

# United States

On 5 April 2009, in a speech in Prague, President Obama committed that his Administration would work toward a nuclear-weapon-free world: “First, the United States will take concrete steps toward a world without nuclear weapons. To put an end to Cold War thinking, we will reduce the role of nuclear weapons in our national security strategy, and urge others to do the same.” On the question of proliferation, Obama went on to note: “The basic bargain is sound: Countries with nuclear weapons will move towards disarmament, countries without nuclear weapons will not acquire them, and all countries can access peaceful nuclear energy.”

Obama was encouraged by the advocacy for disarmament in the widely-cited *Wall Street Journal* op-eds by George Shultz, Sam Nunn, William Perry, and Henry Kissinger,<sup>333</sup> who argued that moving toward nuclear disarmament is vital to efforts to strengthen the nonproliferation regime and prevent the acquisition of nuclear weapons by terrorist groups. Advocates of nuclear disarmament also believe that, with the end of the Cold War, nuclear weapons have no plausible role for any country other than to deter their use by others.

The most sustained official discussion of nuclear weapon issues by the Obama Administration is the Nuclear Posture Review (NPR) released in April 2010.<sup>334</sup> The review was mandated by Congress in the FY 2008 National Defense Authorization Act, which called for the Secretary of Defense to submit to Congress a comprehensive analysis of U.S. nuclear deterrent policy and strategy by the end of 2009.<sup>335</sup> Although the terms of reference for the review as set out in the legislation did not refer explicitly to nuclear disarmament, as discussed further below, parts of the review do touch on disarmament questions.

The United States also was active in 2009 and the early months of 2010 in negotiating a follow-on agreement with Russia to the START Treaty, which expired in December 2009. The so-called New START agreement was concluded on April 8.<sup>336</sup> Its focus is on verification arrangements and relatively modest reductions in strategic warheads and delivery vehicles over a period of seven years.

## **The new disarmament debate**

A report of the Secretary of Defense’s Task Force on Nuclear Weapons Management, chaired by former Secretary of Defense, James Schlesinger, released in December 2008 at the end of the Bush Administration, set forth a set of arguments strongly supporting a continuing broad deterrent mission for the U.S. nuclear deterrent.<sup>337</sup> President Obama has kept on Secretary of Defense Robert Gates who commissioned that study.

Two other fairly comprehensive and ultimately conservative bi-partisan studies chaired by former senior U.S. national security officials should also be noted:

- *U.S. Nuclear Weapons Policy*, a Council on Foreign Relations report co-chaired by William Perry, a former Secretary of Defense in the Clinton Administration, and Brent Scowcroft, National Security Advisor to the first President Bush,<sup>338</sup> and
- *America's Strategic Posture*, a report of the Congressional Commission on the Strategic Posture of the United States chaired by William Perry with James Schlesinger as vice-chair.<sup>339</sup>

It should be noted that Perry was one of the co-signatories of the 2007 *Wall Street Journal* oped calling for the United States to take seriously the goal of eliminating all nuclear weapons.

The cover letter by the co-chairmen accompanying the Council on Foreign Relations report sets out its perspective pretty clearly:

“[W]hile President Obama has called for the eventual global abolition of nuclear weapons, they will remain a fundamental element of U.S. national security in the near term. This task force report makes recommendations, therefore, on how to ensure the safety, security, and reliability of the U.S. deterrent nuclear force.”

The report on America's Strategic Posture similarly notes:

“As we have debated our findings and recommendations, it has become clear that we have very different visions of what might be possible in the long term. Fundamentally, this reflects our differences over whether the conditions can ever be created that might enable the elimination of nuclear weapons. But our debates have also brought home to us that, despite our differences over the long term, we share to a very significant degree a vision of the nearer term.”<sup>340</sup>

On the non-government front a number of efforts have been mounted exploring the requirements and strategies for achieving total nuclear disarmament.

