

Report on Options for Implementing Additional Nuclear Force Reductions



International Security Advisory Board

NOTE: This ISAB Report is a DRAFT.
It has not been approved by the Board,
and is subject to change.

August 14, 2012

Disclaimer

This is a report of the International Security Advisory Board (ISAB), a Federal Advisory Committee established to provide the Department of State with a continuing source of independent insight, advice and innovation on scientific, military, diplomatic, political, and public diplomacy aspects of arms control, disarmament, international security, and nonproliferation. The views expressed herein do not represent official positions or policies of the Department of State or any other entity of the United States Government.

Month XX, 2012

MEMORANDUM FOR ACTING U/S ROSE E. GOTTEMOELLER

SUBJECT: Final Report of the International Security Advisory Board (ISAB) on
Options for Implementing Additional Nuclear Force Reductions

I am forwarding herewith the ISAB's report on Options for Implementing Additional Nuclear Force Reductions. The report responds, in part, to former Under Secretary Ellen Tauscher's request of July 5, 2011, that the Board undertake a study on strategic deterrence and the path to a world of mutual assured stability. Additional reports also address this study topic. The report was drafted by members of a Study Group chaired by Dr. Graham Allison. It was reviewed by all ISAB members and unanimously approved on Month XX, 2012.

The report is intended to lay out some near-term options for U.S. policy, force structure, and posture initiatives that would promote progress toward mutual assured stability. The report describes the existing Administration policy that creates a strategic framework supporting initiatives related to further nuclear arms reductions. It also recalls the successful history of U.S.-Russian reciprocal unilateral nuclear arms reductions at the time of the end of the Cold War.

The report offers three proposals for initiatives that the United States could take in the near term: completing the New START Treaty reductions early; working with Russia on transparency and verification of nonstrategic nuclear weapons; and engaging in reciprocal unilateral reductions to levels below New START, if Russia is willing to reciprocate.

We encourage you to consider all of the report's recommendations carefully. The Board stands ready to brief you and other members of the Administration on the report.

William Perry
Chairman
International Security Advisory Board

DRAFT

INTERNATIONAL SECURITY ADVISORY BOARD

Report on Options for Implementing Additional Nuclear Force Reductions

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Report on Options for Implementing Additional Nuclear Force Reductions¹

TASKING. The International Security Advisory Board (ISAB) was asked to undertake a study of how the United States could pursue and manage a transition from a world of mutual assured destruction to a world of mutual assured stability. Among the topics that the ISAB was asked to examine and assess in this area was:

- Possible near-term U.S. policy, force structure, and posture initiatives that would maintain strategic stability, support deterrence, and improve the long-term prospects for mutual assured stability.

This report outlines three policy options – short of new negotiations – for beginning to implement the reductions in nuclear forces envisioned in the 2010 Nuclear Posture Review and reportedly proposed under the new policy guidance developed to implement that review. U.S. officials involved in this review have indicated in public comments that the military missions required of nuclear weapons can be achieved with lower force levels.

U.S. Strategy

The Nuclear Posture Review of April 2010 concluded:

The massive nuclear arsenal we inherited from the Cold War era of bipolar military confrontation is poorly suited to address the challenges posed by suicidal terrorists and unfriendly regimes seeking nuclear weapons.²

¹ While all ISAB members have approved this report and its recommendations, and agree they merit consideration by policy-makers, some members do not subscribe to the particular wording on every point.

² Nuclear Posture Review Report, Washington, DC, April 2010, [p. V](#)

The New START Treaty entered into force in February 2011, modestly reducing the deployed strategic forces of the United States and Russia. This treaty was always intended to be a first step. When the President signed the Treaty in Prague in April 2010, he said:

While the New START Treaty is an important first step forward, it is just one step on a longer journey. As I said last year in Prague, this treaty will set the stage for further cuts. And going forward, we hope to pursue discussions with Russia on reducing both our strategic and tactical weapons, including nondeployed weapons.³

On March 26, 2012, President Obama reaffirmed his intentions to move forward with additional reductions based on the strategy developed in the Nuclear Posture Review and the implementation study undertaken by the Departments of Defense, State, Energy, the Joint Chiefs and the National Security Council. President Obama said in South Korea:

I firmly believe that we can ensure the security of the United States and our allies, maintain a strong deterrent against any threat, and still pursue further reductions in our nuclear arsenal.

