
Trends in U.S. Nuclear Policy

In collaboration with the Atomic Energy Commission (CEA)

William C. Potter

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**Security Studies
Department**

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Proliferation Papers

Though it has long been a concern for security experts, proliferation has truly become an important political issue over the last decade, marked simultaneously by the nuclearization of South Asia, the strengthening of international regimes (TNP, CW, MTCR) and the discovery of fraud and trafficking, the number and gravity of which have surprised observers and analysts alike (Iraq in 1991, North Korea, Libyan and Iranian programs or the A. Q. Khan networks today).

To further the debate on complex issues that involve technical, regional, and strategic aspects, Ifri's Security Studies Department organizes each year, in collaboration with the Atomic Energy Commission (*Commissariat à l'énergie atomique*, CEA), a series of closed seminars dealing with WMD proliferation, disarmament, and non-proliferation. Generally held in English these seminars take the form of a presentation by an international expert. The *Proliferation Papers* is a collection, in the original version, of selected texts from these presentations. The following text is based on a presentation given by William C. Potter at Ifri on March, 15th, 2005.

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Introduction

I want to emphasize at the outset what will probably become clear in this paper: (1) I do not regard myself as a specialist on U.S. defense policy other than how it relates to nuclear nonproliferation and nuclear terrorism issues; and (2) I am neither very sympathetic to nor closely associated with the architects of recent U.S. policy. In light of these caveats, please don't be surprised if I tend to dwell on those aspects of U.S. policy I know best.

That being said, it seems essential to distinguish clearly among a number of dimensions on nuclear policy. In particular, it is important to differentiate among:

- Declaratory policy, which may or may not correspond closely with
- Arms control and nonproliferation policy, which also should but does not always appear to be highly correlated with either
- Targeting and Employment policy and/or
- R&D policy.

Declaratory Policy

As is well known, in early 2002 the U.S. Department of Defense released to Congress the findings of its Nuclear Posture Review (NPR). This review was mandated by Congress, which called for a “comprehensive review” of the policy, strategy, plans, stockpile, and infrastructure for U.S. nuclear forces. The primary rationale for the NPR was the perceived need to recalibrate U.S. nuclear posture in light of the changed post-Cold War security environment, and especially the significantly altered U.S.-Russian strategic relationship.

The 2002 NPR, which was the first major review since 1994, emphasizes that “greater flexibility” in nuclear forces and planning was necessary in order to maintain a “credible deterrent” against adversaries “whose values and calculations of risk and of gain and loss may be very different from and more difficult to discern than those of past adversaries”.¹ A central finding of the NPR was the need for a “New Triad” of:

- Offensive strike systems (both nuclear and non-nuclear)
- Defenses (both active and passive), and a
- Revitalized defense infrastructure to provide new capabilities in a timely fashion to meet emerging threats.

According to the NPR, the New Triad would reduce U.S. dependence on nuclear weapons and improve its ability to deter attack in the face of proliferating WMD capabilities in two ways:

- The addition of defenses to reinforce deterrence, and
- The addition of non-nuclear strike forces.

To proponents of the NPR, it provided a realistic new look for tailoring U.S. nuclear forces to post-Cold War military challenges. Given favorable developments in U.S.-Russian relations, nuclear arms could be reduced. To critics, however, the NPR appeared to confirm their worst fears. The review, they cautioned, would “lead to greater reliance on nuclear weapons, an

¹ See Philipp C. Bleek, “Nuclear Posture Review Leaks; Outlines, Targets, Contingencies,” *Arms Control Today* (April 2002), pp. 20-21. See also “Nuclear Posture Review Report,” January 8, 2002 at <http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>.

expansion in the set of states targeted by U.S. nuclear forces, [...] and an increased likelihood of nuclear use”.²

To date, neither the full hopes nor worst fears of the proponents and critics of the NPR have been realized. A number of the more significant anticipated departures from prior practice have been moderated by bureaucratic resistance within the Pentagon and by less than artful advocacy by the Secretary of Defense on Capitol Hill. What can be said, is that conceptually a number of new principles regarding nuclear weapons use have gained currency even though there remains a considerable lag in targeting, employment policy, and R&D consistent with these principles.

Revised Threat Assessment

As noted earlier, one impetus for the NPR was the need to adjust the U.S. nuclear force posture to changes in the post-Cold War security environment. Changes in U.S. threat assessments relate both to specific countries of concern, as well as to broader categories of threats such as WMD terrorism and Islamic fundamentalism.