- The Carnegie Endowment has produced a valuable set of readings, *Abolishing Nuclear Weapons: A Debate*,<sup>341</sup> responding to an Adelphi Paper by George Perkovich and James Acton.<sup>342</sup>
- The Nuclear Security Project co-sponsored by the private Nuclear Threat Initiative and Stanford University's Hoover Institute has been following up on the Shultz, Perry, Kissinger, Nunn proposals with several commissioned studies.<sup>343</sup> These studies focus not on how to get to zero but on deep cuts and related measures designed to get to a “base camp” for the final assault on the peak of nuclear disarmament.
- The Center for Defense Information and the Stimson Center have organized a “Global Zero” initiative with the explicit goal of achieving a multilateral disarmament treaty by 2018 and the elimination of all nuclear weapons by 2030.<sup>344</sup> Under this umbrella, the Stimson Center during 2009 published a series of country studies on how the

postures of specific countries relate to nuclear disarmament; and in 2010, published two books: one bringing together the country studies<sup>345</sup>, and the other offering commissioned studies on critical issues that will have to be faced as the world moves toward disarmament, including verification, enforcement, governance and the role of civilian nuclear energy.<sup>346</sup>

In addition to these multi-authored studies, a number of foreign policy and defense experts including Jonathan Schell,<sup>347</sup> Ivo Daalder and Jan Lodal,<sup>348</sup> and Harold Brown<sup>349</sup> have contributed shorter articles pro and con on the objective of nuclear abolition. There also have been a number of more narrowly focused but related efforts including on:

- Consolidation of the U.S. nuclear-weapon design and production infrastructure as the nuclear weapons arsenal is sharply reduced by the non-governmental Nuclear Weapons Complex Consolidation Policy Network,<sup>350</sup> and
- The imperative of changing U.S. nuclear targeting doctrine from an emphasis on nuclear war fighting (“counterforce”) to one aimed at minimal deterrence as a step on the way to a nuclear-weapon-free world by the Federation of American Scientists and the Natural Resources Defense Council.<sup>351</sup>

So far, the discussions on nuclear disarmament have been mostly within policy circles and non-governmental organizations with specialized interest in the issue; there has been little broad public debate. Among the non-governmental organizations, the NGO Committee on Disarmament, Peace, and Security, and the Global Security Institute (encompassing four action-oriented programs—the Bipartisan Security Group, the Disarmament and Peace Education Initiative, the Middle Powers Initiative and the Parliamentarians for Nuclear Nonproliferation and Disarmament) have been particularly active in promoting the disarmament agenda.<sup>352</sup>

The following briefly describes some of the potential fault lines of the emerging debate in the U.S. with regard to:

- Ultimate goals, including the potential uses of nuclear weapons,
- Modernization of the nuclear complex,
- Intermediate steps, including a fissile material production cutoff and a Comprehensive Nuclear Test Ban Treaty (CTBT),
- Transparency and declarations, and
- Deep cuts and verification

Those who have joined the debate on disarmament can be roughly categorized into camps holding the following three positions:

1. Disarmament is a counter-productive and dangerous goal because nuclear weapons play a significant national security role beyond simply deterrence of the use of nuclear weapons by others;
2. Deep cuts are a far more realistic goal than a nuclear-weapon-free world and could reap much of the value sought by advocates of complete disarmament; and
3. Nuclear disarmament is a realistic and achievable goal.

Intriguingly, the three camps appear to agree on the key finding that today the U.S. military does not give much attention to nuclear weapons. Most explicitly, the Schlesinger Task Force found “a distressing degree of inattention to the role of nuclear weapons in deterrence among many senior DoD [Department of Defense] military and civilian leaders,” and that “there has been a shedding of nuclear capabilities by the Military Services ... sometimes abetted by combatant commands and by service components in order to free up resources to use elsewhere.”<sup>353</sup>

The Schlesinger Task Force, which is in the first camp described above, advocated a renewed commitment by the nuclear establishment to four specific missions:

- “deter weapons of mass destruction threat,”
- “assure allies of our continuing commitment to their security,”
- “dissuade potential adversaries from embarking on programs or activities that could threaten our vital interests,” and
- “defeat threats that are not deterred.”<sup>354</sup>

To achieve these objectives, the Task Force recommended various ways to modernize and sustain the U.S. deterrent force.

The Council on Foreign Relations and the Congressional Commission report chaired by Perry and Scowcroft took a similar if more muted tack. It perceived a role for nuclear weapons beyond simply deterrence of nuclear attacks on the United States and its allies and therefore opposed a no-first-use policy and refused to exclude the option of the United States developing new nuclear weapons.

