

New START and Nonproliferation: Suitors or Separate Tables?

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Introduction

In the spring of 2010, the diplomatic atmosphere was an apparent success story for those seeking to reduce nuclear danger. The signing of the New START agreement in April, 2010 took place almost exactly one year after President Barack Obama's landmark speech calling for nuclear abolition. New START was followed by the successful outcome of the Nuclear Nonproliferation Treaty (NPT) review conference in May, 2010, in marked contrast to the acrimonious denouement of the 2005 meeting.¹ In addition, a U.S Nuclear Posture Review and a revised Russian Military Doctrine made public in the spring of 2010 also seemed to reduce the role of nuclear weapons in the two states' respective military strategies and national security policies. Russia, the United States and NATO talked of cooperation on missile defense and other issues, and Obama pushed forward an ambitious agenda of multilateral control measures, including ratification of the Comprehensive Test Ban Treaty (CTBT) and global support for a Fissile Materials Cutoff Treaty (FMCT). Only Maurice Chevalier, strolling and singing on a boulevard in Paris, was lacking for suitable background music.

Diplomatic atmospheres come and go, but the bankers of policy and strategy demand payment in hard currency. Russian-American strategic nuclear arms reductions neither preclude, nor guarantee, favorable prospects for multilateral disarmament or nonproliferation. This discussion first reviews the New START agreement and its implications for deterrence stability

¹ Eben Harrell, "A Surprising Consensus on Nuclear Nonproliferation," Time.com, June 2, 2010, <http://www.time.com/time/printout/0,8816,1993339,00.html>

and arms control. Second, we develop and test the viability of a hypothetical, post-New START agreement with significantly lower numbers of operationally deployed strategic nuclear weapons. Third, we model a constrained nuclear nonproliferation regime, based on the post-New START agreement described earlier. A fourth section summarizes pertinent conclusions.

I. Policy

A. New START Gets Done

U.S. President Barack Obama and Russian President Dmitry Medvedev signed the New START agreement April 8, 2010 in Prague, Czech Republic. Replacing the START I (Strategic Arms Reduction Treaty) that had already expired in December, 2009, the New START agreement called for reductions in the two states' numbers of deployed long range nuclear weapons and their delivery systems: intercontinental missiles and heavy bombers. Part of the "reset" in U.S.-Russian relations following the acrimony of the Vladimir Putin and George W. Bush presidencies, the New START agreement was seen as a prelude to further Russian and American nuclear force reductions and to broader cooperation between Moscow and Washington on other nuclear related matters, including nonproliferation.

Under the new START agreement, each state would be required to reduce its numbers of deployed strategic warheads to a maximum of 1550 and its numbers of launchers to a maximum of 800 – 700 deployed – within seven years of treaty ratification and entry into force.² In theory, these limits were below the ceilings set by the preceding SORT treaty (Strategic Offensive Reductions Treaty) in 2002 for deployed strategic warheads at 2200, and also below the START I maximum limit of 1600 for long range delivery systems. Due to idiosyncrasies in counting rules for weapons and prior reductions by both states in their numbers of deployed

² Rose Gottemoeller, Assistant Secretary, Bureau of Verification, Compliance and Implementation, "The New START Treaty," Opening Statement before the Senate Foreign Relations Committee, Washington, D.C., June 15, 2010, <http://www.state.gov/t/vci/rls/143159.htm>

weapons and launchers, neither the U.S. nor Russia would be required to make drastic changes in either existing or planned nuclear forces.³

Getting to New START from where they began in 2009 required the United States and Russia to make some compromises, inside and outside of the actual START negotiation process.⁴ Russia made concessions on the issues of missile defenses and “upload potentials” for stored, but not deployed, warheads. With respect to missile defenses, Russian treaty negotiators attempted to obtain an American commitment to limit future missile defense deployments in Europe, and-or to involve Russia in the planning and implementing of future defenses. The

³ Peter Baker, “Russia and U.S. Sign Nuclear Arms Reduction Pact,” *New York Times*, April 8, 2010, <http://www.nytimes.com/2010/04/09/world/europe/09prexy.html>, and “Obama, Medvedev sign historic arms deal,” Associated Press, April 8, 2010, http://www.msnbc.msn.com/id/36254613/ns/politics-white_house/print. See also, for expert analysis and projections: Pavel Podvig, “New START Treaty in numbers,” from his blog, *Russian strategic nuclear forces*, April 9, 2010, http://russianforces.org/blog/2010/03/new_start_treaty_in_numbers.shtml.

⁴ The text of the New START treaty appears in Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (Washington, D.C.: U.S. Department of State, April 8, 2010), <http://www.state.gov/documents/organization/140035.pdf>. Contrasting appraisals of New START appear in: Steven Pifer, “New START: Good News for U.S. Security,” *Arms Control Today*, May 2010, <http://www.armscontrol.org/print/4209>; Keith B. Payne, “Evaluating the U.S.-Russian Nuclear Deal,” *Wall Street Journal*, April 8, 2010, in *Johnson’s Russia List 2010 - #69 – April 8, 2010*, davidjohnson@starpower.net; Jonathan Schell, “Nuclear balance of terror must end,” CNN, April 8, 2010, in *Johnson’s Russia List 2010 - #69 – April 8, 2010*, davidjohnson@starpower.net; and Alexander Golts, “An Illusory New START,” *Moscow Times*, March 30, 2010, in *Johnson’s Russia List 2010 - #62, March 30, 2010*, davidjohnson@starpower.net

treaty includes statements attesting to the importance of the relationship between offenses and defenses, but it places no limits on future U.S. ballistic missile defense (BMD) modernization or deployment.⁵ This compromise was made possible by the U.S. prior decision, apart from START negotiations, in the fall of 2009 to reboot the George W. Bush administration plan for missile defenses deployed in Poland and in the Czech Republic, creating tension with Russia throughout 2007 and 2008. Writing in the Wall Street Journal in May, 2010, U.S. Secretary of Defense Robert M. Gates emphasized that New START will not constrain American defenses:

The U.S. will continue to deploy and improve the interceptors that defend our homeland – those based in California and Alaska. We are also moving forward with plans to field missile defense systems to protect our troops and partners in Europe, the Middle East, and Northeast Asia against the dangerous threats posed by rogue nations like North Korea and Iran.⁶

The question of “upload potentials” had a specialist arms controllers’ cast, but it related to some serious strategic issues. Russian START negotiators, doubtless reflecting the suspicions of their military, were concerned that the United States could first remove downloaded weapons consistently with START requirements and then, having decided to abrogate the treaty at a later date, rapidly upload the same weapons to achieve a surge or even a position of overwhelming

⁵ On current and prospective U.S. missile defense programs, see Unclassified Statement of Lt. Gen. Patrick J. O’Reilly, Director, Missile Defense Agency, before the House Armed Services Committee, Subcommittee on Strategic Forces, Regarding the Fiscal Year 2011 Missile Defense Programs (Washington, D.C.: House Armed Services Committee, U.S. House of Representatives, April 15, 2010), esp. p. 18 on absence of New START constraints. See also: Walter Pincus, “Arms treaty shouldn’t constrain U.S. missile defenses,” Washington Post, April 20, 2010, p. A13, <http://www.washingtonpost.com/wp-dyn/content/article/2010/04/19/AR2010041904602>.

⁶ Robert M. Gates, “The Case for the New START Treaty,” Wall Street Journal, May 13, 2010, in Johnson’s Russia List 2010 - #94, May 13, 2010, davidjohnson@starpower.net

nuclear superiority against Russia.⁷ Theoretically Russia would have a similar option to withdraw from the treaty and reload previously disarmed weapons. But the Russian nuclear force modernization program, compared to the American one, was expected to provide fewer opportunities for timely reload on account of the disparity in suitable launchers, especially in submarine launched ballistic missiles (SLBMs). Russia's nuclear ballistic missile submarine (SSBN) and SLBM modernization programs fell well behind schedule in the preceding decade, and test results for the planned Bulava SLBM, to be deployed with the newest Borey class of SSBNs, have been disappointing.⁸

Russia's concerns about U.S. relative nuclear advantage were not based entirely on arguments about upload potentials for current or future launchers. Three other issues played into Russian pessimism on this point. The first, already acknowledged, was the U.S. plan for missile defenses deployed in Europe, adjusted by the Obama administration to a new approach that was presumably more acceptable to Russia than was the original Bush plan. The revised European BMD plan was a phased, adaptive approach built around sea and land based missile interceptors for theater or shorter range ballistic missiles launched from Iran or other Middle Eastern locations.⁹ Although the Obama European BMD plan was less apparently contentious than the

⁷ An informative discussion of this appears in Alexei Arbatov, "The New START – A View from Moscow," (question and answer format), Carnegie Endowment for International Peace, April 6, 2010, <http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=40506>.

