

Beyond Treaties: Immediate Steps to Reduce Nuclear Dangers

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SUMMARY

- The U.S. political parties are divided on nuclear weapons policy. Meanwhile, the United States and Russia have reached an arms control impasse and no new agreement is on the horizon.
- Confidence-building measures could help reduce nuclear risks between the United States and Russia, advancing the goals of both countries and both U.S. presidential candidates.
- Examples of concrete, practical measures the United States and Russia could implement in the short term include:

Information Sharing

- Annual U.S. declarations to Russia of its missile defense plans
- Data exchanges on offensive forces
- The resumption of data exchanges on nuclear-armed sea-launched cruise missiles

Joint Experiments and Studies

- An investigation into whether conventional cruise missiles pose a realistic threat to silos conducted by the U.S. and Russian national academies
- Warhead-level verification experiments

Declaratory Policy

- The joint application of New START's basing restrictions and data exchanges to heavy bombers, such as the B-1B, that are no longer accountable under the treaty
- A U.S. commitment not to target Russian or Chinese nuclear forces with its conventional forces

Enhanced Strategic Dialogue

- The resumption of nuclear military-to-military exchanges

ABOUT THE EDITOR



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These proposals were developed for a workshop hosted by the Carnegie Endowment for International Peace, with the support of the Ploughshares Fund. The authors do not necessarily endorse any proposal except their own.

THE BENEFITS OF CONFIDENCE BUILDING

A virtually inevitable consequence of President Barack Obama's ambitious arms control agenda was the politicization of nuclear weapons policy to the point that it is now a more partisan issue than at any time since the end of the Cold War. One of the most contentious issues is the desirability of further reductions, which, for the time being at least, is a responsibility shared by the United States and Russia as they still possess the vast majority of the world's nuclear weapons.

The Obama administration—along with most Democrats—supports the goal of a new treaty to facilitate deep cuts. By contrast, Obama's challenger for the U.S. presidency, Governor Mitt Romney, was very critical of the New Strategic Arms Reduction Treaty (New START) that Obama signed in April 2010. Most Republicans are skeptical of the value of a follow-on agreement. In large part, this skepticism stems from viewing another treaty as a step toward Obama's stated goal of a world without nuclear weapons.

However deep these divisions are, they must not be allowed to obscure the possibility of bipartisan support for certain, more informal confidence-building measures that Russia and the United States could undertake. These measures could encompass not only nuclear weapons, but also ballistic missile defense and high-precision conventional weapons (which Russia fears could alter the strategic balance), as well as both states' militaries. They could help increase transparency, open pathways to resolving some contentious issues, and develop new joint understandings that would facilitate treaty negotiations, if and when they begin.

The main value of confidence-building measures for a second Obama administration would likely be their potential to reinvigorate a process of building mutual security with Russia. Moscow has ruled out further

reductions—just one component of this process—unless the United States addresses its concerns, which are most acute where ballistic missile defense and high-precision conventional weapons are concerned. To date, however, Moscow has repeatedly stated that U.S. efforts in this regard—most notably an offer to cooperate on ballistic missile defense—are inadequate.

To complicate matters further, Washington's priority is bringing Russia's large stockpile of tactical nuclear weapons into the arms control process for the first time. Moscow has stated that it will only discuss the issue after all U.S. tactical nuclear weapons have been removed from Europe—a precondition the North Atlantic Treaty Organization (NATO) has deemed unacceptable.

A Romney administration might see confidence-building measures as useful standalone ways to solve particular problems. For instance, the next administration will have to continue to assure European allies concerned about Russian tactical nuclear weapons. Confidence-building measures, which NATO has endorsed, are one way to provide that assurance.

Meanwhile, the opacity of Russian procurement is a perennial problem for U.S. defense planners, and they would certainly welcome greater transparency. Indeed, the George W. Bush administration saw value in confidence-building measures. It proposed them to Russia at the start of its term, and then in 2007–2008, as a means of trying to defuse the standoff over ballistic missile defense.