In a brief dissent to the Council on Foreign Relations report, George Perkovich, one of the members of the task force, drew the distinction between the report’s overall view and that of the abolitionists as follows: “[T]his report allows for the unhelpful and unnecessary perception that the United States should be more concerned about perpetuating its nuclear arsenal than it is about creating the conditions that would allow all states to live free from the terrifying threat of nuclear war.”<sup>355</sup>

The intermediate view that the role of nuclear weapons can be further deemphasized, but that the goal of nuclear disarmament is unrealistic is well represented by former Secretary of Defense, Harold Brown. In Brown’s view, “it will take a global political and social order quite different from the current situation to make a world without nuclear weapons possible.”<sup>356</sup> He bases this judgment principally on the grounds that in a world that is not already “peaceful and orderly,” countries could always hide some nuclear weapons. In addition, Brown argued that elevating disarmament to a central goal could hurt nonproliferation efforts:

“The assertion that we intend to abolish nuclear weapons is likely to gain less in goodwill and cooperation in nonproliferation programs from others than it will lose when it becomes clear that there is no believable program or prospect for doing so. Such a backlash has already occurred in the case of Article VI of the NPT [which commits the nuclear powers to pursuing negotiations on nuclear disarmament]. The fact that nuclear disarmament has not been achieved during the 37 years since the

commitment entered into force continues to provide proliferators with a rationalization to their own publics for proliferation and an excuse for others to avoid cooperation with U.S. nonproliferation efforts. The elevation of a zero nuclear weapons goal to a driving force would intensify those effects. ... [Z]ero nuclear weapons as a central commitment severely distorts the debate [over proliferation]. Such distortion is inevitable when a practical impossibility is adopted as a goal.”

Better in Brown’s view is to push for a fissile production cutoff, a comprehensive nuclear test ban, some form of de-alerting of nuclear forces, and deep cuts in nuclear weapons; he also opposes the development of new nuclear weapons.

Although former Secretaries of Defense Schlesinger and Brown oppose the goal of a nuclear-weapon-free world, there is considerable support for this goal from other former U.S. national security officials. These include former Secretaries of Defense, William Cohen, Frank Carlucci, and Melvin Laird, (and included Robert McNamara before his death), and former Secretaries of State Madeline Albright, James Baker, Warren Christopher, and Colin Powell.

The most complete analytic efforts published so far are those by Perkovich and Acton in *Abolishing Nuclear Weapons* and the responses to their work noted earlier, and the Stimson Center books. These studies examine a number of challenges, including the stability of a nuclear-weapon-free world, verification, compliance, modernization of the nuclear-weapon complexes, and the role of nuclear energy in a disarmed world.

The Obama Administration’s Nuclear Posture Review (NPR) embraces the vision of a nuclear-weapon-free world as a real, though long-term, goal. The review identifies the threats of nuclear proliferation and nuclear terrorism as the most pressing nuclear dangers today.<sup>357</sup> It narrows the role played by nuclear weapons in U.S. defense policy by declaring that the U.S. “will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the Nuclear Non-Proliferation Treaty (NPT) and in compliance with their nuclear non-proliferation obligations.”<sup>358</sup> The review stopped short of declaring that the only use of nuclear weapons is to deter their use by others. In addressing explicitly a “world without nuclear weapons,” the review asserts that the conditions that would ultimately allow such a world include:

“halting the proliferation of nuclear weapons, much greater transparency into the programs and capabilities of key countries of concern, verification methods and technologies capable of detecting violations of disarmament obligations, enforcement measures strong and credible enough to deter such violations, and ultimately the resolution of regional disputes that can motivate rival states to acquire and maintain nuclear weapons. Clearly, such conditions do not exist today. But we can—and must—work actively to create those conditions.”<sup>359</sup>

This is a very demanding list of conditions and suggests that, in the view of the drafters of the NPR, the achievement of total nuclear disarmament is well beyond any realistic planning horizon. Indeed, the NPR also foresees the introduction of a new generation of U.S. ballistic-missile submarines beginning in 2020 and a new generation of intercontinental ballistic missiles starting in 2027.

### **Modernization of the nuclear-weapon complex**

The arena of the most immediate conflict among the competing strategic views relates to questions concerning the U.S. nuclear-weapon design and production complex, including the Stockpile Stewardship Program and whether or not the United States should develop new nuclear warheads.