⁸ Pavel Felgenhauer, "The Bulava Blunder," Novaya Gazeta, July 25, 2009, in Johnson's Russia List 2009 - #140, July 27, 2009, davidjohnson@starpower.net. According to Alexander Golts, the "Bulava fiasco" is more a matter of managerial incompetence than it is a technological failure: Golts, "The High Price of Feeding Russia's Ambitions," Moscow Times, July 28, 2009, in Johnson's Russia List 2009 - #141, July 28, 2009, davidjohnson@starpower.net.

⁹ Robert M. Gates, "A Better Missile Defense for a Safer Europe," New York Times, September 19, 2009, <http://www.nytimes.com/2009/09/20/opinion/20gates.html>. The Obama Phased Adaptive Approach to missile defense will retain and improve some technologies deployed by the George W. Bush administration, but shift emphasis to other interceptors, supported by

Bush plan, Russian pessimists were not entirely mollified. They feared that the revised BMD plan left open the possibility of future enhancements to the antimissile systems that would degrade or even nullify Russia's nuclear deterrent.¹⁰ The current probability of nuclear war

improved battle management - command-control-communications (BMC3) systems and launch detection and tracking. See Unclassified Statement of Lieutenant General Patrick J. O'Reilly, USA, Director, Missile Defense Agency, Before the House Armed Services Committee (Washington, D.C.: U.S. House of Representatives, House Armed Services Committee, October 1, 2009). Prompt reactions to the Obama missile defense plan include: George Friedman, "The BMD Decision and the Global System," Stratfor.com, September 21, 2009, in Johnson's Russia List 2009 - #175, September 22, 2009, davidjohnson@starpower.net; Alexander Golts, "Calling Moscow's Bluff on Missile Defense," Moscow Times, September 22, 2009, in Johnson's Russia List 2009 - #175, September 22, 2009, davidjohnson@starpower.net; Alexander L. Pikayev, "For the Benefit of All," Moscow Times, September 21, 2009, in Johnson's Russia List 2009 - #174, September 21, 2009, davidjohnson@starpower.net; and Strobe Talbott, "A better base for cutting nuclear weapons," Financial Times, September 21, 2009, in Johnson's Russia List 2009 - #174, September 21, 2009, davidjohnson@starpower.net.

¹⁰ A critical expert appraisal of the Obama missile defense plan appears in George N. Lewis and Theodore A. Postol, "A Flawed and Dangerous U.S. Missile Defense Plan," Arms Control Today, May 2010, <http://www.armscontrol.org/print/4244>. See also: "William J. Broad and David E. Sanger, "Review Cites Flaws in U.S. Antimissile Program," New York Times, May 17, 2010, <http://www.nytimes.com/2010/05/18/world/18missile.html>. For a favorable expert assessment of the Obama missile defense plan, see Hans Binnendijk, "A Sensible Decision: A Wider Protective Umbrella," Washington Times, September 30, 2009, in Johnson's Russia List 2009 - #181, September 30, 2009, davidjohnson@starpower.net. Expert Russian commentary on prospects for U.S.-Russian missile defense cooperation and on related strategic issues also appears in Sergei Rogov, "Concepts: The Window of Opportunity is Open," Nezavisimoye Voyennoye Obozreniye, May 28, 2010, in Johnson's Russia List 2010 - #114, June 11, 2010, davidjohnson@starpower.net. Continuing Russian doubts about BMD are noted in "Russia Still

between the U.S. and Russia is acknowledged by leaders of both states as low to nonexistent, but Russia might still fear future political coercion on the part of the U.S., supported by improved strategic defenses.¹¹ Russian doubts about U.S. intentions could be increased if improved American and-or NATO antimissile defenses were complemented by newly deployed systems for non-nuclear prompt global strike (see below).

B. Conventional and Nuclear Deterrence

A second source of Russian concern about the appearance of U.S.-Russian nuclear parity, and about the future viability of Russia's nuclear deterrent, resided in American plans for improving non-nuclear global strike capabilities. The George W. Bush administration had already introduced the notion of a "new triad" of conventional and nuclear offensive weapons, missile defenses, and improved nuclear infrastructure. The Obama Nuclear Posture Review of 2010 noted that U.S. policy was generally to reduce reliance on nuclear weapons over time, and specifically to forego nuclear weapons as an option for retaliation against non-nuclear weapons states that were fully in compliance with the Nuclear Nonproliferation Treaty (NPT).¹² Presumably this nuclear abstinence would even hold in the face of attacks by a non-nuclear state with chemical or biological weapons, although the 2010 NPR included an escape clause for any future biological attacks with catastrophic consequences. And, although the Obama NPR fell short of a commitment to "no first use" of nuclear weapons under any conditions, it did chart a preferred course toward the use of nuclear weapons only for deterrence of a nuclear attack or in

Suspicious of U.S. Missile Defense Plans," Reuters, September 29, 2009, in Johnson's Russia List 2009 - #181, September 30, 2009, davidjohnson@starpower.net.

¹¹ Nikolai Sokov, "Nuclear Weapons in Russian National Security Strategy," paper presented at conference on "Strategy and Doctrine in Russian Security Policy," Ft. McNair, National Defense University, Washington, D.C., June 28, 2010, p. 30.

¹² U.S. Department of Defense, Nuclear Posture Review Report (Washington, D.C.: U.S. Department of Defense, April 2010), p. 15.

retaliation for one.¹³ Daryl G. Kimball, executive director of the Arms Control Association, offered a favorable appraisal of the Obama NPR for narrowing the conditions under which the U.S. might use nuclear weapons, and for reducing the overall salience of nuclear weapons in U.S. security policy. But he also cautioned against NPR euphoria with respect to arms control:

Assigning U.S nuclear weapons any role beyond “core nuclear deterrence” is both unnecessary and counterproductive. The United States, as well as Russia, should adopt a “sole purpose” policy now rather than later. Reserving the option to use nuclear force in non-nuclear situations provides little or no deterrent value at high cost. It undermines the credibility of conventional deterrence, complicates our nonproliferation diplomacy and can be used by other countries to justify the pursuit or improvement of nuclear weapons.¹⁴

The Obama administration’s intent to shrink the role of nuclear weapons in U.S. political and military strategy would require enhanced weapons for conventional prompt global strike.¹⁵ Initially based on U.S. land based intercontinental ballistic missiles (ICBMs)(or a future aerospace plane that took off from land, flew to its destination through space, and then reentered

¹³ Pertinent and spirited commentary on NPR and related nuclear security issues appears on the blog ArmsControlWonk edited by Dr. Jeffrey Lewis. See, for example: Jeffrey Lewis, “Grading the NPR: Transparency,” April 13, 2010; Lewis, “The Pivot,” April 7, 2010; and Joshua Pollack, “Where the NPR Meets in the Middle,” April 6, 2010, all in <http://www.armscontrolwonk.com/category/nuclear-weapons/>

¹⁴ Daryl G. Kimball, “Obama’s Nuclear Doctrine Could Boost Reset,” Moscow Times, April 13, 2010, in Johnson’s Russia List 2010 - #72, April 13, 2010, davidjohnson@starpower.net. See also: Daryl G. Kimball and Greg Thielmann, “Obama’s NPR: Transitional, Not Transformational,” Arms Control Today, May 2010, <http://www.armscontrol.org/print/4223>.

