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Report of a Workshop on Nuclear Forces and Nonproliferation held at the Woodrow Wilson International Center for Scholars, Washington, DC, October 21, 2009

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In Prague's Hradcany Square on April 5, 2009, President Barack Obama, spoke of "America's commitment to seek the peace and security of a world without nuclear weapons." However, he recognized: "As long as these weapons exist, the United States will maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies But we will begin the work of reducing our arsenal."

The direct, concrete steps the President proposed were a Strategic Arms Reductions Treaty (START) follow-on, ratification of the Comprehensive test Ban Treaty (CTBT) and negotiation of a verifiable Fissile Material Cutoff Treaty (FMCT). Other proposals put forward in Prague included strengthening the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and nonproliferation, as well as oounterproliferation and counterterrorism initiatives.

The president offered a bold vision of the nuclear future that encompasses the full range of issues from deterrence to nonproliferation and disarmament and elements of US nuclear policy. The upcoming Nuclear Posture review (NPR) will develop both the vision and the policy. What will be the roles of nuclear forces? Will the nuclear forces necessary to support a robust deterrent and defense capability be available in the future? How will they be configured? How will the development of these forces affect and be affected by arms control and nonproliferation obligations and objectives? What is the likely impact of the NPR on the 2010 Review Conference (RevCon) of the Parties to the NPT?

A workshop sponsored by the Los Alamos National Laboratory in cooperation with the Woodrow Wilson International Center for Scholars was held at the Wilson Center in Washington, DC, on October 21, 2009. The conference addressed evolving nuclear forces and their impacts on nonproliferation with special attention to the statements of the Administration, the upcoming Nuclear Posture Review and the 2010 NPT RevCon.

¹ The views expressed are the author's summary of discussions and are not the views of the Los Alamos National Laboratory, the National Nuclear Security Administration, the Department of Energy or any other agency. The views should also not be construed to be those of any individual participants.

Summary

The workshop addressed evolving nuclear forces and their impacts on nonproliferation in the context of the new strategic environment, the Obama Administration's Nuclear Posture Review (NPR) Review and the 2010 Conference (RevCon) of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). The issues discussed are at the heart of the debate on nuclear policy issues such as future nuclear weapons requirements and nonproliferation, but also the stockpile stewardship program and infrastructure modernization.

The workshop discussions reflected the importance of the NPR for defining the role of US nuclear forces in dealing with 21st century threats and providing guidance that will shape NNSA and DoD programs. They also highlighted its importance for NPT diplomacy.

The discussion noted the report of the bipartisan Congressional Commission on the Strategic Posture of the United States, and the expectation that the NPR would likely reflect its consensus to a large degree (although the Administration was not bound by the report). There was widespread support for developing the foundations for a sustainable nuclear-weapon program that addresses nuclear weapons, infrastructure and expertise in the broader nonproliferation, disarmament and international security contexts.

The discussion also revealed a convergence of views, but no consensus, on a number of important issues, including the diminished role but continued importance of nuclear weapons; the need to take action to ensure the sustainability of the stockpile, and the recapitalization of the infrastructure and expertise; and the need to take action to promote nonproliferation, arms control and disarmament objectives.

Roles and Missions of Nuclear Weapons

It was generally agreed that in the emerging security environment, nuclear weapons are less central than they were during the Cold War, but there will continue to be a need to maintain a deterrent and to extend it to allies. The NPR will establish numbers, doctrine and declaratory policy for US nuclear weapons, and it was argued that it needed to lay the foundations for long-term, bipartisan support for nuclear weapon policy.

In a dramatically changed security environment, deterrence is changing. In place of the old Soviet threat, there is a new, albeit uncertain relationship with Russia; and strategic uncertainty about China's long-term evolution. There is growing concern about proliferation and terrorism involving nuclear and other weapons of mass destruction (WMD) and the prospect of multiple adversaries, including those armed with WMD and ballistic missiles. It was noted by some that other threats are rising in significance as well, including cyber threats that could cause major disruptions and in some cases threaten the ability of the United States to operate nuclear and ballistic missile defense systems.

It was noted that the Administration has sought to “reset” the US-Russian relationship and is focused on stability and on cooperation in meeting 21st century challenges. There is a need to determine the strategic relationship of the United States with China, which is building up its nuclear and missile capabilities. A critical issue is whether the United States should resign itself to the possibility of a mutual deterrence relationship with China. As for the so-called “rogue states,” the Administration hopes to roll back nuclear programs in North east Asia and the Middle East, but it was recognized this cannot be the basis for planning,

It was generally agreed that nuclear weapons remain important for the United States, but for a more limited set of roles and missions in the current security environment. Declaratory policy is an area the NPR will have to address. It was noted that some nonproliferation experts and others have advocated an unambiguous no-first use policy and legally binding negative security assurances (NSAs), arguing that nuclear responses to nonnuclear threats are no longer relevant. In contrast, it was also noted that conventional forces are not locally available at any given time.