There are a number of concrete, practical confidence-building measures that could be implemented in the short term to help build trust between Russia and the United States. The tools to build this trust are wide-ranging and include information sharing, joint experiments and studies, declaratory policy, and enhanced dialogue.

INFORMATION SHARING

Sharing information about offensive and defensive forces would enhance predictability and help dispel each side's possible misperceptions about the other's planning and procurement.

THE UNITED STATES SHOULD MAKE ANNUAL DECLARATIONS TO RUSSIA OF ITS MISSILE DEFENSE PLANS.

Moscow's principal concern about U.S. missile defenses should be their impact on the offense-defense relationship, that is, whether they could, in the future, pose a genuine threat to Russian strategic ballistic missiles and the strategic balance. In order to help Moscow make this assessment, the United States could offer to provide Russia an annual declaration of its missile defense plans.

The annual declaration would indicate the present number of each key element of U.S. missile defenses and the maximum number projected for each year over the next ten years. Elements covered by the declarations would include ground-based interceptors and their launch silos, Standard Missile 3 (SM-3) interceptors (broken down into Blocks IA, IB, IIA, and IIB), SM-3 land launchers, SPY-1 radars (ashore), AN/TPY-2 radars (ashore), and Aegis warships capable of carrying SM-3 interceptors.

For example, based on information provided by the Congressional Research Service in December 2011, the entry covering the SM-3 Block IB interceptor, indicating the maximum total number of such interceptors deployed in each year, would read as follows:

| FISCAL YEAR | QUANTITY |
|-------------|----------|
| 2013 | 42 |
| 2014 | 88 |
| 2015 | 150 |
| 2016 | 223 |
| 2017 | 305 |
| 2018 | 373 |
| 2019 | 373 |
| 2020 | 373 |
| 2021 | 373 |
| 2022 | 373 |

The data provided would represent the *maximum* number for each year. Actual numbers could be lower because of the drawdown of missiles due to planned tests or use in a conflict.

As part of this exchange, the United States could commit to provide advance notification of any upward changes in planned numbers. It appears to take two years from a decision to procure an SM-3 interceptor to its arrival in the inventory. Washington could thus inform Moscow that it would have two years' notice of an increase in the planned maximum numbers of SM-3 interceptors (the advance notification period might be different for other missile defense elements).

Ambassador Steven Pifer, a former senior director on the National Security Council, is now a senior fellow at the Brookings Institution.

THE UNITED STATES AND RUSSIA SHOULD EXCHANGE DATA ON OFFENSIVE FORCES.

The 2009 final report of the bipartisan Congressional Commission on the Strategic Posture of the United States stated that "as the two countries with the vast majority of the world's nuclear weapons, and with large nuclear weapons complexes, the United States and Russia have a shared responsibility to increase nuclear transparency and to set a high standard in their own postures."

The exchange of information on offensive forces beyond that mandated by New START would strengthen predictability, reduce uncertainty, and pave the way for negotiations that would limit all types of nuclear warheads, including tactical warheads.

Ideally, a data exchange would include information on U.S. and Russian deployed strategic warheads, non-deployed strategic warheads, tactical warheads, and retired warheads. However, such an exchange may be too ambitious outside of a formal arms control agreement.

As a more achievable first step, the two states should consider privately exchanging data related to retired and dismantled warheads. If the United States and Russia cannot agree to exchange information on weapons they no longer need, it is difficult to imagine that they will ever agree to exchange information on any weapons that remain in their active stockpiles beyond those that are deployed. Particularly useful information to exchange includes:

- The number of tactical weapons that have been dismantled
- The number of warheads dismantled each year
- A comprehensive history (from birth to death) of each warhead that has been retired, including information about the date it entered the stockpile, on which system it was deployed, and when it was dismantled
- Information on fissile materials in excess of military needs resulting from warhead dismantlement

Additionally, it would be helpful if Russia followed the lead of the United States and provided detailed, public information on its nuclear delivery vehicles and warheads limited by New START.