¹⁵ Craig Whitlock, “U.S. developing new non-nuclear missiles,” Washington Post, April 8, 2010, http://www.msnbc.msn.com/id/36253190/ns/us_news-washington_post/print/1/

the atmosphere for precision strikes with air to ground munitions), conventional PGS systems would permit timely attacks on terrorist bases, launch-ready missile parks, weapons of mass destruction (WMD) storage sites, or other time urgent or important targets without the collateral damage and moral opprobrium of nuclear weapons. Russian negotiators at New START, and in other Russian and U.S. discussions with the George W. Bush and Obama administrations, had expressed reservations about conventional PGS weapons mounted on ICBMs or other launchers that also carried some part of the U.S. nuclear arsenal. One objection was that conventionally armed long range ballistic missiles might pose a threat to nuclear crisis stability. Nuclear warning and response systems might not be able to distinguish between a conventional PGS launch and a nuclear first strike. In response to Russian concerns, New START negotiators agreed a treaty provision that requires decommissioning one U.S. nuclear missile for every conventional PGS weapon deployed.¹⁶

In addition to the problem of nuclear crisis stability possibly implicit in conventional PGS systems, another Russian concern is that U.S. advanced conventional PGS systems could be combined with nuclear offenses and with improved missile defenses to create a conventional-nuclear first strike capability against Russia. Although this possibility might seem paranoid in a time when the U.S. and Russia have an officially nonhostile political relationship, the scenario of an American nuclear first strike capability has received close attention from U.S. analysts and from Russian military experts.¹⁷ However, politics drives strategy – including domestic politics

¹⁶ David E. Sanger and Thom Shanker, “U.S. Faces Choice on New Weapons for Fast Strikes,” New York Times, April 23, 2010, p. A1. The Obama precision global strike concept, according to the same source, envisions that Russia would regularly inspect PGS silos to reassure itself that the weapons were non-nuclear, and that American PGS launchers would be located far from those tasked for strategic nuclear forces.

¹⁷ Keir A. Lieber and Daryl G. Press, “The Rise of U.S. Nuclear Primacy,” Foreign Affairs, March/April 2006, <http://www.foreignaffairs.org/20060301faessay85204/keir-a-lieber-daryl-g-press/html>. For rejoinders to Lieber and Press, see Peter C.W. Flory, Keith Payne, Pavel Podvig, and Alexei

in the U.S. and Russia. And, in the case of Russia, domestic politics includes a hidebound General Staff and officer corps determined to preserve their status and power in the face of threatened military modernization to improve Russia's conventional forces. This domestic political debate within Russia about conventional force modernization is a third force, in addition to U.S. missile defenses and conventional PGS systems, that makes some Russians less relaxed about the appearance of nuclear-strategic parity.

C. Russian Perspectives

As former President and now Prime Minister of Russia, Vladimir Putin has recognized the need for military reform in order to improve the quality of Russia's armed forces. Improvements are needed in both conventional and nuclear forces, to be sure. But, compared to the former Soviet Union, the decline in the quality of Russia's conventional forces relative to those of the United States and NATO has been more obvious and noticeable. Problems include both the quantity and quality of enlisted personnel, a top heavy officer corps, and insufficient numbers of modern weapons and hours of training for personnel in the ground forces, navy and air force.¹⁸ The Russian Defense Ministry's plan for modernization and reform is ambitious on paper. It anticipates a broad transformation, departing from the historical experience of the Soviet Union in the twentieth century with mass mobilization, conscript based forces trained for protracted interstate wars of attrition. Instead, future emphasis will be placed on the creation of light, rapidly deployable and elite units of permanent readiness, staffed by specially trained contract soldiers instead of draftees. Additionally: the brigade, instead of the division, will be the focal operational-tactical unit of action; the officer corps will be downsized; and, emphasis

Arbatov, "Nuclear Exchange: Does Washington Really Have (or Want) Nuclear Primacy?" *Foreign Affairs*, September/October 2006, <http://www.foreignaffairs.com/print/61931>

¹⁸ Dale R. Herspring, "Putin, Medvedev, and the Russian Military," Ch. 12 in Stephen K. Wegren and Dale R. Herspring, eds., *After Putin's Russia: Past Imperfect, Future Uncertain*, Fourth Edition (Lanham, Md.: Rowman and Littlefield, 2010), pp. 265-290.

will be placed on improving the command-control and network centric warfare capabilities of ready forces.¹⁹ The post-reform brigades will be the drivers of a new Russian military that is trained for the kinds of wars that Russia is more likely to have to fight in the twenty-first century: small wars, including counterinsurgency and counter-terror operations near or within Russia's borders

Skeptics question whether Russia has the necessary financial resources to fund this program for military transformation, and others have pointed to demographic problems in making available the numbers of eligible contract troops as well as draftees to achieve transformative goals in the next decade.²⁰ But this skepticism is, among some quarters within Russia, fueled by the self interest of a bloated military bureaucracy that seeks to preserve billets for general officers by resisting reform. One strategy for resistance is to adhere strictly to expired threat assessments and retro geopolitics, defining NATO and the United States as major enemies of Russia. Even the revised Russian Military Doctrine of 2010, which may suggest a lesser emphasis on its nuclear weapons for covering a wide variety of contingencies, compared to earlier versions (and, thus, may be more compatible with the thrust of Obama's Nuclear Posture Review than those earlier editions of Russian military doctrine), nevertheless includes NATO enlargement among the threats that Russia must take seriously and for which it must

¹⁹ Roger N. McDermott, "Russia's Conventional Armed Forces, Reform and Nuclear Posture to 2020," paper presented at conference on "Strategy and Doctrine in Russian Security Policy," Ft. McNair, National Defense University, Washington, D.C., June 28, 2010.

²⁰ Projections suggest that between now and 2025, Russia's pool of draft age manpower will decline at an even faster rate than the rate for the general population. The implications of this for the size and composition of Russia's future forces are traced in Olga Olikier, Keith Crane, Lowell H. Schwartz and Catherine Yusupov, Russian Foreign Policy: Sources and Implications (Santa Monica, Calif.; RAND, 2009), pp. 145-151.

plan.²¹ NATO remains as a place holder for those within Russia who want to hedge their bets in favor of military modernization or to subvert modernization outright.

Russia's political leadership, of course, is neither interested in revisiting the Cold War nor in reviving the Soviet Union. Ranking highest among Russia's geostrategic priorities are the growth of its economy and an increase in the respect and deference accorded to Russian foreign and security policy, especially in its "near abroad" of former Soviet states – and particularly in Europe.²² From this perspective, Russia's military clash with Georgia in August, 2008 demonstrated Russia's sensitivity, not only to Georgia's perceived highhandedness and brio, but also to the Russian leaders' view of Georgia as a Trojan horse for U.S. and NATO political influence and military penetration. Although Russia's conventional forces rapidly overpowered Georgian resistance and declared a postwar separatism from Georgia on behalf of Abkhazia and South Ossetia as an accomplished fact, obvious problems bedeviled Russia's military

²¹ For an assessment of the 2010 doctrine on this point, see Nikolai Sokov, "The New, 2010 Russian Military Doctrine: The Nuclear Angle," Center for Nonproliferation Studies, Monterey Institute of International Studies, February 5, 2010, http://cns.miis.edu/stories/100205_russian_nuclear_doctrine.htm. See also: Text, "The Military Doctrine of the Russian Federation," www.Kremlin.ru February 5, 2010, in Johnson's Russia List 2010 - #35, February 19, 2010, davidjohnson@starpower.net

²² According to some experts, Russians do not have a unified view of their foreign policy objectives, but a broad consensus emerged during Putin's second term about Russia's foreign policy goals. See Olikier, et. al., Russian Foreign Policy, pp. 83-138, esp. p. 87, and passim. See also: Anders Aslund and Andrew Kutchins, The Russia Balance Sheet (Washington, D.C.: Peterson Institute for International Economics and Center for Strategic and International Studies, April, 2009), and Stephen J. Blank, Russia and Arms Control: Are There Opportunities for the Obama Administration? (Carlisle, Pa.: Strategic Studies Institute, U.S. Army War College, March 2009), for additional perspective on Russian objectives pertinent to national security and nuclear arms control.

performance during this brief and one sided war. The conflict served as a warning to Georgia about poorly timed and ill considered military brinkmanship. The war also advertised how far Russia's conventional military forces are from those suited to the aspirations of a major regional or global military power.