With respect to country-specific threats, the Bush administration has stated repeatedly that the United States and Russia are no longer enemies. As a consequence, it argued, there was no longer a need to “plan, size or sustain its nuclear forces as though Russia presented merely a smaller version of the threat posed by the former Soviet Union.”³ Although the Russian threat has receded, the Bush administration has argued that in the future, “the United States is likely to be challenged by adversaries who possess a wide range of capabilities, including asymmetrical approaches to warfare, particularly weapons of mass destruction.”⁴ These adversaries, administration officials have suggested, “might threaten U.S.-allies and interests, U.S. forces protecting U.S. interests, and U.S. territory in an effort to blackmail the United States to retreat from its global commitments.”⁵ These adversaries could include both states such as China, Iran, North Korea, and Syria, and non-state actors or terrorists, especially those sponsored or receiving material assistance from states.

Significantly, although the Bush administration has recently begun to devote more attention to the nuclear dangers posed by non-state actors, its initial intention was to define the principal nuclear proliferation threat in terms of state actions, i.e., the “axis of evil” nations: Iraq, Iran, and North Korea. Some would argue – and I would concur – that this simplistic characterization

² Kurt Guthe, “The Nuclear Posture Review: How Is The ‘New Triad’ New?” Center for Strategic and Budgetary Assessments, 2002, p. 1. See also Roger Speed and Michael May, “Dangerous Doctrine,” *Bulletin of the Atomic Scientists*, March/April 2005, pp. 38-49.

³ U.S. Department of Defense. Special Briefing on the Nuclear Posture Review. News Transcript, January 9, 2002, cited by Amy F. Woolf, “U.S. Nuclear Weapons: Changes in Policy and Force Structure,” *CRS Report for Congress*, Congressional Research Service (Updated January 13, 2005), p. 5.

⁴ *Ibid.*

⁵ Woolf, p. 5.

of the threat and the proposed solution – regime change – not only politicized the debate at home and abroad, but redirected U.S. intelligence resources away from more pressing nuclear terrorism challenges. For example, the United States (as well as Russia and all of the other nuclear weapon states) has exaggerated and continues to exaggerate the difficulty of non-state actors manufacturing crude but real nuclear weapons (i.e., Improvised Nuclear Devices) and discounts the terrorist risks posed by non-strategic nuclear weapons.

Doctrine

During the Cold War and throughout the Clinton administration, U.S. policy tended to treat nuclear weapons as distinct from the rest of the U.S. weapons arsenal, their role being defined primarily as a deterrent vis à vis the Soviet Union and, subsequently, Russia. In contrast, the Bush administration has articulated a broader mission for nuclear weapons. In outlining the findings of the NPR, for example, “the administration argued that nuclear weapons, along with missile defenses [...] not only *deter* adversaries [but] 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 U.S. with nuclear weapons or other ‘asymmetrical threats’, [...] and *defeat* enemies by holding at risk those targets that could not be destroyed with other types of weapons.”⁶

Many analysts interpret the new doctrine as expanding the battlefield use of nuclear weapons. They see U.S. forces increasingly reoriented toward fighting limited, regional wars with countries that support international terrorism and/or are developing WMD, and envision nuclear weapons as part of the capability of the regional fighting force.

The nuclear declaratory policy of the Bush administration has not been confined to expanding the mission of nuclear weapons beyond deterrence. It also has articulated a new doctrine in which the United States should be prepared to preempt new and evolving threats such as those posed by rogue nations or terrorists armed with WMD by initiating attacks against foes before the adversary has the opportunity to strike the United States or its allies. This doctrinal shift has led administration critics to charge that the United States now contemplates possible preemptive use of nuclear weapons against nations and non-state actors that may not possess nuclear weapons.⁷ On the other hand, notwithstanding its articulation of four distinct policy objectives to which nuclear weapons contribute, the administration has maintained publicly that nuclear weapons in the future will play a smaller role in U.S. strategy than was the case during the Cold War. According to the Bush administration, this

⁶ Ibid, p. 9.

⁷ Ibid, p. 10. See also Speed and May.

diminished role for nuclear weapons will be due to the development of new precision conventional weapons and ballistic missile defenses.