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RUSSIA AND THE UNITED STATES SHOULD RESUME DATA EXCHANGES ON NUCLEAR-ARMED SEA-LAUNCHED CRUISE MISSILES.

The Obama administration intends to seek, in the next round of negotiations with Russia, an agreement that would “include both non-deployed and nonstrategic nuclear weapons.” Administration officials call this approach the “whole enchilada.” Republicans, too, have strongly pressed that any future agreements address Russia’s tactical nuclear weapons.

One of the more difficult problems in the negotiations over the original START—and one that will need to be resolved in any arrangement that covers tactical nuclear weapons—relates to long-range sea-launched cruise missiles (SLCMs). Although the United States has now retired its last nuclear-armed SLCM, there are concerns that Russia still deploys them and some evidence it may build a new system. Any future agreement will need to account for these weapons.

The United States and Soviet Union ultimately agreed to exclude SLCMs from START, instead issuing “politically binding” declarations under which the parties would deploy no more than 880 nuclear-armed sea-launched cruise missiles aboard naval vessels and declare, on an annual basis, deployments for each of the next five years. These exchanges ended with the expiration of START in 2009. Such a solution will not be possible under a comprehensive agreement that seeks to account for every warhead.

Nonetheless, a useful near-term confidence-building measure would be to resume the data exchanges under a politically binding agreement identical to the one that lapsed with START. The parties could use the same text that had been developed as part of the

START process, even if the limit of 880 deployed nuclear-armed SLCMs is too high. (If Russia insists on declaring all long-range SLCMs, a new limit high enough to avoid interfering with conventional operations would be required.)

The resumption of data exchanges could be the first in a series of confidence-building measures related to SLCMs. New START includes provisions for tagging sea-launched ballistic missiles and intercontinental ballistic missiles with a unique identifier and for staging exhibitions of treaty-limited items converted for conventional use. Further confidence-building measures could explore how these provisions could be extended to deal with SLCMs. Such measures would contribute to any agreement that constrains Russia's tactical nuclear weapons, whether it is the form of the "whole enchilada" or something more limited.

Jeffrey Lewis is the director of the East Asia Nonproliferation Program at the James Martin Center for Nonproliferation Studies.

JOINT EXPERIMENTS AND STUDIES

Joint experiments and studies could build shared understanding about contentious issues and help in the development of a regime to verify any future treaty.

THE U.S. AND RUSSIAN NATIONAL ACADEMIES SHOULD CONDUCT A JOINT STUDY INTO WHETHER CONVENTIONAL CRUISE MISSILES POSE A REALISTIC THREAT TO SILOS.

Russian analysts and officials have repeatedly raised concerns about the potential for U.S. *conventional* cruise missiles to hold Russian nuclear forces, particularly its silo-based intercontinental ballistic missiles, at risk. American analysts and officials have argued that these concerns are exaggerated. However, these assurances seem to have done

little to enhance Russia's confidence in the survivability of its nuclear forces.

U.S. forces rely heavily on cruise missiles for a variety of conventional operations. The United States therefore has a clear interest in managing Russia's concerns to try and prevent Russia from insisting that conventional cruise missiles be included in any future nuclear arms control agreement.

In order to build shared understanding, the U.S. National Academy of Sciences and the Russian Academy of Sciences should conduct a joint study on whether conventional cruise missiles do, in fact, pose a realistic threat to silos. The task would be simplified because each side has gained considerable knowledge of the other's silos through many years of arms control inspections. That said, it would be important to design a study to protect both sides' proprietary and security requirements.

If a joint study cannot definitively resolve the controversy, it might be able to develop joint experiments that could—such as actually detonating a conventional explosive at an agreed distance from an empty silo that was due to be dismantled pursuant to New START. Of course, procedures would need to be developed to avoid classified information being divulged during the post-explosion inspection (or at any other stage). However, the 1988 Joint Verification Experiment, in which the United States and the Soviet Union performed onsite measurements to determine the yield of one another's nuclear tests, is a good reason to suppose that this should be possible.