Among some Russian government officials and other elites, it is now recognized that broad changes in foreign policy must accompany, if not precede, the accomplishment of significant military reform. On this point, the Russian edition of Newsweek magazine published in May, 2010 a draft document from the Russian foreign ministry prepared earlier in February for President Medvedev.²³ According to press reports, the foreign ministry document calls for a new Russian foreign policy, emphasizing improved relations with the U.S. and the European Union in order to expedite technology development and a more favorable climate for investment in Russia.²⁴ Dmitri Trenin of the Moscow Carnegie Center, writing in the Moscow Times, assessed the draft doctrine and its implications thus:

Russia is losing ground in the global pecking order by falling behind in terms of its industrial, technological and scientific capabilities. All the proceeds from Gazprom's sales notwithstanding, Russia is sorely lacking what it takes to be a major global economic and political force in the 21st century. Relative energy abundance and nuclear arsenals are simply not enough.²⁵

²³ See "Russia Profile Weekly Experts Panel: Russia's New Foreign Policy Doctrine," introduction by Vladimir Frolov, in Russia Profile, May 21, 2010, www.russiaprofile.org, in Johnson's Russia List 2010 - #101, May 24, 2010, davidjohnson@starpower.net

²⁴ Ibid.

²⁵ Trenin, quoted in Frolov, et. al., Russia Profile, May 24, 2010.

An alternative perspective on the draft document was provided by Andrei Tsygankov, who regarded its interpretation as a pro-Western shift in Russian foreign policy as “not incorrect” but insufficient. Tsygankov argues that Russia’s rapprochement with the West is taking place within a larger context of a more decentralized, and less West-centric, world order. As he puts it, the post-Western world “has in store not only expertise and capital from advanced countries, but (also) new opportunities for improving Russia’s welfare and security in Asia, the Middle East and Latin America.”²⁶ Edward Lozansky also supports the idea that Russia’s drive for economic and technology modernization is an all-azimuths one. The document, in his judgment, is “oriented toward West, East, South, North, and any other direction that has a potential for promoting Russian interests.”²⁷ Putting the document in historical perspective, Stephen J. Blank cautions against euphoria with regard to western expectations for Russian foreign policy transformation:

Indeed, it is a time-honored tradition of Russian and Soviet foreign policy to signal a détente based on common economic interests, the main goal of which is that Russia obtains foreign technology (which, because of its economic-political structure, it cannot optimally utilize) in return for sham or cosmetic concessions.²⁸

Regardless the judgment about Russian motives, or preferred geographical directions, for economic growth and technology development, the larger context is clear. Russia’s nuclear and conventional force modernization are both dependent upon closing the gap between Russian performance and that of the other leading state economies. Meanwhile, the conclusion of New START provides symbolic benefits for Russia, by treating Russia as an equal negotiating partner with the United States for purposes of establishing a hierarchy of nuclear weapons states. So

²⁶ Tsygankov, commentary in Ibid.

²⁷ Lozansky, commentary in Ibid.

²⁸ Blank, commentary in Ibid.

established, Russia has additional cover to play at the head of the table among G-8 and G-20 major powers, despite its insufficiencies in non-nuclear forces. For the U.S. and its NATO allies, the impression of nuclear-strategic parity, as between the U.S. and Russia, keeps the door open to the further expansion of NATO – although, in the case of Ukraine, only a crack – whereas, absent the image of Russia as a Tier One nuclear weapons state, Kremlin sensitivities to NATO enlargement would be all the greater. Indeed this was the case even during the Cold War. The willingness of then Soviet President Mikhail Gorbachev to swallow the reunification of Germany within NATO was at least partly enabled by his recognition that nuclear weapons precluded an outbreak of war on the Central Front whether one Germany or two existed there.

D. Sub-strategic Weapons and Alliance Politics

Thus, one of the post-START challenges for President Obama “going forward” will be to combine his desire for additional reductions in U.S. and Russian strategic nuclear forces with the reduction or elimination of non-strategic nuclear weapons located in Europe, including in the western part of Russia. U.S. tactical nuclear weapons are presently located in five other NATO member countries: Belgium, Germany, Italy, the Netherlands, and Turkey. The rationale for these battlefield weapons during the Cold War was to support the “coupling” of American and NATO European strategic commitments against Soviet intimidation or nuclear blackmail. Now decades beyond the Cold War, leading military experts and politicians within NATO Europe have recommended that these weapons be removed and dismantled.²⁹

Both the political and military rationales for some 200 of these weapons have been called into question. The political rationale of deterrence “coupling” seems beside the point if NATO and Russia are no longer declared or de facto enemies. The military rationale, presuming the

²⁹ For an expert assessment, see Malcolm Chalmers and Simon Lunn, NATO’s Tactical Nuclear Dilemma (London: Royal United Services Institute, Occasional Paper, March 2010), www.rusi.org. Pertinent historical and technical background is given in Hans M. Kristensen, U.S Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels, and War Planning (Washington, D.C.: Natural Resources Defense Council, February 2005).

need for a tactical nuclear option as part of an escalation “ladder” that would allow NATO to skirmish with Russia in increments, but short of total war, flies in the face of former Soviet and current Russian military doctrine. It is not entirely clear what NATO thought its forward deployed nuclear weapons were accomplishing even during the Cold War. Given NATO’s command and control complexities, one expert was moved to refer to NATO’s Cold War sub-strategic deterrent as a regional doomsday machine.³⁰ Soviet military planners probably regarded forward deployed tactical nukes as an attractive target set for early attacks by special operations forces. One can make virtue of necessity by arguing that NATO’s Cold War conventional force weakness, relative to Soviet forces, required NATO tactical nuclear weapons to present the uncertainty of unacceptable risk, of the “threat that leaves something to chance” as Schelling phrased it.³¹ Whether this rationale proved credible for deterring the Soviets is arguable, but the end of the Cold War and the demise of the Soviet Union require more convincing arguments for tactical nukes within a very different political context.³² In his appraisal of the need for non-nuclear weapons states to contribute to a climate favorable for nuclear disarmament, Scott D. Sagan notes:

³⁰ Paul Bracken, The Command and Control of Nuclear Forces (New Haven, Ct.: Yale University Press, 1983), p. 164.

³¹ Thomas C. Schelling, Arms and Influence (New Haven: Yale University Press, 1966), p. 108 and p. 121, note 8.

³² Useful perspective on this topic appears in: McDermott, “Russia’s Conventional Armed Forces, Reform and Nuclear Posture to 2020;” Pavel Podvig, “What to do about tactical nuclear weapons,” Bulletin of the Atomic Scientists, February 25, 2010, <http://the_bulletin.org>, in Johnson’s Russia List 2010 - #43, March 3, 2010, davidjohnson@starpower.net, and Jacob W. Kipp, “Russia’s Tactical Nuclear Weapons and Eurasian Security,” Jamestown Foundation Eurasia Defense Monitor, March 5, 2010, in Johnson’s Russia List 2010 - #46, March 8, 2010, davidjohnson@starpower.net.

While the United States and other NWS (nuclear weapons states) should take the first steps to reduce their reliance on nuclear weapons, there is much that NNWS (non-nuclear weapons states) can do to encourage and enable new nuclear doctrines to be adopted, in the spirit of shared responsibilities for nuclear disarmament...NNWS that are members of U.S. alliances can stop asking to be reassured about noncredible military options.³³

Obama can be expected to push back against some European proposals for removing U.S. sub-strategic nuclear weapons from NATO Europe, especially in the absence of some quid pro quo from Russia.³⁴ Russia will also be cautious about reciprocating any U.S. initiatives on tactical nuclear weapons. Russian sensitivities about TNW reflect the interconnectedness between TNW and forces higher or lower on the ladder of escalation – i.e., both strategic nuclear forces and conventional forces. The “going in” position for Russia will be that the first step should be taken by the U.S. - to repatriate or destroy all its nukes deployed outside of U.S. national territory – as did Russia with nuclear weapons deployed in former Soviet states after the Cold War (with U.S. assistance).³⁵ The U.S. argument will be that Russia must dismantle or relocate some of its own tactical nukes that are forward deployed in Russia’s western military districts and, in particular, near to the borders of NATO member states. Russia considers the assumption of symmetrical reductions in tactical nukes with NATO to be unfair because NATO already has superior conventional forces relative to Russia. Therefore, Russian tactical nuclear

³³ Scott D. Sagan, “Shared Responsibilities for Nuclear Disarmament,” Ch. 1 in Sagan, et. al., Shared Responsibilities for Nuclear Disarmament: A Global Debate (Cambridge, Mass.: American Academy of Arts and Sciences, 2010), pp. 1-13, citation p. 10, <http://carnegieendowment.org/files/saganInside.pdf>

³⁴ Mark Landler, “U.S. Resists Push by Allies for Tactical Nuclear Cuts,” New York Times, April 22, 2010, <http://www.nytimes.com/2010/04/23/world/europe/23diplo.html>

³⁵ Pertinent citations appear in McDermott, “Russia’s Conventional Armed Forces, Reform and Nuclear Posture to 2020,” esp. pp. 23-27.

weapons provide reassurance against NATO escalation dominance, in case of any situation of threat or outbreak of local war. (For the irony in this, see the preceding paragraph).