Nuclear Arms Control Policy

The Bush administration is widely associated with the view that negotiated, legally-binding arms control accords unduly constrain U.S. flexibility and force requirements. Although this orientation does not preclude deep reductions in nuclear forces, it places a premium on U.S. freedom to maneuver and to reverse reductions if it is necessary to quickly reconstitute the U.S. nuclear arsenal. Consistent with this philosophy, the Bush Administration has preferred to pass up opportunities to constrain Russian nuclear forces if such action would also impede U.S. freedom of action.

Strategic and Non-Strategic Nuclear Weapons

This minimalist approach to arms control is evident with respect to both strategic and non-strategic nuclear weapons. In the strategic sphere, although the United States ultimately agreed to the legally-binding Strategic Offensive Reductions Treaty (known as SORT or the Treaty of Moscow) in May 2002, the Bush administration rejected any language rejecting irreversibility. It was determined to retain maximum flexibility regarding the pace of force reductions and to keep open the option of reconstituting warheads on deployed forces if the need arose.⁸

The United States has been even more circumspect in pursuing reductions related to tactical or non-strategic nuclear weapons even though Russia has an enormous numerical advantage in this category of nuclear weapons and despite the fact that tactical nuclear weapons (TNW) would appear to be the nuclear weapon of choice for would-be terrorists. In the last part of my prepared remarks I will say a little bit about steps I believe the United States and Russia should undertake to better secure and reduce further TNW. For the moment, however, let me simply observe that at a time when the Bush administration is most enthusiastic about unilateral approaches to arms control it has been remarkably silent about the informal arms control regime related to TNW based on the parallel, unilateral U.S. and Soviet/Russian

⁸ For a discussion of U.S. perspectives on the Moscow Treaty see Rose Gottemoeller, "The New U.S.-Russian Nuclear Agreement," *Carnegie Endowment for International Peace Nonproliferation Project Issue Brief No. 9*, May 13, 2002. See also Philipp C. Bleek, "U.S. and Russia at Odds Over Strategic Reductions Treaty," *Arms Control Today*, May 2002, p. 22 and Amy F. Woolf, "Nuclear Arms Control: The Strategic Offensive Reductions Treaty," *CRS Report for Congress*, Congressional Research Service (Updated January 21, 2005).

presidential declarations of 1991 and 1992. In addition to a desire to preserve maximum flexibility in its own force posture this silence probably is reinforced by:

- Satisfaction with the status quo and a perception, which I believe is misplaced, about the durability of the current TNW regime;
- U.S. Government assessment of the Russian TNW threat primarily in proliferation terms but not as a nuclear terrorism threat or as an imminent threat to U.S. forces;
- U.S. Government concern that discussion of TNW will lead to a debate about withdrawal of U.S. nuclear forces in Europe – a “slippery slope,” and
- Growing interest in the United States for new, small TNWs.

To the extent that the United States has expressed any interest in further “controls” on TNW, it has been with respect to enhancing their security and transparency.⁹

Nonproliferation

One also can discern a marked change in U.S. nonproliferation policy, which combines a de-emphasis on the utility of multilateral treaties, including the NPT, and a preference for “coalitions of the willing” such as the Proliferation Security Initiative (PSI). This orientation, which is likely to have major implications for the outcome of the forthcoming 2005 NPT Review Conference, also is reflected in a number of new assumptions about proliferation.

One key assumption is that nuclear proliferation is inevitable and, at best, can be managed, not prevented. This perspective echoes in some respect the dire predictions about proliferation popular in the early 1960s (e.g., the Kennedy forecast) and represents a departure from the prevailing view among experts in the 1970s, 1980s, and most of the 1990s that the spread of nuclear weapons could be curtailed and, in some instances, even reversed. According to the new thinking, we are approaching a new “tipping point” in which a number of second tier states may “go nuclear”. If that occurs, it is argued, many others will follow suit.