Going forward, we'll continue to seek discussions with Russia on a step we have never taken before – reducing not only our strategic nuclear warheads, but also tactical weapons and warheads in reserve. I look forward to discussing this agenda with President Putin when we will meet in May.

Missile defense will be on the agenda, but I believe this should be an area of cooperation, not tension. And I'm confident that, working together, we can continue to make progress and reduce our nuclear stockpiles.⁴

This was a continuation of the positions taken by the President in Prague on April 5, 2009:

The existence of thousands of nuclear weapons is the most dangerous legacy of the Cold War. No nuclear war was fought between the United States and

³ Barack Obama, "[The New START Treaty and Protocol](#)", Washington, DC, April 10, 2011,

⁴ Barack Obama, "[Remarks by President Obama at Hankuk University](#)," Seoul, Republic of Korea, March, 26, 2012

the Soviet Union, but generations lived with the knowledge that their world could be erased in a single flash of light.

Today, the Cold War has disappeared but thousands of those weapons have not. In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up.

So today, I state clearly and with conviction America's commitment to seek the peace and security of a world without nuclear weapons. I'm not naive. This goal will not be reached quickly – perhaps not in my lifetime. It will take patience and persistence.⁵

Secretary of State Hillary Clinton reaffirmed this commitment in her speech at the Nonproliferation Treaty Review Conference in May 2010:

We know that the threats of the 21st century cannot be addressed with a massive nuclear stockpile. So we are taking irreversible, transparent, verifiable steps to reduce the number of the nuclear weapons in our arsenal.⁶

Similarly, Acting Undersecretary of State Rose Gottemoeller said in April 2011, “Our broad aim is to continue to reduce the role and number of nuclear weapons.”⁷

James Miller, Undersecretary of Defense for Policy, testifying to Congress on the conclusions of the January 2012 [Defense Strategic Guidance: Sustaining U.S. Global Leadership](#), confirmed, “I do believe that there are steps that we can take to further strengthen our deterrence posture and assurance of allies, and I believe we can do so with lower numbers.”⁸

This view is shared by many members of Congress, including Chairman of the Senate Armed Services Committee Carl Levin, who said this January, “Nuclear

⁵ Barack Obama, “[Remarks by President Barack Obama](#),” Prague, Czech Republic, April 5, 2009

⁶ Hillary Clinton, “[Remarks at the Review Conference of the Nuclear Nonproliferation Treaty](#),” New York, NY, May 3, 2010

⁷ Rose Gottemoeller, “[Remarks at the United States Naval Academy](#),” Annapolis, MD, April 20, 2011

⁸ James Miller, “[U.S. Can Safely Take Deeper Nuclear Arms Cuts: Senior Defense Official](#),” Washington, DC, February 16, 2012

weapons are way overdone. We have way more than are needed to carry out their missions.”⁹

The Nuclear Posture Review implementation study ordered by the President has likely concluded, as officials have stated, that the military missions required of nuclear weapons can be achieved with lower force levels. Decisions on the nuclear guidance are expected as an outcome of the study.

The question is: How should the United States proceed to implement that guidance? One option is to amend the New START treaty to a lower ceiling. Another is to negotiate a new treaty on nonstrategic and nondeployed weapons or a new treaty aggregating all warheads. The amendment or new treaty would require Senate and Duma approval.

Treaties are an important, but not always necessary, method for reducing nuclear arsenals. The United States has reduced its nuclear arsenal without negotiating a new treaty in the past – both unilaterally and reciprocally with Russia. Similar adjustments to the nuclear force could be considered again as the United States reduces the role and number of nuclear weapons in its national security strategy.