In the context of considering declaratory policy, it was argued by a number of the participants that the NPR needed to lay the foundations for long-term continuity in nuclear weapon policy because deterrence will not be required for four or eight years, but for as long as nuclear weapons remain in existence. Bipartisanship was seen as critical, and one participant stated that the NPR would likely reflect the consensus in the report of the bipartisan Congressional Commission on the Strategic Posture of the United States to a large degree (although the Administration was not bound by the report).

Deterrence and its extension to allies was seen to be critical. It was argued that for some allies, the most important role of nuclear weapons was the assurance of US engagement. Although the remaining importance of the nuclear component of deterrence was generally recognized, deterrence and assurance will increasingly rely on non-nuclear tools ranging from missile defenses to strong relations with allies to so-called soft power. It was recognized that declaratory policy must be reassuring to allies. It was noted that extended deterrence and assurances to allies differed according to region—deterrence extended to NATO involved US weapons in Europe, while extending deterrence to Japan did not—and sometimes even to sub-region.

There was agreement that the number of US weapons was likely to continue to go down. Several participants noted the need for a “hedge” increased as this process occurred. Such a hedge would be designed to take into account the possibility of technological problems or unfavorable geopolitical changes. Many issues about a future hedge were raised, including infrastructure modernization, reducing the large reserve stockpile, upload capability, increasing interoperability, etc. One participant argued that numbers were less important than postures for stability, and that complicating factors included verification, compliance and the non-nuclear capabilities of nuclear states.

Several participants raised concerns about Russian nonstrategic nuclear forces (NSNF) and about Russian and Chinese nuclear modernization efforts.

Some participants stated that US decisions on nuclear roles, missions and requirements will have to better take the emerging threat environment into account, and that this needs to be a priority for the next NPR.

Sustaining the Nuclear Enterprise

Sustaining the US nuclear deterrent and its supporting infrastructure for the foreseeable future was generally viewed as necessary and widely supported. One participant argued that if the United States proceeds with stockpile and infrastructure as it has over the last five years, we will be on the path to “unilateral elimination.” It was suggested that the NPR offers the opportunity to align decisions on management or modernization issues with a comprehensive nuclear strategy. Key decisions cannot wait.

The aging nuclear weapon stockpile and the infrastructure that supports the stockpile was seen as a growing concern. The stockpile is safe, secure and reliable, but stockpile stewardship has not received the proper attention of the government for years. Programs are underfunded, creating difficult choices for the national security laboratories. Today it is proving increasingly difficult to sustain confidence in the stockpile without corrective measures. One participant argued that if the United States proceeds with stockpile and infrastructure as it has over the last five years, we will be on the path to “unilateral elimination.” It was suggested that the NPR offers the opportunity to align decisions on management or modernization issues with a comprehensive nuclear strategy.

Many argued that ensuring confidence in the safety, security, reliability and sustainability of the US nuclear weapon stockpile and its supporting infrastructure was critical. One participant noted that dealing with these problems would be different if nuclear disarmament could be rapidly achieved. However, if the process were to take decades, certain actions to modernize the stockpile and the supporting infrastructure were needed. Key decisions cannot wait. One participant noted that action was needed or we risked being backed into a policy in the future because we lost technological options. Several participants argued that modernization was consistent with the ultimate goal of elimination, and that a modernized infrastructure could be a hedge or latent capability that might allow the realization of a nuclear-free world.

There were several participants who spoke in support of an approach that would allow the United States and its allies have greater confidence in US stockpile and its supporting enterprise; maintain weapon expertise and enable a smaller, safer and more secure deterrent force; and offer the best opportunities for further arms reductions (including reductions in reserve forces) and reduce the prospects of the United States needing to test in the future. In this context, there was a discussion of “new” weapons. It was argued that there is no clear definition of new, and the issues were complicated. But some participants stated that sustaining existing capabilities with increased margins and some

additional safety and security should not be seen as a new weapon—no “new military capabilities”—should be the goal.

It was agreed that recapitalizing the infrastructure is critical, as was the need for recruiting and transferring knowledge to a new generation of nuclear stewards. Reinvestment in the S&T base was also seen as critical. Although long-term, sustainable investments in our human and infrastructure capabilities was generally agreed to be needed, the difficulties of doing so were recognized, especially the need to create sustained congressional support, to address competing demands on a budget share that is unlikely to grow and could be reduced, etc.