The Nuclear Weapons Complex Consolidation report proposed a detailed program to shrink the complex, as a step toward the goal of nuclear disarmament. Its recommendations include consolidating the nuclear weapon complex from eight to three sites (Los Alamos National Laboratory, Sandia National Laboratory, and the Pantex Plant); that no change be made to existing nuclear weapons, “unless there is a compelling reason to do so;” and canceling most large new facilities now in planning stages.<sup>360</sup>

The Schlesinger, Council on Foreign Relations, and Congressional Commission studies by contrast, support a strengthened weapons complex. The Schlesinger Task Force argued for maintaining the ability to design and build new warheads:

“The Secretary of Defense should direct the NWC [Nuclear Weapons Council] as newly re-charted to develop and maintain a nuclear capabilities roadmap for the modernization and sustainment of the nuclear deterrent force. ... There is legitimate near-term concern about the nation’s ability to design and build nuclear warheads, given the past and prospective loss of intellectual capital and critical skills.”<sup>361</sup>

Both the Council on Foreign Relations report and that of the Congressional Commission chaired by Perry and Schlesinger support the possible future need for what its advocates call a “Reliable Replacement Warhead” (RRW).<sup>362</sup>

The implication of this name, which was developed by the nuclear-weapon laboratories is to question their ability to maintain the reliability of the existing U.S. warhead designs. This implication has been challenged by the Jason group of defense consultants, which was asked by the U.S. National Nuclear Security Administration to review the Stockpile Stewardship Program and concluded in 2009 that:<sup>363</sup>

“Lifetimes of today’s nuclear warheads could be extended for decades, with no anticipated loss in confidence, by using approaches similar to those employed in [warhead Life Extension Programs] to date.”

The Directors of the three nuclear-weapon laboratories cast doubt on this conclusion in letters responding to a request by the ranking Republican Representative on the Subcommittee on Strategic Forces of the House Armed Services Committee. Some of the letters emphasized the importance of the challenge of designing new warheads to the maintenance of their skills and for increased funding.<sup>364</sup> They also emphasized the importance of safety improvements (that would reduce the chances of a plutonium dispersal accident) and “intrinsic” security improvements that would require new warhead designs. During the 1990s, the Defense Department had decided that the safety improvements would be unnecessary.<sup>365</sup>

The NPR put the manufacture of new warhead components last on its list of options, after refurbishment of existing components or reuse of components from excess warheads. It also specified that authorization by the President and approval by Congress would be required before new components could be manufactured.

The NPR does, however, support robust Stockpile Stewardship and Life Extension Programs for nuclear weapons. This support included funding for a multi-billion Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory, which would greatly expand the ability of the United States to make new plutonium components for warheads and a new Uranium Processing Facility at the Y-12 Plant at Oak Ridge National Laboratory which would modernize the ability of the U.S. to make thermonuclear secondary components for warheads.<sup>366</sup> These initiatives had been linked to ratification of the New START Treaty in a December 2009 letter to President Obama from 40 Republican Senators and Democratic Senator Lieberman<sup>367</sup> and were already included in the Obama Administration's FY 2011 Budget Request for Nuclear Weapons, Nonproliferation, and Nuclear Energy. This budget request was sharply criticized by some NGOs. The NRDC analysis of the budget request, for example, commented that, "in what amounts to a stunning fallback from his 'world without nuclear weapons' rhetoric of only 9 months ago,' President Obama has proposed a nuclear weapons budget that is significantly larger, in real terms, than the last budget of the very nuclear-weapons-minded Bush Administration."<sup>368</sup>

#### **Intermediate steps**

In President Obama's Prague speech, he stated that:

"To reduce our warheads and stockpiles, we will negotiate a new Strategic Arms Reduction Treaty with the Russians this year. President Medvedev and I began this process in London, and will seek a new agreement by the end of this year that is legally binding and sufficiently bold. And this will set the stage for further cuts, and we will seek to include all nuclear weapons states in this endeavor.

To achieve a global ban on nuclear testing, my administration will immediately and aggressively pursue U.S. ratification of the Comprehensive Test Ban Treaty. After more than five decades of talks, it is time for the testing of nuclear weapons to finally be banned.

And to cut off the building blocks needed for a bomb, the United States will seek a new treaty that verifiably ends the production of fissile materials intended for use in state nuclear weapons. If we are serious about stopping the spread of these weapons, then we should put an end to the dedicated production of weapons-grade materials that create them."