It is in the United States’ interests to pursue parallel nuclear reductions with Russia now. Below is a brief summary of past presidential nuclear initiatives, the outlook for the U.S. and Russian arsenals and policy options for reducing them in the near term.

Presidential Nuclear Initiatives

Reciprocal reductions with Russia have proved beneficial in the past. In 1991, President George H. W. Bush and Soviet leader Mikhail Gorbachev coordinated deep reductions in their countries’ nuclear forces. President Bush pledged to eliminate all ground-launched short-range nuclear weapons, remove all nuclear weapons from surface ships and attack submarines, take U.S. strategic nuclear bombers off strip alert, stand-down from alert all ICBMs scheduled for deactivation under START and forgo a series of nuclear modernization programs.¹⁰

⁹ Carl Levin, “[Senator Puts U.S. Nuclear Arsenal in Doubt](#),” Washington, DC, January 26, 2012

¹⁰ George H. W. Bush, “[Address to the Nation on Reducing United States and Soviet Nuclear Weapons](#),” Washington, DC, September 27, 1991.

In kind, Gorbachev pledged to eliminate nuclear artillery munitions, mines and warheads for tactical missiles, and to remove nonstrategic nuclear weapons from surface ships and submarines. Russian President Boris Yeltsin reaffirmed and clarified Gorbachev's pledges, including committing to halve Russian stocks of air defense missiles, air-launched nonstrategic munitions, and eliminate one-third of sea-based nonstrategic weapons.

Under these initiatives, the United States and Russia reduced their deployed nonstrategic stockpiles by an estimated 5,000 and 13,000 warheads, respectively.¹¹ Lacking a treaty, these numbers cannot be publically verified, and it is not certain if all commitments were kept by the United States and Russia, but clearly most were implemented.

Trajectory of U.S. and Russian Arsenals

Russia's strategic nuclear arsenal is expected to dive beneath New START's ceilings of 700 deployed strategic delivery vehicles and 1,550 operationally deployed strategic warheads as its nuclear forces reach the end of their service lives – dropping to an estimated 400 delivery vehicles and 1,100 accountable warheads by 2020.¹² To build back up to treaty limits, Russia is considering developing a new heavy ICBM in its nuclear modernization plans. In contrast, the United States is expected to proceed slowly down to treaty limits, downloading warheads from ICBMs and SLBMs and reducing the launchers while modernizing its strategic forces.

Independent experts estimate that Russia has 2,000 nonstrategic nuclear warheads and that the United States has approximately 500 nonstrategic warheads. While the United States views these nonstrategic weapons as having more political value than military, these weapons are ingrained in Russian military strategy. Russian military and political leaders continue to stress their role in the defense of the nation, train for their use in military exercises, and have been reluctant to include nonstrategic weapons in formal arms control negotiations.

¹¹ See Pomper, Sokov and Potter, "[Reducing and Regulating Tactical \(Nonstrategic\) Nuclear Weapons in Europe](#)," December 2009, p. 44.

¹² Alexei Arbatov, "[New START: Gambit or Endgame](#)," Carnegie Endowment for International Peace, March 2011, pp. 13 – 15.

Russia's strategic reductions present an opportunity and challenge. The U.S. can follow Russia downward below New START ceilings, allowing both countries to achieve significant reductions while forgoing costly or destabilizing modernization efforts. Progress on strategic reductions could preserve confidence in the arms control process and perhaps help incentivize the Russians to engage in the more complex process of negotiating verifiable reductions in nonstrategic weapons.

The United States and Russia can pursue strategic reductions through parallel reductions or a new treaty. The question is of expediency versus certainty. Unilateral and coordinated reductions can be quicker and less politically costly, relative to treaties with adversarial negotiations and difficult ratification processes. However, without a legally binding treaty, such reductions have two major drawbacks. First, they lack the verifiability provided by established treaty-based inspections. Each side would have to rely on the declarations of the other. Second, without a treaty ceiling, the reductions could be reversed. Either side could decide to redeploy or increase the deployments of weapons previously reduced.