In addition, nuclear proliferation increasingly is viewed as a defense policy challenge. By this, I mean that prior to the 1991 Gulf War proliferation typically meant nuclear proliferation, and nuclear proliferation usually was conceived as an arms control, foreign policy, or export control problem rather than a defense planning challenge. As Lewis Dunn, in particular, has argued,

⁹ For an extended discussion of U.S. and Russian perspectives on TNW see Jeffrey A. Larsen and Kurt J. Klineberger, eds., *Controlling Non-Strategic Nuclear Weapons: Obstacles and Opportunities*, Colorado Springs, CO: U.S. Air Force Institute for National Security Studies, 2000 and William C. Potter et al., *Tactical Nuclear Weapons: Options for Control*, Geneva, UN Institute for Disarmament Research, 2000.

prior to the Gulf War existing U.S. military capabilities were assumed adequate to cope with any new challenges to U.S. interests.¹⁰ Associated with this assumption was the fact that throughout much of the 1970s and 1980s, the bulk of the countries of greatest proliferation concern – states such as Argentina, Brazil, Israel, Iran, South Africa, Taiwan, South Korea, and even India and Pakistan – were either friends of the United States, or at least not our adversaries. Today, although the list of problem states might be smaller, they also tend to be far more anti-American in orientation.

The 2005 NPT Review Conference

U.S. ambivalence about the value of multilateral arms control measures today even extends to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which will hold its five-year Review Conference in May 2005. Although the United States continues to give lip service to the importance it attaches to the Treaty, it is increasingly apparent that the Bush administration is skeptical that the NPT can adapt to new challenges or take steps to ensure that member states comply with those provisions Washington regards as most important. Although there are furious bureaucratic battles being waged within the Departments of State and Defense today over how far the United States should go in repudiating certain provisions of the NPT, it is clear to me that the prevailing view in Washington is that either the United States get what it wants at the Review Conference (including strong language about Iran's noncompliance, tough export controls on uranium enrichment technology, no reference to the 2000 NPT Review Conference Final Document – and especially the "13 Practical Steps on Disarmament") or it will be happy to see the Review Conference collapse.

Nuclear Terrorism

I mentioned earlier that although the Bush Administration has begun to devote more attention to the nuclear risks posed by non-state actors it has been slow to recalibrate its nonproliferation policy in the sphere of nuclear terrorism. One major shortcoming has been the failure of the U.S. Government to develop a comprehensive plan that effectively prioritizes how the United States and its allies should combat the four principal types of nuclear terrorism:

- The fabrication and detonation of a radiological dispersion device or "dirty bomb"
- Attacks against or sabotage of nuclear facilities
- The theft or purchase of fissile material leading to the fabrication and detonation of a crude nuclear weapon – an IND
- The theft and detonation of an intact nuclear weapon (such as TNW)

¹⁰ Lewis A. Dunn, "On Proliferation Watch: Some Reflections on the Past Quarter Century," *The Nonproliferation Review*, Spring/Summer 1998, pp. 59-77.

Regrettably, to the best of my knowledge, the U.S. Government has neither undertaken a comparative assessment of the risk of these four facets of nuclear terrorism nor sought to prioritize strategies for addressing them. I am particularly troubled by the lack of attention given to “high consequence” nuclear terrorism involving the detonation of a nuclear weapon.¹¹

¹¹ See Charles D. Ferguson and William C. Potter (with Amy Sands, Leonard S. Spector, and Fred L. Wehling), *The Four Faces of Nuclear Terrorism*, Monterey, CA: Center for Nonproliferation Studies, 2004.

Targeting and Employment Policy

Prior to the collapse of the Soviet Union, U.S. nuclear policy was to deter its Cold War adversary and, if deterrence failed, to defeat it by employing nuclear weapons against a large array of military and industrial targets. Following the Soviet Union's demise, the Department of Defense undertook a number of studies to assess U.S. nuclear targeting and employment policy. These studies reportedly recommended significant changes in the focus and scope of the target list, but did not alter the fundamental targeting approach.¹² In contrast, the Bush administration asserts that it has developed a new targeting approach, which it refers to as a "capability-based" strategy rather than a "threat-based" strategy.¹³

Unlike declaratory policy and arms control policy, it is much more difficult to ascertain details about targeting policy. Nevertheless, according to Bush administration spokespersons, current U.S. policy regarding the possible use of nuclear weapons is guided by a review of the capabilities of possible adversaries, which extend well beyond Russia. Although the administration has not revealed publicly its selection of targets, it has indicated three sets of contingencies for which the United States should be prepared to employ nuclear weapons:

- Well-recognized current dangers;
- Plausible but not immediate dangers;
- Unexpected contingencies, perhaps including the sudden acquisition by an adversary of WMD.¹⁴

Although the Bush administration has emphasized the waning relevance of "pre-planned" attack options, to highlight its greater focus on emerging threats than traditional ones, the actual change in targeting and weapons employment policy probably is less than meets the eye. Most likely some Cold War options have been eliminated and new targets in countries such as Iran and the Democratic People's Republic of Korea selected. Current plans, however, almost certainly continue to include many of the old targets,

¹² See Woolf, "U.S. Nuclear Weapons," pp. 13-14.