President Obama's call for a *verifiable* fissile cutoff departs from the policy of the Bush Administration, which only reluctantly supported a fissile cutoff, and one without verification measures.

The NPR confirms the U.S. support for these initiatives, including ratification of the CTBT and negotiation of a verified fissile material cutoff treaty. However, it remains unclear whether the Administration will press for early ratification of the CTBT.

#### **Transparency and declarations**

With respect to transparency, the United States has gone beyond any other nuclear weapon state in providing public information on its holdings of fissile material and weapons and the history of their production and disposition. The UK also has made public declarations of its fissile stocks but with much less detail than in the U.S. reports.

In 1993, the U.S. Department of Energy (DOE) made public the total amount of highly enriched uranium (HEU) it had produced and used. At the same time, it also made public the quantities of HEU at all DOE sites other than the Pantex warhead assembly/disassembly facility in Amarillo, Texas. In 1996, the United States updated these data. A much fuller history of HEU production and disposition was completed in January 2001 but only released five years later as a result of Freedom of Information Act appeals by the Federation of American Scientists. The report declared that as of September 30, 1996 the U.S. had an inventory of 740.7 tons of HEU, containing 620.3 tons of U-235. It provided an accounting of total production, with annual production data for each enrichment facility (Oak Ridge and Portsmouth) organized into four enrichment ranges, from 20–70% to over 96%. This history reported the amount of HEU consumed in plutonium and tritium production reactors, down-blended for research-reactor fuel and disposal, and transmuted into uranium-236. The uses of HEU in nuclear tests and in naval reactors were reported as a combined number rather than separately “for national security reasons.” The Bush Administration also declared in 2006 the amount of weapon-grade uranium that it was transferring from its weapon stockpile into a stockpile reserved for future use in naval reactor fuel.<sup>369</sup>

The U.S. Department of Energy published, in 1996, the size of its total plutonium stockpile as of the end of September 1994 (99.5 tons). It reported that approximately two-thirds of this material (66 tons) was in weapons or in weapon components at the Pantex warhead plant and gave the quantities of plutonium at other DOE sites. The U.S. declaration also included a table of production by year and site (Hanford and Savannah River).

With respect to nuclear weapons the United States has been less open, but has periodically released some data, allowing independent analysts to make informed judgments on the weapon stockpiles and deployments.<sup>370</sup>

#### **Deep cuts and verification**

The United States clearly plans for further cuts in its nuclear arsenal, as evidenced by President Obama’s Prague speech and the conclusion of the New START agreement with Russia. New START caps deployed strategic warheads at 1550 and START-counted strategic delivery vehicles at 800, both below present levels, but modestly so.<sup>371</sup>

The NPR suggests that the United States will be prepared in future treaties to seek further reductions in total nuclear weapons, including non-deployed and non-strategic warheads.<sup>372</sup> The NPR also called for “Initiating a comprehensive national research and development program to support continued progress toward a world free of nuclear weapons, including expanded work on verification technologies and the development of transparency measures. Such technologies will help us manage risk as we continue down this path by ensuring that we are able to detect potential clandestine weapons programs, foreign nuclear materials, and weapons production facilities and processes.”<sup>373</sup>

The United States should be willing to accept strong verification measures to monitor reductions in nuclear weapons and fissile material stockpiles. It has already offered most of its peaceful nuclear activities to be safeguarded by the International Atomic Energy Agency (IAEA) and has acceded to the Additional Protocol to its safeguards agreement, albeit with a national security exemption and managed access.<sup>374</sup> In addition, between 1996 and 2002, the United States worked with Russia and the IAEA under the so-called Trilateral Initiative to develop approaches to allow the IAEA to monitor excess plutonium-containing warhead components, without divulging information that the United States and Russia considered sensitive.<sup>375</sup> (The Bush and Putin Administrations abandoned this initiative, however, before it was implemented.)

### **Conclusion**

The Nuclear Posture Review represents the first concrete manifestations of how President Obama's vision of a nuclear-weapon-free world will impact on near-term U.S. nuclear policy. The review does seek to reduce the role of nuclear weapons in U.S. strategic policy and eschews (or nearly so) the need for new nuclear weapons. It also strongly supports a CTBT and a verified fissile material production cutoff. On the other hand, the review puts forward a substantial and expensive plan to modernize the nuclear weapons complex, a plan which many critics believe is inconsistent with a determination to work toward a nuclear-weapon-free world.

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