In the near term, so long as the United States and Russia implement the verification and monitoring provisions of New START, the two countries can verify deeper reductions on strategic nuclear warheads and delivery vehicles. (New START expires in 2021 unless extended.)

Three Modest Initiatives

Meet New START early – New START provides that reductions will be implemented within seven years of entry into force (February 5, 2018). The sides could implement the reductions faster and might consider announcing, as parallel unilateral steps, that they will implement the reductions prior to the 2015 NPT review conference. In addition, the United States could take off of operational status all of the strategic nuclear weapons it would be reducing.

Make progress on nonstrategic weapons – The United States and Russia could lay the groundwork for reducing nonstrategic nuclear weapons, thereby expediting the process for a future treaty. To make treaty negotiations easier, the United States and Russia could work towards a shared definition of nonstrategic nuclear

weapons. The United States and Russia could also increase transparency and work towards verification of nonstrategic stockpiles. Steps include reciprocally disclosing aggregate numbers of nonstrategic weapons – beginning with 1991 data and working toward current data. Work on verification of nonstrategic stockpiles could begin by creating pilot programs to verify the absence of nonstrategic weapons at facilities that housed them prior to implementation of the PNI. The two sides could also initiate lab-to-lab cooperation to resolve technical challenges for verifying warhead-level reductions and dismantlement.

Implement mutual unilateral reduction below New START, including nonstrategic weapons – The United States could communicate to Russia that the United States is prepared to go to lower levels of nuclear weapons as a matter of national policy, consistent with the strategy developed in the Nuclear Posture Review, if Russia is willing to reciprocate. This could improve stability by reducing Russia's incentive to build a new heavy ICBM. Similarly, the two sides could define unilateral, cooperative steps for reduction of nonstrategic weapons, including appropriate verification measures. The United States, in reducing strategic nuclear forces and nonstrategic weapons, will have to address lingering concerns over asymmetries between U.S. and Russian stockpile composition, force structures and reconstitution capabilities.

Feasibility

The opportunity for significant reductions beyond those outlined above is currently small. Arms control fatigue, electoral politics, and the thorny issue of missile defense have all converged in 2012, creating poor conditions for trust and dialogue. These recommended steps, however, are modest enough that they could be implemented by a president with a strong national security record and a Russia suspicious of U.S. intentions, but facing budget pressures on its own nuclear arsenal.

Russia may simply say no, due in large part to cultural or bureaucratic barriers to transparency and further reductions. These initiatives would test Russia's intentions to find possible realms of longer-term agreement.

Appendix A – Summary of Recommendations

Recommendation 1. Meet New START early – New START provides that reductions will be implemented within seven years of entry into force (February 5, 2018). The sides could implement the reductions faster and might consider announcing, as parallel unilateral steps, that they will implement the reductions prior to the 2015 NPT review conference. In addition, the United States could take off of operational status all of the strategic nuclear weapons it would be reducing.

Recommendation 2. Make progress on nonstrategic weapons – The United States and Russia could lay the groundwork for reducing non-strategic nuclear weapons, thereby expediting the process for a future treaty. To make treaty negotiations easier, the United States and Russia could work towards a shared definition of non-strategic nuclear weapons. The United States and Russia could also increase transparency and work towards verification of non-strategic stockpiles. Steps include reciprocally disclosing aggregate numbers of nonstrategic weapons - beginning with 1991 data and working toward current data. Work on verification of nonstrategic stockpiles could begin by creating pilot programs to verify the absence of nonstrategic weapons at facilities that housed them prior to implementation of the PNI. The two sides could also initiate lab-to-lab cooperation to resolve technical challenges for verifying warhead-level reductions and dismantlement.