E. The Obama Nuclear Agenda

President Obama's extended agenda for nuclear marginalization (and, in theory, eventual abolition) goes beyond further START reductions and limitations on NATO and Russian tactical nuclear weapons.³⁶ In addition, Obama wants the U.S. and other outliers to ratify the Comprehensive Test Ban Treaty (CTBT); to mobilize international support in favor of a Fissile Materials Cutoff Treaty (FMCT); to extend and strengthen the Nuclear Nonproliferation Treaty (NPT); and, most important, to draw bright lines for preventing Iran from becoming a nuclear weapons state and for reversing North Korea's nuclear weapons status.³⁷ This is an ambitious, although not impossible, agenda for nonproliferation, and it requires considerable cooperation from existing legally recognized and de facto nuclear weapons states. However, the U.S. and

³⁶ See George Perkovich, "After Prague: What's Next for Arms Control?" International Herald Tribune, April 7, 2010, <http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=40532>

³⁷ On Iran's progress toward the capability for nuclear weaponization and related issues, see: The East-West Institute, Iran's Nuclear and Missile Potential: A Joint Threat Assessment by U.S. and Russian Technical Experts (New York: East-West Institute, May 2009), www.ewi.info; and Iran Watch, "Iran's Nuclear Timetable," updated February 23, 2010 and regularly, <http://www.iranwatch.org/ourpubs/articles/iranucleartimetable.html>. For possible scenarios if diplomacy fails, see Anthony Cordesman, Iran, Israel and the Effects of a Nuclear Conflict in the Middle East (Washington, D.C.: Center for Strategic and International Studies, June 1, 2009), esp. pp. 5-8 and 32-46. On North Korea, see Leon V. Sigal, "Let's Make a Deal," The American Interest Magazine, January-February 2010, <http://the-american-interest.com/article-bd.cfm?piece=767>; and Andrew Scobell and John M. Sanford, North Korea's Military Threat: Pyongyang's Conventional Forces, Weapons of Mass Destruction, and Ballistic Missiles (Carlisle, Pa.: U.S. Army War College, Strategic Studies Institute, April 2007);

Russia have a special responsibility for leadership in this regard: they hold more than 90 per cent of the world's nuclear weapons and, as well, the historical responsibility for godfathering the nuclear revolution in military affairs. Their management of nuclear forces during and after the Cold War, despite some scary moments and embarrassing political posturing here and there, provide "lessons learned" for other, and especially newer, members of the nuclear weapons club.

One of these lessons is that further progress in horizontal nuclear risk reduction (the spread of nuclear weapons among additional states) requires the simultaneous commitment by leading nuclear weapons states to vertical risk reduction (limiting the growth of existing arsenals, or preferably, reducing them in size). The preceding point does not depend upon the allegedly naive argument that a "good example" set by the United States and by Russia automatically translates into vertical or horizontal nuclear risk reduction. Critics of nuclear risk reduction attack a straw man here. The U.S. and Russia are not reducing their numbers of long range nuclear weapons and launchers because of altruism. They are taking this step because excessive numbers of nuclear weapons are politically pointless and militarily useless.

In doing so, the Russian and American leaderships commit themselves to a process of reciprocal nuclear risk management and support for stable deterrence and reassurance, a necessary step for further cooperation on vertical and horizontal disarmament. However, the U.S. and Russia cannot proceed to lower-than-New START reductions without tacit and explicit cooperation on the part of other current nuclear weapons states, and even some nuclear weapons-ready or virtual nuclear weapons states. As Henry Sokolski has explained:

In addition to making roughly equal reductions with Russia, then, the United States will have to keep other nuclear-armed states, such as China and India, from trying to catch up with U.S. nuclear weapons deployment levels and – as in the case of India and China, Pakistan and India, and Japan and China, from trying to catch up with each other. This means that additional nuclear restraints, either in the form of nuclear weapons reductions or further limits on the production or stockpiling of weapons-usable fuel, will need to be reached with Russia, of course, but also with China, India, and Pakistan. As a practical matter, this also means that other nuclear weapons-ready or virtual weapons states (e.g.,

Japan) will have to be persuaded to curtail or end their production of weapons-usable materials or to dispose of some portion of what they currently have.³⁸

Obama's vision of a nuclear free world, as he admits, may not be realized in his lifetime – if ever. But the avoidance of nuclear war, and the preservation of a nuclear “taboo” that has existed since Nagasaki, is a sufficiently challenging crusade for the rest of the present century.³⁹ Managing toward that end will require international cooperation in nuclear arms control, nonproliferation and disarmament that connect linear to nonlinear strategies for risk reduction. Serial progress in U.S. and Russian nuclear arms limitation is a realistic expectation, but not a guaranty of nonlinear success stories in nonproliferation or in disarmament. To achieve broader objectives in nuclear renunciation, states will have to leapfrog beyond purely statist models of defense and deterrence into more communitarian and regional, or even global, paradigms of reference. The shared space of nuclear danger includes threats, not only from existing and aspiring nuclear weapons states, but also from non-state actors such as terrorists with apocalyptic or other anti-systemic agendas.⁴⁰ The two dangers are linked in theory and in practice: the more states with nuclear weapons and with anti-systemic grievances, the more vulnerable are the “commons” to lapses in nuclear security and, perhaps, nuclear terrorism. States that fail,

³⁸ Henry Sokolski, “Moving Toward Zero and Armageddon?,” Ch. 5 in Sokolski, ed., Reviewing the Nuclear Nonproliferation Treaty (NPT) (Carlisle, Pa.: Strategic Studies Institute, U.S. Army War College, May 2010), pp. 77-101, citation p. 87.

³⁹ For possible dangers and pathways to nuclear first use, see George H. Quester, Nuclear First Strike: Consequences of a Broken Taboo (Baltimore, Md.: Johns Hopkins University Press, 2006). On the concept of a nuclear taboo, see Nina Tannenwald, The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945 (Cambridge: Cambridge University Press, 2007), esp. pp. 327-360.

⁴⁰ See Graham Allison, Nuclear Terrorism: The Ultimate Preventable Catastrophe (New York: Henry Holt, Times Books, 2004), pp. 61-63.

individually and collectively, to embrace nuclear risk reduction or elimination could find themselves in the target coordinates of future extremists who are beyond deterrence.

II. Methodology

A. Approach

The preceding discussion sets the stage for the analysis that follows in this section. The methodology will proceed in two principal steps. First, a statistical model is used to test the adequacy of projected U.S. and Russian strategic nuclear forces that are New START-compliant. As part of this frame, we also examine whether smaller forces for either state could meet the criteria for deterrence sufficiency and stability. The comparison with possible post-NEW START forces is not an idle academic exercise. Both the U.S. and Russia have indicated that the door is open to reducing the numbers of deployed strategic nuclear weapons below the levels agreed in the treaty signed on April 8, 2010.