Some participants pointed out that the S&T needed to maintain the US deterrent is absolutely necessary for understanding current and future threats and developing responses, and one participant advocated creating a “technology roadmap” to help ensure against technological surprise. Beyond the knowledge of the adversary they offer, the S&T capabilities needed to maintain our stockpile are developing and they still offer new possibilities for detecting and countering nuclear proliferation and terrorism.

The intersection of nuclear-weapon policy and nuclear proliferation issues suggests that any policy must address the imperatives of ensuring confidence in the safety, security, reliability and sustainability of the US nuclear weapon stockpile and its supporting infrastructure while meeting all alliance and nonproliferation commitments, including obligations under the preamble and Article VI of the Nonproliferation Treaty. It was observed that a linear relationship between arms reductions and the level of support needed for the nuclear complex does not exist – in fact, you may well need more capabilities as you go to very low numbers.

To ensure nuclear weapon program decisions were consistent with arms control, disarmament and nonproliferation objectives, several principles were put forward by one participant, including:

- No testing;
- No new military capabilities;
- No new fissile material production;
- Enhanced safety and security;
- Reduced numbers of nuclear weapons;
- Strengthened nonproliferation; and
- Strengthened extended deterrence and assurance.

Implications for Nonproliferation

The workshop discussions suggested the important, but uncertain, impact of the NPR on NPT diplomacy. It was recognized that the NPT Article VI debate should be less divisive than in recent RevCons, but that high expectations, a limited set of concrete US achievements and other issues could pose problems. The success of the 2010 RevCon cannot be assured, it was widely held, and it is important to promote positive substantive nonproliferation initiatives, which might be pursued in other venues if the

RevCon breaks down. There was considerable support for, but also strong disagreement with, the view that US nuclear policy and posture reduced support in key states for nonproliferation efforts and US nonproliferation initiatives especially. It was widely held that US leadership was needed and new initiatives were desirable if not necessary.

It was noted that US NPT diplomacy was based on all three pillars of the treaty—nonproliferation, disarmament and nuclear energy—and that the United States was highlighting the fact that they are mutually reinforcing and interdependent. It was seen as important to moderate expectations, and to reinforce the US message and build support for US positions.

It was recognized that the NPR would be a factor in the debate over Article VI in the lead up to and during the 2010 RevCon. It was recognized by some that the NPR should reflect the vision of the President and US nonproliferation objectives, although the five- to ten- year planning horizon for the NPR does not allow great departures. An NPR that reconciled investments in the nuclear complex with the administration's aggressive nonproliferation and disarmament agenda could be the basis stability in US nuclear policies and budgets. Reducing numbers was seen as important, as were issues of doctrine, NSAs, nuclear-weapon-free zones, etc. Some argued the NPR would be positive, but others expressed concerns that the language of the NPR and other issues could pose problems for NPT diplomacy. One participant argued that the logic of the NPR's planning requirements was at odds with that of the disarmament community

It was also noted that achieving success at the RevCon could be a problem and Middle Eastern issues could prevent a final declaration. In this context, one participant stated that it will be important for the United States to be seen as doing everything possible to allow the conference to succeed. Another participant argued that it will be important to set norms and pursue a substantive agenda such as progress on dealing with Iran, North Korea, withdrawal, strengthening safeguards, fuel assurances, multilateralization of the fuel cycle, etc., and look to other venues for following up initiatives.

Article VI challenges were discussed in the context of the impact of US policy on nonproliferation. In this context, there was little support for the view that US nuclear weapons drive proliferation. The value of US nuclear guarantees for strengthening nonproliferation was seen as more important in this context. There was considerable support for, but also strong disagreement with, the view that US nuclear policy and posture reduced support in key states for nonproliferation efforts and US nonproliferation initiatives.

Whatever the differences on Article VI, there was a general sense that the Article VI discussions would be less contentious than in the past, but that expectations were high and others would be looking for indications not just of rhetoric but of action. The NPR would be a sign of action, and its tone and language will be important.

It was recognized that arms control successes will be limited at the time of the RevCon. Ratification of the Comprehensive Test Ban Treaty (CTBT) will not likely occur before the RevCon, although it will be pursued as a high priority by the administration. Many but not all the participants felt that the political constraints against testing and the fact that the US Government was basing all of its stockpile decisions on a no-test environment suggest the treaty would likely pose no additional burdens on the United States. However, it was recognized that ratification is not certain and that Senators would need to be briefed on the issues affecting ratification.