Recommendation 3. Implement mutual unilateral reduction below New START, including non strategic weapons – The United States could communicate to Russia that the United States is prepared to go to lower levels of nuclear weapons as a matter of national policy, consistent with the strategy developed in the Nuclear Posture Review, if Russia is willing to reciprocate. This could improve stability by reducing Russia's incentive to build a new heavy ICBM. Similarly, the two sides could define unilateral, cooperative steps for reduction of nonstrategic weapons including appropriate verification measures. The United States, in reducing strategic nuclear forces and nonstrategic weapons, will have to address lingering concerns over asymmetries between U.S. and Russian stockpile composition, force structures and reconstitution capabilities.

Appendix B - Terms of Reference

UNDER SECRETARY OF STATE FOR
ARMS CONTROL AND INTERNATIONAL SECURITY
WASHINGTON

July 5, 2011

MEMORANDUM FOR THE CHAIRMAN, INTERNATIONAL SECURITY ADVISORY BOARD (ISAB)

SUBJECT: Terms of Reference – ISAB Study on Strategic Deterrence and the
Path to a World of Mutual Assured Stability

The International Security Advisory Board (ISAB) is requested to undertake a study of how the United States could manage a transition to a world of mutual assured stability.

In a world characterized by mutual assured stability, increasingly interdependent states would have incentives to cooperate on political, military, and economic issues, reducing the need for adversarial approaches to managing security challenges. Such an international security environment would facilitate significant reductions in nuclear weapons and a corresponding relaxation of nuclear force postures – in effect moving beyond traditional concepts of deterrence. This transition would be gradual unfolding across a continuum from today's deterrence-based stability to a world less reliant on nuclear weapons and characterized by increased trust and transparency among major powers. Options for the sequencing and implementation of this transition constitute the core of this study.

As the United States and Russia continue to draw down the number of their nuclear weapons, maintaining an effective and credible strategic deterrent will remain an important objective for U.S. policy. The early stages of a transition to mutual assured stability, facilitated by continued reductions in nuclear weapons, would include reliance on traditional forms of deterrence in order to dissuade potential rivals from attempting nuclear buildups. However, achieving the goal of a world without nuclear weapons would require a transition away from these traditional concepts of nuclear deterrence and assurance.

It would be of great assistance if the ISAB could examine and assess:

- The possible components of mutual assured stability and what the U.S. would need to see happening to have the confidence to consider very low numbers and, eventually, agree to the elimination of nuclear weapons;
- The development of incentives to refrain from precipitous actions and pursue cooperative and non-military solutions to international problems, even in periods of tension;
- Strategies for how the United States could manage the transition away from strategic deterrence to mutual assured stability, which would be accompanied by reductions to very low numbers of nuclear weapons, and ultimately the complete elimination of nuclear weapons;
- Whether there is tension between maintaining an effective deterrent, the requirements of assurance, and further reductions of nuclear weapons;
- What stabilizing factors, if any, might replace classical deterrence in a world of mutual assured stability; and
- Possible near term U.S. policy, force structure, and posture initiatives that would maintain strategic stability, support deterrence, and improve the long term prospects for mutual assured stability.

During its conduct of the study, the ISAB, as it deems necessary, may expand upon the tasks listed above. I request that you complete the study in 240 days. Completed work should be submitted to the ISAB Executive Directorate no later than March 16, 2012.

The Under Secretary of State for Arms Control and International Security will sponsor the study. The Assistant Secretary of State for Arms Control, Verification and Compliance will support the study. Michael Urena will serve as the Executive Secretary for the study and Chris Herrick will represent the ISAB Executive Directorate.

The study will be conducted in accordance with the provisions of P.L. 92-463, the "Federal Advisory Committee Act." If the ISAB establishes a working group to assist in its study, the working group must present its report or findings to the full ISAB for consideration in a formal meeting, prior to presenting the report or findings to the Department.



Ellen O. Tauscher

Appendix C - Members and Project Staff

Board Members

Dr. William Perry (Chairman)
Mr. Charles Curtis (Vice Chairman)

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