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RUSSIA AND THE UNITED STATES SHOULD CONDUCT JOINT WARHEAD-LEVEL VERIFICATION EXPERIMENTS.

In the late 1980s, during an impasse in arms control that has some similarities with today's, Russia and the United States conducted two verification experiments. These experiments allowed the two sides to continue discussions and provided useful input for future negotiations. As such, they offer valuable precedents for today.

First, in 1988 the United States and the Soviet Union conducted the Joint Verification Experiment. Scientists from one state performed yield measurements on a nuclear test conducted in the other. The results enabled the yield of tests to be estimated more accurately, hence mitigating U.S. concerns about Soviet noncompliance and allowing U.S. ratification of the Threshold Test Ban Treaty in 1990.

Second, in June 1989, the United States proposed a series of U.S.-Soviet verification and stability experiments. These included visits to submarine tunnels, which allayed U.S. concerns about those structures, as well as reciprocal visits to count warheads on missiles, ultimately leading to the procedures used in START. These exercises are a particularly apt precedent because they kept dialogue going between the Soviet Union and the United States during a U.S. internal arms control policy review.

Today, Russia and the United States should conduct one or more technical verification experiments to test ideas that each state has informally floated. Each side could host an inspection of a storage vault (perhaps using dummy warheads) with whatever security procedures it wants, thus allowing the other side to begin to understand what issues will arise if and when negotiations begin. In parallel, the sides could conduct reciprocal inspections to verify that particular operational storage vaults are empty.

The logical place for the United States

to host an empty storage vault demonstration inspection would be at a U.S. facility in Germany, which is very unlikely to object. To count actual warheads, the United States might offer a demonstration inspection at an operational U.S. Air Force base or in one of the bays at the Kirtland Underground Munitions Storage Complex in New Mexico.

Ambassador Linton F. Brooks served as administrator of the U.S. National Nuclear Security Administration and chief U.S. negotiator for START.

DECLARATORY POLICY

Statements about where strategic systems would be deployed and how they would be used could ease Russia concerns, particularly about high-precision conventional weapons.

RUSSIA AND THE UNITED STATES SHOULD AGREE TO APPLY NEW START'S BASING RESTRICTIONS AND DATA EXCHANGES TO HEAVY BOMBERS, SUCH AS THE B-1B, THAT ARE NO LONGER ACCOUNTABLE UNDER THE TREATY.

Russia is growing increasingly concerned about the counterforce potential of U.S. conventional weapons, including the B-1B heavy bomber. This system, which has been constantly upgraded, has become a very capable platform that will soon carry conventional long-range air-launched cruise missiles. It has frequently been used in military operations during the last decade and has become a workhorse of the ongoing air war in Afghanistan. U.S. Department of Defense plans to shift the focus of the bomber's operations to the Asia-Pacific region and equip it with long-range anti-ship missiles are creating significant concern in Russia.

Bilateral arms control agreements have implicitly taken Russian concerns about conventional counterforce into account. Indeed,

when New START first entered into force, it covered the B-1B bomber. However, the treaty was designed so that certain strategic conventional arms, including the B-1B, after being converted to carry only conventional weapons, could subsequently be exempted from its provisions.

The United States has already taken advantage of these procedures for the B-1B heavy bomber. These bombers no longer count toward the aggregate ceilings for either deployed warheads or deployed and non-deployed delivery systems. Since their deployments are no longer limited, these aircraft could be based anywhere outside U.S. national territory. The United States is also not obliged to notify Russia about their movements.

The United States and Russia could work together to ease existing concerns significantly by undertaking reciprocal unilateral obligations to apply specific confidence-building measures from New START to existing strategic conventional arms as the treaty is implemented. For instance, the sides could agree not to base B-1B bombers—and any others that are no longer accountable—outside of national territory. (This restriction already applies to bombers, such as the B-52H, that are still covered by the treaty and it does not prohibit them from being temporarily located outside of national territory while on operations.) The sides could also continue to notify each other about movements of heavy bombers that are no longer accountable, even though New START does not require such notifications.