¹³ Ibid, p. 15.

¹⁴ Ibid, p. 16.

which could be covered by the number of operational deployed warheads, today numbering around 7,000.

Force Modernization and R&D

The credibility of the proposed missions for nuclear weapons hinges on the availability of appropriate assets; thus the intense debate in Washington over the development of new weapons and the possible resumption of nuclear testing. According to a number of analysts, including my CNS colleague Dr. Nikolai Sokov, the U.S. military believes it needs weapons with the following seven characteristics:

- Precision guidance for nuclear weapons;
- Low yield nuclear weapons and the ability to certify yield with high precision and confidence;
- Earth penetration;
- Tailored effects, including ability to choose the appropriate mix of shock waves and radiation;
- Ability to destroy chemical and biological agents;
- Improved reliability;
- Flexible employment, including the ability to target and retarget weapons during the mission (as it is now done with conventional weapons).¹⁵

Most analysts agree that the existing so-called “legacy arsenal” does not have assets necessary to achieve the fore mentioned tasks. Consequently, work on new designs of nuclear weapons has been started, albeit at a very slow pace.

Weapons modernization work consists of two principal elements. The first is development of a new robust nuclear earth penetrator gravity bomb (RNEP) based on an existing physics package. The currently available RNEP is the B61-11 gravity bomb, which is derived from an earlier model (B61-7) and entered service in 1997. It has a variable yield between 0.3 and 340 kt and can burrow up to six feet into rock.¹⁶ Fiscal Year 2003 and 2004 funding for the RNEP amounted to \$15 million per year. Projected allocations were for \$27.6

¹⁵ See Nikolai Sokov, “Trends in U.S. and Russian Nuclear Policies,” Draft paper, Center for Nonproliferation Studies, Monterey, CA, February 2005.

¹⁶ For a discussion of the characteristics of the B61-11 see Robert S. Norris, Hans M. Kristensen, and Joshua Handler, “The B61 Family of Bombs,” *Bulletin of the Atomic Scientists*, January/February 2003, pp. 74-76. See also Michael Levi, “Nuclear Bunker Buster Bombs,” *Scientific American*, August 2004.

million in Fiscal Year 2005 and \$95 million in Fiscal Year 2006. Reversing a two-year trend, however, Congress eliminated nuclear weapons modernization programs from the Fiscal Year 2005 budget request in November 2004.

The second element of modernization is known as the *Advanced Concepts Initiative*: a study to explore if a new physics package is necessary or feasible. Initial funding amounted to \$6 million/year and included an important political step, the overturning in 2003 of the Spratt-Furse law that prohibited “research and development which could lead to the production by the United States of a new low-yield nuclear weapon of five kilotons or less”. The study was expected to be completed by 2006. However, as was the case with the RNEP, in November 2004 the Congress eliminated funding for the Advanced Concepts Initiative from next year’s budget.

The future of both programs remains uncertain. It seems likely, however, that the Department of Energy will try to restore funding (e.g., through a supplemental budget request) and/or find funds in the existing budget to conduct reduced-scale research until funding can be fully restored during the next budget cycle. In addition, the Bush administration has hinted that it might support the development, manufacture, and certification of new warheads without testing.¹⁷ In this regard, it is instructive to contrast the emphasis of U.S. nuclear modernization efforts on new nuclear warheads with the Russian emphasis on delivery vehicles (e.g., the land-based Topol M and dual-use Bulava, a new tactical missile (Iskander) and new dual-use cruise missiles.

Another important task is the rebuilding of the *industrial infrastructure*. The administration has asked for funds to reduce the amount of time to ready the Nevada test site from the current 24-36 to 18 months. Completion of the transition to the 18 months posture was planned for the end of 2005 at the cost of \$83 million over three years; after that the Department of Energy will need about \$25-30 million a year to maintain it (in contrast to \$15 million at the current posture). Work was funded in 2003 and 2004, but the \$30 million request for FY2005 was rejected by Congress in November 2004.¹⁸

Administration representatives emphasize that this request does not mean that testing will be necessarily resumed. Rather, if such decision is made, the United States will be able to resume them sooner. In fact, it has been said by the Department of Energy and laboratory officials that the current level of funding does not permit the maintenance of readiness at the requested level.