The possibility of a deal involving support for the CTBT and stockpile stewardship was raised. One participant argued that it would undercut any international benefits from a CTBT, which has been touted as stopping new nuclear weapons.

A fissile material cutoff treaty (FMCT) was also discussed. With respect to a FMCT, the Conference on Disarmament (CD) has broken its decade-long stalemate and reached consensus on a program of work that allow the opening of negotiations on the FMCT. It is not clear this will occur. In any case, the insistence of some states that the treaty's scope include existing stocks as well as the end of new production and other issues will be difficult to address, and the links to other issues could reappear during the negotiations. If they begin, the negotiations are likely take some time.

The achievement of agreement on a Strategic Arms Reduction Treaty (START) follow-on, dubbed "New START," is also being pursued as a high priority but some noted difficult issues divide the two parties and that the negotiations could flounder if they over contentious strategic issues of concern to one or the other party such as missile defenses and non-strategic nuclear forces (NSNF). Conclusion of a treaty before the RevCon is by no means assured, although it is expected by the international community. Several participants stressed the need to continue cooperating with Russia on threat reduction, which will be possible if overriding mutual interests were recognized.

The further reduction or elimination of nonstrategic nuclear forces was discussed and received some support. Others noted that because any distinctions between strategic and tactical weapons were increasingly irrelevant the large numbers of Russian NSNF are a complicating factor in terms of long-term strategic reductions and could pose dangers if not addressed.

Beyond these specific accords, there was general agreement that US leadership in the lead up to the 2010 Review Conference would be critical. Participants agreed the United States should work to realize a P-5 statement on the NPT, if this was possible.

It was recognized that we are moving to a world of fewer weapons and that it is difficult to see that trend reversing even in light of the dangers we confront today, although some participants expressed concern about Russian and increasing Chinese capabilities in this context.

Many participants argued that the public diplomacy surrounding nuclear weapons and nonproliferation needs to be improved. There was considerable support for the Administration's decision to create and publicize an unclassified version of the next NPR. One participant advocated inviting members of Congress, nongovernmental organizations, etc., to the RevCon.

Many participants stated the goal of disarmament was an important aspiration, which has changed the debate among nuclear –weapon states and the nonaligned movement and can be expected to have near-term benefits for nonproliferation policy. Some disagreed, arguing that the goal was unrealistic and could affect modernization, extended deterrence and other issues; the focus should rather be on deeper reductions. Many participants noted that France, Russia, China, India, Pakistan, Israel and others do not share the US view of the goal of disarmament.

Whether or not one supported abolishing nuclear weapons, understanding the conditions and requirements of a nuclear-free world was seen as important. Several participants stated the need to begin the debate over the conditions needed to achieve a nuclear-free world in earnest, including the relationship of disarmament to the growth of nuclear energy, the continuation of US conventional superiority, etc. One participant argued that in a world free of nuclear weapons there would be no need for conventional weapons as well. It was noted by some participants that further reductions will eventually lead to levels of arms where the verification and compliance challenges increase dramatically. Developing the needed technical verification and monitoring tools that would allow deeper reductions was seen as very important and one participant suggested a concerted effort to address verification challenges of disarmament. Such an initiative could be highlighted at the RevCon as a tangible demonstration of the US commitment to disarmament. Increasing transparency, openness and predictability with Russia and China in particular, but also with other nuclear powers, was generally agreed to be desirable.

Workshop on Nuclear Forces and Nonproliferation
Woodrow Wilson International Center for Scholars, Washington, DC
October 21, 2009

Agenda

8:30-9:00 am

Welcome/Introduction

9:00-9:30 am

Keynote Address

Thomas D'Agostino, National Nuclear Security Administration

9:30-11:00 am

Panel I. Nuclear Forces, the Nuclear Posture Review and Extended Deterrence

Brad Roberts, Department of Defense

Elaine Bunn, NDU

John Harvey, Department of Defense

Amy Woolf, Congressional research Service

Charles McMillan, Los Alamos National Laboratory

11:00-11:15 am

Break

11:15 am-12:45 pm

Panel I continues

12:45-1:45 pm

Luncheon Address

Michael Nacht, Department of Defense

1:45-3:15 pm

Panel II. Implications for Nonproliferation, Counterproliferation, Arms Control
and Disarmament

Susan Burk, Department of State

Adam Scheinman, National Security Council

Christopher Ford, Hudson Institute

Norman Wulf, Consultant

Andrew Semmel, Consultant

3:15 -3: 30 pm

Break

3:30-5:00 pm

Panel II continues

5:00-6:30 pm

Reception