In a second step of the analysis, the connection between nuclear arms reductions and nonproliferation will be examined through the use of a pertinent “what if” illustration of one hypothetical, but realistic, world. If, for example, the U.S. and Russia can agree to lower-than-New START levels of strategic retaliatory forces, their remaining toplines for deployed nuclear weapons could be the basis for a constrained nuclear proliferation system among the existing recognized and de facto nuclear weapons states. This connection between American and Russian vertical disarmament and responsibility for leadership on nonproliferation is not hypothetical or academic, but legal and operational.⁴¹

⁴¹ For informative discussion on this point, see Blank, Russia and Arms Control: Are There Opportunities for the Obama Administration, p. ix and passim., and Joseph Cirincione, Bomb Scare: The History and Future of Nuclear Weapons. (New York: Columbia University Press, 2007).

As acknowledged nuclear weapons states under the protocols of the nuclear Nonproliferation Treaty, the United States and Russia (among others) are required to engage in nuclear arms reductions and arms limitation. Operationally, the U.S. and Russia have the largest nuclear arsenals, the most experience with nuclear force operations, and the most experience in negotiating nuclear arms control agreements. In short: the connection between U.S.-Russian nuclear arms reductions and downstream success in controlling the spread of nuclear weapons is explicit, despite the denials of cynics, nay sayers and prophets of inevitable nuclear proliferation and doomsday. On the other hand, accepting responsibility for action is not the same thing as accomplishing it. The United States and Russia cannot necessarily get the rest of the nuclear club to march in step with their ambitions, even when Washington and Moscow are agreed.

B. Data Analysis

Table One, immediately following, summarizes current and New START accountable U.S. and Russian strategic nuclear forces.

Table One
Russian and U.S. Strategic Nuclear Forces
Past and Projected

Russia

	July 2009 Old START launchers	2010 Actual Operationally Deployed Launchers (total launchers)	Ca. 2020 New START operationally deployed launchers (total launchers)- estimate	Ca. 2020 New START warheads (estimate)
ICBMs				
SS-25	176	171	0	0
SS-27 silo	50	50	60	60
SS-27 road	15	18	27	27
RS-24			85	255
SS-19	120	70	0	0
SS-18	104	59	20	200
Total ICBMs	465	367	192	542
SLBMs				
Delta III/ SS-N-18	6/96	4/64	0	0
Delta IV/ SS-N-23	6/96	4/64 (6/96)	4/64	256
Typhoon/ SS-N-20	2/40	0	0	0

Borey/ Bulava	2/36	0	4/64	384
Total SLBMs	268	128 (164)	128	640
Bombers				
Tu-160	13	13	13	13
Tu-95MS	63	63	63	63
Total Bombers	76	76	76	76
TOTAL	809	571 (603)	396 (396)	1258

United States

	July 2009 Old START launchers	2010 Actual Operationally Deployed Launchers (total launchers)	Ca. 2020 New START operationally deployed launchers (total launchers)- estimate	Ca. 2020 New START warheads (estimate)
ICBMs				
Minute- man III	500	450	350	350
MX	50	0	0	0
Total ICBMs	550	450	350	350
SLBMs				
Trident I/C- 4	4/96	0	0	0
Trident II/D-5	14/336	12/288 (14/336)	12/288 (14/336)	1152
Total SLBMs	268	288 (336)	288 (336)	1152
Bombers				
B-1	47	0	0	0
B-2	18	16 (18)	16 (18)	16
B-52	141	44 (93)	32 (93)	32
Total Bombers	206	60 (111)	48 (111)	48
TOTAL	1188	798 (897)	686 (797)	1550

Source: Pavel Podvig, “New START Treaty in numbers,” from his blog, Russian strategic nuclear forces, April 9, 2010,

http://russianforces.org/blog/2010/03/new_start_treaty_in_numbers.shtml

Notes:

- (1) New START counting rules count each bomber as a single weapon (warhead) although bombers actually carry more than one weapon.
- (2) Under New START each state is permitted to deploy a maximum number of 700 operational launchers and to maintain up to 100 additional undeployed launchers.

Using the numbers in Table One, above, as points of departure, we construct hypothetical, but not unrealistic, U.S. and Russian strategic nuclear forces for the period 2017-2020 that are consistent with New START guidelines and related policy statements by officials of both states.⁴² These guidelines include: (1), the expectation that both the U.S. and Russia will maintain a “triad” of strategic nuclear launchers, including land based intercontinental ballistic missiles (ICBMs), submarine launched ballistic missiles (SLBMs), and heavy bombers; (2), no limitations on future defenses deployed by either side, although a notification and withdrawal clause exists that could allow either party to depart the treaty for this or other reasons; (3), counting rules that under-represent the numbers of weapons deployed on long range bombers; (4), postponement of the issues of stored nuclear weapons and their related upload potential; and, (5), a two step limitation on the numbers of deployed intercontinental or transoceanic launchers – 700 deployed and 100 additional undeployed.⁴³

Chart One, immediately below, provides a “drawdown curve” of second strike surviving and retaliating strategic nuclear warheads for U.S. forces under New START deployment limits of 1550 weapons for each state.⁴⁴ Surviving and retaliating warheads are calculated

⁴² For U.S. force modernization plans pertinent to the New START agreement of April, 2010, see U.S. Department of Defense, Nuclear Posture Review Report, pp. 19-27. For Russian possibilities, see Podvig, “New START Treaty in numbers,” from his blog, Russian strategic nuclear forces, April 9, 2010, http://russianforces.org/blog/2010/03/new_start_treaty_in_numbers.shtml, and Podvig, “Russia’s new arms development,” Bulletin of the Atomic Scientists, January 16, 2009, <http://thebulletin.org/web-edition/columnists/pavel-podvig/russias-new-arms-development>.

⁴³ Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (Washington, D.C.: U.S. Department of State, April 8, 2010), <http://www.state.gov/documents/organization/140035.pdf>.

⁴⁴ Grateful acknowledgment is made to Dr. James Scouras for use of his AWSM@ model for making calculations and drawing graphs pertinent to this study. He is not responsible for any

under each of four operational conditions of alertness and launch readiness: (1), forces are on generated alert and launched on warning (GEN-LOW); (2), forces are on generated alert and ride out the attack before retaliating (GEN-ROA); (3), forces are on day to day alert and launch on warning (DAY-LOW); and, (4), forces are on day to day alert and ride out the attack (DAY-LOW). The drawdown curve graphs the numbers of total, available, alert, surviving and arriving weapons for each operational condition, as above.

(Chart One here)

In Chart Two, immediately following, the numbers of surviving and retaliating Russian second strike warheads are tabulated and depicted, for each of the four operational conditions, under New START deployment limits of 1,550 weapons. The graph shows the numbers of total, available, alert, surviving, and arriving weapons for each operational condition, following the same schematic as shown in Chart One, above, for U.S. forces.

(Chart Two here)

Inspection of Charts One and Two reveals that U.S. and Russian New START-compliant forces can easily satisfy requirements for mutual deterrence based on assured retaliation. Each, under a variety of operational conditions, has sufficient numbers of surviving and retaliating warheads to guarantee unacceptable societal damage to the first striker. In addition to this “assured destruction” or “assured retaliation” metric, each side can also provide for additional warheads with which to attack nuclear and other forces and their command-control systems. The addition of defenses to the equation for both sides does not change this picture fundamentally, although it does reduce the flexibility of targeting for each side in retaliation.

arguments or opinions here. Additional information about this model with pertinent illustration appears in Stephen J. Cimbala and James Scouras, *A New Nuclear Century* (Westport, Ct.: Praeger Publishers, 2002), pp. 25-73 and passim.

What happens if the maximum number of strategic nuclear weapons permitted for each side is reduced to 1,000 instead of 1,550? In Charts Three and Four, following below, we summarize the numbers of U.S. and Russian second strike surviving and retaliating warheads for the four operational conditions outlined in Charts One and Two, above.

(Charts Three and Four here)

The results summarized in Charts Three and Four, above, show that the U.S. and Russia can, within a maximum deployment limit of 1,000 weapons, and under almost all conditions of operational alertness and launch readiness, provide for the assured destruction-assured retaliation mission, and then some. Each has more than 400 surviving and retaliating weapons under all operational conditions, except for Russia under the “worst case” for a retaliator: with the retaliator’s forces postured on day to day alert, and riding out the attack. Neither Russian nor American forces would probably be in this condition during the kind of political crisis in which the use of nuclear weapons was seriously considered by either. In addition, the reason for the greater degree of symmetry between the two sides in outcomes for the 1,000 warhead deployment limit, compared to the New START 1,550 maximum, lies in the fact that our 1,000 (hypothetical) illustration uses a Russian force that is closer in size and quality to the U.S. force than is the case in New START. In terms of strategic impact, however, this is a distinction without a difference.