As with weapons modernization work, the future of the enhancement of readiness of the Nevada test site is unclear. The project is at a fairly advanced stage and will be difficult to stop in the tracks. Most likely, the Department of Energy will simply scale down the readiness enhancement work and will

¹⁷ See Walter Pincus, “Plan to Study Nuclear Warheads Stirs Concerns,” *Washington Post*, April 6, 2005 and Michael Kilian, “Bunker Busters’ Face Hurdles,” *The Monterey Herald*, April 10, 2005.

¹⁸ Sokov, p. 5.

attempt to restore funding and, perhaps, redirect other monies for the enhancement of the test site.

It is interesting to note by way of comparison that the Russian nuclear test site at Novaya Zemlya was reopened around 1999 and appears to be in good condition. Subcritical testing is conducted there, as in Nevada, and some experts believe the Russian site is probably comparable in readiness to that of the Nevada site.¹⁹ What is especially interesting is that in summer 2003, President Putin introduced an important change in the Russian position on nuclear testing, probably in response to a reassessment of U.S. testing plans. Speaking in Sarov, President Putin departed from Russia's standard emphasis on the need for adherence to the Comprehensive Test Ban Treaty and its early entry into force. Instead he emphasized that Russia was closely monitoring other states and would not be the first to resume full-scale testing.²⁰

Finally, with respect to industrial infrastructure, I should note two additional developments. In 2002 the United States resumed production of tritium at a cost of \$135 million, and in April 2003, for the first time since the closure of the Rocky Flats plant in 1989, the United States produced a new certifiable plutonium pit. Plans also were undertaken to build a \$320 million pit facility for the production of up to 125 pits per year. In November 2004, however, Congress sharply reduced funding for the new pit facility from \$29.8 million to \$7 million.²¹

¹⁹ Sokov, p. 11.

²⁰ Sokov, *ibid.*

²¹ Sokov, pp. 5-6.

Conclusions and Recommendations

Let me conclude by first observing that American and Russian nuclear policies today share an important feature. The traditional mission, deterrence of a large-scale nuclear attack by the other side, has moved to the background from the standpoint of declaratory policy, arms control policy, and increasingly R&D policy. Instead, both countries are focused on the development of new nuclear missions which correspond to the post Cold War security environment. Accordingly, both the United States and Russia seek to make nuclear weapons more “usable” for a set of scenarios including limited conflicts. At least with respect to the United States, however, these changes in doctrine, research and development, and arms control policy are only slowly being reflected in targeting and employment policy.

This lag can be explained primarily in terms of the lack of availability of appropriate weapons matched to the new missions – a deficiency which reflects the failure to date of the administration to persuade Congress that these weapons are either necessary or consistent with the prevailing views in Congress about the objectives of U.S. defense, arms control, and nonproliferation policy. Some critics of the administration’s modernization requests, for example, question the consistency of the new U.S. nuclear posture with U.S. undertakings at the 2000 NPT Review Conference, which included “concrete agreed measures to further reduce the operational status of nuclear weapons systems” and a diminishing role for nuclear weapons in security policies.²²

Other defense experts and policy makers, including some usually characterized as “hawks,” are critical of the Bush administration’s readiness to embark on major new nuclear weapons programs at a time when they believe the United States should be devoting more resources to both advanced conventional arms and combating nuclear terrorism.

I share this perspective, and I am especially anxious for the United States to do more to reduce the probability of high consequence nuclear terrorism. In this regard, I believe it is essential to pursue two basic sets of policies: (1) secure, consolidate, reduce, and eliminate highly-enriched uranium, which could all too easily be acquired by non-state actors and used to fabricate a crude but real nuclear weapon; and (2) secure, consolidate, reduce, and eliminate stocks of non-strategic nuclear weapons – a category of

²² See “2000 NPT Final Document,” in *NPT Briefing Book*, at http://cns.miis.edu/research.npt/briefingbook_2005/index.htm.

weapons most coveted by terrorists but not subject to any legally-binding or verifiable controls. I believe there is a much greater role for France, the European Union, and the G-8 Global Partnership to play with respect to combating both of these nuclear terrorism challenges.