons and number of replacement warheads required;
- (3) the appropriate qualitative analysis, including force-on-force exchange modeling, to calculate the effectiveness of the strategy under various scenarios;
- (4) the nuclear infrastructure required to support the strategy;
- (5) an assessment of the role of missile defenses in the strategy;
- (6) an assessment of the role of nonproliferation programs in the strategy;
- (7) the political and military implications of the strategy for the United States and its allies; and
- (8) any other information or recommendations relating to the strategy (or to the strategic posture) that the commission considers appropriate.

Congress has also mandated that the Secretary of Defense under the next Administration conduct a “comprehensive review of the nuclear posture of the United States for the next 5 to 10 years” (H.R. 1585, Sec. 1070). This review, which is to be submitted to Congress along with the next Quadrennial Defense Review in 2010, is to include assessments of the following:

- (1) The role of nuclear forces in United States military strategy, planning, and programming.
- (2) The policy requirements and objectives for the United States to maintain a safe, reliable, and credible nuclear deterrence posture.
- (3) The relationship among United States nuclear deterrence policy, targeting strategy, and arms control objectives.
- (4) The role that missile defense capabilities and conventional strike forces play in determining the role and size of nuclear forces.
- (5) The levels and composition of the nuclear delivery systems that will be required for implementing the United States national and military strategy, including any plans for replacing or modifying existing systems.
- (6) The nuclear weapons complex that will be required for implementing the United States national and military strategy, including any plans to modernize or modify the complex.
- (7) The active and inactive nuclear weapons stockpile that will be required for implementing the United States national and military strategy, including any plans for replacing or modifying warheads.

These studies, and many others underway in organizations outside the U.S. government, may provide the framework for a broad-based debate on the future of U.S. nuclear strategy and doctrine.