Why bother demonstrating what some scholars and defense analysts regard as self evident: that the U.S. and Russia have more than enough long range nuclear weapons deployed, currently and prospectively, to maintain stable deterrence and avoid the possibility of a nuclear first strike by either? The problem is more subtle than the question implies. The abstract possibility of a nuclear first strike capability by the United States against Russia has been used as a bargaining chip in Russian domestic politics, by disgruntled conservatives in its military, by researchers in

Russian think tanks, and by Kremlin-supportive media sources.⁴⁵ This constellation of hawkish views outside of official Russian ministries, but acting in possible concert with sympathetic Kremlin sources, allows the Medvedev-Putin tandem to have it both ways. Official channels trumpet the “reset” in U.S.-Russian relations, while supposedly independent hawkish commentators fan the flames of public opinion in defining the U.S. and NATO as major enemies of Russia.⁴⁶ Nor were doubts about New START and further progress in nuclear arms control confined to skeptical Russians. During hearings before the U.S. Senate Foreign Relations Committee in May, 2010, various Senators expressed doubts about New START, including the possibility that it would limit future American missile defense options.⁴⁷

The first section of this paper argued that there was a direct connection in policy and strategy between the bilateral U.S.-Russian nuclear arms reductions and the problem of multilateral nonproliferation management. If so, could the lower of the two illustrations for the U.S.-Russian force limitations, a maximum of 1,000 deployed warheads for each side, serve as a basis for organizing a constrained nonproliferation system among the existing nuclear weapons

⁴⁵ For pertinent references and commentary on this point, see Michael Bohm, “The Kremlin’s Shock Troops,” *Moscow Times*, May 6, 2010, in *Johnson’s Russia List 2010 - #89*, May 6, 2010, davidjohnson@starpower.net. U.S. analysts have also warned of a possible U.S. nuclear first strike capability against Russia. See, for example, Keir A. Lieber and Daryl G. Press, “The Rise of U.S. Nuclear Primacy,” *Foreign Affairs*, March/April 2006, <http://www.foreignaffairs.org/20060301faessay85204/keir-a-lieber-daryl-g-press/html>.

Responses and rejoinders to the Lieber-Press piece appear in: Peter C.W. Flory, Keith Payne, Pavel Podvig, and Alexei Arbatov, “Nuclear Exchange: Does Washington Really Have (or Want) Nuclear Primacy?” *Foreign Affairs*, September/October 2006, <http://www.foreignaffairs.com/print/61931>

⁴⁶ Bohm, “The Kremlin’s Shock Troops.”

⁴⁷ Rachel Oswald, “GOP Senators Remain Wary of U.S.-Russian Arms Control Deal,” www.globalsecuritynewswire.org, in *Johnson’s Russia List 2010 - #87*, May 4, 2010, davidjohnson@starpower.net

states? Let us assume that, in this constrained nuclear proliferation system, Iran is prevented from deploying nuclear weapons and North Korean nuclear proliferation is rolled back by diplomatic agreement. The remaining nuclear weapons states (U.S., Russia, UK, France, China, India, Pakistan, and Israel) agree a tiered structure that provides for a maximum of 1,000 deployed weapons for the U.S. and for Russia; a maximum of 500 each for Britain, France and China; and a maximum of 300 for India, Israel and Pakistan. Notional forces are assigned to each of these powers in Chart Five, immediately below, and the numbers of second strike retaliating warheads provided by each force are estimated in Chart Six. These numbers are obviously not intended as predictions of actual forces to be deployed in the 2017-2020 time frame by these states. Instead, they are heuristics to allow for broad comparisons and illustrations of possible second strike survivability under canonical conditions.

(Charts Five and Six here)

The findings in Chart Six show that, within a three-tiered, constrained nuclear proliferation system under an umbrella of U.S. and Russian forces each capped at 1,000 deployed long range weapons, it is possible (although not guaranteed) to construct a deterrence and crisis-stable pyramid if – always the big “ifs” – negotiations can produce acceptable bargains, monitoring and verification can be accomplished with necessary transparency, and outliers seeking to bash their way into the club can be excluded. Is this fair? Neither nonproliferation nor any other serious goal in international politics is likely to be obtained by means that are entirely fair, but a less than entirely fair system might still meet the criteria of decision rationality. Those criteria include the premise that consensus on major points of agreement has been reached across the boundaries of diverse state interests and priorities.

In addition, trade-offs and side payments to reach that consensus will not leave any state in the matrix of a constrained proliferation system with unrequited ambitions for cheating on the agreed numbers or, admittedly worse, for overturning the entire structure in favor of nuclear adventurism. No arrangement of numbers can restrict the elbow room of states and their leaders to do harm, or good, based on domestic political motives and the structure of the international system. Arms control cannot substitute for politics; it can only take advantage of favorable

political climates in order to reduce the probability of war or the disutility of war, if it occurs.⁴⁸ In the case of nuclear war or nuclear weapons spread, the avoidance is to be preferred to the alternatives.

Conclusion

New START and other manifestations of U.S.-Russian nuclear arms control are embedded in (at least) three overlapping levels of conceptual analysis. The first level is the need for reconceptualization of geostrategic space, especially Euro-strategic space, in order to extend the concept of “European” security community from the Atlantic to the Urals, and from Svalbard to Sinope. This truly transcontinental security space must be approached by the U.S., Russia and NATO as a positive-sum policy and strategy game, instead of zero-sum competition. Cooperative security is an empty vessel without active collaborative security procedures and institutions to support it – as recent arms control experience has shown. Movement from cooperative into collaborative security will require persistent policy makers determined to overcome bureaucratic inertia in Washington, Moscow and Brussels.

The second level of analysis involves the necessary transformation in foreign policy orientations on the part of the U.S., NATO and Russia. The U.S. needs to discard its recent excursions into unilateralism, preemptive military doctrines, and omnivorous statements of foreign policy objectives, based on an oxymoronic cocktail of liberal internationalism and neoconservatism. Instead, the U.S. should pursue its traditional policy of “offshore balancer,” supplemented by preemptive leadership for (multilateral) conflict prevention and management, supported by America’s unique capabilities for “systems integration” and global military reach. Russia needs to adjust its military DNA to a world in which NATO is part of the solution, not the problem, from a Russian perspective: cooperation on missile defenses would be a step in this direction. And NATO needs to adjust its near term goals, away from the acquisition of

⁴⁸ An argument in favor of multicausal explanation for Cold War and post-Cold War outcomes in nuclear policy and strategy is effectively presented in Michael Krepon, Better Safe than Sorry: The Ironies of Living with the Bomb (Stanford, Calif.: Stanford University Press, 2009).

additional territories and dependencies (read: Ukraine and Georgia) and toward a “Great Northern Alliance” concept that includes Russia as a security partner, if not a member.

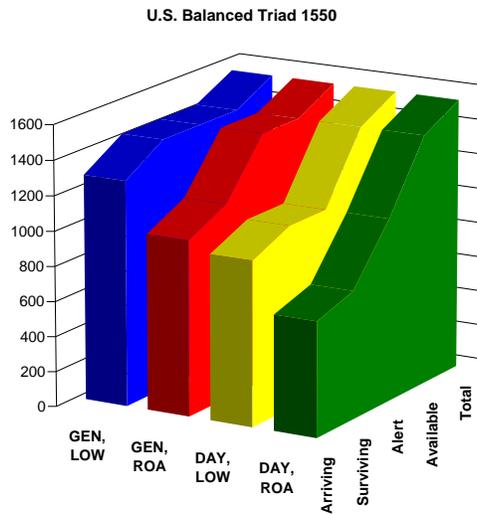
The third level of analysis, derivative of the first two, is further Russian-American movement on nuclear arms reductions, with the potential for spillover into nonproliferation. Will the New START agreement, once ratified and brought into force lead necessarily, or inevitably, to progress on nuclear nonproliferation under the leadership of Moscow and Washington? A great deal depends on the priorities placed by each side on nonproliferation, compared to other foreign policy issues.⁴⁹ The United States and Russia can do little without cooperation from other nuclear weapons states, especially other members of the P-5. Iran and North Korea are imminent test cases for the viability of the current nuclear nonproliferation regime, but even the most favorable outcomes in these cases do not preclude other challenges.⁵⁰ And, regardless the trials and tribulations of interstate proliferation, non-state actors, especially terrorists, present additional challenges guaranteeing sleepless nights.