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THE UNITED STATES SHOULD COMMIT NOT TO TARGET RUSSIAN OR CHINESE NUCLEAR FORCES WITH ITS CONVENTIONAL FORCES.

Russia and China are increasingly concerned about the emerging threat to their nuclear

forces created by ever-improving U.S. conventional strike capabilities. China, in particular, is very sensitive to the potential impact of the U.S. Conventional Prompt Global Strike (CPGS) program on its small nuclear arsenal. (CPGS is a program to develop long-range conventional weapons capable of reaching their targets “promptly.”) Concerns in Moscow and Beijing have been further fueled by internal U.S. debates about the possible employment of advanced conventional weapons against their nuclear forces, increasing their reluctance to participate in further arms control measures.

To build confidence in its intentions, the United States should, as part of its declaratory policy, eschew the use of conventional weapons against Russian and Chinese nuclear forces. This commitment could be made formally and explicitly through official speeches or in nuclear policy documents. It should also be reiterated privately to Moscow and Beijing at a high level.

Adopting this declaratory policy would help to dispel Russian and Chinese misperceptions and misunderstandings and to reaffirm the United States’ existing commitment to ensure that CPGS does not undermine strategic stability with either state. Such a policy would not create any limitations on current or future CPGS research and development. Following this policy’s adoption, the United States should encourage Russia and China to make similar commitments to the United States.

Beijing and Moscow could gain confidence that the United States intended to abide by its declaratory policy from whether the number of CPGS weapons deployed was too small to be used to conduct a first strike. Additionally, the three states should consider establishing a reciprocal data exchange to allow each to specify which nuclear military bases would be exempt from conventional targeting. This exchange would also present

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an opportunity to highlight the inherent connection between information sharing and the maintenance of strategic stability and therefore incentivize greater Russian and Chinese transparency in their strategic postures.

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ENHANCED STRATEGIC DIALOGUE

Enhanced strategic dialogue—particularly between the two states' militaries—could help dispel misperceptions and prevent escalation through misunderstanding in a crisis.

THE UNITED STATES AND RUSSIA SHOULD RESUME NUCLEAR MILITARY-TO-MILITARY EXCHANGES.

During the Cold War, American and Soviet military officers established mechanisms to exchange information about their respective nuclear establishments and operational doctrines. While the political limelight was on summits and arms control negotiations, back-channel military-to-military communications played a vital role in building trust and avoiding escalation.

After the Cold War, the threat of strategic nuclear exchange gave way to the more urgent imperative of preventing the compromise of unsecured nuclear assets, ushering in a new era of bilateral cooperation. There are now no established channels to exchange information about military operations. Even the nuclear risk reduction centers are increasingly turning to other challenges, such as cyberspace.

Resuming nuclear military-to-military exchanges could advance mutual security in

multiple ways.

First, the United States and Russia do not understand the assumptions and procedures that would guide the other side's response in a nuclear crisis. Exchanges between the two militaries could examine how each side would respond to the warning of an attack, reducing the chance of misunderstanding in a crisis or even inadvertent escalation. Improved understanding could also enhance cooperation in global nuclear crisis management.

Second, growing mistrust between the U.S. and Russian militaries is impeding progress in developing cooperative missile defenses and the prospects for future nuclear arms reductions. The two sides lack a common understanding of how defenses might affect strategic stability, leaving Moscow deeply skeptical of NATO's plans and American intentions. When the United States deployed the cruiser USS *Monterey* into the Black Sea, it was perceived as deliberately provocative by the Russian military. Military-to-military exchanges could offer a way to dispel misperceptions and develop a better appreciation of how missile defenses could enhance stability.

Third, the successful U.S.-Russian submarine rescue operation in 2011 involving a Russian submarine and an American rescue system, part of a NATO humanitarian initiative to save the lives of submariners, offers an example of how the two navies could build trust by conducting joint responses to submarine accidents and emergencies.

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