⁴⁹ In addition to sources previously cited, excellent discussions on this topic appear in: Alexei Arbatov, “Terms of Engagement: Weapons of Mass Destruction Proliferation and U.S.-Russian Relations,” Ch. 5, pp. 139-168, and Stephen J. Blank, “Prospects for Russo-American Cooperation in Halting Nuclear Proliferation,” Ch. 6, pp. 169-284, both in Stephen J. Blank, ed., Prospects for U.S.-Russian Security Cooperation (Carlisle, Pa. Strategic Studies Institute, U.S. Army War College, March 2009).

⁵⁰ Although official U.S. policy holds that Iran should not be permitted to obtain nuclear weapons, the United States also hedges against the possibility of a nuclear Iran, including plans for missile detection and defense systems and other military ties to Persian Gulf states and Obama’s revised missile defense plan for Europe. See “U.S. Considers Options Against Nuclear Iran,” Associated Press, April 23, 2010, <http://www.cbsnews.com/stories/2010/04/20/politics/main6414377.shtml>

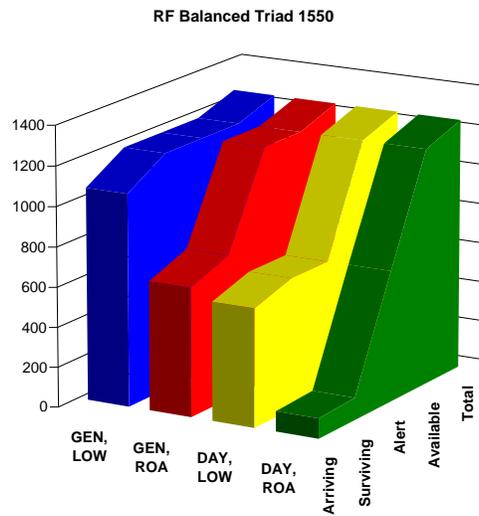
Appendix One

Chart One
 United States
 Surviving and Retaliating Warheads
 1,550 Deployment Limit



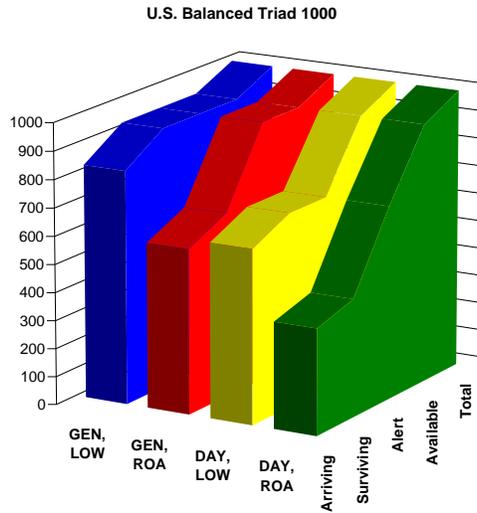
	Total	Available	Alert	Surviving	Arriving
■ GEN, LOW	1550	1430	1430	1430	1283
■ GEN, ROA	1550	1430	1430	1115	1000
■ DAY, LOW	1550	1430	1045	1045	940
■ DAY, ROA	1550	1430	1045	730	657

Chart Two
Russia
Surviving and Retaliating Warheads
1,550 Deployment Limit



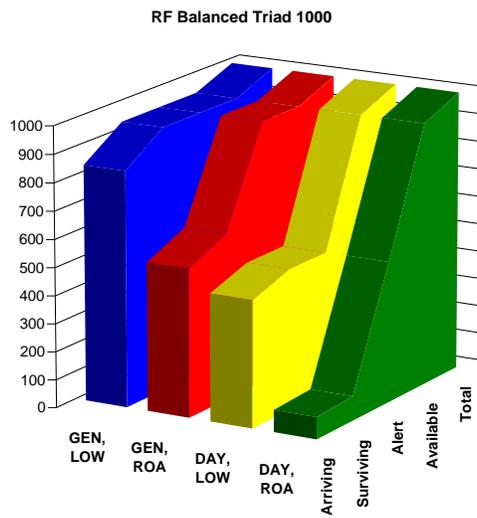
	Total	Available	Alert	Surviving	Arriving
■ GEN, LOW	1258	1186	1186	1186	1062
■ GEN, ROA	1258	1186	1186	723	644
■ DAY, LOW	1258	1186	657	657	591
■ DAY, ROA	1258	1186	657	112	101

Chart Three United States Surviving and Retaliating Warheads 1,000 Deployment Limit



	Total	Available	Alert	Surviving	Arriving
■ GEN, LOW	996	926	926	926	830
■ GEN, ROA	996	926	926	656	587
■ DAY, LOW	996	926	691	691	622
■ DAY, ROA	996	926	691	421	379

Chart Four
 Russia
 Surviving and Retaliating Warheads
 1,000 Deployment Limit



	Total	Available	Alert	Surviving	Arriving
■ GEN, LOW	1000	941	941	941	841
■ GEN, ROA	1000	941	941	595	529
■ DAY, LOW	1000	941	504	504	454
■ DAY, ROA	1000	941	504	87	79

Chart Five
Constrained Proliferation Model
Total Strategic Weapons

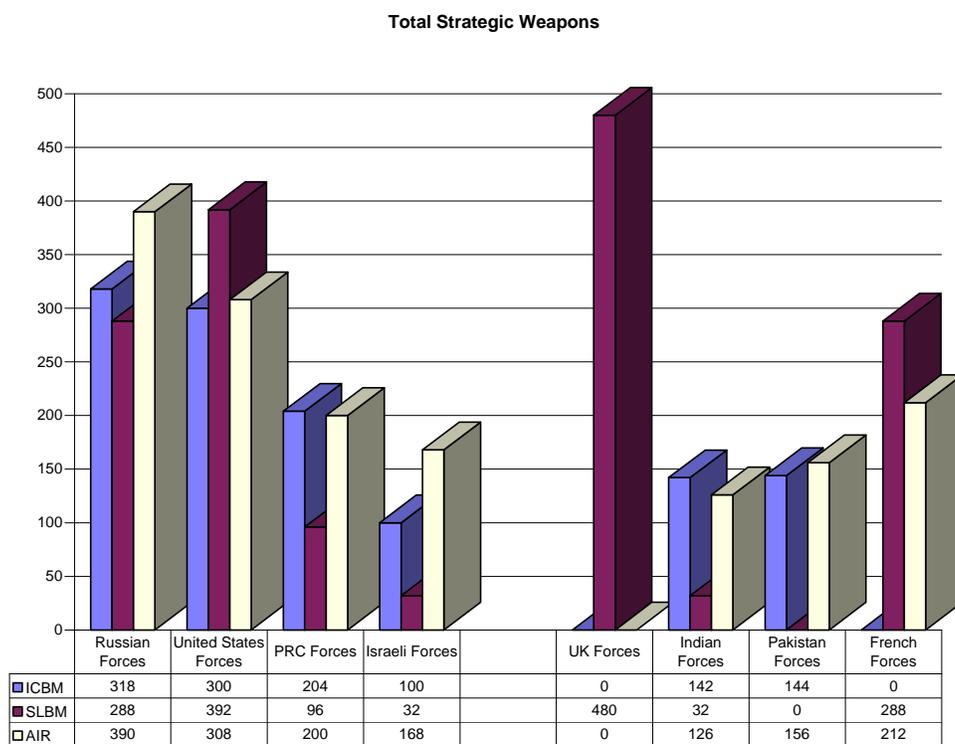


Chart Six
 Constrained Proliferation Model
 Surviving and Retaliating Weapons

